### **Strategic Focus**

# Aiming to develop a sustainable aquaculture business that does not pollute the oceans, and is not dependent on the oceans.

Fish are disappearing from the world's oceans. The main reasons for this situation include the overfishing that has accompanied rising demand for marine products, and changes in ocean temperature and ocean currents, etc. The Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) has set a goal of minimizing the pressure that human activity places on marine ecosystems. At this time when there is growing interest in methods that can realize sustainable aquaculture while safeguarding marine organisms and minimizing the load on the environment, Mitsui & Co. has decided that it is vitally important to commercialize land-based aquaculture, a production method that is not dependent on the oceans, and has invested in FRD Japan, Co., which possesses some of the most advanced technology in the world in this field.



Tetsuro Sogo
Business Innovation Department, Corporate
Planning & Strategy Division / Director and Chief

Operating Officer (COO), FRD Japan, Co.

# A land-based aquaculture system that can be developed successfully as a business without harming the environment

Consumption of salmon\* has been growing steadily, and in global terms salmon is the third most widely farmed species for sea aquaculture. However, almost 90% of global production takes places in just two countries—Norway and Chile—and these two countries already have extensive fish-farms along their coasts, with little room for further expansion.

This situation has encouraged several companies in other countries to experiment with land-based aquaculture. In most cases, however, these land-based facilities discharge a quantity of wastewater equivalent to around 30% of the capacity of the fish-tanks every day, making it necessary for them to add an equivalent amount of seawater or underground water to the tanks; they also suffer from high electric power consumption because of the need to adjust the water temperature.

By contrast, FRD Japan farms fish using advanced bacteriabased filtration technology to cycle artificial seawater (made from ordinary mains water) through a 100% closed containment environment; this is the world's first land-based aquaculture system of its kind. The negative load on the environment is significantly reduced, and because the system does not use natural seawater or underground water, the cost of electric power required for temperature regulation is also substantially reduced; in addition, a significant feature of this system is that, because all of the mains water used is recycled, with no waste-water being discharged, it makes for a business with an extremely small environmental load. Furthermore, if land-based fish-farms are established near the markets where the fish will be consumed, then the fish transportation costs will be kept low compared with importing salmon from sea aquaculture facilities in other countries, which in turn will reduce the negative environmental load from transportation.

In launching this business, our goal was to become the first team in the world to establish a commercially-viable land-based salmon-farming business, creating a sustainable business that will also contribute to environmental conservation.

 ${}^*$ Large-sized rainbow trout that are farmed in sea aquaculture facilities.

# Making it possible for the salmon that people consume to be farmed locally

A pilot facility began operation in Kisarazu City in Chiba Prefecture, Japan in 2018; the goal is to ramp up to full-scale commercial production, with annual production volume of 1,500 tons of fish, by 2020.

Once we have achieved successful operation of a full-scale commercial facility in Kisarazu City, we aim to establish several large-scale land-based fish-farms in Japan and in other countries in the Asia region. With growing awareness in the retail sector of the need to prevent over-fishing and pollution of the oceans, and with more and more companies making an effort to procure sustainable marine products, our goal is to make it possible for the salmon that people consume in any given region to be farmed locally, so that this local sourcing model can become the norm in the future.

My own personal goal is to contribute to the transformation of aquaculture into a sustainable business model, and to help create a world in which people can continue to enjoy easy access to delicious, safe fish that they can eat with real peace of mind.



Pilot facility in Kisarazu City in Chiba Prefecture



### **Activities for FY 2017 to Contribute to SDGs**

### Theme: Environmental Management

### Business Area Metals Machinery & Infrastructure Chemicals Energy Lifestyle Innovation & Corporate Development Corporate & Others

# 12 RESPONSELE CONSUMPTEN AND PRODUCTION

Ensure sustainable consumption and production patterns (12.2,12.8)

Related SDGs (Target Numbers)



Take urgent action to combat climate change and its impacts (13.3)



Conserve and sustainably use the oceans, seas and marine resources for sustainable development (14.7)

#### Initiatives by Mitsui & Co.

We promote sustainable procurement by actively obtaining certifications, including FSC® certification for forests and ASC certification for fisheries. In addition, we promote environmentally conscious business activities, and hold seminars on a regular basis for raising the environmental awareness of our officers and employees, as well as training relating to environmental laws and regulations.

#### Activities for FY 2017

- Achievement of ASC certification for two salmon farming sites through investment and participation in Salmones Multiexport S.A. (Chile). (12.2, 14.7)
- Maintenance of FSC® and SGEC certifications for 74 forests owned by Mitsui across Japan (approx. 44,000 ha) and continuation of responsible management and handling of forest resources. (12.2)
- Achievement of "Good Point" assessment in independent ISO14001 inspection of environment management in the Head Office for the optimization of air conditioning operation in conjunction with the introduction of a staggered work hour system as part of Mitsui's Work Style Innovation. (12.8)
- Continuation of the efficient and effective integrated operation of business activities and environmental management in accordance with ISO 14001:2015.
   (13.3)
- Implementation of climate change risk control methods, such as carbon pricing impact estimation, during deliberation on proposed projects. (13.3)
- Implementation of environmental law seminars (2 seminars, approx. 130 attendees), environmental seminars relating to industrial waste (2 seminars, approx. 100 attendees), and a Mitsui Environment Month lecture (approx. 540 attendees) for officers and employees of Mitsui and its affiliated companies. (13.3)

#### Theme: Initiatives toward Environmental Value Creation

#### Related SDGs (Target Numbers)



Ensure access to affordable, reliable, sustainable and modern energy for all (7.2, 7.3, 7.a)



Make cities and human settlements inclusive, safe, resilient and sustainable (11.6)



Ensure sustainable consumption and production patterns (12.2, 12.4, 12.5)

### Initiatives by Mitsui & Co.

We develop environment-related business, having incorporated our contribution to providing industrial solutions to environmental issues in the Environmental Policy Action Guidelines. In the renewable energy field, we promote and strengthen related business and aim at increasing the proportion of renewable energy (including hydroelectric power) in the equity portion of our total power generating capacity to 30% by 2030. We are also promoting a wide range of initiatives for increasing the popularity of smart cities, modal shift, EV and other new energy efficient vehicles.

#### Activities for FY 2017

- Global supply of automotive parts with excellent environmental performance through investment and participation in Gestamp Automoción, S.A. (Spain) (7.3)
- Making investments to explore new applications for copper and to improve the efficiency of mine operations through a venture fund which was jointly
  established among Corporacion Nacional del Cobre de Chile (CODELCO) and Corporacion de Fomento de la Produccion (CORFO), etc. We have made
  investments in technology for improving fish farming efficiency that features copper-made fish farming cage, as well as recycling technology for waste tire
  from mine sites. (12.2, 12.4, 12.5)
- Operation of renewable energy IPP business (in 8 countries; Mitsui's share: 1.5 GW) (7.2)
- Expansion of distributed solar power generation capacity and promotion of next-generation energy management services featuring storage batteries (U.S. and other countries). (7.2)
- Promotion of energy-efficient smart city project (Malaysia). (7.3, 11.6)
- Sale/ownership and operation of eco-ships that are highly energy-efficient. (7.3)
- Contribution to the reduction of CO<sub>2</sub> emissions through investment and participation in EV battery pack manufacturing business (France) and EV bus manufacturing business (Portugal). (7.3, 12.4)
- Assistance in the development of fuel cost-efficient aircraft and engines. (7.a)
- Promotion of modal shift through rolling stock leasing. (11.6, 12.4)
- Ordering of new ocean-going methanol carrier powered by clean-burning methanol fuel that can drastically reduce SOx and NOx emissions. (12.4)
- Promotion of the reuse of used cars by improving transparency in the increasingly complex used car market through the introduction of a used car auction system that allows individuals to sell cars. (12.5)
- Promotion of a green chemicals business in the field of oleochemicals that utilizes natural oils and fats. (12.4)
- Investment and participation in a wood biomass power plant that utilizes an FIT (feed-in tariff) system for renewable energy and timber from forest thinning in Mitsui's forests. (7.2)
- Promotion of geological surveys, drilling and development for the launching of geothermal power business through Mitsui Oil Exploration Co. (Japan). (7.2, 7.a)
- Investment and strategic engagement in new business that is developing next-generation fuel and chemicals from off gases that use microbial fermentation technologies, and development of new business for reducing greenhouse gases (U.S.). (7.a.)
- Launched the world's first hydrogen supply chain project which will produce hydrogen and establish a transportation value chain for the resource as a promising next–generation clean energy asset. (12.2, 12.4)
- Commencement of repair work on production facilities with the aim of reducing flare gas during the production of LNG through investment and participation in Flare Reduction Project (Qatar). (12.4)
- Provision of operational maintenance services for solar and biomass power generation facilities by Mitsui & Co. Foresight. (7.2)



# Activities for FY 2017 to Contribute to SDGs Business Area Metals Machinery & Infrastructure Chemicals Energy Lifestyle Innovation & Corporate Development Corporate & Others

Theme: Initiatives toward Environmental Value Creation (Continued)

