Mitsui Chemicals Group "ESG Report 2019"

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2019.10.18	The Mitsui Chemicals Group ESG Report 2019 Released
2019.10.16	Mitsui Chemicals receives "2019 Awards for Excellence in Corporate Disclosure"
2019.10.02	Mitsui Chemicals Included on 2019 Dow Jones Sustainability Index



Message from the CEO



Sustainability Discussion



Talk on Diversity



Corporate Governance



Sustainability in the Mitsui Chemicals Group

- Sustainability Management
- The 2025 Long-term Business Plan Environmental and Social Targets
- Key Issues (Materiality)
- Climate Change and Problems with Plastic
- Blue Value™ / Rose Value™



Risk and Compliance

- Risk and Compliance Management
- Bribery Prevention
- Information Management



Responsible Care

- Responsible Care Management
- Safety and Prevention
- Environmental Protection
- Product Stewardship
- Quality of Products and Services
- Logistics
- Occupational Health



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Protecting Our World Natural Heritage Project



10th ANNIVERSARY



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Human Resources Management

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NADESHIKO BRAND 2019

2019 健康経営優良法人 Health and productivity ホワイト500

DBJ健康格付 2012

Message from the CEO



Progress on our Long-Term Business Plan

As we flexibly respond to changes in society,
I can sense we are making steady progress under our Long-Term Business Plan

Guided by the formulation of our 2025 Long-Term Business Plan, the Mitsui Chemicals Group continues to implement initiatives aimed at solving the challenges faced by society. Fiscal 2018 was the second year of this plan. In looking back on that 12-month period, the environment surrounding the global economy changed significantly mainly because of trade friction involving the US, a Chinese economic slowdown, and heightened geopolitical risks. And the pace of this change continues to accelerate. At the same time, it is becoming increasingly clear what issues the chemical industry and society at large must address; namely, climate change and problems pertaining to plastic waste.
That said, looking at the megatrends from a higher perspective, I feel there to be no major differences compared to our outlook as of the time we put together our long-term plan. We originally formulated it in order to swiftly respond to these kinds of changes in the business environment and we initially assumed that would involve taking such changes in our stride and moving forward by flexibly responding on a rolling basis.

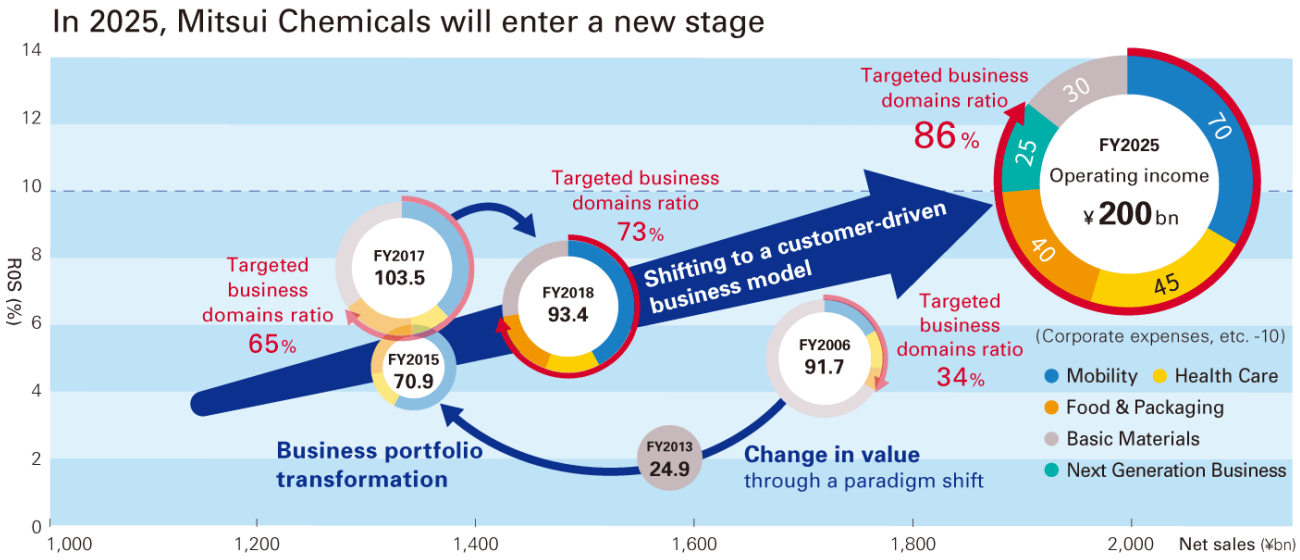
Fiscal 2018 operating income regrettably declined year on year owing partly to one-off negative factors, but net income reached a record high. We have implemented structural reforms and other measures thus far and they are starting to yield results. I can sense that we are making steady progress under our Long-Term Business Plan.

Initiatives in three targeted business domains

Expansion in Mobility and Health Care domains drove YoY growth in operating income in the three targeted business domains
Aiming to strengthen ability to propose solutions

We continue to see solid growth in the **Mobility domain** despite a slight slowdown in the pace of increase in global automobile production volume. The automotive industry is currently in the midst of a major once-in-a-century period of

transformation, as symbolized by the key acronyms CASE and MaaS.
Regardless of how this transformation proceeds, the need for lighter weight, safety, and greater comfort will only continue to increase up ahead. In line with this trend, I think the fields in which we can leverage our strengths—namely, our broad lineup of functional polymeric materials, advanced technological capabilities, and product quality—will further expand.
Moreover, the ability to propose solutions to our customers even in the area of manufacturing will be crucial in the future. In 2017 we incorporated ARRK Corporation into the Group through an M&A deal and integrated their design, prototyping, and analytical functions. Furthermore, in March 2019 we set up a Design & Solution Center with the aim of strengthening our product development capabilities and we are continuing to beef up our ability to propose total solutions to customers with a view to utilizing it in the three targeted business domains.
In the **Health Care domain**, sales are increasing steadily for vision care materials, an area in which we possess considerable expertise in terms of technological capabilities and customer base. Going forward, we will step up our efforts in developing materials that offer added value not only in terms of performance, but also functionality. While our TouchFocus™ next-generation eyewear is a BtoC product, a field that we have little experience in, market recognition is growing steadily, so I think there are prospects for taking this product to overseas markets.
In addition to premium disposable diapers, for which we have boosted sales thus far, we continue to expand applications for our high-performance nonwovens in automotive, healthcare, and other industrial materials fields. In April 2019 we established our Industrial Materials Development Division for the purpose of advancing such developments. And even though reorganizing our dental materials business presented a challenge, we continue to put in place a platform for expanding sales by wasting no time in implementing initiatives such as bolstering our sales framework and launching digital-related products.
In the **Food & Packaging domain**, sales of industrial films are currently at somewhat of a standstill largely as a result of the downturn in the semiconductor market caused by the impact of the US-China trade conflict. From a longer-term perspective, however, we expect demand to be driven mainly by further developments in AI and IoT and the rollout of 5G networks, and we are continuing to push ahead with strategies such as strengthening our operations in Taiwan. We also expect demand for packaging film for food products to increase in line with the need to reduce food loss, which is why we intend to work hard on developing products that offer new features.
In our agrochemicals business, we are making steady progress on developing new pipelines. We have concluded a global license agreement with an influential agrochemical manufacturer in Europe for our new mainstay insecticide as we aim to expand into global markets.



Next Generation Business and Basic Materials domains

The Next Generation Business steadily coming to fruition
Structural reforms in the Basic Materials domain to continue

We are currently addressing the **Next Generation Business domain** in order to create new solution businesses with an eye to the next 10 or 20 years. In the energy field, we are making progress in our power generation and solar power diagnosis businesses. In the latter, we plan to launch a certification business in India in fiscal 2019. In the medical field, our rapid bacteriological identification system has reached the clinical trial stage. Given that this system helps to quickly diagnose sepsis, an infectious disease with a particularly high mortality rate, I think the technology is quite valuable from the viewpoint of solving social challenges.

We are also aggressively pursuing open innovation and corporate venture capital projects through partnerships with start-up firms and pushing ahead with the development of models for physicians to practice surgery on and improve their skill sets.

All of these businesses will play a part in solving the challenges faced by society, and although we still have hurdles to overcome before they can start contributing to profits, we hope to steadily nurture them one by one going forward.

In the **Basic Materials domain**, we will continue to implement the structural reforms we have carried out thus far. I believe structural reforms to be a never-ending topic. As its name suggests, the basic materials business is the cornerstone of our Company's growth domains and underpins the foundation of our society. In order to shore up our long-term competitiveness as a chemical corporation, we will constantly endeavor to streamline our production activities and work even harder to improve quality.

Linking greater investments to business results

Earmarking ¥430 billion for investment over next three years
Carefully selecting projects that deliver ample returns

Under our Long-Term Business Plan, we intend to actively pump managerial resources into growth investments.

It is important that these investments are linked steadily to growth and our basic policy is to ensure enough production capacity to meet demand. Accordingly, we will carefully select projects from which we expect to generate ample returns on investment.

Another key strategy for expanding business is the use of M&As. However, M&As with the simple aim of expansion do not lead to sustained growth. As a general rule, I believe we should avoid engaging in M&As in business domains isolated from our own. In other words, we should target areas in which there is potential for synergies with our existing businesses. The incorporation into the Group of technologies and know-how we currently do not possess should serve as new powers for further growth.

In undertaking these growth investments, we give due consideration to the cost of capital and endeavor to strike the right balance between return on investment and growth taking ROIC as an indicator. We will continue to concentrate our investments in the three targeted business domains and at the same time aim to steadily improve ROIC in the future.



Sustainability management

Incorporating sustainability into management, dealing with risks, and aptly seizing growth opportunities

As symbolized by the spread of the SDGs, sustainability has taken hold as a keyword and calls for companies to address ESG issues are mounting. In looking back on fiscal 2018, I think this trend gained even more momentum. Stakeholders are increasingly focusing on the business strategies of companies with regard to how they accurately gauge risks and opportunities and incorporate them into management, as well as how quickly they can transform their business models. From now on, creating social value will be crucial to enhancing corporate value.

As such, we established our Corporate Sustainability Division in 2018 in order to engage in sustainability management with ESG elements at its core. More than a year has passed since then and sustainability continues to steadily take root in our Company's management. It is already an inseparable point of view when management considers an investment or puts together a budget. Sustainability topics are even routinely discussed at Company-wide Strategy Committee meetings and Board of Directors meetings and we are making every effort to sensitively reflect the needs of society.

The disclosure of ESG-related information is also a critical component for management, hence our proactive efforts to engage in dialogue with investors and various other stakeholders. Unlike results shown in financial statements and the like, ESG initiatives are much harder to express on paper because they are conceptual and not easily represented with figures. In this regard, our Blue Value™ and Rose Value™ have been well received as unique indices to help visualize our Company's initiatives to address social challenges. We intend to steadily expand our Blue Value™ and Rose Value™ product lineups going forward.

For our employees too, identifying the value of addressing sustainability issues in day-to-day operations is not easy. That is why I am creating more opportunities to speak directly with employees. I use my own choice of words to ensure that they gain an easy understanding of the significance of our sustainability management. By continuing to implement these kinds of activities step-by-step, we are fostering a climate conducive to tackling sustainability issues on a Group-wide basis and leveraging that momentum to keep moving forward.

For detail, please refer to Sustainability Management.

For detail, please refer to Blue Value™ / Rose Value™.

Plastic waste and climate change

Promoting a circular economy model for the entire value chain and advancing global partnerships

Of the challenges facing society today, the problems of plastics and how to tackle climate change are gaining prominent attention. The Mitsui Chemicals Group is deeply implicated in these issues as a chemical company that emits large volumes of greenhouse gases and manufactures plastics. Although these issues pose risks, they also afford us business opportunities. From a long-term perspective, I believe the execution of appropriate and swift business decisions will be key.

We cannot prescind the two issues of plastics and climate change. The Group's basic approach is to implement initiatives from both perspectives to encourage a switch to a circular economy across the entire value chain.

The three Rs (reuse, reduce, and recycle) for plastics is an initiative that Japan has continued to pioneer. The Group intends to promote a circular economy model by expanding the use of biomass plastics as well as strengthening its recycling initiatives. Marine plastic waste is a problem concerning trash that has escaped this cycle and cooperation on a global level will be essential if a solution is to be found. As such, we are addressing this issue by participating in the Alliance to End Plastic Waste (AEPW) and other global alliances.

As for climate change, we formulated a long-term policy with a view to the year 2050. In addition, we support the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and we are striving to actively disclose information about how climate change affects our businesses.

For detail, please refer to Climate Change and Problems with Plastic.



Global human resource development

Creating an environment where a diverse workforce can thrive is key to also accelerating our global strategy

At any point in history, human resources will always be one of our most important management resources. We are proceeding with the creation of a workplace environment where employees of all walks of life can thrive irrespective of gender, nationality, or other factors.

Globalization is the major keyword when it comes to human resources. The Mitsui Chemicals Group currently has 170 business sites in 30 countries and regions, while 43% of all our employees are based overseas. I think entrusting management to employees who best understand local issues will be essential to further business expansion up ahead. To that end, hiring and nurturing local employees is a challenge we must concentrate our efforts on going forward. In April 2019 we established our Global Human Resources Division in order to strengthen global human resources management and governance. The acceleration of our global expansion is also a key strategy in our Long-Term Business Plan. We therefore intend to keep strengthening the platform on which this strategy is based.

For detail, please refer to Human Resources Management.

Safety initiatives

“Safety is our top priority”
All employees recognize anew this uncompromising policy and ensure safety

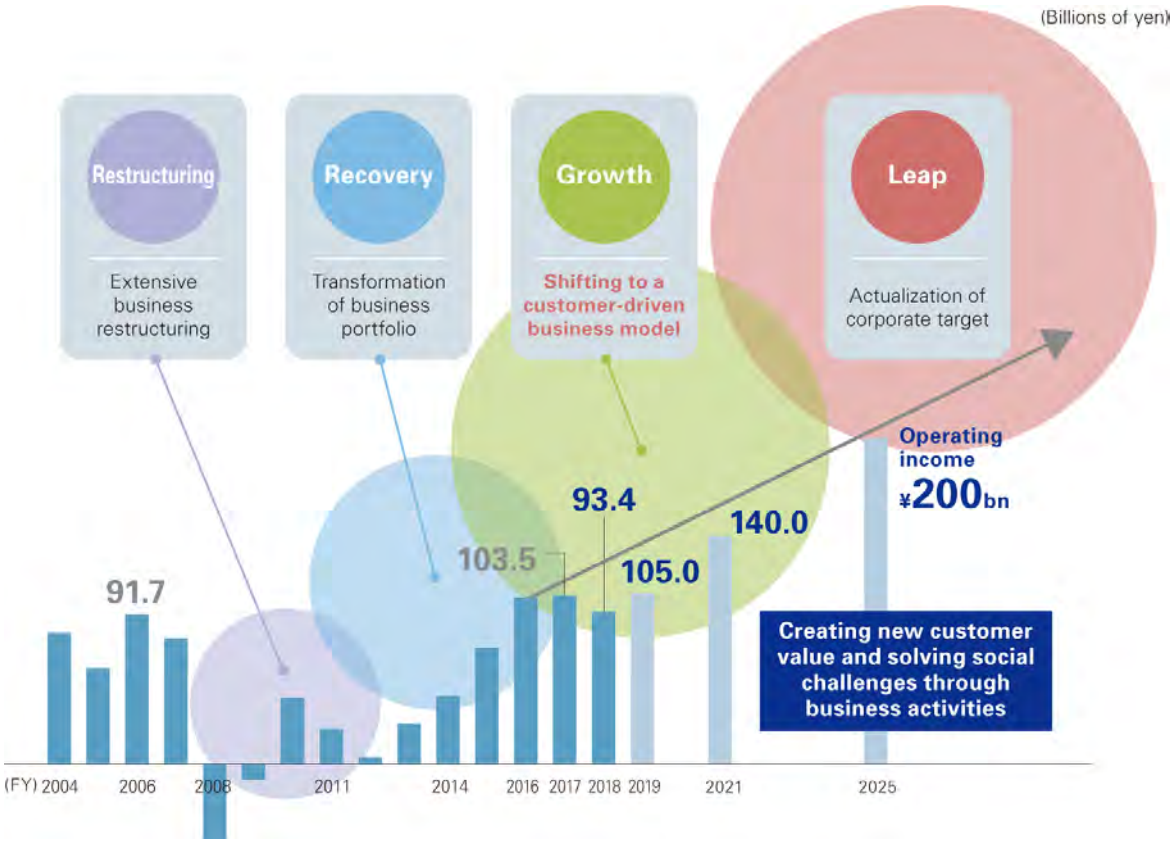
I believe that safety is, more than anything else, the most important commitment for management to make. Whenever I get the chance, I tell our employees that safety is our top priority. And one of the stated goals in our Long-Term Business Plan is to pursue thorough safety, high quality, and fairness across the entire supply chain.
To ensure safety in our operations, we must never forget the explosion and fire that occurred in 2012 at our resorcinol production facility at the Iwakuni-Ohtake Works. We have been extremely diligent about safety and repeatedly made improvements by working together with production sites. Nevertheless, a fire broke out again at the Osaka Works in fiscal 2018. I took this matter very seriously to heart and personally talked with employees at the worksite to check whether the safety initiatives there might have turned into mere formalities and whether or not each and every employee was facing up to the situation earnestly.
We hope to continue steadily implementing activities aimed at thoroughly ensuring a Group-wide safety awareness once again. At the same time, we will look to establish a framework and introduce technology aimed at making our prevention measures more sophisticated and fulfill our social responsibilities by seeking guaranteed safety across all processes of the supply chain.

For detail, please refer to Safety & Prevention.

To our stakeholders

Channeling the collective strengths of all employees to achieve sustainable growth

We will continue to forge ahead towards our 2025 goals in our Long-Term Business Plan by flexibly responding to changes on a rolling basis. Our activities will mainly revolve around the expansion of the three targeted business domains, but we also intend to keep securing stable earnings in the Basic Materials domain.
In fiscal 2019 we are forecasting growth in both sales and profit; our operating income target is ¥105 billion. As we shift to a stage of steadily recovering investments made thus far, we expect an increase in operating income to ¥120 billion in fiscal 2020 and ¥140 billion in fiscal 2021.
Recently, in order to convey to employees our Group’s approach to sustainability in an easy-to-understand way, I have been using the words “strong company” and “good company.” A strong company is one that has earnings power, which materializes in its financial results. I believe that a good company, on the other hand, is one whose management platform is based on the intangible value like a vibrant corporate culture.
Companies that are not strong cannot survive, but companies that are not good have no point in surviving. By channeling the collective strengths of all employees, we will aim to be a sustainable corporate group that takes pride in being a “company not merely strong but also good.”
Chemistry underpins the foundation of society and is an industry that harbors considerable potential—so much so that it may well be the source of innovation in various forms in the future. In meeting the expectations of all our stakeholders, we will continue to generate new value and aim to achieve sustainable growth for both society and the Mitsui Chemicals Group.


(Billions of yen)
Restructuring
Extensive business restructuring
Recovery
Transformation of business portfolio
Growth
Shifting to a customer-driven business model
Leap
Actualization of corporate target
Operating income
¥200bn
91.7
103.5
93.4
105.0
140.0
Creating new customer value and solving social challenges through business activities
(FY) 2004
2006
2008
2011
2014
2016
2017
2018
2019
2021
2025

Sustainability Discussion

Looking ahead to the future and working towards our goals



Left: Tsutomu Tannowa, Representative Director, President & CEO / Right: Mr. Kazuo Tase, President & CEO, SDG Partners, Inc.

Mr. Kazuo Tase

Graduated from School of Nuclear Engineering, Faculty of Engineering, University of Tokyo; Visiting Professor at New York University School of Law.

2017 Established SDG Partners, Inc.
2014 Assumed the office of Director, Global Management Institute at Deloitte Tohmatsu Consulting, Japan.
2005-2014 Worked at the United Nations; served as Chief of Human Security Unit in UN Office for Coordination of Humanitarian Affairs, and later Acting Director of UN Information Center in Pakistan.
1992-2005 Worked at Japan's Ministry of Foreign Affairs.

Top management leadership is essential

—— The Company has thus far deepened its triple bottom line management approach and is working to engage in management with ESG elements at its core. Mr. Tase, you have a wealth of knowledge about sustainability. What do you think are the key elements required for a company to promote sustainability strategy?

Tase

I think top management must show leadership by fully understanding and identifying with the significance of promoting sustainability strategy. If they don't, employees are unlikely to follow suit. In the case of Mitsui Chemicals, I get the feeling that the president understands the essence of sustainability and executes business decisions accordingly.

Tannowa

I too agree with your opinion that top management's comprehension of sustainability is a prerequisite. Also important I think is how top management can communicate its ideas to employees. We established the Corporate Sustainability Division in 2018 and one of its objectives is to ensure that employees understand and make sense of sustainability management. We also wanted to externally demonstrate how serious Mitsui Chemicals is about addressing ESG issues. We want to place pressure on ourselves, in a positive way, as we take steps towards promoting sustainability strategy.

Tase

Is there anything you keep in mind in terms of employees' understanding of sustainability?

Tannowa

I usually explain the significance of sustainability management to employees by using the expression "a company not merely strong but also good." A company must have financial strength, as demonstrated in earnings results and the like, but at the same time, if it isn't a "good company," so to speak, by possessing non-financial intangible value, then there is really no point in surviving.

Tase

I tend to liken financial and non-financial factors to the muscle strength and internal organs of an athlete. Even with muscle strength and skills an athlete can't keep winning without healthy internal organs. In business, companies with an uneven balance of financial and non-financial strengths have little prospect for sustainable growth, in my opinion.

Conceiving our future targets from a long-term perspective and working towards them

—— The Group has formulated its Long-Term Business Plan. What are your thoughts on the importance of a long-term perspective?

Tase

Recently when talking with the younger generation of company executives, the importance of a long-term perspective is often raised. Many of them think that medium-term business plans might as well be laid to rest. Mitsui Chemicals has already switched from medium-term plan to long-term plan, which I think was a very forward-thinking approach. What were the reasons behind that decision?

Tannowa

While I personally strongly pushed for it, we realized that in these times of such volatile change in the business environment, a pre-established plan would be meaningless. We decided to go with a long-term plan because even

if it's a bit vague, for example, we would still be better off framing our future targets and working towards them. The idea behind this is that if conditions change, implementing a rolling plan to flexibly factor in those changes is a more realistic approach.

Tase I'm sure it was a big decision to make, but were there any concerns voiced within the Company?

Tannowa I think there were some concerns among employees who were used to a rigid management system of preparing a budget based on a medium-term plan. However, things do not always proceed as pre-established under a medium-term plan. We decided it would be better to shift to long-term goals in the sense that it would encourage a change in mindset among employees.

Tase I think it's very important to steer the Company toward a goal that is slightly further away. This approach also applies to how we should address social challenges. For example, providing food to impoverished and hungry children will satisfy their hunger at that moment, but it doesn't solve the underlying problem. It goes without saying that tackling poverty itself is crucial. I want companies to have an awareness of whether their approaches will really lead to their long-term goals. It's important that companies employ a combination of inductive short-and-medium term perspectives with a deductive long-term outlook.



Management must look ahead to the future and change accordingly

—— Mr. Tase, you have also said that the process for reflecting current trends into management is essential to promoting sustainability strategy.

Tase In a way, ESG approaches can be said as a function to foresee outlook for the future. Discussing matters that management needs to know about at the right time is the key. My guess is that you intentionally positioned the Corporate Sustainability Division under the direct control of the president as a way to reflect important topics concerning the future into management.

Tannowa As you say, I frequently engage in discussion with the Corporate Sustainability Division. Those discussions are then brought to the table at the meetings of the Corporate Sustainability Committee and the Board of Directors.

At Board meetings in the past, most agenda items concerned recent business matters or investments, but there have been more signs recently that Board members want to discuss matters from an ESG perspective. Social challenges are characterized by the trends of the times and differ in significance and impact. We must be sure to engage in deductive arguments and ask ourselves what we should do now by considering the influences these issues may have in 20–30 years' time. Through these discussions, I think the measures we take and our management priorities will change.

Tase

Management anticipates the future and makes changes accordingly. That is what sustainability management is all about. For example, a scenario where people use self-driving cars on a daily basis is no longer a pipe dream in 10 years' time. If it does happen, the notion of distance will lose all meaning and land prices and urban living will change dramatically. I think it is vital for management to always be attentive to such changes in society and acutely decipher what those trends mean. When looking ahead of the situation of chemical industry in 10 years' time, how do you analyze the current state of the industry?

Tannowa

I feel that the potential of chemistry is growing. There is always a role that chemistry can play in sparking innovation. Not surprisingly, the biggest issues for the chemical industry and Mitsui Chemicals are climate change and plastic waste. These problems are expected to become even more severe in 10 years' time, so I think we need to draw up a major framework in which we outline the scenarios and examine what measures we can implement.

Tase

General consumers tend to forget about the life cycle assessment point of view when considering the problem of plastic waste. Simply saying that we have to reduce plastic because it ends up as waste fails to address the essence of the problem, I think.

Tannowa

Appropriate treatment and disposal of plastic products after use would be ideal. However, the situation is that the environment is suffering as a result of inappropriate waste management. It is important that we use scientific data to confirm environmental impacts at each stage of a product's lifecycle before making comprehensive assessments. Naturally it is our responsibility as a company that manufactures plastic to consider what we can do and how we should take action. At the same time, problems need to be solved in cooperation with various parties across the entire supply chain, for example, the local governments and administrations that are tasked with collecting and processing waste. We must realize that the problem of plastic is not something that can be dealt with shortsightedly in a certain way. I am personally aware of this and I intend to make my thoughts known from both a Company and industry point of view.

Tase

I would certainly like to see a company with thorough knowledge of plastics, like Mitsui Chemicals, taking a leading role and engaging in fundamental debate. I also think general consumers struggle to understand the whole picture of this problem. I hope that you can provide consumers with easy-to-understand information and develop superior products that help find a solution.

Putting in place a scheme under which diverse human resources can thrive

—— Mr. Tase, in addition to the environment, what other issues do you attach importance to?

Tase I have an impression that diversity and inclusion such as SDG's gender equality and women's empowerment are where Japanese companies' efforts are most needed. What's the situation at Mitsui Chemicals?

Tannowa In the past it was normal for production sites of chemical companies to have few female workers, but we are placing as many women as possible into the three rotating shifts. While we need to improve our facilities and systems to facilitate this, the very idea of what our worksites should be like continues to change. In management as well, two of our three outside directors are female as of this year. Our challenge is that we have few female employees to begin with, so if we can steadily increase the ratio of female recruits going forward, we should be able to have more women in managerial positions or key postings in the future. We think this will set in motion a virtuous cycle.

Tase What about diversity from a broader point of view?

Tannowa We are actively appointing staff hired overseas to key positions. And we established our Global Human Resources Division with the aim of making active use of talented human resources.

Tase Nurturing employees who are capable of flexible thinking as the next-generation of managers is a really important initiative, I think.

Tannowa At Mitsui Chemicals we have established a Key Talent Management (KTM) system based on which we create succession plans and assign roles in a series of distinct stages to nurture employees right through to senior management. We have a Human Resource Advisory Committee to discuss on the assignments of our top management. The Committee hears the opinions of outside directors and assumes accountability. In other words, we have a very strong awareness of responsibility to make discussions in an open and transparent manner.



Need to also demonstrate social impact, a leading indicator of profit

—— How have the Company's unique Blue Value™ and Rose Value™ indices and products been received?

Tase I think society calls for various solutions from Mitsui Chemicals as an industry leader. Your Blue Value™ and Rose Value™ indices and products seem to represent a suitable response to those requests.

Tannowa Our Blue Value™ and Rose Value™ visualize our contributions to solving social challenges as environmental contribution value and QOL improvement contribution value respectively. We started disclosing this information in 2015 because these initiatives became able to deliver objectivity and benefits for all our stakeholders to evaluate.

Tase In addition to simply selling products that contribute to society, it also seems that your initiatives are financially viable. Is this true?

Tannowa It would be meaningless to just promote our products without a goal, which is why we are committed to increasing the sales ratios of Blue Value™ and Rose Value™ products as a KPI in our Long-Term Business Plan. We believe growth in these products can also help achieve sustainable economic growth. This is why we now focus on the value of contributions to the environment or improvements to quality of life when assessing investment projects.

Tase Investors are becoming increasingly interested in how much a certain product or service impacts society. In other words, whether it changes society for the better or whether it reduces a negative impact. They think social impact is a leading indicator of profit and a company's contribution to society will be returned in the form of profits over the medium- to long-term. I think it would be wonderful if your products could also demonstrate their impact on society in the future.

Fulfilling major social responsibilities but also seeking profitability

—— Finally, please describe your expectations for the Mitsui Chemicals Group.

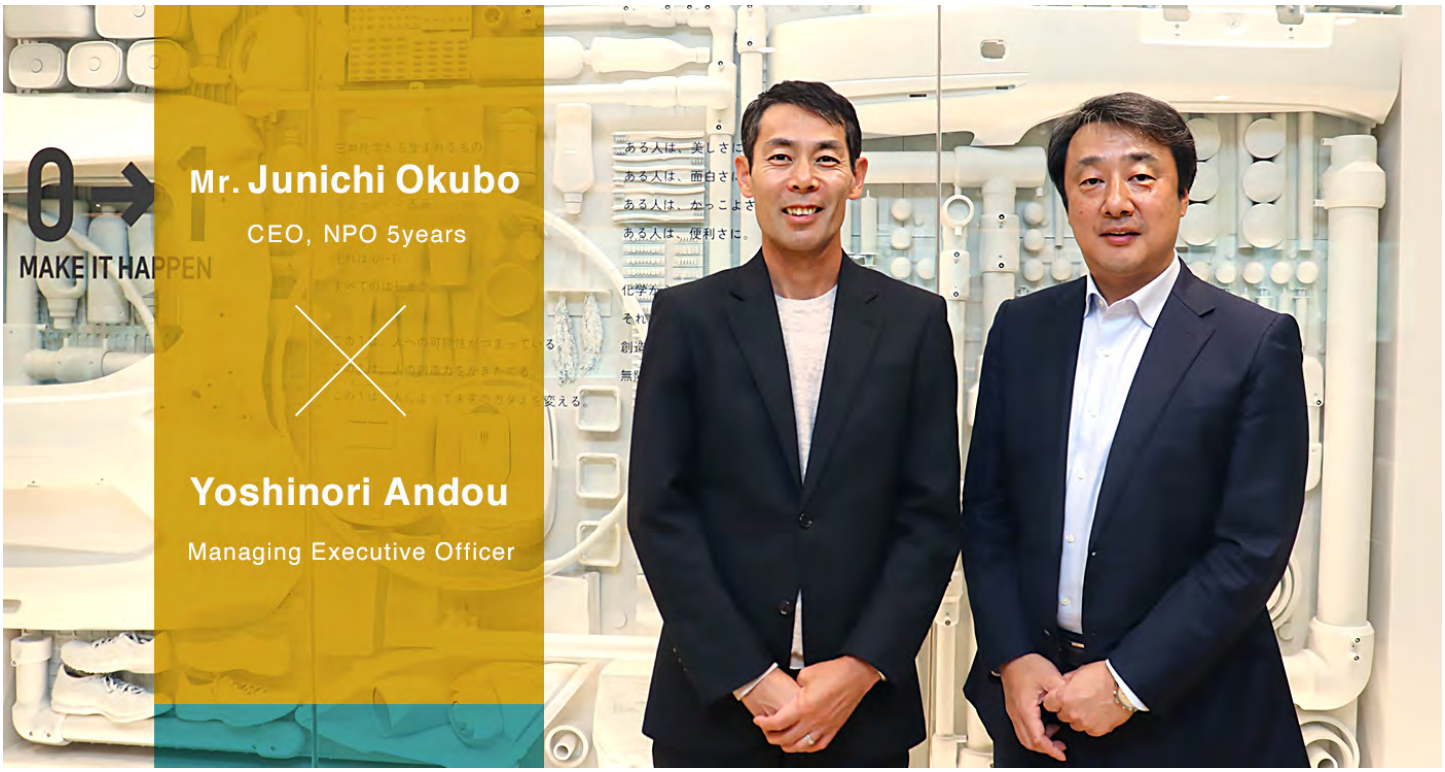
Tase My assessment of Mitsui Chemicals so far is that it has upheld some major social responsibilities. Even if society is transformed in the future, I'd like to see the Company continue to fulfill its core social responsibilities and be even more profitable through those efforts. I expect it to maintain the right balance between contributing to society and growing as a company.

Tannowa Mr. Tase, your job involves tackling social challenges from various approaches in different parts of the world. We kindly ask that you cast a strict but warm eye over our Group's initiatives on addressing social challenges and sustainability management. Please let us know if we appear to be veering off track.

Interviewer: Ken Migita, Senior Director and General Manager of Corporate Sustainability Division

Talk on Diversity

Maintaining Motivation for Life and Work Regardless of Illness



Left: Mr. Junichi Okubo, CEO, NPO 5years / Right: Yoshinori Andou, Managing Executive Officer

Mr. Junichi Okubo

Completed M.S. at Nagoya University in 1991, and M.B.A. at University of Chicago in 1999. Worker for Mitsubishi Oil (1991-1997) and Goldman Sachs (1999-2014). He had testicular cancer (Stage III) and serious pulmonary fibrosis in 2007, and his 5years survival rate was below 20%. However, after intensive medical treatments for 18-month, he survived and backed to Goldman Sachs next year. In 2013, he came back to the Lake Saroma 100km Ultramarathon race and finished. Currently, Okubo manages NPO 5years, the largest cancer patients support organization in Japan. As others, he is active to write articles and do seminar presentations.

In September 2018, a Diversity Lecture was organized by the Human Resources Division inviting Mr. Junichi Okubo, the CEO of the cancer support organization, “5years,” under the theme of "Maintaining motivation for life in spite of illness.” This year, we invited Mr. Okubo to have a talk with Mr. Yoshinori Andou, our Managing Executive Officer. They had a talk about the 250 km marathon in the Sahara Desert that Mr. Okubo ran as a cancer survivor and how the company can help employees with illness continue their work.

* Mitsui Chemicals supports 5years through its One-Coin Club, a joint charity program with employees. The company also sponsored Mr. Okubo in running the 250 km marathon in the Sahara.

Andou Congratulations on completing your 250 km marathon in the Sahara Desert. When you gave a lecture at our company last year, you mentioned your determination to run the Sahara Marathon, which made me very worried about your condition. So I was truly relieved when I heard that you had successfully completed the marathon. In the past, you recovered from two serious diseases—end-stage testicular cancer and interstitial pneumonia. What was your motivation in running the Sahara Marathon, a difficult race even for a person with tough healthy body?

Okubo In 2007, my doctor told me, “You have testicular cancer, and it has progressed to the final stage. We have also found that it has spread to your abdomen, lungs, and neck.” My five-year survival rate was 20%. I was training hard for the marathon before the cancer was detected, but the diagnosis made me think that it would be impossible for me to run a marathon ever again… I even didn’t know whether I could survive... The Sahara Marathon I challenged myself to run had been my deepest wish for over 20 years and was actually an attempt “to prove myself as a cancer survivor.”

Andou I imagine that this challenge you undertook was a great encouragement for those who are fighting against their illnesses, like yourself in the past.



Okubo The moving story of my attempt was posted in English on the official website of the Sahara Marathon. After coming back to Japan, I received many messages from cancer patients and their families saying, “It encouraged me a lot” and “You really inspired me.”

Andou My friendship with you, Mr. Okubo, has been long. It was back in 1993 when we first met: I was working in materials procurement for Mitsui Chemicals, and you were a sales representative for another manufacturer. We saw each other often. As time passed, we saw less of each other directly. However, I knew that you had been successful in your work and your private life through the new year’s greeting cards we exchanged. Then, I believe that it was 2008, your new year’s greeting card started with the sentence, “Dear Mr. Andou, I have cancer.” I clearly remember my surprise when I read the line, “But I will definitely overcome this.”

Okubo I was confident about my health. I did not smoke and I had a healthy diet. I went jogging five days a week, and no problem was found in the comprehensive physical examinations I had every year. So I never imagined that I would suffer from cancer. I had just completed a full marathon a month before my cancer was found. The greatest concern I had after finding out about the cancer was money and employment. I was 42 years old and in the prime of my working life. My two children were eight and six years old. I was worried for the future of my

family.

However, cancer is no longer an incurable disease. There are many cases where people return to normal life after the disease had been successfully treated. It is also possible to continue working while receiving treatment. However, it is very important for people in this situation to receive the support of their companies. Yet I have the impression that very few companies provide enough support to employees with serious illnesses. In such a situation, your company offers systems to support employees with illnesses.

As Companies Enhance Their Systems, Organizations Are Diversified

Andou

Mitsui Chemicals has its Special Leave System to help employees continue working while receiving medical treatment. Under this system, employees can use any expired annual paid leave for a specific purpose. In the past, employees who were not able to work for three consecutive days or more because of childcare, family care, illness, or injury could use this system. The reason why eligibility was limited to employees who were not able to work for three consecutive days or more was because we assumed that the system would be used for hospitalization or operations. However, the number of employees who require regular monthly hospital visits without involving long periods of hospitalization, such as for cancer treatment, has been increasing recently. Therefore, the system was reformed this fiscal year to enable employees to take special leave in half day increments. Now, the system can be used not only for treatment but also for fertility treatment.

Okubo

This is ideal both for employees and for the company. The system enables employees to continue their treatment without leaving their jobs. My opinion from the viewpoint of a cancer survivor is that it would be very helpful if companies were to offer a system that supports employees to return to work early. Many companies only allow their employees to return to work when they can work normally for five days a week. However, this places a lot of pressure on patients to recover so that they can work all day long. This demand may even make them hesitant to return to work. In other words, the system can discourage employees from returning to work. If there is no such pressure, employees can return to work early. I believe this would be very beneficial for both the companies and their employees.

Andou

Yes. If companies improve their systems, and employees start to use them, it could lead to improvements in an employee's performance and this will strengthen the organization. Companies and their employees can then build win-win relationships.. Mitsui Chemicals has its Gradual Return to Work Program for employees who are recovering from illness. This is a program to support employees who are absent due to illness or take leave of absence because of illness and helps them decide when they have recovered enough to return to work. Starting from a half-day work, they are helped to return gradually to stable full-time work over a period of a month or so.

We also introduced the Telework Program with the aim of helping employees achieve work-life balance and increase productivity. Although this program was not originally intended to help employees continue to work during treatment, it should help employees who continue working while undergoing treatment and who are recovering from illness because the program enables them to avoid long commuting hours or travelling during the rush hour.
Further, we plan to introduce a shorter working hours for employees who are undergoing treatment, and I believe that this system will support employees who are recovering from illness.

Okubo As companies improve their Human Resources systems, employees are able to work in a variety of situation, and this makes the organization more diversified. I believe that the diversification of a company is not only beneficial to its employees but also helps the company to form a resilient organization. This corporate diversity will attract and retain people with talent as a result. The more talented employees play an active role at work, the better the company will become. From this viewpoint, I think it is important to enhance corporate diversity.




In Supporting People with Human Connections, Emotional Support is Necessary

Andou 5years, the organization that you represent offers a support system for people fighting cancer.

Okubo I believe that it is important to offer emotional support systems for employees undergoing cancer treatment in addition to the company's system. The nonprofit organization, 5years, plays a role in connecting cancer survivors. Once diagnosed with cancer, people will often want to get advice from someone who has had cancer. However, there are more than 50 types of cancer. It would be even better if those people could communicate with and get advice from cancer survivors who have the same type of cancer, and who are at the same stage, age, gender, receiving the same type of treatment, and in the same occupation. To create a network of cancer survivors with similar experiences, I would like as many survivors and patients as possible to register as members of 5years. I am working to create 5years into a social infrastructure. I would also like to create a social community where cancer survivors can meet other survivors who have had the same type of cancer.

Andou It is indeed important to support people through human connections in addition to their company's systems. We assign full-time occupational physicians to each business division. The relationship between the physician and employee is close, and I believe it provides mutual support. While maintaining close relationships between employees with illnesses, occupational physicians, workplace supervisors, and human resources section, we try to offer a range of support that includes flexible application of the company's system. I think that carefully supporting employees with illnesses to return to work is a great help to those employees.

Okubo It is reassuring for an employee to have support provided by an occupational physician who knows the employee's job requirements. It is also good for the colleagues of cancer survivors because they are able to ask the occupational physician how best to support their colleague.

Continue Working to Achieve My Personal and Professional Goals

Andou Finally, would you tell us about your future plans?

Okubo As a runner, I have two goals. One is that I would like to break my best record for the full marathon. I am now 15 years older than when I achieved my best record, and now one-third of my lungs are not functioning. People tell me that I won't be able to achieve it, but I really would like to try. My other goal is to run four desert marathons. Besides the Sahara Marathon, there are other demanding marathon races through the Gobi Desert, the Atacama Desert, and Antarctica. Even among healthy runners, only a few have attempted all those races, and I really would like to try.
As for my professional goal, I would like to establish myself as a social entrepreneur. As I am originally a business person, I do not want my nonprofit organization to rely solely on donations. I would like to create a social business that earns revenue from its business activities and then uses the business revenue to continue its social activities. This is because if the organization does not function as a business, it cannot continue or expand. I believe this is my mission.

Andou Mitsui Chemicals is also focusing on solving social issues through its business activities. Since last autumn, Mr. Tannowa, President & CEO, keeps telling us that "companies that are not strong cannot survive, but companies that are not good have no point in surviving." In other words, it is not enough simply to be a strong company that generates a good revenue. This is a declaration that Mitsui Chemicals will be a good company which can fully contribute to all its stakeholders. I understand this as one of the approaches to Corporate Sustainability Management.



Sustainability in the Mitsui Chemicals Group



Sustainability Management

- Management System
- Stakeholders
- Support Initiatives

The 2025 Long-term Business Plan Environmental and Social Targets

Key Issues (Materiality)

- Process for Identifying Key Issues
- Key Issues and Initiatives

Climate Change and Problems with Plastic

- Management System
- Plastic Strategies
- Climate Change Policy

Blue Value™ / Rose Value™

- Visualizing Contributions to the Environment and Society
- Blue Value™ — Environmental Contribution Value
- Rose Value™ — QOL Improvement Contribution Value
- Blue Value™ / Rose Value™ Products

Management System

Policy and Basic Approach

The SDGs and other initiatives that aim to solve the challenges faced by society continue to gain momentum worldwide and companies are increasingly being asked to take action. For a sustainable society to be realized, it is essential that companies themselves must achieve growth, but at the same time create social value by providing solutions. To this end, it is now even more important that companies accurately identify opportunities and risks from an ESG perspective and reflect them into management.

Sustainability in the Mitsui Chemicals Group

In addressing global social challenges highlighted in the SDGs and other initiatives, we aim to achieve sustainable development in society and the Group by implementing the following:

- Seek business opportunities and strive to solve challenges through business activities
- Recognize future risks for the Group and uphold our corporate social responsibility

In deepening our triple bottom line (economy, environment, and society) management approach and committing to a management that places ESG elements at its core, the Group established the Corporate Sustainability Division in April 2018. We are now working to incorporate ESG elements into management/strategies and improve how we disclose ESG information to our stakeholders.

Challenges

Incorporation of ESG elements into management/strategies

- Reflect ESG considerations in management and strategy discussions at Board meetings and Company-wide Strategy Committee meetings
- Generate business involving business and R&D divisions and promote innovation

Improvement of ESG information disclosure

- Boost appeal to institutional investors, customers, and sustainability rating agencies
- Strengthen ESG dialogue

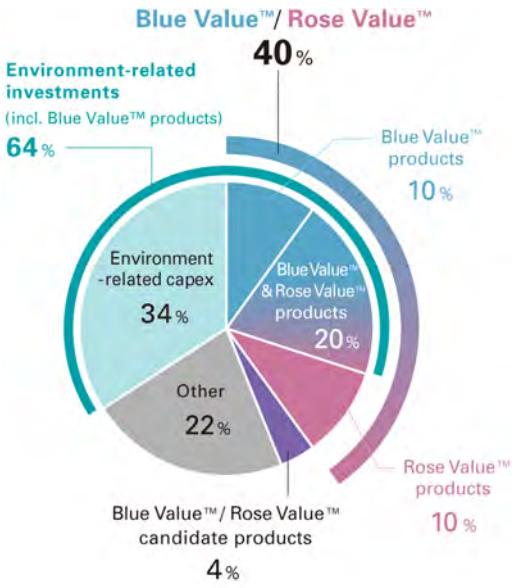
Progress

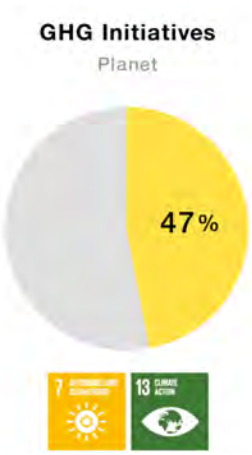
To engage in sustainable management, it is key that we view the social challenges for SDGs and other initiatives as business opportunities, promote innovation, minimize future risks, and reinforce management resilience. The Group's management periodically meet to discuss strategies in order to accurately grasp changes in social demands from the international community and reflect them into management from a long-term perspective. In fiscal 2018 we formulated policies on the SDGs and ESG and integrated ESG elements into our budget-drafting process.

One of KPIs that we set for the Group in our 2025 Long-Term Business Plan is to expand sales of our Blue Value™ and Rose Value™ products that contribute to the environment and society. In aiming to achieve this goal, we are taking steps to specifically incorporate them into business plans and targets. In addition, we are encouraging each and every employee to change their ways of thinking by organizing social challenge workshops to brainstorm the creation of new businesses and new products that are driven by the need to solve social issues. We are also deepening discussions with business and R&D divisions.

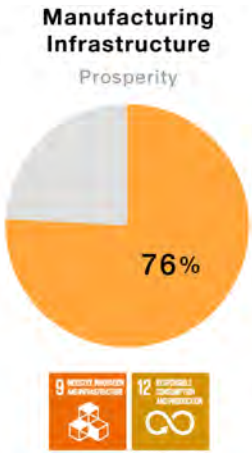
Moreover, from fiscal 2019 we started utilizing a system that reflects long-term views of new target investments into our investment plan. The system helps us visualize mainly investments related to Blue Value™ and Rose Value™, contributions to the SDGs, and changes in GHG emissions. These matters are then discussed at investment deliberation meetings. We have predominantly focused our strategy discussions on climate change and plastic waste —two serious issues for chemical companies—because we consider it very important to demonstrate concrete measures as soon as possible. We support the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and took the decision to participate in the Alliance to End Plastic Waste (AEPW). We have also formulated and publicly released policies stating our commitment to these causes.

Breakdown of new large-scale target investments decided in fiscal 2019 (for FY2019-2021)





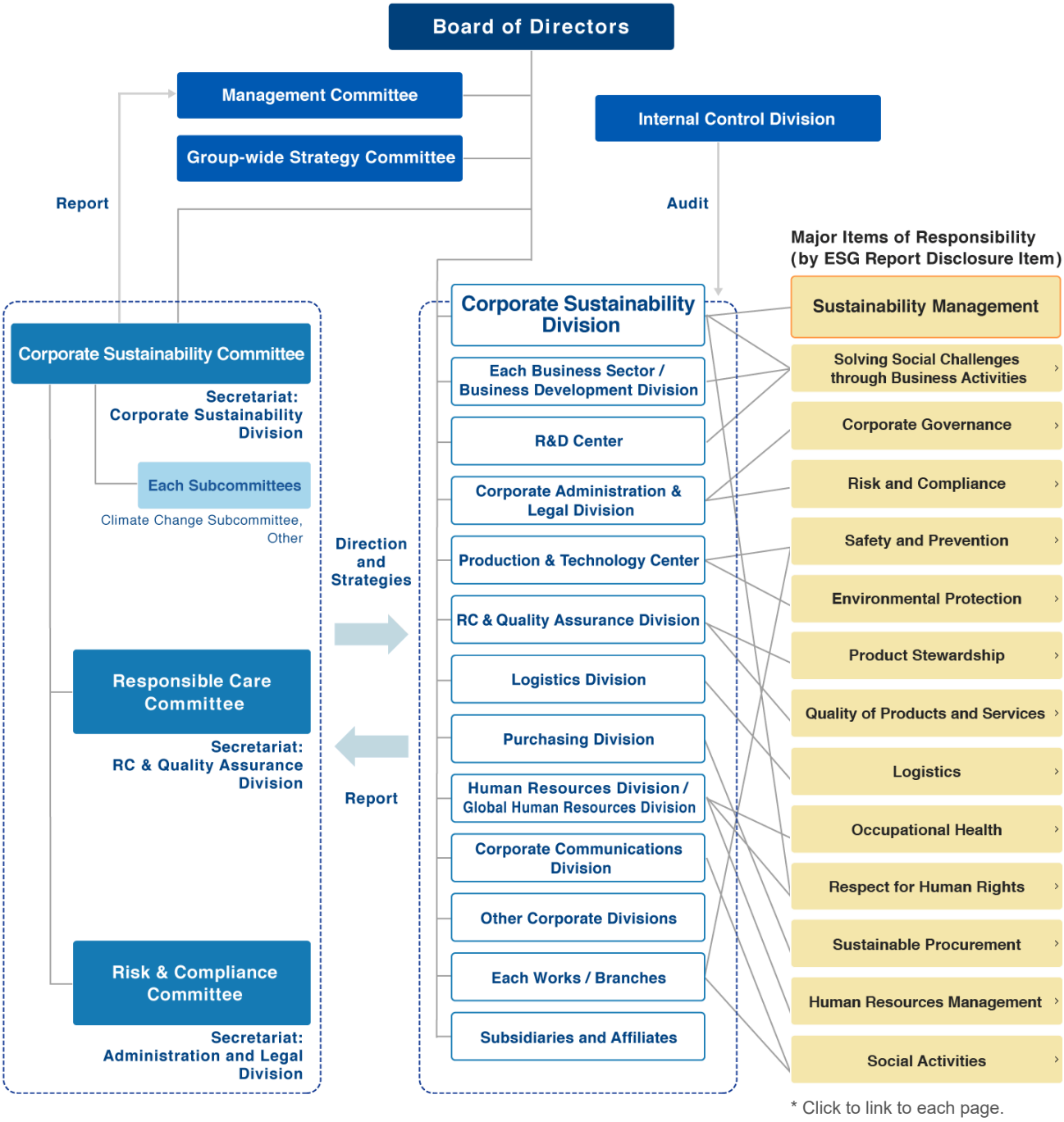




System and Responsible Officers

The person in charge is the responsible director in charge of Corporate Sustainability Committee.
With ESG concerns as a central feature of the Group's sustainability management, steps are being taking to discuss the Group's overall direction at various organizations including the Board of Directors and Corporate Sustainability Committee. In addition, the management of progress of environmental and social targets under the 2025 Long-term Business Plan as well as key issues (materiality) are also undertaken within this system.

Sustainability Management System



* Click to link to each page.

Corporate Sustainability Committee

The CSR Committee was reorganized as the Corporate Sustainability Committee in June 2018. This reorganization reflects the need to address the demands placed on the Company by society and to further bolster sustainability management initiatives from an ESG perspective. The roles of the committee are presented as follows.

- Deliberate on the Group’s policies, strategies, plans, and measures as they relate to the promotion of ESG
- Clarify the important issues and direction of efforts to strengthen and improve initiatives of each committee (Responsible Care Committee, Risk & Compliance Committee)
- Conduct performance evaluations of the Group’s ESG initiatives and oversee internal distribution of results
- Consider other important matters relating to ESG

In principle, this committee meets twice a year.
Should a critical matter arise, including the need to consider an important item relating to ESG or to put forward an initiative, the Chairperson of the Corporate Sustainability Committee establishes a subcommittee to assume responsibility for the item.

Details of the committee’s deliberations and activity results are reported to the Management Committee. In addition, the Management Committee’s authorization is obtained for matters of particular importance.

Composition of the Corporate Sustainability Committee

Chair	President
Vice Chair	Responsible director in charge of the Corporate Sustainability Committee
Members	Executive officers with specific titles, Business Sector presidents, Center Executive of the R&D Center, Center Executive of the Production & Technology Center, General Manager of the Corporate Planning Division, General Manager of the Human Resources Division, General Manager of the RC & Quality Assurance Division, General Manager of the Corporate Administration & Legal Division, General Manager of the Corporate Communications Division, General Manager of the Corporate Sustainability Division, other members appointed by the Chairperson
Secretariat	Corporate Sustainability Division

* Corporate auditors also attend committee meetings and are able to offer their opinions whenever necessary.

* The chairperson is able to call on the attendance of executive officers and general managers who have an interest in the matters being deliberated and ask for their explanation and opinion.

Stakeholders

The Mitsui Chemicals Group states “Contribute broadly to society” as its Corporate Mission over the five social contribution areas. We believe that we have to remain sensitive to society’s demands and expectations in order to realize this mission and sustainably develop our business with society. In line with this mission, we deepen communications with our stakeholders, on whom our business activities have an impact.

Corporate Mission

Contribute broadly to society by providing high-quality products and services to customers through innovation and the creation of materials, while keeping in harmony with the global environment.



Shareholders and Investors

The Mitsui Chemicals Group fulfills accountability by holding constructive dialogs with our shareholders and investors and discloses appropriate information in a fair, transparent, and timely manner. We examine the comments we welcome from shareholders and investors to improve our business management and information disclosure. We aim to enhance our corporate value through these efforts.

Priority issues	Major approaches
• Constructive dialogs • Disclosing appropriate information in a fair, transparent, and timely manner • Reflecting opinions from shareholders and investors in our business management	• Shareholders' meeting (once per year) • Financial results briefing (4 times per year) • CEO Explanation business Result & Outlook(twice per year) • Small meetings (twice per year) • Individual meetings (approx. 400 times per year) • Briefings per area, such as ESG • Plant tour (approx. 4 times per year) • Mitsui Chemicals Report & Mitsui Chemicals Group ESG Report (each once per year) • Website (updated as required) • Contact point

Customers

Making the best use of the Group's comprehensive resources, we aim to offer optimum solutions to our customers through our technologies, products, and services. The quality management of our products and services ensures that we can meet our customers' expectations.

Priority issues	Major approaches
• Providing optimum solutions • Providing high-quality products and services • Providing appropriate information of products and services	• Website (updated as required) • Product and technological presentations • Participating in exhibitions • Contact point

Suppliers

It is important to fulfill our environmental and social responsibilities across the entire supply chain from a global perspective. To achieve this, we need to form strong partnerships with our suppliers. Our collaborations should contribute to the sustainable development of both suppliers and the Mitsui Chemicals Group.

Priority issues	Major approaches
• Fair and honest transactions • Partnerships that aim at mutual sustainable development	• Supplier sustainability evaluation and support for improvement

Local Communities

We would like to contribute to the sustainable development of local communities by operating our business in each site stably and safely. This cannot be attained without the trust of the community, and as part of this approach we create a number of opportunities to communicate with local residents.

Priority issues	Major approaches
• Fulfilling social responsibilities • Gaining trust of local communities • Collaboration with NGOs and NPOs	• Opinion exchange meetings • Business site tours • Local newsletters • Laboratory Classes on the Wonders of Chemistry program • Disaster relief • Website (updated as required)

Industry, Government and Academia

We operate our business globally, adhering to the laws and regulations in each region.
We also endeavor to take the initiative in collaborations among industry, government, and academia, aiming at the sustainable development of both society and the Mitsui Chemicals Group.

Priority issues	Major approaches
• Appropriate payment of taxes • Compliance with laws and regulations • Understanding the latest regulation trends • Suggestions toward developing industrial organizations or governmental policies • Open innovation under collaborations among industry, government, and academia	• Reports to industry, government, and academia • Participating in industry-government- academia projects • Participating in industrial and academic organizations • Joint research

Employees

The Mitsui Chemicals Group aims to attain both the “happiness and self-fulfillment of employees” and the “sustainable growth of the company.” To realize these aims, we are committed to creating working environments where diverse human resources can perform their roles dynamically, exerting their full capabilities.

Priority issues	Major approaches
• Human resources development • Appropriate evaluation and compensation • Employee-friendly working environment • Diversity • Safety and prevention • Occupational health	• Intranet (updated as required) • Company newsletter (4 times per year) • Training sessions • Employee Engagement Survey (once every 2 to 3 years) • Labor-management discussion • Health and Safety Committee meetings

Support Initiatives

UN Global Compact

We signed up to the UN Global Compact in January 2008. In doing so, Mitsui Chemicals acknowledged its support and commitment to help tackle a wide range of global challenges and to promote sustainable growth as a responsible corporate citizen. In addition, Mitsui Chemicals participates in each of the subcommittees of the UN Global Compact Network Japan and is working to gather information. In fiscal 2018, the Company participated in each of the human rights education, ESG, WEPs (Women's Empowerment Principles), supply chain, anti-corruption, and SDGs subcommittees.
The Mitsui Chemicals Group will help resolve many of the challenges confronting the world today through its business activities while taking into consideration the 10 principles espoused under the United Nations Global Compact.

The 10 Principles of the UN Global Compact and Major Initiatives in the Mitsui Chemicals Group

Human Rights		
Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights; and	Respect for Human Rights Sustainable Procurement Human Resources Management
Principle 2	make sure that they are not complicit in human rights abuses.	
Labour		
Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	Respect for Human Rights Sustainable Procurement Human Resources Management
Principle 4	the elimination of all forms of forced and compulsory labour;	
Principle 5	the effective abolition of child labour; and	
Principle 6	the elimination of discrimination in respect of employment and occupation.	
Environment		
Principle 7	Businesses should support a precautionary approach to environmental challenges;	Blue Value™ / Rose Value™ Responsible Care Management

Principle 8	undertake initiatives to promote greater environmental responsibility; and	Environmental Protection Product Stewardship Sustainable Procurement
Principle 9	encourage the development and diffusion of environmentally friendly technologies.	
Anti-Corruption		
Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.	Action Guidelines Risk and Compliance

Task Force on Climate-related Financial Disclosures (TCFD)

Mitsui Chemicals, Inc. announced that its support of recommendations from the Task Force on Climate-related Financial Disclosu res (TCFD). We state that Mitsui Chemicals continues to deepen its understanding of climate-related risks and opportunities, discloses its efforts.

Mitsui Chemicals Supports TCFD Recommendations

Climate Change Policy

Alliance to End Plastic Waste (AEPW)

As the founding member, Mitsui Chemicals Inc. joined the Alliance to End Plastic Waste (AEPW), established in January 2019. The Alliance is committed to the goal of investing $1.5 billion over the next five years to help end plastic waste and contribute to a sustainable society.

Mitsui Chemicals Joins New Global Alliance Formed to Take on Plastic Waste in the Environment

Plastic Strategies

ZERO by 40: Agriculture Industry Unites to Help Eradicate Malaria by 2040

At the London Commonwealth Heads of Government Meeting, the world's leading Crop Protection companies jointly announce their commitment to support the research, development and supply of innovative products to save lives and help eradicate malaria by 2040.

AGRICULTURE INDUSTRY UNITES TO DELIVER A PIPELINE OF INNOVATIVE VECTOR CONTROL TOOLS TO HEL P ERADICATE MALARIA BY 2040

International Council of Chemical Associations (ICCA)and Chemical Industry Associations in Each Country

The Mitsui Chemicals Group is taking leadership the International Council of Chemical Associations (ICCA) and Chemical in Industry Association in each country*.

At the International Council of Chemical Associations (ICCA), the Company's president has been a director since 2014, and from 2016 the Company's councilor has included the vice-chairperson of the Responsible Care Leadership Group (RC-LG) and chairman of the Asia-Pacific Responsible Care Organization (APRO). Our employees have also chaired the Joint Capacity Building Task Force of each Leadership Group and the Energy and Climate Change Leadership Group since 2015 and 2018, respectively.

At the Japan Chemical Industry Association (JCIA), the general manager of the RC & Quality Assurance Division has been a JCIA board member since the 2010 establishment of a Responsible Care Committee and, also since 2010, has worked as a member of the Chemical Management Committee. In May 2018, the president of Mitsui Chemicals assumed the chairmanship of the JCIA.

Moreover, the Japan Initiative for Marine Environment (JaIME) was established by five chemical industry organizations such as JCIA in September 2018. The president of Mitsui Chemicals also assumed the chairmanship of the JaIME.

* Chemical Industry Association in each country :

Japan Chemical Industry Association (JCIA), Association of International Chemical Manufacturers (AICM, China), Singapore Chemical Industry Council (SCIC), Federation of Thai Industries (FTI), and the American Chemistry Council (ACC)

Other Major Initiatives Supported by the Company; Major Organizations of which the Company is a Member

Japan Business Federation (Keidanren)

Japan Petrochemical Industry Association (JPCA)

The 2025 Long-term Business Plan

Environmental and Social Targets

The 2025 Long-term Business Plan embodies our strong commitment toward realizing sustainable growth and development along with society. We will make every effort to contribute to solving social challenges through our business activities and engage in management that not only emphasizes “economic concerns,” but also strikes a proper balance with the environment and society.

In formulating the 2025 Long-term Business Plan, we clarified our view of a targeted future society while revisiting our Corporate Mission and Corporate Target. This was after taking into consideration the requirements of society and other factors including mega trends and Sustainable Development Goals (SDGs).
Based on this, the Mitsui Chemicals Group has identified three environmental and social targets under its 2025 Long-term Business Plan after giving due consideration to its contribution to and impact on society through its business activities.
In addition, the Group took steps to reconsider key issues (materiality) when putting in place its 2025 Long-term Business Plan. Recognizing that efforts to promote key issues (materiality) will better allow us to resolve social challenges and achieve the targets set out under the 2025 Long-term Business Plan, we will continue to pursue key issues (materiality).
Going forward, we will continue to confirm the expectations of society and issues associated with SDGs, and will work to make meaningful progress toward our 2025 Long-term Business Plan.



The Mitsui Chemicals Group will make every effort to stimulate innovation across the entire product lifecycle from raw materials through processing to use and disposal in a bid to protect the global environment while at the same time promoting economic growth.

Maximize Products and Services to Achieve Better Quality of Life (QOL) and a Smart Society

The Mitsui Chemicals Group will help realize a healthy and happy society as well as a smart society in which all people can lead rich and convenient lives.

Pursue thorough Safety, High Quality, and Fairness across the Entire Supply Chain

The Mitsui Chemicals Group will work diligently to ensure the safety as well as high quality and fairness across the entire supply chain that is necessary to reform its business portfolio and expand globally.

Maximize Products and Services to Achieve a Low-carbon, Recycling-oriented, and Cohesive Society in Harmony with the Environment

Expand sales of environmentally oriented products and services

Expand products and services that help realize a low-carbon, recycling-oriented, and cohesive society in harmony with the environment across the entire value chain.

2025 Targets	**Blue Value™ products sales ratio**: 30% or more Blue Value™ — Environmental Contribution Value
FY 2018 Results	16%
FY 2019 Targets	New Blue Value™ and Rose Value™ certifications: 15 or more

Reduce environmental impact in production and logistics

Reduce Greenhouse Gas (GHG) and environmentally harmful substance emissions and efficiently utilize resources throughout the Group as a whole.

2025 Targets	**GHG emissions reduction rate** [*1] : 25.4% or more compared with FY 2005 (FY2030) Environmental Protection
FY 2018 Results	27.2%
FY 2019 Targets	GHG emissions reduction: 30 thousand tons or more compared with the previous fiscal year

2025 Targets	**Energy intensity reduction** [*2] : Continue at 1% or above (5-year annual reduction rate) Environmental Protection
FY 2018 Results	▲ 0.3%
FY 2019 Targets	Energy intensity reduction: 1% or more (5-year annual reduction rate), or 1% or more (annual reduction rate with FY2009 as base year)

*1 Mitsui Chemicals, Inc. and consolidated subsidiaries in Japan

*2 Mitsui Chemicals, Inc. only

Related SDGs	Related Key Issues
	Climate change responses (reduction of GHG emissions) Air environment preservation Water resource protection and control Biodiversity Industrial waste control Efficient use of resources Low environmental footprint products and services Development of renewable energy

Maximize Products and Services to Achieve Better QOL and a Smart Society

Expand sales of products and services that contribute to a healthy and happy society

Expand products and services that can improve QOL by addressing such issues as the declining birth-rate and aging population, extending healthy life expectancy, and the food problem.

2025 Targets	**Rose Value™ products sales ratio**: 30% or more Rose Value™ — QOL Improvement Contribution Value
FY 2018 Results	13%
FY 2019 Targets	New Blue Value™ and Rose Value™ certifications: 15 or more

Related SDGs	Related Key Issues
	Shift to urbanization and smart cities Declining birth-rate and aging population Advancement of medical and pharmaceutical fields Food problems

Pursue thorough Safety, High Quality, and Fairness across the Entire Supply Chain

Ensure safety

Maintain high levels of safety even in the face of diversifying human resources, facilities, and technologies associated with ongoing global growth and business portfolio transformation.

2025 Targets	**Incidence of major accidents**: Continue at zero Safety and Prevention
FY 2018 Results	1
FY 2019 Targets	0

2025 Targets	**Significant occupational injury frequency**: Continue at or below 0.15 Safety and Prevention
FY 2018 Results	**0.33**
FY 2019 Targets	0.15 or less

Provide high-quality products and services

Ensure the stable supply of products that satisfy customers' requirements at a high level.