Related SDGs (Target Numbers)	Initiatives by Mitsui & Co.	Activities for FY 2017
		<ul> <li>Development of, construction work relating to, and retail sales of renewable energy sources and other electric power sources by SymEnergy. In addition, provision of energy saving solutions. (7.2, 7.3)</li> </ul>
		<ul> <li>Stable supply of energy through solar power generation monitoring services (196 sites), cloud-based energy-saving management services (564 sites), and other services (Japan). (7.2, 7.3)</li> </ul>
		• Formation and sale of solar power infrastructure funds through Mitsui & Co. Alternative Investments. (7.2)
		<ul> <li>Investment in renewable energy projects through the Emerging Markets Infrastructure Fund. (7.2)</li> </ul>
		• Formation of an investment limited partnership that invests in renewable energy power generation projects across Japan through JA Mitsui Leasing. (7.2)
		<ul> <li>Improvement of energy efficiency through visualization of data from office buildings, factories, and other facilities, (U.S.), and utilizing IoT solutions such as online remote management and preventive maintenance of air conditioning systems, resulting in a reduction of power consumption by over 20% comparing with conventional operation (Japan). (7.3)</li> </ul>
		<ul> <li>Contribution to global warming prevention through the optimization of fertilizer amounts on farmlands, leading to the reduction of N<sub>2</sub>O emissions (Canac U.S., Brazil, etc.). (12.4)</li> </ul>
		Promotion of a sharing economy through mobile marketplace app business intended for smartphones (Japan, U.S., and U.K.). (12.5)
		<ul> <li>Implementation of a trial operation with the aim of reducing food waste loss through the launch of digital transformation initiatives at retail stores (Japan)</li> <li>(12.5)</li> </ul>
		• Implementation of a trial operation for increasing the popularity of meal kits with the aim of reducing food waste loss in households (Japan). (12.5)

Related SDGs (Target Numbers)	Initiatives by Mitsui & Co.	Activities for FY 2017
Ensure availability and sustainable management of water and sanitation for all	With a target of reducing energy consumption at Mitsui and its domestic	<ul> <li>Installation of solar power generation by Prifood at its Hosoya plant, where the company commenced the utilization of the generated power for a portion of the electricity used by the plant. (7.2)</li> </ul>
(0.1)	subsidiaries by an average of 1% or more per year, we are implementing measures	<ul> <li>Reduction of environmental load by MicroBiopharm Japan led by its potential investment to integrate its manufacturing process for an active pharmaceutical ingredient for anti-cancer drug. (7.3)</li> </ul>
Ensure access to affordable, reliable, sustainable and modern energy for all (7.2, 7.3)	to improve energy utilization efficiency to reduce greenhouse gas (GHG) emissions. In addition, we are also working to meet a target of achieving a recycling rate of 85%	<ul> <li>Conversion to a new treatment method for the waste plastics produced by Mitsui Bussan I-Fashion to utilize such plastic waste for RPF (Refuse Paper &amp; Plastic Fuel) processing as an alternative to fossil fuel, in a shift away from the previous residue processing method (which mixes waste plastics into cement) as a measure to reduce CO<sub>2</sub> and to prevent global warming. (7.3, 12.4)</li> </ul>
Ensure sustainable consumption and production patterns (12.4, 12.5)	or more by 2020 and promoting the control, reuse, and recycling of waste	<ul> <li>Commercialization of chicken manure by Prifoods as a fertilizer and snow-melting agent (in carbon form), and the effective utilization of tea leaf residues as a compost ingredient by Mitsui Norin. (12.5)</li> </ul>
production patterns (12.4, 12.5)	materials.	<ul> <li>Sale of recycled feed made from food manufacturing by-products and other raw materials, resulting in the effective utilization of previously unused resources which can contribute to the improvement of the feed self-sufficiency ratio. (12.5)</li> </ul>
		<ul><li>Ongoing Implementation of surveys of water use by subsidiaries in key countries and other locations. (6.4)</li></ul>
		With a target of reducing energy consumption rate by an average of 1% or more per year, we are implementing measures to reduce greenhouse gas (GHG) emissions by improving energy utilization efficiency. Our new building project, including Mitsui's new Head Office, which is under construction, is designed to achieve high energy-utilization efficiency by , for example, effectively utilizing waste heat from cogeneration systems to generate heat source water for the district's heating and cooling facilities. (7.3)
		<ul> <li>Global-group promotion of GHG emission reducing measures by affiliated companies implemented in proper priorities based on output levels, with intensive management and monitoring of year-on-year changes for companies that have high GHG emissions (overseas affiliated companies). (7.3)</li> </ul>
		With a target of achieving a recycling rate of 85% or more by 2020 in our office activities, we are implementing activities that can contribute to the reduction of environmental load, such as rigorous efforts to control, reuse, and recycle waste materials. (12.5)



### Activities for FY 2017 to Contribute to SDGs

Business Area ● Metals ● Machinery & Infrastructure ● Chemicals ● Energy ● Lifestyle ● Innovation & Corporate Development ● Corporate & Others

### Theme: Initiatives for Preserving Biodiversity

#### Related SDGs (Target Numbers) Initiatives by Mitsui & Co. **Activities for FY 2017**



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss (15.2, 15.4)

We have obtained ESC® and other certifications for all our company-owned forests, "Mitsui's forests", to drive our biodiversity-friendly papermaking resources business and food business using farming methods that encourage biodiversity. In addition, Mitsui has obtained FSC® and SGEC certifications for all of its 74 company-owned forestlands (approx. 44,000 hectares). We have designated our company-owned forests. "Mitsui's forests", into different management zones. Ten percent of all Mitsui's forests are designated as "biodiversity conservation forests" and are maintained and managed accordingly.

- Launched a project that aims to prevent forest degradation and deforestation, and promote forest conservation activities through utilization of the Joint Crediting Mechanism, a Japanese government program that contributes to emissions reduction and addresses climate change. (Cambodia). (15.2)
- Maintenance of FSC\*/CoC certification (Mitsui's Life Essentials Business Div., Forest Resources Marketing Dept.: FSC\* C104107: Mitsui Bussan Woodchip. Oceania Ptv. Ltd.: FSC® C107463) and PEFC/CoC certification, to promote responsible management and handling of forest resources. (15.2)
- Maintenance of FSC\*/CoC certification (by Mitsui Bussan Packaging: FSC\* C009939) to ensure that the supply chain of certified paper promotes responsible. forest resources management. (15.2)
- Support by Toho Bussan for the production and sales of rice grown using farming methods that encourage biodiversity (Japan). (15.4)
- Mitsui has FSC® certification and SGEC for all Mitsui's Forests based on proper management and maintenance. Mitsui's Forests' carbon stocks and flows are approximately 560,000 tons per year (Mitsui's estimate based on "IPCC Guidelines for National Greenhouse Gas Inventories" Tier 1 method). (15.2)

### Theme: Addressing Environmental Issues through Contribution to Society

#### Strengthen the means of implementation We operate the Mitsui & Co. Environment • Donations by Mitsui Iron Ore Development to volunteer organizations which are engaged in environmental restoration relating to fauna and flora, and soil and revitalize the global partnership for Fund to support and encourage sustainable development (17.16, 17.17) donations, university research and NPO/ Provision of grants through the Mitsui & Co. Environment Fund for university research and NPO/NGO activities that contribute to the solution of

**Related SDGs (Target Numbers)** 

NGO activities targeted toward solving environmental problems.

Initiatives by Mitsui & Co.

environmental issues (16 grants totaling ¥117 million), and employee participation in the activities of grant recipients (10 projects, approx. 180 participants).

Activities for FY 2017

- Implementation of school-visits which utilize Mitsui's forests (designed for elementary school students; 5 visits, approx. 330 participants) and forest experience programs (designed for elementary school children and their parents, and employees and their families); (7 programs, approx, 250 participants). (17.17)
- Supply of a portion of the cedar wood (SGEC certified wood) used in the main roof and eaves of the New National Stadium in Tokyo from Mitsui's forests.



### **Environmental Policy**

Policy

### **Guiding Principles**

- 1. Mitsui & Co. believes that one of its most important management themes involves providing a positive response to environmental issues on a global group basis, in order to contribute to the creation of a future where the dreams of the inhabitants of our irreplaceable Earth can be fulfilled.
- 2. Mitsui & Co. will make every possible effort towards realizing a "sustainable development" which is aimed at creating a harmony between the economy and the environment on a global group basis.

In view of the above principles, and in accordance with the Action Guidelines shown below, Mitsui & Co. will design, periodically evaluate, and continually improve an adequate risk management system, including response to matters such as global warming, nature conservation with consideration given to biological diversity, and the prevention of pollution, which will cover the wide range of activities that it undertakes on a global scale. At the same time, we will strive to ensure the development and dissemination of earth–friendly technologies and further reinforce our responsibility with respect to the environment on a global group basis.

#### **Action Guidelines**

- 1. Compliance with relevant environmental laws and regulations
- 2. Efficient utilization of resources and energy
- Environmental care for products and services offered, as well as existing and new businesses
- 4. Contribution to providing industrial solutions to environmental issues

We will comply with various relevant environmental laws and regulations, as well as all agreements signed by the company for promoting business activities.

We will strive to reduce the burden on the environment within each of our workplaces and in our business activities through the efficient utilization of resources and energy, as well as the reduction, reuse, and recycling of waste and its proper disposal.