2025 Targets	**Incidence of customer non-conformance**: 10 ppm or less Quality of Products and Services
FY 2018 Results	**Number of complaints (Company-responsible) *2 : Increased (compared with the previous fiscal year)**
FY 2019 Targets	Number of complaints (Company-responsible) *2 : Reduce by 10% or more (compared with FY2017)

*2 Mitsui Chemicals, Inc. only

Implement product stewardship

Implement risk management across the supply chain through the risk assessment of products and provision of safety information to customers and other stakeholders.

2025 Targets	**Product risk assessment implementation rate** : 99% or more (FY2020) Product Stewardship
FY 2018 Results	**Completed assessment of all products**
FY 2019 Targets	Formulate new medium- to long-term goal

2025 Targets	**Provision of latest product safety information** : Continue at 100% Product Stewardship
FY 2018 Results	**100%**
FY 2019 Targets	100%

Continue as a company that is fair and trusted by society

Thoroughly comply with all statutory and regulatory requirements and prevent misconduct in all global business activities.

2025 Targets	**Incidence of major legal and regulatory violations** : Continue at zero Risk and Compliance

FY 2018 Results	**0**
FY 2019 Targets	0

Encourage sustainability initiatives of business partners.

2025 Targets	**Supplier sustainability assessments and improvement support (sustainable procurement ratio of 70% or more)** Sustainable Procurement
FY 2018 Results	**44%** *2
FY 2019 Targets	Conduct supplier sustainability assessment in collaboration with business divisions and domestic affiliated companies Raise awareness of Purchasing Policy revision and Sustainable Procurement Guidelines both within and outside the Group

*2 Mitsui Chemicals, Inc. only

Enable Group employees to thrive at work and make the most of their potential.

2025 Targets	**Ratio of women in management positions (manager-level or above)** *3 : 10% or more Human Resources Management
FY 2018 Results	2.9%
FY 2019 Targets	4.0%

2025 Targets	**Increase employee engagement** Human Resources Management
FY 2018 Results	**Conducted surveys and measured engagement levels**
FY 2019 Targets	Formulate action plans

*3 Mitsui Chemicals, Inc. registered employees

Related SDGs	Related Key Issues
	Safety and prevention Product stewardship Quality of products and services Employment and human resources Labor conditions Sustainable procurement Compliance

* Please access respective links to view progress toward each target.

Key Issues (Materiality)

Process for Identifying Key Issues

We at the Mitsui Chemicals Group believe that chemistry must play a prominent role in addressing a variety of environmental and social challenges. In accordance with its Corporate Mission of "keeping in harmony with the global environment," the Mitsui Chemicals Group has contributed to solving social challenges through its business activities that emphasize striking a balance between economic, environmental and social considerations. We have further clarified our in-house initiatives that are related to these environmental and social considerations by formulating the 2025 Long-term Business Plan and are also based on the Paris Agreement*, Sustainable Development Goals (SDGs), and recent social trends. Moreover, we will address issues found throughout the supply chain and are a concern for our various stakeholders.
On the basis of these initiatives and with the aim of reaching the environmental and social targets raised in the 2025 Long-term Business Plan, the Mitsui Chemicals Group has reviewed these key issues while taking into consideration the opinions of its stakeholders, the qualities of its businesses and the characteristics of the regions in which it operates, and international guidelines to measure the impact of the Group's business activities. We will review as necessary these key issues in light of social trends and changes in its business activities.

* The Paris Agreement
The Paris Agreement was adopted at the 21st Conference of the Parties (COP21) of the United Nations Framework Convention on Climate Change held in December 2015. The agreement has set a target of keeping global average temperatures from rising 2°C compared to temperatures before the industrial revolution by the end of the century while also urging parties to "pursue efforts" to limit it to 1.5 degrees. Advanced and emerging countries alike have also earnestly agreed to address the implementation of those SDGs under the agreement.

Step 1: Identification

Pick out issues from the requirements of ISO 26000, the GRI, and other international guidelines, as well as through engagement with various stakeholders. Identify environmental and social issues the chemical industry must help resolve from the standpoint of contributing to society through business activities.

Step 2: Prioritization

For each issue, assess the degree of importance to both stakeholders and the Group. Itemize common items so that the perspectives of stakeholders can be cross-referenced with the level of importance to the Group, and consider what measures the Group needs to implement. Assess the degree of importance to the Group in light of the Group's Corporate Mission, Action Guidelines, and business strategies. Determine priority with a quantitative assessment and then identify the key issues.

Step 3: Validation

Solicit opinions from external experts and have the Corporate Sustainability Committee check the completeness that all the particular items are covered and confirm the validity of the identified issues.

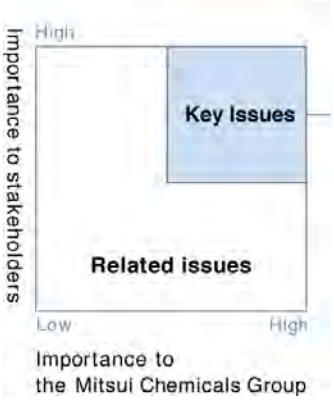
Step 4: Review

Have the Corporate Sustainability Committee periodically review the process for identifying key issues.

Key Issues (Materiality)

Key Issues and Initiatives

The identified key issues were classified as "issues for which the Group's business has an impact on society ," " issues for which the Group's business can contribute to society," and "underlying issues."



Issues for which the Group's business has an impact on society	Issues for which the Group's business can contribute to society
Climate change responses (reduction of GHG emissions)	Low environmental footprint products and services
Air environment preservation	Development of renewable energy
Water resource protection and control	Shift to urbanization and smart cities
Biodiversity	Declining birth-rate and aging population
Industrial waste control	Advancement of medical and pharmaceutical fields
Efficient use of resources	Food problems
Stable supply of industrial materials	
Optimization of production	
Safety and prevention	
Labor conditions	
Product stewardship	
Quality of products and services	
Employment and human resources	
Stakeholder engagement	

Underlying issues
Sustainable procurement
Compliance

Issues for which the Group’s business can contribute to society

Low environmental footprint products and services

The Mitsui Chemicals Group's Vision

Reducing environmental impact including addressing climate change, we are working to achieve a low-carbon, sound material-cycle society in harmony with nature over the long term that curbs environmental burdens to the greatest extent possible throughout the entire value chain.

The Mitsui Chemicals Group's initiatives

- **Reduce the use of raw materials**
- **Switch to non-fossil fuel resources and substances with lower environmental burdens**
- **Reduce environmental burdens mainly by lowering energy consumption in manufacturing and processing processes**
- **Develop lightweight materials for use mainly in automobiles**

Climate Change and Problems with Plastic
Blue Value™ / Rose Value™
The 2025 Long-term Business Plan Environmental and Social Targets

Development of renewable energy

The Mitsui Chemicals Group's Vision

Meet the growing demand for energy accompanying the economic development of developing countries and emerging markets, reduce accompanying environment burdens, and realize a society that makes greater use of renewable energy.

The Mitsui Chemicals Group's initiatives

- **Develop components/materials for such items as power generation equipment and storage batteries to increase the use of renewable energy**
- **Improve photovoltaic power generation plant operational efficiency and assist with related investment decisions**

Climate Change Policy
Renewable Energy-related Business
Blue Value™ / Rose Value™

Shift to urbanization and smart cities

The Mitsui Chemicals Group's Vision

Enhancement of smart society and urban functions that bring people and various things together by leveraging the advantages found in concentrating social infrastructure amid progressive urbanization.

The Mitsui Chemicals Group's initiatives

- **Develop and provide solutions through technologies and products that contribute to the spread of automated driving and robots**

The 2025 Long-term Business Plan Environmental and Social Targets
Blue Value™ / Rose Value™

Declining birth-rate and aging population

The Mitsui Chemicals Group's Vision

Realization of a society that provides abundant, high-quality lifestyles to children and the elderly amid changing demographics.

The Mitsui Chemicals Group's initiatives

- **Develop and provide products that contribute to comfortable lifestyles in such areas as materials used to make disposable diapers and underwear**
- **Develop and provide products that contribute to comfortable lifestyles including innovative packaging that makes food easier to eat**
- **Develop and provide products that support extensive family care**

Blue Value™ / Rose Value™
The 2025 Long-term Business Plan Environmental and Social Targets

Advancement of medical and pharmaceutical fields

The Mitsui Chemicals Group's Vision

Realization of healthy and comfortable lifestyles in an aging society by improving the quality of medical treatments.

The Mitsui Chemicals Group's initiatives

- **Develop and provide products that help people use their entire bodies (head, neck, chest, hands, and feet) and five senses (sight, hearing, smell, taste, and touch)**
- **Develop and provide products that contribute to extend healthy life expectancy, including pharmaceutical packaging materials and infusion bags**
- **Develop and provide products that help prevent infectious diseases**
- **Develop diagnostic technologies that leverage an understanding of chemistry**

Blue Value™ / Rose Value™
The 2025 Long-term Business Plan Environmental and Social Targets

Food problems

The Mitsui Chemicals Group's Vision

Provide sufficient nutrition to everyone and improve dietary habits throughout society by increasing food productivity and reducing food loss and waste.

The Mitsui Chemicals Group's initiatives

- **Develop and provide products that help increase food production**
- **Develop and provide products that extend expiry dates and reduce food loss**
- **Develop and provide products that help reduce food waste while contributing stable food distribution**

Blue Value™ / Rose Value™
The 2025 Long-term Business Plan Environmental and Social Targets

Issues for which the Group’s business has an impact on society

Climate change responses (reduction of GHG emissions)

The Mitsui Chemicals Group's Vision

In light of the impact of climate change, significantly reduce and mitigate the effect of greenhouse gases emitted during the course of our business activities.

The Mitsui Chemicals Group's initiatives

- **Address climate change**

Climate Change and Problems with Plastic
Responsible Care Policy
Environmental Protection Management System
Environmental Protection GHG and Energy
The 2025 Long-term Business Plan Environmental and Social Targets

Air environment preservation

The Mitsui Chemicals Group's Vision

In addition to complying with the laws and regulations of individual countries, the Mitsui Chemicals Group controls gas emissions and reduces the impact of chemical substances leaking into the atmosphere.

The Mitsui Chemicals Group's initiatives

- **Manage substances subject to the PRTR Act**
- **Preserve the air environment**

Responsible Care Policy
Environmental Protection Management System
Substances Subject to the PRTR Act
Air

Water resource protection and control

The Mitsui Chemicals Group's Vision

Realization of environments that allow for the efficient use of water by complying with laws and regulations of individual countries, recycling, and appropriately managing and improving the handling of such water contaminants.

The Mitsui Chemicals Group's initiatives

- **Preserve water resources**

Climate Change Policy
Responsible Care Policy
Environmental Protection Management System
Water
Substances Subject to the PRTR Act

Biodiversity

The Mitsui Chemicals Group's Vision

The Mitsui Chemicals Group takes into consideration biodiversity in its business operations across the entire value chain and is contributing to sustainable environmental conservation.

The Mitsui Chemicals Group's initiatives

- **Preserve Biodiversity**

Responsible Care Policy
Environmental Protection Management System
Biodiversity

Industrial waste control

The Mitsui Chemicals Group's Vision

We continue to minimize the amount of industrial waste produced at all of our domestic and overseas manufacturing sites and reduce final landfill waste volume.

The Mitsui Chemicals Group's initiatives

- **Reduce industrial waste**

Responsible Care Policy
Environmental Protection Management System
Industrial Waste

Efficient use of resources

The Mitsui Chemicals Group's Vision

More efficiently use fuel and resources at domestic and overseas manufacturing sites (including product raw materials) and further undertake the creation of innovative process technologies.

The Mitsui Chemicals Group's initiatives

- **Develop environmentally friendly production technologies**

Climate Change and Problems with Plastic
Responsible Care Policy
Environmental Protection Management System
Environmental Protection GHG and Energy

Stable supply of industrial materials

The Mitsui Chemicals Group's Vision

Stably provide industrial materials throughout the wide-ranging global supply chain in order to achieve sustainable economic growth and an abundant society.

The Mitsui Chemicals Group's initiatives

- **Restructure to realize stable procurement and supply**

Safety and Prevention
Sustainable Procurement

Optimization of production

The Mitsui Chemicals Group's Vision

The Mitsui Chemicals Group contributes to the sustainable development of regions by optimizing production systems and facilities that leverage its expertise throughout the global supply chain.

The Mitsui Chemicals Group's initiatives

- **Establish an optimal production system based on frontline capabilities**

Safety and Prevention
Human Resources Development

Safety and Prevention

The Mitsui Chemicals Group's Vision

Aim to be recognized by society as a company with an exemplary safety record.

The Mitsui Chemicals Group's initiatives

- **Safety and Prevention**

Responsible Care Policy
Safety and Prevention
The 2025 Long-term Business Plan Environmental and Social Targets

Labor conditions

The Mitsui Chemicals Group's Vision

Engage in health management by enhancing tangible measures such as improving work environments and facilities to enable employees to continue contributing to business sustainability as well as pursuing intangible measures that focus on healthcare.

The Mitsui Chemicals Group's initiatives

- **Create an employee-friendly working environment**

Human Resources Management Management System
Employee-friendly Working Environment
Responsible Care Policy
Occupational Health

Product stewardship

The Mitsui Chemicals Group's Vision

The Mitsui Chemicals Group strictly adheres to laws and regulations as well as its own voluntary standards throughout the entire supply chain. In addition, the Group will take steps to minimize the negative impact of chemicals on people’s health and the environment by the year 2020 as part of its product stewardship activities.

The Mitsui Chemicals Group's initiatives

- **Engage in product stewardship**

Responsible Care Policy
Product stewardship
The 2025 Long-term Business Plan Environmental and Social Targets

Quality of products and services

The Mitsui Chemicals Group's Vision

The Mitsui Chemicals Group will improve quality control including upstream areas throughout the entire supply chain as well as increase customer satisfaction by winning their trust in the area of product quality.

The Mitsui Chemicals Group's initiatives

- **Engage in quality management**

Responsible Care Policy
Quality of products and services
The 2025 Long-term Business Plan Environmental and Social Targets

Employment and human resources

The Mitsui Chemicals Group's Vision

The Mitsui Chemicals Group is creating organizations that continue to drive innovation that takes into consideration equality, fairness, diversity, human rights, and living wages while giving our employees a sense of personal and professional motivation.

The Mitsui Chemicals Group's initiatives

- **Develop human resources**
- **Ensure diversity**

Respect for Human Rights
Human Resources Management
The 2025 Long-term Business Plan Environmental and Social Targets

Stakeholder engagement

The Mitsui Chemicals Group's Vision

The Mitsui Chemicals Group meets the expectations of its stakeholders as a member of society while contributing to sustainable regional development by collaborating with our partners and the areas in which the Group operates to find solutions to social problems.

The Mitsui Chemicals Group's initiatives

- **Dialog with shareholders and investors**
- **Dialog with industry, government, and academia**
- **Working in harmony with local communities**
- **Social activities**

Respect for Human Rights

Investor Relations
R&D and Technology
Social Activities

Underlying issues

Sustainable Procurement

The Mitsui Chemicals Group's Vision

The Mitsui Chemicals Group will continue procurement activities throughout the supply chain that take into consideration its impact on society and the environment, fair and honest transactions, and respect for human rights.

The Mitsui Chemicals Group's initiatives

- **Address conflict minerals**
- **Supplier sustainability evaluation and improvement support**

Respect for Human Rights
Sustainable Procurement
The 2025 Long-term Business Plan Environmental and Social Targets

Compliance

The Mitsui Chemicals Group's Vision

The Mitsui Chemicals Group will foster a corporate culture that encourages all employees to observe laws, regulations, and rules in individual countries, take actions in a transparent and appropriate manner, and make decisions and conduct themselves in an ethical manner.

The Mitsui Chemicals Group's initiatives

- **Ensure legal compliance**

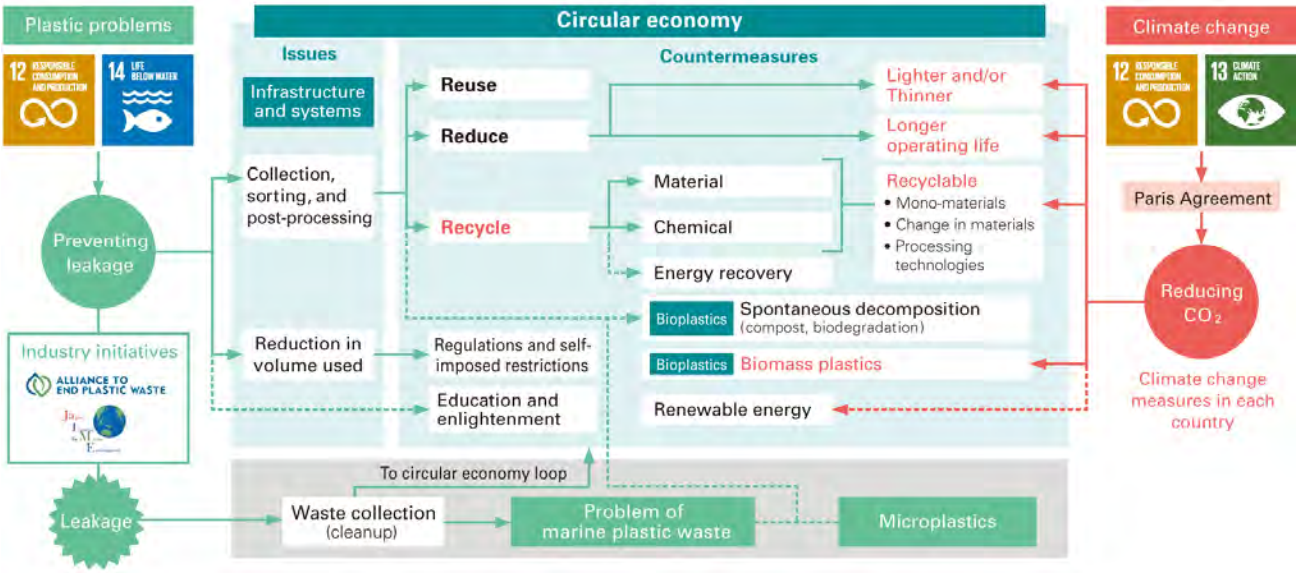
Action Guidelines
Risk and Compliance
The 2025 Long-term Business Plan Environmental and Social Targets

Management System

Basic Approach

Plastics are a material that brings convenience to our lives and have also helped solve challenges in society by, for example, reducing food loss and improving energy efficiency thanks to its advanced functionality. At the same time, its impact on climate change is considerable because the manufacturing of plastic requires the use of fossil resources and energy, which emits large volumes of GHGs. Moreover, marine plastic waste has also become a major problem in recent times.

As a chemical company whose products and services are mainly based on plastics, the Mitsui Chemicals Group is keenly aware that climate change and the problems pertaining to plastic pollution are serious issues for society that must be earnestly addressed. To resolve these issues, a transition is needed from a so-called one-way economy of consuming resources and disposing of products to a circular economy whereby resources are collected and products are recycled and reused. To that end, we believe an integrated approach is key to addressing climate change and the problems with plastic together. We intend to introduce an LCA perspective and work towards realizing a circular economy from both angles.



System and Responsible Officers

The director in charge of the Corporate Sustainability Committee is the responsible officer.

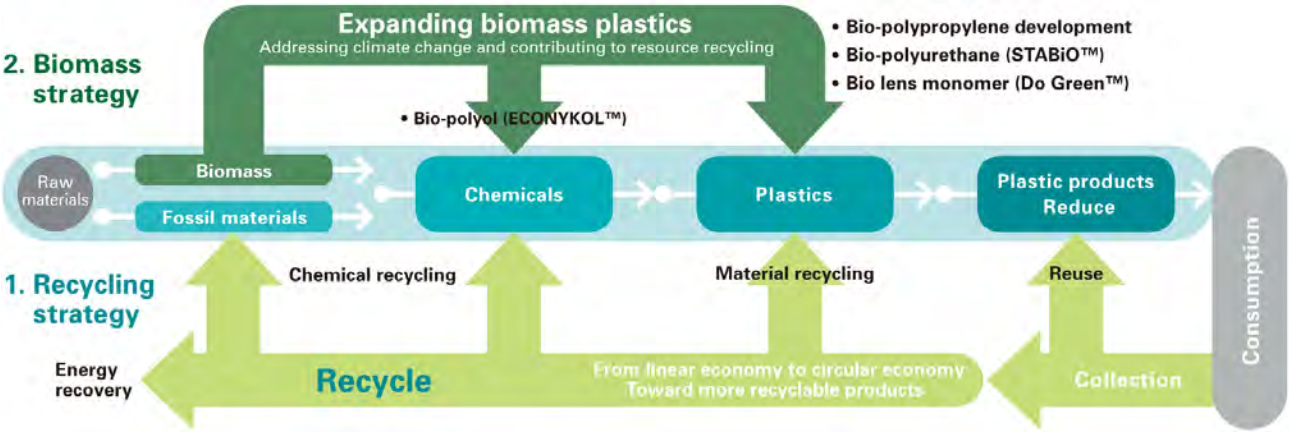
The Corporate Sustainability Committee is responsible for deliberation on policy, strategy, planning, and countermeasures concerning climate change and plastic waste. The deliberation results are then reported to the Management Committee. The agendas are then, as necessary, discussed and deliberated also by the Group-wide Strategy Committee meetings and the Management Committee. The Board of Directors then finalizes the agendas and monitors them. The Corporate Sustainability Committee has formed subcommittees dedicated to climate change and plastic issues to discuss concrete actions.

Progress

Through the above governance system, we are supporting the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD), adopting the Climate Change Policy and a plastics strategy, and are participating in the Alliance to End Plastic Waste (AEPW).

Plastic Strategies

In addressing issues concerning plastic waste, the Mitsui Chemicals Group focuses on the following two strategies with a view to the entire value chain. By implementing these strategies and measures to address the problem of marine plastic waste, we aim to encourage the recycling of resources and promote a circular economy model.

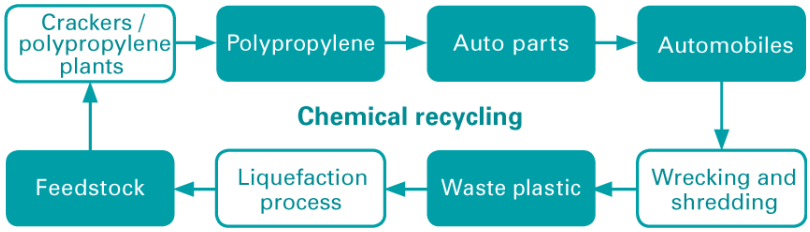


1. Recycling Strategy　Recycling of Plastic Resources

Our Group has thus far provided highly functional plastic products that contribute to reducing weight and volume. In addition, we intend to actively participate in the recycling of used plastic. We aim to make use of open innovation by examining a broad range of possibilities, including the use of recycled raw materials, chemical recycling of plastic from automotive scrap, and the design of products that consider recycling such as packaging made with a single material (to create mono-materials).

Car-to-car recycling with technology to turn auto scrap plastic into oil

In Japan, pursuant to the Automobile Recycling Law, metal is recovered from discarded automobiles and then waste plastic is recovered from shredder dust. Waste plastic accounts for around 30% of shredder dust, most of which is used as a fuel. We are working together with automotive companies and the like to develop chemical recycling technology so as to break down waste plastic contained in shredder dust and turn it into chemical raw materials (feedstock recovery).



Pursuing ease of recycling with packaging materials made from mono-materials

Packaging film for food products poses the problem of being difficult to recycle because it is made by pasting together multiple materials with different characteristics in order to create a highly functional product that is hard to break and suitable for long-term storage. We are currently developing and proposing films and sheets made from mono-materials with the aim of realizing an easier recycling process.



2. Biomass Strategy　Expanding Lineup of Biomass Plastic Products

Plastics are usually manufactured from petroleum, which means the consumption of fossil resources is inevitable. In comparison, biomass plastics made from plants—which grow by absorbing carbon dioxide—can curtail carbon dioxide emitted during the manufacturing process. We believe that a shift to biomass materials encourages the recycling of resources, curbs the use of new fossil resources, and helps mitigate climate change.
We possess a number of biomass plastic products, including ECONYKOL™ (bio-polyol), STABiO™ (bio-polyurethane), and Do Green™ (bio lens monomer). We will strive to expand this lineup by mainly aiming to establish bio-polypropylene manufacturing technology.

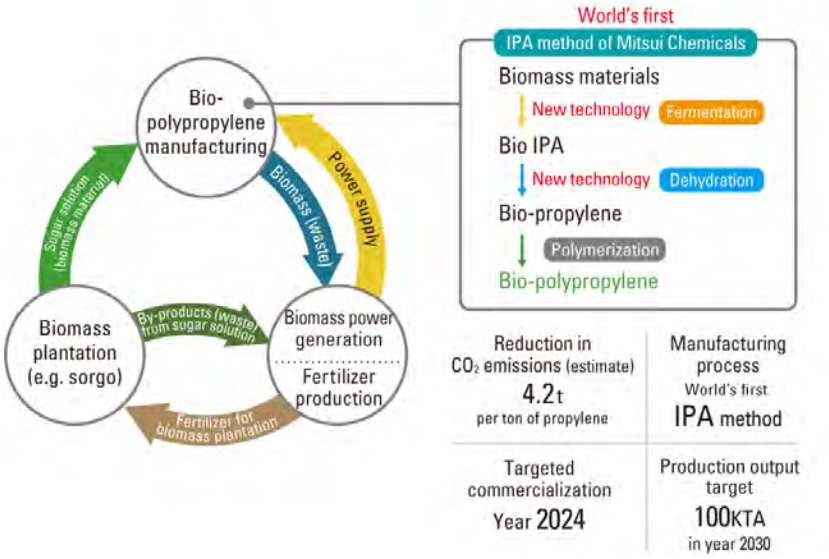
Sights set on world's first bio-polypropylene commercial application

There are significant hurdles associated with manufacturing polypropylene from biomass materials and the technology has yet to be demonstrated on an industrial level. We are taking on the challenge of conducting world-first bio-polypropylene manufacturing trials by harnessing our new proprietary technology in which fermentation is a key reaction. By mainly using non-edible plants as the biomass raw material and converting the raw material residue to electricity, we aim to establish a sustainable technology that can be put to effective use.

Polypropylene

✓ Accounts for roughly 20% of global plastic production output. Demand expected to grow up ahead.

✓ Used for a broad range of applications, such as auto parts, consumer electronics, medical equipment, housing, and food packaging.



Problem of Marine Plastic Waste

The problem of marine plastic pollution owes to plastic waste that has escaped the process for recycling resources. Stopping waste from flowing into rivers and the sea is of utmost importance. Given that waste management and collection requires the development of social infrastructure—an issue much too big for companies to address single-handedly—we aim to tackle the issue of marine plastic pollution by participating in the Alliance to End Plastic Waste (AEPW) and other global alliances.

Alliance to End Plastic Waste (AEPW)

Signatories to the AEPW include global companies involved in the plastic value chain, such as chemical and plastic manufacturers, retailers, and waste management companies. The Alliance is committed to the goal of investing $1.5 billion over the next five years to help end plastic waste and contribute to a sustainable society by driving progress in four key areas: infrastructure development to manage waste, innovation, education & engagement activities and clean-up activities. As of July 2019, the AEPW has 39 corporations actively participating.

Mitsui Chemicals Joins New Global Alliance Formed to Take on Plastic Waste in the Environment

Japan Initiative for the Marine Environment (JaIME)

Participation includes major companies and organizations from the Japanese chemicals industry. The initiative includes accumulating scientific knowledge on plastic wastes and support for improving plastic waste management in Asia. In May 2019, JaIME published LCA results that gave a quantitative assessment of the environmental impact of plastic containers and packages using various recycling and energy recovery methods. Our president is the chairman of JaIME.

Climate Change Policy

We believe that priority must be afforded to solving climate change-related issues in order to realize an ideal future society.
The Mitsui Chemicals Group takes into account foreseeable opportunities and risks from a long-term perspective with a view to the year 2050 and tackles climate change issues with two approaches: mitigation and adaptation. With this in mind, we formulated a policy on addressing climate change that covers the entire global value chain.

Mitsui Chemicals Group Climate Change Policy

Taking climate change as a top priority issue, the Mitsui Chemicals Group will undertake initiatives for collaboration and co-creation in the global value chain.

Mitigation

Realizing a low-carbon society by reducing GHG emissions

Opportunities and risks

Low-carbon manufacturing

- Energy conservation and renewable energy
- Switching to alternative raw materials and fuels

Product-driven GHG reductions

- Blue Value™ products

Improved recycling technology

- Innovation in materials and design

Maximization of value chain contributions

Adaptation

Realizing a healthy and sound society resistant to climate change risks

Opportunities and risks

Improving water security

- Risk management at production sites
- Effective use of water resources

Expanding lineup of adaptable products

- Rose Value™ products
- Disaster prevention/mitigation products

Strengthening of value chain resilience

Realizing a low-carbon society by reducing GHG emissions

Low-carbon manufacturing

Chemical products use raw materials derived from fossil resources. And they are manufactured through a number of processes in which fossil fuels are converted to steam or electricity. For these reasons, the chemical industry emits far more GHGs than other industries. We believe we can contribute to greatly reducing GHG emissions in the manufacturing of our chemical products up ahead by implementing various measures. For example, switching to low-carbon raw materials and fuels, cutting down on energy used in manufacturing by mainly using high-performance catalysts and installing energy-efficient equipment, and making active use of renewable energy.

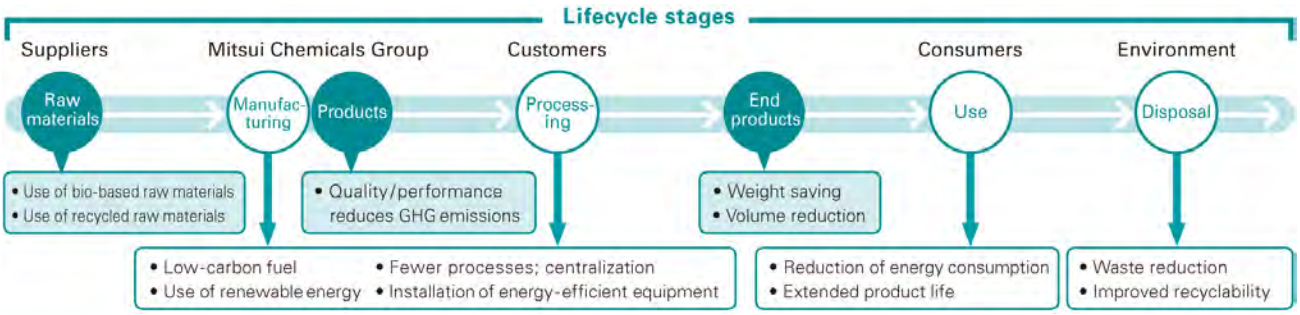
GHG reduction contributions by products

Chemical products are used in a broad range of end products and can contribute to reducing GHGs at each stage of the product lifecycle. Within the Mitsui Chemicals Group, we certify those products that are environmentally friendly as Blue Value™ products. One of the contribution categories used in our certification assessment is CO_2 reduction—we therefore evaluate how much a product reduces GHGs at each stage of its lifecycle. Furthermore, the sales ratio of Blue Value™ products is one KPI set in our 2025 Long-Term Business Plan. We intend to accelerate the development of products that fully reflect our Blue Value™ perspectives.

Improved recycling technology

We think promoting the recycling of resources is also an important challenge both in terms of reducing the use of fossil fuels and lowering GHG emissions. As outlined in our plastic strategies, we intend to work on designing products that can be easily recycled.

Contribution example of reduced GHG emissions throughout the lifecycle of chemical products



Realizing a healthy and sound society resistant to climate change risks

Improved water security

Damage from wind, floods, and drought are expected to increase as unrelenting global warming causes major changes in climate phenomena. Population increase and economic development are also expected to trigger large-scale water shortages. Owing to the fact that a lot of water is required in the manufacturing of chemical products—for example, for heating/cooling and product purification—changes in the available water supply or its quality could have a negative impact on our business activities. Given that the Mitsui Chemicals Group maintains production sites in

multiple regions around the world, we believe that it is necessary to conduct risk assessments and take measures in accordance with local conditions.

Expanding lineup of adaptable products

It is expected that the rise in temperature increase associated with climate change will have a serious impact on health and the basic needs of humans, i.e., food, clothing, and shelter, as well as agricultural produce and ecosystems. Within the Mitsui Chemicals Group, we certify those products that help improve QOL, mainly in regards to extending healthy life expectancy and addressing food problems, as Rose Value™ products. As part of the certification process, we evaluate a product's contributions to preventing infectious diseases or minimizing food loss, for example. Moreover, the sales ratio of Rose Value™ products is one KPI set in our 2025 Long-Term Business Plan. We intend to accelerate development and expand our lineup of adaptable products that fully reflect our Rose Value™ perspectives.

Supporting the Recommendations of the TCFD

In January 2019, the Mitsui Chemicals Group announced its support of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD*). As a chemical company, we intend to earnestly tackle climate change, deepen our understanding of the opportunities and risks that affect our businesses, and endeavor to actively disclose our initiatives.

* TCFD：
The TCFD was set up by the Financial Stability Board. In June 2017 it announced recommendations calling for financial institutions, corporations, and governments to disclose the business impacts of climate change in their financial reports. According to the TCFD, 792 institutions worldwide have expressed their support for the recommendations (as of June 2019).

TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

The recommendations of the TCFD urge companies to disclose information about climate change-related governance, business strategies, risk management, indicators, and targets. In line with the TCFD's recommendations, the Group will take the following approach.

1. **Materiality assessment of climate change-related risks**
   Qualitatively analyze risks and opportunities concerning climate change in our key businesses
2. **Identification and determination of scope of scenarios**
   Forecast the changes in our business environment concerning climate change (scenarios) and examine their impacts
3. **Quantification of business impacts**
   Quantify impacts on future business strategies and financials based on our scenarios and reflect them in strategies
4. **Identification of potential measures**
   Determine the measures for climate change strategy and select management control indicators

1. Materiality assessment of climate change-related risks

As a first step, we assessed the impacts of climate change on the Group's businesses. Going forward, we plan to use this information to perform a scenario analysis of the climate change impacts on our businesses and disclose the results.

1) Assessment scope

Selected key business domains in the Group susceptible to the impacts of climate change.

(1) Mobility, (2) Petrochemical feedstocks, (3) Agriculture, (4) Health Care, (5) Electricals and electronics, (6) Packaging, (7) Energy solutions

2) Assessment method

1. Identification of climate change risks and opportunities
   Identify risks (both physical and those pertaining to the transition to a low-carbon society) and opportunities based on the information disclosure framework presented in the TCFD's Final Report.
2. Picking out major risks and opportunities
   Pick out the particularly major risks and opportunities from those identified above in light of their potential occurrence and impact on business (human loss, financial impacts, etc.). When doing so, take into account factors such as trends in international discussions, the Group's business regions, and case examples at other companies.

3) Assessment results (● denotes risks; ○ denotes opportunities)

Assessment items		Group-wide	Specific business domains
Physical risks/ opportunities	Acute	● Heightened risk of wind or rain damage (floods/storms)	
	Chronic	● Heightened risk of rising sea levels (high tides) ● Heightened risk of freshwater scarcity	●○ Changes in arable land and development of new agricultural technology **(3)** ●○ Wider distribution of pests, weeds, and bacteria **(3)** ●○ Wider prevalence of infectious diseases caused by climate change **(4)**
Risks and opportunities pertaining to shift to low-carbon society	Policies and legislation	● Risks from introduction of, and increases in, carbon pricing ● Increase in litigation risks	●○ Impacts on business from shift to EVs **(1)(5)** ● Restrictions on use of synthetic chemical fertilizers **(3)**
	Technologies	●○ Uptake of renewable energies ●○ Accelerated development of CCU technology and advanced recycling technology	● Uptake of biomass plastics **(1)(2)(6)** ● Faster transition to low-GHG emissions technology **(2)(5)(6)**
	Markets	●○ Spread of circular economy ●○ Transition to renewable raw materials ● Calls for manufacturers to use renewable energy ● Higher prices for scarce resources due to shift to EVs and transition to a hydrogen-fueled low-carbon society	● Decrease in auto manufacturing and sales volume owing mainly to increase in ridesharing and carsharing **(1)** ● Shortage of naphtha due to decline in oil production output **(2)** ●○ Increased demand for renewable energy **(7)**
	Reputation	● Increased investor approaches	

* External data used include IPCC RCP2.6, RCP8.5, IEA B2DS, and SDS.

Blue Value™ / Rose Value™

Visualizing Contributions to the Environment and Society





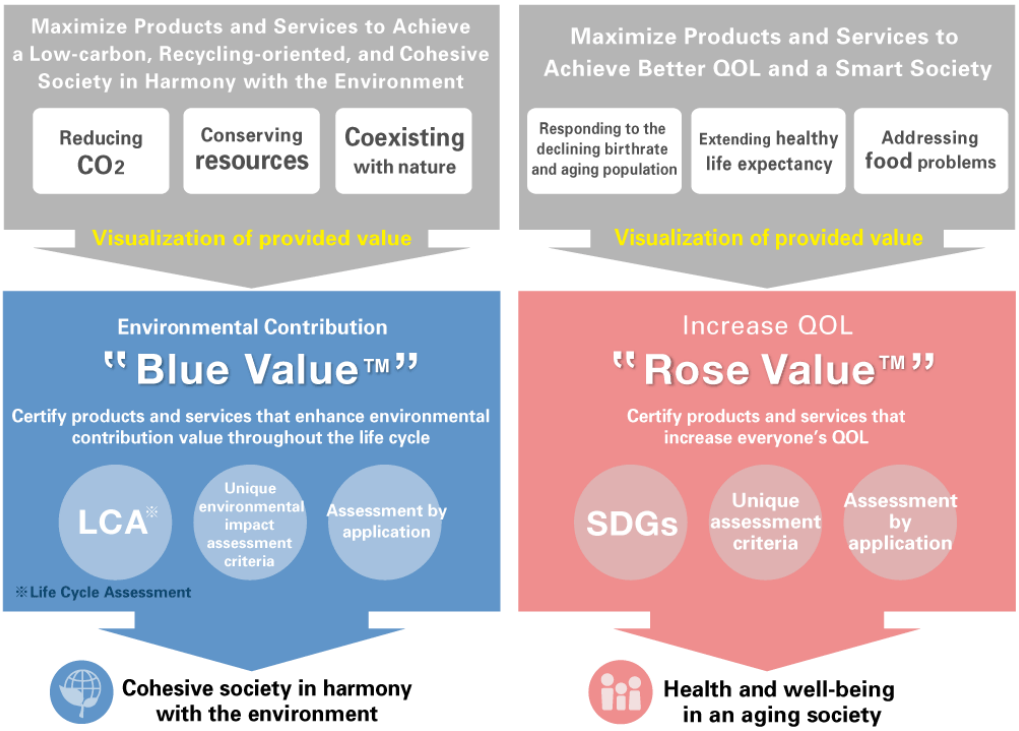
Our Blue Value™ and Rose Value™ help visualize the contributions our products and services make to the environment and society and enable us to share those values with stakeholders so we can realize a future cohesive society in harmony with the environment and health and well-being in an aging society. We evaluate our products and services according to application using our own distinctive yardsticks: the Blue Value™ Index for assessing environmental impacts and the Rose Value™ Index for assessing improvement in quality of life (QOL). Those that make significant contributions to the environment or improvements to QOL are certified as Blue Value™ and Rose Value™ products, respectively.

Features

- Visualization of contributions to the environment and society through our business activities
- Ability to check application-specific contributions at each stage of the product lifecycle
- Developing and providing products and services with high contribution value and sharing it with stakeholders
- Aim to realize our ideal future society by building a Blue Value™ and Rose Value™ chain

Providing value through the Blue Value™ and Rose Value™ chain





Screening and Certification Process

The person in charge of sales and marketing first assesses the potential Blue Value™ or Rose Value™ product or service using the aforementioned indices and then consults with and submits an application to the secretariat. The review board deliberates on the supporting evidence and certifies the product or service if it satisfies the criteria. The deliberations focus on whether the product's concept and selling point are consistent with the area in which it offers contributions, as well as to check the level of those contributions. In order to certify products and services with an emphasis on appropriateness and objectivity, our assessment methods and screening criteria have been designed based on the advice of external experts. We also ask these experts to present their opinions prior to the review board regarding the candidate product's level of contribution.



* Life cycle assessment:
A technique to quantitatively assess environmental impacts associated with all the stages of a product's life, such as development, manufacture, distribution, use, and disposal.

Expectations from Blue Value™ advisor



Environmental problems, social issues, and technological change are some of the challenges we now face as we enter an unchartered era of major transformation. I believe companies that can depict the future with an indefinite number of scenarios will adapt to a truly sustainable society and be the driving force behind it. By taking these problems into consideration, the Blue Value™ and Rose Value™ initiatives can be placed at the core of business and are groundbreaking at the forefront of ESG thanks to their active contributions to solving contemporary issues. I hope they will further grow in intensity, evolve, and demonstrate a new approach for Japanese companies.

Dr. Norihiro Itsubo
Professor, Faculty of Environmental Studies
Dean, Graduate School of Environmental and Information Studies
Tokyo City University

Expectations from Rose Value™ advisor



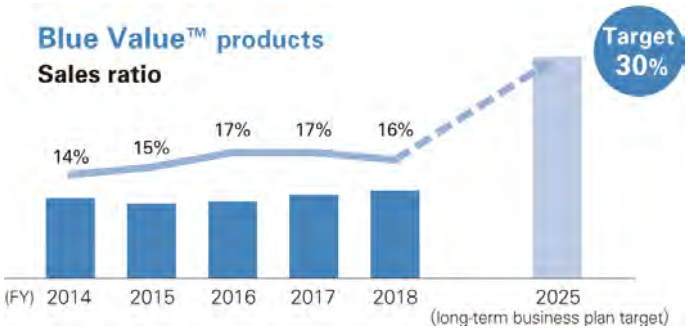
In the past, companies were allowed to think that they were contributing to society by developing technologies and manufacturing products that serve a useful purpose. However, a once-in-a-century dramatic paradigm shift of seismic proportions is now taking place in numerous industries. I would like to see companies that engage exclusively in business-to-business operations once again reflect on what kinds of needs their own technologies, products, and services are addressing from the viewpoint of people's livelihoods. Having an exceptional level of sensitivity regarding society serves as a source of competitiveness. I believe that assessing products and services with the Rose Value™ Index for improving QOL will provide an important clue on how to go about this.

Mr. Eiichiro Adachi
Counselor, Japan Research Institute, Limited

Setting KPIs and Initiatives for Expanding Blue Value™ and Rose Value™ Products

The sales ratio of Blue Value™ and Rose Value™ products is set as one of our KPIs in our 2025 Long-term Business Plan. Growth in the sales ratio for certified products demonstrates that we are making steady progress toward achieving our ideal future society. As an initiative for expanding sales, we have continued to reflect them into our long-term business strategies and investment plans. In fiscal 2019 we plan to incorporate Blue Value™, Rose Value™, and SDG perspectives into our Stage Gate System for the development of new products with the aim of recording steady

growth from the initial stages of creating new businesses and new product ideas.
By bringing to bear Blue Value™ and Rose Value™ initiatives, we hope to offer solutions for the SDGs and other social challenges and contribute to the sustainable development of both the Group and society.





Blue Value™ / Rose Value™

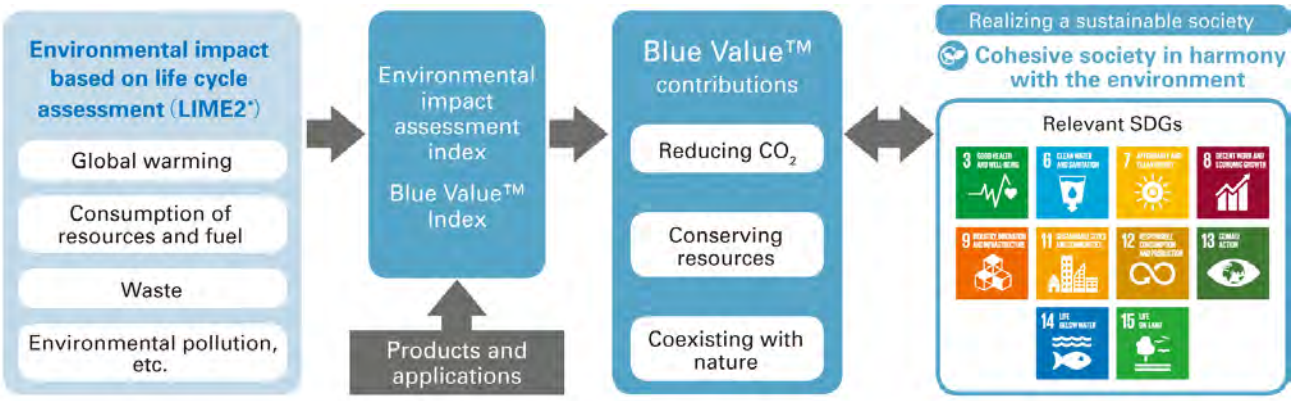
Blue Value™ — Environmental Contribution Value

Earth blue

Instead of green, which is associated with nature and ecology, blue represents something much bigger—the earth.
It is also our corporate color and signifies harmony with the global environment and our contributions to society.

Many chemical products pass through various stages; for example, they are manufactured and processed into end products and then disposed of after use. We visualize from a product stewardship perspective how we could reduce a product's impact on the environment at each stage of its lifecycle. By sharing this information with various stakeholders, we believe we can further contribute to environmental protection. With this idea in mind, we devised the Blue Value™ standard for environmentally friendly products in 2015 with the aim of achieving a future cohesive society in harmony with the environment.
We use the Blue Value™ Index—our own LCA-based environmental impact assessment index—to evaluate products and services depending on their application and certify them as Blue Value™ if they significantly contribute to protecting the environment in the following three categories: (1) reducing CO_2 ; (2) conserving resources; and (3) coexisting with nature.
We carry out comparative assessments against market-standard products and our existing product lineup because a requirement for Blue Value™ certification is that not only must the product have a higher score in either of the evaluation categories, it must not be inferior in all categories for each stage of its lifecycle. Moreover, the use of qualitative and semi-quantitative assessments means products can be easily evaluated, but whenever required, the department responsible for LCAs can technically and quantitatively assess the superiority of a product's environmental contributions.

Examples of Blue Value™ Product Contributions across Product Life Cycle Stages



* LIME2 (Lifecycle Impact assessment Method based on Endpoint modeling):
Damage assessment-type lifecycle environmental impact assessment method based on environmental conditions in Japan.

Environmental Impact Assessment Index — Blue Value™ Index

Contributions	Blue Value™ Index	
	Evaluation categories	Related assessment items
Reducing CO_2	• Reduction of GHG emissions • Saving of energy, electricity, fuel	• Lighter weight and volume reduction • Long service life • Natural energy sources • Non-fossil raw materials • Environmental cleanup
Conserving resources	• 3Rs, ease of sorting, conservation of resources	
Coexisting with nature	• Ecosystem conservation (human health) • Ecosystem conservation (environmental organisms) • Prevention of environmental contamination	

* Related assessment criteria are evaluated on contributions to any one of the evaluation criteria.
* GHG emission-related global warming substances, chemical substances harmful to ecosystems, and environmental pollutants are all substances for which characterization factors have been calculated in LIME2.

Reduction of GHG emissions

- Reduce GHG emissions at the raw materials acquisition, manufacturing/processing, and end products use/disposal stages

Saving of energy, electricity, fuel

- Reduce energy such as electricity and fuel at the raw materials acquisition, manufacturing/processing, and end products use/disposal stages
- Use of end products in the energy conservation field

3Rs, easy sorting, resource conservation

- Use reusable/recyclable materials at the manufacturing/processing stages for products, processed items, and end products as well as reduce material usage
- Products, processed items, and end products based on reuse/recycling
- Possible separation at the time of disposal

Ecosystem conservation (human health)

- Reduce the impact on human health from chemical substances across product lifecycles; specifically, reduce the addition of chemical substances harmful to human health, curb their formation, use chemical substances that are less toxic, and use end products in the health & safety fields

Ecosystem conservation (environmental organisms)

- Reduce the impact on ecosystems from chemical substances across product lifecycles; specifically, reduce the addition of chemical substances harmful to ecosystems, curb their formation, use chemical substances that are less toxic

Prevention of environmental contamination

- Reduce the impact on the global environment excluding people/living organisms from environmental pollutants across product lifecycles; specifically, reduce the addition of environment pollutants harmful to ecosystems, curb their formation, and use substances that do not pollute the environment

Examples of Blue Value™ Product Contributions across Product Life Cycle Stages

Mobility

Product	Application(s)	Life Cycle Stage	Reasons for Blue Value™ Certification	Contributions		
				CO_2	Resources	Nature
TAFMER™	Bumper and instrument panels	Manufacturing, Processing	Reduces energy consumption during polymer manufacturing with the use of high-productivity catalysts.	○		
Mitsui EPT™	Weather-strip sponge	Manufacturing	Reduces energy consumption during polymer manufacturing with the use of high-productivity catalysts.	○		
LUCANT™	Lubricant additive for automobiles	Use	Improves fuel efficiency by reducing temperature dependence of lubricant's viscosity and maintaining appropriate viscosity.	○		
Polypropylene (PP) compounds	Bumper and instrument panels	Processing	Reduce GHG emissions by roughly 13% by not requiring painting process.	○	○	
ADMER™	Adhesive polyolefin for plastic fuel tanks	Use	Lightens fuel tanks by 10-30% with the use of plastic instead of metal	○		
ARLEN™	ABS pistons	Use	Reduces weight by 60% through use of alternatives to metal.	○		
AURUM™	Turbo seals	Use	Increase the fuel economy through use of alternatives to metals.	○		
MILASTOMER™	Oil-resistant automotive parts	Use	Reduces weight by 10-15% comparing to market-standard products, and fuel saving.	○		

Food & Packaging

Product	Application(s)	Life Cycle Stage	Reasons for Blue Value™ Certification	Contributions		
				CO_2	Resources	Nature
STABiO™	Hardener for coatings	Materials, Processing	Reduces fossil resource consumption with use of bio-based raw materials and the use of solvents during paintings.	○	○	
T.U.X™	Sealant films	Processing	Saves energy by using a lower heat seal temperature, while its improved film strength means less resin is used.	○	○	
ECONEIGE™	Food packaging materials	Processing	Delivers a white finish by diffusing light on layers of air created inside films. Reduces the amount of resin used by 20-30% without the need for white printing.	○	○	
BARIASTAR™	Coating agent for thermal paper labels	Processing	Reduces drying process by integral coating of three layers of thermal paper (undercoat, heat-sensitive and topcoat layers).	○	○	
HIPRENE™	Textile base Material	Use	Contributes to improved safety during construction and prevention of environmental pollution because does not contain solvents.			○
SPASH™, Pal Fresh™	Food packaging materials	Use	Reduces GHG emissions by reducing the amount of food wastes.	○		
ICROS™ Tape	Electronic components manufacturing process films	Processing	Emits no air pollutants and ecotoxic substances in tape manufacturing process because does not contain solvents.	○	○	○
SOLAR ASCE™	Encapsulant sheets for solar cells	Use	Reduces power generation loss by improving ability to withstand high humidity and insulation durability.	○	○	

Health Care

Product	Application(s)	Life Cycle Stage	Reasons for Blue Value™ Certification	Contributions		
				CO_2	Resources	Nature
Do Green™ MR-174™	Ophthalmic lens materials	Materials	Reduces fossil resource consumption with use of bio-based raw materials.	○	○	
Acrylamide	High-polymer flocculants	Manufacturing	Reduces energy consumption during manufacturing stage by lowering of production temperature through use of biocatalyst (enzyme).	○		
AIRYFA™	Nonwoven fabric for disposable diapers	Use	Reduces amount of waste by using a fiber structure that offers both softness and strength.	○	○	

Basic Materials

Product	Application(s)	Life Cycle Stage	Reasons for Blue Value™ Certification	Contributions		
				CO_2	Resources	Nature
ECONYKOL™	Seat material	Materials	Reduces fossil resource consumption with use of bio-based raw materials.	○	○	
MOSDIO™	Rear doors	Processing	High rigidity enables replacement of metal parts. Realizes 30% reduction in weight.	○		
Evolue™	Extruded laminates	Processing	Saves energy by use of catalysts during manufacturing process and reduces amount of resin used during processing by enhanced sealing performance.	○	○	
AdBlue™	Exhaust gas reduction agent	Use	Reduces NOx emissions. Contributes to fuel efficiency	○		○

Next Generation Business

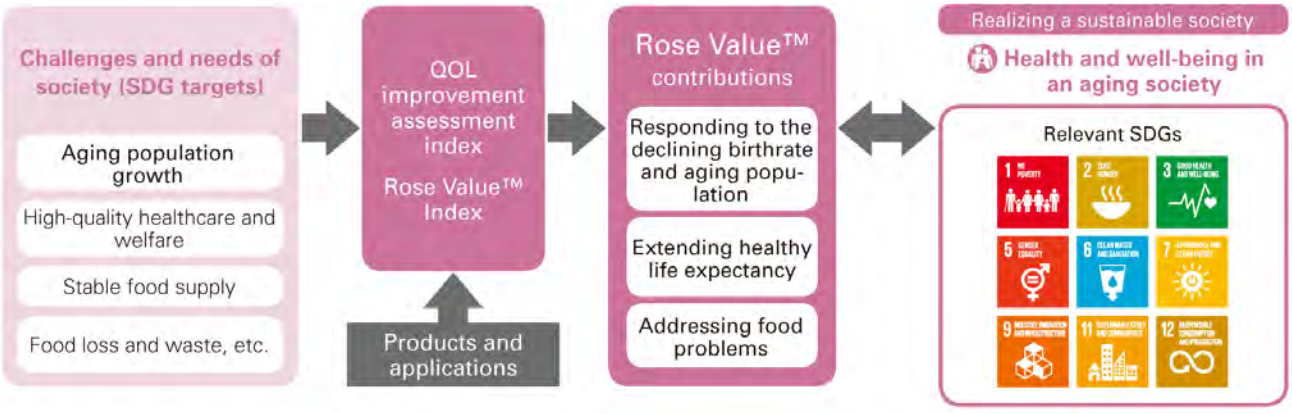
Product	Application(s)	Life Cycle Stage	Reasons for Blue Value™ Certification	Contributions		
				CO_2	Resources	Nature
Diagnostics and Consulting Services for Solar Power Generation Plants	—	Use	Reduce GHG emissions, which in turn assists clients in preventing yield reduction of solar power generation plants.	○		

Rose Value™ — QOL Improvement Contribution Value

La Vie en rose

Days brimming with happiness and hope for people from all walks of life.

In 2016 we devised the Rose Value™ for products and services that help improve QOL in order to demonstrate the kind of value our Group can provide in aiming to realize health and well-being in an aging society in the future.
We use the Rose Value™ Index—our own QOL improvement assessment indicator developed in accordance with the targets of the SDGs and other needs of society—to evaluate products and services in consideration of sustainable procurement and certify them as Rose Value™ if they significantly contribute to improving QOL in the following three categories: (1) responding to the declining birthrate and aging population; (2) extending healthy life expectancy; and (3) addressing food problems.
We use qualitative and easy-to-understand evaluation criteria incorporating mainly universal design, universal health coverage, and food security perspectives to carefully examine whether the value of the functions and concept of a potential Rose Value™ product or service contributes to improving QOL in the evaluation categories.



QOL Improvement Assessment Index— Rose Value™ Index

Contributions	Rose Value™ Index evaluation categories
Responding to the declining birthrate and aging population 	Improving products, buildings, and spaces in the lives of a broad range of people, including infants, children, expectant mothers, the elderly, and the disabled
	• **Improving comfort in people's lives** Provide products, buildings and spaces that take into consideration the needs of a variety of people
	• **Enhancing nursing care** Specialized nursing and caregiving is a component of "enhancing comfort in daily living"
Extending healthy life expectancy 	Extending independent living during which people can maintain their own physical and mental well-being without relying on daily or ongoing medical or nursing care
	• **Supporting physical well-being** Assist, improve and heighten functions throughout the body, either directly or indirectly
	• **Advancing medical care and pharmaceuticals** Raise the level of medical technology and service in every phases of health, from pre-symptomatic disease to illness Or improve aspects of medicine functionality, quality and production
	• **Preventing and taking action against infectious diseases** Prevent or take action against infectious diseases
	• **Improving accessibility to nutrition and water** Simplify and/or improve production and/or the delivery of nutrition and water
Addressing food problems 	Improving food productivity, consumption without waste, and ensuring reliable, safe, and stable food supply
	• **Improving food productivity** Raise food yields as well as work efficiency; improve related equipment capabilities
	• **Guaranteeing safe and stable food distribution** Secure and raise the level of safety and stability in food distribution
	• **Reducing food loss and food waste** Reduce waste from the perspectives of maintaining food freshness, extending "best-before date," packaging for contents separation and compartmentalization, loss when shipping, and other factors

Blue Value™ / Rose Value™ Products

Some of our Blue Value™ and Rose Value™ products are shown below.

Blue Value™ — Reduces CO_2 | Conserves resources | Coexists with nature

Rose Value™ — Responds to the declining birthrate and aging population | Expands healthy life expectancy | Addresses food problems



Reduces CO_2 | Conserves resources

Bumper and instrument panel materials

PP compounds

Reduce GHG emissions by roughly 13% by not requiring painting process.



Reduces CO_2

Adhesive polyolefin for plastic fuel tanks

ADMER™

Lightens fuel tanks by 10-30% with the use of plastics instead of metal.

Reduces CO_2 | Coexists with nature

Exhaust gas reduction agent

AdBlue™

Reduce NOx emissions. Contributes to fuel efficiency.



* AdBlue is a trademark of the VDA (Verband der Automobilindustrie).

Reduces CO_2 | Conserves resources

Seat materials

ECONYKOL™

Reduces fossil resource consumption with use of bio-based raw materials.





Reduces CO_2

Conserves resources

Milky-white food packaging film

ECONEIGE™

Delivers a white finish by diffusing light on layers of air created inside films. Reduces the amount of resin used by 20-30% without the need for white printing.



Reduces CO_2

Conserves resources

Addresses food problems

Sealant film

T.U.X™

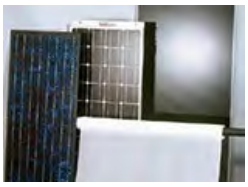
Saves energy by using a lower heat seal temperature, while its improved film strength means less resin is used. Its excellent sealing performance and impact resistance reduces the amount of food wasted in food production and distribution.

Reduces CO_2

Encapsulant sheets for solar cells

SOLAR ASCE™

Reduces power generation loss by improving ability to withstand high humidity and insulation durability.



Reduces CO_2

Diagnostics and Consulting Services for Solar Power Generation Plants

Reduce GHG emissions, which in turn assists clients in preventing yield reduction of solar power generation plants.





Extends healthy life expectancy

Ophthalmic lens materials

MR™

Contributes to vision correction, ocular health, and comfort.



Responds to the declining birthrate and aging population

Nonwoven fabric for disposable diapers

SYNTEX™

Pursues the basics of being leakproof, breathable, and unlikely to cause diaper rash, as well as a higher level of functionality, such as comfort and a snug fit.

Reduces CO_2

Conserves resources

Responds to the declining birthrate and aging population



Nonwoven fabric for disposable diapers

AIRYFA™

Reduces amount of waste by using a fiber structure that offers both softness and strength. Disposable diapers support comfortable living for babies and their carers.

Responds to the declining birthrate and aging population



Food packaging materials

CMPS™

Easy-open film that even children and the elderly can manage.



Addresses food problems

Insecticide

TREBON™

Contributes to stable crop production and helps boost food production.



Addresses food problems

Hybrid rice

Mitsuhikari

F1 hybrid rice cultivar with superior high yield and taste. Mitsuhikari's delayed harvesting has the advantage of dispersing the concentration of harvesting resources, and results in the improvement of food productivity.

Extends healthy life expectancy



Insecticide

Vectron™

Controls mosquitos, a carrier of infectious diseases like malaria. Contributes to the eradication of malaria.

Addresses food problems

Reduces CO_2

Keep-fresh film

SPASH™

Suppresses wilting and discoloration of fruits and vegetables and contributes to a reduction in food loss. Reduces GHG emissions by reducing the amount of food wastes.





Reduces CO_2

Conserves resources

Expands healthy life expectancy

Ophthalmic lens materials

Do Green™ MR-174™

Reduces fossil resource consumption with use of bio-based raw materials.



Expands healthy life expectancy

Pre-filled Syringe

APEL™

Minimum drug alteration thanks to lower elution compared to glass. Chip-proof structure ensures safe use. Contributes to advancement of medical care and pharmaceuticals.

Expands healthy life expectancy

Medical packaging material

APEL™

Low moisture permeability protects soluble medicines and maintains medicinal quality.
Contributes to advancement of pharmaceuticals.



Expands healthy life expectancy

Artificial limb material

HI-ZEX MILLION™

High impact resistance and flexible shaping enable creation of exceptionally well-fitting artificial limbs suitable to different body parts.
Contributes to support physical well-being.





Responds to the declining birthrate and aging population

Cooking equipment

TPX™

Highly non-stick surface keeps dirt away and ensures easy cleaning.
Contributes to improve enhancing comfort in people's lives.



Responds to the declining birthrate and aging population

Heat-resistant food container

TPX™

Material provides transparency equivalent to glass and heat resistance as high as to be microwavable. Contributes to improve enhancing comfort in people's lives.

Responds to the declining birthrate and aging population



Various Handle Parts

MILASTOMER™

Good plasticity and nonslip surface enables good hold with minimum effort. Contributes to improve enhancing comfort in people’s lives.

Risk and Compliance



Risk and Compliance Management

- Management System
- Risk Prevention Measures
- Compliance Training

Bribery Prevention

Information Management

Management System

Policy and Basic Approach

To earn the trust of our shareholders, customers, the local community and all our other stakeholders, and to fulfill our corporate social responsibilities, it is crucial to effectively engage in risk management and compliance promotion structure.
In February 2006, the Mitsui Chemicals Group formulated its Group Action Guidelines, which provide the basis for the actions of all its personnel, and laid out the guidelines “always act in good faith” and “have a high regard for people and society” as its two mainstays. In accordance with these action guidelines and risk management rules (company regulations), we carefully control all risks that could potentially threaten our business activities, to earn the trust of our stakeholders and to fulfill our corporate social responsibility.

The Mitsui Chemicals Group Risk Management Policy

Objectives

(1) To confirm that all employees are fully aware of the importance of risk management
(2) To confirm that a structured and systematic risk management system is in place
(3) To confirm that the line management of risks is firmly entrenched and that definitive steps have been taken to employ a PDCA cycle

Stance

(1) Line managers steadfastly carry out PDCA procedures as a part of efforts to manage the risks that arise in the natural course of daily business activities
(2) All employees who have come into the possession of risk-related information report to their line managers in a timely manner
(3) All employees proactively share with other departments any risk-related information that has come into their possession while also seeking cooperation
(4) Each and every employee must take the initiative and realize that he or she maintains the same responsibilities as the officer in charge of risk management. Every effort must be made to constantly fine tune sensitivities toward risk

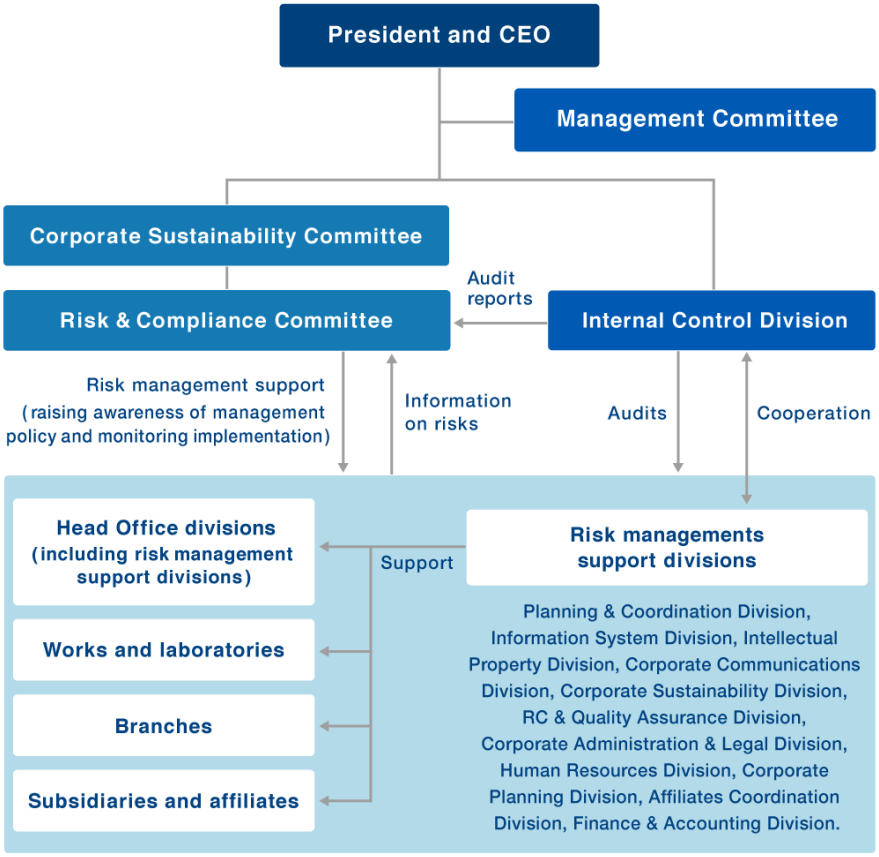
System and Responsible Officers

The director in charge of the Risk & Compliance Committee is the responsible officer.
We have introduced the Mitsui Chemicals Group Risk Management System to quickly identify risks and prevent them

from materializing. Within the annual budget of each Group company or division, we are specifying the top priority risks, based on risk models and procedure documents and steadily implementing measures and controls for risk.
We also use tools such as compliance checklists that are designed to monitor the progress of risk management measures to implement a risk management PDCA cycle steadily and prevent risks from materializing.

To maintain and operate the Risk Management System, the Risk & Compliance Committee was establisdhed with responsibility for putting in place specific policies, strategies, and plans that address risk as well as compliance concerns.
In addition to sharing measures, management targets and the status of achievements with regard to top priority risks, this Committee considers and supports appropriate countermeasures in response to priority issues that have newly emerged or that are considered to have a large impact on the entire Group, or on an as needed basis.

Structure of the Group Risk Management System



Composition of the Risk & Compliance Committee

Chair	The responsible director in charge of the Risk & Compliance Committee
Members	Responsible director in charge of the Corporate Sustainability Committee, Responsible director in charge of the Corporate Administration & Legal Division, General Manager of the Internal Control Division, General Managers of the Planning & Coordination Divisions in each Business Sector, General Manager of the Planning & Coordination Division, General Manager of the Corporate Communications Division, General Manager of the Corporate Sustainability Division, General Manager of the RC & Quality Assurance Division, General Manager of the Corporate Administration & Legal Division, General Manager of the Human Resources Division, General Manager of the Affiliates Coordination Division, General Manager of the Information System Division, other members appointed by the Chairperson

Observer	Corporate Auditor
Secretariat	Corporate Administration & Legal Division

The Risk Management System has been incorporated into the Group's internal control systems. The status of internal control system implementation is reported to the Board of Directors.
We established the Internal Control Division to continually monitor and assess the implementation and operational status of internal controls within the Mitsui Chemicals Group, as required under the Companies Act and the Financial Instruments and Exchange Act, and to ensure that operational risks are kept within tolerable levels at all times. In addition to maintaining and improving internal control standards throughout the Mitsui Chemicals Group, internal audits are conducted to ensure that operations are being carried out appropriately and efficiently. Furthermore, any important matters arising from the results of audits are shared with the Risk & Compliance Committee. The Internal Control Division specifically focuses on the following areas.

- Self-assessment-based internal audits relating to legal and regulatory compliance
- The conduct of self-assessment-based internal audits relating to legal and regulatory compliance; the introduction and operation of internal audit processes based on the aforementioned self-assessment-based internal audits with respect to business divisions as well as affiliates in Japan and overseas
- Compliance with the Financial Instruments and Exchange Act (submission of internal control reports)
- The implementation of annual assessments to determine the effectiveness of internal controls relating to financial reporting; the establishment of internal controls as well as operating policies including their assessment with respect to the Company in accordance with the implementation standards of Japan's Financial Services Agency.

Goals and Results

KPI	Scope	FY2018			FY2019	Medium to Long-term
		Goals	Results	Level Achieved	Goals	Goals
Incidence of major legal and regulatory violations	Mitsui Chemicals Group	0	0	○	0	0 (FY2025)

Review and Challenges

Having decided on KPIs for social and environmental targets under the 2025 Long-term Business Plan, we state the figures for major legal and regulatory violations, including those that affect the Group's social standing, business operations, earnings and other key parameters. No major violations occurred in fiscal 2018. However, our domestic subsidiaries, Shimonoseki Mitsui Chemicals, Inc. received a notice from Yamaguchi Prefecture on August 5, 2019 that it would be subject to legal procedures in accordance with the High Pressure Gas Safety Act. This relates to multiple problematic leaks found at the company's high-pressure gas production facilities. In response to these events, we would like to sincerely apologize for causing significant concerns among many people, including local residents, the

authorities and customers. We are treating this incident very seriously. In line with the administrative action that is set to come down from the authorities, we will settle on a plan aimed at preventing any future incidents of this sort and will then devote our entire organizational structure to implementing this plan. To further ensure that no repeat incidents occur, we also intend to thoroughly review our legal compliance on a group-wide level.

With regard to risk management, we established countermeasures for those fiscal 2018 priority issues that had yet to be achieved. These countermeasures were then discussed in detail by the Risk & Compliance Committee and incorporated into the priority issues for the following fiscal year. Going forward, we will endeavor to change our business portfolio and expand business, while uncovering new risks that arise in response to changes in the external environment and minimizing those risks.

Risk Model (Examples of specific assumed risks)

Categories	Table of Contents	Assumed Risk (Examples)
External operating conditions	Competitors	Competing company's enhanced production capacity
		Market entry of inexpensive, imported products; decline in market conditions due to oversupply
		Mergers, business tie-ups between competing companies
		Influx of alternative products
	Customers, Markets	Fall in demand
		Outward flow of customers overseas
		Deficiencies in customer responses due to increase in internal business tasks
	Suppliers	Skyrocketing prices for raw materials
		Accident at raw materials manufacturer, termination of supply due to insolvency
	Shareholders	Shareholder class action
	Legal Revisions, Regulatory Changes	Cost increases due to compliance with more stringent regulations
	Country Risks (Overseas Safety)	Deteriorating economic situation in trading partner country, import/foreign investment controls
		Events involving overseas employees (acts of terrorism, kidnapping, threats)
		Political instability, worsening security (civil war, riots)
	Media	Inadequate responses to media at the time of an emergency
Business strategies	Budget/Planning	Budget formulation not in line with actual situation
	Strategy Formulation	Formulation of new business strategy by prioritized targets
		Delayed decision to withdraw from a business
	Product Lifecycle	Shortening of a product's life cycle
	Business Portfolio	Error in core/sub-core business certification
	Management Resource Distribution	Investment in business with poor prospects
	Product Development Capacity	Delays in new product development
	Comprehending External Conditions	Underestimation of changes in external environment
Compliance	Unlawful Actions	Violation of antitrust law, commercial code, administrative regulations (governing fire prevention, the environment, etc.)
		Illegal export of strategic materials
		Corruption, fraudulent provision of profits to particular shareholders
		Breach of contract
		Procedural omissions in applications to regulatory authorities
	Corporate Regulatory Infractions	Contravention of employment regulations
	Employee Misconduct	Misappropriation of funds, breach of trust, insider trading, departure from authority
	Employee Antisocial Actions	Sexual harassment, discrimination
	Management of Confidential Information	Leaks of research/technological knowhow
		Employee internal accusations
	Management of Intellectual Property	Infringement of another company's patent
Environment/safety/quality	Environmental Issues	Environmental contamination (air, water, soil, groundwater, etc.)
		Consumer/civic movements with regard to environmental problems
	Safety Issues	Plant explosion, fire, facility obsolescence
		Accident during product transportation
		Occupational accidents and injuries
		Natural disasters (earthquake, typhoon, etc.)
	Quality Issues	Product defect, customer complaint, technical service shortcomings
		Product liability (PL) lawsuit
		New product safety test defect
		Inadequacies in Material Safety Data Sheet (MSDS), product's written specification
Finances	Credit Management	Increased unease with regard to client/business partner credit associated with deterioration in economic conditions
	Foreign Currency Exchange	Foreign exchange losses
	Financing	Credit crunch, rise in interest rates
	Tax Issues	Double taxation incurred due to transfer price taxation
Personnel/labor system	Employee Health Management	Mental health, death from overwork
	Personnel Loss	Headhunting
	Employee Morals	Reduced morale due to change in working conditions
	Pensions/Funds	Increased retirement benefit obligation due to lower discount rate
	Labor/Management Relations	Labor dispute
Information systems	Information Infrastructure	Flaw in backup system during system crash
	Access to Information	Leak, destruction of data by illegal access, virus

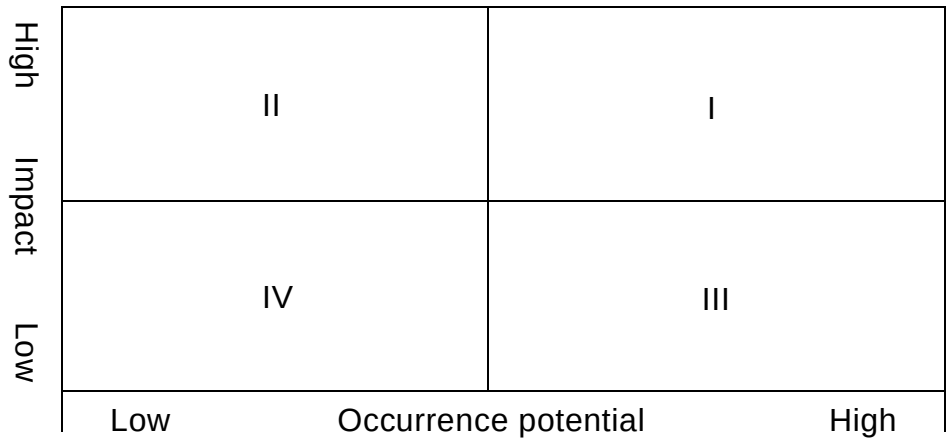
Procedures for Identifying Risks and Specifying / Managing Priority Risks

1. Risk Identification
   Identify risks at each department by performing a full review of each responsible operation and relevant laws/regulations, and taking into consideration the status of priority risk management during the previous fiscal year.

2. Risk Categories
   Indentified risks are assessed according to impact and likelihood of occurrence, and then categorized from I to IV within the matrix shown below.

Criteria

- ◆ High Impact
  - ● Very high level of monetary impact (damages, earnings reduction)
  - ● Casualties incurred
  - ● Organizational survival and strategic targets significantly impacted
  - ● Company image and reputation severely damaged
  - ● Local communities heavily affected
- ◆ High Likelihood of Occurrence
  - ● High likelihood of occurrence at least once during the fiscal year
  - ● Actual occurrence during the past three years
    (However, possible to establish evaluation criteria tailored specifically to the circumstances of each department)



3. Specifying Priority Risks
   Based on the categories listed above, one or more priority risks are selected from risks categorized under I (II if there is no I; from III if there is no I or II)

4. Establishing Risk Countermeasures, Management Items and Targets
   Establish countermeasures for priority risks as well as management items and targets in order to implement these countermeasures (it is desirable to establish quantitative management items/targets to extent possible, but it is possible to set these on a qualitative basis if obtaining qualitative items proves difficult)

Risk Prevention Measures

Risk Hotline

Our Risk Hotline enables any Group's employee who has obtained information relating to risks, including details of illegal activities going on within the Company, to directly report the matter to and seek advice from the Risk & Compliance Committee or an outside attorney. The hotline is open not only to directors, corporate auditors, and employees, but also to all parties with an interest in the Company's business activities including the families of employees, contractors at our works or other sites and suppliers. Any and all information relating to risks received through the hotline is immediately and appropriately reported to the Company's corporate auditors.
Apart from the Risk Hotline, we are operating a system by which a harassment consultant contact office is located at each of our business sites' human resource division.

Reporting and Consultation Desk

[Report and Consultation to the Company's Risk & Compliance Committee]

For the attention of:
The Secretariat, Risk & Compliance Committee
General Affairs/Legal Division
Mitsui Chemicals, Inc.,
Shiodome City Center, 1-5-2, Higashi-Shimbashi, Minato-ku, Tokyo 105-7122, Japan

E-mail：Risk@mitsuichemicals.com

[Report and consultation to external contact [attorney]]

For the attention of:
Mitsui Chemicals, Inc. Hotline
Daiichifuyo Law Office, Kasumigaseki Building 12F, Kasumigaseki, 3-2-5, Chiyoda-ku, Tokyo 100-6012, Japan

E-mail：risk-MCI@daiichifuyo.gr.jp

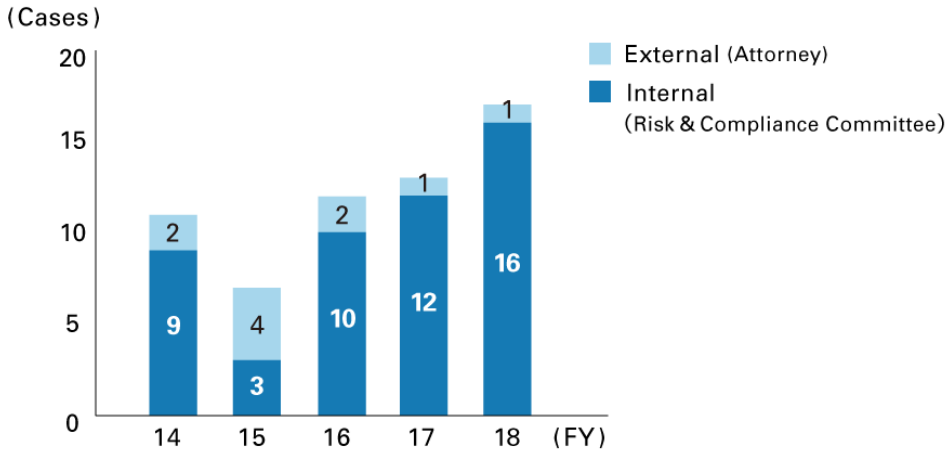
Target Case Studies

- Corruption
- Bribery
- Human Rights
- Employment Environment
- Environmental Contamination
- Compliance with Laws and Regulations
- Procedures Relating to Business Law
- Others

Operation of the risk hotlines

- The Company restricts those able to view E-mails and letters received by the Risk & Compliance Committee or the external point of contact to only some members of the Committee. Furthermore, those able to view correspondence strictly observe confidentiality with regard to the name or location of any person using the hotline to report or seek advice or to the content of their report, which for the purposes of investigation is not disclosed to anyone other than the minimum number of officers and employees or to attorneys. Internally stipulated regulations safeguard the information against further disclosure or leakage (including the name or location of any person using the hotline to report or seek advice, or acts that would make it easy to ascertain the content of their report).
- The Company will keep confidential from anyone other than those involved any information relating to those cooperating for the purpose of the investigation or information gained through the investigation.
- Any person using the hotline to report or seek advice is not to be subject to penalty by reason of having written a report or sought advice. However, this limit will not apply in cases where the person who used the hotline to report or seek advice had done so for the purpose of deceiving others, for example by deliberately conveying false information, or in cases in which a report was made for the purposes of unlawful activities, such as coercion or blackmail.
- Anonymous reports and requests for advice by letter or E-mail are accepted. However, please be aware that in the event that a person cannot be contacted by the Company, there will be cases where the situation will not be fully understood and steps, such as an appropriate investigation or response, will not be taken.

Risk Hotline Operating Performance



Business Continuity Plans (BCPs)

Due to the ever-present risks, such as large-scale disasters, an outbreak of a new type of influenza and large-scale accident at a production site, the Company prepares for crises that may have serious consequences for the Group, has established a system to promptly and appropriately respond to each function, such as Head Office, production site or supply chain, and formulated a Business Continuity Plan (BCP) to fulfill its supply responsibility to customers.
For the BCP to be executed in the event of a major earthquake in the Tokyo Metropolitan area, the plan establishes certain systems and outlines that, in the event that the Company's Head Office is unable to operate properly, its functions will be transferred to a main base such as the Osaka Works. Additionally an emergency headquarters will quickly establish a chain of command, and emergency customer response centers will be established to provide our customers with support quickly and effectively. BCPs have also been put in place in preparation for an outbreak of any new-type influenza and for a large-scale accident at a production site.

Based on such scenarios as the high probability of a Nankai Trough earthquake and a major earthquake in the Tokyo Metropolitan area, we intend to continue on from fiscal 2018 and again organize extensive BCP training, incorporating flexible measures aligned to changing conditions and situations, while also covering the potential risk of a major earthquake in the Tokyo Metropolitan area in fiscal 2019. Following on from that, we also intend to review regulations and our BCP, focus on raising awareness in the workplace while taking stock of and maintaining necessary equipment, and we will improve the effectiveness of BCP.

At production sites, we regularly conduct earthquake and tsunami readiness training and ensure that safe operational shutdown procedures and employee evacuation systems are in place. From the business management standpoint, we are adopting a range of measures.

With regard to some of the important raw materials, we are purchasing from multiple sources and ensuring back-up sources to safeguard the supply chain, building a production system at multiple business sites for the Group’s main products, and maintaining a certain level of inventory.

Compliance Training

As an indication of the priority given to compliance with laws and regulations over any pursuit of profit, the Mitsui Chemicals Group has identified compliance with all laws and regulations as the first item in the Mitsui Chemicals Group Action Guidelines formulated in February 2006. In addition to putting in place a risk management framework that includes the Risk & Compliance Committee and Risk Hotline, Mitsui Chemicals is acutely aware of the critical need to have its employees, who drive its risk management framework forward, strictly adhere to all laws and regulations. With this in mind, the Company has undertaken four initiatives in an effort to ensure compliance. In addition to preparing the Compliance Guidebook, we conduct workplace discussions covering case studies of violations of laws and regulations as well as compliance awareness training in order to strengthen the understanding of employees. From a skills and knowledge perspective, we also conduct legal and regulatory compliance training.

Compliance Guidebook

The Compliance Guidebook (issued in 2006) summarizes basic points that Group directors, corporate auditors, and employees should consider when carrying out their duties. It is a tool that emphasizes the need to comply with all laws and regulations, a key component of the Mitsui Chemicals Group Action Guidelines. As circumstances dictate, steps are taken to revise the content of the Compliance Guidebook to include specific examples of violations of the laws and regulations of each country as well as instances of bribery or the falsification of data, issues that are attracting widespread media interest in Japan, and to increase awareness within the Group as a whole. In addition to the existing Japanese and English editions, we compiled a new Chinese edition containing information on Chinese laws and regulations in 2009. Distributed mainly to our subsidiaries in China, these guidebooks help ensure compliance on a day-to-day basis.
We updated the guidebook regularly, and recently added points to bear in mind with regard to company and personal information when using social networking services (SNS).

Compliance Guidebook (Excerpt)（PDF：70KB）

Example-based Workplace Discussions on Legal and Regulatory Violations

The Company and its domestic subsidiaries and affiliates have been organizing example-based workplace discussions on legal and regulatory violations since fiscal 2008. These discussions involve members of staff in each workplace discussing examples of compliance violations at Mitsui Chemicals and at other companies, with a focus on the causes, preventive measures, and the potential for similar occurrences in their own workplace. The aim is to raise awareness of legal and regulatory compliance and reinforce interactive communication with senior members of staff. Discussions have received a positive response in many of our workplaces, with some departments voluntarily increasing the frequency of discussion sessions and others picking out examples of particularly relevant violations at other departments. In fiscal 2018, we conducted discussions at 59 company departments and 23 subsidiaries and affiliates.

Compliance Awareness Training

The awareness of individual directors, corporate auditors, and employees is the most important factor to ensure compliance. The required level of awareness varies however depending on each individual's position within the Company. We therefore tailor the contents of compliance awareness training to suit every level, from new recruits to employees newly promoted to a management position, newly appointed line managers, and each management rank. In fiscal 2018, we provided a compliance awareness training as a part of our new employee training programs and those for experienced mid-career professionals. We also provided a series of compliance awareness training for all the sessions for newly appointed line managers.
Our goal is for individuals at every level to take the initiative and set an example for others, thereby raising levels of compliance awareness throughout the Group and creating a more open corporate culture.

Key Achievements of Stratified Training

Legal and Regulatory Compliance Training

Here at the Mitsui Chemicals Group, we organize legal and regulatory compliance training in order to improve employees' knowledge. Training is provided via e-learning or group training sessions, both of which cover specific laws and internal regulations that our employees need to be aware of in order to carry out their duties. We also organize customized training sessions for individual divisions or subsidiaries and affiliates on request.
Required subjects vary depending on the contents of each employee's duties. We also require employees to re-take courses on a regular basis to ensure that they are aware of recent developments. Participation in these training initiatives is audited by the Internal Control Division.

e-Learning and Training Themes

- Industrial safety and health legislation
- Process safety legislation
- Environmental legislation
- Quality control
- Harassment
- Finance and taxation
- Intellectual property
- Information management
- Contracts
- Antimonopoly legislation
- Credit control
- Export control
- Purchasing

～For compliance with laws and rules～

Compliance Guidebook

Mitsui Chemicals, Inc.

～For compliance with laws and rules～

Compliance Guidebook

December 1, 2003	First Edition
May 30, 2006	Second Edition
December 1, 2012	Third Edition(Electronic Publishing)
February 1, 2016	Fourth Edition(Electronic Publishing)
November 1, 2016	Fifth Edition (Electronic Publishing)
July 1, 2017	Sixth Edition(Electronic Publishing)

MITSUI CHEMICALS, INC.　Corporate Administration & Legal Division

This Guidebook is based upon Japanese law, regulation and customs and refers to Japanese cases. It may be possible that the cases in the Guidebook do not apply in any jurisdictions except Japan.

Aiming to Become a Reliable Mitsui Chemicals Group
- Striving to Be a Trusted Entity -

In February 2006, we established "Mitsui Chemicals Group Action Guidelines" as part of our Corporate Social Responsibility (CSR) strategy. These Guidelines were compiled to present the guidelines for actions for the officers and employees of the Mitsui Chemicals Group. These Guidelines are intended to be referred to by them when they consider what they should value most in their behavior in order for the Group to continue to contribute widely to society and become an entity that earns the trust of its stakeholders. The top priority item set forth in these Guidelines is "Compliance with the laws and regulations".

At the outset of the Action Guidelines, the Mitsui Chemicals Group declared "We will give priority to compliance with laws and regulations over pursuit of any profit". If you are forced to choose either profit or compliance with laws and regulations, please do not hesitate to give priority to compliance with laws and regulations. We should never repeat the violation of the High Pressure Gas Safety Law or cartels (for polypropylene, gas distribution pipe, etc.), among other things.

In recent years in Japan, cases of violations of laws, regulations and rules have been frequently reported by the press. These cases include the incidents of product data fabrication and accounting fraud by listed companies and an emission gas scandal of a powerful carmaker having global operations. Society is keeping an ever increasingly sharp eye on these corporations having committed the offenses. In these situations, they are facing a possibility that as a consequence of their single breach of a law, regulation or rule, they may devastatingly lose their social confidence that they have built over many years and the foundation of their existence as corporations may be shaken. We must have a strong realization that compliance with laws, regulations and rules is the major premise of the existence of any corporation and without it any corporation can neither continue to exist nor fulfill its social responsibility.

Furthermore, in light of the global development of our businesses that are growing year by year, it is all the more important for us to have a greater awareness of the importance of compliance with the laws, regulations and rules of foreign countries as well as those of Japan. We are required to have an accurate understanding of various regulations of foreign counties and consider at all times whether or not our own actions are appropriate. In particular, the concerns about the problems of injustice and corruption including cases of bribery involving foreign public officials are rapidly growing in the world. This is an issue to be seriously addressed by the whole Mitsui Chemicals Group for the sake of our moving forward with global business operations, among other reasons.

I firmly believe that if all of our officers and employees take actions in good faith, keeping compliance with laws, regulations and rules in mind, we will gain greater social confidence and be able to lay the foundations for the sustainable development of our Group.

February, 2016



Tsutomu Tannowa, President

～For compliance with laws and rules～

Compliance Guidebook

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Bribery Prevention

Policy

Including the Mitsui Chemicals Group Policy on Bribery Prevention and other content on bribery, the Compliance Guidebook increases awareness throughout the Group. With regard to high-risk areas, we prepare and distribute manuals to employees and are focusing on initiatives, such as group training sessions, to prevent bribery. In fiscal 2018, we conducted group training sessions in China, Thailand, Malaysia, and India.
Audits conducted by the Internal Control Division also include content on bribery. Moreover, the Risk Management System has been incorporated into the Group's internal control systems. The status of internal control system implementation is reported to the Board of Directors.

The Mitsui Chemicals Group Policy on Bribery Prevention

Overview and Declaration

With business taking on an increasingly global nature with each passing year and in light of the world's heightened focus on bribery in recent years, the further development and strengthening of an international bribery prevention framework is an important task to be addressed by the Mitsui Chemicals Group as a whole. The Mitsui Chemicals Group will comply with all regulations aimed at preventing bribery in the countries and regions in which the Mitsui Chemicals Group is engaged in business, including the Unfair Competition Prevention Act of Japan, the Foreign Corrupt Practices Act of the U.S., and the Bribery Act of the U.K. (all such regulations, the "Bribery Regulations"). Whenever it is faced with choosing between profits or compliance, the Mitsui Chemicals Group will never hesitate in prioritizing compliance.

With the aim of preventing bribery by clearly stating matters such as the basic stance of the Mitsui Chemicals Group towards bribery and the rules to be followed by its personnel, the Mitsui Chemicals Group has formulated this Policy.

This Policy applies to all personnel of the Mitsui Chemicals Group.

December 1, 2016
Tsutomu Tannowa
President

Matters to be complied with

1. Prohibition of bribery

Personnel of the Mitsui Chemicals Group will not engage with any other person in any act of making or receiving a bribe.

2. Development of a bribery prevention framework

The Mitsui Chemicals Group will strive to operate its compliance-related departments, and whistleblowing notification centers in a fair and equitable manner, and will maintain and operate organizations and systems designed to prevent acts of bribery.

3. Education and training

The Mitsui Chemicals Group will continually provide education and training to personnel in order to further ensure an ethical mindset aimed at preventing bribery and to secure the operation of its bribery prevention framework.

4. Audits and system reviews

The Mitsui Chemicals Group will perform periodic audits to confirm whether its bribery prevention framework is actually functioning and, based on the results of such audits, will continually review the effectiveness of the bribery prevention framework of the Mitsui Chemicals Group (including this Policy) and make improvements as necessary.

5. Recording and storing of transaction details

In order to evidence its compliance with the Bribery Regulations of each country and with this Policy, the Mitsui Chemicals Group will use appropriate internal control systems to factually and accurately record approval documents, accounting books, and the like relating to expenditures, and will appropriately store all relevant ledgers and forms.

6. Disciplinary action

If an employee violates this Policy, the Mitsui Chemicals Group will take appropriate and swift disciplinary action in accordance with work rules and the like.

Definition of Terms

(1) "Making a bribe" means giving, or offering or promising to give, any money or other benefits to a public officer, etc., directly or indirectly, for the purpose of having the public officer, etc. act or refrain from acting in a particular way in relation to his or her duties, or having the public officer, etc. use his or her position to influence another public officer, etc. to act or refrain from acting in a particular way in relation to that officer's duties, in order to obtain illicit gains in business.
For example, providing hospitality or gifts to an instructor or staff member of a national public university, or to a physician or staff member of a national public hospital, would constitute "making a bribe."

(2) "Receiving a bribe" means receiving, or demanding or promising to receive, any money or other benefits in relation to one's own duties for the purpose of obtaining illicit gains for oneself or a third party.

(3) "Bribery" means the act of making a bribe or receiving a bribe.

(4) "Public officer, etc." includes any of the following persons:

① A person engaged in public duties for the national or local governments of his or her own or a foreign country ("Governments");

② A person who engages in the affairs of an entity established under a special law or regulation to carry out specific affairs related to the public interest;

③ A member of staff of any of the following public companies or entities ("companies, etc.") granted special privilege by a Government:

(i) A company, etc. in which a Government directly or indirectly holds a majority of the voting shares or paid-in capital;
(ii) A company, etc. the majority of whose officers are appointed or nominated by a Government;
(iii) A company, etc. otherwise substantively controlled by a Government;

④ A political party or a staff member thereof;

⑤ A candidate for public office;

⑥ A person engaged in public duties for a public body;

⑦ A person engaged in the affairs of Government or public body as authorized thereby; or

⑧ Any other person similar to any of ① through ⑦ above.

(5) "Personnel" means all officers, employees, and temporarily employed persons of the Mitsui Chemicals Group.

Information Management

Basic Approach

The Mitsui Chemicals Group appropriately handles information related to customers and to our own company that we use in our corporate activities. As well as complying with laws and internal regulations, we promote an understanding of the importance and responsibility of information management with employees, and conduct management.

Initiatives in Information System Security

In order to offer better products and services, the Mitsui Chemicals Group believes that it is indispensable to utilize customer information and other information that we possess through IT. Therefore, we recognize the importance of establishing information system security and undertake the following measures:

- Establishing the system to prevent unauthorized access to confidential information and unauthorized removal of information from the company
- Training and enlightenment regarding security risks for subsidiaries and affiliates and inspections of their security levels
- Obligating of all employees who use information systems to get training on information system security once a year

We plan to further enhance the information security system in the future by addressing increasing risks caused by cyber attacks as an important management issue.

Personal Information Protection

The Mitsui Chemicals Group recognized that it is an important social responsibility to handle and protect personal information appropriately. We stipulate the Privacy Policy and Personal Information Protection and Management Regulations, and at the same time we provide corporate training programs to employees and undertake regular audits. In addition, we have developed a global personal information protection framework that complies with General Data Protection Regulation (GDPR) and appropriately manage the personal information we hold.

Privacy Policy

Responsible Care



Responsible Care Management

- Management System
- Audits
- Roll Out Globally

Safety and Prevention

- Management System
- Initiatives to Prevent Major Accidents
- Accidents and Occupational Injuries
- Training
- Drills

Environmental Protection

- Management System
- GHG and Energy
- Industrial Waste
- Substances Subject to the PRTR Act
- Air
- Water
- Biodiversity
- Environmental Accounting
- Environmental Compliance

Product Stewardship

- Management System
- Regulatory Compliance and Distributing the Safety Use Information
- Providing Safe Products
- Training

Quality of Products and Services

- Management System
- Initiatives

Logistics

- Management System
- Safety and Quality
- Stable Transportation

Occupational Health

- Management System
- Health and Productivity Management
- Preventing Exposure to Harmful Substances

Management System

Policy and Basic Approach

Responsible Care is an activity that the world's chemical industry is integrally promoting to improve the quality of life (QOL) by chemical products and to contribute to the sustainable development of society. All companies voluntarily implement activities designed to ensure safety, health and quality as well as protect the environment throughout the entire life cycles of their chemical products, publicize the results of their activities and engages in dialog with the local communities where they operate. As Responsible Care activities span entire life cycles, it is believed that the philosophy behind these activities is applicable not only to the chemical industry that manufactures the chemical products but also universally by all industries that use them.

The Mitsui Chemicals Group has identified certain basic elements of the Responsible Care activities undertaken by the Group in accordance with the Responsible Care Policy. Guided by this Policy, the Group engages in various Responsible Care activities in such areas as safety and prevention, environmental protection, occupational health, product stewardship, the quality of products and services, and logistics. Through its Responsible Care activities, the Company and Group are committed to addressing the expectations and earning the trust of society as well as the local community while also contributing to the sustainable development of the public at large and the chemical industry.

The Responsible Care Policy is upheld in the "Philosophy and Policy Relating to Ensuring Safety" of the Mitsui Chemicals Group. It was formulated based on the philosophy of the Responsible Care Global Charter* drawn up by the International Council of Chemical Associations (ICCA).

* Responsible Care Global Charter:
Announced by the ICCA in 2006 to create a common global vision for Responsible Care, the Charter also pays special attention to Sustainability and Product Stewardship while improving the environmental, health and safety activities of chemical companies. Revised in 2014, the Charter has been signed by the CEOs of more than 500 chemical companies

Responsible Care® Global Charter

Company Signatories to the 2014 Responsible Care® Global Charter

Responsible Care Policy

Based on its Corporate Mission and Action Guidelines, the Mitsui Chemicals Group acknowledges that its business challenge is not only to comply with laws and regulations of the countries in which it does business, but also to continuously contribute to the improvement of safety, health, the environment, and quality, for the sustainable development of society. We will expand our business focus while continuing to improve and maintain good communication with all our stakeholders and business partners.

- We pledge that safety is our top priority and will focus on achieving zero accidents and occupational injuries.
- We will assess the risks to people and the environment from our products throughout their lifecycles, while working to ensure the health and safety of all persons and to reduce the environmental impact of those products.
- We will contribute to improve quality of life and protect the environment through our business activities by developing beneficial technologies and products.
- We will provide high-quality products and services that satisfy the needs of our customers and respond to the trust that they place in us.
- We will actively promote the well-being of all our employees.

These Rules shall come into full force as of October 1, 1997.
These Rules as revised shall remain in full force and effective as of September 1, 2015

We also produced guidelines to better ingrain the Responsible Care Policy throughout the Mitsui Chemicals Group. We translated the Responsible Care Policy and guidelines into eight languages, including English, Chinese, Korean and Malay, and sent them throughout the Group as a whole.

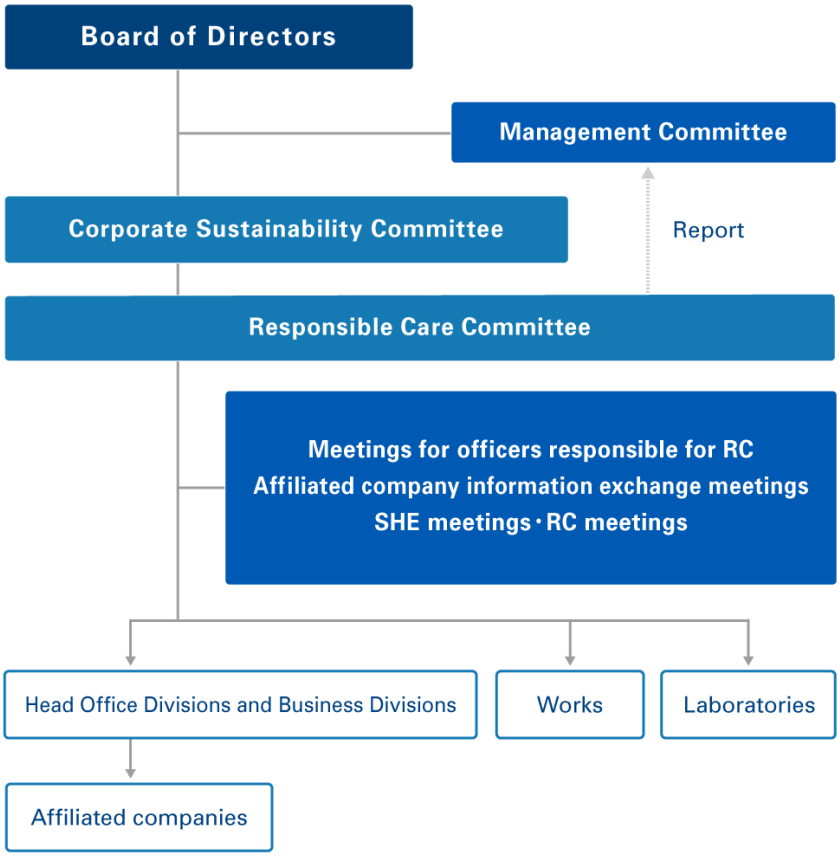
In addition, to further expand Responsible Care activities at subsidiaries and affiliates, Mitsui Chemicals drew up (in Japanese, English, and Chinese editions) the Shiodome Manifesto . Based on the articles of the Responsible Care Global Charter, the Manifesto serves as a declaration that promotes the Group's Responsible Care policy and frameworks for subsidiaries and affiliates. The presidents of all Group subsidiaries and affiliates that fall within the scope of Responsible Care support*, as deemed under Company regulations, signed off in acknowledgement of their commitment.

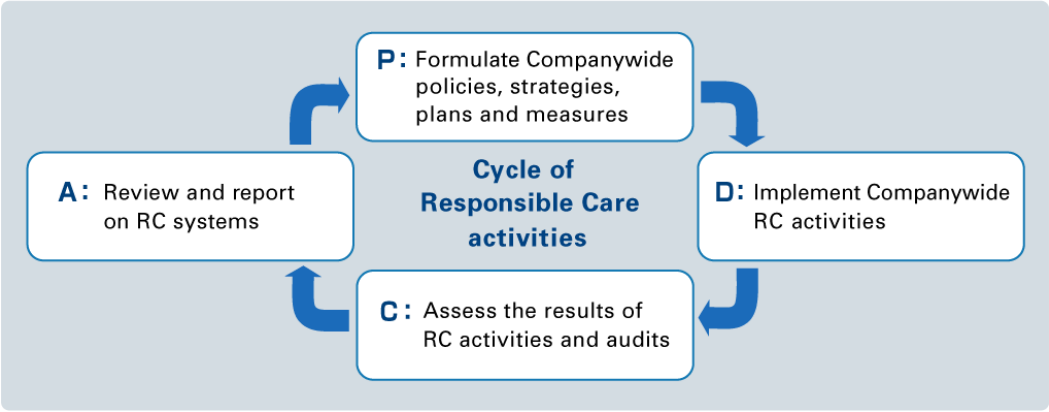
* Subsidiaries and affiliates that fall within the scope of Responsible Care support:
Subsidiaries and affiliates that manufacture or handle chemicals (Excluding subsidiaries and affiliates within factory premises where the parent works manager bears the responsibility for Responsible Care implementation.)

System and Responsible Officers

Chaired by the responsible director in charge of the Responsible Care Committee, the Responsible Care Committee convenes three times a year, formulates policies, strategies and plans with regard to Responsible Care activities, conducts performance evaluations and reviews Responsible Care related systems.
The general managers of each division (the general managers from the RC & Quality Assurance Division; Safety and Environment Technology Division; Planning & Coordination Division Production & Technology Center; Logistics Division; and Human Resources Division), who are the Committee's permanent members, report on the Responsible Care activities in their respective jurisdictions at Responsible Care Committee meetings.
The responsible director in charge of the Responsible Care Committee also bears the responsibility for the deliberations and discussions held at the Committee, and outlines of their content are reported to the Management Committee, thereby ensuring a senior management-level commitment to Responsible Care.

Responsible Care Management System





Role of the Responsible Care Committee

- Formulated Responsible Care -related policies, strategies, plans and measures on a companywide basis
- Assess the results of Companywide Responsible Care activities on a yearly and quarterly basis
- Publicize and raise awareness of Responsible Care within the Company
- Assess the results of Responsible Care audits
- Review Responsible Care systems and examine other important issues

Composition of the Responsible Care Committee

Chair:	Hideki Matsuo, Representative Director, Member of the Board, Senior Managing Executive Officer□CTO□
Vice Chair:	Shinji Ogawa, Senior Councilor
Permanent members:	Center Executive of the Production & Technology Center, General Manager of the Planning & Coordination Division of Each Business Sector, General Manager of R&D Planning & Coordination Division, Planning & Coordination Division of the Production & Technology Center, Safety & Environment Technology Division, the RC & Quality Assurance Division, Purchasing Division, Logistics Division, Human Resources Division, Corporate Planning Division, Affiliates Coordination Division, Corporate Communications Division, Corporate Sustainability Division, and Internal Control Division, other members appointed by the Chairperson
Observers:	Corporate Auditor, President of the Mitsui Chemicals Labor Union, other members appointed by the Chairperson
Secretariat:	RC & Quality Assurance Division

We constantly exchange information between divisions in charge of Responsible Care and engage in Responsible Care activities that involve the Company as a whole. Regular meetings are held by the representatives of each department on a monthly basis. We also appoint a member of staff to be in charge of Responsible Care (RC Officer) at each business division and in each department and roll out Responsible Care -related policies and strategies across the Mitsui Chemicals Group as a whole through RC Officer meetings (held twice a year). Based on these policies and strategies, specific Responsible Care activities are carried out by individual departments, including each works and business division.

The Mitsui Chemicals Group as a whole also promotes Responsible Care, including support for specific activities for domestic and overseas affiliated companies as well as departments with various functions. Meetings are also held twice a year with domestic subsidiaries and affiliates to exchange information. Moreover, steps are taken to share policies related to Responsible Care activities as well as activity results. Turning to overseas subsidiaries and affiliates, SHE* meetings are held by region. In addition to sharing policies and strategies relating to Responsible Care, every effort is being made to promote Responsible Care throughout the Group as a whole.

* SHE: Safety, Health, and Environment.

Internal Audits

The implementation status of Responsible Care is evaluated and guided by periodic audits, and the plans for the following fiscal year formulated on the basis of the audit results, which are then reported to the Responsible Care Committee. For further details, please refer to this.

Participating in Chemical Industry Associations in Each Country

We report the results of our Responsible Care activities to each association and are working to maintain the transparency of the chemical industry in the eyes of society.
Report recipients: Japan Chemical Industry Association (JCIA), Association of International Chemical Manufacturers

(AICM, China), Singapore Chemical Industry Council (SCIC), Federation of Thai Industries (FTI), the American Chemistry Council (ACC), and the Taiwan Responsible Care Association (TRCA).
Topics that are likely to become management issues are gathered from information obtained in the course of the activities at these associations and reported to top management.

Support Initiatives

Review and Challenges

Some of the items designated as targets for fiscal 2018 could not be achieved. The Responsible Care Committee examined the causes and improvement measures and developed the fiscal 2019 plan.

* For details of specific activities, please refer to the relevant page for each Responsible Care category.

Guide to the Responsible Care Policy

The Mitsui Chemicals Group pursues sustainable business activities while fulfilling its responsibilities to society in line with the ideals advocated in its corporate mission of “Contribute broadly to society by providing high-quality products and services to customers through innovations and the creation of materials, while keeping in harmony with the global environment”.

The mindful actions of officers and personnel of the Mitsui Chemicals Group are important in cultivating the trust and confidence of our stakeholders and society. To realize sustainable development of society and our group while contributing to our stakeholders, we will continue to “act in good faith”, “cherish people and society”, and provide “creative and innovative solutions” in line with our action guidelines.

Responsible care initiatives originated in unique activities of the chemical industry to ensure ongoing improvements in safety, health, and environmental platforms. Although originating in the chemical industry, the principles are universal to all industries.
Responsible care at the Mitsui Chemicals Group is not limited to chemical products and materials. Its ideals cover all aspects of the product lifecycle from development, logistics, use, and disposal. It is the self-implemented management and improvement of measures related to safety, health, the environment, and quality.

In accordance with our corporate philosophy and action guidelines, we will meet the expectations of and fulfill our responsibilities to the community and society by not only complying with rules and regulations but by also contributing to and advancing safety, health, and environmental initiatives as well as bolstering quality for the continued sustainability and growth of society. The Mitsui Chemicals Group recognizes these to be its most important responsibilities to society and will make every effort convey its activities and principles by better communication with stakeholders and corporate entities while expanding its business focus and activities.

◆ **We pledge safety is our top priority and focus on achieving zero accidents and occupational injuries.**

Everyone recalls the April 22, 2012 tragedy at Iwakuni-Ohtake Works where an explosion and fire claimed the life of one of our young employees. This accident resulted in a loss of society's trust toward our company. We all pledged that, "We must never let an accident like this to happen again". To be true to this promise, we have strictly implemented fundamental safety activities. However, the establishment of a safety culture does not happen overnight. We will steadfastly continue our safety efforts, one step at a time, so that we may become a "corporate group with the highest level of safety".

Additionally, the Mitsui Chemicals Group aims for safe and stable operations in the event of natural disasters including earthquakes, tsunamis, and typhoons, by conducting daily response drills and by preparing equipment measures for emergency actions such as emergency shutdowns. These efforts aim to regain the trust of society and "realize an industrial infrastructure that is in harmony with the local communities".

◆ **We make efforts to assess risks of our products throughout their lifecycles to ensure the health and safety of all persons and to protect the environment by reducing their environmental impact.**

Mitsui Chemicals engages in sound chemical substance management as a part of efforts to support the international pledge of the Word Summit on Sustainable Development to minimize the negative impact of chemicals on people and the environment by the year 2020. To this end, we have assessed the risk of chemical substances on humans and the environment throughout the product life cycle, and are working to ensure human health and reduce environmental load. We provide assessment results to our stakeholders and contribute to creating a secure society.

◆ **We contribute to improving quality of life and protecting the environment through our business activities by developing beneficial technology and products.**

The Mitsui Chemicals Group aims to contribute to social issues such as a society coexisting in harmony with the environment and "successful aging" where all people can enjoy good health and happiness in an aging society through our business activities. To this end, we are actively developing technology and

products that contribute to improving quality of life and protecting the global environment.

◆ **We provide high quality products and services that satisfy customer needs and respond to the trust that they place in us.**

When providing products and services, we believe it is important to ensure quality from the perspective of the customer and respond to the trust they place in us. Therefore, we make every effort to understand the uses of our products by our customers, and provide products that our customers can use with confidence and satisfaction.

◆ **We actively promote the well-being of all our employees.**

“Employee well-being is directly linked to the company’s well-being.” “Improving the health of our employees is in itself a contribution to society.” With this in mind, the Mitsui Chemicals Group is actively involved in efforts to improve the health of all persons working within the Group. Not only is physical health but also mental health an important issue. To this end, we will support employees in their voluntary efforts to ensure good health and promote the creation of lively work environments.

September 1, 2015

Responsible Care Shiodome Manifesto

The Mitsui Chemicals Group pursues the fulfillment of its responsibilities to society based on its corporate philosophy to “Contribute broadly to society by providing high-quality products and services to customers through innovations and the creation of materials, while keeping in harmony with the global environment”.

Therefore, to earn the trust of society, the Mitsui Chemicals Group will voluntarily pursue Responsible Care activities which assure protection of the environment, safety, occupational health, and quality throughout the entire lifecycle of a product from its development, manufacture, transport, use, consumption, and final disposal.

As a member of the Mitsui Chemicals Group, I pledge that my company will adhere to the following commitments:

1. Take leadership in promoting Responsible Care activities and cultivate a culture of active participation in Responsible Care activities by all employees.

2. Safeguard people and the environment through continual improvement of the system and performance regarding environmental preservation, process safety, occupational safety and health, chemical safety, quality management, and logistics safety.

3. Implement sound chemical management to aim for higher performance beyond regulatory compliance for chemicals.

4. Aim to further improve safety management by providing logistics partners and product users with product safety information and methods to appropriately handle the products.

5. Continue efforts to secure the confidence of local communities by sharing the results of safe operation performance and information on chemical safety whenever necessary to local municipalities and communities.

6. Contribute to the sustainable growth of the Mitsui Chemicals Group and by extension the sustainable development of society by steadily implementing Responsible Care activities.

Signature _____

Name: 101

Title: SAMPLE

Company: SAMPLE

Date: _____

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Audit

We conduct environment & safety (environmental protection, process safety and disaster prevention, occupational safety), occupational health, quality, and chemical safety audits, in order to objectively evaluate the effective implementation of Responsible Care activities at our works, business divisions, laboratories as well as subsidiaries and affiliates all over the world. Auditors selected through specific procedures conduct audits based on a checklist. They also evaluate departments for their progress on the priority issues and improvements made concerning problems identified in the previous audit. The frequency and duration of the audits are determined with the aim of ensuring they are effective and with consideration for the size, business type, and management level of the organization to be audited.

Environmental & safety audits, quality audits, and chemical safety audits are conducted every one to three years, and an occupational health audit is conducted every two to five years. These audits are conducted on the sites where the Head Office determined that an on-site audit was necessary.
In fiscal 2018, audits were conducted according to the annual plan, and any issues to be corrected or improved were pointed out after confirming that the Responsible Care activities had been put into practice appropriately. The audit results were then reported to the Responsible Care Committee.

Status of Third-party Certification and the Implementation of Internal Audits by the Company's Head Office (2016-18)

Environmental & Safety Audit	"Safety is our top priority" has been systematically implemented, confirming activities aimed at reducing accidents and occupational injuries.
	Scope of audit: Works and laboratories of Mitsui Chemicals and its subsidiaries and affiliates
Occupational Health Audit	Confirming appropriate action to maintain a suitable work environment, activities to promote better health, etc.
	Scope of audit: Works and laboratories of Mitsui Chemicals and its subsidiaries and affiliates (However, the scope excludes some departments in the United States, Europe, etc.)
Quality Audit	The roles and responsibilities for assuring products and services that satisfy customer demands were identified clearly. Also, the quality management system was confirmed to be developed appropriately and managed effectively for the improvement of customer satisfaction.
	Scope of audit: Works, business divisions, Logistics Division and Purchasing Division of Mitsui Chemicals and consolidated subsidiaries and affiliates with manufacturing divisions (including affiliated contractors providing manufacturing services). Audits may be conducted at other

	affiliated companies, when needed.
Chemical Safety Audit	Confirming the chemical management system, the state of its management and state of compliance with relevant laws and regulations.
	Scope of audit: Business divisions, branch offices and laboratories of Mitsui Chemicals, as well as affiliated companies that market chemical products. (Laboratories are included in the scope of audit because they provide samples.)

Status of Third-party Certification and the Implementation of Internal Audits by the Company's Head Office (2016 - 18)

Country Region	Company	Business Sites	Third-party certification		Environment & Safety	Occupational Health	Third-party certification	Quality
			ISO 14001	OHSAS 18001			ISO 9001	
Japan	Mitsui Chemicals, Inc.	Ichihara Works	○	○	○	○	○	○
		Mobara Branch Factory	○	○	○	○	○	○
		Nagoya Works	○		○	○	○	○
		Osaka Works	○	○	○	○	○	○
		Iwakuni-Ohtake Works	○	○	○	○	○	○
		Omuta Works	○	○	○	○	○	○
		Sodegaura Center			○	○		
	Kyowa Industrial Co., Ltd.	Head Office (Sugue Factory)			○	○		
		Large-Parts Manufacturing Factory			○	○		
	Saxin Corporation	Factory	○		○	○	○	○
	Sun Medical Co., Ltd.	Factory			○	○	ISO13485	
	Sunrex Industry Co., Ltd.	Factory	○		○	○	○	○
	Shimonoseki Mitsui Chemicals, Inc.	Factory	○		○	○	○	○
	Japan Composite Co., Ltd.	Shimizu Factory	○		○	○	○	○
	Toyo Beauty Supply Corporation	Factory			○	○	○	○
	NIPPON ALUMINUM ALKYLS, LTD.	Osaka Works	○		○*1	○*1	○	○
	Prime Polymer Co., Ltd.	Head Office						○
	Hokkaido Mitsui Chemicals, Inc.	Factory			○	○	○	○
	Mitsui Chemicals Agro, Inc.	Head Office						○
	Utsunomiya Chemical Industry Co., Ltd.	Utsunomiya Works			○	○	○	○*2
		Funaoka Factory			○	○	○	○*2
		Shinshiro Factory			○		○	○*2
		Tosu Factory			○	○	○	○*2
	Mitsui Chemicals MC Co., Ltd.	Head Office, Shimizu Factory	○	○	○	○	○	○
		Kaibara Factory	○		○	○	○	○
	MITSUI CHEMICALS SUN ALLOYS CO., LTD.	Factory			○	○	○	○
	Mitsui Chemicals Industrial Products, Ltd.	Head Office						○
		Saitama Office	○		○	○	○	○
		Otake Office	○	○	○*1	○*1	○	○
	Mitsui Chemicals Tohcello, Inc.	Head Office					○	○
		Katsuta Factory	○		○	○	○	○*2
		Ibaraki Factory	○		○	○	○	○*2
		Koga Manufacturing Dept., Ibaraki Works	○		○	○	○	○*2
		Hamamatsu Factory	○		○	○	○	○*2
		Anjo Factory	○		○	○	○	○*2
	Shikoku Tohcello Co., Ltd.	Factory	○		○	○	○	○*2
	Mitsui Fine Chemicals, Inc.	Head Office						○
	Mitsui Chemicals & SKC Polyurethanes Inc.	Head Office						○
		Tokuyama Factory	○		○	○	○	○
	Yamamoto Chemicals, Inc.	Head Office, Yao Factory	○		○	○	○	○
		Omuta Works	○		○	○	○	○
China	Mitsui Chemicals (China) Co., Ltd.	Head Office						○
		Technical Center			○			
	Tianjin Cosmo Polyurethane Co., Ltd.	Tianjin Works	○		○	○	○	○
		Suzhou Works	○		○	○	○	○
	Mitsui Chemicals Nonwovens (Tianjin) Co., Ltd.	Factory			○	○	○	○
	Mitsui Chemicals Functional Composites (Shanghai) Co., Ltd.	Factory	○		○	○	○	○
	Mitsui Advanced Composites (Zhongshan) Co., Ltd.	Factory	○		○	○	○ ISO16949	○
	Zhang Jia Gang Free Trade Zone Mitsui Linkupon Advanced Material, Inc.	Factory	○		○	○	○ QC08000	○
	Foshan Mitsui Chemicals Polyurethanes Co., Ltd.	Factory	○		○		○	○

Country Region	Company	Business Sites	Third-party certification		Environment & Safety	Occupational Health	Third-party certification	Quality
			ISO 14001	OHSAS 18001			ISO 9001	
South Korea	KOC Solution CO.,Ltd	Factory			○		○	
	KUMHO MITSUI CHEMICALS, INC.	Factory			○			
Southeast Asia	Mitsui Chemicals Asia Pacific, Ltd.	Technical Center			○			
	Mitsui Elastomers Singapore Pte. Ltd.	Factory	○	○	○		○	○
	Mitsui Phenols Singapore Pte. Ltd.	Factory	○	○	○		○	○
	Prime Evolue Singapore Pte. Ltd.	Factory	○	○	○		○	○*2
	SDC Technologies Asia Pacific, Pte. Ltd.	Factory			○		○	○
	Mitsui Chemicals Singapore R&D Centre Pte. Ltd.	Laboratory			○			
	Grand Siam Composites Co., Ltd.	Works	○ ISO50001	○	○		○ ISO16949	○
	Mitsui Hygiene Materials (Thailand) Co., Ltd.	Factory	○ ISO50001	○	○	○	○	○
	Siam Tohcello Co., Ltd.	Works	○	○	○	○	○	○*2
	Thai Mitsui Specialty Chemicals Co., Ltd.	Works	○	○	○	○	○	○
	P.T. PETnesia Resindo	Works	○	○	○		○	○
	GC-M PTA Co., Ltd. (Siam Mitsui PTA Co., Ltd.)	Factory	○ ISO50001	○	○		○	○
	Thai PET Resin Co., Ltd.	Works	○ ISO50001	○	○		○	○
	Cosmo Scientex (M) Sdn. Bhd.	Works	○	○	○		○	○
	MCNS Polyurethanes Malaysia Sdn Bhd	Works	○		○		○	○
	MCTI SCIENTEX SOLAR SDN. BHD.	Factory			○			
	PT. MCNS Polyurethanes Indonesia	Works	○	○ SMK3	○		○	○
	Mitsui Chemicals India, Pvt. Ltd.	Head Office						○
	Mitsui Prime Advanced Composites India, Pvt. Ltd.	Factory	○		○		○	○
USA	Mitsui Chemicals America, Inc.	Head Office						○
	Advanced Composites, Inc.	Ohio Plant	○	○	○		○ ISO16949	○
		Tennessee Plant	○	○	○		○ ISO16949	○
	Advanced Composites Mexicana, S.A. de C.V.	Factory	○ INDUSTRIA LIMPIA		○		○	○
	Anderson Development Company	Factory	○ RC14001		○		○	○
	Image Polymers Company, LLC	Factory	○	○				○
	SDC Technologies, Inc.	Factory			○		○	○
	Mitsui Prime Advanced Composites do Brasil Indústria e Comércio de Compostos Plásticos S.A.	Factory			○	○	○	○
Europe	Mitsui Chemicals Europe GmbH	Head Office						○
	Acomon S.R.L.	Factory	○		○		○	○

* Additions to ○ in the Third-party Certification column indicate that extra certifications have been acquired.
* Total 50 sites (77%) of 65 production sites acquired ISO 14001 certification.
* Also, 22 sites (34%) of 65 production sites acquired OHSAS 18001 certification.

*1 : Audit conducted as a part of Mitsui Chemicals Works as it is located within the Works premises.
*2 : Parent company conducts the audit.

Roll Out Globally

Mitsui Chemicals is rolling out Responsible Care activities to subsidiaries and affiliates in Japan and overseas as a part of efforts to promote Responsible Care across the Group as a whole.

Global Network and SHE Meetings

Mitsui Chemicals is building an information network across the five regions where its subsidiaries and affiliates operate: China, Asia, Europe, the Americas, and Japan as its center. This network gathers Responsible Care-related information from industry associations located in each region, which after being summarized and analyzed by the head office is shared throughout the Mitsui Chemicals Group.
As part of the Responsible Care activity programs in each region, the Company holds SHE (Safety, Health, and the Environment) meetings that gather together the staff in charge of Responsible Care of various subsidiaries and affiliates. SHE meetings provide opportunities for participants to learn from each other by analyzing process accidents, occupational injuries and other case studies as well as learning best practices.

China

Ten affiliates in China participated in the SHE meeting for China affiliates held in Shanghai in June 2018. The meeting spotlighted information sharing and exchange regarding each company’s activities in the area of occupational health & safety.

Americas

Six companies in the Americas participated in the RC Meeting for the region held in Ohio, USA, in September 2018. Information was shared on various activities organized to assure safety, as well as action on sustainability. Additionally, the Mitsui Chemicals Group's corporate sustainability was presented with the establishment of the new Corporate Sustainability Division in April 2018.

Asia-Pacific Region

The Asia-Pacific RC Meeting was held in Bangkok, Thailand, in March 2019. Fifteen companies in the region participated and shared information on their environmental and safety activities.

Evaluation of the Responsible Care Activities of Affiliates

Overseas subsidiaries and affiliates are also attracting high external praise for their Responsible Care activities.

Thailand

Mitsui Hygiene Materials (Thailand) Co., Ltd. was awarded the National Safety Performance Award for 2018 by the Thai Department of Labour Protection and Welfare in June 2018. Grand Siam Composites Co., Ltd. was awarded the The Responsible Care Code of Management Practices self-assessment Award by the Responsible Care Management Committee of Thailand (RCMCT).

Indonesia

In March 2019, P.T. PETnesia Resindo was awarded the Zero Accident Award by the Ministry of Manpower of the Republic of Indonesia.

Singapore

Mitsui Phenols Singapore Pte. Ltd. was awarded the SCIC Responsible Care Awards by the Singapore Chemical Industry Council (SCIC) in March 2019. It was also awarded the Excellence Awards for Community Awareness and Emergency Response Code category, etc. Furthermore, it was certified the SCIC-SCDF (the Singapore Civil Defense Force) Responsible Care Collaboration and Recognition Scheme 2018. Mitsui Elastomers Singapore Pte. Ltd was awarded the SCIC Responsible Care Awards for the Achievements in four categories.

China

In April 2018, Mitsui Chemicals was presented with the 2018 RC Chairman’s Award by the Association of International Chemical Manufacturers. Presented biannually to companies with an outstanding track record, this award recognized the Group’s extensive ongoing Responsible Care activities as well as its contributions to the sustainable development of the Chinese chemical industry and Chinese society over a long period.
The company received this recognition for the diligent safety-related activities it conducted in the region, including reinforcement of hazard detection activities and improvements to the work environment at its affiliates in China, its continued reporting of its safety and environmental data and the scientific experiment workshop it organized at Hope Primary School in Anhui Province.

Mexico

In October 2018, Advanced Composites Mexicana S.A. de C.V. received the Green Industry Certificate from the Aguascalientes State Environmental Protection Agency. This certificate is awarded to companies that develop and steadily implement environmental projection management systems.

Management System

Policy and Basic Approach

The Mitsui Chemicals Group places top priority on safety for the Group's sustainable growth. Safety is the foundation of society's trust, and at the same time, ensuring safety increases our manufacturing quality, leading to improvement of corporate value from the financial viewpoint.
With this approach, we established a management policy that states "Safety is our top priority," and our Responsible Care Policy declares that, "We pledge that safety is our top priority and will focus on achieving zero accidents and occupational injuries." Top management repeats this as the President's message, etc. to all the Group employees on many occasions, such as in opening addresses, plants visits, Safety Day messages, and in Company newsletters.

The Mitsui Chemicals Group understands the key to realizing this vision of safety and accident prevention is to maintain a high level of safety regardless of the diversification of employees, facilities, and technologies as business globalization and business portfolio reform progresses. In line with this vision, we strive to provide education and training to employees to be able to put fundamental safety initiatives into practice, globally promote the safety culture, and introduce and disseminate new safety technologies.

All employees of the Mitsui Chemicals Group are committed to relentlessly implementing the safety culture, reaffirming their heartfelt commitment to the pledge "safety is essential and for the benefit, not only of ourselves, but also our families, colleagues, and society as a whole."

System and Responsible Officers

Assigning the president as the Chief and the director in charge of the Production & Technology Center as the person directly responsible, the Safety & Environment Technology Division formulates, disseminates and promotes the safety and prevention strategy. The Responsible Care Committee examines strategy progress and identifies subsequent challenges based on the strategy review and environmental analyses obtained within and outside of the Group in order to create an annual plan and a medium to long-term plan.

The Company holds Health and Safety Committee meetings that include the participation of the responsible officers and labor union members for each site. The Safety and Environment Technology Division regularly checks the achievement of the priority issue targets relating to safety and prevention at domestic bases and ascertains the progress made. In addition, the Division collects, consolidates, and analyzes information on the occurrence of any serious accident and information on occupational accidents in the entire Group and shares that information throughout the Group. Safety and prevention audits are carried out regularly at the Company's business sites and at the manufacturing sites of companies eligible for Responsible Care support.

Management and labor union members in the Head Office hold regular Health and Safety Committee meetings to deliberate issues relating to occupational health and safety. At these meetings, the attendees report on and deliberate issues relating to occupational safety and health, including occupational accidents.

Goals and Results

KPI	Scope	FY2018			FY2019	Medium to Long-term
		Goals	Results	Level Achieved	Goals	Goals
Number of major accidents *1	Mitsui Chemicals Group	0	1	×	0	0 ongoing (FY2025)
Number of abnormal conditions / accidents *2	Mitsui Chemicals Group	5 or less	11	×	5 or less	—
Significant occupational injury frequency *3	Mitsui Chemicals Group	0.15 or less	0.33	×	0.15 or less	0.15 or less (FY2025)

*1 Major accidents:
Accident with a severity level of 18 points or more, as specified by the Japan Petrochemical Industry Association (JPCA) under Center for Chemical Process Safety (CCPS) evaluation procedures.

*2 Abnormal conditions/accidents:
Although under JPCA accident criteria having an intensity level of less than 18 points, conditions/accidents that the Company judges should be monitored under Company standards in consideration of the relevant laws and regulations.

*3 Significant occupational injuries:
“Significant Occupational Injuries(SOIs)” refer to occupational injuries that resulted in absence from work or death. SOIs also include lighter occupational injuries that, due to the potential danger in the cause of the injury, could have led to absence from work or death. SOIs do not include those injuries that are not directly related to operations.

Review and Challenges

Although we have achieved our target of zero major accidents for the past few years, one major accident and eleven abnormal condition/accident occurred in fiscal 2018. With regard to the fire (major accident) that broke out at the Osaka Works on June 21, 2018, the Company completed countermeasures planning following analysis of the direct causes and in-depth cause analysis in fiscal 2018. Now these prevention measures are also being implemented in other plant.
Our occupational injury frequency remains lower than that for the all industries in Japan and for the Japanese chemical industry. However, we have not yet achieved our target of “Significant Occupational Injury Frequency of 0.15 or less,” which was set aiming at the world’s highest safety standard.
Based on the above, the Company believes that its long-term tasks include the nurturing of human resources with a high awareness of dangerous situations and the ingraining of a safety culture throughout the Group.

Initiatives to Prevent Major Accidents

Based on our management policy of putting safety is our top priority in everything that we do, we have continued to implement a range of safety activities throughout the Mitsui Chemicals Group. Nevertheless, the explosion and fire occurred at the resorcinol production facility inside our Iwakuni-Ohtake Works in 2012. In fiscal 2017, a fire broke out at the Company's Ichihara Works Mobara Branch Factory. We recognize that there are also many points that apply to the incidence at our Iwakuni-Ohtake Works on which we must reflect. In addition, a fire broke out at our Osaka Works in June 2018. We take this latest incident very seriously and will strive to prevent any future recurrence. Reflecting on that incident, we have been implementing a series of measures to prevent major accidents and fundamental safety initiatives to ensure that nothing like that ever happens again.

* Please refer here for details of fires that broke out at the Mobara Branch Factory and Osaka Works in July 2017 and June 2018, respectively.

Fire at Mobara Branch Factory

Fire at Osaka Works

Top Management's Strong Commitment to Safety and Prevention

On Safety Day and during National Safety Week, etc., the Company president repeatedly conveys to all Mitsui Chemicals Group employees that they follow the management policy of "making safety their top priority in everything they do." The fiscal 2018 results are as follows.

- Instructions to make safety the top priority provided directly to Head Office staff during the opening address (simultaneously broadcast to all domestic sites)
- Broadcasting the President's Safety Day message across the Group as a whole
- Communicated safety instructions directly to employees at Head Office on Safety Day (simultaneously broadcast to all domestic sites)
- Pledge to make safety the top priority published in Safety Day-related Company newsletters
- Broadcasting the President's National Safety Week message across the Group as a whole
- Direct safety instructions provided during Works visits (control room, auditorium, etc.)

We are working to ensure active involvement with worksites that includes the Vice President, Senior Managing Executive Officer and the Center Executive of the Production & Technology Center by conducting tours of the parent company works and each production sites of domestic and overseas affiliates.

Fundamental Safety Measures

Mitsui Chemicals takes extremely seriously the explosion and fire at the resorcinol production facility at its Iwakuni-

Ohtake Works on April 22, 2012. For these six years, we have been introducing a series of fundamental safety measures, reviewing and improving comprehensive safety and prevention at a company-wide level. A number of measures that have been developed after exhaustive discussions are now incorporated into our daily activities, and continuous safety improvements are being made by repeating the PDCA cycle in our daily tasks. While carefully weighing the priorities against each other in implementing these fundamental safety measures to raise safety levels, we will continue to introduce more initiatives in the years ahead.

Overview of Efforts Aimed at Advancing Fundamental Safety Measures

From the beginning of 2013, we built up the fundamental safety measures shown in overview in the chart below and conducted them on a Group-wide basis.