We will give the utmost consideration to the environment to the extent technologically and economically feasible by exercising an appropriate degree of influence in enlisting the understanding and support of involved business partners, as well as evaluating the impact that we have on the environment, not only in the prevention of pollution, but on such issues as global warming and the conservation of biological diversity as well.

We will engage in business activities with the goal of providing rational and permanent industrial solutions, and contribute to the realization of "sustainable development" by exploiting our individual abilities and the collective strengths of our organization in cooperation with our global partners.

### **Environmental Management System**

System

### **Environmental Management Philosophy**

Mitsui & Co. maintains environmental management systems based on ISO14001 and various international guidelines as the basis for an active response to environmental and societal problems through the business activities of its global group. We acquired ISO14001 certification in 1999. Since the year ended March 2017, we have been working to strengthen our compliance with ISO14001:2015, including integration with business processes, initiatives in response to business risks and opportunities, and an increased emphasis on stakeholder perspectives.



#### [Standards Covered]

ISO14001, ISO26000, the GRI Guidelines, the Equator Principles, the World Bank Procurement Policies and Guidelines, and the IUCN Guidelines

### **Environmental Management System**

To facilitate effective environmental management, Mitsui has established the Environmental Management System on a global group basis. We have appointed an executive officer who is responsible for overall environmental management, while the General Manager of the Environmental-Social Contribution Division supervises the operation of the Environmental Management. Other organizations, such as business units, each have their own environmental management structures established by the divisional/departmental general managers. We set company-wide targets, and are continually improving our environmental and societal risk management framework by means of periodic reviews, including the Sustainability Committee meetings.

### Environmental Management System (As of April 2018)





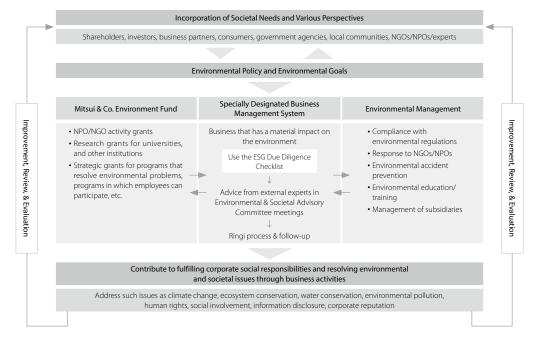
### Addressing Environmental and Social Risks and Opportunities in Business

System

Mitsui is expanding its business globally in six business areas: metals; machinery and infrastructure; chemicals; energy; lifestyle; and innovation and corporate development. In conducting business in each of these areas, we categorize our activities into "new business phase" and "existing business phase", and have put in place mechanisms to ensure that the utmost consideration is given to the environment and society during our business activities in each of these phases.

Furthermore, in accordance with the SDG targets, we identify programs that are closely related to our business (such as climate change, biodiversity protection programs) as "opportunities", and introduced an internal subsidy system for such programs in the fiscal year ended March 2017. Mitsui is seeking to build a sustainable society by simultaneously resolving environmental and societal issues and enhancing business value.

### Responding to Environmental and Social Risks (As of March 2018)



### Compliance with Environment-related Laws and Regulations

System

Our efforts to meet our corporate social responsibilities and keep pace with the expansion of those responsibilities include the creation of compliance assurance mechanisms based on our environmental management system. We also use training and other methods to ensure that staff in Japan and overseas understand and comply with various environmental laws and regulations.

At the start of each business year, environmental representatives in each department identify environment-related laws and regulations that are relevant to the operations of their units. They also assess compliance every half-year. In addition, an internal environmental audit or environmental self-check process is carried out every year to confirm that environmental management systems are being applied effectively. Mitsui itself, as well as any subsidiaries whose activities could have significant environmental impacts, acquires certification under ISO14001 or equivalent standards. We have established effective environmental law compliance mechanisms. Furthermore, we utilize environmental law compliance checking tools to easily confirm our legal compliance.

### Energy saving laws and regulations

With the idea of compliance and environmental conservation in mind, we abide by energy saving laws and regulations (laws related to rationalizing energy use), and we are promoting energy conservation in office and energy usage improvement related to transportations, thereby developing environmentally friendly business activities.

### Compliance with Waste Disposal Laws

Mitsui operates in compliance with the Waste Disposal and Public Cleansing Law (also referred to as "Waste Disposal Law" or "Waste Law"). In order to properly manage disposal of industrial waste generated through logistics operations and general waste from business activities, we have formulated a workflow in connection with the handling of industrial waste and general waste from business activities and prepared FAQ documents. Such tools and documents have been utilized by relevant divisions and departments.

We also hold periodic seminars within the company to increase awareness and understanding of proper waste disposal practices, covering such matters as the selection of waste management subcontractors and manifest compilation and management.

### Other Applicable Environmental Laws and Regulations

In promoting business activities, we comply with various environmental laws, regulations and other laws and regulations.

Act on Special Measures Concerning Promotion of Proper Treatment of PCB Wastes, Act on Rational Use and Proper Management of Fluorocarbons, Water Pollution Prevention Act, Soil Contamination Countermeasures Act, Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging, Act on Promotion of Recycling and Related Activities for Treatment of Cyclical Food Resources, Air Pollution Control Act, Offensive Odor Control Law, Chemical Substances Control Law, Pollutant Release and Transfer Register Law, Poisonous and Deleterious Substances Control Act, Fire Service Act, Industrial Safety and Health Act, REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) regulations.



### **Environmental Management for New Business**

System

Activity

### **Environmental Management for Existing Business**

ystem

Activity

# Specially designated business management systems and Environmental & Societal Advisory Committee

New business projects are subject to internal screening during the new business phase. If necessary, we convene meetings of the Sustainability Committee and the Environmental & Societal Advisory Committee. Directors make final decisions about *ringi* approval after receiving reports and proposals from these committees about whether or not a project should be promoted, or how it can be improved. Members of the Environmental & Societal Advisory Committee are selected mainly from among external experts with knowledge of a wide range of fields, such as climate change, environmental restoration, water, air, and soil contamination, environmental policy (including environmental assessment), and stakeholder activities. Committee members also include attorneys and people with experience of government administration.

### Use of environmental, social and governance (ESG) due diligence checklists

New business investment projects that will have a significant impact on the environment are investigated by experts.

Before implementing these surveys, we first identify environmental and social risks and create environmental, social and governance (ESG) due diligence checklists for each project. These lists, which are compiled with reference to international standards in relation to environmental and societal consideration, help to focus areas covered by expert surveys. They are shared within the company and used to ensure that ESG perspectives are taken into account in relation to not only pollution prevention but also analysis of risk factors in connection with climate change, ecosystems, indigenous peoples, and water stress.

In order to properly monitor and manage various environmental and social risks related to existing business operations, we urge our affiliated companies that are engaged in activities that could cause significant environmental impacts to establish environmental management systems based on the international environmental management standard, ISO14001, or on international guidelines relating to consideration for environmental and social factors. We encourage subsidiaries to establish their own autonomous environment management systems, while maintaining structures to achieve continual improvement by monitoring and reviewing preventive measures based on reports on environmental accidents and other problems.

### Responding to Stakeholders

We are identifying business-related risks and opportunities through dialogue with NPOs, NGOs, academia, and government agencies, and considering how we could respond. In the fiscal year ended March 2018, we decided to support a REDD+ project with an international NGO in Cambodia, as well as red tide countermeasures led by JICA through industry-government-academia collaboration between Japan and Chile. We are taking on the challenge of solving problems through transdisciplinary cooperation\*, actively promoting initiatives that will lead to business sustainability.

\*Initiatives spanning multiple fields across different sectors, such as industry, government, academia, and private sector.

### Management of subsidiaries

We select domestic and overseas subsidiaries that need to acquire ISO14001 certification based on comprehensive assessments that take into account such factors as the type of industry, environmental and ecosystem impacts, and input from stakeholders. We urge these companies to introduce environmental management systems based on ISO14001, or on international guidelines, and we help them to build robust management systems.

As of the end of March 2018, out of the 36 target companies, 30 subsidiaries have acquired ISO14001 and 6 companies have introduced environmental management systems in line with the international guidelines.

### Response to environmental accidents

During the fiscal year ended March 2018, there were no environment-related incidents at Mitsui and its subsidiaries. We employ various measures to prevent recurrences of environmental accidents, including the use of collections of case studies to raise employee awareness. Any accident is promptly reported to the relevant units, and comprehensive steps are taken to prevent recurrence, beginning with the identification of the true cause of the accident and an assessment to determine appropriate corrective and preventive measures.



### **Acquisition of Environment-related Certification**

System

Mitsui promotes sustainable procurement in partnership with suppliers throughout the world. We work actively to achieve environment-related certification in Japan and overseas, including FSC® certification for forests, and ASC and MSC certification for fisheries, recognizing the importance of natural capital. We also develop procurement mechanisms that take into account the need to address global warming and conserve biodiversity.

#### Company-owned forests "Mitsui's Forests" (Japan)

Mitsui has obtained forest certification for all 74 locations of Mitsui's Forests (approximately 44,000 hectares) throughout Japan under two international standards: FSC® certification\*1 (License no. C057355) and SGEC certification\*2 (Certificate no. SGEC/31-21-1101). Forest certification is based on objective third party assessments of whether forest management methods meet economic, environmental, and social requirements (principles and standards). Currently Mitsui is the only private company with large-scale forest holdings in Japan covering



over 10,000 hectares that has obtained certification under both of these systems. With respect to both FSC\* certification and SGEC certification, Mitsui has received Forest Management (FM) certification, while Mitsui Bussan Forest, a subsidiary has received Chain of Custody (CoC) certification for the processing and distribution of cut lumber; Mitsui & Co. Group has thereby established a thoroughly inclusive chain of certifications that covers the entire supply chain. Notably, Mitsui is the largest supplier of domestic FSC\*-certified wood in Japan.

- \*1 FSC® certification is based on international standards established by the Forest Stewardship Council®, a non-profit committee-type organization that administers an international forest certification system.
- \*2 This certification system was developed by the Sustainable Green Ecosystem Council, a general incorporated foundation, by adapting the sustainable forest management philosophy promoted globally as the "Montreal Process" to the situation in Japan. In 2016, it became possible to distribute SGEC certified timber as timber certified under another international forest certification, the Program for the Endorsement of Forest Certification Schemes (PFEC), following reciprocal recognition between the two systems.

#### Feed Business (Japan)

Our affiliated company, Feedone Co., Ltd., manufactures and sells organic animal feed products produced using methods designed to minimize the environmental load, in compliance with the Japan Agricultural Standards (Notification 1607 of the Ministry of Agriculture, Forestry and Fisheries).



### Palm Oil Import Business (Malaysia)

Mitsui and our investee, Wangsa Mujur Sdn. Bhd. have acquired certification from the Roundtable on Sustainable Palm Oil (RSPO),\*3 a nonprofit organization that promotes the production and use of sustainable palm oil. The RSPO stipulates the legal, economic, environmental, and social conditions required for sustainable palm oil production in 8 principles and 43 criteria, and both Mitsui and Wangsa Mujur operate in accordance with its policy.



\*3 RSPO certification aims to advance the production, procurement, and use of sustainable palm oil and lessen the impact and load on the environment of producing countries and neighboring communities.

### Salmon Farming Business (Chile)

Mitsui is a shareholder and participant in the business operations of Salmones Multiexport S.A., a major salmon farming, processing, and sales company in Chile. This company has obtained certification as a sustainable aquaculture business under the Best Aquaculture Practices (BAP) system\*4, which focuses on the five key areas of environmental conservation, social





responsibility, animal welfare, food safety, and traceability. Salmones Multiexport also achieved Aquaculture Stewardship Council (ASC) certification\* for two of its sites in 2017, and is now preparing to obtain certification for additional locations.

- \*4 This certification system is planned and administered by the Global Aquaculture Alliance (GAA), a US-based NGO dedicated to the establishment and spread of responsible aquaculture. The system certifies each component of the aquaculture value chain including hatchery, feed mill, farm, and processing plant. The program, which is represented by the BAP eco-label, is supported by numerous retailers and commercial food suppliers, especially in North America.
- \*5 The aim of the ASC certification system is to ensure that markets and consumers are supplied with responsibly produced aquaculture products, by certifying aquaculture businesses that show consideration for local communities and do not impose a major load on the environment. Qualifying products are instantly recognizable thanks to the use of eco-labels.

#### Food Importation and Sales (U.S.)

Our subsidiary, Mitsui Foods, Inc. (MFI), imports and sells canned tuna certified under the Marine Stewardship Council (MSC) system\*6, the aim of which is to ensure the sustainable supply of seafood over the long-term future. MFI has also obtained MSC certification as an individual company, thanks to its careful management at the distribution stage.



\*6 The aim of this system is to ensure the sustainable utilization of marine resources. Certification is limited to marine products that are harvested appropriately in terms of catch size, timing, methods, etc., and that are processed and distributed appropriately. The MSC label (Marine Ecolabel, MSC Ecolabel) indicates that products have been produced responsibly from the perspective of marine resources and the ocean environment.

#### Shrimp Exporting Business (Vietnam)

As a shareholder, Mitsui participates in the management of Minh Phu Hau Giang Seafood Joint Stock Company, a Vietnamese company engaged in shrimp processing and exporting. The company has obtained environment-related certification, under the ASC, BAP and Global Good Agricultural Practice (GAP) systems\*7, to meet the needs of buyers and consumers seeking products that have been produced responsibly with care for the environment.



\*7 Certification under these aquaculture systems indicates that a company has met global standards for food safety and sustainable production management. The full production chain is verified from broodstock, farming, feed and processing. Currently there are 35 countries implementing this standard for 30 species of finfish, crustaceans and molluscs worldwide.



### **Environmental Education/Communication**

Syster

Activity

As we work to accelerate environmental initiatives across the global group, it is vital that we raise the environmental awareness of each of our employees at all levels. We conduct seminars and training sessions to promote these messages internally.

### Regular seminars and training sessions

We work to raise awareness of environmental issues among employees of Mitsui and its subsidiaries and affiliated companies through regular seminars, environmental law training sessions, and ISO14001 training programs. We also regularly publish in-house environment and social newsletters as a way of raising the environmental awareness of officers and employees.

	Environmental education policy, planning, and aims			
Awareness activities (seminars, etc.)				
New hires	Induction Course (Environment)	ISO14001	ISO14001 Provisional Auditor Training ISO14001 Lead Auditor Training	
Accepted	Induction Course for Temporary Staff (Environment) Induction Course for Contract Employees/Secondees working at Mitsui & Co. (Environment)		Environmental Management Representative Induction	
Continuing Education	Environment Month (Seminars, lectures, etc.) Environment Seminar Environment-related Newsletter	Environmental Management	Training Seminars on Environmental Laws and Regulations Lectures on industrial waste and field trips to waste processing facilities	

### Training seminars on environmental laws and regulations

We continually hold seminars for employees of Mitsui and its subsidiaries and affiliated companies regarding environmental laws and regulations. In the fiscal year ended March 2018, approximately 130 people participated from Mitsui & Co. group companies. We also conducted a separate training seminar on the Waste Management and Public Cleansing Law, providing classroom training focused on precautions in regard to complying with the Law, as well as training that covered procedures for on-site checks at waste disposal facilities and actual visits to such facilities.



Employees attend lectures about industrial waste and visit disposal facilities and plants

### Seminars and training sessions held in FY 2017

Title	Number of times per year	Target audience	Outline
Environmental Law Training	Held twice Approx. 130 participants	Mainly officers and employees of Mitsui and its affiliated companies	Basic knowledge on environmental laws and regulations, recent trends, key law amendments, etc.
Environment Seminar "Lecture on Environmental Waste and Tour of Processing Facility"	Held twice Approx. 100 participants	Officers and employees of Mitsui and its affiliated companies	Lecture on the responsibilities of Generator (waste-disposing parties) and precautions related to industrial waste. The tour of the processing facility aims to promote understanding of the importance and efficacy of on-site verification.
New Staff Induction Training (Environment)	Held once Approx. 180 participants	New employees	The program includes explanations about the environmental and social risks in Mitsui's business operations, and the measures used to prevent those risks.
Temporary Staff Induction Training (Environment)	Held 9 times Approx. 40 participants	Temporary employees	The programs include explanations on the environmental policy of Mitsui & Co. as a part of introductory training provided by the Human Resources and General
Induction Training for General/ Seconded Contract Staff (Environment)	Held 4 times Approx. 90 participants	General and seconded contract employees	Affairs Division to inform newly hired employees about Mitsui & Co.'s management philosophy (MVV) and rules and regulations, the importance of compliance, and other matters.

### Mitsui Environment Month

Mitsui has designated June as the "Mitsui Environment Month" each year, during which a variety of programs for officers and employees of Mitsui & Co. and its affiliated companies are held as a part of Mitsui's environmental education activities. During Mitsui Environment Month 2017, we held the following lectures.

"The World from an Environmental Perspective"—Special Lecture to Commemorate the 10th Anniversary of Mitsui Environment Month Program (Akira Ikegami, a journalist and Institute Professor at the Tokyo Institute of Technology, attended by approximately 400 people)

Professor Ikegami was invited to present a lecture commemorating the 10<sup>th</sup> anniversary of the program this year. His comments, interspersed with humor, demonstrated his extensive knowledge of a wide variety of topics, including the aim behind President Trump's declaration that the U.S. would withdraw from the Paris Agreement. There were positive comments from those present, with one person saying that the speech provided very useful insights about future world trends from an environmental perspective. Another said his eyes were opened to the business opportunities created by a rise in environmental awareness in China as a result of the American withdrawal from the Paris Agreement. The Q&A session included some incisive questions that drew Professor Ikegami's trademark response: "That's a good question."



Professor Akira Ikegami

## Mini-Lecture: "Learning More about the OH-1 Plan (provisional name)" (Shin Tsuchihara, Fumito Kamiya, and Shoji Shimada of the New Head Office Building Development Department, attended by approximately 140 people)

The "OH-1 Plan (provisional name)" is a large-scale composite project encompassing not only the construction of a new Head Office building, but also other multipurpose facilities, including tenanted offices, a hotel, a hall, and green areas. Topics covered in the mini-lecture included progress on the project, completion of which is scheduled for 2020, and initiatives to minimize its environmental load. Participants said that they gained a clear understanding about how consideration for the environment is being reflected in the project, both during construction and after completion. The event gave employees an opportunity to think about the environment in relation to the building in which they will work.