Key Points of the Fundamental Safety Measures

- The steering committee[*1], which reports directly to the president, deliberates Group-wide issues and sets the direction for activities
- Management spearheads the participation in safety initiatives through active dialogue owing to greater opportunities for Head Office personnel to visit plants
- Issues pointed out by external experts and other third parties are reflected in plant operations
- General managers of Works give safety talks, while cross-sectional safety inspections are performed by safety advisors[*2]
- Meetings among foremen organized by managers help to enhance communication

*1 Steering committee:
To make swift progress of fundamental safety measures, the members shown in the diagram meet to discuss Group-wide issues and set the direction of activities.

*2 Safety advisors:
Veteran employees involved in daily activities and improving the overall level of safety at plants by exchanging opinions with workers.



Progress with Fundamental Safety Measures

Addressing three important challenges and involving the deployment of 11 measures, the fundamental safety measures are used to advance concrete efforts throughout the company. Many of the initiatives have been pushed forward to the point where they are now positioned as everyday tasks. Regarding the recurrence prevention measures following the fire that occurred in the Mobara Branch Factory in July 2017, we focused on building a system that could inherit advancing safety technologies and on reviewing the technology assessment system in fiscal 2018. At the same time, we provided production line managers with thorough training on operating these systems. Unfortunately, a chimney fire occurred in the Osaka Works in June 2018 during periodic repairs. We are now discussing voluntary fire prevention measures to be applied during the management of subcontract work.



Thorough Risk Assessments

Mitsui Chemicals applies the HAZOP[*1] to assess safety in the building, expansion, and refurbishment of facilities and to identify dangers in plants as a means of eliminating the possibility of accidents. Learning the lessons from the resorcinol production facility explosion and fire at the Iwakuni-Ohtake Works, we expanded to include non-routine operations at Works. In addition, the Company has been conducting non-routine risk assessments on a continuous and constructive basis. The Company will continue to undertake thorough risk assessments.

Fostering HAZOP Leaders

The role of the HAZOP leader, who is the leader of the analysis, is an important one. To foster HAZOP leaders at the Company, since fiscal 2013 we have been holding training sessions for manufacturing workplace staff and others for them to learn more about analysis methods and investigation concepts at each Works. We will plan to periodically hold these training sessions to foster HAZOP leaders and to improve the level of HAZOP.

Measures to Non-routine Risk Assessment

From fiscal 2013 to fiscal 2014, based on the inspection procedures established during emergency shutdowns by operating model plants at all Works on a trial basis, the Inspection Group organized at each Works conducted inspections of emergency shutdown procedures at all plants. Finally, Head Office staff conducted follow-ups on the inspection results for each Works.

From fiscal 2014, the Company conducted verifications of the assessment methods, for which both “What if [*2]” and batch HAZOP were utilized, at several model plants. Then, in fiscal 2015, at the Osaka Works and Ichihara Works, we began risk assessments related to the non-routine operation “startup” and applied to all Works and in fiscal 2016. We continue these procedures to all Works in fiscal 2019.

*1 HAZOP:
Hazard and Operability Study. A method to formulate safety measures by seeking any possible deviation from normal operations, and analyzing the cause of such deviation and its possible impact.

*2 What-if:
A method to formulate safety measures by repeating “What if…” questions to explore possible incidents and their impact.

Measures to Boost Seismic Resistance of Existing High-pressure Gas Facilities

In response to a notification issued by Japan’s Ministry of Economy, Trade and Industry in May 2014, the Company has almost finished an assessment of the seismic resistance of its existing high-pressure gas facilities. Based on the results of the assessment, the Company has formulated a repair plan and is systematically undertaking seismic enhancement work.

Re-accreditation of high-pressure gas self-safety inspection

Since the explosion and fire incident in the resorcinol manufacturing facility in the Iwakuni-Otake Works in 2012, our accreditation regarding high-pressure gas self-safety inspection of the works has not been updated. The works reapplied for accreditation in fiscal 2018, and successfully obtained it as of February 1, 2019.

Safety Culture Assessment

The Mitsui Chemicals Group is collaborating with Niigata University and the Graduate School of System Design and Management at Keio University to undertake safety culture assessment, which enable the visualization of a workplace's strengths and weaknesses. By repeated in-house discussions on all rank-specific gaps, the assessment can also be used as a tool to improve workplace communications.

The second safety culture assessment took place in the Iwakuni-Otake Works, Nagoya Works, and Ichihara Works in fiscal 2018, four years after the previous assessment. The assessment were useful to discover the results of the workplace safety promotion activities and environmental changes around the workplaces over the past four years. All four affiliate companies were subject to the assessment.
The assessment results were found to be useful in helping employees to become aware of the safety culture operating in their workplaces, and we continue to utilize this assessment.



Briefing at Ichihara Works

Status of Undertaking Safety Culture Assessment

Mitsui Chemicals, Inc.			
	～FY2017	FY2018	FY2019 (Plan)
Ichihara Works*	●	●	
Mobara Branch Factory*	●		●
Nagoya Works*	●	●	
Osaka Works*	●		●
Iwakuni-Ohtake Works*	●	●	
Omuta Works*	●		●

* Including subsidiaries and affiliates within factory premises where the parent company works manager bears the responsibility for Responsible Care implementation.

Subsidiaries & Affiliates			
	～FY2017	FY2018	FY2019 (Plan)
Domestic	• Toyo Beauty Supply Corporation • Sun Alloys Co., Ltd. • Sunrex Industry Co., Ltd. • Mitsui Chemicals & SKC Polyurethanes Inc. Tokuyama Factory • Utsunomiya Chemical Industry Co., Ltd. Utsunomiya Works, Funaoka Factory, Shinshiro Factory, Tosu Factory	• Shimonoseki Mitsui Chemicals, Inc. • Yamamoto Chemicals, Inc. Yao Factory, Omuta Works • Mitsui Chemicals Industrial Products, Ltd. Saitama Office • Honshu Chemical Industry Co., Ltd. Wakayama Factory	•
Overseas	• Mitsui Hygiene Materials (Thailand) Co., Ltd. • Mitsui Chemicals Nonwovens (Tianjin) Co., Ltd.		•

Receipt of Third-party Assessments of Process Safety Capability

On an ongoing basis, the Mitsui Chemicals Group receives process safety capability assessments from the Japan Safety Competency Center. Aimed primarily at manufacturing industries dealing with petroleum and petrochemical products, the assessments cover security from the viewpoint of safety infrastructure and safety culture and enable the visualization of strengths and weaknesses with regard to safety capability by means of numerical values. Through its process safety capability assessments, the Japan Safety Competency Center is aiming to raise the safety level of the Japanese chemical industry, a purpose with which the Company is in full agreement.
Following on from the Osaka Works and the Ichihara Works, in April 2018 the Iwakuni-Ohtake Works conducted a self-assessment of its safety capability and then underwent an evaluation by the Japan Safety Competency Center. We will continue to utilize advice from the Japan Safety Competency Center, a third party, in our future safety and process safety activities.



Assessment result report meeting (Iwakuni-Ohtake Works)

Summary of Results

Safety Infrastructure

① The average assessment level for safety infrastructure significantly exceeds the 3.0 that is said to be the pass level for petrochemical and oil refining companies. As an average, the safety infrastructure management level is extremely high and considered to be the top level in the industry.

② The average level of each of the 10 major items is higher than 3.0, the variation for each item is small, and thus it can be said that the management level is very high.

③ Although most of the assessment items are at level 3.0 or higher, we found several items that we believe to be in need of improvement.

Safety Culture

① The average safety culture assessment level was significantly higher than the 3.0 that is said to be a solid level of safety culture and can thus be considered to be at the top level of the industry.

② The average level of each of the seven major items exceeds 3.0, the variation for each item is small, and thus it can be said that safety culture is at a high level.

③ Currently, memories of the explosion and fire at the resorcinol manufacturing facility in 2012 remain strong. The value judgment of making safety a top priority is shared, from the top management to the frontline operator, based on the determination that an accident should not occur again. Meanwhile, the awareness that six years have passed since the accident continues to take hold. The number of employees who have no direct experience of an accident is increasing, so giving consideration regarding how to continue sharing that value judgment is expected to become necessary in the future.

Accidents and Occupational Injuries

The Mitsui Chemicals Group positions as KPIs and monitors major accidents, the number of abnormal conditions/accidents as well as the occupational injury frequency.

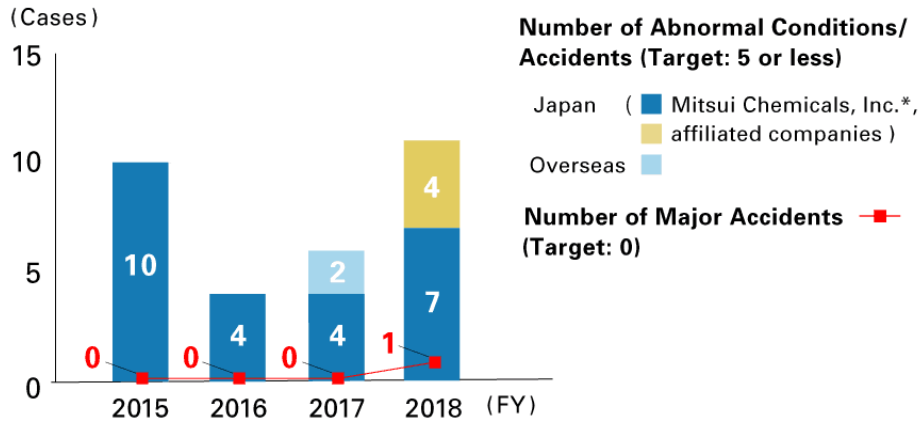
Major Accidents and Abnormal Conditions/Accidents

In fiscal 2018, the Mitsui Chemicals Group suffered one major accident[*1], compared with a target of zero, the number of abnormal conditions/accidents[*2] was 11, compared with a target of five. With regard to these abnormal conditions/accidents, we completed investigations into the causes and the horizontal deployment to all manufacturing sites. We are promoting preventive measures across the Group.

*1 Major Accidents:
Accident with a severity level of 18 points or more, as specified by the Japan Petrochemical Industry Association (JPCA) under Center for Chemical Process Safety (CCPS) evaluation procedures.

*2 Abnormal conditions/accidents:
Although under JPCA accident criteria having a severity level of less than 18 points, conditions/accidents that the Company judges should be monitored under Company standards taking into account the relevant laws and regulations.

Number of Major Accidents and Abnormal Conditions/Accidents



Note: Including subsidiaries and affiliates within our Works, and the Works general manager bears the responsibility for Responsible Care implementation.

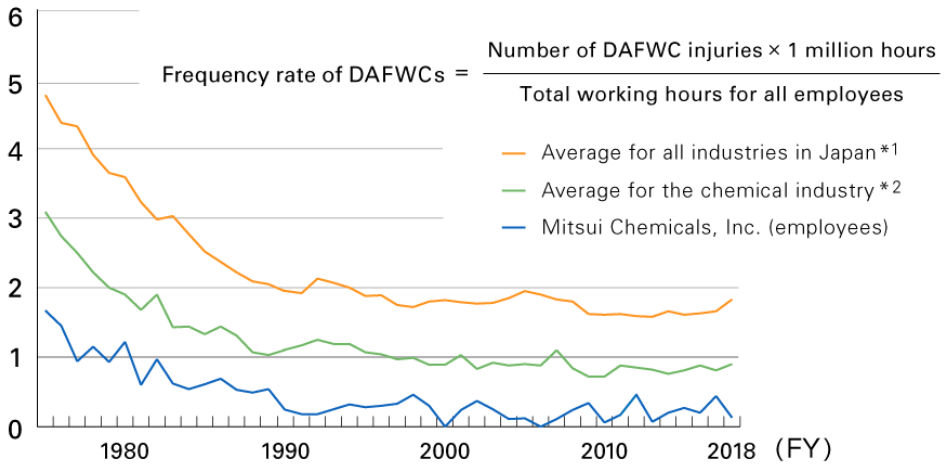
* Scope of data compilation for domestic and overseas affiliates: Affiliated companies eligible for Responsible Care support

Occupational Injuries

Compared with the Japanese overall industry average and the Japanese chemical industry average, the Company maintains a high level in terms of Days Away from Work Cases (DAFWCs) and, in aiming to achieve the world's highest standards for safety, targets a frequency of 0.15 or below with regard to significant occupational injuries*. The significant occupational injury frequency for the Mitsui Chemicals Group for fiscal 2018 was 0.33, and thus we were unable to achieve the targeted numerical value of the highest global standard for safety of less than 0.15. Breaking down that value, the significant occupational injury frequency for both domestic construction subcontractors and the in overseas affiliate companies worsened to 0.51 compared to the previous year. Having thoroughly checked the content of the breakdown, we will expand the scope of the data compilation in fiscal 2019. In contrast, there was a significant improvement in the significant occupational injury frequency for Mitsui Chemicals. In having conducting a simple risk assessment for non-routine operations in fiscal 2018, it appears that our efforts were effective. By type of injury, we were unable to completely eliminate accidents related to becoming caught or entangled in machinery. Concerning this issue, we will promote the leaflet of Precautions Concerning Becoming Caught or Entangled in Machinery, which we formulated internally, and implement further preventative measures.

* Significant Occupational Injuries:
"Significant Occupational Injuries(SOIs)" refer to occupational injuries that resulted in absence from work or death. SOIs also include lighter occupational injuries that, due to the potential danger in the cause of the injury, could have led to absence from work or death. SOIs do not include those injuries that are not directly related to operations.

Comparison of Occupational Injury Frequency between Mitsui Chemicals, the All Industries in Japan and the Japanese Chemical Industry



* Occupational injury frequency = Number of individuals killed or injured by occupational accidents x 1 million hours / Total working hours for all employees

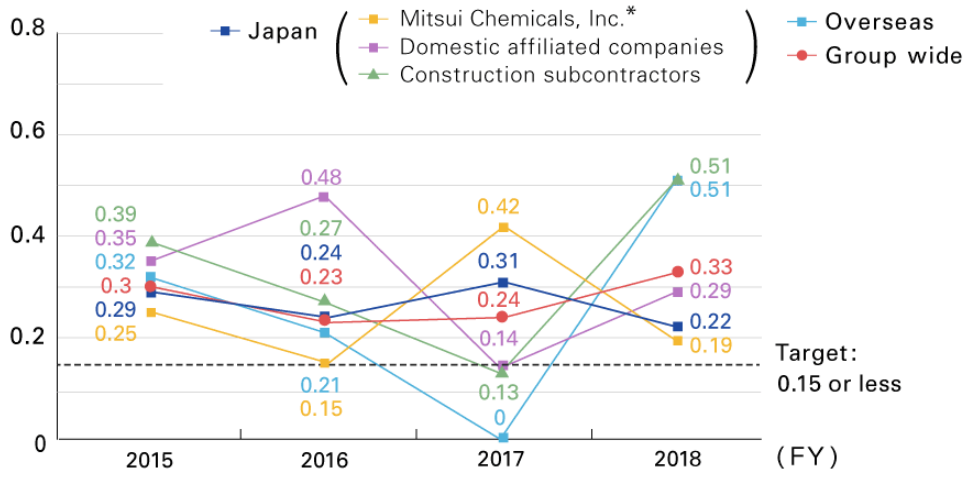
* The figures for the all industries in Japan and for the Japanese chemical industry indicate the Days Away From Work Case (DAFWC) frequency. The Mitsui Chemicals figures represent the DAFWC frequency until the end of the first half of fiscal 2012, and the Significant Occupational Injury frequency from the second half of fiscal 2012.

Sources:

*1 Ministry of Health, Labour and Welfare White Paper Fiscal 2018 Survey on Industrial Accidents.

*2 Japan Industrial Safety & Health Association fiscal 2019 safety index.

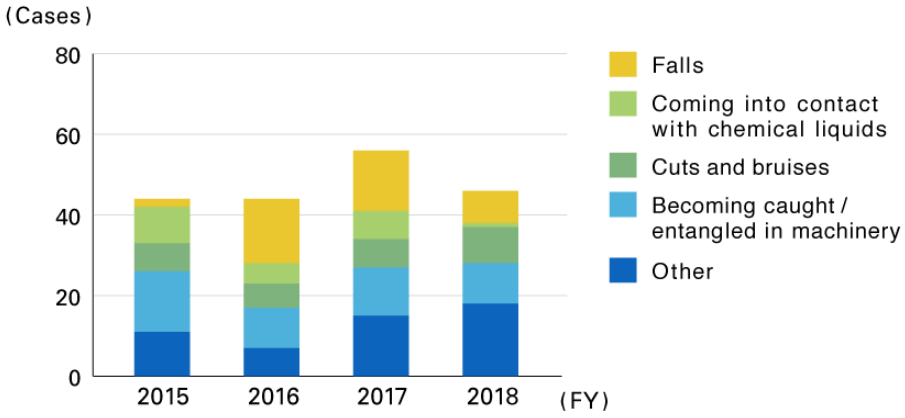
Significant Occupational Injury Frequency



* Includes contractors operating on site.

Note: Scope of data compilation for domestic and overseas affiliates: Consolidated subsidiaries and affiliated companies eligible for Responsible Care support.

Number of Occupational Injuries Resulting in Zero or More Lost Work Days by Type



* Includes Mitsui Chemicals operations- and construction-related subcontractors.

* Scope of data compilation for domestic and overseas affiliates: Consolidated subsidiaries and affiliated companies eligible for Responsible Care support.

Training

The Mitsui Chemicals Group is implementing various initiatives, including training, toward nurturing human resources with a high awareness of dangerous situations and the ingraining of a safety culture throughout the Group.

Safety Day

To prevent the recurrence of accidents like the April 22, 2012, explosion and fire at the resorcinol production facility at our Iwakuni-Ohtake Works, Mitsui Chemicals has designated April 22 as Safety Day. Continuing on from the previous year in fiscal 2019, and with the aim of giving the event a greater presence and more of a sense of tension, we simultaneously relayed a live broadcast of the President's moral discourse on safety to a total of six facilities, and all employees reaffirmed their commitment to making safety their top priority in everything they do. We also gave safety presentations in different sites. The ceremony in the head office was attended by the President, Executive Vice President, and directors. Also, the ceremonies in the Iwakuni-Otake Works and the Osaka Works were respectively attended by the Senior Managing Executive Officer (CTO) and a Managing Executive Officer (responsible for Works) to remind employees of the safety first policy.

In fiscal 2019, presentations were given on Safety Day at each production site

Production base	Speakers/Presentation
Mitsui Chemicals Head Office[*1]	Masamitsu Tamura Emeritus Professor, University of Tokyo
	Industrial Safety of the Future – Role of Corporate Management and Reinforcement of the Frontline
Ichihara Works[*2]	Teruo Yabe Omotenashi Creation Company
	Safety and Hospitality Created by All Corporate Members
Mobara Branch Factory[*1]	Akira Tose Specially Appointed Associate Professor, Niigata University
	Preventing Mistakes, Troubles and Accidents – Safety Culture at Factories～
Nagoya Works[*2]	（Desktop exercise for disasters）
Osaka Works[*2]	Tadao Minamikawa Environment Safety Department, Chiba Plant, AGC Inc.
	Accident Prevention with Evaluation of Behavior Characteristics

Iwakuni-Ohtake Works*1	Masao Mukaidono Professor Emeritus, Meiji University
	Management Structure for Safety and Creation of Safety Culture
Omuta Works*1	Masayoshi Nakamura Specially Appointed Professor, Tokyo Institute of Technology
	Future Safety Management Based on Changes in Manufacturing Site
Sodegaura Center*2	Asami Furuhashi shift-brain Japan Inc.
	Brain for Safety Behavior – Brain Training for Zero Accidents
Hokkaido Mitsui Chemicals*1	(Showing DVD of resorcinol accident)
Shimonoseki Mitsui Chemicals*1	Toshihide Kihara Safety & Environment Technology Division, Plant Operation Technology Training Center
	Resorcinol Accident Review and Lessons to be Inherited
Polyurethanes Mitsui Chemicals & SKC Polyurethanes Tokuyama Factory*1	(Broadcast from Iwakuni-Ohtake Works)

*1 The President's moral discourse on safety at the Head Office safety pledge ceremony was simultaneously transmitted.

*2 The video of President's moral discourse on safety at the Head Office safety pledge ceremony was transmitted at a later date.



President's moral discourse on safety at the Head Office safety pledge ceremony



Mr. Tamura's lecture at the Head Office safety pledge ceremony



Pointing and Calling by participants at the Head Office safety pledge ceremony



Safety pledge ceremony at Iwakuni-Ohtake Works

Hazard Prediction (Kiken Yochi, or “KY”) as well as Pointing and Calling

In order to eliminate accidents and occupational injuries at the Mitsui Chemicals Group, we undertake initiatives at parent company Works and at domestic and overseas affiliates to entrench and energize hazard prediction (Kiken Yochi, or “KY”) and pointing and calling.

At parent company Works, planning, implementing, evaluating and improving each Works leads to a raised level of operations. During the course of these initiatives, as it is important to develop human resources who are able to recognize dangerous things as being dangerous and take safe action to prevent danger, KY education is implemented on an ongoing basis at each Works.
KY trainers are chosen at each Works to perform as drivers of these KY initiatives, and Companywide meetings held once a year. At these meetings, KY trainers report on the status of KY initiatives at their Works, and exchange opinion on troubles or questions about KY initiatives. Sharing information enables KY trainers to reference the information with regard to KY activities at their own Works.

With regard to KY and pointing and calling training for domestic and overseas affiliates, we have provided training support on an ongoing basis at the Safety & Environment Technology Division. That the significance and necessity of KY and pointing and calling training are understood at all affiliates, assists in their use in actual work situations and is thus helping to lead to their entrenchment.
The training incorporates exercises, presentations and team discussions that are appropriate to actual work situations, looking back on their daily tasks, and raising awareness so that safer actions can be taken. Key men are of particular necessity to entrench KY and pointing and calling, and the Company is encouraging their development through training.

KY training sessions

KY training	Number of Attendees (Training Time per Person/Session [hrs / person])	
	FY2017	FY2018
Mitsui Chemicals, Inc.	608 (3.5)	963 (3.8)
Domestic Subsidiaries & Affiliates	411 (3.0)	357 (2.3)
Overseas Subsidiaries & Affiliates	122 (4.0)	68 (5.0)
Total	1,141	1,388

Near-miss Activities

At each Mitsui Chemicals production site, information on workers’ narrowly avoided major accidents or disasters, or “near-misses,” that occur as a result of operations, is identified, and the details are shared within the organization. These sharing activities are ongoing. In line with the occupational safety and health management system for each production site, the organization determines the cause of these near misses, as well as preventive measures. Those concerned are provided with the awareness gained, and plans are put into effect that cover both concrete matters, as well as more intangible issues, in the course of operations.
In carrying out these preventive measures, Mitsui Chemicals continues to secure necessary resources. Examples of specific representative measures are as follows.

Iwakuni-Otake Works

Referring to the accidents and occupational injuries that occurred in other workplaces and Works, all members of the Otake Manufacturing Section shared the task of identifying locations and operations with risks typical to a chemical plant that could cause a near-miss case. Such risks include (1) concerns for corrosion and collapses of stairs and floor (2) Machinery for open inspections etc. under a nitrogen atmosphere; and (3) Fires caused by alkylaluminum. Among these identified near-miss cases, the Health and Safety Committee members in each workplace select locations and operations with associated high risks and notify job group members on a monthly basis to prevent possible accidents. They also suggest improvement ideas for a better safety work environment.

Omuta Works

In 2014, Agrochemical Section members and operational subcontractors began listing up unsafe locations and unsafe behavior, as well as operational procedures that could lead to unsafe situations in specific facilities. Listed issues were then discussed in safety meetings in job groups and subcontractors to establish safer operational methods, eliminate risky tasks, and make facility improvements. The adopted safety measures have been implemented one by one.

Small-group Activities

Each Works at Mitsui Chemicals conducts small-group activities that undertake activities in group units of small numbers of people to deal with issues or matters causing concern, such as, in view of the characteristics of a Works, enhancing production workplace capabilities, refining mindsets and human resources development, workplace revitalization and business improvements.
We share the results of the small-group activities throughout a Works by means of presentations, and the honoring of best practices leads to heightened motivation. We are deploying the activities horizontally, such as by making reference to them in workplace activities, and promoting the revitalization of workplaces and Works as a whole as well as a raised level of operations. Typical examples of specific activities are as follows.

Ichihara Works

Staff members of the Elastomer Section 1, EPT Plant 3, noticed that there was a high percentage of defect products under a brand manufactured in the works. In order to reduce these defective products, operators and full-time workers cooperated with each other to investigate the causes, formulate countermeasures, and consider plans. This resulted in a review of manufacturing conditions, which successfully led to a significant reduction in defects. The works achieved its predetermined goal of more than 10 million yen cost reduction and profit improvement per year.

Osaka Works

Cost reduction activities from the viewpoint of operators were undertaken in the Polypropylene Section. One example was that an operator noticed that a drain (steam condensate) trap at a specific location had failed several times, investigated the cause, and formulated an improvement measure. With cooperation from the relevant departments, the type of drain trap was changed. This eliminated any recurrence of the problem and also resulted in a reduction in steam consumption.

MC Operation Support (MCOS)

On June 14, 2018, Omuta Works held the 12th presentation on MCOS companywide small-group activities. MCOS refers to MC Operation Support, an affiliated spin-off company that provides production support for Mitsui Chemicals, mainly overseeing disaster prevention security services, filling/packaging, and operations/operational support at Mitsui Chemicals Works. Attended by the Center Executive of the Production & Technology Center, the General Manager of Omuta Works, and relevant parties, 11 teams delegated by different business facilities across Japan gave presentations on their on-going efforts in their respective workplaces. The Center Executive encouraged the teams by saying, “Your easy-to-understand presentations and sincere attitude to work improvement has moved us all. Let us build up such practical competence in the frontline across the entire Mitsui Chemicals Group.” We shall further reinforce our capabilities on the production workplace and cost competence in all of our Works.



Presentation on MCOS companywide small-group activities

Best Plants Awards

The purpose of the Best Plant Award is to revitalize Works by honoring the excellent production sections for their activities related to safety, environment, quality and production technologies. Having started this system in fiscal 2004, since fiscal 2013 Mitsui Chemicals has focused outside the field of safety achievements and the like but also on safety processes and recognized through these awards the successes and hardships of production sections.
In fiscal 2018, 19 applications were submitted from domestic and overseas production sites, one of which was selected for the President's Awards and six for Production & Technology Center Executive’s Awards. The Company’s global expansion is advancing due not only to the Mitsui Chemicals parent company but also to award-winning domestic and overseas affiliates.
It should be noted that along with the aforementioned awards, we simultaneously awarded the General Manager of Works’ Award and General Managers of Headquarters Award.

Best Plants Awards 2018

President’s Award for Best Plant
Ohtake Manufacturing Section, Manufacturing Dept.-2, Iwakuni-Ohtake Works
Production & Technology Center Executive’s Award
Osaka Works, NIPPON ALUMINUM ALKYLS, LTD.
Agrichemical Section, Fine Chemicals Production Dept., Omuta Works
Section 1, Manufacturing Dept.-1, Mitsui Chemicals Tohcello, Inc.



President’s Award for Best Plant Ceremony
(Ohtake Manufacturing Section, Manufacturing Dept.-2, Iwakuni-Ohtake Works)

Mitsui Advanced Composites (Zhongshan) Co., Ltd. (China)
Cosmo Scientex (M) Sdn. Bhd. (Malaysia)
Siam Tohcello Co., Ltd.. (Thailand)

In addition, we toured the outstanding workplaces recognized by the President's Award for Best Plant as well as held an exchange meeting as a means to exchange information. Starting in fiscal 2015, this year marks the third time we have held this event with the aim of enabling employees to gain awareness that is difficult to obtain in their own workplaces and Works, provide opportunities for line managers to share their concerns and encourage each other, and improve the safety culture throughout the Mitsui Chemicals Group.
The exchange meeting was held over two days in February 2019 in the Petrochemical Materials Section, Manufacturing Dept.-1, Ichihara Works, the winner of the President's Award for Best Plant 2017. Nine attendants, including production line managers and staff members from Japan and overseas, exchanged information and opinions. Details of winning practices are published on the intra-company networks in Japanese, English, and Chinese to disseminate good practice across the global Mitsui Chemicals Group.





Exchange meeting
(Petrochemical Materials Section, Manufacturing Dept.-1, Ichihara Works)

Mitsui Chemicals' Plant Operation Technology Training Center

Mitsui Chemicals established its first Plant Operation Technology Training Center in Mobara in 2006, and then in Nagoya in 2007, to train plant operation personnel. Chemical plant operators are trained in Mobara, and the Nagoya center provides training programs for operators of film processing factory. These training programs are targeted not only at employees in Mitsui Chemicals Inc.'s Works, but also staff in R&D centers and indirect departments, as well as in affiliate companies under the global Mitsui Group. Our hands-on-based training programs cultivate safety-minded and skilled operators with substantial equipment knowledge.

Mitsui Chemicals' Plant Operation Technology Training Center (Mobara and Nagoya) Training Sessions for Mitsui Chemicals Group Employees

Training Category			Training Time hrs/person	Number of Attendees		
				FY2016	FY2017	FY2018
		When joined Company	3～14	102	122	174

Mitsui Chemicals, Inc.	For Plant Operators	Follow-up training (six months after joining Company)	28	121	142	166
		Promoted staff (3-4 years after joining Company)	28	75	80	56
		Workplace managers (8 years or more after joining Company)	14	53	57	43
	For Engineers	When joined Company	7～14	21	23	44
		3-5 years after joining Company	21	10	18	29
	For Researchers		7～14	109	78	59
	Others		2～7	113	609	201
For employees of domestic affiliates			2～14	324	212	263
For employees of overseas affiliates			14	50	54	88
Total			—	978	1,395	1,123

Since fiscal 2018, we have been actively developing human resources that are forming the foundations of global group management. We visit group companies in Japan and overseas to determine the needs of each company in order to tailor the training programs and give support suited to individual situations. One of these efforts is a local training program provided by Japanese staff members dispatched from a training center. Using small training materials brought from the center, a variety of educational techniques are included in the program, such as simulations using commercial virtual reality technology.
Regarding training for group companies in the Southeast Asia regions, a program in Thai started in fiscal 2018 utilizing the Operation Excellence Training Center (OETC) of the Siam Group in Thailand. We licensed all of our own training system to the Siam Group, and we are planning to offer training programs in English in fiscal 2019, in addition to those in Thai.
Further, we plan to establish new training programs in China by utilizing a local training center, as well as establishing a system to offer local training.

Local training program for our Group employees

Training Category	Training Time hrs/session	Number of Attendees
		FY2018
Local training program	2～14	239



Local training program (Kyowa Industrial Co., Ltd.)



VR training program (Pinching & Rolling accident)



Training at OETC in Thailand



Training center leaflet in China

In fiscal 2015, our internal hands-on training was opened up to companies outside of the Group. The aim was to contribute to production workplace human resource training in the industry. Our training programs were highly appreciated by the attendees, with comments such as “The program gave me new insights that I can utilize in my company,” and “Hands-on training based on accident/disaster case studies were easy to understand.”

The Plant Operation Technology Training Center continues to support the global management of the Mitsui Chemicals Group through human resource development based on hands-on training, while actively offering our training programs outside the company in an effort to contribute to society.

Track Record of Mitsui Chemicals’ Plant Operation Technology Training Center External Training Sessions (Mobara)/Responses to Plant Tour Requests (Mobara and Nagoya)

	FY2016	FY2017	FY2018
Number of Training Attendees	388	344	317
Number of center Visitors	643	695	630





Mitsui Chemicals’ Plant Operation Technology Training Centers (Mobara and Nagoya)

Drills

At Mitsui Chemicals, we hold evacuation drills and emergency shutdown drills in the event of a major earthquake or tsunami. We also hold various disaster drills that include emergency activities such as firefighting, emergency call-outs and reporting as part of measures to respond to emergencies at Works. Going forward, we will conduct various drills in a systematic, ongoing manner in tandem with relevant government agencies and local communities.

Process Safety and Disaster Prevention Drills

At Mitsui Chemicals, we are continually improving our in-house disaster prevention capabilities in cooperation with the relevant administrative bodies. In addition to conducting disaster prevention drills, including emergency activities such as firefighting, emergency call-outs and reporting, we also carry out joint drills with municipal fire and police departments, validate emergency responses and take steps to improve any shortcomings. We formulate site-specific plans at each Works every year and conduct drills designed specifically for the operations carried out according to each working environment of our sites. We also organize full-scale comprehensive disaster prevention drills on a regular basis at each of our Works, including joint training with municipal fire departments and volunteer firefighting units, and training involving the local police. We work with municipal fire departments and nearby companies to organize joint disaster prevention drills as a form of reciprocal training between companies. We introduce some examples of the drills below.

Ichihara Works

A Works comprehensive disaster prevention drill is conducted twice a year to prepare for an accident or disaster. This drill was assumed to have been caused by an earthquake, and was conducted jointly among our own volunteer firefighting organization, the municipal fire services as well as the joint firefighting units from neighboring companies. We continue to hold various disaster prevention drills to maintain our high level of safety awareness through reinforcing our relationships with relevant municipal bodies.





Working together with the municipal firefighting departments and joint fire extinguishing operation (Ichihara Works)

Mobara Branch Factory

A Works comprehensive disaster prevention drill was conducted jointly with the municipal firefighting headquarters. The drill was based on a scenario where a flammable liquid had leaked from a pump flange during the transfer from a tank and a fire had been caused by a static electrical spark. We have held training drills on 1) information communication between the disaster prevention headquarters and the disaster prevention command center, 2) evacuation, 3) firefighting and 4) various environmental measurements. This training has enabled us to verify that the initial response system functions smoothly when a disaster occurs and to confirm the role of each group and individual. In this way, we are constantly working to increase the level of safety and improve our disaster prevention system.





The on-site disaster control command post and volunteer firefighting units in action (Mobara Branch Factory)

Nagoya Works

We implemented a Works comprehensive disaster prevention drill with the aim of preventing more widespread damage should an accident occur. The drill was based on a scenario where an earthquake of level 4 in the Japanese seismic intensity scale occurred during a weekday 24-hour operation. This caused a flammable liquid to leak from a liquid transfer pipe joint and a fire was caused by a static electrical spark. The drill covered the process from an emergency call to preventing leaks from spreading and the volunteer firefighting units then extinguishing the fire, and confirmed that all employees can act quickly and appropriately.





The on-site command post and firefighters spraying water (Nagoya Works)

Osaka Works

A Works comprehensive disaster prevention drill took place based on a scenario where a fire had started after a leak of flammable chemicals from a pipe flange in a hazardous facility following an earthquake. The drill was very productive and confirmed the smooth liaison between the self-defense disaster prevention units. We continue to ensure safety in all our Works by training for the different types of disasters that we may encounter, focusing on a prompt initial response to the emergency and smooth communications between those in different roles.



Fire extinguishing by chemical disaster prevention vehicle (Osaka Works)

Iwakuni-Ohtake Works

A Works comprehensive disaster prevention drill was conducted in collaboration with the municipal firefighting department and the land-based joint disaster prevention organization, based on a scenario where a level-5 earthquake occurred during the daytime on a weekday, and a crack was found in the side wall of a tank. A flammable chemical then leaked from the crack and a fire broke out caused by a static electrical spark. The drill was designed to reinforce our disaster control capabilities by verifying that each unit could take action voluntarily following their action guidelines, the effectiveness of the joint disaster response, and the promptness of communications with the relevant authorities and public announcement following the accident's occurrence.



Fire extinguishing by chemical disaster prevention vehicle (Iwakuni-Otake Works)

Omuta Works

With the participation of the municipal firefighting department, the city disaster control office, and the police, a Works comprehensive disaster prevention drill was conducted. The emergency scenario was that a flammable chemical leaked from the bend in a pipe in a hazardous chemical facility and caught fire. The drill examined the coordination among the relevant authorities in terms of emergency control structure, firefighting tactics, and public relations with the local community. We continue to improve our emergency response to make it even faster and more reliable.





The on-site command post and volunteer firefighting units in action (Omuta Works)

Earthquake and Tsunami Drills

At Mitsui Chemicals, we conduct various drills to ensure that all staff are better prepared in the event of a major earthquake or tsunami, which are assumed at each site. These include emergency shutdown drills and evacuation drills to evacuation areas. The following are a few select examples of the drills conducted at each production site.

Ichihara Works

A drill was conducted based on the assumption that a massive tsunami warning had been issued in the inner bay of Tokyo Bay following an earlier earthquake that occurred during a weekday daytime. The drill included an initial response, such as an emergency plant shutdown, evacuation to designated locations and roll call, and a personnel safety report. We could confirm that the evacuation was smooth and its time had been shortened by repeated training.





Evacuation to the designated location and confirmation of personnel safety (Ichihara Works)

Nagoya Works

An evacuation drill was held assuming that a Nankai megathrust earthquake of upper level 6 in the Japanese seismic intensity scale had occurred. The drill covered a response to the earthquake warnings, a great “Shake Out” earthquake drill that protects individuals from actual floor shaking, and moving to a tsunami evacuation area, following all the steps in the emergency action list.



Confirmation of personnel safety at an evacuation area (Nagoya Works)

Omuta Works

A drill was held in Omuta Works assuming that a hazardous gas had leaked from a plant due to earthquake of level 5 in the Japanese seismic intensity scale that occurred during the daytime on a weekday. This time the drill was more comprehensive than usual, with each workplace having to decide on an evacuation destination from the designated locations and a route to reach that destination. Any issues identified in this drill will be categorized and countermeasures established. We aim to address each risk that could arise in case of a serious disaster to further reinforce our Works disaster prevention system.



Confirmation of personnel at an evacuation area (Omuta Works)

External appraisal for our volunteer firefighting units – Receiving a MIC Minister's Award and a Fire and Disaster Management Agency Director's award

The self-defense disaster prevention units of Osaka Works and Iwakuni-Ohtake Works received Minister's Award (Superiority Award) from the Ministry of Internal Affairs and Communications (MIC) at the Fiscal 2018 Skill Contest of Self-defense Disaster Protection Systems for Petrochemical Complexes, etc. organized by the Fire and Disaster Management Agency of the Ministry of Internal Affairs and Communications. Also volunteer firefighting units in Ichihara Works received a Fire and Disaster Management Agency Director's award (Encouragement Award).
This contest, which was first launched in fiscal 2014 with the aim of enhancing skills and morale, pits large-scale chemical plant elevated water cannon and foam concentrate transporter crews against each other in a number of operations, such as their safety management and the standard of their firefighting vehicles and equipment.
Judging self-defense disaster prevention units of the Osaka Works, Iwakuni-Ohtake Works and Ichihara Works on their fire control technique and discipline, this award marked the fifth year in a row since the contest started that the crew had received an award. Accumulating experience from daily training that will lead to improved disaster prevention techniques in the years to come, we will contribute safer and more stable Works operations.





The Osaka Works self-defense disaster prevention units that received the MIC Minister's Award, and operations during the competition





The Iwakuni-Otake Works self-defense disaster prevention units that received the MIC Minister's Award, and operations during the competition





The Ichihara Works volunteer firefighting units that received a Fire and Disaster Management Agency Director’s award, and operations during the competition

Environmental Protection

Management System

Policy and Basic Approach

The Mitsui Chemicals group's business activities may affect the global environment, such as GHG emissions from the consumption of energy, including electricity and heat; water resource consumption in product heating, cooling, and cleaning processes; and emissions of chemical substances to the atmosphere, water, and soil etc. Aiming to minimize the negative impact on the global environment throughout the lifecycles of the products we act to protect the environment in two ways: by reducing the environmental impact of our business activities and by appropriately managing chemical substances. We also publish environmental accounting figures and run eco-efficiency assessments in relation to our environmental impact and economic activities, in an effort to ascertain the impact of our activities and pave the way for sustainable development.

Our Responsible Care Policy states that the Group makes efforts to assess the risks of our products throughout their lifecycles in order to ensure the health and safety of all persons and to protect the environment by reducing their environmental impact. We are promoting environmental protection in line with internal regulations for the management of the environment and safety that establish our basic environment protection policy.

* Please refer here for details of Climate Change Policy.
* Please refer here for details of Reduce Environmental Load through Products and Services.
* Please refer here for details of Product Stewardship.

System and Responsible Officers

The director in charge of the Production & Technology Center is the person directly responsible for our environmental protection system. The Production & Technology Center Planning & Coordination Division and the Safety & Environment Technology Division formulates, disseminates and promotes the environmental protection strategy. In addition, they also collaborate with business divisions , production sites and affiliated companies to promote environmental protection.

The Planning & Coordination Division in the Production & Technology Center and the Safety & Environmental Technology Division regularly check to confirm progress in meeting priority goals for environmental protection at domestic sites. Data related to the protection of the environment, including for GHG emissions, are collected once a year, with the results of analysis shared throughout the Group.
We also conduct environmental impact audits on an annual basis at the manufacturing facilities of companies eligible for Responsible Care support and the parent company itself.

Goals and Results

GHG / Energy

KPI	Scope	FY2018			FY2019	Medium to Long-term
		Goals	Results	Level Achieved	Goals	Goals
GHG emissions[*1] reduction rate (Compared with FY2005)	Japan	—	27.2%	—	—	25.4% or more (FY2030)
Reduction of GHG emissions[*1] (Compared with the previous fiscal year)	Japan	150 thousand tons or more	183 thousand tons	○	30,000 ton or more	—
Five-year annual energy intensity reduction rate	Mitsui Chemicals, Inc.	1% or more	-0.3%	×	1% or more[*2]	1% or more (FY2025)
Energy intensity index (FY2009=100)	Mitsui Chemicals, Inc.	91.4 or less	94.6	×	Average annual reduction of 1%[*2] or more	—

*1 Emission and reduction volume at full capacity, which is different than what is shown in the graph on the “GHG and Energy” page.

*2 Goal is to achieve either target

Substances Subject to the PRTR Act

KPI	Scope	FY2018			FY2019	Medium to Long-term
		Goals	Results	Level Achieved	Goals	Goals
Emission of substances subject to the PRTR Act	Mitsui Chemicals, Inc.	700 ton or less	816 ton	×	Formulate initiatives toward 450 ton/year	Measures aimed at achieving 450 ton or less in FY2020

Industrial Waste

KPI	Scope	FY2018			FY2019	Medium to Long-term
		Goals	Results	Level Achieved	Goals	Goals
Landfill rate for industrial waste	Japan	1% or less	0.3%	○	1% or less	1% or less
	Overseas	1% or less	0.4%	○	1% or less	1% or less

Air

KPI	Scope	FY2018			FY2019	Medium to Long-term
		Goals	Results	Level Achieved	Goals	Goals
Volatile Organic Compound (VOC) emissions	Mitsui Chemicals, Inc.	3,000 ton or less	1,621 ton	○	3,000 ton or less	Make plans for further reductions

General measures to preserve the environment notwithstanding the above

KPI	Scope	FY2018			FY2019	Medium to Long-term
		Goals	Results	Level Achieved	Goals	Goals
Number of environment-related accidents	Mitsui Chemicals Group	0	0	○	0	0
Number of violations to environmental laws and regulations	Mitsui Chemicals Group	0	0	○	0	0

Review and Challenges

We are showing steady progress in the achievement of our annual goals, including for environment-related accidents, violations to environmental laws and regulations, VOC emissions, and industrial waste. However, we could not reach the goals for emission reductions of PRTR substances in fiscal 2018. We will continue to seek ways to reduce these substances in line with our medium- and long-term goals.

Our 2025 Long-term Business Plan environmental and social targets focus on “maximize products and services to achieve a low carbon, recycling-oriented, and cohesive society in harmony with the environment” with the GHG emissions reduction rate and five-year annual energy intensity reduction rate as key performance indicators (KPIs). Our goal for the Group as a whole is to make more effective use of resources in order to reduce the emission of GHG and environmentally hazardous materials.

GHG and Energy

Based upon our Climate Change Policy, the Mitsui Chemicals Group is committed to reducing GHG emissions and energy consumption, particularly aiming at low-carbon manufacturing.

* See here for other information concerning climate change.

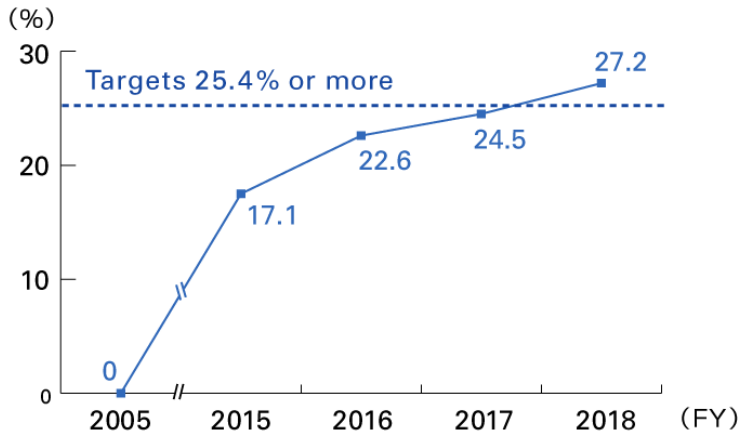
Climate Change-Related Information (CDP) （PDF : 849KB）

Climate Change-Related Verification Statement (PDF: 124KB)

GHG Emissions and Energy Consumption

In fiscal 2016, the Mitsui Chemicals Group set itself the long-term target of reducing domestic greenhouse gas (GHG) emissions by 25.4% by fiscal 2030 (compared with fiscal 2005, operating at full capacity). To this end, we are working to realize a low-carbon society by actively promoting energy conservation, switching to alternative fuels, and creating innovative processes.
In fiscal 2018, we set the goal of reducing GHG emissions by over 150,000 tons (compared with fiscal 2017; operating at full capacity), and we achieved a reduction of 183,000 tons. We achieved this by comprehensively reducing factory energy use, including enhancing exhaust heat recovery, improving the efficiency of our refining processes and reducing NF3 (nitrogen trifluoride) emissions. As a result, our GHG emissions reduction rate (operating at full capacity) reached 27.2% compared with fiscal 2005.

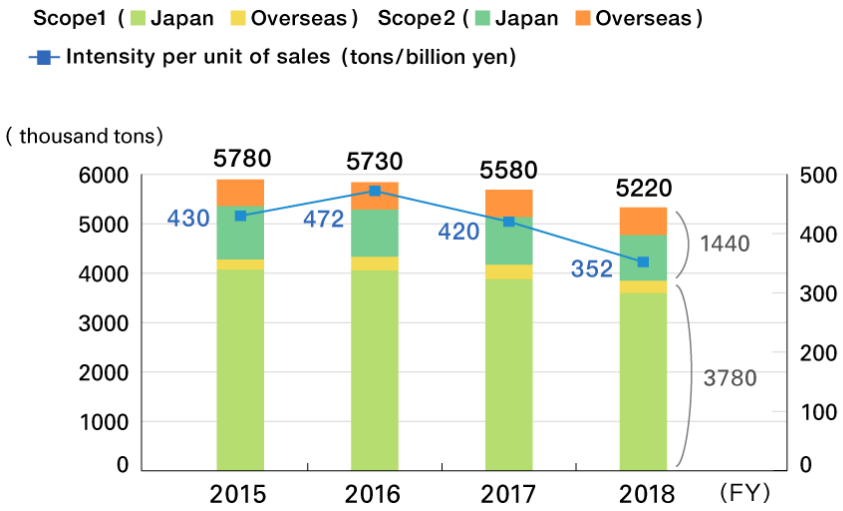
GHG Emissions Reduction Rate (compared with fiscal 2005, operating at full capacity) (Japan)



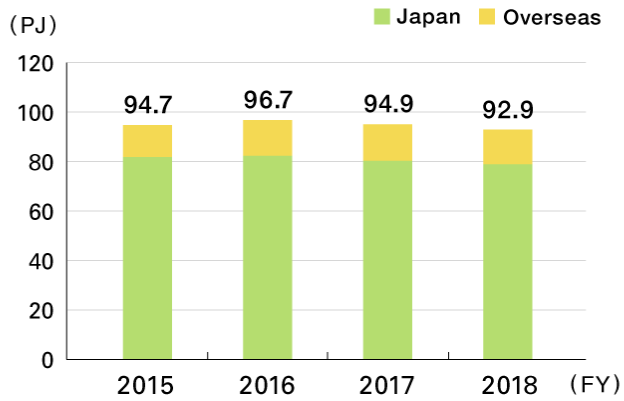
* Scope of affiliates: Domestic consolidated subsidiaries

The Mitsui Chemicals Group reduced GHG emissions (Scope 1 and 2) in fiscal 2018 by 360,000 tons compared with fiscal 2017. The Group adopted a five-year annual energy intensity reduction rate of 1% or more as its target under the 2025 Long-term Business Plan; however, the result for fiscal 2018 was –0.3%. Looking ahead, while targeting a five-year rate of at least 1%, since fiscal 2018 we have aimed to either achieve a five-year annual reduction rate of at least 1% or an average annual reduction in the energy intensity index (FY2009 = 100) of at least 1%. This is because of the difficulties involved in evaluating long-term reduction efforts based on a five-year annual reduction rate.
In addition, we calculate GHG emissions regarding Scope 1 and 2 emissions generated from in-house operations and production activities as well as Scope 3 for indirect emissions in order to identify GHG emissions throughout the entire supply chain, extending from purchasing raw materials to customer use and disposal.

GHG Emissions (Scope 1 and 2)

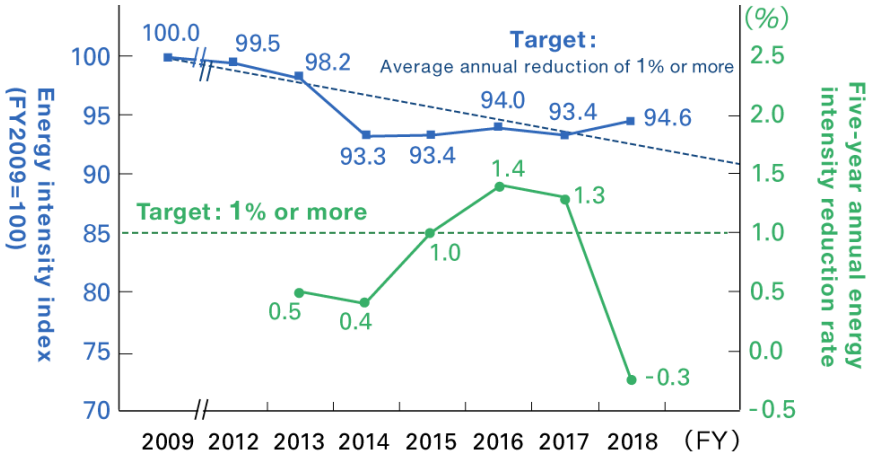


Energy Consumption



* Scope of Japan and overseas affiliates: Consolidated subsidiaries
* GHG emissions calculated in accordance with Japan's Law Concerning the Promotion of Measures to Cope with Global Warming based on energy consumption figures for overseas consolidated subsidiaries.
* The gases used to calculate GHG emissions are CO_2, CH_4, N_2O, HFC, PFC, SF_6, NF_3.
* We previously disclosed our GHG emissions as a combination of both Scope 1 and Scope 2 less the amount of electricity and steam sold, but we now disclose the sum of Scope 1 and Scope 2.

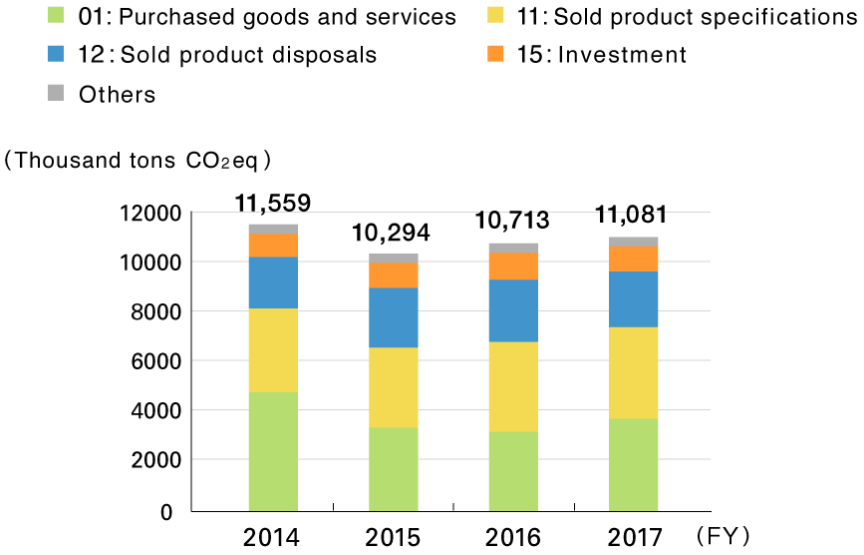
Energy Intensity (Mitsui Chemicals, Inc.)



* Energy intensity denominator is ethylene conversion production volume.

* Retroactive changes were made on energy intensity due to revisions to energy intensity denominators (the conversion factor for production volume) for some products.

GHG Emissions (Scope 3) (Mitsui Chemicals, Inc.)



Breakdown of GHG Emissions (Scope 3) (Mitsui Chemicals, Inc. Fiscal 2017)

Category	Emissions (Thousands of tons CO_2eq / year)
01：Purchased goods and services	3,765
02：Capital goods	64
03：Fuel- and energy-related activities (not included in Scope 1 and 2)	197
04：Transportation/distribution (upstream)	50
05：Waste generated from operations	38

06：Business travel	5
07：Employee commuting	5
08：Leased assets (upstream)	1
11：Sold product specifications	3,638
12：Sold product disposals	2,253
15：Investment	1,065
Total	11,081

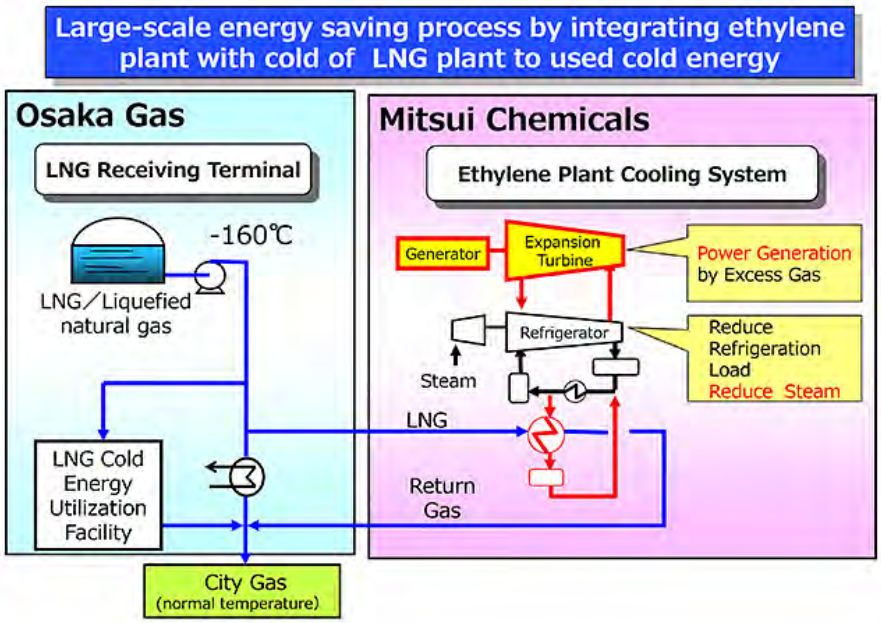
【Calculation Method】

Basic Guidelines for Calculating Greenhouse Gas Emissions Via Supply Chains (Ver. 2.3), Ministry of the Environment and Ministry of Economy, Trade and Industry
Based on the Basic Guidelines for Calculating Greenhouse Gas Emissions Via Supply Chains (Ver. 2.4) published by the Ministry of the Environment and Ministry of Economy, Trade and Industry, we used emission factors provided by IDEA and the Act on Promotion of Global Warming Countermeasures calculation/reporting/disclosure system, and emission units formulated by the Ministry of Environment.

Energy-Saving Process Using LNG Cold Energy

Together with Osaka Gas Co., Ltd., Mitsui Chemicals and its group company, Osaka Petrochemical Industries, Ltd. have adopted energy-saving process by using liquefied natural gas (LNG)-generated cold energy in the ethylene plant. This world-first energy-saving process using LNG-generated cold energy on a large-scale at our ethylene plant commenced in October 2010.

To transport and store natural gas, it is liquefied by cooling it to -160°C. Liquefied gas is a good source of cold energy. During its liquefied state, LNG emits boil off gas which has auto-refrigeration properties. When returning LNG to its gas state, it continues to retain superior cooling abilities.
At Mitsui Chemicals' Osaka Works OPC ethylene plant, after thermal decomposition of naphtha (crude gasoline) at high temperatures, base materials such as ethylene and propylene are separated and purified by cooling the cracked gas. By efficient use of LNG cold energy from the adjacent OPC ethylene plant of Osaka Gas Senboku Works, a significant reduction in CO_2 emissions was possible.



CCU（Carbon Capture Usage）Technologies

Mitsui Chemicals took part in the CCU Project (CO_2 + H_2 ⇒CH_3OH +H_2O) lead by the Research Institute of Innovative Technology for the Earth (RITE) (commissioned by NEDO), and developed a high activity catalyst. Refinement of this highly active catalyst eventually was tested by the pilot plant of CCU technology in Mitsui Chemicals Osaka Works in 2009. This was a verification test, producing 100 tons of methanol per year from hydrogen and CO_2 which was contained in the exhaust gases. We have confirmed the conversion ratio from CO_2 to methanol and the catalyst life and obtained necessary data items for creating a technological package. However, due to several issues that remained to be addressed concerning costs and availability of hydrogen source, this technology has not yet been commercialized. Nevertheless, we believe that this promising technology should greatly contribute to the realization of low-carbon society which is currently sought by the world.

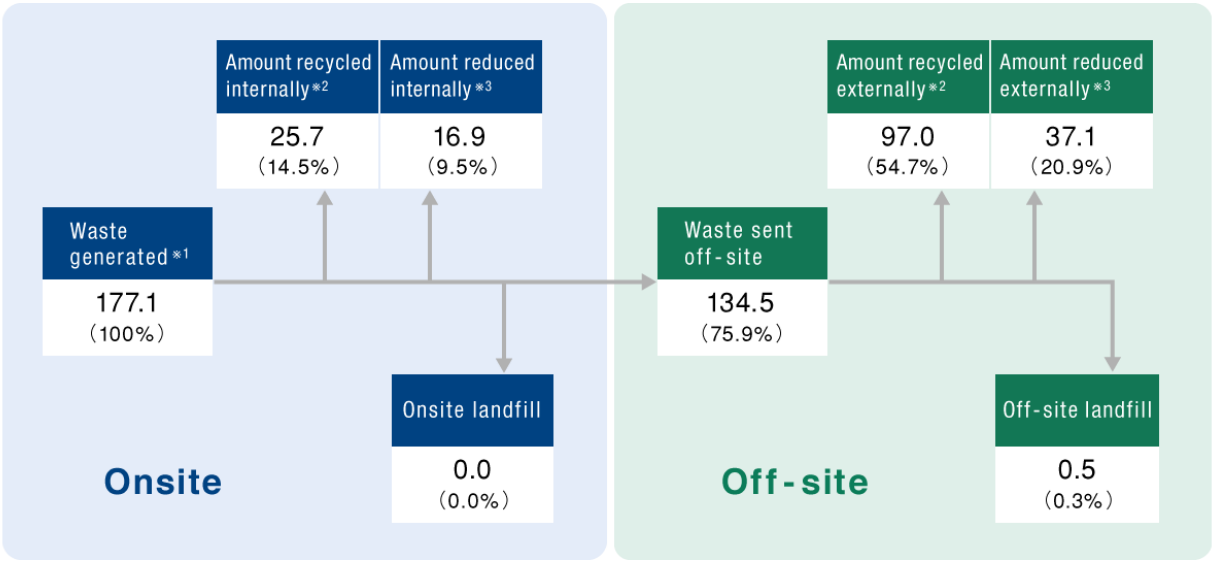
Industrial Waste

With the aim of minimizing the landfill rate for industrial waste to 1% or less, The Mitsui Chemicals Group is implementing waste reduction measures and recycling to reduce the landfill volume. In fiscal 2018, we achieved the goals set by Mitsui Chemicals Inc. and domestic affiliates, making a total of eight consecutive years of meeting these goals. Overseas affiliates have now achieved their goals for nine consecutive years.

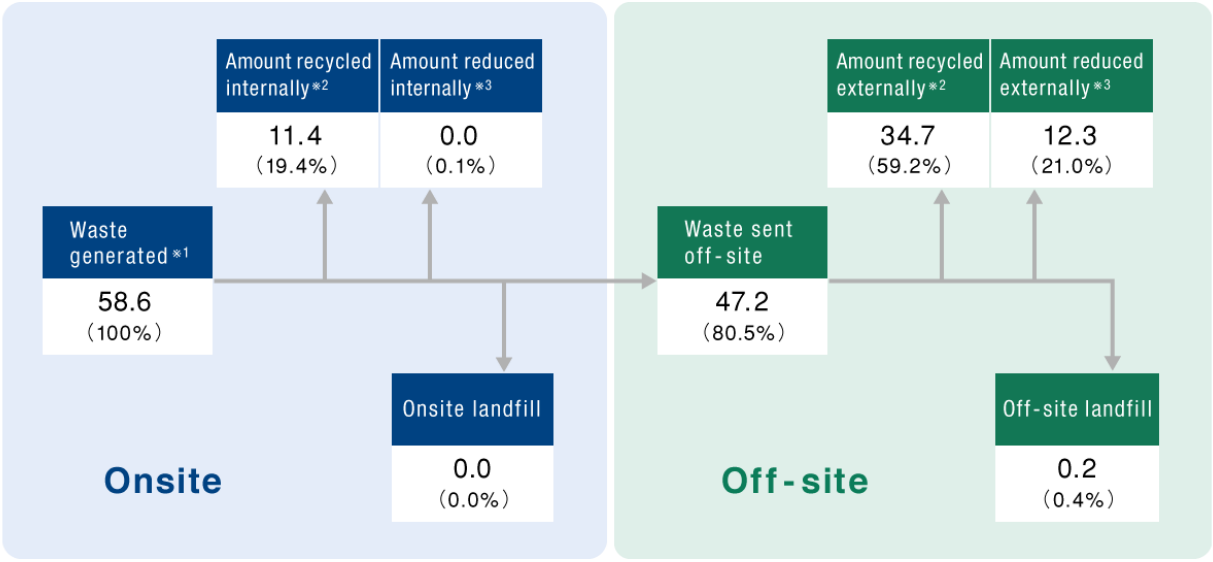
The Waste Management and Public Cleansing Law was revised partially to tighten controls over inappropriate disposal of waste. Due to this revision, business operators who discharge 50 tons or more of specially controlled industrial waste must use an electronic manifest from fiscal 2020. To fully meet the requirements of the revised Law, we are preparing to use this electronic manifest not only for specially controlled industrial waste but for our entire industrial waste disposal operations.

Industrial Waste Treatment Process (FY2018)

Japan



Overseas



* Unit: Thousand tons

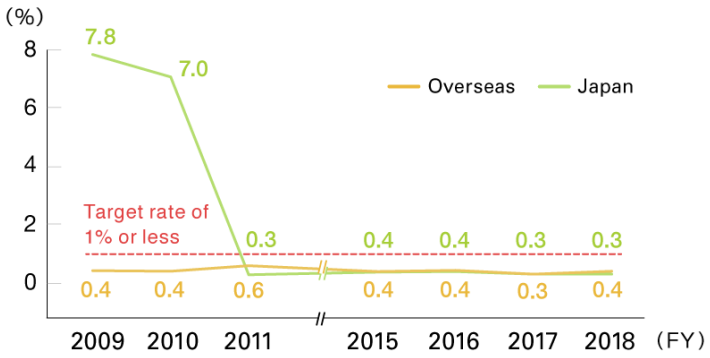
* Any minor discrepancies in percentages are due to rounding.

*1 Waste generated: Sludge (dry weight), waste plastics, soot and dust, etc.

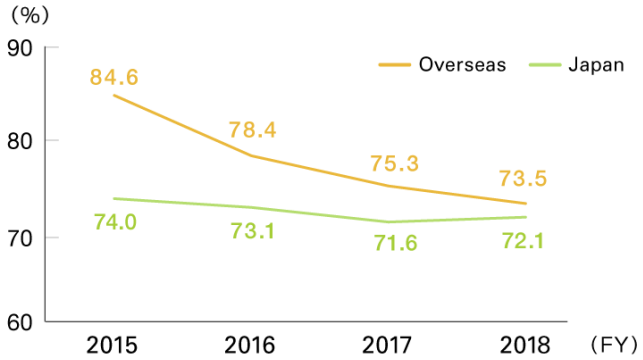
*2 Recycled waste volume: The value includes recycled plastic waste and waste oil used as a fuel.

*3 Amount reduced: Amount reduced as a result of waste plastic incineration and waste acid neutralization.

Landfill Rate for Industrial Waste



Recycling Rate



* Landfill rate for industrial waste = (Onsite landfill + Off-site landfill) / Waste generated

* Recycling rate = Amount recycled externally / Waste sent off-site

* Scope of Mitsui Chemicals, Inc.: Parent company production sites and the Sodegaura Center.

* Scope of domestic and overseas affiliates: Production sites operated by consolidated subsidiaries and affiliated companies eligible for Responsible Care support.

Environmental Protection

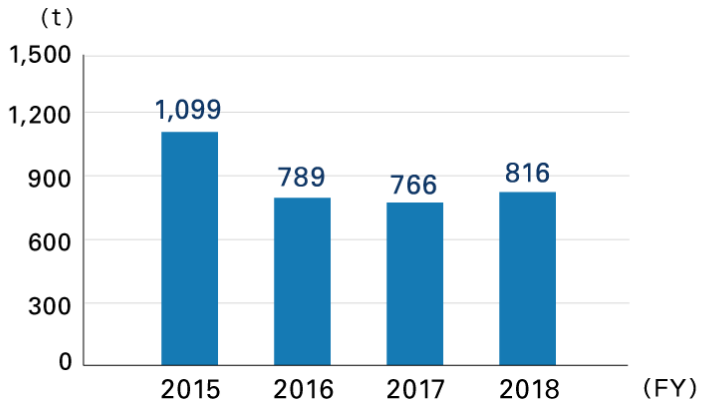
Substances Subject to the PRTR Act

In accordance with the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management(PRTR* Act), Mitsui Chemicals submits a report to the Japanese government each year declaring the amounts of designated substances produced or used by the Company that were released into the environment or transferred elsewhere.
The amount of emissions in fiscal 2018 was 816 tons, which was a 50-ton increase on fiscal 2017. We are further reinforcing our waste management while also seeking other ways to reduce emissions.

* PRTR: Pollutant Release and Transfer Register.

PRTR Data for Individual Sites（PDF : 174.5KB）

Substances Subject to the PRTR Act Emissions (Mitsui Chemicals, Inc.)



* Scope of Mitsui Chemicals, Inc.: Parent company production sites and the Sodegaura Center.

PRTR Data for Individual Sites

We have calculated the top ten PRTR substances emitted by Mitsui Chemicals at each of our Works (substances handled in annual volumes of at least one ton), and figures for dioxins.

Unit：Tons/year (Dioxins：mg-TEQ/year)

Ichihara Works

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
N-Hexane	392	186.76	0.00	0.00	186.76	0.00	1.52
Toluene	300	19.31	0.01	0.00	19.32	0.00	1.06
Xylene	80	7.00	0.01	0.00	7.01	0.00	0.14
Cumene	83	6.98	0.01	0.00	6.99	0.00	0.00
Ethylbenzene	53	4.64	0.00	0.00	4.64	0.00	0.17
Epichlorohydrin	65	2.51	0.00	0.00	2.51	0.00	0.00
Zinc compounds(water-soluble)	1	0.00	1.51	0.00	1.51	0.00	0.00
Benzene	400	0.74	0.01	0.00	0.74	0.00	0.31
Hydrogen fluoride and its water-soluble salt	374	0.00	0.54	0.00	0.54	0.00	0.00
Phenol	349	0.28	0.15	0.00	0.43	0.00	0.00

Mobara Branch Factory

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
Styrene	240	0.14	0.00	0.00	0.14	0.00	0.00
Methyl methacrylate	420	0.13	0.00	0.00	0.13	0.00	0.00
N-Butyl acrylate	7	0.04	0.00	0.00	0.04	0.00	0.00
Acrylic acid	4	0.02	0.00	0.00	0.02	0.00	0.00
Methacrylic acid n-butyl	419	0.02	0.00	0.00	0.02	0.00	0.00
Xylene	80	0.01	0.00	0.00	0.01	0.00	0.00

Nagoya Works

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
Acrylonitrile	9	0.01	15.69	0.00	15.70	15.69	138.48
Styrene	240	0.29	2.69	0.00	2.98	2.69	8.32
1,2 - Epoxypropane	68	1.26	1.65	0.00	2.91	1.65	0.21
Ethylene oxide	56	0.15	0.13	0.00	0.28	0.13	0.04
Toluene	300	0.11	0.00	0.00	0.11	0.00	15.77
N,N-Dimethylformamide	232	0.03	0.00	0.00	0.03	0.00	1.79

Osaka Works

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
Cumene/Isopropyl benzene	83	15.40	0.00	0.00	15.40	0.00	0.00
Benzene	400	4.66	0.12	0.00	4.77	0.00	0.00
Zinc compounds(water-soluble)	1	0.00	3.81	0.00	3.81	0.00	0.00
Toluene	300	2.77	0.01	0.00	2.78	0.00	0.93
Acrylonitrile	9	2.18	0.00	0.00	2.18	0.00	29.30
Dicyclopentadiene	190	2.06	0.00	0.00	2.06	0.00	0.00
Methyl methacrylate	420	1.50	0.00	0.00	1.50	0.00	0.13
Trichlorofluoromethane	288	1.27	0.00	0.00	1.27	0.00	0.00
1,4 - Dioxane	150	0.98	0.04	0.00	1.03	0.00	0.00
Chloroethylene	94	0.85	0.10	0.00	0.95	0.00	0.00
Dioxins	243	0.0000	8.9430	0.0000	8.9430	0.0000	0.0670

Iwakuni-Ohtake Works

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
N-Hexane	392	186.53	0.00	0.00	186.53	0.00	0.00
Toluene	300	23.10	0.03	0.00	23.12	0.00	0.00
Xylene	80	23.09	0.00	0.00	23.09	0.00	0.00
1,4-Dioxane	150	0.00	6.98	0.00	6.98	0.00	0.00
Bromomethane (also called Methyl bromide)	386	4.81	0.00	0.00	4.81	0.00	0.00
Benzene	400	2.90	0.00	0.00	2.90	0.00	0.00
Acetaldehyde	12	0.97	0.00	0.00	0.97	0.00	0.00
Cumene/Isopropyl benzene	83	0.95	0.00	0.00	0.95	0.00	0.00
Zinc compounds(water-soluble)	1	0.00	0.51	0.00	0.51	0.00	0.00
Bromine	234	0.48	0.00	0.00	0.48	0.00	0.00
Dioxins	243	0.0000	0.0750	0.0000	0.0750	0.0000	575.1500

Omuta Works

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
Toluene	300	222.36	0.27	0.00	222.63	0.00	238.06
Dichlorobenzene	181	48.35	0.58	0.00	48.93	0.00	209.39
Toluene (Yotsuyama area)	300	19.54	0.00	0.00	19.54	0.00	0.00
Epichlorohydrin	65	6.53	0.00	0.00	6.53	0.00	0.00
N,N-Dimethylformamide	232	0.14	5.81	0.00	5.95	0.00	0.00
Dicyclopentadiene	190	4.66	0.00	0.00	4.66	0.00	8.37
Formaldehyde	411	0.00	2.95	0.00	2.95	0.00	1.07
Phenol	349	1.75	0.00	0.00	1.75	0.00	0.74
Acetonitrile	13	0.00	0.57	0.00	0.57	0.00	0.00
Cresol	86	0.47	0.00	0.00	0.47	0.00	2.34
Dioxins	243	0.0000	0.6800	0.0000	0.6800	0.0000	0.0000

Sodegaura Center

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
Dichloromethane (also called methylene chloride)	186	0.46	0.00	0.00	0.46	0.00	1.04
N-Hexane	392	0.19	0.00	0.00	0.19	0.00	1.34
Dichlorobenzene	181	0.14	0.00	0.00	0.14	0.00	1.48
Toluene	300	0.01	0.00	0.00	0.01	0.00	0.95
Methylenebis (4,1-phenylene) = diisocyanate	448	0.00	0.00	0.00	0.00	0.00	1.22
Tolylene di isocyanate	298	0.00	0.00	0.00	0.00	0.00	0.80

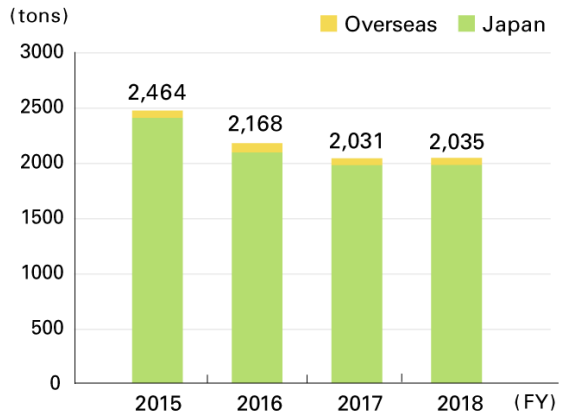
Air

Of the hazardous air pollutants specified under the Air Pollution Control Act, we are particularly focused on reducing emissions of priority substances that pose a significant health risk.

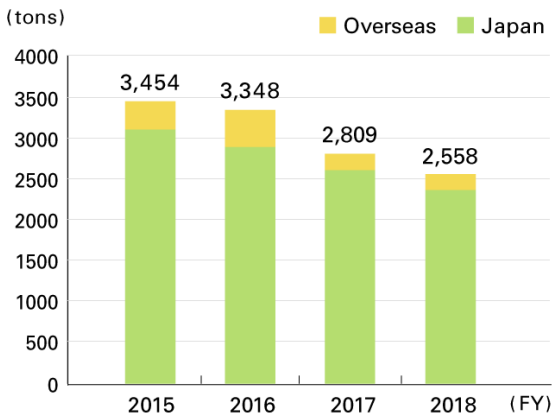
The Japanese government set a target of reducing fixed-source volatile organic compound (VOC) emissions in fiscal 2010 by 30% compared with fiscal 2000. VOC emissions at Mitsui Chemicals reached 8,523t in fiscal 2000, so our goal is 5,966 tons/year. However, the Company established an even stricter goal and achieved emissions of less than 3,000 tons/year in fiscal 2010. We have since continued maintaining emissions at this level. Because the Mitsui Chemicals Group produces various chemical products, a wide range of VOCs are subject to reduction, such as solvents used in production and decomposed residue from plastic molding. We use various methods to reduce VOC emissions into the air, including absorption by activated carbon and other filters, neutralization by acid or alkaline water, combustive decomposition, and Pressure Swing Adsorption (PSA).

Further, burning fuel in chemical manufacturing processes generates SOx, NOx, and soot and dust. We therefore implement a variety of measures to reduce release of these items into the atmosphere by removing them using catalysts, installing dust collectors and washing towers, and using fuels free from nitrogen and sulfur.

Volatile Organic Compound (VOC) Emissions

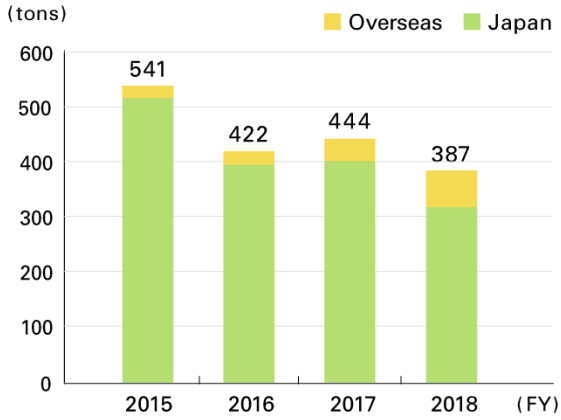


NOx Emissions

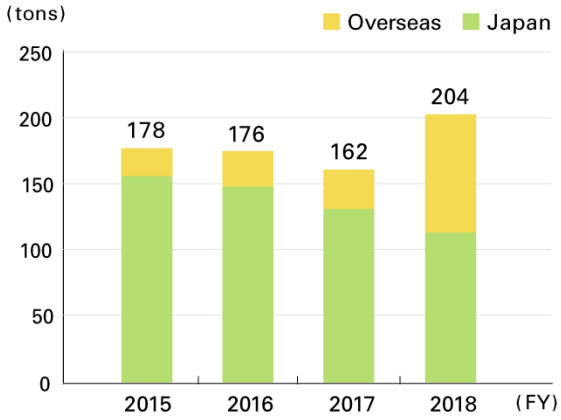


* Mitsui Chemicals, Inc. emitted 1,621 tons achieved its goal of less than 3,000 tons/year in FY2018.

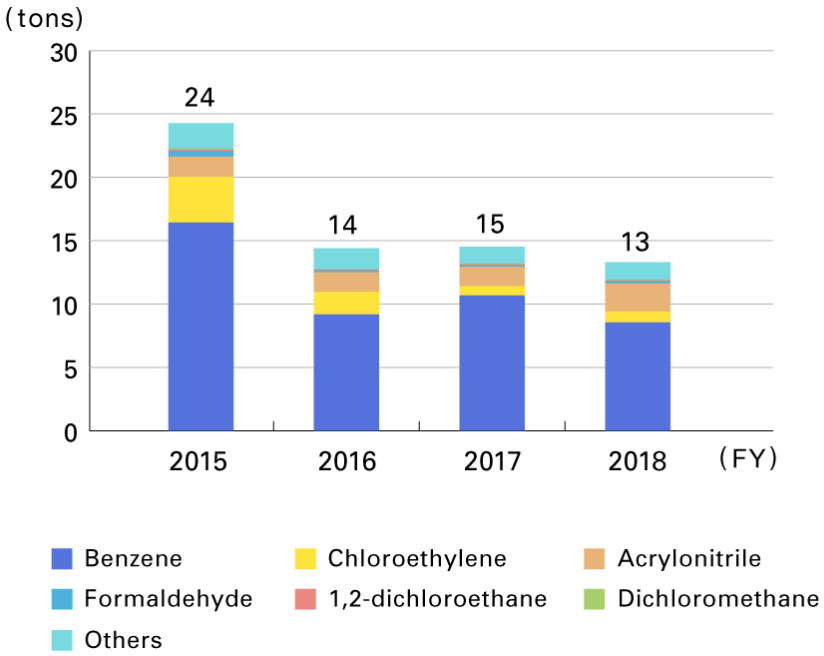
SOx Emissions



Soot and Dust Emissions



Emissions of Hazardous Air Pollutants (Mitsui Chemicals, Inc.)



* Precious emission figures: 771 tons (FY1995), 445 tons (FY2000), 110 tons (FY2005)

* Scope of Mitsui Chemicals, Inc.: Parent company production sites and the Sodegaura Center.
* Scope of domestic and overseas affiliates: Production sites operated by consolidated subsidiaries and affiliated companies eligible for Responsible Care support.

Water

Water is an indispensable component of the Mitsui Chemicals Group's various chemical product manufacturing processes. For example, water is used in manufacturing processes that include heating, cooling, and washing as well as for equipment that removes harmful chemical substances produced during these processes and discharges effluent. Formulating its basic philosophy on water resources, the Mitsui Chemicals Group works to manage efficient water usage and water preservation. In addition, we ask suppliers to carry out activities that include waste water management and efficient utilization of water as described in the Sustainable Procurement Guidelines.

Climate Change Policy

Water-related Information (CDP)（PDF : 671KB）

Basic Philosophy on Water Resources

1. We recognize that water is a finite and precious resource, and regard water conservation as a key priority on a global scale.
2. We make every effort to use water efficiently as we recognize quality water resources are crucial to our operations.
3. We appropriately manage water on a case-by-case basis for each country and region in which we operate, in recognition of the fact that water resources distribution varies both geographically and temporally.

Reducing Emissions of Water Pollutants

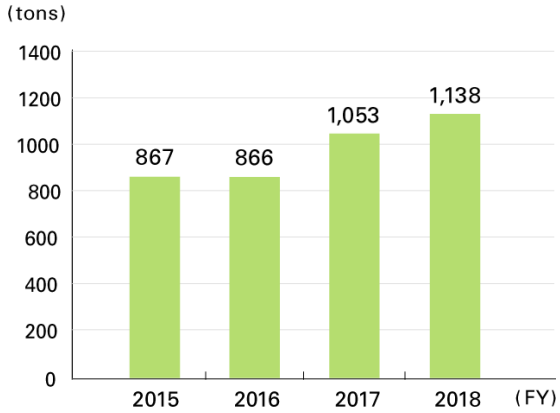
We monitor the emission volumes for water pollutants such as chemical oxygen demand (COD), nitrogen and phosphorus, to conserve water quality. The emission volumes for each of these items are kept significantly lower than levels required by law or other legislation.

In domestic production sites with high water usage, the wastewater from different plants is collected together before it is treated by neutralization, oil separation, and removal of solids. We also pass the wastewater though an activated sludge process to remove organic substances using microorganisms. However, some of the water cannot be treated

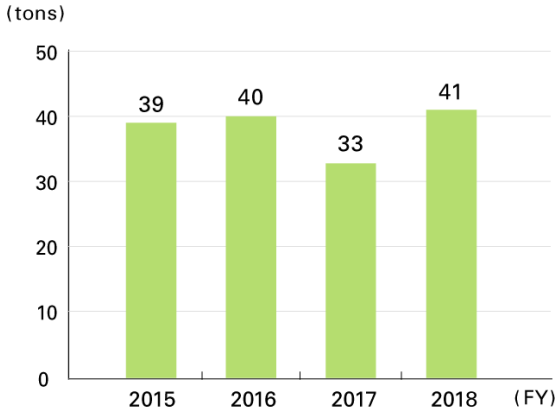
by the activated sludge process as it contains substances that inhibit microorganisms from organic decomposition or the organic substances contained in the water are persistent. Such wastewater is treated in a normal manner after treated with ozone, combustion, or anammox.*

* Anammox: Anaerobic ammonium oxidation. A process to remove nitrites from ammonium-rich wastewater using ammonia-oxidizing bacteria.

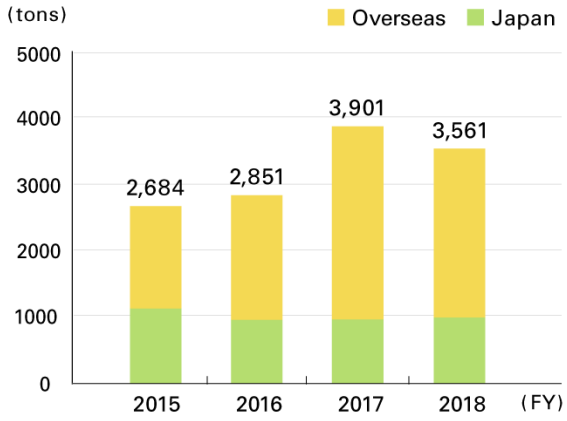
Total Nitrogen Emissions (Mitsui Chemicals, Inc.)



Total Phosphorous Emissions (Mitsui Chemicals, Inc.)



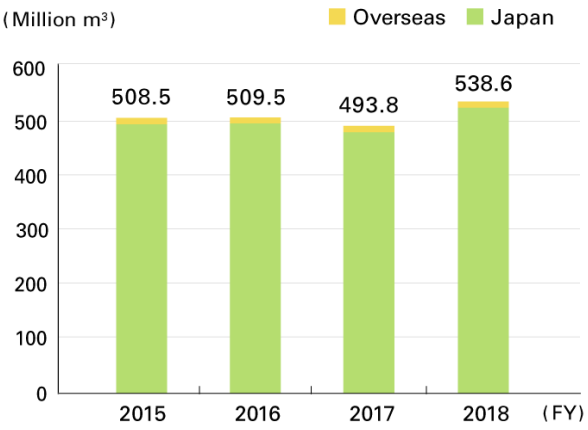
COD, BOD Emissions



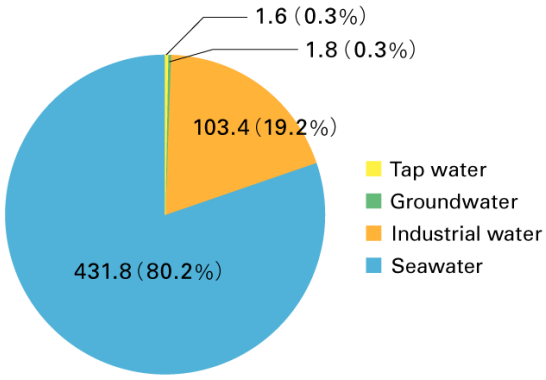
Efficient Use of Water

The Mitsui Chemicals Group monitors the volumes of water withdrawal, discharge, consumption, and recycling in an effort to use water efficiently. The Group proactively engages in water recycling particularly at production facilities that use large amounts of water.

Volume of Water Withdrawal (tap water, groundwater, industrial water, and seawater)

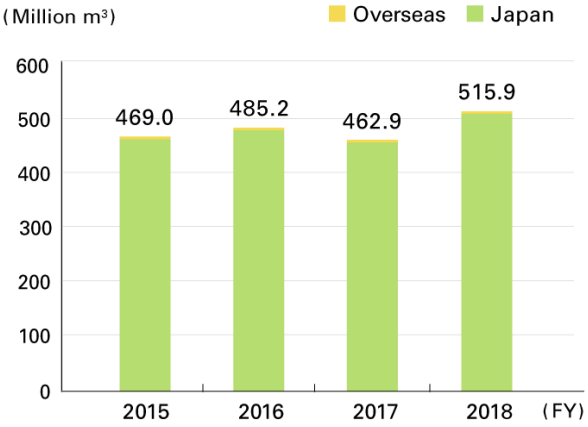


Breakdown of Volume of Water Withdrawal (FY2018)

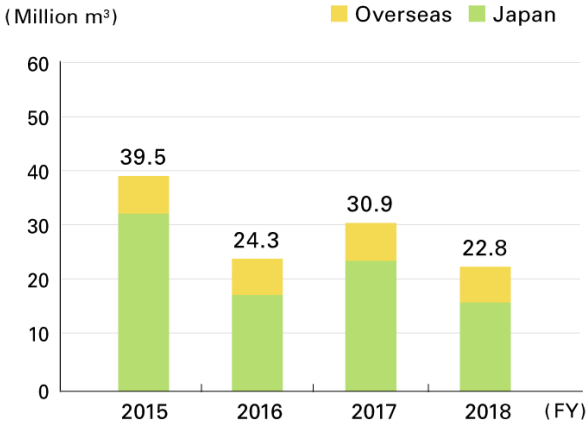


Unit : Million m³
Total volume of water withdrawal : 538.6

Discharge Water Volume

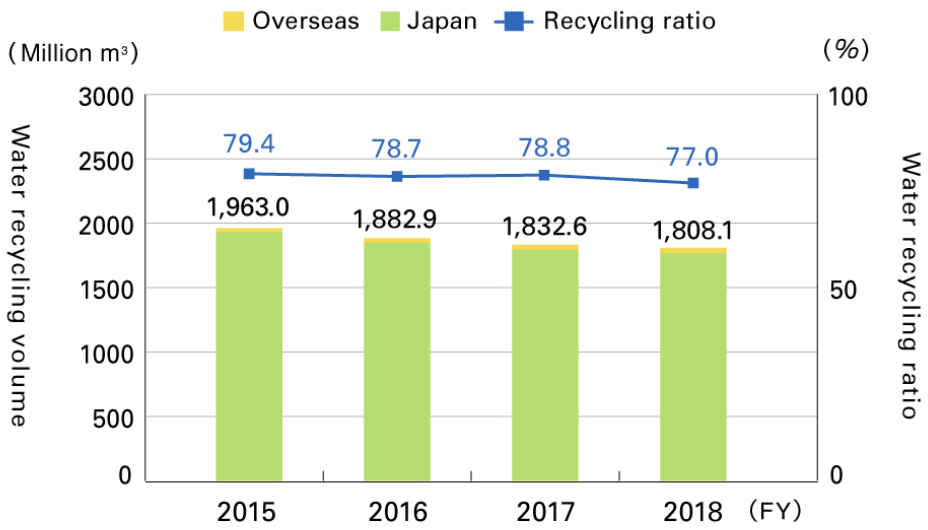


Water Consumption*



* Water consumption = water withdrawal – discharge water volume

Water Recycling Volume and Ratio*



* Water recycling ratio = water recycling volume / (volume of water withdrawal + water recycling volume)

* Scope of Mitsui Chemicals, Inc.: Parent company production sites and the Sodegaura Center.

* Scope of domestic and overseas affiliates: Production sites operated by consolidated subsidiaries and affiliated companies eligible for Responsible Care support.

Water Risk Assessment

The Group conducts water risk assessments for its production facilities from the present up to the year 2040. To do this, we use the Global Water Tools of the World Business Council For Sustainable Development (WBCSD) and the AQUEDUCT Water Risk Atlas of World Resources International (WRI). The Water Risk Filter of the World Wildlife Fund (WWF) has also been added as an evaluation tool from FY2018. For production facilities deemed to be high risk based on these tools, detailed assessments are conducted involving local data, production facility unit water levels/usage volumes in order to verify low-risk areas. In addition, similar surveys are conducted at new plants when operations are commenced.

Including biodiversity risk as a part of water risks, we use IBAT* to gather data and investigate biodiversity risk based on the following evaluation items: Protected areas, priority protected areas, endangered species and endangered freshwater species surrounding our production facilities.

In support of the TCFD recommendations, we are conducting assessments on the physical risks to our production facilities (floods, drought & temperature changes), based on IPCC RCP 2.6 and RCP 8.5. In the future, we will conduct environmental impact assessments to include items with high materiality in the scenario analysis.

* IBAT：

Integrated Biodiversity Assessment Tool. Developed jointly by BirdLife International, Conservation International, International Union for Conservation of Nature (IUCN), United Nations Environment Programme (UNEP), and UN Environment World Conservation Monitoring Centre, IBAT facilitates access to basic data and the latest information on natural preservation.

Biodiversity

The Mitsui Chemicals Group aims to minimize the negative impact on the global environment and ecosystems from the products it manufactures and sells throughout their lifecycles.
The manufacture of chemical products has the potential for impacting biodiversity in the air, water, and soil through GHG emissions when using energy (electricity and thermal), the consumption of water resources in heating, cooling, and cleaning processes, and water-polluting effluent. In addition, the release and decomposition of harmful chemical substances at the manufacture, use, and disposal stages of chemical product lifecycles can reduce the number of species living in those environments.
The Mitsui Chemicals Group believes that consistently managing chemical products, reducing GHG emissions, managing water resources (effluent quality, water intake/discharge volumes), and controlling substances released into the air helps conserve biodiversity. In addition, we think increasing products and services with high environmental contribution standards reduces environmental burdens at each stage of product lifecycles and, in turn, helps conserve biodiversity.

Climate Change and Problems with Plastic
Environmental Protection
Product Stewardship

Basic Approach to Biodiversity Conservation

1. We conduct our business activities in gratitude for the blessings of nature and biodiversity and recognize that environmental preservation is a globally important issue.
2. We contribute broadly to society by encouraging biodiversity conservation through the supply of environmentally friendly materials, products, and services.
3. We will comply with international biodiversity agreements.
4. We strive to conserve biodiversity by cooperating with relevant parties in Japan and abroad and within and outside the company and taking into account its effect in the supply chain.
5. To conserve biodiversity, we will promote employee social contribution activities that have our stakeholders trust.

Biodiversity Risk Assessment

Believing that reducing environmental burdens throughout the Mitsui Chemicals Group's production and business activities helps preserve biodiversity, we undertake initiatives that include managing chemical substances, reducing GHG emissions, and managing water resources. In fiscal 2017, we conducted surveys of ecosystems surrounding parent company plants as well as production facilities of affiliated companies eligible for Responsible Care support. Using IBAT,* these surveys confirmed the absence of nature protected areas (i.e. world heritage sites, IUCN Category I, II, III, Ramsar Sites) within a 3km radius around these production facilities.

* IBAT：
Integrated Biodiversity Assessment Tool. Developed jointly by BirdLife International, Conservation International, International Union for Conservation of Nature (IUCN), United Nations Environment Programme（UNEP）, and UN Environment World Conservation Monitoring Centre, IBAT facilitates access to basic data and the latest information on natural preservation.

Contributions through Products and Services

The Mitsui Chemicals Group is developing products and services that help reduce environmental burdens. Formulating "Blue Value™" as a means for displaying environmental contribution value, products that help reduce CO_2, protect resources, and harmonize with nature are designated as Blue Value™ products. Setting Blue Value™ product net sales ratios as a KPI in the 2025 Long-term Business Plan, we aim to expand products that help conserve biodiversity.

Contributions through the Supply Chain

In procuring our raw materials, we are making efforts to select materials and suppliers that will result in a lower environmental impact in line with our Purchasing Policy. As indicated in the Sustainable Procurement Guidelines , we request our suppliers to support the preservation of biodiversity. In logistics, we work to reduce environmental impact mainly by undertaking modal shifts and shared logistics. We provide product safety information in an effort to help customers handle products appropriately and minimize environmental impacts.

Participation in Initiatives

We support the Declaration of Biodiversity by the Japan Business Federation (Keidanren) and participate in the Japan Business and Biodiversity Partnership.

Members of the Japan Business and Biodiversity Partnership

Social initiatives that support the conservation of biodiversity

The Mitsui Chemicals Group undertakes environmental creation initiatives to conserve biodiversity at its business facilities.

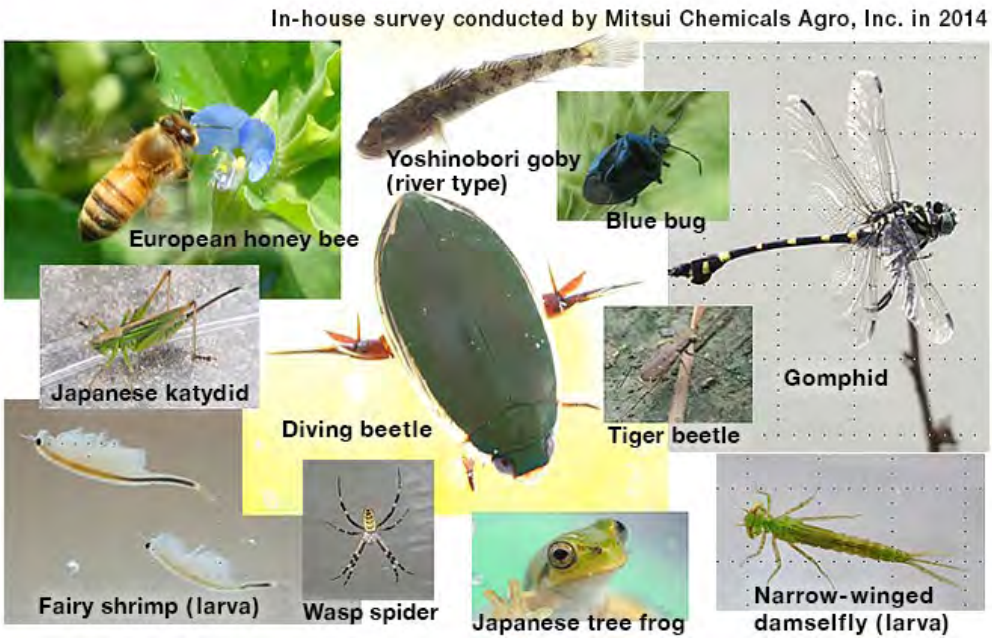
* Major activities are shown here.

Wildlife Survey on Rice Fields

The Mitsui Chemicals Group affiliate company, Mitsui Chemicals Agro, Inc. (MCAG), has been conducting a “Wildlife Survey on Rice Fields” using MCAG products since 2012.
Involved in the manufacture and sales of agrochemicals and fertilizers, MCAG conducts the “Wildlife Survey on Rice Fields” annually with the full support of customers, confirming that a wide variety of wildlife inhabit rice fields. MCAG surveys the effects of agrochemical use on wildlife in rice paddies, which leads to the improvement and development of products. Further, through the release of experts’ written opinions that summarize the results of these wildlife surveys, we certify that rice was grown in rice paddies inhabited by a wide variety of wildlife, which contributes to adding value to local rice.



Examples of the wildlife observed on the survey



Preservation Activities at Omuta Works

At the Omuta Works (Fukuoka Prefecture), Mitsui Chemicals has a protected forest that spans approximately 5.4 hectares and engages in ongoing activities to preserve this area. In 2009, we cooperated on a survey of the natural environment in the forest around our property (the southern side of Mt. Takatori) at the request of Omuta City, which considers the preservation of the natural environment an important issue. The survey conducted by Omuta City Natural Environment Survey Association examined rare plants and species of living organisms in areas managed by Omuta Works, and presented its findings in the Omuta City Natural Environment Survey Results Report.

Rare wildlife found in survey (example)

Plants	Serissa japonica, tree of a thousand stars
	Selaginella moellendorffii
Amphibians	Japanese brown frog
Insects	Cydnidae, Parastrachia japonensis



Donations to Environmental Conservation Organizations

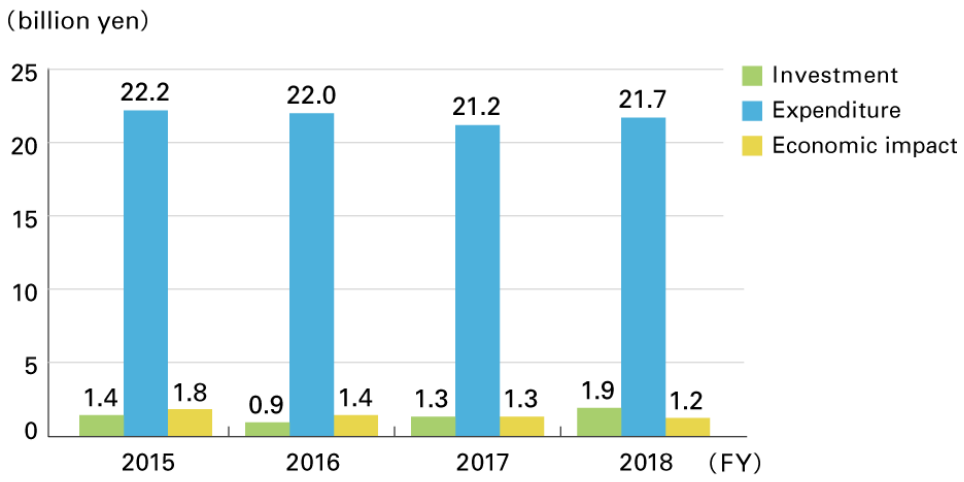
Mitsui Chemicals employees have been annually donating to the Japan Environmental Action Network (JEAN) — an NGO that engages in ocean and river environmental preservation activities—through the One-Coin Club since fiscal 2015.

Environmental Protection

Environmental Accounting

Mitsui Chemicals invests as much as is necessary in responsible care, including environmental initiatives and occupational health and safety. We also compile and publish our environmental accounts in accordance with the Environmental Accounting Guidelines set out by the Japanese Ministry of the Environment in 2005.
In fiscal 2018, we invested approximately ¥1.9 billion on protecting the environment. Expenses totaled around ¥21.70 billion, while the economic impact of our environmental activities this year, including conserved resources and saved energy, was equivalent to approximately ¥1.2 billion. Specific examples of our efforts include the strengthening of wastewater treatment management. Moving forward will continue to actively focus on environmental protection activities.

Environmental Accounts (Mitsui Chemicals, Inc.)



Environmental Accounts

Breakdown of Investment and Expenditure (FY2018 Mitsui Chemicals, Inc.)

Unit: million yen

Category	Main initiatives	Investment	Expenditure
1. Business area costs (Cost of reducing the environmental impact of production and service activities within our business area)		1,880	13,931
1-1 Pollution prevention cost	Measures to prevent VOC air pollution, odors, reduce wastewater, etc.	(605)	(11,332)
1-2 Global environmental conservation cost	Energy saving equipment	(1,270)	(157)
1-3 Resource circulation cost	Recycling waste plastics, etc.	(5)	(2,442)
2. Upstream/downstream costs (Cost of reducing the environmental impact of production and service activities in upstream or downstream areas)		0	0
3. Administration cost (Cost of environmental management activities)	Maintaining environmental management systems, training employees, etc.	0	607
4. R&D costs (Cost of environmental research and development activities)	Developing products and processes to protect the environment, reduce environmental impact, etc.	0	6,300
5. Social activity costs (Cost of environmental social activities)	Increasing greenery, funding measures to combat pollution, etc.	0	212
6. Environmental remediation cost (Cost of remediating environmental damage)	Remediating pollution, etc.	2	676
Total		**1,882**	**21,726**

Environmental Accounts

Breakdown of Economic Impact (FY2018 Mitsui Chemicals, Inc.)

Unit: million yen

Category	Main benefits	Economic impact
1. Income from recycling	Recycling waste into resources	404
2. Income from saving energy	Saving energy	544
3. Income from saving resources	Improving our raw material intensity index	278
Total		**1,226**

* Scope of Mitsui Chemicals, Inc.: Parent company production sites and the Sodegaura Center

Management System	GHG and Energy	Industrial Waste
Substances Subject to the PRTR Act	Air	Water
Biodiversity	Environmental Accounting	Environmental Compliance

Environmental Compliance

The Mitsui Chemicals Group believes that compliance with the environmental laws and regulations of the nations and regions in which it operates and addressing the opinions and complaints of local residents are an important part of environmental compliance.
In June 2018, a fire broke at a utility plant in the Osaka Works. We sincerely apologize for causing such great inconvenience to local residents, related authorities, customers, and many other people.
Through training our employees about environmental laws and regulations and conducting audits at each of our operating sites, we aim for zero violations of environmental laws and regulations. Moreover, management at each of our locations conducts regular meetings with members of local communities so as to exchange opinions and broaden understanding in regard to the operation of the facility. Each business site fields complaints and comments from local residents. Moreover, Mitsui Chemicals maintains a our Risk Hotline that allows members of the local community to express their opinions. Thanks in part to these efforts, there were no violations of environmental laws or regulations in fiscal 2018. We will continue our efforts in environmental compliance in order to earn and maintain the trust of society in general.

Management System

Policy and Basic Approach

World Trends in Product Stewardship

The keys to realizing the WSSD's[*1] 2020 goal of "aiming to achieve, by 2020, usage and production of chemicals in ways that lead to the minimization of significant adverse effects on human health and the environment," are corporations' voluntary risk assessment and risk management throughout the supply chain by communicating safety use information. The EU REACH regulation[*2] legally mandate such communication and the results are utilized for the assessment and risk management concerning hazardous chemical substances over the entire European Union. Also, in Japan (the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.) and the US (TSCA[*3]), risk assessment and risk management measures based on the assessments undertaken by corporations contribute greatly to national-level risk management. As many other countries adopt similar regulatory methods, the importance of risk assessment by corporations and risk management throughout the supply chain based on such assessment is increasing.
One of the international approaches to achieve the WSSD 2020 goal is SAICM[*4] from UN Environment. The International Council of Chemical Associations (ICCA) launched the Global Product Strategy (GPS)[*5] and Responsible Care Global Charter to contribute to the sound chemical management at which the SAICM aims. Under the policies of the ICCA, the chemical industry associations and chemical corporations in various countries are now striving to achieve the WSSD 2020 goal.

Support Initiatives

*1 WSSD：
The World Summit on Sustainable Development (WSSD) held in Johannesburg, South Africa in 2002. During the Summit, the WSSD goal of achieving, by 2020, the use and production of chemicals in ways that lead to the minimization of significant adverse effects on human health and the environment, using transparent science-based risk assessment procedures and science-based risk management procedures was adopted.

*2 REACH Regulation：
Regulations relating to the Registration, Evaluation, Authorization, and Restriction of Chemical substances.

*3 TSCA：
Toxic Substances Control Act

*4 SAICM (Strategic Approach to International Chemicals Management)：
A strategic approach to international chemicals management. Established to promote advances in a number of areas to achieve the WSSD goals, such as risk reduction based on scientific risk assessment, preventive approaches, the collection and provision

of information on hazardous chemical substances, improvements in each country's chemical substance management system, and the promotion of technical cooperation in developing countries.

*5 Global Product Strategy (GPS)：
In order to minimize the risk from chemicals throughout the supply chain, each company conducts risk assessments on its chemical products. In addition to implementing appropriate risk-based management, they engage in voluntary efforts to disclose to society in general, including customers, information on product safety and risk. GPS is thus designed to strengthen product stewardship.

Product Stewardship by the Mitsui Chemicals Group

As a chemicals corporation operating globally, Mitsui Chemicals extends its scope of chemical management beyond thorough compliance with the regulatory requirements in each country in order to minimize the environmental impact from chemical substances and ensure human safety over the entire product lifecycle, from product development to disposal. Cooperation with stakeholders within the supply chain is indispensable to achieve this. We gather chemical information from upstream companies in the supply chain, assess risks involved in our products, and closely communicate with the downstream companies about product risks and handling.
Each Mitsui Chemicals' employee is responsible for supporting our product stewardship. We provide them with training programs to acquire knowledge to comply with the law and handle products correctly, and spread the knowledge across the supply chain in order to establish a corporate culture that protects human health and the environment.

The Mitsui Chemicals Group maintains a Responsible Care Policy that focuses on assessing the risks on people and the environment of its products throughout their entire lifecycles as well as ensuring the health and safety of all persons and reducing the environmental impact of those products. Guided by its Responsible Care Policy, the Group has also put in place internal rules regarding environment & safety and quality management. These regulations help the Group grasp the latest trends in and traverse the increasingly stringent regulations of each country and provide a roadmap for conducting collection and verification of information of chemicals in products , conveying safety use information to stakeholders including customers, ensuring the health of consumers, customers, and employees, and reducing its environmental impact.

* Visit here for Blue Value™ that visualizes the environmental impact reduction from the product stewardship viewpoint in each product life stage.

Product Stewardship Goals

The Mitsui Chemicals Group has established goals for around 2020 as our medium-term Product Stewardship goals.

Goals for Mitsui Chemicals Group Product Stewardship for around 2020

Goal 1 The Mitsui Chemicals Group will continue to ensure that it complies with all statutory and regulatory requirements in an exhaustive and comprehensive manner. Measures will be put in place to prevent any violation with respect to the Group's manufacturing and shipping activities.

Goal 2 Mitsui Chemicals' safety evaluations with garner the confidence of society; as an integral element in the value chain, the Company will work toward sustainable development and provide increasingly safe products.

System and Responsible Officers

The Mitsui Chemicals Group product stewardship is positioned as a part of Responsible Care. The Responsible Care Committee determines company-wide policies, strategy, and measures as the Product Stewardship Strategy. The results of Product Stewardship are reported by the General Manager of the RC & Quality Assurance Division and reviewed by the Responsible Care Committee. The findings of the Committee are then reflected in plans for the next fiscal year after taking into consideration changes in the environment, including the concerns and requirements of society as well as the latest trends in government policy and regulations as they relate to chemical substances.

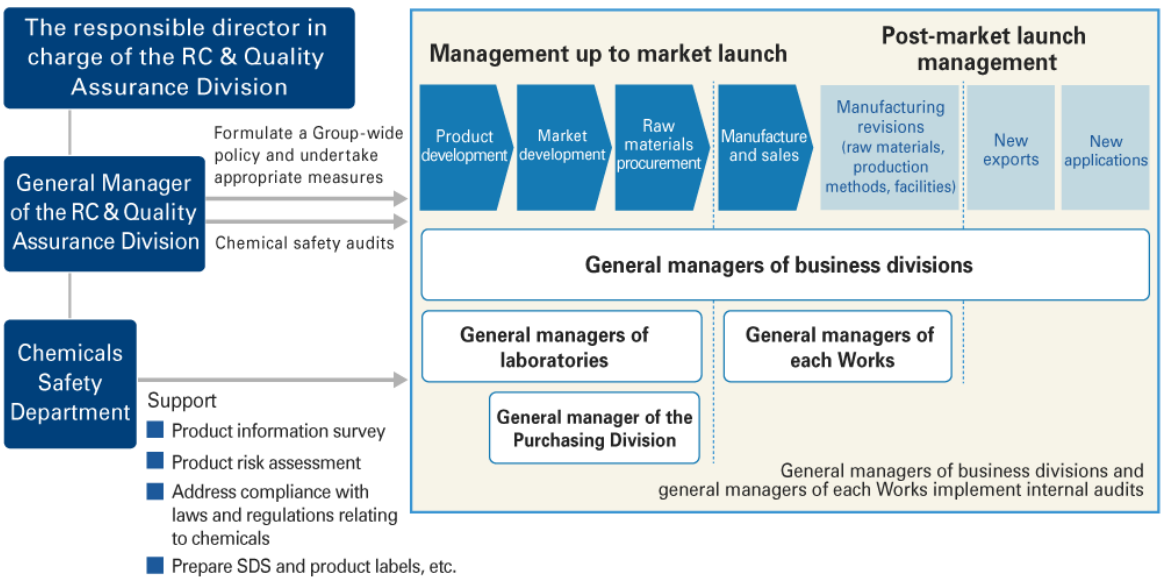
The General Managers of each business division undertake chemical safety management for the entire business for which they are responsible. General Managers of works undertake chemical safety management from material procurement to shipment within their works. General Managers of laboratories undertake chemical safety management in product and market development. Examples of action items are as follows. The General Manager of the RC & Quality Assurance Division must provide support for these items.

- Identification with traceability of substances contained in materials and products
- Product risk assessment
- Legal compliance and industrial standard compliance
- Creation of product Safety Data Sheet (SDS) and product labels
- Provision of information to customers

If product specifications need to be changed after market release, such as changes in materials, production methods, facilities, and product use, take any preliminary actions necessary, such as management of chemical substances in products, collection and verification of information of chemicals in products, product risk assessment, and legal compliance. Then confirm that there are no problems concerning product changes. Take the same action for product specifications when a new regulation has been introduced or a new discovery is made.

This process is inspected by internal audits by General Managers of business divisions or works, and through a chemical safety audit by the RC & Quality Assurance Division General Manager. The audit results are reflected in the Product Stewardship Strategy for the following fiscal year. Affiliate companies conduct chemical safety management independently with support from the supervising division. The RC & Quality Assurance Division regularly audits the chemical management structure and operations in each affiliate company.

Product Stewardship Accountability Structure



The RC & Quality Assurance Division takes both exhaustive and comprehensive steps to ensure that it fully grasps the annual submission requirements prescribed under Japan's Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. as well as the new application and submission requirements associated with efforts to reinforce the European REACH regulation and other regulations. Thereafter, the Division analyzes the Group-wide impact of each requirement and puts in place a Group-wide plan to ensure that requirements are met. In order to advise the rest of the organization and to provide support for handling these requirements, meetings are held to provide officers in charge of Responsible Care with the appropriate information. Among a host of endeavors, the Division makes full use of the gate check function of the chemical product safety information system (MiCSIS: Mitsui Chemicals Safety Information System). This helps in preventing the termination of export activities when the necessary registration requirements of each country have not been completed, and avoiding the manufacture of products in excess of approved limits.
A risk assessment that takes into consideration the impact on human health and the environment is undertaken for new products up to their market release and in accordance with any change in management after each product launch. In the event that the necessary low level of risk cannot be confirmed, a product safety meeting is held chaired either by the responsible director in charge of the RC & Quality Assurance Division or the General Manager of the RC & Quality Assurance Division. The goal of the meeting to decision whether or not a product will be released and if so under what terms and conditions.

Goals and Results

KPI	Scope	FY2018			FY2019	Medium to Long-term
		Goals	Results	Level Achieved	Goals	Goals
Number of legal and regulatory violations	Mitsui Chemicals, Inc.	0	0	○	0	—
Product risk assessment implementation rate	Mitsui Chemicals, Inc.	Complete assessment of low-priority products	Complete assessment of all products*1	○	Set up new medium to long-term goals	—
Provision ratio of the latest safety information for all products*2	Mitsui Chemicals, Inc.	100%	100%	○	100%	100% (FY2025)

*1 The target year was set to 2020 to align with the WSSD 2020 goal, but the goals have already been achieved.

*2 Most recent SDS submission rate.

Review and Challenges

We did not violate any regulations and provided all the latest safety use information in fiscal 2018. The product risk assessment that we planned to complete by 2020 has already been completed—two years prior to the deadline. With international chemical management directions in view, we plan to create a medium- to long-term plan for 2025 within fiscal 2019.

Regulatory Compliance and Distributing the Safety Use Information

The Mitsui Chemicals Group promotes measures to achieve goals for around 2020; we will continue to ensure that we comply with all statutory and regulatory requirements in an exhaustive and comprehensive manner, and measures will be put in place to prevent any violation with respect to the Group's manufacturing and shipping activities.

Compliance with New or Revised Regulations Related to Chemical Substances

Many countries are now enacting or renewing regulations related to chemical substance management towards achieving the WSSD 2020 goal. The approach taken by the EU REACH regulation has been adopted in many countries after being modified to suit the country's unique situation. At the same time, countries that are advanced in chemical substance management are also revising their regulations to address issues concerning existing chemical handling measures. The Mitsui Chemicals Group is keeping pace with the latest enforced regulations.

The Mitsui Chemicals Group completed the registration of phase-in substances specified by the EU REACH regulation by June 2018. We established a group-wide organization to systematically accelerate chemical registration in accordance with the REACH regulation in 2007.

In Korea, the amended Act on Registration and Evaluation, etc. of Chemicals (including its subordinate regulations) came into force in early 2019. This is the Korean version of the REACH (K-REACH)　regulation that covers existing chemical substances that are manufactured or imported at a mass of one ton or more per year. Including pre-notification, which is a preliminary chemical substances registration, we are working to be compliant with these new regulations by the end of June 2019.

In the US, the TSCA Inventory Notification Requirements rule was implemented under the Toxic Substances Control Act (TSCA), in August 2017. Mitsui Chemicals has completed the notification of the chemicals that are listed in the existing chemical substances inventory and that were imported or manufactured in the last ten years.

In Japan, the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. was revised and the criteria of reporting chemical substances in small production volumes was changed in January 2019. The reporting criteria used to be the amount of production or import but now it is based on the amount of emissions. Therefore, we systematically obtained usage information for our products from customers and completed the designated report. As for this change in the Act, we participated in the Policy Coordinating Committee under the Japan Chemical Industry Association, negotiating for the changes to be executable in an efficient and effective manner.

Through active participation in industry initiatives, such as those of the Japan Chemical Industry Association (JCIA), and through close exchanges of information with local consultants, the Mitsui Chemicals Group quickly obtains the

regulatory information from each country. At the same time, the Group works to ensure thorough compliance. Moreover, in 2017 we established an organization on a regular basis to accurately collect local legal and regulatory information through our affiliates. As part of this move, we held a legal and regulatory expert committee to exchange information that was jointly attended by experts in regulation from our European, American, Chinese, and Taiwanese affiliates. In fiscal 2019, we plan to expand this system to Southeast Asia.

Led by the Global Chemical Regulation Compliance Team, in which business divisions and all corporate divisions participate, Mitsui Chemicals investigated and rapidly implemented Group-wide response measures in divisions across the company. Going forward, we will continue to respond in a planned manner to newly enacted and revised regulations, including REACH regulation of Europe, K-REACH regulation of Korea, and TSCA of U.S., manage the progress of this response, and ensure full compliance.

Thorough Management for Chemicals placing on the market

The promulgation of national laws, including European REACH regulation, marks the beginning of the registration of products and chemical substances, but the management of risks, such as the imposing of restrictions and the granting of approvals by regulatory authorities after registration, does not end after a product is released to the market. Regulatory requirements after launch to the market are also becoming more sophisticated and complicated, and it is essential to promptly and precisely implement appropriate responses.

We respond to changes in, for example, risk assessments and risk management from a range of perspectives that include a variety of changes after release to the market, such as changes in regulations; the addition of regulated substances; the ascertaining of new hazard information; changes of product application; changes in raw materials/manufacturing methods; and toxicity based on internal regulations. It is thought, however, that the responses to be made will become progressively more complex in the years to come due to the regulations covering chemicals becoming even more stringent, as a result of revisions to the regulation and the formulation of new regulation in each country, and due to progress made in the evaluation of substances, including under European REACH regulation. To better respond to such a variety of changes of this kind, we will work to reinforce the further chemicals management system and ensure management when changes are made.

Establish a Structure for Authoring and Distributing the Adequate Safety Data Sheet According to Regulatory Requirements

Information on all the products, raw materials and chemical substances handled by Mitsui Chemicals is controlled in an integrated manner by a chemical product safety information system (MiCSIS). Through coordination between this system and ERP (Enterprise Resources Planning) software, we have reinforced both the expeditious provision of information to customers and compliance relating to chemical regulations, such as the confirmation of legal compliance with domestic and foreign regulations, the management of production/import quantities, and the automatic authoring of safety information, such as multilingual SDS, product labels, MSDSplus[*1], etc. Going forward, we will also comply with chemSHERPA[*2], a new scheme for conveying information about chemical substances contained in products.

Mitsui Chemicals Group is carrying out system upgrades to enable us to share product-related regulatory and safety information. In addition, the automation of SDS authoring was completed in China, following on from Europe, the United States, South Korea and Taiwan. System compatibility with major export destination countries was also completed.

In addition to developing a system to enable us to share information on regulations and safety with our affiliates in Japan and overseas, we will strive to communicate information that will enable us to respond to diversifying

regulations and customer demands. As a part of such efforts, regional experts in NAFTA, Europe, China check the local regulatory requirements and finalize SDSs for each country in order to provide the adequate SDSs for our products.

*1 MSDSplus:
A basic information sheet used to communicate information about chemical substances contained in products, as recommended by the Joint Article Management Promotion-consortium (JAMP).

*2 chemSHERPA:
CChemical information Sharing and Exchange under Reporting Partnership in supply chain. A scheme for conveying information about chemical substances contained in products. The Ministry of Economy, Trade and Industry is developing and promoting this scheme in aims of having the scheme utilized globally.

Providing Safe Products

The Mitsui Chemicals Group is striving to achieve one of our goals for around 2020: “Mitsui Chemicals’ safety evaluations will garner the confidence of society; as an integral element in the value chain, the Company will work toward sustainable development and provide increasingly safe products.”

Undertake Risk Assessments as Well as Risk Management Via the Supply Chain for All Products

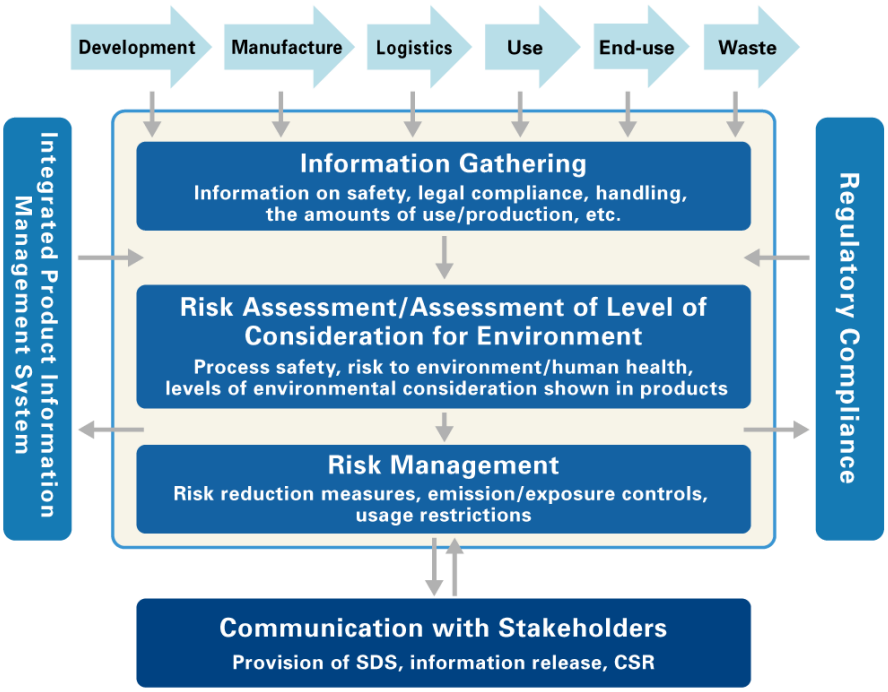
Based on the product stewardship approach, the Mitsui Chemicals Group assesses risks involved in the product lifecycle. This assessment is conducted at the development stage of a new product or brand. It is also conducted for a product already released to a market when changing its materials, production method, or usage; when applicable regulations and standards have been changed; and when a new scientific discovery is made concerning the chemicals contained in the product.
The development procedure of a new product is divided into five steps. A certain set of risk assessments is designated for each step and the assessment task is shared among the R&D Laboratory, business divisions, the Production & Technology Centers, the RC & Quality Assurance Division, and the Safety & Environment Technology Division.
The same applies to catalysts and additives used for materials or in the production process, and byproducts generated during manufacturing.

Other than the above, Mitsui Chemicals conducted risk assessments for all of our products in stages in order to contribute to attainment of the WSSD 2020 goal. In fiscal 2016, worker risk assessment was carried out using the Control Banding Method,*1 and from the total number of around 2,500 Company products we narrowed down the number of high-priority products to approximately 1,000. In fiscal 2017, the risk levels of the highest-priority products from among these 1,000 products were calculated for all possible use cases by utilizing tools such as ECETOC TRA,*2 which is used for risk assessments specified by the EU REACH regulation. In fiscal 2018, we expanded the assessment coverage to low-priority products and completed the risk assessment for all of our products.

*1 Control Banding Method:
A chemical substance management method created by the International Labour Organization (ILO) with the aim of protecting workers from chemical substances.

*2 ECETOC TRA:
A targeted risk assessment (TRA) tool developed by the European Centre for Ecotoxicology and Toxicology of Chemicals (ECETOC).

Chemicals Management throughout Product Life Cycles



Mitsui Chemicals Product Development Guidelines

Stage	Role	Responsible Care Responses
I	Tentative product concept setting	Gathering of safety-related information, conducting of collection and verification of information of chemicals in products
II	Tentative product concept market opportunity assessment	Provide customers with safety information when supplying prototypes
III	Preliminary market development by limited number of customers	Notify those involved within the Company of safety information Provide safety information to limited number of potential customers ↓ Conduct risk assessment by application Conduct operator/environmental risk assessment ↓ Hold product safety conference*1 → Change*2 / cease development ↓ Implementation of risk management measures*3 Submission of application for approval
IV	Full-scale market development	
V	Commercialization, release to market	Implement Change Control Implement risk assessment of existing products

*1 Held when it cannot be confirmed that the risk is sufficiently low, etc., or in the event of conflicts arising with internal standards.

*2 Examples: Changes of materials, method of manufacture, specifications, etc.

*3 Examples: Restrictions on application/use conditions; in addition to SDS, information conveyed in technical documents

Business/Product Development That Incorporates Sound Chemicals Management Perspectives

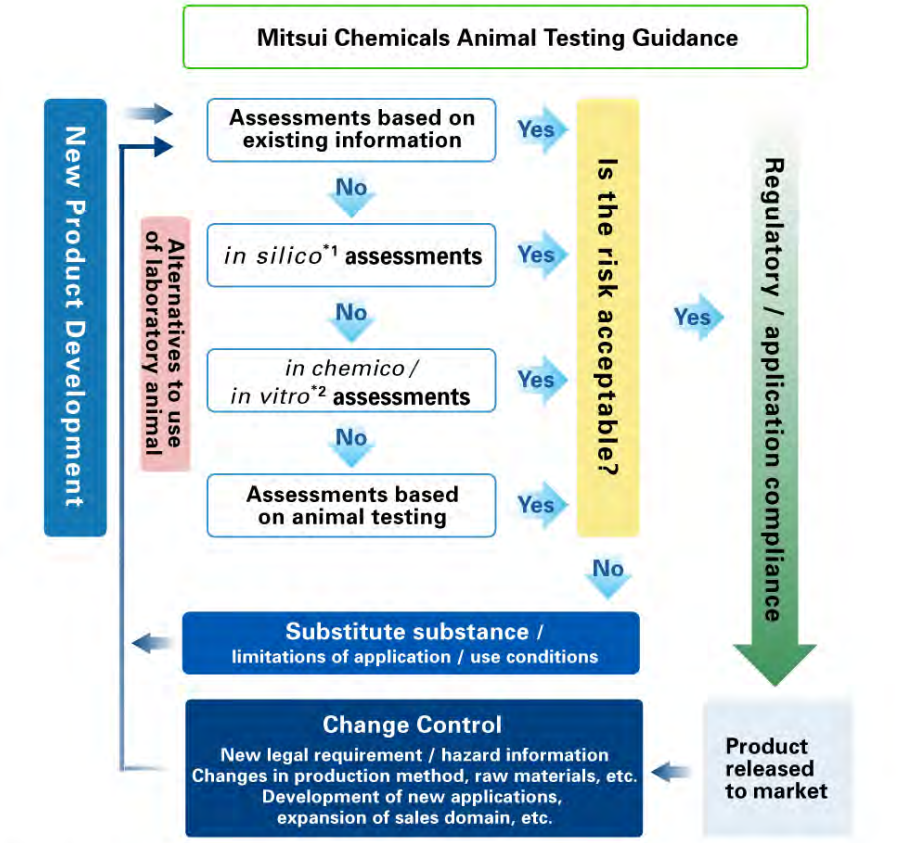
For human health and environmental protection as well as for sustainable development, the Sound Chemicals and Waste Management of chemical substances and hazardous waste that takes into account product life cycles is being proposed and is also being deployed by the International Council of Chemical Associations (ICCA). The Mitsui Chemicals Group is also engaging in business and product development that incorporates Sound Chemicals and Waste Management perspectives. For example, in the Development Guidelines we set out the items to be checked at each of the five development stages, and at the tentative product concept setting stage, the first stage, we conduct identification with traceability of components of the product and gathering legal information.

In recent years, social concerns with regard to the safety of chemical substances have been on the rise and reached the stage where even stricter safety is being demanded. Under the European REACH regulations, risk assessments are proceeding by the authorities, but due to the previously mentioned demands of society, there is a tendency for the judgments necessary to strengthen the regulations, such as the limitations of use imposed by the authorities, to be even more stringent on the basis of precautionary principles.
In response to this situation, we initiated activities from Sound Chemicals and Waste Management perspectives, including disseminating information to research and business development divisions and the raising of awareness. We designate the “reference substance list” according to global regulatory requirement including self-declaration request from downstream users or their sectors group. Out of such list, those whose manufacture and use are legally prohibited are specified as Prohibited Substances and such Prohibited Substances are not allowed to be detected in our products. We also specify Restricted Substances among the list, if their use or inclusion is restricted by customer requests or due to product usage purposes. In fiscal 2018, we provided our researchers with a tool that enables easy search for the list in the early stage of development of a product (verification stage of product concept). We are promoting use of this tool among researchers and developers so that they can avoid the substances in the list during the design stage with a view to the chemical regulations applied in later stages.
Mitsui Chemicals aims to provide products that are safe to human health and the environment and to contribute to sustainable development.

Put in Place a Safety Evaluation Platform That Engenders the Confidence of Society and Acquire Cutting-edge Technologies

The development of chemical products and chemicals management requires the safety test data demanded by legal regulations. There are also cases in which animal test may be necessary. We have established the Group’s animal testing policy that declares on the 3R principles (of Replacement, the utilization of alternative methods; Reduction, reduction of the number of uses; and Refinement, the alleviation of suffering) and the internal regulations for the animal testing facility.
The chief of the institute that conducts animal testing (i.e. Director of the Chemicals Safety Department) appoints the Institutional Animal Care and Use Committee in accordance with the institution’s internal rules. The committee inspects all animal tests, including those outsourced, from the viewpoint of 3Rs before approving them. The committee also undertakes a self-inspection every year on the procedure and management of testing, facility and equipment propriety, and education and training, etc. The Institutional Animal Care and Use Committee and test managers document these processes and report to the chief of the testing institution.

Safety Assessment System



*1 *in silico :* Computational scientific method utilizing structural activity correlations and similar substance information.
*2 *in chemico/in vitro :* Laboratory-level evaluation method that utilizes scientific / biological reactions.

In November 2018, after 37 years, the Ministry of Environment revised the Standards relating to the Care and Keeping and Reducing the Pain of Laboratory Animals. To assimilate this revision, Mitsui Chemicals revised the internal rules of the institution and the Standard Operation Procedure (SOP). An annual external audit we received in fiscal 2018 again confirmed that our animal testing is performed appropriately based on the scientific viewpoint with consideration of animal welfare following the Act on Welfare and Management of Animals, the Standards relating to the Care and Keeping and Reducing the Pain of Laboratory Animals, and the Basic Guidelines by the Ministry of Health, Labour and Welfare.

The Integrated Approaches to Testing and Assessment (IATA) is becoming widespread as a global trend of risk assessment. IATA is an approach that integrates existing data, and testing data *in silico* (techniques that predict harmfulness from a chemical substance's structure) and *in vitro* (alternative testing without using animals) to make animal testing a last resort. IATA has been adopted under the OECD testing guidelines of irritation, corrosiveness, and sensitivity, etc., as well as in regulations in different countries. Mitsui Chemicals is actively employing such new techniques.
In fiscal 2018, in an effort to contribute to establishing technologies for alternatives to animal testing, we participated in activities to improve the precision of predicting irritation in the OECD QSAR toolbox,[*1] one of the *in silico* approaches, to develop an assessment flow that produces more objective results. We published our development at a European toxicity conference Eurotox 2018 and in an academic journal.[*2] Also, ADRA,[*3] developed in a project in which we participated, was adopted in the OECD Guidelines for the Testing of Chemicals in 2019. Mitsui Chemical continues to expand and promote alternative methods to animal testing and contribute to their promotion.

*1 QSAR: Quantitative Structure－Activity Relationships.

*2 Atsutoshi Abe, Takuhito Sezaki, Katsutoshi Kinoshita, Development of a read-across workflow for skin irritation and corrosion predictions, SAR AND QSAR IN ENVIRONMENTAL RESEARCH 30 (2019), pp.279–298

*3 ADRA: Amino acid Derivative Reactivity Assay. A test method to detect the first key event that leads to an Adverse Outcome Pathway (AOP) in skin sensitization.

Training

To successfully achieve the WSSD 2020 goal, it is indispensable to steadily manage risks across the supply chain. In concrete, we must ensure: information collection when purchasing, procuring, and developing a product; compliance with legal requirements in each country before and after product launch; risk management based on risk assessment; and provision of safety information to customers.
Each Mitsui Chemicals' employee is responsible for supporting our product stewardship. We provide them with training programs to acquire knowledge to comply with regulations and handle products correctly, and spread the knowledge across the supply chain in order to establish a corporate culture that protects human health and the environment.