The speaker in the center is Deputy GM Tsuchihara (center)



### **Environment-Related Business**

The increasing seriousness of climate change, population growth, resource depletion, and other issues is reflected in growing public interest in nature and biodiversity conservation, in the low-carbon, recycling oriented society, and in renewable energy, as well as in an expanding range of initiatives targeting these issues.

Mitsui & Co. engages in a wide range of business in the world around us, and, under the Environmental Policy Action Guidelines, it positions active participation in finding industrial solutions for environmental issues as one of its highest management priorities. Accordingly, we carry out a broad spectrum of environment-related business activities on a global group basis.

In the renewable energy field, as part of its efforts to respond to global warming and build a sustainable society, Mitsui is pursuing and strengthening its initiatives related to renewable energy projects all over the world. As of March 31, 2018, renewable energy, including hydroelectric power, accounted for approximately 16% of Mitsui's total power generating capacity of 9.3GW and aim at increasing the proportion of renewable energy up to 30% by 2030.

In the modal shift field, we are contributing to the building and improving of transportation infrastructure through our engagement in the development and operation of various railway projects, in addition to our long-term railway lease business. As of the end of March, 2018, the total railroad track network in which Mitsui has participated in relation to railway operation amounts to 10,700 kilometers for

freight services and 1,922 kilometers for passenger trains.

In the resource recycling field, in addition to development of underground resources, Mitsui has also positioned the recycling of above-ground resources as an area to focus on within its comprehensive energy and environmental strategy. The objective of these activities is to offer industrial solutions to environmental problems and provide stable supplies of various resources.

In the paper manufacturing resource business, Mitsui has been engaged in afforestation projects on the scale of about 24,000 hectares with the aim of securing resources for pulp and paper manufacturing. By cultivating sustainable forests, these projects contribute to protecting valuable natural resources, absorbing and chemically immobilizing carbon dioxide, preserving biodiversity, and preventing soil erosion and salt pollution.

Water resources are becoming increasingly important from a global perspective. In this field as well, Mitsui has been engaged in efficient water infrastructure business in Mexico, Chile, and other locations, utilizing private sector financial resources and technology.



Solar Power Generation Business (Tottori Yonago Solar Park)



Bii Stinu Wind Project (Oaxaca, Mexico)



Electric bus developed by CaeranoBus, "e. City Gold" being deployed in Portugal



### Renewable Energy

Activity

Project	Company name	Country	Generating capacity/Scale
Solar power generation business	Haneda Solar Power Co., Ltd.	Japan	2MW
	Tottori Yonago Solar Park	Japan	42.9MW
	Izumiotsu Solar Park	Japan	19.6MW
	Tomatoh Abira Solar Park	Japan	111MW
	Kumamoto Arao Solar Park	Japan	22.4MW
	Omuta Miike Port Solar Park	Japan	19.6MW
	Hamamatsu Solar Park	Japan	43MW
	Tahara Solar-Wind Joint Project	Japan	50MW
	Brockville Solar	Canada	10MW
	Beckwith Solar	Canada	10MW
Solar thermal power generation business	Guzman Energia	Spain	50MW
	Juneda Solar	Spain	1MW
Wind power generation business	NS Wind Power Hibiki	Japan	15MW
	Tahara Solar-Wind Joint Project	Japan	6MW
	Wind Farm Hamada	Japan	48MW
	Canunda	Australia	46MW
	Norway Wind	Canada	9MW
	SOP Wind	Canada	40MW
	West Cape Wind	Canada	99MW
	Caribou Wind	Canada	99MW
	Harrow Wind	Canada	40MW
	PAR Wind	Canada	49MW
	Plateau Wind	Canada	27MW
	ELSC Wind	Canada	99MW
	Erieau Wind	Canada	99MW
	Cape Scott Wind	Canada	99MW
	Brazos Wind	U.S.A.	160MW
	Eoliatec del Istmo	Mexico	164MW
	Eoliatec del Pacifico	Mexico	160MW
	Zajaczkowo Windfarm	Poland	48MW

Project	Company name	Country	Generating capacity/Scale
Biomass power generation business	Green Power Ichihara	Japan	50MW
	Tomakomai Biomass Power Generation Co., Ltd.	Japan	5.9MW
	Hokkaido Biomass Energy Co., Ltd.	Japan	1,815kW
Run-of-river hydroelectric power	Hokkaido Biomass Energy Co., Ltd.	Brazil	3,750MW
generation business	Spanish Hydro	Spain	84MW

Modal Shift Activity

Business investment/Company name	Main business	Country	Project size
MRC (Mitsui Rail Capital, LLC)	Freight wagon leasing business	U.S.A.	Four global bases (US, Brazil, Europe, Russia) Freight wagons: approx. 13,000
MRC-LA (Mitsui Rail Capital Participacões Ltda)	Freight wagon rental business	Brazil	Locomotives: approx. 300
MRCE (Mitsui Rail Capital Europe B.V.)	Locomotive leasing business	Europe	
MRC1520 (MRC1520 LLC)	Freight wagon leasing business	Russia	
VLI S.A.	Freight transportation business	Brazil	Operating a railway network of approx. 10,700 km and port terminals
SuperVia (Supervia Concessionária de Transporte Ferroviário S.A)	Passenger railway transportation business (Rio de Janeiro suburban railway)	Brazil	Transportation record: Approx. 550,000 passengers per day (December 2017)
Carioca (Concessionária do VLT Carioca S.A)	Passenger railway transportation business (Rio de Janeiro Light Rail Train)	Brazil	Transportation record: Approx. 50,000 passengers per day (December 2017)
Via Quatro (Concessionária da Linha 4 do Metrô de São Paulo S.A.)	Passenger railway transportation business (São Paulo metro line no. 4)	Brazil	Transportation record: Approx. 670,000 passengers per day (December 2017)
Abellio Transport Group Ltd.	Passenger railway transportation business (East Anglia)	UK	Transportation record: Approx. 200,000 passengers per day
	Passenger railway transportation business (West Midlands)		Transportation record: Approx. 180,000 passengers per day



### Recycling

Business investment/ Company name	Main business	Country	Business size
MM & KENZAI Corporation	Metal scrap collection and sales business	Japan	Handles 7 million tons/year of metal scrap
Kyoei Recycling Co., Ltd.	Industrial waste processing and gas production	Japan	Processing capacity of 33,000 mt/ year, 90mt/day
Mitsui Bussan Metals Co., Ltd.	Non-ferrous metal scrap (including PCB scrap), recycled aluminum ingots, and nonferrous metal product trading business	Japan	Handles 250,000 tons/year of non-ferrous metal scrap and recycled ingots
Sims Metal Management Ltd.	General recycling business (metal scrap, electronic device recycling, etc.)	North America, Europe, Australia, New Zealand, and elsewhere	Handles 8.7 million tons/year of metal scrap, etc.

### **Paper Manufacturing Resource Business**

Activity

Business investment/Project	Country	Project size
BTP (Bunbury Treefarm Project)	Australia	7,100ha
GTP (Green Triangle Treefarm Project)	Australia	1,500ha
PTP (Portland Treefarm Project)	Australia	1,500ha
BFP (Bunbury Fibre Plantations Pty., Ltd.)	Australia	13,900ha

### **Water Business**

Activity

Project	Main Business
Water treatment business in Mexico	Participation in five major water treatment projects in the State of Jalisco and other parts of Mexico through a consolidated subsidiary, Atlatec, S.A. (headquartered in Mexico)
Desalination and Pumping Projects in Chile	Participation in desalination and pumping project for BHP Spence copper mine in Chile - By constructing, owning, and operating a desalination plant and a water conveyance system of approximately 150 kilometers in the area of Antofagasta in the north of Chile, the project will supply fresh water over a 20-year period.

### **Other Environment-Related Business**

Activity

Project	Main Business
Distributed power generation business	Contribution to electrification in rural areas by investing in OMC Power, a leading mini-grid power company that is mainly using renewable energy to reliably supply electric power in non-electrified regions in India
Local power generation for local use	Conclusion of a partnership agreement with Arao City and Global Engineering Co. on community development with a focus on effective utilization of local energy
Car-sharing business	Operation of a car-sharing business that utilizes high fuel-efficiency, low-pollution vehicles (Singapore)
Electric buses	Investment and participation in the Portuguese company CaetanoBus, which manufactures and sells electric buses
Battery systems	Investment and participation in the French company Forsee Power, which manufactures battery systems
Engineering services	Investment and participation in AZAPA for the purpose of exploring ways to provide functions needed by Japanese manufacturing industries in new fields of technology, such as electric and self-driving vehicles
Materials for secondary battery use	Structuring systems for the stable production and supply of secondary battery materials, including principally those used in lithium-ion batteries
High-pressurized tanks for NGVs and FCVs	Import and sale of tanks for installation on vehicles powered by natural gas and fuel cells
High-grade urea solution: AdBlue® business	Mitsui & Co. Plastics a consolidated subsidiary, is building and expanding a nationwide network of sales and logistics locations and infrastructure for Mitsui Chemicals' AdBlue®, which converts the nitrogen oxides contained in exhaust gases into harmless water and nitrogen
Business development utilizing gas fermentation technology	Mitsui invested in LanzaTech New Zealand, a venture company based in Chicago, which is developing technology to convert carbon monoxide (CO) and carbon dioxide (CO <sub>2</sub> ) into fuel and chemicals via a gas fermentation process
Japan-Australia demonstration project for oxyfuel and CCS technologies	Mitsui and other participants carried out a demonstration of new oxyfuel technology in the Callide Oxyfuel Project, a public-private initiative by Japan and Australia. The project, using carbon capture and storage (CCS) technology, aims to realize zero-emission electricity generation at coal-fired power stations by recovering CO2 from the stations and injecting the gases underground for storage. The final project report, compiling a series of results of the project, is to be completed in March, 2018. The possibility of commercialization of the technology is currently being considered
Hydrogen supply chain business	Mitsui, together with Chiyoda Corp., Mitsubishi Corp., and NYK Line, have started conducting an international hydrogen supply chain demonstration project in Brunei.  The hydrogen procured in Brunei will be transported by sea to Japan at ambient temperature and pressure and then restored to gaseous form in the coastal areas of Kawasaki. The plan is to supply up to 210 metric tons per year to consumers by 2020 (enough to replenish 40,000 fuel cell vehicles)
REDD+ project in Cambodia/ JCM utilization	Mitsui is implementing the REDD+ project in Cambodia through the utilization of the Joint Crediting Mechanism (JCM), which is a bilateral emissions reduction mechanism. REDD+ is a scheme which provides economic incentives, such as the issuance of carbon credits, in exchange for the reduction of greenhouse gas emissions through efforts to mitigate climate change through deforestation and forest degradation in developing countries
Solar power generation monitoring service	Mitsui Knowledge Industry Co. a consolidated subsidiary, offers cloud-based remote monitoring services to check the operation status of solar power generation facilities and detect any irregular behavior and malfunction
Cloud-based energy saving service	Mitsui Knowledge Industry Co. a consolidated subsidiary, offers cloud-based energy saving management service with automatic and remote control of air conditioning operation in commercial facilities



### Other Environment-Related Business (Continued)

Activity

Project	Main Business
Precision agricultural solutions business	Mitsui has acquired an equity stake in Farmers Edge of Canada, a precision agriculture and independent data management solution provider which helps farmers to raise crop yields and reduce costs by assisting them with the implementation of efficient fertilizer application plans, which contributes to reducing the load on the environment
Air conditioning services	The Air as a Service (AaaS) business operated jointly by Mitsui and Daikin Air Techno reduces commercial electric power consumption by approximately 20% through the remote control of air conditioning (Results vary according to the building)
Data management for industrial customers	Facilitating improved energy efficiency by the visualization of operation data in various industries, such as power utility and oil & gas, through collaboration with OSIsoft in the US, which develops and sells the PI System, its industrial data management software
Sharing economy	Driving the development of sharing economy through the Mercari flea market smartphone app business
Solar funds	Contributing to the spread of solar power generation by forming and selling solar funds through Mitsui & Co. Alternative Investments

### Prevention of Global Warming and Conservation of Biodiversity through Business



### **Wood Biomass Power Generation Business**

Mitsui, together with Iwakura Corporation, Sumitomo Forestry Co., Ltd., and Hokkaido Gas Co., Ltd., engages in the power generation business using wood biomass fuel. Wood biomass power generation is a carbon neutral method of supplying energy and is expected to contribute to the prevention of global warming. We utilize 100% of previously unused wood\* from forests in Hokkaido, including our company-owned "Mitsui's Forests," to produce woodchip fuel. This facilitates the improvement of forests in Hokkaido and contributes to the development of the forestry industry. The project also has considerable social significance, including contribution to community revitalization through job creation.

\*Forest (timber) resources that have previously not been utilized, such as thinning timber and residual materials from forests



The biomass power station in Tomakomai, Hokkaido

### Forest Asset Management Business and Eucalyptus Tree-Planting Program

With the aim of contributing to the development of a sustainable society through ensuring a stable supply of forest resources and realizing appropriate forest management by the forests fund including acquisition of carbon credit, Mitsui has invested and participated in New Forests Pty Limited (Australia: forestry funds under management totaling approximately ¥350 billion), which has been engaging in forestry asset management business in Oceania, Asia, and North America.

New Forests has been entrusted with the management of forests covering 700,000 hectares. With these forest resources, Mitsui will contribute to the prevention of global warming.

In an eucalyptus tree-planting program (the total area planted stood at around 24,000 hectares as of March 2018) in Australia, which Mitsui conducts together with partners such as Nippon Paper Industries Co., Ltd. for the stable provision of wood chips (the raw material for paper), we have acquired either FSC\* (Forest Stewardship Council\*) certification or Program for the Endorsement of Forest Certification (PEFC) certification, and engage in business that takes sustainable use and protection of forests and biodiversity conservation into consideration



A forest plantation managed by New Forests in Australia

### Jirau Hydroelectric Power Plant

Located on the Madeira River in northern Brazil, the Jirau Hydroelectric Power Plant uses the run-of-the-river system, whereby the natural flow of the river is used to drive generators. By supplying power to approximately 10 million people in metropolitan Sao Paolo, the facility reduces the need to generate power with fossil fuels. As one of the biggest hydropower plants certified by the United Nations, the station also earns emission rights for 6 million tons of CO<sub>2</sub> per year. The Madeira River is a tributary of the Amazon River and forms part of the Amazon Basin, a region that is known for

its rich biodiversity but is also under serious threat from forest depletion. Because of its location, the Jirau project has been closely watched by many parties, including local communities and NGOs, and every possible step is being taken to ensure that the plant is operated in an environmentally responsible way. As part of an approximately ¥60 billion environmental program, we conducted preliminary surveys to identify every possible impact that affects the local environment and communities. We then built hospitals, schools, and new housing to improve the local living environment. Other initiatives include measures to protect flora and fauna, such as fish and mammals.



A panoramic view of the power plant



### Initiatives to Reduce Environmental Load, Including Curbing Global Warming (with Environmental Data)

### Management of Environmental Load on a Global Group Basis

Activity

Mitsui & Co. is carrying out initiatives for the reduction of greenhouse gas (GHG) emissions from energy sources on a global group basis. From the fiscal year ended March 2006, Mitsui has continually surveyed its domestic GHG emissions in order to understand the amount of its emissions year by year. Mitsui has also announced its objective of reducing energy consumption for Mitsui itself as well as for its domestic subsidiaries, by an average of over 1% per year. The entire global group is working to achieve the goal through various measures, including improvement in energy efficiency. In addition, Mitsui has begun surveying the GHG emissions of its overseas subsidiaries since the fiscal year ended March 2009 and from the fiscal year ended March 2018 onward, the scope of the survey has been expanded to include un-incorporated joint ventures in the mineral/metal resources and energy sectors. We will continue to monitor the GHG emission amount and explore new initiatives to reduce GHG on a global group basis.

### Energy Consumption ★



### Greenhouse Gas (GHG) Emissions ★



### Management of Greenhouse Gas (GHG) Emissions

(Unit: 1,000t-CO<sub>2e</sub>)

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
SCOPE1★	1,460	384	284	314	3,448
SCOPE2★	390	341	338	328	537
SCOPE3*	_	_	42	37	35
Total	1,850	725	664	679	4,020

<sup>\*</sup>The sources include employees commuting, business trips, logistics amounts, and waste amounts.

Water Consumpti	(Unit: Thousand m <sup>3</sup> )	
FY 2015	FY 2016	FY 2017
25,846	39,543	59,936

#### <Scope of coverage>

- · Energy Consumption: Mitsui, domestic/overseas affiliated companies
- · Water Consumption: domestic/overseas affiliated companies
- Green House Gas (GHG) Emissions: Mitsui, domestic/overseas affiliated companies, Un-incorporated Joint Ventures in the mineral/metal resources and energy sectors

#### <Calculation criteria>

- Figures for Mitsui are calculated in accordance with the computation criteria stipulated in the Act on the Rational Use of Energy (factories and workplaces). The scope of Mitsui includes buildings owned by Mitsui in Japan as well as buildings, offices, and training centers rented by Mitsui.
- Affiliated companies in Japan are domestic subsidiaries as specified in the Financial Instruments and Exchange Law. Calculation is carried out based on the
  computation criteria stipulated in the Act on the Rational Use of Energy.
- Overseas affiliated companies are overseas subsidiaries on a consolidated basis. Calculation is carried out based on the computation criteria stipulated in the
  GHG protocols "Emission Factors from Cross Sector Tools (March 2017)" and "GHG emissions from purchased electricity (Version-4\_8\_0)" of the World
  Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) and the Act on the Rational Use of Energy. The emission
  factors by county/sector defined by the International Energy Agency are adopted in some estimations.
- As for the un-incorporated joint ventures in the mineral/metal resources and energy sectors, in addition to the computation criteria for overseas affiliated
  companies listed above, the "IPCC Guidelines for National Greenhouse Gas Inventories, 2006" is adopted for the calculation of fugitive emissions with
  production
- According to data calculation carried out for the fiscal year ended March 2018, the data for the fiscal year ended March 2017 was reviewed.