The chemical safety management training program comprises the following three courses:

1. E-learning for all employees
2. Basic seminars for responsible officers for purchasing, R&D, and sales
3. Advanced courses for specific issues

The e-learning course is mandatory for all employees to acquire basic knowledge in the following areas and notification of contact points for advice. The e-learning attendance results are stored and managed by our own talent management system .

- Product risk assessment
- Legal compliance before product launch
- Provision of safety information, such as SDSs and labels
- Continuing management after product launch

The basic seminars cover the knowledge required by staff members responsible for chemical safety management. The following educational programs were provided in fiscal 2018:

- Importance of identification with traceability of chemical substances contained in a product at the design stage
- Identifying chemical substances in products and collection and verification of information of chemicals in products
- Legal compliance (before and after product launch)

- Product risk assessment
- Providing safety information (SDS & labels)

In addition to the basic seminar, an information check tool training session was provided for identifying chemical substances in products and product information surveys. The training session included the following activities:

- How to check regulations in Japan and overseas countries and regions where business launches (production/exporting) are planned
- Introduction of the “reference substance list” according to global regulatory requirement including self-declaration request from downstream users or their sectors group.

The advanced course is designed to provide knowledge specific to a product or usage purpose, such as food packing materials. We hold this course for officers who are responsible for a specific product or usage purpose.

Other than the courses listed above, the Chemical Safety Department provides the RC officers in purchasing and procurement divisions, business sectors, R&D centers, and information system divisions with the following information in monthly meetings to keep up their knowledge levels, as well as confirming that they undertake designated actions, and to provide support to them. RC officers spread the information they acquire across their respective divisions and report back on related actions undertaken to the Chemical Safety Department.

- Global trend of tightening regulations concerning chemical safety management and response by Mitsui Chemicals
- Our policies and schedules for designated regular reports to authorities

Quality of Products and Services

Management System | Initiatives

Management System

Policy and Basic Approach

Under our Responsible Care Policy, the Mitsui Chemicals Group has identified details of our quality system and other key issues such as PDCA procedures as basic matters concerning quality management in our internal regulations. In carrying out the appropriate procedures, we are providing products and services that satisfy customers while earning their trust.

In conjunction with the global expansion of the Group's business, we have identified specific principles for global quality management in order to ensure a uniform awareness toward the basic level of quality. Steps are being taken to roll out these principles across the Group as a whole.

The Mitsui Chemicals Group's Global Quality Management Principles

The Mitsui Chemicals Group makes every effort to increase customer satisfaction via a two-pronged approach to quality management, based on quality control ("built-in quality activities" *1) and quality assurance ("activities that win over customers' trust" *2). In this regard, the Company has identified the following principles.

1. Provide customer-oriented products and services

- Clarify customers' requirements and ensure quality
- Design and provide products that also look beyond immediate customer needs
- Propose and provide new products and services that address customers' needs

2. Ensure objective and transparent quality assurance

- Give priority to compliance with laws and regulations over the pursuit of any profit
- Put in place a framework that enables a prompt response when an issue occurs
- Ensure the independence of the Quality Assurance Division

3. Put in place a framework that allows the stable supply of products

- Ensure quality control from the procurement of raw materials to the delivery of products to customers
- Adhere strictly to a policy of management of change and non-conforming product control

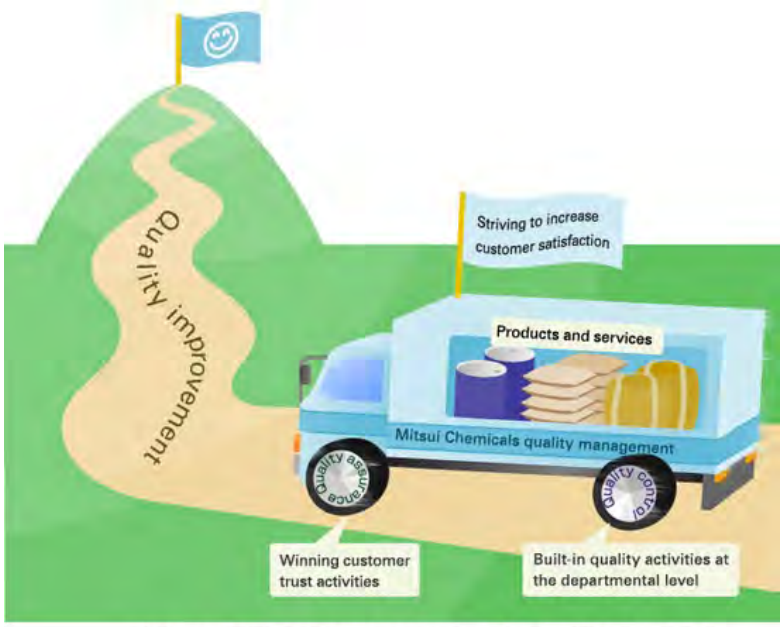
4. Create a more open corporate culture

- Adhere strictly to a policy of "report, contact, and consult;" promote the sharing of information between departments
- Undertake the exchange and horizontal deployment of quality assurance information and techniques across the Group

*1 Built-in quality activities:
Our built-in quality activities are aimed at minimizing discrepancies at every stage of the process, including purchasing, design, logistics, and sales as well as manufacturing, to enable every department to provide the same quality of product and service.

*2 Activities that win over customers' trust:
Our activities that win over customers' trust meanwhile are aimed at resolving issues from the customer's perspective, and are spearheaded by the Quality Assurance Department, independently of our sales and manufacturing sections.

Quality Management Philosophy

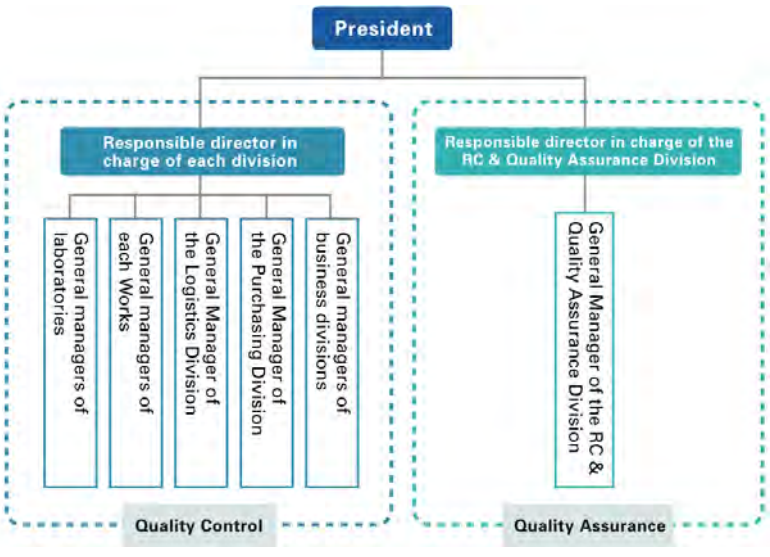


Reference: ISO9000 (Quality management systems - Fundamentals and vocabulary)
Quality assurance: Part of quality management, focused on providing confidence that quality requirements will be fulfilled
Quality control: Part of quality management, focused on fulfilling quality requirements

System and Responsible Officers

With the president assuming ultimate responsibility for quality management, the RC & Quality Assurance Division controls quality management for the entire Mitsui Chemicals Group in Japan and overseas. Under this structure, every effort is made to improve product and service quality in all divisions and further raise customer satisfaction.
Business divisions, the Logistics and Purchasing divisions, Works, and laboratories are responsible for quality control. The RC & Quality Assurance Division is responsible for quality assurance. As the heads of each division, general managers engage in quality management.

Quality Management System and Responsible Officers



Steps are taken to identify quality audit program and priority audit items and to confirm the status of quality management implementation across the Group as a whole. A review of certain items including observations raised during fiscal year-end audits is undertaken. The results of this review are reflected in the audit program for the following fiscal year.
In addition to systematically collating customer complaints, steps are taken to monitor the details, causes, and each customer's response with respect to each complaint. After analyzing the information gleaned on a monthly basis, the results are shared within the Group. After conducting a review of complaints over the year, quality targets are identified for the following fiscal year.

Goals and Results

PL Accidents and major legal and regulatory violations

KPI	Scope	FY2018			FY2019	Medium to Long-term
		Goals	Results	Level Achieved	Goals	Goals
Number of PL accidents	Mitsui Chemicals Group	0	0	○	0	0 (FY2025)
Number of major quality-related legal and regulatory violations	Mitsui Chemicals Group	0	0	○	0	0 (FY2025)

Complaints

KPI	Scope	FY2018			FY2019	Medium to Long-term
		Goals	Results	Level Achieved	Goals	Goals
Incidence of customer non-conformance	Mitsui Chemicals Group	—	—	—	—	Less than 10ppm (FY2025)
Number of complaints for which the Company is responsible	Mitsui Chemicals, Inc.	Reduce by at least 10% (YoY)	Increase (YoY)	×	Continue at FY2018 Goals	A deemed level of zero complaints (FY2025)
Number of "Rank A* " complaints included in the number of complaints for which the Company is responsible	Mitsui Chemicals, Inc.	Less than 20% of the total	4% of the total	○	Less than 20% of the total	A deemed level of zero complaints (FY2025)

* Rank A: high risk complaints causing troubles for customers, in line with the Company's criteria

Review and Challenges

In fiscal 2018 we did not experience any major quality-related legal and regulatory violations or suffer any product liability incident. We also managed to reduce high risk complaints by working hard to reduce “Rank A” complaints, according to the Company’s criteria.
However, the total number of complaints in fiscal 2018 increased and so we were unable to achieve our set target. These complaints were eventually consolidated by promptly reporting the causes and implementing recurrence prevention measures. We continue to identify the fundamental causes of complaints and apply secure amendments, aiming to minimize complaint risk factors.

Initiatives

Improving the Standard of Quality Management

Our efforts to improve quality management standards revolve primarily around quality auditing and training.

Quality Audits

The RC & Quality Assurance Division provides all departments within the Mitsui Chemicals Group, including the head office, works, laboratories, and domestic and overseas affiliates, with support in order to improve quality management through quality auditing that takes into consideration the perspectives of customers. In fiscal 2018, audits were conducted on (1) the clarity of responsibility delegation and operations across the supply chain, (2) the identification of latent quality risks and measures aimed at risk reduction, and (3) the integrity of product inspection data as priority areas. Please click here to view the results of quality audits in fiscal 2018.

Quality Training

We have formulated a various quality training program such as quality training at the new employee training. We conducted e-learning training based on the compliance awareness training. Covering more than just the Group's operations in Japan, this training is also implemented for the benefit of overseas subsidiaries and affiliates. Especially for the compliance, we are using audits and other initiatives as direct training opportunities as well as conducting quality lectures. Moreover, we have been implementing frontline measures to prevent quality issues on the shop floor (QRG activities) since fiscal 2010, with the aim of identifying and eliminating risks that could lead to quality issues. Further, since 2010, we run the Award for Quality Management Activity in the Mitsui Chemicals Group scheme each November, which is an industry-designated quality promotion month. We encourage voluntary quality management activities and award those who have achieved outstanding results across various workplaces in order to raise quality awareness and encourage the willingness to make improvements.

Responding to the Voices of Customers

Whenever we receive a complaint from one of our customers regarding our products or services, Business, Manufacturing, and Logistics Divisions together with the Quality Assurance Division work in unison to identify the cause of the complaint and to take corrective action. In this manner, every effort is made to implement preventive measures across the organization as a whole.
As one such initiative, all members of the Quality Assurance Division reassess the root cause of each complaint, reconsider appropriate countermeasures, and confirm progress. At the same time, energies are channeled toward extracting important case studies, particularly where there is a substantial risk to customers, and where the potential exists for similar cases to arise. These case studies are then shared across the entire Company.
Society's interest toward the impact of chemical substances on people's health and the environment continues to rise.

Against this backdrop, chemical substance regulations are becoming increasingly stringent with growing importance placed on the higher level of management of products containing chemical substances.
Under these circumstances, the Mitsui Chemicals Group has implemented thorough chemical substance management across the entire supply chain. We have not only set up an information database in response to inquiries regarding products containing chemical substances from customers, but also established a designated department to undertake appropriate research. Through these means, we are working diligently to reply accurately to each inquiry in a timely manner.

Response to the New Business

The Mitsui Chemicals Group takes steps to ensure compliance with all applicable statutory, regulatory, and authentication requirements on an individual product application basis and conducts internal risk assessments before bringing a particular product to market. From fiscal 2015, we established a designated group to address compliance issues in connection with laws and regulations related to pharmaceutical affairs including medical instruments and authentication. With this designated group taking the lead, every effort is made to confirm the safety and efficacy of products. Steps are also taken to strictly comply with all statutory and regulatory requirements. Moreover, we look to confirm the status of statutory, regulatory, and authentication compliance through periodic inspections after products have been launched.

Management System

Policy and Basic Approach

In logistics, in addition to safety, transporting with attention given to quality and the environment is an important challenge. In view of the serious labor shortage in logistics in recent years, however, transport services are inclined to keep away from handling chemical products, and it is getting more difficult to find means of transportation. For this reason as well, we recognize that stable transportation is a major challenge.
To ensure that our products are transported in a manner that takes into consideration safety, quality and the environment, the Mitsui Chemicals Group is engaged in a wide range of initiatives including workplace improvements, development of an appointment system and the introduction of shared logistics. To prepare for the new changes likely to occur in the next 10 to 20 years, we are working in collaboration with the supply chain to build a resilient logistics system capable of a versatile response to all environmental changes.

The Mitsui Chemicals Group has established “Logistics Environment, Safety, and Quality Management Bylaws” based on its Responsible Care Policy and Company-wide regulations for risk management. Moreover, the Group complies with all related legal and regulatory requirements and has put in place various initiatives including logistics accident countermeasures. Logistics subcontractors are also required to comply with the Group’s bylaws.

System and Responsible Officers

The responsible director in charge of the Logistics Division manages our logistic system. The Logistics Division sets goals for the fiscal year based on results (number of accidents, complaints, etc.) up to the previous year. Various measures (audit of logistics subcontractors, training, on-site discussion, campaigns, etc.) are incorporated into the annual plan with definitive steps then taken to implement a PDCA cycle. The Logistics Division reports on logistics performance as well as the progress of annual plans while promoting the exchange of opinions through various means including regular meetings with the Responsible Care Committee and the responsible director in charge of the Logistics Division.
Among a host of measures, steps are taken to conduct a Logistics Division Responsible Care audit of the Group’s business sites and logistics subcontractors based on specific criteria and a checklist that is prepared in advance. In this manner, every effort is made to monitor the progress of annual logistics Responsible Care plans. The results of the aforementioned measures and audit are reported to all relevant logistics-related parties and proper action taken.

Goals and Results

Safety

KPI	Scope	FY2018			FY2019	Medium to Long-term
		Goals	Results	Level Achieved	Goals	Goals
Number of significant occupational injuries[*1] in logistics	Mitsui Chemicals Group	0	2	×	0	0
Number of major accidents[*2] in logistics	Mitsui Chemicals Group	0	0	○	0	0

*1 Significant occupational injuries in logistics：
Significant occupational injuries that occurred during logistics activities undertaken by the Mitsui Chemicals Group including across the supply chain.

*2 Major accident in logistics：
Major accident that occurred during logistics activities undertaken by the Mitsui Chemicals Group including across the supply chain.

Quality

KPI	Scope	FY2018			FY2019	Medium toLong-term
		Goals	Results	Level Achieved	Goals	Goals
Number of issues impacting customer[*3]	Mitsui Chemicals Group	24 or less	32	×	25 or less	90% or less (average of the most recent three years)
Incidence of issues impacting customers[*3]	Mitsui Chemicals Group	50ppm or less	70ppm	×	55ppm or less	30ppm or less (FY2020)
Number of complaints	Mitsui Chemicals Group	7 or less	13	×	7 or less	—

*3 Issues impacting customers:
Quality issues (including complaints) and accidents that impacted customers.

Compliance

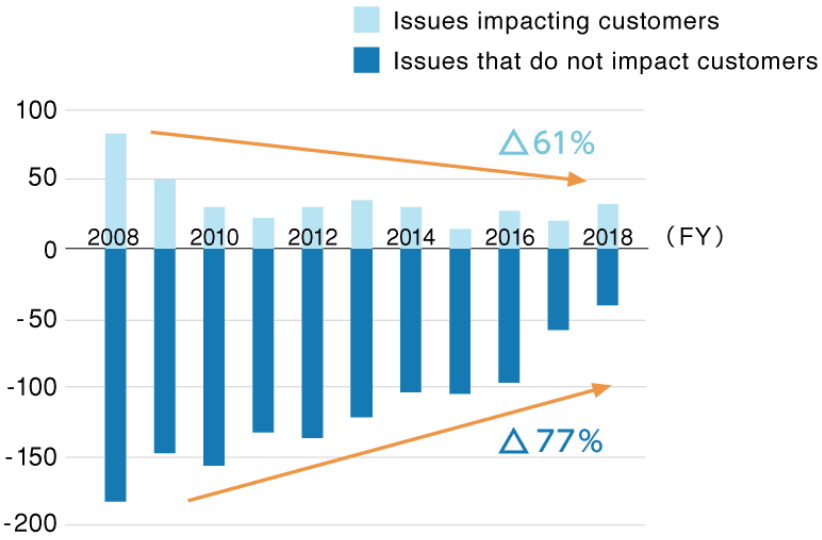
KPI	Scope	FY2018			FY2019	Medium to Long-term
		Goals	Results	Level Achieved	Goals	Goals
Number of legal and regulatory violations	Mitsui Chemicals Group	0	0	○	0	0

Review and Challenges

The number of complaints and issues have dropped dramatically since fiscal 2008. However, neither safety nor quality goals have been achieved in fiscal 2018. We believed this to be due to the drastic changes in the logistics business environment. The following activities will be implemented in fiscal 2019 to prevent a recurrence and to reduce complaints and issues in logistics.

- Safety: Review the work environment at each site, as well as the work procedures and methods. Additionally, review the state of compliance and reinforce management.
- Quality: Reduce issues that have a significant impact on customers (delayed delivery, erroneous shipments and deliveries as well as product leakages).

Number of Issues



Also, we continue to conduct safety activities in cooperation with our logistics subcontractors, including joint safety patrols with other sites and campaigns to prevent issues recurring. We are making diligent efforts to foster mutual understanding by sharing Mitsui Chemicals' safety policy through the release of weekly and monthly reports and safety dialog to gather opinions from on-site workers, to enable us to become top in the industry in logistics safety and security.

We are also developing rules for the Mitsui Chemicals Group. Due to the differences between countries and regions in the rules governing the transport and storage of hazardous chemicals, the Group plans to establish global rules that require strict compliance in transport and storage in any part of the world. We are making preparations to introduce them within fiscal 2019.

Safety and Quality

Dialog with Logistics Subcontractors

Mitsui Chemicals delegates its entire logistics operation to logistics subcontractors. For this reason, to achieve better logistics safety and quality, the Group believes it is important to communicate and disseminate a policy that positions safety as the top priority for each and every person in our logistics operations.
The department responsible for logistics at each of our works organizes logistics meetings with the works' logistics subcontractors, usually once a month, to share information about accidents and other relevant matters, review details of hiyari-hatto (near-miss) incidents, carry out on-site patrols and training. We publish monthly and weekly reports to raise their consciousness of logistics safety and quality. We also make every effort to prevent accidents as part of our logistics operations by requiring subcontractors to undergo responsible care audits and engage in safety dialogs with on-site operators. Energies are also directed toward preventing incidents in the logistics process. This includes the elimination of erroneous shipments and deliveries as well as product leakages.
Third-party logistics (3PL)* companies take the lead in managing 3PL products. The aforementioned activities are also undertaken with the departments responsible for logistics at each works playing a supporting role.



Monthly report on logistics safety quality

* Third-party Logistics (3PL) :
A form of logistics operation where a third party undertakes all or a portion of the logistics function on a contract basis.

Safety Measures Using SDS and Yellow Cards

As we deal with high-pressure gas and numerous hazardous or toxic chemicals that are required by law to be managed and handled in a certain manner, we take the utmost care to ensure that our products are transported safely. For the subcontractors to whom we consign logistics, we provide an SDS*1 for each product, regardless of whether it is dangerous or hazardous, to serve as information regarding the precautions needed when handling and storing our products. In the same way as the SDS, we also require drivers and other operators transporting our products to carry yellow cards*2 outlining measures that need to be taken and information that needs to be reported in the event of an accident.



Yellow card

*1 SDS: Safety Data Sheet
Documentation issued by one operator to another when transporting chemicals or other such substances, containing information such as the name of the substance, the name of the supplier, hazard/toxicity levels, safety measures and emergency procedures.

*2 Yellow card:
Promoted by the Japan Chemical Industry Association, an emergency contact card on which are written the actions to be taken those involved, including the truck driver, fire and police, in preparation for the unlikely event of an accident when transporting chemical substances or high-pressure gas.

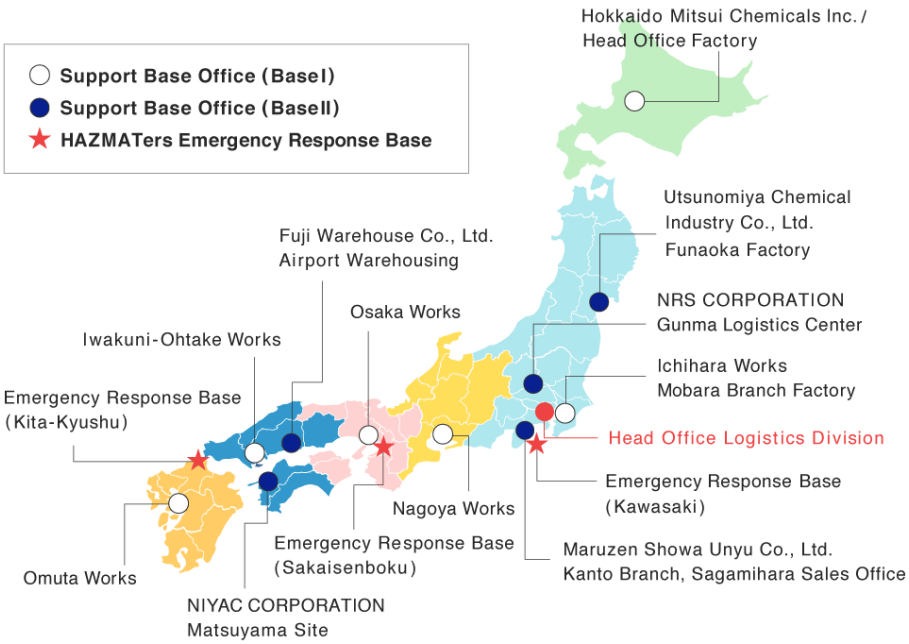
Minimizing Damage in the Event of an Accident

In an effort to minimize damage in the event of an accident during the transportation of our products, we have introduced a set of regulations outlining the Mitsui Chemicals Group Logistics Emergency Network (MENET[*1]). The network is divided into six areas covering different parts of the country and can be mobilized 24 hours a day. We also conduct emergency contact and mobilization drills twice a year.
Maintaining Support Base Offices (Base Is) and Emergency Equipment Loading Points (Base IIs), we also adopted the Maritime Disaster Prevention Center's Hazardous Material Emergency Response Service (HAZMATers[*2]) to respond in a timely manner to accidents as and when they occur and to prevent major damage while working to enhance the MENET system.

*1 MENET (Mitsui Chemicals-G Logistics Emergency NETwork):
Offsite logistics accident/emergency network and support system.

*2 HAZMATers (Hazardous Material Emergency Response Service) Maritime Disaster Prevention Center:
Hazardous Material Emergency Response Service (HAZMATers).

MENET Support Bases and HAZMATers Emergency Response Bases



For a swift response to overseas logistics incidents and inquiries at all times, we have introduced Carechem24, which is an emergency response helpline provided by the National Chemical Emergency Centre established by the UK government, dedicated to providing global assistance for chemicals-related emergencies. Operators with training in chemical emergencies provide information in the respective local languages on a 24/7 basis.

Outside Assessments

Mitsui Chemicals' Logistics Division was presented with this year's Japan Chemical Industry Association ("JCIA") RC Outstanding Award in May 2018. The RC Outstanding Award is presented annually to business sites, works, divisions, groups, and individuals in recognition of their outstanding efforts and contributions. In this manner, JCIA is striving to further promote and expand Responsible Care.

Guided by a policy that places safety as its top priority, Mitsui Chemicals works diligently to ensure thoroughgoing communication between administrative divisions and the frontline. To this end, the Company engages in variety of activities to ensure that the goal of absolute logistics safety is conveyed to each and every member working at the frontline. This includes communications activities and lending a keen ear to onsite personnel. As a result of these endeavors, successful steps have been taken to reduce logistics accidents and quality related complaints by 80% and 74%, respectively, over the period from 2008 to 2017.

This award reflects the Company's earnest efforts to enhance logistics safety and quality.

Stable Transportation

The logistics environment has entered an age where delivery companies choose the owners and the type of transportation. To achieve sustainable logistics, we must become an owner selected by logistics subcontractors and shipping companies. For this reason, the Group is working to secure stable transportation through a comprehensive study to improve working conditions in the logistics industry, reduce CO_2 emissions, introduce BCP, etc.

Modal Shift

In fiscal 2017, five companies including Mitsui Chemicals were collectively certified as modal shift businesses by Japan's Ministry of Land, Infrastructure, Transport and Tourism. In this instance, certification recognized the modal shift away from the use of trucks to rail when transporting products between the Company's operations in the Ichihara area (Chiba Prefecture) to its affiliate DOW-MITSUI POLYCHEMICALS CO., LTD. in the Ohtake area (Hiroshima Prefecture). In August 2017, large containers provided by Japan Freight Railway Company (JR Freight) were introduced in full for container round use* based on the shared logistics system of the Mitsui Chemicals Group. These efforts have assured stability in the mode of transportation, reduced CO_2 emissions by 70% and reduced working time for truck drivers. They were achieved through the partnership between the Mitsui Chemicals Group, JR Freight and our logistics subcontractors.

* Container round use:
Container round use is a concept in which the devanned container is used without returning it to the shipping company. The container is diverted after securing a return load.



Introducing container round use

We made greater advances in modal shift for transportation from the Ichihara area to Ohtake area. Previously, Mitsui Chemicals had used trucks to ship synthetic resin using 500-kilogram flexible intermediate bulk containers (FIBCs). However, the particular nature of the product did not allow stacking in two tiers. For this reason, a 12-ton truck was able to carry only eight tons of products in a single layer, which is only 67% of the truck's loading capacity. This presented a problem of loading efficiency. Accordingly, Mitsui Chemicals produced – with registered design rights on – a dedicated rack to enable the FIBCs to be stacked in two tiers, along with a special 20-foot high-cube container that has been registered as a utility model. The containerization of the cargo made it possible to improve loading efficiency and achieve a modal shift to the use of domestic container ships. These achievements led to a reduction in CO_2

emissions and a reduction in truck drivers' workload. We received the Award for Eco-Friendly Logistics Technology at 20th Logistics Environment Award of the Japan Association for Logistics and Transport.



Dedicated racks enable FIBCs to be stacked

In addition, Mitsui Chemicals has been designated as an Eco Rail Mark company by the Administration and Screening Committee of Japan's Ministry of Land, Infrastructure and Transport.

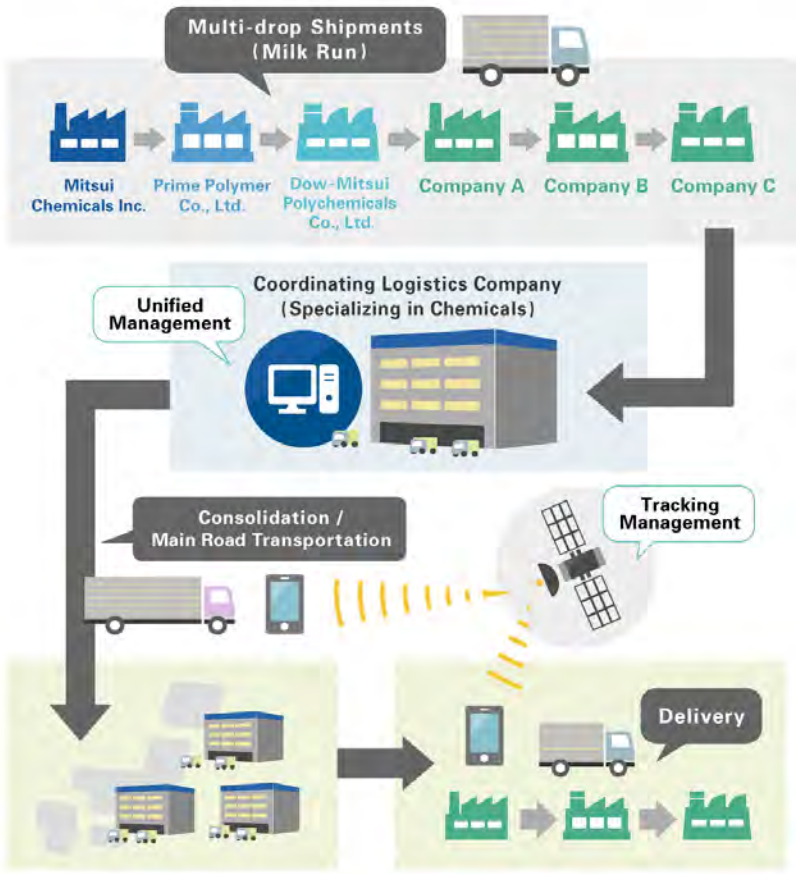


Shared Logistics System for Small-lot Products by Other Companies in the Same Business

Against the backdrop of an increasingly serious shortage of drivers and burgeoning mail order demand, operators began to shun the transportation of chemicals. Securing stable transportation capacity for small-lot products over long distances thus became an urgent issue common among chemical shippers. In the Keiyo area to the east of Tokyo, we have collected shipments from the production sites of other manufacturers in the vicinity and share the logistics of delivering those products to customers via common transportation routes since 2016. Traditionally, transportation was carried out by delivery companies that took chemicals mixed with loads of general merchandise on set routes via multiple transshipment points. Since we reduced the number of transshipment points by using companies specializing in chemicals, we reduced the number of quality issues, such as damage caused in transit. We could also achieve the improvement in load efficiency which leads the effect of reducing our CO_2 emissions.

This system started with shipments destined for the Tohoku areas and has expanded to destinations in the Hokuriku and Koshietsu areas. To boost the shared logistics system, activities will be developed together with the logistics subcontractors and shippers who are participating in the system.

Shared Logistics System



Greater Efficiency in Inventory Control and Shipment Management

For greater efficiency in inventory control and shipment management, we have introduced the use of portable terminals at the Nagoya Works on a pilot basis. The system involves printing QR codes on labels attached to each packaging type and reading the codes with portable terminals at acceptance and shipment for inventory and shipment control. This has led to a reduction in the workload and paperless processing compared with inventory control based on manual entry and spreadsheet input. Also, the risk of reading errors caused by visible checking of brand names and lot numbers has been removed by the system, preventing erroneous shipments. It is scheduled to start full-scale operation in September 2019 and will subsequently be introduced to each Works.



Project to Reduce Driver Standby Time

We are working to improve the work environment for truck drivers and ultimately to reduce the workload for logistics subcontractors, by reducing the standby time for truck drivers while waiting for loading. An appointment system has been introduced in chemicals loading for tank trucks at the Osaka Works and is producing results. It is scheduled to be introduced at other Works and affiliates in fiscal 2019.

Participation in Sustainable Logistics Initiative

Mitsui Chemicals announced its support for the sustainable logistics initiative proposed by the Ministry of Land, Infrastructure, Transport and Tourism and the Ministry of Agriculture, Forestry and Fisheries and submitted a declaration of its relevant independent activities. The initiative is aimed at addressing the increasing shortage of truck drivers, ensuring the stable logistics operations needed for domestic life and industrial activities while also contributing to economic growth. The initiative aims to improve productivity in truck transportation and create greater logistical efficiency while also looking to realize a better labor environment that makes work easier for female drivers and those over the age of 60. The table below describes the initiatives laid out in Mitsui Chemicals' declaration of its independent activities.

Initiative	Details and expected outcome
Introducing an appointment system	The introduction of an appointment system for trucks will help cut down on waiting time.
Utilizing pallets and more	By making use of pallets and reusable shipping cartons, cargo handling can be sped up.
Giving prior notice of shipment information	Being quicker to convey information from shippers about inbound and outbound shipments will give logistics workers more time to prepare.
Utilizing expressways	Mitsui Chemicals will enter into earnest negotiations about how to make use of expressways and who should bear the fees for this.
Making a modal shift toward sea and rail	Mitsui Chemicals will strive to cut down on greenhouse gas emissions by making active use of sea and rail transport for long-distance shipments.
Implementing safety measures for cargo handling work	Providing clear operational instructions, ensuring safe passage, establishing footholds and more will help to ensure more thorough worker safety.
Stopping or suspending operations during extreme weather	If extreme weather conditions occur or are expected to occur, Mitsui Chemicals will avoid making unreasonable requests for shipments.

Energy Intensity for the Transportation of Products

Energy intensity for the transportation of products* in fiscal 2018 was 7.37 kl/thousand tons, increasing to 110.8% over fiscal 2019. The increase is due to the increase in the average transport distance caused by sales changes and the increase in transport distances that became necessary with the alternative transport routes caused by severance of rail routes with the heavy rains in western Japan.

Energy Intensity (kL/thousand tons)

FY2015	FY2016	FY2017	FY2018
6.85	7.05	6.65	7.37

* Energy Intensity for the transportation of products:
Amount of energy consumed (crude oil equivalent in kiloliters) / Volume of product shipments (thousands of tons).

Occupational Health

Management System

Policy and Basic Approach

The main purposes of occupational health are to prevent the health disorders caused by harmful factors in the workplace, while working to maintain and promote the health of employees. In addition to complying with the Occupational Health and Safety Act and related laws and regulations, the Company believes that encouraging employee health promotion leads to the happiness of employees and their families and that for employees to be energetically active in their local communities, including after retirement, is a corporate social responsibility and thus promotes occupational health. At the same time, the Company believes that healthy employees make for healthy organizations and contribute to an improvement in the Company's labor productivity, and we are thus working to improve both the well-being of our employees and the organizational culture.

Under the Mitsui Chemicals Group Responsible Care Policy, we actively promote the well-being of all our employees. In addition, under Company rules (occupational health regulations) that pertain to occupational health management, set forth in our basic items that also cover occupational health, we have developed the basic philosophy of "Employee well-being is directly linked to the Company's well-being." Based on this, we actively work to develop occupational health measures, including for health management.

System and Responsible Officers

With the responsible director in charge of the Human Resources Division, the industrial physician who heads the Health Management Department (supervising industrial physician) in the Human Resources Division implements concrete measures. Leading by the supervising industrial physician, we hold regular Group-wide industrial physician conferences to consider issues and measures related to health management. Based on these conferences, we formulate occupational health plans during the fiscal year and proposals for annual plan key issues and measures (Group-wide occupational health key issues), which are decided through deliberations by the Responsible Care Committee. In addition, the Head Office, Sodegaura Center, and the healthcare sections of all five of our Works take the lead in drawing up and expanding occupational health annual plans for each business site and each business site reports its progress at the industrial physician conferences.
At each business site, full-time industrial physicians, nursing staff and health supervisors at healthcare sections promote efforts to improve employee health and measures designed to prevent employees from being exposed to harmful substances. We also maintain Group-wide statistics on the rate of lifestyle-related disease rates, number of days off due to illness, number of days of mental health disorders, number of new cases of mental health disorders, working environment measurement results, and hazardous materials risk assessment results. We assign part-time industrial physicians, nursing staff, and other healthcare professionals to our smaller Works and to major Works operated by our subsidiaries and affiliates, in an effort to help improve the health of all Group employees.
The relevant persons and labor union members at each Mitsui Chemicals site hold a health and safety committee meeting for each site, in which they participate and at which they report on and discuss issues related to occupational health, including the maintenance and promotion of health, workplace environments and long working hours.

Global Structure

(1) Dissemination of the Responsible Care Policy

As well as disseminating the Responsible Care Policy to overseas affiliates, we broadcast the CEO Message for National Occupational Health Week.

(2) Occupational health survey and audit

Mitsui Chemicals submits the Management Check List regarding to occupational health to affiliates that produce or handle chemical substances to assess their health management status in workplaces. Further, we undertake an occupational health audit in each of the affiliates' works every four years, and in overseas affiliates every five years, except in the U.S., Europe, and Singapore. The audited companies are notified of the audit results and are requested to correct any problems identified. If a company is requested to make corrections, it is subject to a follow-up audit after one year to confirm the correction progress.

Domestic affiliates share information related to occupational health in the meeting of those in charge of HR at domestic subsidiaries and affiliates held every six months. The information provided in the meeting includes changes in occupational health-related laws and regulations with notes on such changes, and details of occupational health issues within the Group.

(3) Offering occupational health-related services

We are receiving an increasing number of requests from domestic affiliates to provide occupational health-related services of the same high quality as in Mitsui Chemicals itself. We are currently working to establish occupational health measures through close collaborations among Mitsui Chemicals and the affiliates. In these measures, Mitsui Chemicals and some affiliates are concluding comprehensive occupational health service contracts whereby the Health Management Department in Mitsui Chemicals directly provides these affiliates with the same health services as offered to employees of Mitsui Chemicals.

Goals and Results

Health and Productivity Management

KPI	Scope	FY2018			FY2019	Medium to Long-term
		Goals	Results	Level Achieved	Goals	Goals
Frequency of absences from work due to health disorders	Mitsui Chemicals, Inc. registered employees	Less than 0.6	0.78	×	Less than 0.69	0.5 or less
Frequency of absences from work due to mental health disorders	Mitsui Chemicals, Inc. registered employees	Less than 0.30	0.45	×	Less than 0.37	0.25 or less
Average rate of lifestyle-related disease	Mitsui Chemicals, Inc. registered male employees	Less than 9.0%	9.7%	×	Less than 9.4%	8.0% or less
Ratio of smokers	Mitsui Chemicals, Inc. registered employees	24.7% or less	24.2%	○	23.2 or less	20% or less

Preventing Exposure to Harmful Substances

KPI	Scope	FY2018			FY2019	Medium to Long-term
		Goals	Results	Level Achieved	Goals	Goals
Working environment measurement result relating to harmful substances	Mitsui Chemicals, Inc.	Management Category I 100%	100%	○	Management Category I 100%	Management Category I 100%
Harmful substance risk assessment implementation rate: (New substances being handled and SDS-updated substances)	Mitsui Chemicals, Inc.	100%	100%	○	100%	—

Review and Challenges

Together with enhancing health as an important occupational health-related issue, there is a concern with an increase in the rate of lifestyle-related disease. Looking at lifestyle-related disease risks, however, we see that there is an improvement in the blood pressure and blood sugar trends. In accordance with the increase in the obesity rate among young people, the overall number of obese people has been increasing, and we have positioned measures to combat obesity as an important issue. In particular, we are focusing on health promotion among young employees, and have already observed positive results on obesity prevention for such employees. Mental health measures also represent an important health issue for employees and have an enormous impact on labor productivity. Utilizing stress level investigations is a way we will work to further raise the level of improvements in the workplace environment.
With regard to the promotion of policies to prevent the exposure of chemical substances, risk assessment measures concerning hazardous materials and the reinforcement of measures are being sought in line with revisions to the Occupational Health and Safety Act. By the end of fiscal 2018, we plan to finish the risk assessment for inhalant chemicals and conduct an individual exposure measurement after establishing a new risk assessment method that reinforces the existing method. We are thus implementing risk reduction measures. We also completed the establishment of a risk assessments relating to the hazards posed by chemical substances from being absorbed through the skin in fiscal 2018. From fiscal 2019, we will systematically conduct risk assessments for absorption of chemicals through the skin while continuing to promote risk reduction concerning inhalant chemicals.

Health and Productivity Management

Following our principle of “Employee well-being is directly linked to the Company’s well-being,” we implement a range of occupational health measures, including health management. In fiscal 2016, we clarified the framework of the occupational health audit to affiliates and expanded occupational health management globally. We have also been reinforcing the relationship between the Health Management Department and the Human Resource Division to encourage utilization of training programs and systems, and expand employment of people with disabilities.

Health Management

We promote good health management among employees via activities such as medical examinations and health guidance, carried out by industrial physicians, nurses and other healthcare professionals.

We have introduced comprehensive medical check-ups, combining regular medical examinations with special medical check-ups and cancer screening, and the uptake rates remain steady for more than 10 years. The uptake rate for medical check-ups was nearly 100% and the rates for cancer screening were as follows: nearly 100% for lung cancer, over 85% for colon cancer, over 60% for gastric cancer; over 70% for abdominal ultrasound, over 90% for prostate cancer, and over 50% for breast/uterine cervical cancer.
As a result of gastric cancer risk screenings conducted in fiscal 2015, many employees underwent treatment to eradicate Helicobacter pylori. Moreover, the number of employees who are taking a gastric cancer screening using gastroscopic examinations or maintain follow-up checks by medical specialists has increased, particularly among those who received treatment to eradicate Helicobacter pylori or who were categorized in groups B-D by medical specialists. The Health Management Department ascertains the results of the cancer screenings as well as regular medical examinations to encourage employees to see a medical specialist for necessary detailed examinations by explaining their physical condition. With regard to the results of the detailed examinations, we receive the report from the employee or the referral letter from the person who conducted the examinations. As a result, the number of sick leave days taken off for malignant tumors (cancers) in fiscal 2018 increased to 1,196 days, however, the nearly 60% of cancers discovered by these screening, and 60% are discovered to be curable.

We also continue to help balance work and treatment for cancer with the support of industrial physicians. We offer a health consultation and guidance for employees worried about their illness, such as not knowing the best action to take or when unable to understand the intention of the doctor, etc. If some special working arrangement is required for an employee, we discuss with the workplace and Human Resource Division to suit the requirements of the situation. Due to these systems that support treatment of illnesses, including cancer, it is no longer uncommon to continue working during strong treatment.

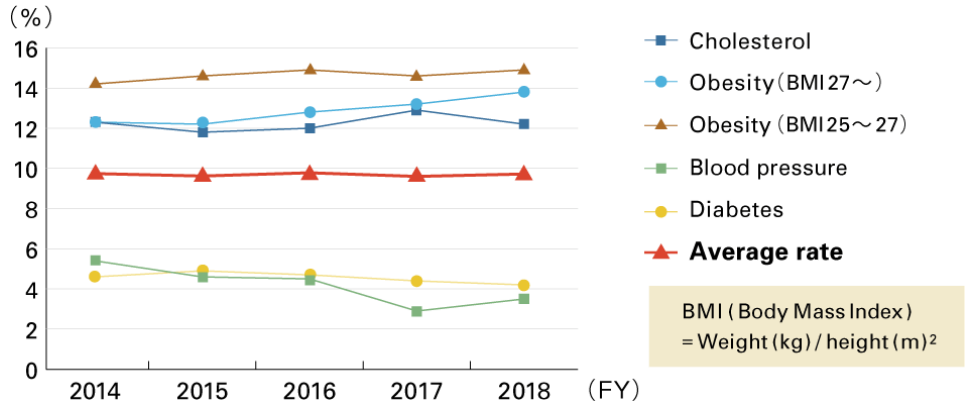
Talk on Diversity – Maintaining Motivation for Life and Work Regardless of Illness

With regard to the rates of lifestyle-related diseases, those for high blood pressure decreased, from 9.1% in fiscal 2008 to 3%, while high cholesterol and high blood sugar levels have remained flat. These results are to due medical examination follow-up guidance, health guidance based on diabetes genetic test results for interested predisposed

individuals, and health improvement activities.
In fiscal 2018, as an initiative for elderly workers who suffer from diminished physical abilities, each site continued to devise measures to promote health education from the younger generation and entrench exercise habits for fiscal 2017. Unfortunately, the percentage of those overweight, that is, beyond BMI 27, has been increasing, and we will aim for further improvement and work on reducing the obesity rate in fiscal 2019.

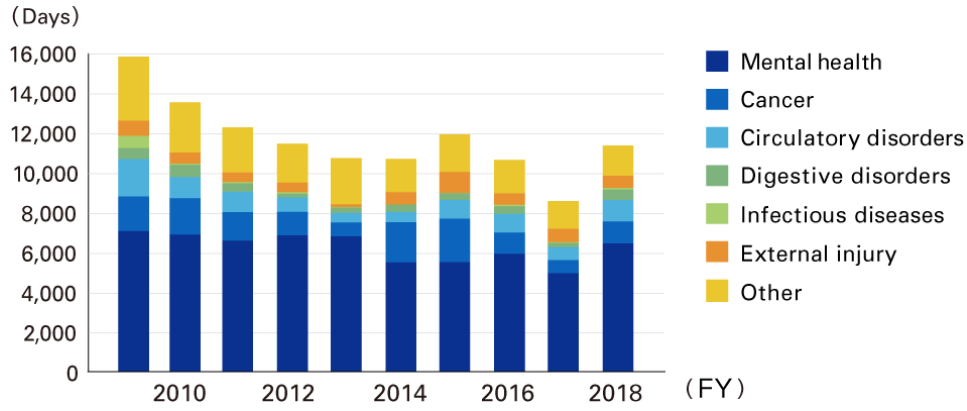
At our overseas bases, our industrial physicians go overseas every year to make the rounds, conducting health interviews with all employees working overseas, including their families if they so desire. We are offering ongoing support to our employees for both mental and physical symptoms. With regard to long-term projects, we continue to provide employees with health support more frequently, such as once every three months. Also, the number of overseas affiliates that voluntarily lead health promotion programs for their employees has increased.

Lifestyle-related Disease Rates (Mitsui Chemicals, Inc. Registered Male Employees)



* Lifestyle-related disease rates are compiled separately by gender since criteria for men and women differ depending on the category. As the proportion of men is high the case of Mitsui Chemicals, lifestyle-related disease rates for men are regarded as a KPI.

Breakdown of Days Off due to Illness (Mitsui Chemicals, Inc. Registered Employees)



Mental Health Initiatives

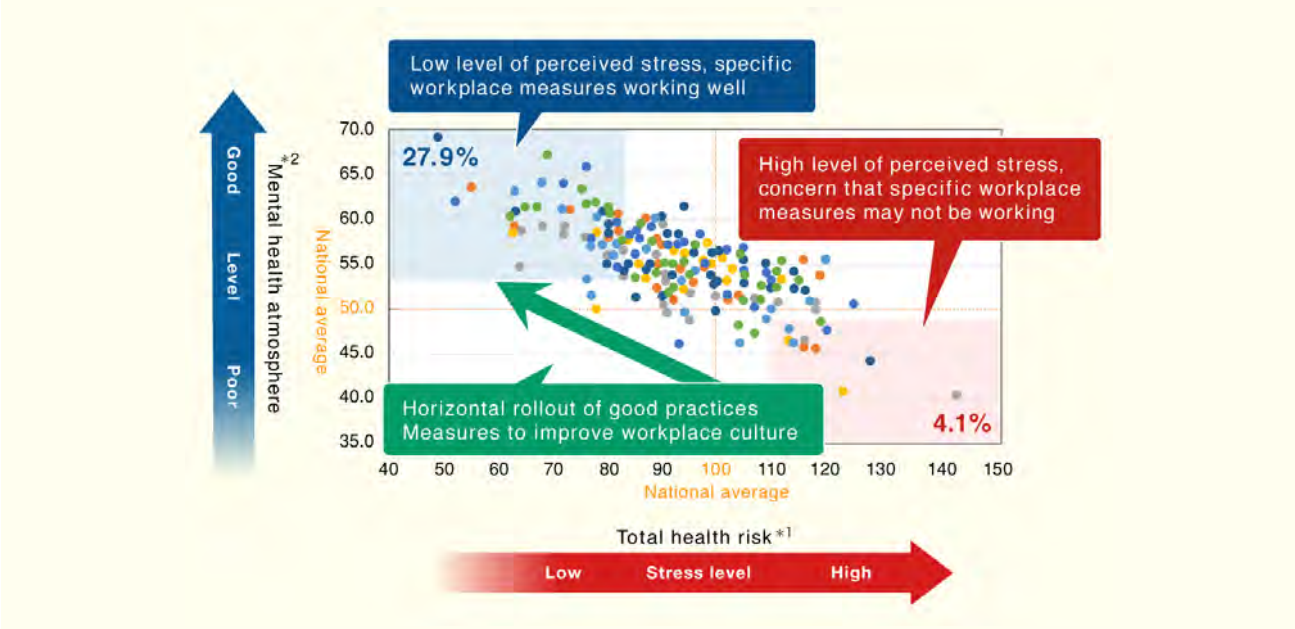
In fiscal 2018, we continued to implement mental health initiatives such as training (for new employees, management staff, line managers, self-care training programs, etc.), conduct interviews undertaken by industrial physicians, and provided counseling.

In addition to training, new employees (including new graduates, midcareer hires and contract employees) undergo three types of e-learning-based communication courses for a fixed period after entering the Company. We also provide appropriate support regarding employee work-related lifestyles, which involves industrial physicians interviewing all new employees every six months, determining the status of communications in the areas of lifestyles, health, supervisors, colleagues, provided advice as needed.
Inclusion lecture meetings have also been held recently. These meetings aim to create a culture to accept people with diverse characteristics and personalities, as well as those in the course of illness treatment, into workplaces.

In addition to our simple occupational stress survey, since 2011 we have conducted a workplace stress questionnaire (occupational stress and mental health) to provide hints for improving the workplace, with nearly all employees replying to. Beyond providing individuals with feedback, managers in each workplace are also given details of the results of their organization useful for improving workplace conditions. We have also formulated and implemented stress reduction plans (communication improvement plans) in workplaces deemed to be particularly susceptible to high stress levels by conducting interviews with managers and members of such workplaces. Moreover, we are working to identify good practices in workplaces with a positive mental health environment and improving work conditions over time, with interviews with and documents released by representatives of these workplaces made available via the intranet in order to apply them to other workplaces throughout the Company. We introduced a dedicated system for stress survey in which people can check their survey results immediately in fiscal 2018. In fiscal 2019, we plan to enhance the system so that the survey results of their own division can be viewed on a website.

With more workplaces actively using these questionnaire results recently, this has led to voluntary workplace improvements. As a result, the percentage of workplaces with low noticeable stress levels and are considered to be functioning well in various categories rose from 22.1% in fiscal 2015 to 27.9% in fiscal 2018. Workplaces where there was judged to be a “high level of perceived stress, concern that specific workplace measures may not be working” decreased by half, from 8.7% to 4.1%. With regards to human resource management, we are enhancing the contents of our leadership training programs, which improve the working environment by creating a better workplace atmosphere. In fiscal 2019, we will work to improve workplace culture by examining the results of stress-level surveys at each workplace over a period of years.

Fiscal 2018 New Workplace Stress Survey Results (Mitsui Chemicals, Inc. and Contracted Affiliates)



* Each dot in the graph represents a workplace (department level at the Head Office, section level at offices).

*1 Total health risk:
A measurement on the subjective sensory scale of workload, sense of control, and empathy from superior and co coworkers. (A relative measurement that uses 100 as the national average. A workplace score of 120 implies that the rate of health problems is 20% higher than the average.)

*2 Mental health atmosphere:
A scale-based measurement of the appropriateness of command and control, labor management, cooperation, and training opportunities.(A relative measurement that uses 50 as the national average. Higher figures imply a better workplace atmosphere.)

A Wide Range of Health Management Programs

Mitsui Chemicals runs a wide variety of health promotion programs and supports the health management of its employees, primarily through its healthcare section and health insurance association. In fiscal 2018, our initiatives included the Healthy Mileage Campaign, fitness classes, eating habit/dietary classes, walking events, sports competitions, quitting smoking campaigns, employee cafeteria healthy menus, and health/balanced body measurement events.
The Healthy Mileage Campaign is a program that involves participation by individuals or teams, collecting points (health miles) for exercise and healthy lifestyles, and winning prizes for miles collected. With employees being able to enter achievements via the web and smartphones, the number of employees participating in this program was over 40% in Japan and more than 5% overseas. We also measured participants' visceral fat and body fat before and after the exercise program so that they can grasp their current condition and manage their bodies more objectively, as well as confirming the effectiveness of the program.




Fitness class



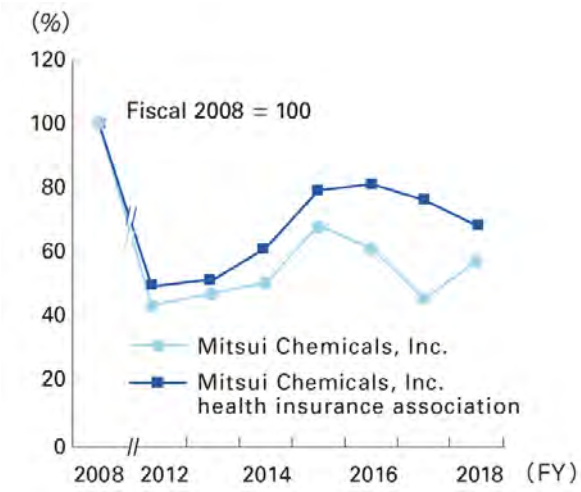

Nutrition class

Reducing Medical Costs

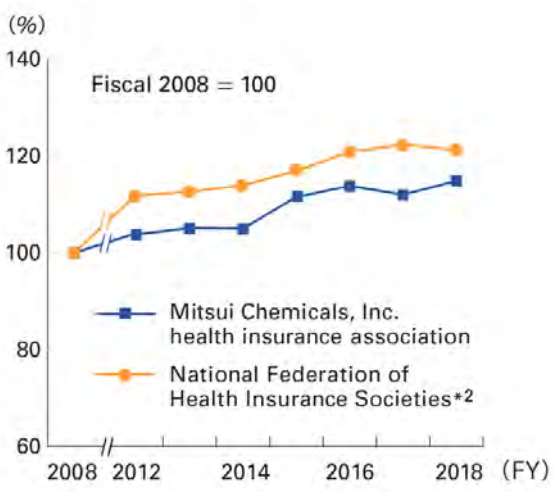
The sickness/accident allowances have been on a decreasing trend since fiscal 2015; however, they increased in fiscal 2018 due to an increase in those suffering from mental health issues. Even so, the total sickness/accident allowances in fiscal 2018 were only 57% of those in fiscal 2008. From a long-term perspective they continue to

decrease due to measures to prevent the occurrence of cancers and cardiovascular diseases.
Taking the legally mandated medical benefits in fiscal 2008 as a baseline index of 100, the rate of increase for general health insurance association medical expenses in fiscal 2018 was 21.2%, but the rate of increase in the case of the Mitsui Chemicals Health Insurance Association was 14.8%.
These are considered to be comprehensive effects of health management, and we will continue to strengthen health promotion measures on an ongoing basis in the years to come.

Sick / Accident Allowances



Legally Mandated Benefits[*1] (Per Insured Person)



*1 Legally Mandated Benefits:
Includes medical costs, sick / accident allowances, lump-sum birth allowances, maternity allowances, burial expenses.

*2 National Federation of Health Insurance Societies:
「Data taken from an overview of health insurance society early budget collation results.

External Recognition regarding Occupational Health

Certified as 2019 Health and Productivity Management Organization (White 500)

Mitsui Chemicals and Mitsui Chemicals Tohcello Inc. were recognized as White 500 companies in the 2019 Certified Health and Productivity Management Organization Recognition Program (large enterprise category), hosted by the Ministry of Economy, Trade and Industry (METI) and Japan Health Council. This year's listing marks Mitsui Chemicals' third successive appearance in the White 500 and the first year for Mitsui Chemicals Tohcello. The program awards enterprises that are particularly keen in taking initiatives for overcoming health-related challenges in regional communities or promote health-conscious activities. Mitsui Chemicals was nominated by many other companies as being a role model corporation for health and productivity management and has been named in a report on companies selected for inclusion in the recognition program, which is available on the METI website.

Mitsui Chemicals Receives Sports Yell Company Certification for Second Consecutive Year

Mitsui Chemicals has received the Sports Yell Company certification for 2018 from the Japan

Sports Agency. This marks the second consecutive year that Mitsui Chemicals has earned this certification. Launched in 2017, the program acknowledges companies that are proactively running sports initiatives to improve employee health. The hope is that this will lead to a growing number of sports-related social opportunities. Mitsui Chemicals was recognized by the Japan Sports Agency for its Healthy Mileage competition, a health initiative that is run within the company.

Accredited as Tokyo Metropolitan Sports Promotion Company for four consecutive years

Mitsui Chemicals was certified as a Tokyo Metropolitan Sports Promotion Company 2018, which is hosted by the Bureau of Olympic and Paralympic Games Tokyo 2020 Preparation, under the Tokyo Metropolitan Government, for the fourth consecutive year. The program started in fiscal 2015 to recognize enterprises taking initiatives in promoting sports among employees and making social contributions in the sports area. Our certification was in recognition of the Healthy Mileage Campaign for our employees.

Recieved Gold in Gan-Ally Declaration Awards for Cancer Initiatives

Mitsui Chemicals received the Gold Award at the inaugural Gan-Ally Declaration Awards. The Gan-Ally Declaration Awards are a new award scheme created by Gan-Ally-Bu, a private sector project that focuses on tackling problems faced by people who continue to work while undergoing treatment for cancer. The awards aim to encourage workplaces to be more accommodating of employees who have cancer, thereby creating a society where people can feel comfortable continuing to work while receiving treatment. The award was conferred in recognition of Mitsui Chemicals' efforts to promote early detection of cancer by incorporating cancer screening into regular medical examinations and carrying this out through mass screenings. Also highly commended was the framework through which Mitsui Chemicals' industrial physicians collaborate with the Human Resources Division and worksites to find the right balance of work without imposing an excessive burden on individual workers.

Preventing Exposure to Harmful Substances

We are committed to reducing occupational health risks and improving working conditions by, for example, utilizing the Occupational Safety and Health Management System (OHSAS 18001) scheme, the harmful chemical substance risk assessment (new risk assessment system) established in fiscal 2015, through onsite inspections conducted by industrial physicians and health supervisors as well as by means of internal audits.

Risk Assessment

Since fiscal 2016, we have been using a new risk assessment system to systematically conduct risk assessments covering harmful substances (inhalant chemicals). In fiscal 2017, we completed qualitative evaluations for chemicals with a relatively high hazard level at all workplaces (total of 700 substances and 6,429 operations), as planned. We also completed approximately 460 quantitative evaluations. The following year, fiscal 2018, we conducted risk assessments for chemicals with lower hazard levels and completed a total of 9,415 qualitative evaluations covering all areas. Out of all the evaluations carried out, 3,140 cases that were judged to be of high risk, continued to be systematically monitored with quantitative evaluations, such as exposure assessments of individual employees. To date, quantitative assessment for 1,190 cases have been completed. Based on the results, we formulate improvement plans for working methods and the work environment to reduce potential risks.
We also built and tested specific risk assessments for health problems newly caused by the absorption of chemical substances through the skin in fiscal 2018 in response to a rise in social concern about absorption of hazardous chemicals through the skin. From fiscal 2019 onwards, we will implement the working methods and work environment improvement plan based on our quantitative assessments of inhalant chemicals. We also plan to complete the risk assessment for absorption of chemicals through the skin by fiscal 2020.
In so doing, we will promote further enhancements to measures for preventing exposure to harmful substances by conducting risk assessments.

Working environment improvement example (1) – Sampling of specific chemical substances

Before

In a certain workplace, specific chemical substances and organic solvents were sampled in bottles. This created a risk of exposure or direct contact with hazardous substances.



After

An enclosed liquid sampler was installed. The sampling system is completely sealed, eliminating the risk of chemical exposure and direct contact.



Working environment improvement example (2) – Sampling of organic solvents

Before

In a certain workplace, organic solvents were sampled in multiple locations in an open environment. This created a risk of exposure or direct contact with the solvents.



After

A glove box isolator was installed in each sampling point, which significantly reduced the risk of exposure and direct contact with the solvents.



Onsite Inspections Conducted by Industrial Physicians Aimed at Reducing Occupational Health Risks at Overseas Subsidiaries and Affiliates

In an effort to reduce occupational health risks at overseas affiliates, onsite inspections are undertaken on a systematic basis and steps taken to provide instructions regarding areas of occupational health improvement at the time head office industrial physicians make their rounds at overseas bases. This initiative was conducted at eight overseas bases in fiscal 2018. Energies were also directed toward educating and training local responsible officers. The Mitsui Chemicals Group will continue these activities in fiscal 2019.

Engagement with Society



Respect for Human Rights

- Policy
- Initiatives

Sustainable Procurement

- Management System
- Supplier Evaluation and Guidance for Improvement
- Participating in Initiatives

Human Resources Management

- Management System
- Human Resources Development
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Social Activities

- Management System
- Laboratory Classes on the Wonders of Chemistry
- Nurturing Future Generations
- Environment
- International Exchanges and Cooperation
- Support for Employees' Participation in Social Activities
- Disaster Relief
- Working in Harmony with Local Communities

Respect for Human Rights

Policy | Initiatives

Policy

The Mitsui Chemicals Group Human Rights Policy

This Mitsui Chemicals Group Human Rights Policy (the “Policy”) establishes specific guidelines concerning respect for human rights in the Mitsui Chemicals Group.

Basic philosophy

Respect for human rights is an essential element of developing business activities globally.
We at the Mitsui Chemicals Group signed the United Nations Global Compact in January 2008, endorse the aims of the UN Universal Declaration of Human Rights, the ILO (International Labour Organization) Declaration on Fundamental Principles and Rights at Work and the UN Guiding Principles on Business and Human Rights, and emphasize respect for human rights.
Pursuant to the Mitsui Chemicals Group Action Guidelines, we practice “Always Act in Good Faith,” “For People and Society” and “Dream-Inspiring Innovation” as a corporate citizen. Furthermore, we are aware of our environmental and social responsibilities along the entire supply chain, encourage each other to respect the Policy, and aim to be a corporate group that enjoys the confidence of society for its fair corporate activities.

Respect for human rights

As an essential matter for developing business activities globally, we respect human rights and aim at becoming a corporate group that enjoys the confidence of society for its fair corporate activities based on the awareness of the common standard stated in Article 1 of the UN Universal Declaration of Human Rights “All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.”

Prohibition of discrimination

Under no circumstances shall we engage in discrimination whatsoever based on race, national origin, birthplace, social origin, caste, family lineage, religion, disability, age, gender, sexual orientation, gender identity, family background, marital status, membership of unions, political views, or any other differences.

Respect for basic labor rights

We respect workers’ rights to organize and bargain collectively and other basic labor rights.
In addition, we shall foster labor-management trust and cooperative relations through frank dialogues and mutual understanding and solve labor-management issues voluntarily and peacefully.

Prohibition of forced labor and child labor

We never use forced labor and child labor in any of our business activities in any of the countries and regions in which we operate.

Prohibition of harassment

Under no circumstances shall we engage in sexual harassment, power harassment, maternity harassment or other harassment actions that hurt the dignity of individuals.

Respect for privacy

We respect privacy of individuals and endorse the aims of the OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data and handle personal information appropriately in accordance with the relevant laws of the respective countries.

Prevention of human rights violation

We shall endeavor to avoid causing any human rights violation and or indirectly creating adverse human rights impacts through our business activities.
In addition, through all the stakeholders involved in our business activities, we shall work to prevent or mitigate adverse human rights impacts.

Initiatives based on the concept of human rights due diligence

We are committed to acting based on the concept of human rights due diligence which requires the identification of human rights violations and indirect impacts or risks that may lead to human rights violations, their prevention or mitigation, and accountability for how to respond to the violations.

Response to human rights violations

In the event of a human rights violation or indirect adverse human rights impact which is produced by our business activities, we shall promptly devise corrective measures or cooperate with a third party in taking measures.

End.

Initiatives

Through a variety of activities regarding human rights, the Mitsui Chemical Group is aiming to “pursue thorough safety, high quality, and fairness across the entire supply chain” as one of its declared goals in the 2025 Long-term Business Plan.

Survey on Human Rights Challenges That Should be Taken into Consideration

In the countries in which the Mitsui Chemicals Group maintains a presence, there are a number of challenges pertaining to human rights, reflecting conditions of local politics, the economy and society. In addition, in line with changes to those conditions, the challenges themselves will at times also be impacted. At each of the Group’s sites, consideration into such human rights challenges is something that cannot be overlooked. In order to gain a grasp of the human rights challenges that arise from each region around the globe that we should consider as a Group, we reference survey materials from NGOs and other organizations involved in human rights, such as information from United Nations institutions and the United States State Department’s “Country Reports on Human Rights Practices” and “Trafficking in Persons Report,” and conduct investigations of challenges with regard to regional human rights where the Group’s business sites exist. According to the reference survey materials, there are many challenges in various regions that require action, such as harassment of employees, discrimination in employment and work, working conditions, forced labor and child labor in the supply chain (raw material suppliers, subcontractors, processing subcontractors, logistics partners, etc.), human rights violations against foreign workers and involvement in corruption. In the future, the Group will define priority regions, and identify challenges associated with human rights that business sites should take into account.

Consideration for Human Rights within Mitsui Chemicals

At each type of training session, we entrench awareness for human rights by studying the Mitsui Chemicals Group Action Guidelines and The Mitsui Chemicals Group Human Rights Policy and educate attendees on a number of issues, such as discrimination and harassment. Also, reports and consultation on human rights are received on the Risk Hotline and at the harassment consultation services.
Mitsui Chemicals participates in the subcommittee concerning human rights of the Global Compact Network Japan. This subcommittee provides the forum to learn about and deliberate on a wide range of issues pertaining to human rights on a global scale in conjunction with human rights NGOs and participating companies. In addition to deepening its understanding toward human rights issues, the Mitsui Chemicals Group will draw its participation in the subcommittee to bolster its awareness activities.