### Initiatives to Reduce Environmental Load, Including Curbing Global Warming (with Environmental Data)

### **Reducing the Environmental Impact of Offices Activity**

Activity

All employees at Mitsui strive to reduce the load on the environment not only when conducting business, but also in their office activities through the efficient utilization of energy resources, as well as the reduction, reuse, and recycling of waste and its proper disposal, with the targets of "reduction of electricity consumption by 1% or higher on average per year" and "a recycling rate of 85% or higher by 2020".

### **Electricity Consumption**★



#### Water Consumption ★

At the Headquarters, we use recycled water for toilet flushing in order to promote reduction in water consumption.

The wastewater amount for FY 2017 was 61,659 m<sup>3</sup> (The amount of wastewater that cannot be measured is calculated on the premise that such amount is equal to the amount of water used).



### Paper Consumption ★

We promote reduction in paper consumption by initially setting up every multifunctional printer with double-face printing and other measures. We also promote use of recycled paper to reduce the environmental load resulting from raw material procurement. The utilization rate of recycled paper for FY 2017 was 98%.



#### Waste ★



Amount of final disposal

Amount recycled

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Recycling rate (%) ★	84.4	86.0	81.0	80.5	79.1

<Scope of coverage and calculation criteria>

- The scope of coverage for electricity consumption and paper consumption includes all offices in Japan (Tokyo Headquarters, 6 Offices, and 5 Branches).
- The scope of coverage for water consumption and waste includes Tokyo Headquarters and Mitsui-owned buildings (Osaka and Nagoya).



### Initiatives to Reduce Environmental Load, Including Curbing Global Warming (with Environmental Data)

### **Initiatives toward Environmentally-friendly Logistics**

Activity

In collaboration with our logistics partners, we implement energy saving measures, including promotion of economical driving practices and other fuel-saving techniques, improvement in transportation efficiency by using larger transport vehicles, introducing cargo consolidation arrangements, and reviewing transport routes, and modal shifts using rail and ship transport.

### Freight Volumes Handled by Mitsui \*



<sup>\*</sup> Ton-kilo-meters are calculated by multiplying the number of metric tons of cargo by the distance (kilometers) they are transported

### **Initiatives toward Environmentally-friendly Logistics**

Air/Rail

Selection of transportation method	Use of railways, shipping (modal shift) Use of sophisticated freight services
Measures to improve transportation efficiency	Use of shared/mixed loading Selection of appropriate vehicle class Optimization of routing and method Scaling up of vehicle size Use of most efficient freight vehicles Review of schedules to avoid congestion
Alliances between transportation service providers and users	Review of distribution frequencies Adoption of coordinated logistics planning (optimized cargo-handling preparation to be timed with ships' arrival in port, and the reduction of fuel usage through the shortening of ship standby times, etc.)
Measures to increase fuel efficiency	Eco-drive driving techniques Installation of fuel-saving equipment

### **Environmental Accounting/Environmental Liabilities**

Activity

#### **Environmental Conservation Costs**

The cost of environmental conservation during the fiscal year ended March 2018 is outlined below.

(Unit: 1,000JPY)

Category	Investments	Expenses
Business areas costs	620,483	819,669
Upstream/downstream costs	0	101,363
Administration costs	92	453,110
Social activity costs	0	451,034
Environmental remediation costs	0	52
Other cost	6,338	2,536
Total	626,913	1,827,764

<Scope of coverage and calculation criteria>

- The scope of coverage includes all offices in Japan (Tokyo Headquarters, 6 Offices, and 5 Branches).
- We calculated the figures based on the Environmental Accounting Guidelines (2005 version) published by the Ministry of the Environment of Japan.

#### **Environmental Conservation/Economic Effects**

Mitsui's environmental conservation and economic effects in the areas of paper consumption and energy consumption during the fiscal year ended March 2018 are shown below.

	Environmental conservation effects	Economic effects (Unit: 1,000JPY)	
Paper consumption	2,635 Thousand sheets	1,479	
Electricity consumption	269,000 kWh	848	

<Scope of coverage and calculation criteria>

- The scope of coverage for paper consumption (Sheet: A4-size sheet equivalent) includes all offices in Japan (Tokyo Headquarters, 6 Offices, and 5 Branches).
- · The scope of coverage for electricity consumption includes Tokyo Headquarters and Mitsui-owned buildings (Osaka and Nagoya).
- Environmental conservation/economic effects are calculated by subtracting actual numerical results for the current fiscal year from actual numerical results for the previous fiscal year.

#### Assessment of Environmental Liabilities

Currently, demands are being placed on corporate management to make proactive efforts regarding environmental issues. In addition to satisfying legal requirements, Mitsui understands the environmental risks (particularly asbestos, PCB, and soil pollution) related to tangible fixed assets such as the land and buildings owned by Mitsui itself, as well as those owned by its domestic group companies, through selfdriven surveys, and in light of such risks, makes decisions and judgement related to management policies.

Concerning the data marked with  $\bigstar$ , an independent practitioner's assurance report in accordance with the international standards ISAE 3000 and 3410 established by the IAASB was provided by Deloitte Tohmatsu Sustainability Co., Ltd.





### **Initiatives for Preserving Biodiversity**

#### About Initiatives at Mitsui's Forests

Policy

#### Overview of Mitsui's Forests

Mitsui & Co. owns forests in 74 locations in Japan, from Hokkaido in the north to Kyushu in the south. Mitsui's Forests cover a total area of approximately 44,000 hectares, which is equivalent to about 70% of the area of Tokyo's 23 wards, or 0.1% of Japan's territory. We have worked under our Forest Management Policy to protect and nurture these forests and make productive use of the benefits that they provide.

### **Forest Management Policy**

Policy

## 1. Guiding Principle

In line with its Management Philosophy, Mitsui will actively contribute to protecting our irreplaceable Earth and fulfilling the dreams of its inhabitants, and we are committed to carefully nurturing our forests to pass them on to the next generation.

## 2. Management Policy

Mitsui gives its forests the status of "assets with a high degree of public use that benefits the whole of society". As well as providing the reusable natural resource of lumber, forests can fulfill a range of socially beneficial functions if properly managed and enhanced on a consistent basis; for instance, they can purify the atmosphere by absorbing carbon dioxide to produce oxygen, and they can act as a reservoir that stores and purifies rainwater. On the other hand, if forests are neglected and not adequately maintained, they may increase the likelihood of natural disasters and develop into a source of other social problems. Aware of the social value that its forests possess, Mitsui regards their long-term ownership and maintenance as an important social responsibility. So as to maximize the socially beneficial functions of our forests, we work to enhance these functions based on the FSC®'s Forest Management Principles and Criteria, and also SGEC's Forest Management Certification Principles and Indicators.

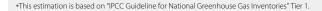
#### 3. Activity Policy

In its concrete activities in the context of its forest holdings, Mitsui will act conscientiously on the basis of the management policy outlined above, giving full consideration to their social significance and maintaining a strong awareness of their environmental impact. Accordingly, we will redouble our efforts in the following areas:

- Offering Forest Environmental Programs to stakeholders
- Research work and concrete action to preserve biodiversity
- Achieving sustainability in the production of wood materials as a reusable natural resource and promoting their utilization as wood biomass

### Mitsui's forests accumulates and absorbs 560,000 tons of carbon dioxide annually

It is estimated that Mitsui's Forests currently accumulate and absorb approximately 560,000 tons\* of carbon dioxide per year. We contribute to the mitigation of climate change risk through sustainable forest management.





### **Cultivating Different Types of Forests: Forest Management Zoning**

System

Mitsui's Forests are divided into "Forests for Regeneration and Harvest" (approximately 40%) and "Natural Forests and Naturally Regenerated Forests" (approximately 60%). Forests for Regeneration and Harvest are forests that have been planted and cultivated by human hands, and follow a repeated cycle of planting, cultivating, harvesting, and utilization for the production and supply of lumber resources. Natural Forests are forests that have been cultivated through natural action, while Naturally Regenerated Forests are forests that

have grown back mainly through natural action following deforestation due, for instance, to a natural disaster or tree-harvesting. Forests in these categories are maintained in their natural state. Areas within these forests that are particularly important from the viewpoint of biodiversity are designated as "Biodiversity Conservation Forests" (approximately 10% of all Mitsui's Forests).

Mitsui manages Mitsui's Forests in accordance with the forest management zoning categories as shown below.

Appropriate management is applied to each forest category.