Human Resources Management

Occupational Health

Safety and Prevention

Consideration for Human Rights in Investment Activities

The Mitsui Chemicals Group undertakes substantial investments as a part of its business development activities. When selecting an investment, a meeting is held to consider any related human rights issues. As a part of the Group's due diligence, steps are also taken to assess the impact of human rights concerns in the context of each country's statutory and regulatory requirements regarding the use of labor.

Taking Human Rights Issues into Consideration along the Supply Chain

While advocating the promotion of environmental activities and social responsibility along its entire supply chain, the Mitsui Chemicals Group is equally committed to respecting the human rights of all of its stakeholders who are in some way linked to the Group's business activities. For example, we have clearly set out our expectations of suppliers in the Mitsui Chemicals Group Purchasing Policy and the Mitsui Chemicals Group Sustainable Procurement Guidelines . Under these pollicies, we place considerable importance on respect for human rights, fair working conditions and a good work environment, reduction in environmental impact, compliance with laws and regulations, social norms and considerations for those in the supply chain. When we begin a new business arrangement and with ongoing suppliers, depending on the nature of the business, we conduct regular checks on the supplier's efforts through our sustainable procurement Self-assessment Questionnaires (SAQ) . We use the questionnaire results to provide feedback to suppliers and to support their efforts to improve.
In addition, we have also extended our Risk Hotline so that it is now accessible to suppliers and are determined to keep on building stronger partnerships in the future. The Mitsui Chemicals Group works diligently to ensure equal opportunity and transparency while maintaining and promoting fair and equitable business practices.

Supplier Evaluation and Guidance for Improvement

Participation in Stakeholder Engagement Program

Through dialog with companies, NPOs/NGOs and knowledgeable experts, the Mitsui Chemicals Group deepens its understanding of the contexts in which human rights challenges occur as well as the relationship between business activities and human rights. We then consider what are the important human rights issues for us and business activities considering these issues, and work to utilize that understanding in our corporate activities.
The Group participated in the Stakeholder Engagement Program organized by Caux Round Table Japan (CRT Japan). The program holds discussions, conducted by companies, NGOs/NPOs and knowledgeable experts, geared toward the human rights due diligence called for under the United Nations Guiding Principles on Business and Human Rights. At the 2018 program, we identified the important human rights challenges as pertain to each industry, referencing human rights guidance tools formulated through UN environmental plans and financial initiatives, while also taking into account the global supply chain, migrant workers, SOGI (Sexual Orientation Gender Identity), privacy, personal information and other challenges.

Report of Stakeholder Engagement Program 2018（PDF：598KB）

Sustainable Procurement

Management System

Policy and Basic Approach

The Mitsui Chemicals Group engages in purchasing activities based on the Mitsui Chemicals Group Purchasing Policy. The policy incorporates a sustainable procurement perspective, in addition to conducting fair and honest transactions. In terms of procurement activities described in the Mitsui Chemicals Group Sustainable Procurement Guidelines , the Mitsui Chemicals Group has defined assignments on which to work with the full cooperation of our suppliers toward fulfilling our environmental and social responsibilities across the entire supply chain from a global perspective.
When commencing transactions with new suppliers, as well as periodically with our current suppliers depending on transaction details, the Mitsui Chemicals Group verifies their efforts towards realizing a sustainable society. This involves confirming a wide range of specific items that include environmental protection, occupational safety, quality assurance, corporate governance, fair transactions, human rights, and information security. In addition, we evaluate supplier companies based on the results of these surveys and offer guidance on making improvements, as needed.

The Mitsui Chemicals Group Purchasing Policy

The Mitsui Chemicals Group recognizes that all its suppliers are good partners and endeavors to trade with them fairly and in good faith in the hope that both the Group and its suppliers will achieve sustainable development.

The Mitsui Chemicals Group also tackles issues, with a global perspective, including environmental, social and corporate governance issues, across the entire supply chain, aiming to achieve sustainable procurement.

The Mitsui Chemicals Group is committed to conducting purchasing activities in accordance with this Group Purchasing Policy.

1. Ensuring compliance

We will conduct purchasing activities in compliance with the applicable laws and regulations and appropriate social practices of the regions and countries in which we operate.
We will also require the same level of compliance from our suppliers.

2. Equal opportunity and transparency

We will be open in choosing our suppliers, and will offer equal opportunity for fair trade in good faith.

3. Selection of suppliers from the viewpoint of “sustainable procurement”

In the interests of building stronger partnerships, we will give priority to the following criteria.

(1) Suppliers that respect human rights, prohibit discrimination, and do not engage in any acts which violate human rights
(2) Suppliers that ensure fair working conditions and provide a safe and healthy working environment
Suppliers that prohibit forced labor, prohibit child labor and discrimination in hiring
(3) Suppliers that are aware of environmental issues and are committed to solving and addressing them
(4) Suppliers that conduct fair corporate activities based on a sound management practices
(5) Suppliers whose performance in areas such as pricing, quality, and delivery term are at an adequate and reasonable level, and endeavor to maintain and improve their performance

* See the Mitsui Chemicals Group Sustainable Procurement Guidelines established by Mitsui Chemicals for further details.

Revised on February 1, 2019

Transaction Procedures



* Requests to complete sustainable procurement SAQs (Self-assessment Questionnaires) are made once every four years.

System and Responsible Officers

With the officer in charge of the Purchasing Division as the responsible party, the Purchasing Division formulates and implements plans related to sustainable procurement for purchases made by the Purchasing Division, major business divisions, and domestic and overseas affiliates.
To realize sustainable procurement, the Purchasing Division regularly checks the status of our suppliers by conducting sustainable procurement SAQ surveys and audits. When such surveys and audits identify any significant discrepancies, a penalty, such as suspension of transactions, is imposed according to the penalty criteria specified by the Purchasing Division. Progress of the sustainable procurement activity plan and results is monitored in the monthly division meetings, and follow-ups are reflected in plans for the next fiscal year. In addition, we check the status of sustainable procurement activities during annual audits conducted by corporate auditors and the Purchasing Division.

Goals and Results

KPI	Scope	FY2018			Medium to Long-Term
		Goals	Results	Level Achieved	Goals
Sustainable procurement ratio*	Mitsui Chemicals Group	—	—	—	70% (FY2025)
	Mitsui Chemicals, Inc. (By Purchasing Division and major business divisions)	—	44%	—	—
	Mitsui Chismicals, Inc. Purchasing Division	—	84%	—	—

* Sustainable procurement ratio:
The sustainable procurement SAQ response rate from suppliers (based on the purchasing figures). Feedback and improvement assistance are provided to suppliers based on the response results.

Review and Challenges

Since establishing the Mitsui Chemicals Group Purchasing Policy in fiscal 2006, we have promoted mutual understanding with our suppliers, as well as providing improvement assistance, through the sustainable procurement SAQ survey. One of the aims of the 2025 Long-term Business Plan is to undertake supplier sustainability assessments and improvement assistance (sustainable procurement ratio of 70% or more). Further, we exchange opinions with the procurement departments of other companies to continue strengthening our own sustainable procurement activities.
Between fiscal 2017 and 2018, we began surveying the status of the sustainability activities of our suppliers using the CSR/Sustainable Procurement SAQ drafted in the UN Global Compact Network Japan supply chain subcommittee meetings. In fiscal 2018, we revised the Mitsui Chemicals Group Purchasing Policy and the Mitsui Chemicals Group Sustainable Procurement Guidelines were enacted. Mitsui Chemicals will pursue initiatives to promote a shared understanding of the importance of sustainable procurement and expand their scope throughout the Group centered on the Purchasing Division.

The Mitsui Chemicals Group Sustainable Procurement Guidelines

The Mitsui Chemicals Group aims for sustainable growth with society through initiatives for solving social challenges by upgrading its triple bottom line management with a focus on the economy, environment and society. Based on this concept, we practice “Always Act in Good Faith,” “For People and Society” and “Dream-Inspiring Innovation” as set forth in the Mitsui Chemicals Group Action Guidelines when conducting our business activities.
In the procurement activities, we believe that it is important to forge powerful relationships with our suppliers to fulfill environmental and social responsibilities in the entire supply chain from a global perspective. We also recognize that these initiatives will contribute to the mutual and sustainable development of our suppliers and the Mitsui Chemicals Group.
In light of these factors, the Mitsui Chemicals Group has created tasks that we would like to work on with the full cooperation of our suppliers in the Mitsui Chemicals Group Sustainable Procurement Guidelines. We would like to have the understanding and support of each our suppliers for these Guidelines and request that they undertake the initiatives described below.

Corporate Governance

1. Sound corporate management
   Establish an organizational system for sound corporate management through in-house control systems and structures for ensuring the effectiveness and efficiency of business operations as a corporation, the reliability of financial reports, compliance with laws and regulations applicable to your business activities and the protection of assets.

2. Accountability
   Appropriately distribute the financial and non-financial information to inside and outside the company based on the recognition of accountability to society and stakeholders.

Human Rights

1. Respect for human rights and prohibition of discrimination
   Support and respect the protection of human rights proclaimed internationally. Moreover, never under any circumstances engage in any discrimination whatsoever based on race, national origin, birthplace, social origin, caste, family lineage, religion, disability, age, gender, sexual orientation, gender identity, family background, marital status, membership of unions, political views or other differences.

2. Prevention of human rights violations
   Endeavor to avoid causing any human rights violations and indirectly creating adverse human rights impacts through your business activities. In addition, work to prevent or mitigate adverse human rights impacts through all stakeholders involved in the course of your business activities.

Labor

1. Provision of equal opportunities

   Equally provide employees with opportunities for personal career growth through human resources development initiatives. Moreover, provide equal opportunities for employment to human resources with motivation and ability.

2. Payment of proper wages

   Observe the statutory minimum wage in countries and regions where your business activities are conducted. In addition, endeavor to establish wages by giving due consideration to the improvement of employees' personal growth and their motivation.

3. Fair application of working hours and leave of absence

   Observe the labor hours prescribed in laws and regulation of countries and regions where your business activities are conducted. In addition, grant workers the right to take paid vacation.

4. Prohibition of forced labor

   Guarantee that employees are free to separate from the service at their own discretion as all work is voluntary.

5. Prohibition of child labor

   Never employ children who are under the legal working age in countries and regions where your business activities are conducted. In addition, never assign such jobs that impair children's health, safety and morality.

6. Respect for basic labor rights

   Respect employees' rights to organize and bargain collectively and other basic labor rights.

7. Advance management of occupational safety and health

   Grasp the risk of an accident occurring at work and the risk of exposure to chemical substances hazardous to the human body, noise, foul odors and so on and ensure a safe and healthy work environment. In addition, take measures with due care for employees' mental health.

Environment

1. Management of chemical substances

   Manage chemical substances contained in products in accordance with standards prescribed in laws and regulations.

2. Reduction of environmental load

   Endeavor to reduce environmentally harmful substances released into the air, water and soil (including greenhouse gases) by setting levels equal to those required by laws and regulations or independent targets exceeding the required levels.

3. Efficient use of resources
   Promote efficient use of energy, water, raw materials and other resources by setting independent targets.

4. Waste management
   Take responsibility in the disposal or recycling of waste materials by setting independent targets.

5. Biodiversity conservation
   Promote biodiversity conservation by reviewing the direct and indirect impact of your business on ecosystems.

Risk Compliance

1. Corruption prevention
   Maintain sound relationships with local administration authorities and public officials where your business activities are conducted, by managing the reception thereof to prevent corruption.

2. Prevention of offering or accepting improper advantage to or from customers, suppliers and so on
   Maintain sound relationships with customers, suppliers and so on by avoiding excessive gift-giving, entertainment and collusive relationships regarding marketing and purchasing activities.

3. Prevention of non-compliance with competition laws
   Prevent unfair trading, including bid-rigging, cartels and abuse of dominant bargaining position.

4. Elimination of anti-social forces
   Eliminate any relationship with organized crime groups, corporate racketeers and other anti-social forces and never provide any benefits to anti-social forces.

5. Respect for third parties' intellectual property
   Respect third parties' patents, copyrights, trademarks and other intellectual properties and prevent unauthorized use thereof.

6. Establishment of contact points for complaints and consultations
   Develop a system to allow for an individual who came to know important risk information to directly report and consult with an internal dedicated division or external contact points. Moreover, ensure that confidentiality of the individual who made said reporting or consultation will be strictly maintained and that the individual will never suffer prejudicial treatment.

7. Establishment of a system for business continuity plan (BCP)
   Develop a system to ensure the continuity of important operations and business or early restoration in case of a disaster.

8. Management of confidential information and protection of personal information
   Properly manage confidential information of customers, suppliers, one's own company and so on to prevent leakage

thereof. In addition, implement proper management and protection of personal information of customers, suppliers, one's own company and so on.

Quality and Safety

1. Ensuring quality and safety of products and services

   Provide products and services that meet laws and regulations and safety standards established in countries and regions where your business operations are conducted and that satisfy quality standards required in advance.

2. Appropriate response to defects arising in products and services

   Implement prompt information disclosure and notify the competent authorities in the event that an accident occurs with regards to products and services or that defective products are distributed. Moreover, implement a product recall and develop a system for formulating measures to ensure the safety of supply destinations.

Supply Chains

1. Basic stance for supply chains

   For the purpose of fulfilling social responsibilities across the entire supply chain, endeavor to ensure that not only one's own company but also suppliers are fully aware and comply with the significance of sustainable procurement.

2. Responsible procurement of raw materials

   Never purchase or use raw materials containing any gold (Au), tantalum (Ta), tungsten (W) and tin (Sn) that are conflict minerals related to inhumane acts by local armed groups in the Democratic Republic of the Congo and its neighboring countries.

Communication with Local Communities

1. Contribution to local communities

   Respect the culture and customs in countries and regions where your business activities are conducted and perform activities to contribute to the sustainable development of local communities.

End.

Supplier Evaluation and Guidance for Improvement

Sustainable Procurement Survey

The Group has adopted the CSR/Sustainable Procurement Self-assessment Questionnaire (SAQ) * drafted by the UN Global Compact Network Japan supply chain subcommittee meeting as the Sustainable Procurement SAQ format used to request responses from suppliers. This SAQ was drafted to conform with the UN Global Compact's 10 principles and international regulations such as ISO 26000 and GRI. Although the Group already requests that our suppliers meet the requirements of the Sustainable Procurement Guidelines , it is the SAQ that specifically defines the details of these requirements.
Mitsui Chemicals requires that suppliers complete the SAQ, and provides feedback and improvement assistance to suppliers based on the response results. In addition, the SAQ completion rate (Group-wide transaction value basis) has been included as one of the KPI within the 2025 Long-term Business Plan as the sustainable procurement ratio.

* Partial excerpt from the CSR/ Sustainable Procurement SAQ tool set of the helpful series aimed at realizing global sustainable development published by Global Compact Network Japan.

Mitsui Chemicals selected applicable suppliers that were requested to complete the SAQ based on the purchasing track record of the Purchasing Division over the three-year period starting in fiscal 2014. We conducted a survey on procurement in 2017 on our first-tier suppliers, which covers 90% of our purchase figures from the highest ranking figure. Approximately 90% of the companies (307 companies) responded to the survey by fiscal 2018.

In fiscal 2018, we created a guidebook for the sustainable procurement SAQ. This guidebook is submitted to suppliers whose SAQ score was less than 70% in order to help them deepen their understanding of the aims of the questionnaire. In our guidance visits to suppliers whose score was less than 40%, we used this guidebook to take account of the differing situations of each company in their SAQ responses. As a result, their understanding on reflecting the efforts made into the SAQ response and the scores of all the companies that received guidance visits have improved to 40% or more. We requested these suppliers to continue their efforts for further improvement.
The next questionnaire is scheduled to be distributed in 2021.

Sustainable procurement SAQ results (Fiscal 2017–18)

SAQ score levels	No. of Companies	Actions for improvement
Level 3 (Score 70% or higher)	223	Feed back comments along with information about average score of all companies, industry average, and chart of company scores.
Level 2 (Score 40% or higher to less than 70%)	70	Submit a guidebook for the SAQ and request corrections by the next survey (2021).

Level 1 (Less than 40%)	14	Visit company premises and exchange opinions towards improvement, as well as explain the intention of SAQ using a guidebook for the SAQ. Also, request resubmission of questionnaire answers.
Total no. of responses	**307 (Response rate: 90%)**	

Sustainable procurement ratio

	Fiscal 2017	Fiscal 2018	Fiscal 2025（Goals）
Purchasing Division transaction value basis	73%	84%	—
Mitsui Chemicals, Inc. transaction value basis	39%	44%	—
Mitsui Chemicals Group transaction value basis	—	—	70%

Going forward, we will engage in sustainable procurement for purchases made by the business divisions and domestic and overseas affiliates. In fiscal 2017, we carried out the following.

- Exchanged information between the Purchasing Division and 20 other divisions, including the business development divisions, and shared the status of sustainable procurement.
- Had the Purchasing Division provide explanations of sustainable procurement at domestic affiliate liaison meetings. Exchanged information between five major domestic affiliates.

We plan to conduct risk assessments of suppliers jointly with business divisions and domestic and overseas affiliates to reinforce the sustainable procurement structure of the Mitsui Chemicals Group. We also plan to conduct a paper audit on suppliers used by the Purchasing Division and, as required, a field audit.

Sending Reminders to Our Suppliers

In fiscal 2016, Mitsui Chemicals sent reminder letters to around 2,600 Purchasing Division suppliers containing the following items. Then, in fiscal 2018, we held briefings in companies affiliated to our works on these items, as well as distributing reminder letters. We also submitted letters rejecting any gifts to all suppliers of the Purchasing Division.

- Examples of previous discrepancies
- Request items for each supplier
  Compliance with laws and social norms from a sustainable standpoint
  Avoid engaging in direct price negotiations with requesting divisions regarding transactions overseen by the Purchasing Division
  Formulate BCPs (business continuity plans)
- The Mitsui Chemicals Group Purchasing Policy details and Risk Hotline reminder

Policy on Conflict Minerals

We are fully aware of the essential need to address so-called conflict minerals here at the Mitsui Chemicals Group. In fiscal 2015, the Purchasing Division conducted an investigation covering all raw materials except fuels and packaging materials transactions taken in fiscal 2014. As a result, we have confirmed that we do not purchase or use any conflict

minerals associated with inhumane acts committed by armed groups on the ground in the Democratic Republic of Congo or any of its neighboring countries. That includes gold (Au), tantalum (Ta), tungsten (W) and tin (Sn). If it comes to light that we have used any conflict minerals in the future, we will immediately halt procurement of the relevant minerals.
In addition, the Purchasing Division and RC & Quality Assurance Division are working together every year to conduct conflict mineral surveys of our suppliers by identifying tin catalysts, etc., within those Group product compositions that are registered in the chemical product safety information system. The surveys confirmed that there are no issues with the minerals we use.
The sustainable procurement SAQ includes a category for confirming conflict mineral-related activities.

* In July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act was enacted in the U.S. The act came about as a result of reports regarding serious human rights violations and damage to the environment, stemming from inhumane acts committed by armed groups on the ground in the Democratic Republic of Congo and its neighboring countries. As this has become a serious international issue, there are growing concerns that trade in conflict minerals could be used to fund armed groups in those countries, either directly or indirectly.

Internal Training

In fiscal 2016, Mitsui Chemicals conducted sustainable procurement training targeting all of its Purchasing Division employees. Since this time, this training has been included as one of the required elements of procurement training for all newly appointed members.
In fiscal 2018, we provided a training program on the items covered in the sustainable procurement SAQ to all Purchasing Division employees to ensure their understanding of the aims of the SAQ. In fiscal 2019, we plan to do the same for the purchasing officers in the business divisions and domestic and overseas affiliates.
We also make it mandatory for purchasing staff members working in the company other than in the Purchasing Division to take an e-learning course on procurement rules, and conduct regular group training every year.

Scope of reply:

* Terms with numbers in parentheses correspond to the numbered items in the sheet (3) Explanation of Terms

Company:	
Department:	
Business:	
Scope of reply:	Consolidated, Group in Japan (incl. main company), Main company alone, Individual Company, Business Division, Business site (incl. plant), Other

Quick Links

I. Corporate governance	IV. Environment	VII. Information security
II. Human rights	V. Fair business practices	VIII. Supply chain
III. Labor	VI. Quality and safety	IX.Local Communities

When answering:
Refer to the instructions, glossary, and guide. To answer a question, enter the number of your chosen "Response Level" from the right into the "Answer" field.
Yellow cells are required to be filled, while blue cells ("Comments") are optional.

Theme	Topic	Approach	Question	Answer	Response Level 1	Response Level 2	Response Level 3	Response Level 4	Response Level 5
I. (1) Corporate governance related to (2) CSR	1. Establishment of a CSR promotion system Companies are expected to endeavor to achieve a sustainable society while observing the law, abiding by social norms, meeting society's expectations, and taking care not to have a negative impact on society and the environment. Companies must put this idea into practice while familiarizing employees with it. Toward that end, they must establish a system for risk management of ESG (environmental, social, and governance) related to CSR and for implementing the PDCA (Plan, Do, Check, Act) cycle.	Policy	Do you have a policy and guidelines related to this topic?		No		Yes, we have one or both.		Yes, we have one (or both), and it is reviewed properly in a timely manner.
		System / Responsibility	Do you have a designated person or structure assuming responsibility or promotion of this topic?		No		Yes, we have.		Yes, we have designated one, and it is reviewed properly in a timely manner.
		Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	2. Establishment of (3) internal controls It is expected that management systems and schemes are in place within the company to ensure effectiveness and efficiency of operations as a company, reliability of financial reporting, compliance with laws and regulations related to business activities, and asset protection, with a view toward the establishment of an organizational structure for sound corporate management.	Policy	Do you have a policy and guidelines related to this topic?		No		Yes, we have one or both.		Yes, we have one (or both), and it is reviewed properly in a timely manner.
		System / Responsibility	Do you have a designated person or structure assuming responsibility or promotion of this topic?		No		Yes, we have.		Yes, we have designated one, and it is reviewed properly in a timely manner.
		Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	3. Establishment of a (4) business continuity planning (BCP) system It is expected that a system is in place for continuity or early recovery of important operations and business during/ after a disaster (e.g., natural disaster, major fire, terrorist attack).	Policy	Do you have a policy and guidelines related to this topic?		No		Yes, we have one or both.		Yes, one (or both) is established and reviewed properly in a timely manner.
		System / Responsibility	Do you have a designated person or structure assuming responsibility or promotion of this topic?		No		Yes, we have.		Yes, we have designated one, and it is reviewed properly in a timely manner.
		Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	4. Establishment of a whistle-blower system It is expected that a system is in place for employees who have learned of a compliance problem in the company's business activities in general, such as a legal violation or wrongful act or an act that could be a compliance problem, or for employees who themselves have suffered human rights or labor abuses to directly report to or consult with a dedicated department or outside contact. It is also espected that the system is set up to ensure confidentiality and that the whistleblower will not be treated unfavorably.	Policy	Do you have a policy and guidelines related to this topic?		No		Yes, we have one or both.		Yes, we have one (or both), and it is reviewed properly in a timely manner.
		System / Responsibility	Do you have a designated person or structure assuming responsibility or promotion of this topic?		No		Yes, we have.		Yes, we have designated one, and it is reviewed properly in a timely manner.
		Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	5. Dispatch of CSR-related information inside and outside the company It is expected that financial information and (5) non-financial information is dispatched appropriately inside and outside the company in response to requests from society and (6) stakeholders for transparency and accountability regarding corporate activities.	Policy	Do you have a policy and guidelines related to this topic?		No		Yes, we have one or both.		Yes, we have one (or both), and it is reviewed properly in a timely manner.
		System / Responsibility	Do you have a designated person or structure assuming responsibility or promotion of this topic?		No		Yes, we have.		Yes, we have designated one, and it is reviewed properly in a timely manner.
		Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
Comments	Use the right column if there is anything you would like to add, such as initiatives your company is taking in regards to this theme.								

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Theme	Topic	Approach	Question	Answer	Response Level 1	Response Level 2	Response Level 3	Response Level 4	Response Level 5
II. Human rights	1. Basic attitude toward human rights Companies should respect and protect human rights as declared in international standards and frameworks and ensure that they are not complicit in (or contributing to) human rights violations. Major international frameworks and norms: (7) Universal Declaration of Human Rights, (8) Ten Principles of the UN Global Compact, (9) UN Guiding Principles on Business and Human Rights, (10) OECD Guidelines for Multinational Enterprises, (11) UK Modern Slavery Act, etc.	Legal awareness	Are you aware of international standards and frameworks, national legislation as well as (12) social norms/(13) industry norms and standards at home and abroad related to this category?		No		Yes, but the existence of violations is not checked.		Yes, and the existence of violations is checked.
		Policy	Do you have a policy and guidelines related to this topic?		No		Yes, we have one or both.		Yes, we have one (or both), and it is reviewed properly in a timely manner.
		System / Responsibility	Do you have a designated person or structure assuming responsibility or promotion of this topic?		No		Yes, we have.		Yes, we have designated one, and it is reviewed properly in a timely manner.
	2. Respect for human rights and prohibition of discrimination Companies should respect human rights and have a responsibility to conduct decision-making and business activities without discrimination based on race, nationality, gender, (14) sexual orientation, age, ancestry, religion, ethnicity, or immigration, etc., or against children, senior citizens, persons with disabilities, indigenous populations, the poor, or persons with HIV/AIDS, etc.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	3. Avoidance of complicity in (or contribution to) human rights abuses Companies should ensure that the company's decision-making, business activities, and products and services do not lead to complicity in (or contributions to) human rights abuses of consumers or members of the local community.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	4. Respect for indigenous peoples and local communities It is important for companies that conduct business in regions where indigenous peoples and ethnic minorities live to respect their unique cultures and histories, to abide not only by local laws and ordinances but also international standards, and to give consideration to the rights of indigenous peoples. Also, beyond the issue of indigenous peoples, it is essential to conduct responsible business operations with sensitivity to local communities that are effected, in order to maintain the right to operate and to obtain permits and licenses.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
Comments	Use the right column if there is anything you would like to add, such as initiatives your company is taking in regards to this theme.								

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Theme	Topic	Approach	Question	Answer	Response Level 1	Response Level 2	Response Level 3	Response Level 4	Response Level 5
III. Labor	1. Basic attitude toward labor practices Companies should recognize and comply with the labor principles presented in international norms, etc., and to apply basic workplace principles as universal values. Main international frameworks and norms: (7) Universal Declaration of Human Rights, (15) International Labor Organization's (ILO) Declaration on Fundamental Principles and Rights at Work, (8) Ten Principles of the UN Global Compact, (9) UN "Guiding Principles on Business and Human Rights," (10) OECD Guidelines for Multinational Enterprises, (11) UK Modern Slavery Act, etc.	Legal awareness	Are you aware of legislation as well as social norms/ industry norms and standards at home and abroad related to this category?		No		Yes, but the existence of violations is not checked.		Yes, and the existence of violations is checked.
		Policy	Do you have a policy and guidelines related to this topic?		No		Yes, we have one or both.		Yes, we have one (or both), and it is reviewed properly in a timely manner.
		System / Responsibility	Do you have a designated person or structure assuming responsibility or promotion of this topic?		No		Yes, we have.		Yes, we have designated one, and it is reviewed properly in a timely manner.
	2. Prohibition of discrimination in the workplace Companies should not discriminate at the workplace, including during recruitment process, based on race, nationality, gender, sexual orientation, age, ancestry, religion, ethnicity, immigration, the existence of a disability, etc., or any factors other than factors such as the applicant's abilities and aptitude.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	3. Provision of equal opportunities to employees regarding human resources development and (16) career advancement, etc. Companies are expected to play a critical roll in ensuring that opportunities, such as for promotion and training, are provided equally without undermining fairness on the grounds of race, nationality, gender, sexual orientation, age, ancestry, religion, ethnicity, immigration, the existence of a disability, marital status, or the condition of health, etc.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	4. Prohibition of inhumane treatment Companies should respect employees' human rights. Inhumane treatment, such as abuse, physical punishment and harassment, is prohibited.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	5. Payment of fair wages Companies should abide by the legal minimum wage of the country and region in which they are operating, and ensure that an appropriate (17) collective agreement is concluded regarding matters such as overtime, and that extra pay and payment methods, etc., are applied fairly.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	6. Fair application of working hours, time off, and paid time off, etc. Companies should abide by working hours designated by law or agreed to in advance. They should ensure that employees' working hours are managed appropriately and that they are given the right to take paid time off. Employees should be given at least one day off per week.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	7. Prohibition of forced labor Companies should avoid making people work against their will and making people do work that restricts their freedom to leave their jobs. Work coercion using unjustified means of restraint and compulsion of overtime work, etc., should not be practiced. In addition, (18) unjustified retention of identification documents, etc., and unjustified collection of (19) deposit should not be practiced.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	8. Prohibition of child labor Companies should avoid employing children under the legal working age in that country or region. In addition, children should not be made to perform work that could harm their health, safety, or morals.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	9. Respect for the religious traditions and customs of the country of operation Companies should respect the traditions and customs of the country and region in which they are operating, and respect their employees' religious traditions and customs. Care should be taken through uniform employment regulations, etc., to not hinder them.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	10. Recognition of and respect for (20) freedom of association and the right to collective bargaining Companies should respect their employees' freedom of association, freedom to join a labor union, and freedom to protest without being subject to retribution, threats, or harassment and should provide opportunities for labor-management dialogue.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.

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Intent of question: To question whether work environments are provided that are safe and healthy for workers, including their mental health.	11. Proper management of employee safety and health Companies should take steps so that the risk of accidents occurring during work and the risks of harmful chemical substances, noise, and odors on the human body are understood and that appropriate safety measures, etc., are taken (including statutory inspections, (21) safeguards, (22) danger signals, control of the handling of chemical substances, measures against dangerous work, and compliance with designations for protective equipment, etc.). In addition, measures that give consideration to employees' mental health should also be taken.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
Comments	Use the right column if there is anything you would like to add, such as initiatives your company is taking in regards to this theme.								

Theme	Topic	Approach	Question	Answer	Response Level 1	Response Level 2	Response Level 3	Response Level 4	Response Level 5
IV. Environment	1. Basic attitude toward environmental initiatives Companies are expected to be aware of environmental issues in (23) business processes and to establish systems to resolve them. They are also required to identify factors that have an impact on the environment and to take responsibility for managing them. Main international frameworks and norms: (24) Rio Declaration on Environment and Development, (8) Ten Principles of the UN Global Compact, (25) ISO 14001, (26) Paris Agreement, (27) Basel Convention, (28) Major laws and regulations related to the environment: Japan: Basic Environment Act; Chemical Substance Control Law; Industrial Safety and Health Act; Water Pollution Prevention Act; Act on Advancement of Water Resources Development; Act Relating to the Prevention of Marine Pollution and Maritime Disasters; River Act; Waste Management and Public Cleansing Act; Basic Act on Establishing a Sound Material-Cycle Society; various recycling laws US: TSCA EU: REACH Regulation South Korea: Toxic Chemical Control Act; Occupational Safety and Health Act China: Provisions on the Environmental Management of New Chemical Substances Taiwan: Occupational Safety & Health Act	Legal awareness	Are you aware of legislation as well as social norms/ industry norms and standards at home and abroad related to this category?		No		Yes, but the existence of violations is not checked.		Yes, and the existence of violations is checked.
		Policy	Do you have a policy and guidelines related to this topic?		No		Yes, we have one or both.		Yes, we have one (or both), and it is reviewed properly in a timely manner.
		System / Responsibility	Do you have a designated person or structure assuming responsibility or promotion of this topic?		No		Yes, we have.		Yes, we have designated one, and it is reviewed properly in a timely manner.
	2. Management of chemical substances indicated in laws and regulations, etc., in production processes, products, and services Companies should manage chemical substances in products and, moreover, ascertain and report the amount of handled chemical substances to the government.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	3. Control and reduction of waste water, sludge and air emissions Companies are expected to set targets at the level prescribed by law or more rigorous voluntary environmental impact reduction targets. In addition, efforts should be made to prevent pollution, to monitor and control waste water, (29) sludge and air emissions etc., and to reduce outflow.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	4. Sustainable and efficient utilization of resources (energy, water, raw materials, etc.) Companies are expected to set independent targets for implementing resource conservation and energy savings, and to make efforts to effectively use sustainable resources and energies.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	5. Reduction of (30) GHG (greenhouse gases) Companies are expected to set independent reduction targets for greenhouse gases, such as carbon dioxide, methane and fluorocarbons, and make efforts to reduce them to help combat climate change.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	6. Identification, management, reduction, and (31) responsible disposal or recycling of waste Companies are expected to set independent reduction targets for waste, and make efforts to reduce it.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	7. Initiatives related to (32) biodiversity Companies are expected to conduct investigations into the direct and indirect impacts of business on the ecosystem, and make efforts to protect biodiversity and ensure its sustainable utilization.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.

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Comments	Use the right column if there is anything you would like to add, such as initiatives your company is taking in regards to this theme.			

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Theme	Topic	Approach	Question	Answer	Response Level 1	Response Level 2	Response Level 3	Response Level 4	Response Level 5
V. Fair business practices	1. Basic attitude toward fair business practices Companies are expected to engage in fair business practices (e.g., prevention of corruption, responsible political involvement, fair competition, rejection of relationships with (33) antisocial forces/ organizations) in (23) business processes producing/providing products and services. Major international frameworks and norms related to fair business practices: (8) Ten Principles of the UN Global Compact, (10) OECD Guidelines for Multinational Enterprises, (34) United Nations Convention against Corruption Major laws and regulations related to fair business practices: (35) Domestic laws regarding competition: Antimonopoly Act (Japan), antitrust laws (US), European Union competition law (EU)	Legal awareness	Are you aware of legislation as well as social norms/industry norms and standards at home and abroad related to this category?		No		Yes, but the existence of violations is not checked.		Yes, and the existence of violations is checked.
		Policy	Do you have a policy and guidelines related to this topic?		No		Yes, we have one or both.		Yes, we have one (or both), and it is reviewed properly in a timely manner.
		System / Responsibility	Do you have a designated person or structure assuming responsibility or promotion of this topic?		No		Yes, we have.		Yes, we have designated one, and it is reviewed properly in a timely manner.
	2. Establishment of appropriate relationships with local governments and public officials in and outside countries where business activities are conducted It is expected that healthy relationships will be maintained between the company and public officials, such as by managing the entertainment of public officials to prevent corruption.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	3. Prevention of the giving and receiving of improper advantages with customers and trade partners, etc., in sales and purchasing activities, etc. Healthy relationships must be maintained with customers.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	4. (36) Prevention of competition law violations in sales activities, etc. (37) Bid rigging, (38) cartels, (39) abuse of dominant bargaining position, and other (40) unfair trading practices should be prevented from occurring.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	5. Rejection of relationships with antisocial forces/organizations Relationships with violent groups and corporate extortionists, etc., should be rejected.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	6. Prevention of unauthorized use of a third party's intellectual property and of illegal reproduction of copyrighted works Intellectual property rights, including (41) patent rights, copyrights, and trademark rights, should be respected.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	7. Services for responding to complaints from outside the company and for consultations There should be a system in place for persons involved with trade partners or consumers who have knowledge of important risk information related to transactions with the company allowing them to directly report to or consult with a dedicated department or outside contact. Also, the system should be set up to ensure confidentiality and to ensure that the informant will not be treated unfavorably.	System / Responsibility	Do you have a designated person or structure assuming responsibility or promotion of this topic?		No		Yes, we have.		Yes, we have designated one, and it is reviewed properly in a timely manner.
		Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	8. Prohibition of insider trading Persons involved with a listed company, etc., are prohibited from using undisclosed company information to trade that company's stocks, etc.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	9. Prohibition of acts with conflicting interests In situations in which there is a conflict between an employee's interest and the company's interest, employees are prohibited from enjoying personal benefits at the expense of the company's benefits.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
Comments	Use the right column if there is anything you would like to add, such as initiatives your company is taking in regards to this theme.								

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Theme	Topic	Approach	Question	Answer	Response Level 1	Response Level 2	Response Level 3	Response Level 4	Response Level 5
VI. Quality and safety	1. Basic attitude toward product and service quality and safety Companies are required to ensure the quality and safety of products and services provided through business activities and to respond appropriately to customers/ consumers, etc., in the event of an accident. Main international frameworks and norms: (42) ISO 9001, ISO/IEC Guide 51, EU New Approach Directives, and HACCP (43) Major laws and regulations related to quality and safety: PL Act; Consumer Product Safety Act; Electrical Appliances and Materials Safety Act; Gas Business Act; LP Act; PMD Act; Radio Act; Food Sanitation Act; JAS Act; Water Supply Act; Quality Labeling Act; Housing Quality Act; Road Transport Vehicle Act; Building Standards Act; Premiums and Representations Act, etc.	Legal awareness	Are you aware of legislation as well as social norms/industry norms and standards at home and abroad related to this category?		No		Yes, but the existence of violations is not checked.		Yes, and the existence of violations is checked.
		Policy	Do you have a policy and guidelines related to this topic?		No		Yes, we have one or both.		Yes, we have one (or both), and it is reviewed properly in a timely manner.
		System / Responsibility	Do you have a designated person or structure assuming responsibility or promotion of this topic?		No		Yes, we have.		Yes, we have designated one, and it is reviewed properly in a timely manner.
	2. Ensuring product and service quality and safety Companies are expected to qualify and ensure safety when supplying products and servies. [In-house quality management system, use of a third-party certification system, etc. (S mark, SG mark, ST mark, JIS mark, JAS mark, etc.]	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, and they are audited.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	3. Appropriate response to product and service accidents and the circulation of defective goods Companies should establish a system in case of situations such as information disclosure, notification of the relevant authorities, product recall, and safety measures for supply destinations.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, and they are audited.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
Comments	Use the right column if there is anything you would like to add, such as initiatives your company is taking in regards to this theme.								

Theme	Topic	Approach	Question	Answer	Response Level 1	Response Level 2	Response Level 3	Response Level 4	Response Level 5
VII. Information security	1. Basic attitude toward information security Businesses are required to properly manage and protect information obtained through business activities and to take defensive measures against threats on computer networks. Major laws and regulations related to information security: Penal Code; Basic Act on Cybersecurity; Act on the Protection of Personal Information; Act against Unauthorized Access; Act on Electronic Signature Certification, etc.	Legal awareness	Are you aware of legislation as well as social norms/industry norms and standards at home and abroad related to this category?		No		Yes, but the existence of violations is not checked.		Yes, and the existence of violations is checked.
		Policy	Do you have a policy and guidelines related to this topic?		No		Yes, we have one or both.		Yes, we have one (or both), and it is reviewed properly in a timely manner.
		System / Responsibility	Do you have a designated person or structure assuming responsibility or promotion of this topic?		No		Yes, we have.		Yes, we have designated one, and it is reviewed properly in a timely manner.
	2. Defense against attacks on computer networks Defensive measures should be taken against attacks on computer networks, and managed so as to not cause damage to the company or other businesses.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, and they are audited.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	3. Protection of personal data and privacy The personal information of customers, third parties, and employees should be properly managed and protected.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, and they are audited.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	4. Prevention of misuse of confidential information Confidential information received from customers and third parties should be properly managed and protected.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, and they are audited.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
Comments	Use the right column if there is anything you would like to add, such as initiatives your company is taking in regards to this theme.								

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Theme	Topic	Approach	Question	Answer	Response Level 1	Response Level 2	Response Level 3	Response Level 4	Response Level 5
VIII. (44) Supply chain	1. Basic attitude toward the supply chain Companies are required to fulfill corporate responsibility in business processes that create products and services. It is advisable to establish a CSR/sustainable procurement policy and to make it widely known and instilled in and outside the company, with the aim of practicing CSR activities not only in the company but also throughout the supply chain. Accordingly, it is necessary to inform and instill in the company's suppliers the practice of the matters included in each SAQ. Major laws and regulations related to the supply chain: (45) EU RoHS Directive, (28) REACH Regulation, (11) UK Modern Slavery Act, (46) California Transparency in Supply Chains Act	Legal awareness	Are you aware of legislation as well as social norms/industry norms and standards at home and abroad related to this category?		No		Yes, but the existence of violations is not checked.		Yes, and the existence of violations is checked.
		Policy	Do you have a policy and guidelines related to this topic?		No		Yes, we have one or both.		Yes, we have one (or both), and it is reviewed properly in a timely manner.
		System / Responsibility	Do you have a designated person or structure assuming responsibility or promotion of this topic?		No		Yes, we have.		Yes, we have designated one, and it is reviewed properly in a timely manner.
		Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, and they are audited.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	2. Use of raw materials not involved in conflict or crime (initiatives against (47) conflict minerals) Companies are expected to survey suppliers and conduct verification, in case of the purchase and use of gold (Au), tantalum (Ta), tungsten (W), and tin (Sn), which are conflict minerals connected to inhumane acts committed by local armed groups in the Democratic Republic of the Congo and surrounding regions and elsewhere. The purchase and use of such minerals are prohibited. Major laws and regulations related to conflict minerals: (48) Dodd-Frank Act	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, and they are audited.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
Comments	Use the right column if there is anything you would like to add, such as initiatives your company is taking in regards to this theme.								

Theme	Topic	Approach	Question	Answer	Response Level 1	Response Level 2	Response Level 3	Response Level 4	Response Level 5
IX. Harmonious coexistence with (49) local communities	1. Initiatives to reduce negative effects on local communities Companies are required to carry out initiatives eliminating health, safety, and other hazards to local communities and residents from the production process and operation of products and services.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
	2. Initiatives with local communities towards sustainable development Companies are expected to carry out initiatives with local communities aimed at sustainable development. Examples of initiatives with local communities: Job creation, skills development, priority purchasing of local products and services, supplier development, etc.	Checking initiative results	Do you have initiatives related to this topic? In addition, do you have a mechanism for checking initiative results?		No		Yes, but we have no mechanism for checking results.		Yes, we have both.
		Corrective actions	Do you have a mechanism for corrective actions related to this topic as necessary?		No		Yes, we have.		Yes, and it is reviewed properly in a timely manner.
Comments	Use the right column if there is anything you would like to add, such as initiatives your company is taking in regards to this theme.								

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GCNJ CSR/Sustainable Procurement SAQ - Explanation of Terms

No.	Term	Meaning
1	Corporate governance	A mechanism for companies to practice transparent, fair, swift, and resolute decision-making while taking into consideration the standpoints of shareholders, customers, employees, local communities, and other stakeholders.
2	CSR	Corporate Social Responsibility. Refers to a company's attitude and initiatives to contribute to society by giving consideration to its impact on society as a whole, not just its own profit. It is thought that companies should give consideration not only to generating earning, maintaining dividends, and observing the law, but also to their economic, environmental, and social impacts, bearing in mind the various social groups connected to the company—that is, stakeholders.
3	Internal controls	Mechanisms for controlling organizations to ensure proper and efficient performance of operations in a company or administrative body, etc. They are established by prescribing and applying operational rules, standards, and processes and by continually conducting assessments of their effectiveness and risks in order to prevent wrongdoing, illegal acts, and errors in organizations and ensure that organizations are run effectively. Adoption of IT is also required, including the establishment of information systems.
4	Business continuity planning (BCP)	Planning that organizes routine activities and emergency actions (e.g., methods and means) in order for a company that has fallen into a state of emergency (due to natural disaster, major fire, terrorism, etc.) to minimize damage suffered, continue its core business, and recover quickly.
5	Non-financial information	Refers to information about a company other than financial information such as financial statements. In order to understand corporate activities, there is now a demand for the disclosure of non-financial information that has an impact of any kind on the financial state, in addition to financial information.
6	Stakeholders	Individuals or groups that could have an impact on the decisions or activities of an organization, that could be impacted by those decisions or activities, or that are recognized as being impacted by those decisions or activities. Examples include customers, owners, shareholders, bankers, regulators, suppliers, employees/ labor unions, contractors/partners, and society including the government and residents (sometimes including competitors or opposition lobby groups).
7	Universal Declaration of Human Rights	A declaration adopted by the third United Nations General Assembly on December 10, 1948, as a universal standard for all people and all nations to achieve. It arose from reflection amidst the devastation following World War II that, "this mistake must never be repeated." The Declaration, which consists of a preamble and articles 1 to 30, clearly expresses liberty rights and social rights. Liberty rights include personal liberty, prohibition of torture and slavery, freedom of thought and expression, suffrage and so on. Social rights include the right to education, the right of workers to unionize, the right to lead life with human dignity and so on.
8	Ten Principles of the UN Global Compact	The UN Global Compact is an initiative that was advocated by then UN Secretary-General Kofi Annan to the World Economic Forum (Davos meeting) in 1999 and officially launched at UN Headquarters the following year. It fulfills its role as a forum (a place for the exchange and practice of opinions) for addressing various issues arising from globalization through the implementation of activities based on 10 principles established in the four domains of human rights, labor standards, environment, and anti-corruption. At present, 12,480 organizations (of which about 9,456 are companies) in around 160 countries have signed the Compact (as of May, 2017). Principle 1: Support and respect the protection of human rights; Principle 2: Make sure that one is not complicit in human rights abuses; Principle 3: Freedom of association and recognition of the right to collective bargaining; Principle 4: Elimination of forced labor; Principle 5: Effective abolition of child labor; Principle 6: Elimination of discrimination in employment and occupation; Principle 7: Precautionary approach to environmental challenges; Principle 8: Initiatives to promote environmental responsibility; Principle 9: Development and diffusion of environmentally friendly technologies; Principle 10: Work against corruption in all its forms, including extortion and bribery. (UNGC website: https://www.unglobalcompact.org/)
9	UN Guiding Principles on Business and Human Rights	Principles conceived as the "Protect, Respect and Remedy" framework by Harvard University professor John Ruggie, who served as a UN Special Representative from 2005. The UN unanimously endorsed the principles on June 16, 2011. The objective is to strengthen standards and practices related to business and human rights, in order to contribute to sustainable globalization. The principles are applicable to all states and businesses.

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No.	Term	Meaning
10	OECD Guidelines for Multinational Enterprises	Guidelines established by the OECD in 1976 to recommend multinational corporations to voluntarily act in the responsible manner that is expected of them. The Guidelines consist of principles related to responsible corporate activities in a wide range of areas including general policies; disclosure; human rights; employment and industrial relations; environment; combating bribery, bribe solicitation and extortion; customer interests; science and technology; competition; and taxation. The Guidelines are legally nonbinding. Participating nations besides OECD member countries are Argentina, Brazil, Columbia, Costa Rica, Egypt, Jordan, Lithuania, Morocco, Peru, Rumania, and Tunisia.
11	UK Modern Slavery Act	Enacted in the UK as of March 2015. It is a law requiring commercial organizations and companies operating in the UK with annual turnover exceeding £36 million to disclose annual statements and report to ensure that slavery and human trafficking are not taking place in the business.
12	Social norms	Rules that people must observe when interacting within social life. These include manners, morals, customs, role models and so on.
13	Industry norms	Self-imposed rules established through the cooperation of companies and organizations in an industry that serve as standards for behavior and judgments that must be observed.
14	Sexual orientation	Refers to the concept of showing the direction of a person's romantic or sexual attraction. These include heterosexuality, homosexuality, bisexuality and so forth. In recent years, some of these have started to be widely recognized as LGBT*. *Lesbian, gay, bisexual, and transgender
15	International Labour Organization's (ILO) Declaration on Fundamental Principles and Rights at Work	Refers to the ILO Declaration of the Fundamental Principles and Rights at Work adopted by the International Labor Organization (ILO), which is one of the ILO's most important key documents alongside the ILO Charter and Declaration of Philadelphia. It establishes the minimum standards related to labor. It consists of eight articles in four areas related to the basic human rights of freedom of association, prohibition of forced labor, elimination of child labor, and elimination of discrimination in employment and occupation.
16	Career advancement	The acquisition of higher qualifications and abilities. The improvement of one's career.
17	Collective agreement	A written agreement concluded between a labor union or representative of workers and an employer.
18	Unjustified retention of identification documents, etc.	In developing countries and elsewhere, there are instances of employment intermediaries forcing migrant workers from neighboring countries to hand over their work permits and passports to prevent them from running away and withholding unreasonable sums from their wages (e.g., migrant workers from neighboring countries in Southeast Asia losing their freedom of movement when their passports are confiscated by employment intermediaries). However, the safekeeping of documents such as passports and alien registration cards is an obligation of the person whose documents they are; forced retention of such documents by employment intermediaries and employers is illegal. This also applies to foreign technical intern trainees in Japan.
19	Deposit	A general term for a certain amount of money placed interest-free by a borrower into the keeping of the lender when making a rental agreement; also called a security deposit or key money. In terms of CSR, refers to unjustified costs collected from foreign workers by employment services in the sending country and is regarded as a primary factor leading to debt labor and forced labor.
20	Freedom of association	The ability of anyone to form a group or association. It includes the right to join or leave a group and the right to disband.
21	Safeguards	Measures to prevent workers from having work-related accidents. These include employers providing for the safety of equipment and working environments, etc., and workers themselves engaging in work with an understanding of dangers and hazards of that work and a thorough familiarity with the appropriate ways to cope with those dangers and hazards. See Chapter VI of Japan's Industrial Safety and Health Act.
22	Danger signals	Reducing envisioned dangers through warning labels by directly posting stickers, signs and so on and around dangerous spots.
23	Business processes	The series of activities conducted to achieve a business objective, such as the production and sale of a product or provision of a service.

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No.	Term	Meaning
24	Rio Declaration on Environment and Development	Rio Declaration on Environment and Development. An agreement made at a UN Conference on Environment and Development held in June 1992. Consists of 27 principles on environment and development, for example that States have, in accordance with the Charter of the United Nations, etc., the sovereign right to exploit their own resources, and the responsibility to ensure that their own activities do not cause damage to the environment of other States.
25	ISO 14001	A certification standard for an Environmental Management System (EMS), issued by the International Organization for Standardization (ISO) in 1996. It requires the establishment and implementation of the Plan-Do-Check-Act (PDCA) cycle aimed at objectives such as the reduction of environmental load, in line with an environmental policy drawn up by management. A review by a third party is needed to acquire certification.
26	Paris Agreement	A multilateral agreement concerning climate change, adopted at the 21st Conference of the Parties of the UN Framework Convention on Climate Change (COP 21) held in Paris in December 2015. A stated goal is to achieve net zero emissions worldwide by the second half of this century. It requires all countries to independently establish reduction targets and to take domestic measures aimed at their achievement.
27	Basel Convention	Officially the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. A treaty that requires as a matter of principle processing hazardous wastes by the country that produced it, as well as ensuring international safety standards when moving hazardous wastes across borders, giving advance notice to countries receiving the waste and/or through which the waste passes and obtaining their consent, preventing illegal transfer, and establishing punishment measures, etc.
28	Major laws and regulations related to the environment	National laws related to the control and regulation, etc., of chemical substances and chemical substances used in products, enacted by Japan, the US, EU, South Korea, China, and Taiwan to ensure the health and safety of workers. <Explanation of abbreviations> • Chemical Substance Control Law (Japan): Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. • TSCA (US): Toxic Substances Control Act • REACH Regulation (EU): Registration, Evaluation, Authorization and Restriction of Chemicals
29	Sludge	The mass of the final inorganic and organic products from the treatment process of a sewage treatment plant or the waste liquid treatment process of a factory, etc. It is buried in final landfill sites as industrial waste or recycled.
30	GHG (greenhouse gases)	A general term for gases that warm the atmosphere near the surface of the Earth by absorbing infrared rays. Regarded as substances that cause global warming (climate change). The Kyoto Protocol, which was adopted at the third session of the Conference of Parties to the UNFCCC (COP 3), specified six gases, including carbon dioxide, methane, chlorofluorocarbons, and dinitrogen monoxide, to be reduced. The Intergovernmental Panel on Climate Change (IPCC) has nearly concluded that rising surface temperatures are an anthropogenic result of an increase in GHG emissions since the Industrial Revolution of the 18th century.
31	Responsible disposal	Japan's Waste Management and Public Cleansing Act, for example, stipulates that in Article 3 that "business operators must take responsibility for the proper disposal of wastes generated in connection with their business activities." This makes it explicit that emitters are responsible for disposal. It is also stipulated that "business operators strive to reduce the amount of waste generated in connection with their business activities through means such as recycling," and "business operators must cooperate with the policies of local public bodies in relation to the reduction of waste and the ensuring of its proper disposal, etc."
32	Biodiversity	Biological diversity can be perceived on three levels: ecosystem, species, and genetic diversity. The Convention on Biological Diversity is a treaty whose goals are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising out of the utilization of genetic resources. The 10th Conference of the Parties to the Convention on Biological Diversity (COP 10), held in 2010, adopted the "Aichi Targets," which is a strategy for reducing the speed of biodiversity loss by 2050, and the "Nagoya Protocol" on the handling of genetic resources.
33	Antisocial forces/ organizations	A general term for groups and individuals who pursue economic benefits through unreasonable demands using violence, power, or fraudulent means.

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No.	Term	Meaning
34	United Nations Convention against Corruption	A treaty for preventing economic crimes including corrupt practices (including corruption by public officials, foreign public officials, and officials of a public international organization), bribery, embezzlement, and money laundering. It plays a complementary role to the United Nations Convention against Transnational Organized Crime and is incorporated into the principles of the UN Global Compact.
35	Domestic laws regarding competition: Antimonopoly Act (Japan), antitrust laws (US), European Union competition law (EU)	"Competition law" is a general term for laws and regulations with the purpose of preventing monopolistic, coordinated, or unfair practices as a means of competition, in order to maintain sound and fair competition in a capitalist market economy. Below are some domestic laws. Antimonopoly Act (Japan): A law aimed at sound market development and the protection of consumer interests by maintaining free competition among companies. Antitrust laws (US): Antimonopoly laws in the United States. A general term for the basic laws of the Sherman Act, the Clayton Act, and the Federal Trade Commission Act plus a series of laws and regulations that amend and supplement these statutes. European Union competition law (EU): Antimonopoly law in the EU.
36	Prevention of competition law violations	When competition laws such as an antitrust law have been violated, the violator may face civil (e.g., an injunction) and administrative (e.g., payment of a fine) measures and, in some offense, criminal charges. Furthermore, as violators may lose social credibility through press coverage, it is important to prevent violations and, toward that end, it is important to have correct knowledge.
37	Bid rigging	Illegal behavior to ensure that a certain bidder wins a bid as a result of an agreement among relevant bidders.
38	Cartels	A form of alliance in which companies and business operators in the same industry, which is in a state of oligopoly, strike a deal on matters such as price, production volume, and sales outlets to avoid competition, with the aim of obtaining exclusive benefits. Also called syndicates, cartels are prohibited in Japan by the Antimonopoly Act.
39	Abuse of dominant bargaining position	Causing disadvantage to a trading partner through unjust behavior in light of normal business practices by using the dominant bargaining position of one's own company (e.g., making burdensome requests such as delayed payment of bills, demand for price reductions, and demand for support money, and making demands for the dispatch of employees). The Antimonopoly Act prohibits these behaviors in Japan.
40	Unfair trading	Acts that could impede fair competition, which are prohibited by Japan's Antimonopoly Act. There are 16 types of unfair trade practices applicable to all categories of business, including "concerted refusal to deal," in which companies refuse to deal with a certain vendor, and "discriminatory pricing," in which products and services are provided and received unfairly at discriminatory prices.
41	Patent rights, copyrights, and trademark rights	Patent right: A set of exclusive rights granted by a sovereign state to an inventor or assignee for a limited period of time in exchange for detailed public disclosure of an invention. Copyright: The right to exclusive control of works that creatively express one's own thoughts and feelings through forms of expression such as language, music, and graphic arts. Trademark rights: The right to protect as an asset trademarks attached to products and services, where "trademark" refers to a mark (including letters, graphics, symbols, three-dimensional shapes, and combinations thereof) used to differentiate the products and services of one's own company from those of other companies.
42	ISO 9001, ISO/IEC Guide 51, EU New Approach Directives, and HACCP	ISO 9001: A certification standard for quality management systems, issued by the International Organization for Standardization (ISO) in 1987. It is used to improve quality through the implementation of the Plan-Do-Check-Act (PDCA) cycle aimed at increasing quality. A review by a third party is needed to acquire certification. ISO/IEC Guide 51: An international standard that stipulates guidelines for the inclusion of safety aspects in standards. It is positioned at the top of various safety standards. EU New Approach Directives: A new EU legal structure and means of regulation implemented with the integration of Europe as the EU with the purpose of reducing "technical trade barriers" that impede the flow of goods within the EU. HACCP (Hazard Analysis and Critical Control Point): A system for analyzing health and quality risks that could occur in the production process of foods, specifying the critical control points that should be monitored to ensure safety, and practicing rigorous control and record keeping.

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No.	Term	Meaning
43	Major laws and regulations related to quality and safety	<Explanation of abbreviations> • LP Act: Act on the Securing of Safety and the Optimization of Transaction of Liquefied Petroleum Gas • PMD Act: The Law on Securing Quality, Efficacy and Safety of Products Including Pharmaceuticals and Medical device • Housing Quality Act: Housing Quality Assurance Act • Premiums and Representations Act: Act against Unjustifiable Premiums and Misleading Representations
44	Supply chain	A series of activities or stakeholders related to the chain of all business processes (including development, procurement, production, delivery, and sale) leading from the stage of raw materials to the delivery of products and services to the customers. The business approach for cohesive management of the supply chain is called supply chain management.
45	EU RoHS Directive	EU legislation restricting the use of hazardous substances in electrical and electronic equipment and promoting the collection and recycling of such equipment, enacted in February 2003. Target hazardous chemical substances include lead, mercury, cadmium, and hexavalent chromium, and flame retardants such as polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE).
46	California Transparency in Supply Chains Act	A law that went into effect in January 2012 that requires companies with worldwide annual revenues of $100 million or more to report on their specific actions to eradicate slavery and human trafficking in their supply chains.
47	Conflict minerals	A general term for minerals produced in conflict-torn regions where the purchase of those minerals could lead to the funding of local armed groups and, it is feared, could result in complicity in conflicts in those regions. (See No. 48 Dodd-Frank Act)
48	Dodd-Frank Act	A US financial regulatory reform act established in 2010 with the aim of preventing a recurrence of the financial crisis. One part of the act imposes an obligation on companies listed in the US to report to the Securities and Exchange Commission (SEC) matters related to their use of minerals including tantalum, tin, gold, and tungsten produced in the Democratic Republic of the Congo and surrounding regions, out of concern that mineral resources in those regions have become a source of funds for armed groups.
49	Local community	The people or groups living or working in an area impacted economically, socially, and environmentally by a business.

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Participating in Initiatives

Participating in ESG Information Sharing Platforms and Acquiring Supply Chain Certification

The Group is participating in platforms （Sedex , EcoVadis） that aim to improve corporate environmental and social practices within the supply chain through the sharing of information relating to these practices. Moreover, Mitsui Chemicals has acquired RSPO (Roundtable on Sustainable Palm Oil) supply chain certification.

Mitsui Chemicals Receives the Top Gold Rank in Eco Vadis Supplier Survey

RSPO Certification

Participate in UN Global Compact Network Japan Supply Chain Subcommittee Meetings

Mitsui Chemicals has been participating in UN Global Compact Network Japan supply chain subcommittee meetings since fiscal 2013. As part of its efforts together with participating companies to improve sustainable procurement throughout the supply chain, Mitsui Chemicals has been involved in drafting industry-wide Self-assessment Questionnaires (SAQs), exchanging opinions with NGOs and experts, and raising awareness of these efforts among other organizations and companies.
Moreover, the following concepts for drafting the questionnaire were stated at the UN Global Compact Network Japan supply chain subcommittee meeting.
Sharing these ideas, the Group has taken the initiative in adopting the SAQ to improve sustainable procurement not only in its own supply chain but throughout society and along with other participating companies.

- Hold discussions on equal treatment for companies that comprise supply chains regardless of the size of management resources (personnel, assets, funds); sustainable procurement is becoming important for creating a sustainable society.
- Foster a shared vision, mutual understanding/growth based on SAQ responses from all companies that comprise the supply chain, while aiming to make SAQs a baseline by making them easy to understand, user friendly, and open-ended in order to implement sustainable procurement on a global level.
- Take steps to facilitate the channeling of management resources toward improving internal and supply-chain sustainable procurement by sharing SAQs among suppliers and buyers while working to reduce workloads for both parties.

CERTIFICATE
CU-RSPO SCC-842870

Based on an audit according to the requirements stated in the RSPO Supply Chain Certification Systems, version November 2014 and a signed contract, Control Union Certifications herewith certifies that the facility(s) listed below are found to be in compliance with the RSPO Supply Chain Certification Systems, version November 2014. This guarantees that the criteria for processing RSPO certified palm oil products through one or more of the supply chain models as stated in the RSPO Supply Chain Certification Systems have been met.

Name of certified company	Mitsui Chemicals, Inc
Full address certified company	Shiodome City Center, 1-5-2 Higashi-shinbashi 105-7122 Minato-ku Tokyo JAPAN
RSPO Number (if applicable)	4-0664-15-000-00
Other sites certified (see annex 1)	☒
RSPO registered parent company (if applicable)	
RSPO member number parent company	

Scope of assessment	Procurement and processing of Fatty Acid Methyl Ester, including storage and selling as nonionic surfactant.

Start date certificate	21-12-2015
Expiration date certificate	20-12-2020
Date of first RSPO certification	21-12-2015
Certificate number	CU-RSPO SCC-842870
Supply chain model	☐ Identity Preserved (IP) ☒ Mass Balance (MB) ☒ Segregation (SG)

Authorised signatory name
Ms. N Atiqah
Date of issue: 21-12-2015
On behalf of the Managing Director

Authorised signature

Issued by
Control Union Certifications
Meeuwenlaan 4-6, P.O. Box 161,
8000 AD ZWOLLE
The Netherlands
tel.: +31(0)38 426 01 00
http://www.controlunion.com
certifications@controlunion.com

Control Union Certifications is accredited to provide RSPO Supply Chain Certification on 06/06/2014 (RSPO-ACC-014)

This certificate including the annex remains the property of Control Union Certifications and can be withdrawn in case of terminations as mentioned in the licensee contract, or in case changes or deviations of the above-mentioned data occur. The licensee is obliged to inform CUC immediately of any changes in the above mentioned data.
Only an original and signed certificate is valid.

Certificate version: C842870CU-RSPO SCC-01.2015

CONTROLUNION

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CERTIFIED SUSTAINABLE PALM OIL ™ RSPO

Annex 1 to Certificate – RSPO SCC

Certificate No.: CU-RSPO SCC-842870

CU Code:	*Name of facility:*	*Location address:*
PRU-01	Osaka Works, Manufacturing Dept.1 EO section	6, Takasago 1-chome, Takaishi, Osaka 592-0001 Takaishi Osaka JAPAN
PRU-02	Osaka Works, Logistics Department	6, Takasago 1-chome, Takaishi, Osaka 592-0001 Takaishi Osaka JAPAN

Authorised signatory name
Ms. N Atiqah
Date of issue: 21-12-2015
On behalf of the Managing Director

Authorised signature



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Only an original and signed certificate is valid.

Certificate version: C842870CU-RSPO SCC-01.2015

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CERTIFIED SUSTAINABLE PALM OIL RSPO

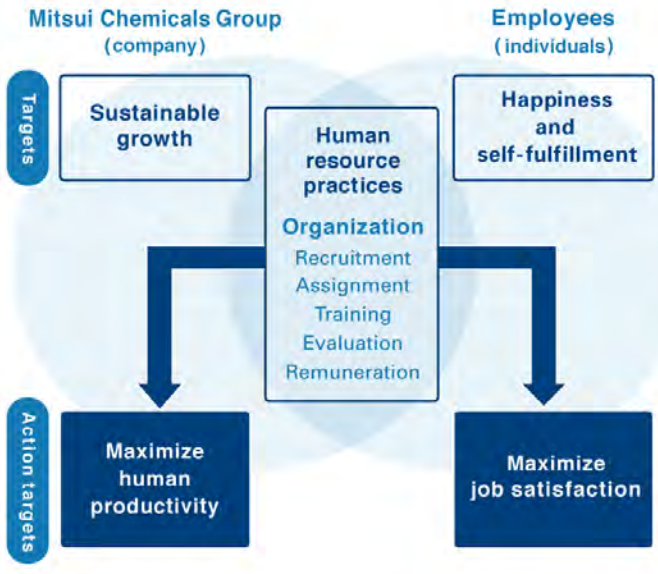
Human Resources Management

* Please refer here for details regarding measures for employees' lifestyle-related diseases and mental health.

Management System

Policy and Basic Approach

The Human Resources Management Policy of the Mitsui Chemicals Group outlines our attitudes toward our employees as well as society including those individuals considering joining the Group. The Policy focuses on "maintaining a high regard for people," as stipulated in our Action Guidelines. This in turn enables the Company and its employees to stimulate and actively enhance one another as they work to create a better future.
We will position the Policy as the cornerstone of the human resources initiatives of subsidiaries and affiliates all around the world, and aim to strike a balance between the sustainable growth of the Mitsui Chemicals Group and the happiness and self-fulfillment of our employees.
Disclosed in Japanese, English and Chinese, the Policy covers the languages spoken by the majority of employees.



Human Resources Management Policy of the Mitsui Chemicals Group

1. "Always Act in Good Faith"

1. The Mitsui Chemicals Group will require employees to "act in good faith" as stipulated in "The Action Guidelines," highly appreciate such employees and offer an appropriate environment for them to give full rein to their strengths.
2. Mitsui Chemicals will comply with all labor and employment laws wherever it operates.