Tashiro forest whose value in biodiversity has been highly

### Management zoning categories of Mitsui's Forests (As of December 31, 2017)

	Category		Definition	Area (ha)
Forests for Regeneration	egeneration Cycle Forests the repeated cycle of harvesting, planting, are		Forests for the production and supply of lumber resources through the repeated cycle of harvesting, planting, and cultivating.	6,852
and Harvest			Forests to be restored as Naturally Regenerated Forests consisting of coniferous and broad-leaved trees.	10,609
	Biodiversity Conservation Forests	Special Conservation Forests	Forests judged to have irreplaceable biodiversity value at the regional and national level and requiring stringent protection.	324
		Environmental Conservation Forests	Forests confirmed to support a large number of rare creatures whose habitat requires protection.	875
		Conservation Forests functions that con the preservation of Cultural Conservation ("cultural services" functions that con the preservation of "cultural services" functions that con the risk of natural of functions that contains the risk of natural of functions the risk	Forests with plentiful water stocks that form a water resource, reduce the risk of natural disasters, or have other major socially beneficial functions that contribute to the safeguarding of the water supply and the preservation of ecosystems.	3,164
			Forests requiring protection due to the particularly high value of their "cultural services"—functions that nurture traditions and culture and form part of the "ecosystem services" that are dependent on biodiversity.	117
Naturally Regenerated Forests	Productive Naturally Regenerated Forests		Forests to be cultivated for tree species useful as a source of lumber.	1,822
	General Naturally Regenerated Forests		Forests not composed of productive species but to be cultivated for increased social value.	19,384
	Other Natural Forests	ly Regenerated	Naturally Regenerated Forests other than in the above categories.	1,270
Total				44,417



### **Initiatives for Preserving Biodiversity**

### Forest Certification (FSC® and SGEC)

System

Mitsui has acquired forest certification for all 74 of Mitsui's forests throughout Japan (approx. 44,000 hectares) under two international standards: the FSC® (License No. C057355), and the SGEC (Certification No. SGEC/31-21-1101).

Forest certification is given based on assessments by an independent institution regarding whether fixed criteria are met concerning forest management methods. The spread of such certification prevents unregulated deforestation, preserves healthy forests, and helps protect the global environment.

Mitsui is currently the only private sector company with large-scale forest holdings in excess of 10,000 hectares in Japan that has obtained both of these certifications. This status allows us to respond to demand for a various types of certified timber. For the G7 Ise-Shima Summit in May 2016, FSC-certified cypress timber from a forest owned by Mitsui was used for the main table. In the fiscal year ended March 2018, Mitsui supplied some of the cedar (SGEC-certified) for use in the roof and eaves of the New National Stadium.

While FSC® certification is a type of certification established by the Forest Stewardship Council (FSC®), an international NGO with a membership system, the SGEC certification system is unique to Japan and was established by the general incorporated association Sustainable Green Ecosystem Council. However, in 2016 following approval of reciprocal certification with PEFC, which is another international certification system, SGEC became an international forest certification system. Both FSC® and SGEC certification provide basic principles, standards, and indicators for conducting appropriate forest management from environmental, social, and economic perspectives. The certifications require forest managers to not only conduct forest management on an economically sustainable basis, but also give proper consideration to the environment and the develop good relationships with local communities near forests. We have continued building good communication with local communities. In the fiscal year ended March 2018, we conducted questionnaire surveys and interviews with five Ainu organizations in Hokkaido on the preservation of Ainu culture and other topics.

Social Value of Forests

Activity

Appropriate forest management is just part of our commitment. We are also actively engaged in initiatives to utilize forest resources on various levels. As part of our contributions to society and to local communities, we use our forests for environmental education activities. Resources from our forests are also used to support cultural activities and traditional events in surrounding areas, as well as reconstruction in areas affected by the Great East Japan Earthquake of 2011. Mitsui supports the campaign to promote the use of Japanese-grown timber as a way of revitalizing the Japanese forestry industry and providing additional impetus for regional development. For example, we make use of our company-owned forests in our office space, or as a stable supply source of wood biomass fuels for local biomass power generation

business. In the fiscal year ended March 2018, part of the cedar timber (SGEC certified) to be used in the roof and eaves of the New National Stadium was supplied from Mitsui's forests.

In the area of environmental education, Mitsui's forests are used for field studies that teach people about the role of forests, for forestry experience programs, and for various other activities within and beyond the Mitsui organization. In the area of helping to protect culture, we have entered into an

agreement with the Biratori Ainu Association concerning the protection and fostering of Ainu culture. In order to contribute to local communities, we also have started to promote the use of wood biomass as an alternative to fossil fuels. For example, we continue to steadily supply timber fuel to a biomass power generation plant in Tomakomai, Hokkaido in which we have invested (commercial operations started in April 2017). We are planning to supply timber fuel reliably also to another biomass generation project at Shimokawa-cho, Hokkaido.



Forestry program (tree thinning experience) at companyowned Kameyama forests

### Biodiversity Conservation Activities in Cooperation with NPOs/NGOs

Activity

### Conserving the Prey Lang Forest in Cambodia (REDD+\*)

Prey Lang, located in the northeast of Cambodia along the west bank of the Mekong River, is the largest tropical lowland evergreen forest in Indochina. It is inhabited by many wild animals, including endangered species, and is also an important source of water for Cambodia. However, illegal logging, along with reclamation of land for farming by local communities, has resulted in progressive deforestation, loss of wildlife habitats, and an increase in greenhouse gas emissions that would normally be concentrated in the forests.

In partnership with Conservation International, an international NGO, Mitsui aims to use the REDD+ mechanism established under the Paris Agreement to contribute to forest and biodiversity conservation in the Prey Lang Forest, in cooperation with the Cambodian Ministry of Environment. These activities include reinforcing forest patrols to prevent illegal logging and providing local communities with alternative sources of livelihood to avoid reliance on logging.



Near Prey Lang Village

<sup>\*</sup> REDD+ (Reducing Emissions from Deforestation and forest Degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries): A scheme which provides economic incentives such as carbon credits through the mitigation of deforestation and degradation of forests in developing countries.



### Addressing Environmental Issues through Contribution to Society

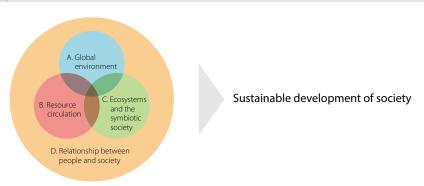
### Overview of the Mitsui & Co. Environment Fund

System

Activity

In July 2005, Mitsui & Co. launched the Mitsui & Co. Environment Fund as a grant program that aims to contribute to the sustainable development of society and address global environmental problems by supporting various activities and research projects pursued by NPOs, universities, and other entities. Since the fiscal year ended March 2012, when the Great East Japan Earthquake occurred, Mitsui has also been engaged in recovery efforts aimed at achieving the sustainable development of society through initiatives to mitigate and resolve environmental problems caused by the earthquake and the accompanying tsunami. In addition to its financial support for the activities and research conducted by NPOs, universities, etc., the fund is also encouraging Mitsui's officers, employees, and their families to participate in the activities conducted by the groups or organizations that received our grants, as volunteers. As of the fiscal year ended March 2018, we have awarded grants totaling ¥5.68 billion to 554 projects.

Launched	July 1, 2005
Screening structure	Sustainability Committee, Project Deliberation Panels, Project Selection Meeting (including external experts)
Grant program	Activity Grants     Research Grants For practical activities or research providing concrete proposals, which contribute to the sustainable development of society and address global environmental problems.
Focus fields	A. Global Environment B. Resource Circulation C. Ecosystems and the Symbiotic Society D. Relationship between People and Society
Eligible groups or organizations	NPOs, NGOs, general incorporated associations and foundations, public interest incorporated associations and foundations, special civil foundations, universities, and national institutes of technology



### **Selection of Grant Recipients**

System

Activity

### [Message from a Selection Committee Member]

The global social and economic situation relating to the environment is changing significantly, including the signing of the Paris Agreement as a response to climate change, the adoption of the SDGs by the United Nations, and the emergence of ESG investment. Every aspect of life is being affected by these changes. There has also been a significant shift of direction in the criteria used to select issues for the Mitsui & Co. Environment Fund.

In the past, we tended to prioritize the conservation of ecosystems and biodiversity. Our priorities today include the reduction of CO<sub>2</sub> emissions, the solution of societal issues, and the governance of all organizations in relation to these issues.

These changes were reflected in our approach when calling for applications for Mitsui & Co. Environment Fund grants in the fiscal year ended March 2018. We gave priority in our selection process to activities and research that would take up the challenge of finding solutions for issues that are regarded as socially significant. We will continue to emphasize these aspects going forward by striving to select proposals that demonstrate high aspirations toward our goal of contributing to the creation of a sustainable society for the future, and a commitment to social change.

### **Grants awarded**

(Unit: number of projects, ¥million)

	Activity Grants		Research Grants		Total	
	Number	Value	Number	Value	Number	Value
FY 2005	15	117	_	_	15	117
FY 2006	18	217	_	_	18	217
FY 2007	48	437	23	456	71	893
FY 2008	51	523	24	368	75	891
FY 2009	34	311	17	213	51	524
FY 2010	28	244	22	285	50	529
FY 2011*	52 (43)	528 (463)	46 (34)	603 (481)	98 (77)	1,131 (944)
FY 2012*	36 (22)	237 (157)	14 (2)	112 (13)	50 (24)	349 (170)
FY 2013	20	165	15	150	35	315
FY 2014	21	118	8	85	29	203
FY 2015	15	155	10	65	25	220
FY 2016	11	92	10	79	21	171
FY 2017	10	63	6	54	16	117
Total	359	3,207	195	2,470	554	5,677

<sup>\*</sup> Figures in parentheses show the Great East Japan Earthquake Restoration Grants. However, since the fiscal year ended March 2014, we have continued to support restoration projects within the framework of regular programs, without providing a separate additional framework. The total value of the restoration projects since the fiscal year ended March 2012 is ¥1,326 million.