3. Mitsui Chemicals will disclose its rules and operate fairly and with justice according to the rules regarding recruiting, assignment, training, evaluation and compensation of employees without any discrimination against gender, race, nationality, age, religion and disabilities.

2. "Maintain a High Regard for People and Society"

1. Mitsui Chemicals will require employees to "have a high regard for people and society" as stipulated in "The Action Guidelines," highly appreciate such employees and offer an appropriate environment for them to give full rein to their strengths.
2. Mitsui Chemicals will protect employees' safety and health in the workplace.
3. Mitsui Chemicals does not tolerate any form of harassment, and in turn supports and respects the protection of human rights.

3. "Dream-inspiring Innovation"

1. Mitsui Chemicals will require employees to have the following attitudes and engage in certain behavior in order to pursue the dream-inspiring innovation as stipulated in "The Action Guidelines," highly appreciate such employees and offer an appropriate environment for them to give full rein to their strengths:
    - To take on challenges unflinchingly with full trust in our potential without fear of failure.
    - To create novel value by enhancing our sensitivity.
    - To consider and act proactively based on the actual data and facts at the workplace.
    - To aim to be world-class professionals with a global view.
    - To develop the future generation by passing on our experiences and technologies.
    - To integrate individual strengths into the organization through active communication.

The Company established three Core Values to capture the spirit of all employees working at Mitsui Chemicals Group sites all around the world and to act as a unifying force, ensuring that we are all working toward the same goals. The “spirit of challenge," “respect for diversity," and “teamwork" established in the Action Guidelines are each connected to the three core values of Challenge, Diversity, and One Team.

4. Mitsui Chemicals, based on the aforementioned, will conduct Human Resources Practices under the following policies:

	Toward sustainable growth of the Company
Organization	Create an organization based on the strategy and allocate jobs in a way that accomplishes the strategy.
Recruiting	Carefully recruit human resources that contribute to the organization’s growth.
Assignment	Proactively promote employees that yield fruitful results.
Training	Foster world-class professionals from a long-term perspective.
Evaluation	Evaluate achievement appropriately.
Compensation (Remuneration)	Build up and operate a competitive compensation system to control operating costs.

	Toward the happiness and fulfillment of employees
Organization	Conduct job allocation in consideration of each personal motivation and capability.
Recruiting	Give equal opportunities for employment to any motivated and capable candidates.

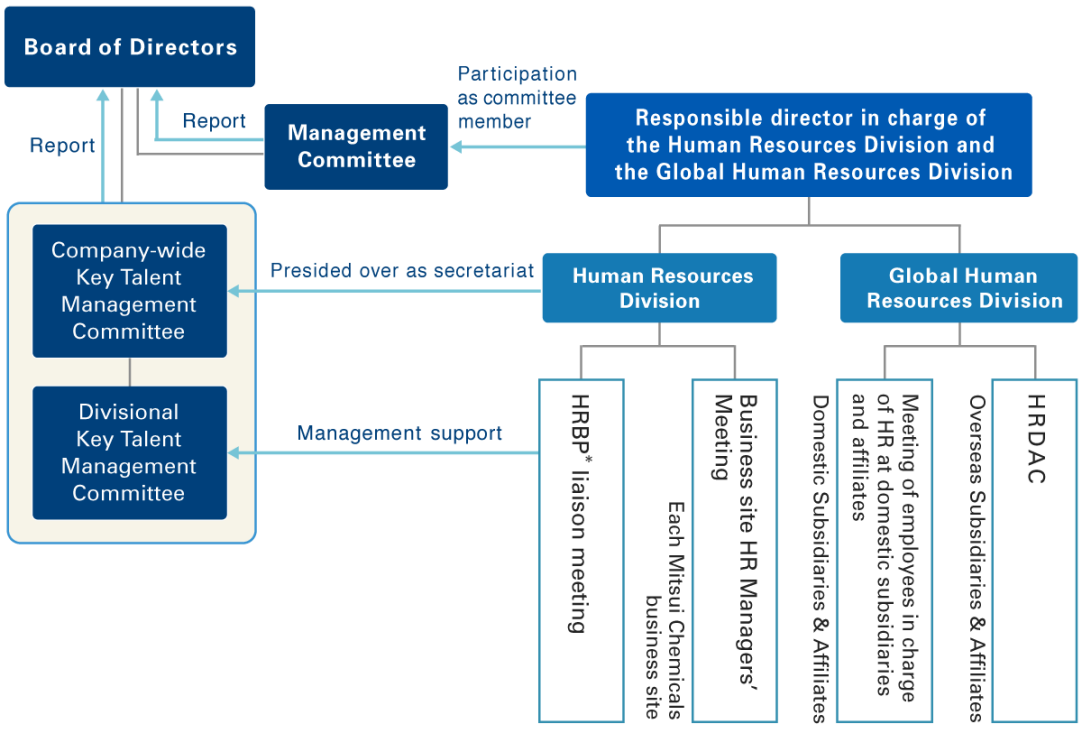
Assignment	Allocate suitable jobs for employees so that they can exercise their motivation and capabilities.
Training	Support employees in making self-reliant efforts to become world-class professionals.
Evaluation	Conduct fair evaluation to enhance motivation and the capability of employees.
Compensation (Remuneration)	Build up and operate a competitive compensation system to secure motivated and capable human resources.

We also strive not to violate minimum wage regulations and working hours regulations on the basis of the laws and regulations stipulated by each country and region.

System and Responsible Officers

The Managing Executive Officer responsible for the Human Resources (HR) Division and the Global Human Resources Division takes this role.
The Human Resources Division plays a central role in setting the mid-term and fiscal year plans for human resources management while sharing and implementing those plans with the HR department at each business site, domestic and overseas subsidiaries, and affiliates. HR managers from each business site as well as domestic subsidiaries and affiliates and HR managers from our overseas regional headquarters periodically confirm and discuss the progress, which leads to the drafting and implementation of related policies. The priority issues of the fiscal year plans are reported to the director in charge on a quarterly basis. Important managerial issues are also discussed mainly by the Management Committee and the Key Talent Management Committee.
Furthermore, in order to draft and implement global HR policies, the Mitsui Chemicals Group has established the HR Development Advisory Committee (HRDAC), a virtual global HR organization under the general manager of the Global Human Resources Division that incorporates our HR managers together in Japan, Europe, the Americas and Asia. This organization is addressing a range of issues, such as (1) global HR marketing, (2) global HR development, (3) global mobility, and (4) global compensation/appraisal systems.

Human Resources Management System



The status of compliance relating to human resources management at each business site and at each subsidiary and affiliate company is regularly checked by means of internal control audits. Monitoring is also undertaken with regard to the progress made with the priority issues in the fiscal year plans and related policies.

Target	Meeting to be monitored	Frequency
Domestic sites	Business site HR Managers' Meeting	Approx. once a month
Domestic subsidiaries and affiliates	Meeting of employees in charge of HR at domestic subsidiaries and affiliates	Twice a year
Overseas subsidiaries and affiliates	Meeting of HR managers from regional headquarters (the Americas, Europe, China and Asia-Pacific) (HRDAC)	Twice a year (Information gathering for quarterly reports is also conducted)

* HRBP：
Human Resources Business Partners. These are staff who assist in key talent management in each division, work with the Key Talent Management Committee, and are involved with personnel changes/placements. Fifteen members are selected from the Human Resources Division and the Global Human Resources Division.

Goals and Results

KPI		Scope	FY2018			FY2019	Medium to Long-term
			Goals	Results	Level Achieved	Goals	Goals
The number of employees	Regular recruitment for regular positions	Mitsui Chemicals, Inc. registered employees	100	106	○	105	—
	Regular recruitment for general positions	Mitsui Chemicals, Inc. registered employees	160	161	○	140	—
	Mid-career recruitment for regular positions	Mitsui Chemicals, Inc. registered employees	90	87	○	45	—
	Mid-career recruitment for general positions	Mitsui Chemicals, Inc. registered employees	25	25	○	44	—
	Regular administrative positions	Mitsui Chemicals, Inc. registered employees	40%	47%	○	40%	40% (FY2020)

Ratio of female employees hired through the regular recruitment	Regular technical positions	Mitsui Chemicals, Inc. registered employees	15%	16%	○	20%	20% (FY2020)
	General positions	Mitsui Chemicals, Inc. registered employees	5%	5.0%	○	5%	5% (FY2020)
Ratio of women in management positions (manager-level or above)		Mitsui Chemicals, Inc. registered employees	3.2%	2.9%	×	4.0%	4.0% (FY2020) 10% (FY2025)
The number of employees who attended Leadership Development-Program		Mitsui Chemicals, Inc. registered employees	approx. 100	95	○	95	80/year
Increase employee engagement		Mitsui Chemicals Group	Conduct the first survey, ascertain engagement level	Conducted the survey, ascertained engagement level	○	Formulate the action plan	Conduct the regular survey and implement action plans

Review and Challenges

As the world has become increasingly globalized in recent years, more than 40% of our employees are now working overseas. Society requires companies to state how they can contribute to the realization of a sustainable society. We answer this question by creating the values required by society, and the key is human resources.
There are two main challenges in global HR. The first is to secure human resources to execute our business strategy. To find and secure excellent human resources, we established the HR Development Advisory Committee (HRDAC) in 2014 and have been operating the committee as a virtual organization that exchanges information and implements human resources measures beyond regional borders. The second challenge is to improve job engagement by employees. We conducted an engagement survey targeting at Group employees around the world in June 2018.
The Global HR Division was established in April 2019 to enhance these efforts and to efficiently manage human resources at the global Group level.

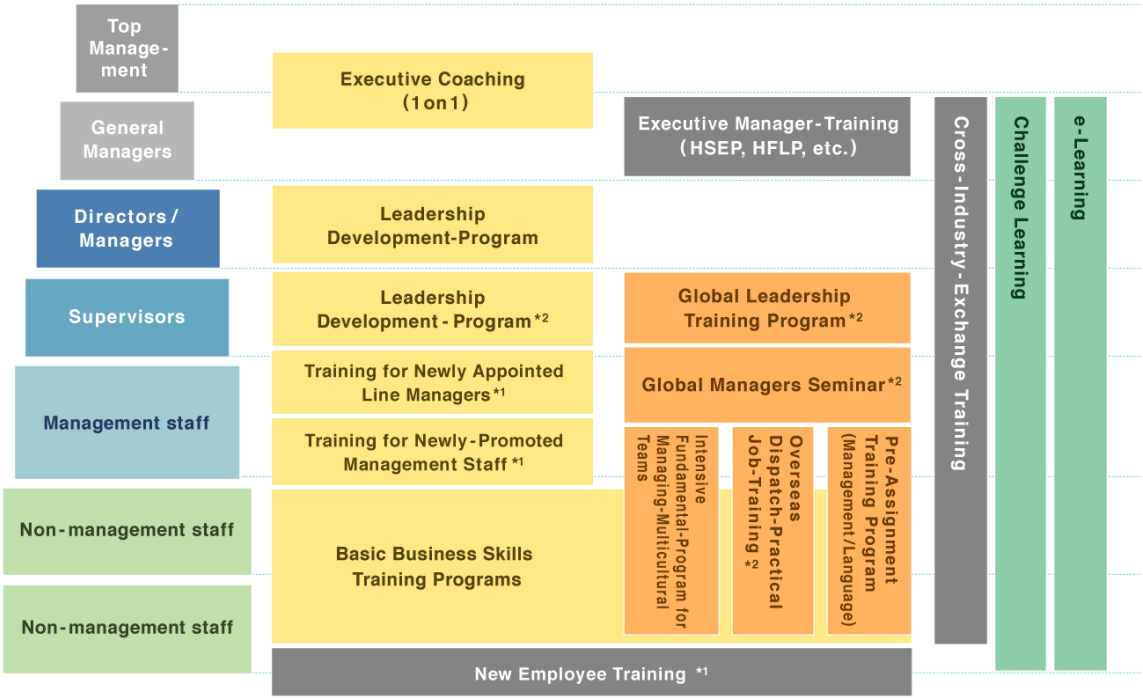
Human Resources Development

Based on the Human Resources Management Policy of the Mitsui Chemicals Group, the Group is, from a long-term perspective, developing human resources who are able to work on the world stage. The Group's approach to human resources development is to proactively support employees who are self-disciplined and work to enhance their personal growth, so that it can develop human resources who are able to create the values demanded by society in the present and future while constantly communicating with global markets and colleagues.

Programs in Line with Stages in Development Based on a Leadership Pipeline Concept (Mitsui Chemicals)

Aiming for a smooth transition to the upper management level, stratified training programs are designed on the basis of the skills and an awareness of the professional duties required by each rank. Minimizing the knowledge cramming style training, we are aiming for the employees themselves to repeat cycles of experience and introspection, while acting proactively to meet their higher-level job requirements, to support them in changing their behavior in ways that will produce results.

Outline of Training (From FY2019)



*1 Uniformly provided to eligible employees. Other training courses are for those who wish to participate and those who are selected.

*2 Also provided to subsidiaries and affiliates.

The training programs provided after a certain number of years of employment (before appointment as a manager) will be replaced with Basic Business Skills Training Programs in fiscal 2019. The new programs are designed for employees to acquire the skills required to be a manager by the time of their appointment. There are eight programs that trainees can choose from, and they can decide when to take the programs depending on their workplace and individual needs.

Basic Business Skills Training Programs

(1) Self Leadership—the 7 Habits of Highly Effective People *1
(2) Accounting and business management skills “Apples & Oranges” *1
(3) Logical thinking *1
(4) Critical thinking *1
(5) Basic coaching *2
(6) Facilitation *2
(7) Project management *2
(8) Strategy and marketing *2

*1 Starting fiscal 2019
*2 Starting fiscal 2020

Key Achievements of Stratified Training (Mitsui Chemicals, Inc. registered employees in FY2018)

Name of Training Program	Details of Key Training	No. of Trainees	Training Hours per Person (hr)
New Employee Training	Corporate Mission, core values, sustainability, compliance, diversity, safety, quality, R&D, occupational health, in-house systems, management strategy, understanding stakeholders, the functions of each division and department, cultivating professionalism, teamwork, self-awareness, business manners & literacy	106	215
Fourth-year Training	Self Leadership—the 7 Habits of Highly Effective People (Introductory course), understanding each role, cultivating proactive career awareness, managerial accounting fundamentals	42	23
Training for Newly-promoted Management Staff	Understanding business strategy awareness, Self Leadership—the 7 Habits of Highly Effective People, enhancing proactive thinking/actions, leadership	151	15
New Line Manager Training Program	Understanding each role, skills to develop subordinates, assessment skills, labor management, mental health management, compliance, and diversity (understanding of diversity—such as LGBT; harassment; and women’s empowerment).	261	17
Intensive Fundamental-Program for Managing-Multicultural Teams	Understanding cultural differences and putting the knowledge into practice, communication skills, self-expression, presentations	28	54

Leadership Development Program

Allowing talented human resources to demonstrate their abilities—despite time constraints caused by life-changing events, such as childcare and family care, and regardless of differences in nationality, ethnicity, and religion—requires improvements in line managers' management capabilities. Mitsui Chemicals focuses on developing leadership skills to lead the organization toward an even better direction by incorporating coaching methods into training programs for each level of line manager training and by encouraging core leaders in each division to take specific and innovative action in their daily business activities.
We have introduced 360-degree feedback and assessment for trainees before and after training programs as a means to measure the effectiveness of each program. Moreover, analysis of the correlation between the results of annual workplace stress surveys and workplace environment of employees who have finished these training programs confirmed improved support, specifically from bosses and colleagues, one of the factors affecting stress levels among employees.

Number of Leadership Development Program Participants (Mitsui Chemicals, Inc. registered employees)

Name of Training Program	FY 2018 results	Cumulative Total	FY 2019 Plans
Executive Coaching (1 on 1) (For Executive Officers and General Managers)	6	44 (From FY2013)	6
Leadership Development Program (For Directors and Managers)	37	278 (From FY2013)	40
Leadership Development Program (For Supervisors)	58	133 (From FY2016)	60

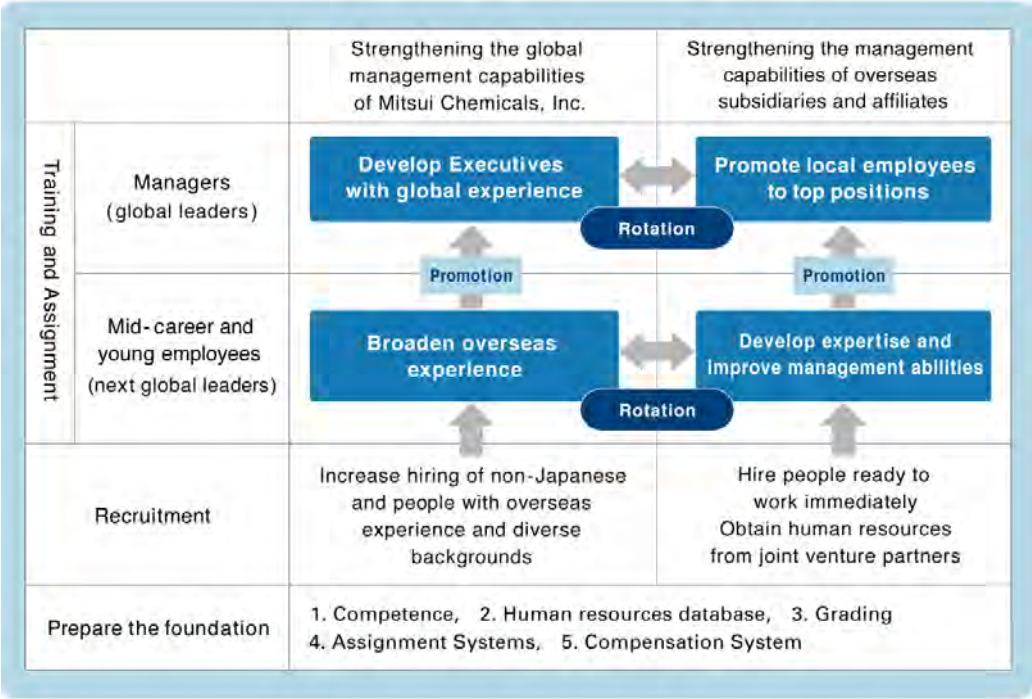
Global Human Resources Management

In keeping with the Group's global expansion, the development of global human resources has become an issue of unprecedented importance. To continue gaining a greater share of domestic and overseas markets, we will secure talented human resources who are intimately familiar with local conditions and strengthen our global leadership to enable them to coordinate and manage the operations at each of our domestic and overseas sites. The Mitsui Chemicals Group is clarifying the requirements for global leaders, securing talented human resources with diverse backgrounds and working to methodically develop global leaders and optimally assign these global leaders to its sites all over the world. To underpin these efforts, we are introducing improvements, in our common global competence (quality prerequisites), human resources databases, grading systems, assignment systems and compensation systems.

Qualities of a Global Leader

- Able to strategically and efficiently lead global business development
- Able to rapidly develop business in regions in tune with regional characteristics

Overview of Global Human Resources Management



Organization Designed to Implement Global Human Resource Policies: HRDAC

We established the Global HR Development Advisory Committee (HRDAC) in 2014 to provide and appropriately manage the platforms for accelerating global management on a group-wide basis. The HRDAC is composed of human resources managers from regional headquarters and key affiliates. We have also put in place the Mitsui Chemicals Academy to provide global common and standardized training programs centered on instilling our corporate culture and core values as well as strengthening of leadership. Through these initiatives, we are also making progress in promoting locally hired staff to key positions, including the position of president of our overseas affiliates.

Global Leadership Training Program

This program aims to develop candidates for executives who will play important roles in the Mitsui Chemicals Group. These candidates are selected from the Mitsui Chemicals Group and its overseas group companies. This twelve-day program is held jointly with a business school over nine months for the key talent from the Mitsui Chemicals Group around the world. The program covers strategic thinking, global leadership skills, and action learning. Nineteen people participated in the program in fiscal 2018 (about half of these participants were Japanese).

Global Managers Seminar

This program provides knowledge of Mitsui Chemicals business strategy, cultural understanding, and leadership skills, in order to develop local leaders from different Group companies. Manager candidates from major sites around the world work together through discussions during this five-day program. Fifteen candidates participated in the program in fiscal 2018 (about 30% were Japanese).

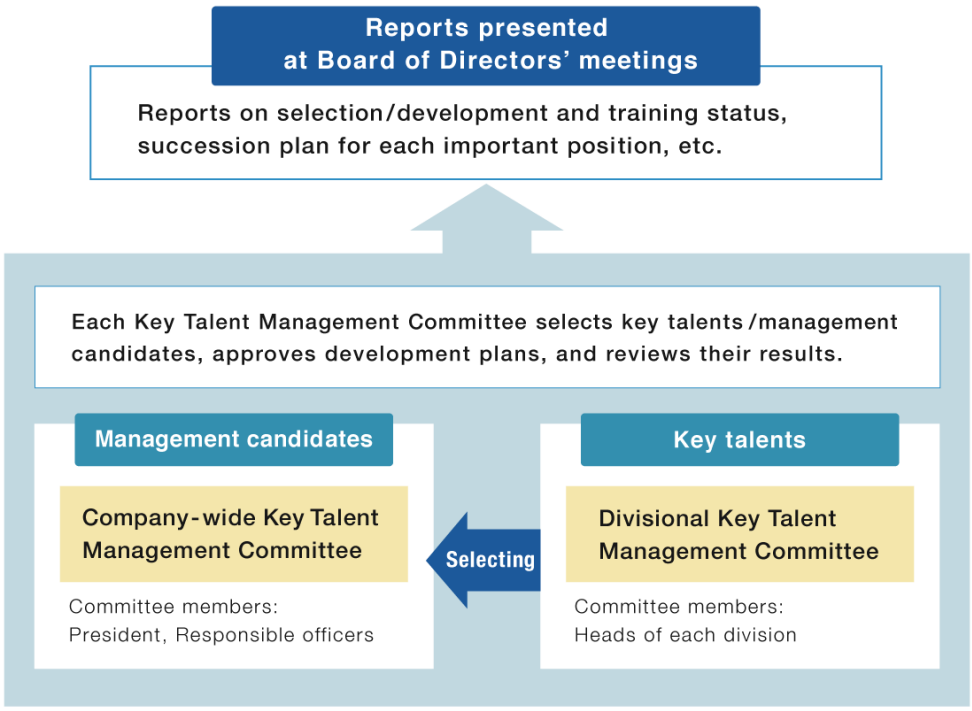
Mitsui Chemicals Competency Development Program

This is a program for future generation leaders to help them understand their roles as leaders and acquire the necessary knowledge and skills. Selected candidates from young and midcareer employees from the Asia-Pacific and other regions work through this 5-day program, including business simulations. Twenty people participated in the

program in fiscal 2018. We plan to create and provide new programs for employees of different ranks in the near future.

Key Talent Management

We built and from fiscal 2016 started to operate the systems for "Key Talent Management" with the aim of effectively promoting Global Human Resources Management and securing the human resources for Group global management. Through this initiative, we will select high-performance and high-potential human resources early , regardless of nationality, where they are hired or the company to which they are assigned, and conduct their training in a strategic manner



Selecting Key Talent and Potential Executive Candidates

From among the Group's worldwide human resources, we select employees who consistently demonstrate high levels of performance, competence, potential, and enthusiasm as Key Talent. From these, we are selecting employees who possess the potential to become future executives.

Establishment of Key Talent Management Committee

We have established the Key Talent Management Committee to act as the organization that will select Key Talent and executive candidates as well as approve human resources development plans and confirm the results.. The Divisional Key Talent Management Committee, chaired by the heads of the business sectors and divisions will undertake responsibility for Key Talent, and the company-wide Key Talent Management Committee, headed by the president and the director in charge, will be responsible for the executive candidates. The committee is required to report to the Board of Directors' meetings the status of selection and training as well as the succession plans for each important position.

In addition, employees from the Human Resources Division are appointed as Human Resources Business Partners (HRBPs) for each division. HRBPs support Key Talent Management activities in each division, Key Talent Management Committee operations, and other endeavors including personnel changes/allocation. HRBPs take rapid

steps to share issues worth noting faced by each division and regularly hold HRBP liaison meetings in order to solve these issues.

Individual Development Plans

The Key Talent Management Committee reviews the work experience of selected human resources and decides on the directions of the future on-the-job training (OJT) from five perspectives: management perspective, business restructuring, new business development, cross-company projects, and overseas corporation management. The Committee also discusses and decides on Off-JT dispatch to / participation in management human resource development programs both in Japan and overseas based on the assignment plan and required competence.

Evaluation / Compensation

We believe that treatment in line with proper appraisal is an important system that improves employee motivation, secures and fosters talented human resources, and is closely related to the Group's development.

Setting Goals and Performance Appraisal

At all levels, Mitsui Chemicals has systemized annual interviews and meetings to set goals with superiors. Progress toward the goals and an assessment of action taken are reflected in employee compensation. Assessment of an employee's covers their actions related to diversity and safety based on the Mitsui Chemicals Group Action Guidelines and the Core Values.
In goal-setting interviews, we set not only performance targets for a single fiscal year but at the same time conduct a "capability/career development interview" to confirm the business tasks the employee would like to experience as well the skills they would like to acquire in the short term (within three years) and long term. Employees are thus able to use their own initiative in setting their own career paths. In addition, the manager reviews the career perspectives, strengths and weaknesses as well as the future goals of their workers and obtain their support.
Since fiscal 2017, Mitsui Chemicals has been using its Talent Management System (Success Factors) to manage activities from setting goals to evaluating performance, and this has improved the accuracy and efficiency of HR management. Employee's performance achievements are updated on the system either by the employees themselves or by the superiors to enable effective management of the employee's goals. In addition, the employee and their superior are able to use the system to review the employee's performance history, which enables consistent development of the employee's talents.

Evaluation Feedback

Mitsui Chemicals has introduced an annual interview with their superior for employees in all positions to give feedback on their performance assessment. The interview is designed not only to discuss the assessment results but also to share areas in which the employee can make improvements and the superior's expectations from the perspective of the employee development.
Moreover, the Mitsui Chemicals Labor Union conducts a survey on the rate of these feedback meetings among its members and the degree of satisfaction with the feedback. The results of the survey are shared by labor and management, and we are striving to manage the evaluation system appropriately.

The conducting rate of feedback meetings and Degree of Satisfaction (Mitsui Chemicals Labor Union Registered Members)

	FY2016	FY2017	FY2018
The conducting rate of feedback meetings in the Previous Fiscal Year	96%	98%	98%
Degree of Satisfaction over Evaluation Feedback	89%	90%	86%

Global Evaluation Guidelines

Global evaluation guidelines were formulated in May 2016 to organize the Mitsui Chemicals Group's evaluation mechanisms, approaches, and design, and have been distributed to all Group companies. These guidelines consist of two concepts: (1) management by objectives (MBO), (2) global core competencies. These guidelines are enabling the HR sections of four regional headquarters (the Americas, Europe, Asia-Pacific and China) to support the development, revision, and operation of evaluation systems for companies in their respective regions.
Specifically, global core competences are used as a shared index within the Mitsui Chemicals Group's Key Talent Management system, and they are used as the basis for the 360-Degree feedback and assessments provided in tandem with the leadership development program.
Improving assessment and training has become an urgent issue in finding and utilizing talented group-wide human resources in the years ahead. We are strengthening our cooperation with Group companies in applying shared Group evaluation indices broadly and fairly.

Legal Wage Compliance

Following a detailed investigation, remuneration (including bonuses, overtime pay, midnight work allowances, and compensatory day-off systems) and benefit packages provided by Mitsui Chemicals Group companies are above the statutory levels in each country and region and are set at a level that helps employees recognize their personal growth and increase their motivation.

Employee-friendly Working Environment

Maintaining a “high regard for people and society” is the basis of the Human Resources Management Policy of the Mitsui Chemicals Group. Guided by this policy, we strive to achieve “high levels of sustainable growth” in conjunction with the “happiness and self-fulfillment of our employees”. Against this backdrop, support measures in consideration of work-life balance have become increasingly important to an environment in which each employee can maintain a high degree of motivation and continue to generate results.

A Message from the President

The Mitsui Chemicals Group is targeting an operating income of ¥200 billion in 2025 under its Long-term Business Plan. In order to achieve this lofty goal, it is vital that each and every member of the Group takes up this unprecedented challenge and pursues every possible avenue while rethinking their approach to certain concepts and work.
To ensure the sound health of employees, increase productivity and encourage creativity in the workplace, under strong leadership from my management team, I am committed to promoting work style reform within the Mitsui Chemicals Group by addressing each of the following issues.

〈 **Work Style Reform at Mitsui Chemicals** 〉

1. Strive to ensure that the total number of overtime hours and hours worked on designated holidays for each individual employee is less than 80 hours for each month

- Executives and management staff will take the initiative in reforming their mindsets and promoting diverse work styles.
- Management staff will review work processes as well as human resources systems and improve word efficiency while strictly controlling the number of hours worked.
- Employees will abandon the notion that the number of hours worked makes assessment and in principle endeavor to carry out their duties within scheduled working hours.

2. Promote the utilization of the teleworking in order to address a host of issues. This includes efforts to improve the work-life balance of employees, increase productivity, secure talented human resources, and improve business continuity for emergency

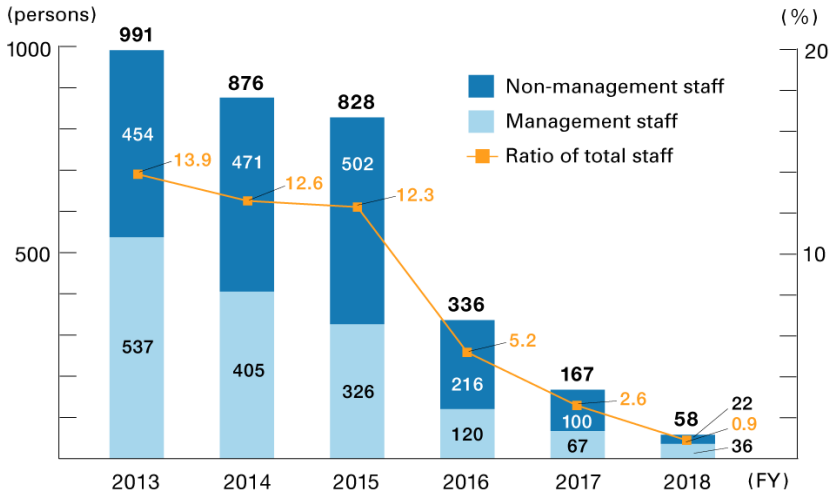
- Management staff will take the initiative and make use of teleworking. Thoughts will also be given to the effective management of subordinates with respect to teleworking.
- Employees will consider how they can increase productivity with respect to their duties while telework program and endeavor themselves to create the necessary environment.

Tsutomu Tannowa
President & CEO

Reducing Overtime

The Mitsui Chemicals Group is striving to ensure that the total number of overtime hours and hours worked on designated holidays for each employee is less than 80 hours for each month. When an employee is found to have worked more than 80 hours of overtime each month, the Human Resources Division conducts an interview with the workplace superiors, and reviews and implements specific measures to identify the cause of the overtime and make improvements for the individual employee. The results of these efforts have significantly reduced the number of employees with overtime. We will continue this initiative to ensure that “no employee works more than 80 hours.”

Number of Employees whose Overtime Hours Exceeded 80 Hours/Month
(Mitsui Chemicals, Inc. registered employees)



Initiative Examples

In general, chemical plants operate continuously for long periods of time, but when it is necessary to carry out periodic maintenance, the entire plant is shut down for a specific limited period to allow repairs and inspections to both minimize the effect on production and ensure that the equipment is safe. To avoid work being concentrated in specific periods due to periodic maintenance, we have been working to review tasks and strengthen human resources. We have provided skill development training aimed at reducing overtime. Non-management staff are provided with time management training, in which they acquire specific approaches to reviewing working habits, scheduling and handling e-mail. Management staff are provided with organizational management workshop training, in which they learn specific approaches to efficiently managing their organization. Workshop participants also create plans to reduce overtime. In fiscal 2017 and fiscal 2018, we held each training session twice, which were participated in by 62 non-management staff and 59 management staff. The training is to be continued in fiscal 2019.



Work-Life Balance Measures

Mitsui Chemicals has put in place various systems that exceed statutory requirements in response to employees' circumstances outside of work, including child and family care. These systems encompass paid leave, unpaid leave and working hours while also taking individual income into consideration. Every effort has been made to increase awareness of these systems.

In order to encourage mainly male employees to take childcare leave, the Company has introduced additional incentives, which include treating the first five days as paid leave. As a result, the number of male employees using the systems is increasing steadily. In the case of family care leave, eligibility was originally limited to employees who care for a person requiring long-term care. Mitsui Chemicals has also expanded the eligibility of family care leave for employees who care for a person requiring support.

We support employees in balancing their work and family life by allowing diverse work styles. As a part of this support, we changed the work-from-home program for childcare/family care leave to a teleworking program in April 2019. We also reformed the leave system so that unused annual (or special) leave that has already expired can be used as leave for hospitalization or visiting a doctor, thereby offering better support for our employees' work-life balance.

Talk on Diversity – Maintaining Motivation for Life and Work Regardless of Illness

* Mr. Junichi Okubo, the CEO of the cancer support organization, "5years" , was invited to hold a dialogue with one of our Managing Executive Officers, Mr. Yoshinori Andou, under the theme of maintaining motivation for life in spite of illness.

List of Support Measures (Mitsui Chemicals, Inc.)

Holidays and Leave

	Permanent Employees	Contract Employees		
		Re-employment	Indefinite-term contract and part-time	Fixed-term contract and part-time
Five-day workweek (Saturday and Sunday are holidays)	○	○	○	○
Public holidays and New Years Holidays (company holidays)	○	○	○	○
Annual paid leave (20 days/year, start from the second year of employment *)	○	○	○	○
Leave for employees who visit home from an unaccompanied posting *	○		○	○
Marriage leave (eight consecutive days) *	○		○	○
Refreshment leave (two consecutive days off/ year) *	○		○	○
Family medical leave (paid leave *)	○	○	○	○
Paid family care leave *	○	○	○	○

Childcare leave (the first five days are treated as paid leave *, eligibility lasts until the end of the fiscal year when the child reaches the age of three *)	○	○	○	○
Family care leave (eligibility also extended to employees caring for family members considered as being in need of support *, eligibility lasts up to one year *)	○	○	○	○
Special leave (paid leave, leave for illness or injury, family care leave, childcare leave, community service leave) *	○		○	○
Leave of absence to accompany spouse's overseas assignment *	○		○	
Community service leave (paid leave) *	○		○	○

Work Patterns

	Permanent Employees	Contract Employees		
		Re-employment	Indefinite-term contract and part-time	Fixed-term contract and part-time
Short working hours (childcare/family care leave) *	○	○	○	○
Restrictions on overtime (childcare/family care leave)	○	○	○	○
Restrictions on late night work (childcare/family care leave)	○	○	○	○
Company childcare center *	○	○	○	○
Flextime system (without core time) *	○	○	○	○
Teleworking*	○	○	○	○

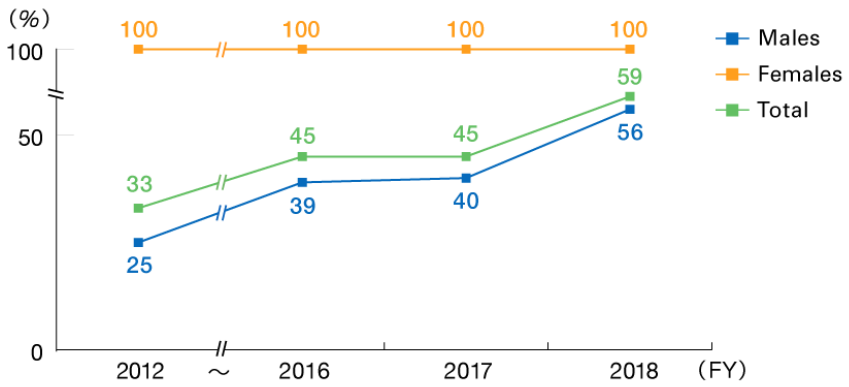
Income

	Permanent Employees	Contract Employees		
		Re-employment	Indefinite-term contract and part-time	Fixed-term contract and part-time
Maternity benefits *	○		○	
Childbirth benefits *	○		○	
Childcare leave benefits *	○		○	
Family care leave benefits *	○		○	

Subsidies for home-care services *	○		○	
Subsidies for babysitting services *	○		○	
Retirement allowance *	○		Dealing with each case individually	Dealing with each case individually
Employee stock ownership *	○	○	○	○

* Measures marked with an asterisk (*) exceed statutory requirements

Childcare Leave Usage Rate (Mitsui Chemicals, Inc. registered employees)



Please refer here for details of the usage status of other systems.

Program That Supports Employees Returning to Work after Taking Childcare Leave

Mitsui Chemicals has introduced a program that supports employees returning to work. The principal goal is to create an environment that allows employees bringing up young children to return to work smoothly after giving birth to their child or taking childcare leave and to help maintain a high degree of motivation.
The program clarifies the types and details of support for each period from the time before maternity leave through childcare leave to the return to work. Prior to taking leave, the employee and their manager engage in a one-on-one interview to discuss the handover of duties, contact while they are on leave, necessary procedures, and other important issues. Meetings between employees and their managers are also conducted while they are on leave to share details of work styles that will ensure the work environment will accept the employee and details of their duties when they return to work and to ensure mutual understanding. After returning to work, the Company provides an explanation of the procedures and support available from its various programs for employees.
In this manner, every effort is being made to relieve employees' anxieties with respect to taking maternity and childcare leave as well as returning to work. This in turn helps to alleviate the need to resign from the Company and allows employees to continue their careers.

Return Rate of Employees from Childcare Leave (Mitsui Chemicals, Inc. registered employees)

	FY2017	FY2018
Males	97%	99%
Females	100%	100%

Total	98%	99%

Employee Retention Rate Three Years after Childcare Leave (Mitsui Chemicals, Inc. registered employees)

	FY2017	FY2018
Males	91%	94%
Females	96%	93%
Total	92%	94%

Improvement in Paid Leave Usage Rate

Mitsui Chemicals is working to increase the rate that employees take annual paid leave (twenty days per year) to reform employees' work styles. In order to improve the usage rate of employees in management positions, which currently remains particularly low, the Company has implemented a compulsory "refreshment leave" system that in principle requires employees to take leave for two consecutive days. In addition, the Human Resources Division puts forward various requests. Working days that are sandwiched between holidays are treated as "days to support the taking of paid leave." Managers are requested not to arrange meetings and issue instructions regarding non-urgent work to subordinates on these days. Through these means, we are creating an environment that allows employees to take leave easily.

Measures to Promote Work Style Reforms

- Encouraging employees to systematically take long-term leave
- Establish days to support employees in taking of paid leave
- Calculate, inform and provide guidance on the annual paid leave usage rate for each workplace

Paid Leave Usage Rate (Mitsui Chemicals, Inc. registered employees)

	FY2016	FY2017	FY2018	Goals
Non-management staff	81%	79%	83%	—
Management staff	56%	56%	62%	60%
Total	70%	69%	74%	—

Support Childcare at the Ichihara Dream Plaza, Mitsui Chemicals Daycare Center

The Ichihara Dream Plaza, Mitsui Chemicals Daycare Center opened near Ichihara Works and the Sodegaura Center in Chiba in April 2009 to provide support for employees who continue to work while bringing up children. The center's capacity was increased to 30 children in fiscal 2011. The south wall of the center is made entirely of glass with good facilities including under-floor heating.

Labor-management Relations Based on Frank Dialog and Mutual Understanding

Mitsui Chemicals has incorporated the realization of its Corporate Mission and the achievement of the happiness and self-fulfillment of employees as common goals in its labor-management agreements and is working to build constructive and stable labor-management relations. In order to help achieve 2025 long-term targets, labor and management are endeavoring to share and exchange opinions regarding a host of management issues. Efforts are also being made to engage in ongoing frank discussions between labor and management on such themes as improving productivity as well as the work-life balance of employees. In this manner, we are working to lay the necessary foundation so that employees can work in a more enjoyable and meaningful manner. Moreover, we have adopted a rule that employees must generally be notified at least one month prior to transfers that entail moving and relocation.

Major Labor-management Discussion Themes (fiscal 2019)

- Bonus amounts and profit sharing
- Revision of the increase in wages
- Explanation of the management conditions

Mitsui Chemicals has adopted a union shop system; all employees that are eligible to join a labor union under the labor-management agreement agreed upon by labor and management join the labor union. The Mitsui Chemicals Labor Union represents all non-management staff, and the negotiation outcomes between labor and management are applied to all non-management staff without any conditions. According to the labor-management agreement, management staff and other employees at or above the management level are not eligible to join the union. Overseas sites are operated in a way that allows labor unions to be formed under the labor-related laws of each country and under the freewill of the employees. We do not take any actions whatsoever to limit such moves.

Diversity



* Just Joined Facebook !

The Mitsui Chemicals Group has set "Diversity," "Challenge" and "One Team" as the three core values to be shared and held in high regard among Group employees all around the world. To realize the wish, encapsulated in those core values, to "create a company in which all employees can actively make the most of their diversity and put their all into their work," we actively deploy initiatives designed to encourage "Diversity" and "Inclusion."

Aiming for diverse human resource with an emphasis on gender equality, we expanded our Group's Diversity & Inclusion initiatives, which had started with the establishment of a Promotion and Development of Women Team in 2006. We added new perspectives, such as "Acceptance of / Co-existence with Different Cultures" associated with the expansion of global management and the recruitment and active utilization of people with disabilities, and reorganized into the Diversity Promotion Team (2011) and the Diversity and Inclusion Group(2015). The Mitsui Chemicals Group is resolute in not permitting any discrimination whatsoever based on race, national origin, birthplace, social origin, caste, family lineage, religion, disability, age, gender, sexual orientation, gender identity, family background, marital status, membership of unions, political views, or any other differences as stated in the Mitsui Chemicals Group Human Rights Policy. At the same time, we aim to realize our core values by responding to changes in the diverse values associated with our employees' work styles and careers.

Female Employees' Active Participation and Advancement in the Workplace

The Mitsui Chemicals Group was focusing its efforts on proactively leveraging the capabilities of female employees in its operations even before establishing the Promotion and Development of Women Team in 2006. These efforts include assigning female employees to plants and employing women in positions with promotion prospects. Although we have made steady progress in our efforts to foster a corporate culture that encourages the ongoing employment of women over the past decade, we are still facing challenges. There remains a lack of consistency in annual female

employment rates, there are small numbers of women with technical backgrounds applying for jobs and being hired, and a low percentage of female managers.
Under the 2025 Long-term Business Plan, we have set a target ratio of women in management positions (manager-level or above) of 10% or more (Mitsui Chemicals, Inc. registered employees). One factor for the currently low numbers is that the ratio of women among all employees is comparatively small. In our hiring practices, we work to set a numerical target for the ratio of female employees in regular recruitment for respective job types, namely, for regular technical positions, regular administrative positions and general positions (primarily factory operators), as the situation for each of these is different.



A Message from the President

Our goal is to remain an attractive corporate group in which all employees are able to fully demonstrate their capabilities.

The Mitsui Chemicals Group recognizes the importance of diversity in ensuring sustainable growth both for the Group and society. Based on this understanding, we have positioned diversity as one of our core values. Promoting diversity is an important business strategy. We strongly believe that a diverse pool of human resources, characterized by wide-ranging experiences and a wealth of new ideas, is the driving force behind innovation, a key source of sustainable growth.
As a part of its efforts to promote diversity, the Mitsui Chemicals Group works diligently to foster a corporate culture in which female employees are able to excel. Moving forward, we will redouble our efforts to support female employees to take up the challenge of advancing their careers. We will also look to promote a growing number of female employees to positions of senior management.
The Mitsui Chemicals Group is committed to building a workplace environment in which employees can make the most of their strengths and capabilities. In this manner, we will continue to pursue innovation and work toward becoming an attractive corporate group.

Tsutomu Tannowa
President & CEO

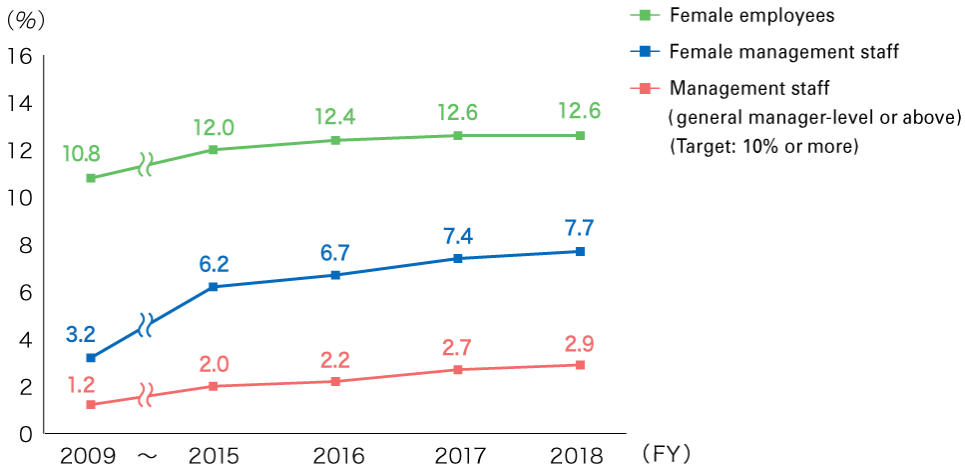
A Message from the Outside Director

I believe that for the Mitsui Chemicals Group to improve its corporate value, our Group must be an organization where a diverse pool of human talent, including female employees, can play an active role in the workplace. To that end, I believe that it will be critical for the Group to place higher priority on and work toward achieving the above goal as a management challenge. As the outside director representing stakeholders, I will keep a close eye on the direction of management and offer my advice.

Yukiko Kuroda
Outside Director

* To secure diversity in the Board of Directors, we try to appoint more than one female director.

Ratio of Female Employees (Mitsui Chemicals, Inc. registered employees)



Ratio of Female Employees Hired through the Regular Recruitment (Mitsui Chemicals, Inc. registered employees)

	FY2017	FY2018	FY2019 Goals
Regular Administrative Positions	46%	47%	40%
Regular Technical Positions	11%	16%	20%
General Positions	3.2%	5.0%	5%

Non-Japanese Employees' Active Participation in the Workplace

The Company began the full-scale hiring of non-Japanese employees in Japan in 2005.
For non-Japanese employees working in Japan, we provide dedicated consultation services and the systems to enable them to exchange and share information on a daily basis via the internal social networking service (SNS). In addition to supporting trouble-free work and life styles, we are committed to maintaining a workplace that provides non-Japanese employees with a good work environment and employing talented human resources.

Specific Examples of Assistance Provided to Non-Japanese Employees

- Assisted with Japanese language training
- Assisted with visa procedures
- Addressed daily inquiries regarding HR systems, initiatives, company regulations
- Conveyed information required for working in Japan in English and Japanese
- Conduct inclusion study lectures (promote awareness of cultural differences)
- Created English manuals for HR-related applications
- Responses to consultations from non-Japanese employees (assigned staff in charge to each business site)

Number of Non-Japanese Employees (Mitsui Chemicals, Inc. registered employees)

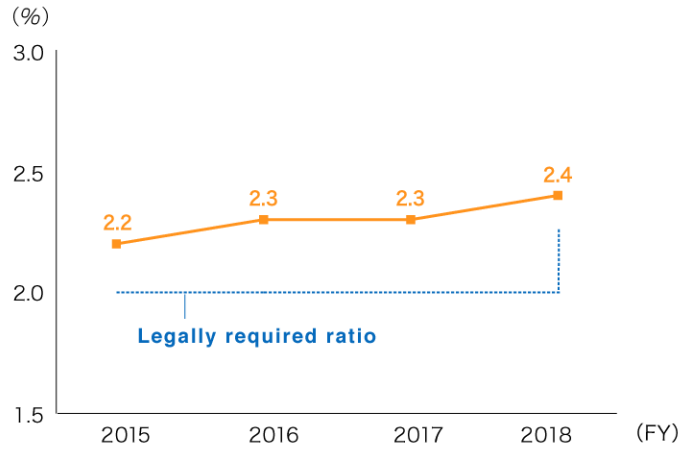
FY2016	FY2017	FY2018
55	57	54

Enabling Employees with Disabilities to Reach Their Full Potential in the Workplace

In hiring employees with disabilities, the Company goes beyond achieving the legally required employment ratio and is committed to maintaining an environment in which people with disabilities can play an active role while accumulating their skills, and feel accepted as members of the organization.
Before assigning an employee with disability to a certain position, we select the most appropriate place for the employee, taking into account not only their job role, but also their compatibility with the work environment and workplace members, to avoid putting under pressure on the employee to adapt to the work environment. In addition to conducting training sessions at sites that accept employees with disabilities to help other employees understand what a disability entails, we set incubation periods and adaptation/learning periods for a certain period after hiring and introduce measures suited to the employee's particular disability to enable them to work smoothly. We also provide regular interviews for both employees with disabilities and their superiors to help to retain employees with disabilities in the workplace. Listening to difficulties and issues from both sides helps to improve the workplace environment and work styles and creates a comfortable work environment.
We also offer subsidies for learning skills that are useful to employees with disabilities in their work, such as language and computer skills, to help improve their skills in a way that is suited to their individual talents.

We also hold inclusion lecture meetings to foster a climate that accepts into the organization not only people with disabilities but also people with diverse personalities and characters and people receiving medical treatment. At the lecture meetings, participants learn about sexual minorities, and we provide a forum where employees with disabilities or illnesses speak about their own disabilities and experiences.

Ratio of Employees with Disabilities (Mitsui Chemicals, Inc. registered employees)



Employee Comments

Streamlining Work by Utilizing Training Programs

Mitsui Chemicals provides opportunities to access a substantial range of training and learning programs. When I joined the company, I hardly had any work experience with a computer, so I took some external courses to improve my computer skills. The most useful course for me was to learn Excel VBA macro programing. The course was designed to suit the learning speed of the student, and the content was easy to understand and very practical. I could utilize my acquired knowledge to create macros for routine tasks, which led to shortening of the time spent on regular work. Taking these courses improved my skills and enhanced my job capabilities.

Developmental disabilities
Joined the company in fiscal 2016

Retired Employees' Active Participation in the Workplace

Mitsui Chemicals is moving forward in making use of the wealth of experience possessed by senior human resources, and to those retired employees who wish to continue working, calls for ongoing employment through its system of rehiring. We do this to address the challenges presented by the shortage of human resources associated with our expanding business operations and the generational retirement of whole generations of employees who were recruited in large groups, as well as to utilize employees who are highly motivated to work, even after their retirement. From fiscal 2018, we will improve the level of compensation offered when rehiring to increase the numbers of employees who wish to continue working.

Ratio of Re-employment for Retired Employees (Mitsui Chemicals, Inc. registered employees)

FY2016	FY2017	FY2018
81.3%	76.7%	87.6%

Understanding LGBT

We held lecture meetings on LGBT in fiscal 2017 for employees who are in charge of consultation services for harassment at all domestic sites, inviting lawyers to provide the LGBT-related knowledge required for HR members. We also included some new topics such as discrimination and harassment over sexual orientation in the harassment lecture in the compliance e-learning program targeting at all employees, in addition to conventional topics, including sexual and power harassment. From fiscal 2018, we included a diversity seminar as a part of the training programs for newly appointed line managers. The seminar explains about Sexual Orientation Gender Identity (SOGI) harassment and teaches about actions that line managers should take when they are consulted by their subordinates about gender issues. It also included a lecture by a transgender person to discuss gender diversity and problems associated with this issue.

Understanding Multiculturalism

Since fiscal 2014 we have provided the Intensive Fundamental Program for Managing Multicultural Teams, to teach the skills needed when working with multicultural teams. This training program is targeted specifically at employees who have been assigned abroad and engaged in overseas business, that involves managing multicultural teams and negotiating with business partners from different cultural backgrounds. About 30 employees are selected to participate in this program each year. The participants learn about religions, cultures, and ways of thinking in different countries and regions through concrete case studies of business communication, in addition, the program aims to improve employees' language ability by learning how to give presentations and case studies and hold meetings in English.

Training and Lectures related to Diversity Promotion

Support for Female Operators' Participation and Advancement in the Workplace

In the quarter century since 1992, Mitsui Chemicals has hired women as operators at manufacturing sites, and moving forward, will further promote the active participation and advancement of women at its Works. In fiscal 2016, briefings on the social background of the promotion of women's active participation and advancement in the workplace, the initiatives that companies, organizations and individuals should take as well as Mitsui Chemicals' goals and action plans toward the promotion were conducted for line mangers at all Works in Japan. In fiscal 2017, we provided a training session to workplaces that are accepting female operators for the first time under the themes of women's empowerment and managing female employees. We also held a training session inviting female operators from different works across Japan to the head office to develop their career awareness. We plan to organize a second-term session for newly joined female employees in fiscal 2019.



Women's Careers and Health

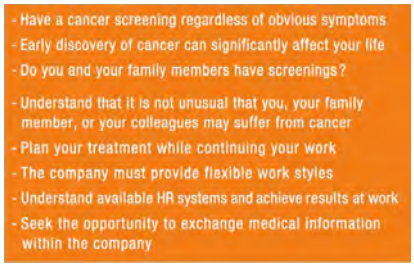
It is now common that women work throughout their lives, yet it is still true that there are events in their lives when they may find it difficult to continue working, such as during pregnancy, childbirth, menopause, or when facing female-specific diseases. Since fiscal 2017, we have been holding a lecture entitled "Women's Careers and Heath" to help women to continue working by teaching them about specific health issues and how to manage them in a way that minimizes their impact. The fiscal 2017 lecture, given by a gynecologist, for younger employees focused on how women can manage their physical condition, and for older employees, on the menopause. For the fiscal 2018 lecture, we invited the gynecologist who conducts regular health checkups for employees at head office to speak about gynecological cancers. The lecture was followed by a talk by an employee about her experience of cancer. The attendees commented that they were able to learn about the importance of cancer screening and of consulting a doctor if they felt unwell.



Dr. Ruriko Tsushima
Ruriko Tsushima Women's Life Clinic Ginza



Dr. Masazumi Yajima
Director of gynecology, Shiodome Central Clinic 2



Message from employees who experienced cancer (Excerpt from lecture materials)

Improve Work Efficiency with Integrated Expertise

Mitsui Chemicals has hired many female employees in general administrative positions who are called “veterans” because of their long career experience. The knowhow of these female employees, who have a detailed understanding of work operations, is invaluable as we move forward with business reforms. Given this, in fiscal 2016, we implemented training in which we invited external instructors so that employees engaged in sales support and delivery operations could learn basic schemes for improving their work efficiently, as well as to explain how to convert frustrations, such as the inefficiencies or difficulties they experience in the course of their daily work into challenges. Over the course of six months, we conducted this training in order to find solutions to these challenges. In fiscal 2017, eight of 25 female employees who had participated in this training took part in a new project in which they progressed from the “proposal” stage, to “taking action.” The project theme was involved training in the SAP system that is employed in delivering the Company’s products. SAP processing is categorized vertically in terms of the product or application, and which results in operational expertise not being shared. To solve this problem, a portal site managed by the participants was launched. The site includes FAQs pages based on participants’ experience and educational materials for beginners. In addition, the project developed a training environment in which beginners could practice SAP input, with the aim of improving SAP processing skills. In the fiscal 2018 training session to which new members were invited, many requested an opportunity for skill improvement through learning. In response to this, a lecture on communications between male leaders and female staff was held.



Dispatching Female Employees to External Career Training Programs

Mitsui Chemicals dispatches 10 to 20 female employees to external career training programs every year. Some of these programs are designed to motivate female employees who are about to begin managerial careers and improve their management skills, while programs for female prospective general managers aim to impart business management skills and establish a human network outside the company. Participating in exchanges with other women in similar positions from different companies gives employees an opportunities to meet women who can be role models and raises their career awareness.

Participant’s Comments

Learning How to Think as a Business Manager

I participated in the Third Management Strategy Program for Women Leaders 2019. Sixty female managers with various backgrounds and from different companies participated in the program. We spent a week together in a hotel with three lecturers from the Harvard Business School to discuss a range of topics in both small and large groups, as well as conducting self-study. All the sessions in

the program were fruitful and practical, and it was an opportunity for me as an executive to learn new ways of thinking and a code of conduct. The motivation of the participants was so high that I was overwhelmed by their active engagement in the lectures, networking skills, leadership within a group, and presence and behavior. As soon as the program was completed, various voluntary study groups were formed. Continuing to study with participants and even to enjoy playing golf with them is perhaps the greatest asset I acquired through participating in this program.



Kaori Matsue
General Manager of RC &
Quality Assurance Division

Fiscal 2017 Result (Number of participants: 629)

Theme	Lecturer	Target audience
Influence of diversity on management	Expert outside the company	MCI employees
LGBT (lesbian, gay, bisexual, and transgender)	Expert outside the company	Employees in charge of consultation services for harassment at the head office, each branch, works and affiliates
Women's career and health	Expert outside the company	Female employees
System related to babysitting services	The director of the Diversity and Inclusion Group	MCI employees
Family care	Expert outside the company	MCI employees
Learning disabilities	Employee with disability	MCI employees
Dementia	Expert outside the company	MCI employees
Developmental disabilities	Expert outside the company	MCI employees
Physical impairment (Visceral impairment)	Expert outside the company	MCI employees
Understanding Muslims	Expert outside the company	MCI employees
Developmental disabilities	Expert outside the company	MCI employees
Work Style Reform and Diversity	Expert outside the company	MCI employees
Advancement of Women and Management	The director of the Diversity and Inclusion Group	Supervisors of Female Works Operators
Fostering Career Awareness	Expert outside the company	Female Works Operators
Development of Various Capabilities (Computer skills, languages, others)	Expert outside the company	Employees with Disabilities

Fiscal 2018 Result (Number of participants: 539)

Theme	Lecturer	Target audience
Crohn's disease	MCI employee	MCI employees
LGBT	Expert outside the company	MCI employees
Family care	Expert outside the company	Line managers
Family care	Expert outside the company	MCI employees
Childcare leave	Expert outside the company	MCI employees
Women's career and health	Expert outside the company	MCI employees
Cancer	Expert outside the company	MCI employees
Communications between male and female	Expert outside the company	MCI employees
Female Employees' Active Participation and Advancement in the Workplace	The director of the Diversity and Inclusion Group	Management staff (line managers or higher positions)
Improve work efficiency	Expert outside the company	Non-management staff
Development of Various Capabilities (Computer skills, languages, others)	Expert outside the company	Employees with Disabilities

Global Employee Engagement Survey

In preparation for implementing our 2025 Long-term Business Plan, we consider Group employee engagement to be extremely important. We, therefore, conducted an online survey in June 2018 to measure individual engagement levels and investigate the underlying factors for all employees of the Mitsui Chemicals Group. This was the first survey to cover all Group employees, and 87% of the employees responded. Their opinions provided us with many suggestions that improved our understanding of the Group-wide HR challenges. The results of the survey have been shared with our management, and we are currently working on an action plan on a Group-wide basis. Characteristics of the Group revealed through this survey include an incredibly strong culture of safety and an emphasis on autonomy and delegation of authority. Two points also raised and expected to help contribute to higher engagement going forward are: dialogue with management and skill development and careers. The results of this survey can be analyzed by the unit of Head Office division, affiliate, or subsidiary. Therefore, leaders and HR division in each organization have worked together to formulate improvement action plans that are suitable for individual departments, and are working on the specific measures to improve the level of engagement. In order to further raise the engagement level in the entire Group, this survey will continue to be conducted every two to three years.

Engagement Factor Score

Mitsui Chemicals Group top factors = three areas in which we are strong

Safety	Brand as an employer	Delegation of authority/Autonomy
47 %	39 %	38 %

Mitsui Chemicals Group bottom factors = three areas in which we face challenges

Learning and self-development	Career opportunities	HR utilization and assignment
22 %	18 %	15 %

Social Activities

Management System

Policy and Basic Approach

The Mitsui Chemicals Group believes that it can effectively help to resolve social challenges by harnessing its strengths and unique characteristics as a Group. With that in mind, we utilize our chemical technologies and products and roll out a host of social contribution activities that include efforts to develop the future generation and provide disaster relief. At the same time, we undertake various endeavors to encourage our employees to participate in social contribution activities of their own accord. In addition, and with the aim of ensuring that our sites are always open to the local community, we place the utmost importance on communication with members of the local community while working in harmony with all those around us.

The Mitsui Chemicals Group Social Activities Policy

The Mitsui Chemical Group will continually strive to:

1. Harness and improve its chemical technologies to contribute to society as a whole
2. Work in harmony with local communities and ensure that its sites are as open as possible
3. Do its bit to nurture future generations, on whose shoulders the future rests
4. Carry out activities aimed at protecting the environment
5. Engage in active international exchange and cooperation
6. Create a corporate environment in which individual employees can actively participate in social activities

System and Responsible Officers

With the responsible director in charge of the Corporate Communications Division, the Corporate Communications Division develops and implements annual social activity plans. In addition, each business site enacts voluntary and ongoing efforts while coordinating with the Corporate Communications Division.
The Corporate Communications Division conducts a survey of the results of social contribution activities of each of the

Company’s business sites as well as domestic and overseas subsidiaries and affiliates once a year to confirm activity details.

Review and Challenges

The Mitsui Chemicals Group engages steadily in a wide range of activities in line with its Social Activities Policy and fiscal year targets. In addition to reconfirming the significance of activities based on such key criteria as the Social Activities Policy and business details, we will carefully examine the details of activities.
As one of our activities aimed at protecting the environment, as listed in our Social Activities Policy, we are currently working to address the issue of marine plastic wasteas we believe that it is relevant to us and also because it is drawing much social attention. Since fiscal 2018, we have been providing lectures to consider how we can engage with this issue to audiences both inside and outside the company, as well as holding intra-company workshops. We plan to run the Mitsui Chemicals Group Cleanup Caravan campaign across the group in fiscal 2019. This campaign is intended to gather information on the status of cleanup activities conducted by each business site to raise awareness among employees, helping them realize that their daily activities really can help to cut marine plastic waste.

Social Activities

Laboratory Classes on the Wonders of Chemistry



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Point three in the Mitsui Chemicals Group Social Activities Policy is, “Do its bit to nurture future generations, on whose shoulders the future rests.” In order to further this goal on a global basis, the Mitsui Chemicals Group launched the Laboratory Classes on the Wonders of Chemistry program.
Since 2006, we have organized various types of classes, from off-site classes, whereby members of staff from each of our sites go out to local schools, summer vacation events and festivals, to those held during tours round our works and research centers. Approximately 5,000 children took part in classes over the course of fiscal 2018.

Taking into account the interests and opinions of the participants, the Laboratory Class themes are determined and developed by the Head Office and the Sodegaura Center. The Head Office also provides support for the creation and maintenance of manuals allowing development of the program at domestic and overseas group locations. We plan to improve the contents of experiments based on opinions from external experts to better meet each school’s specific needs and challenges.

In recognition of these activities, we received the Catalysis Society of Japan’s 2015 Award for Education and the Ministry of Education, Culture, Sports, Science and Technology (MEXT) Award for Companies Promoting Experience-based Learning Activities for the Youth (Judge’s Commendation) in the large corporation category for 2015. In addition, we registered with the Ministry of Education, Culture, Sports, Science and Technology Support Group for Saturday Educational Activities Program and are working to spread education to even more children.

Catalysis Society of Japan’s 2015 Award for Education

Mitsui Chemicals Receives Catalysis Society of Japan Award for Education～ Educational programs in chemistry receive high marks ～

Received “Award for Companies Promoting Experience-based Learning Activities for Youth (Judges’ Commendation) from Ministry of Education, Culture, Sports, Science and Technology (MEXT)

Experiment Workshop in Longmiao Hope Primary School in China

To celebrate the 10th anniversary of its establishment in 2010, Mitsui Chemicals (China) Co., Ltd. donated funds to rebuild the old buildings of a primary school in the rural area of Anhui, China, as a part of the company's social contribution project. The school renamed itself as Longmiao Hope Primary School and we have continued to provide support since then. In fiscal 2018, we donated funds to install flush Toilets and attendedthe completion ceremony held on October 10. Our employees also held an experimental workshop to create urethane foam and balloon slime. The children were totally engrossed in the experiment, which turns liquid into a solid material, fully enjoying the wonders of science! We will continue to support the local community through exchanges with Longmiao Hope Project Primary School.





Participating in a Summer Holidays Science Show for Children

On August 4 and 5, 2018, we participated and presented shows in Dream & Science 21 – Summer Holidays Science Show for Children* , held in the Science Museum in Tokyo. In our booth, we organized an experiment of color extraction using our product, TAFNEL™, with 246 primary school pupils in attendance. The children's surprise and excitement were unforgettable in response to the purple-colored water turning into separate red and blue layers by adding a citric acid solution. The Mitsui Chemical Group will continue to encourage interest in studying science and its related possibilities through our Laboratory Classes on the Wonders of Chemistry.

* Dream & Science 21 – Summer Holidays Science Show for Children
Hands-on scientific workshops for primary school pupils and their parents held during the summer holidays every year. These workshops are sponsored by the Dream & Science 21 Committee, comprising the Chemical Society of Japan; Society of Chemical Engineers, Japan; Japan Association for Chemical Innovation; and the Japan Chemical Industry Association.
The workshops, developed by leading chemical companies in Japan, are specifically designed to entertain and educate children.



Laboratory Classes on the Wonders of Chemistry Experiments

* Experiment titles are subject to change.

Experiment title	Field	Related Group products	Description
Foamy urethane experiment	Chemical reactions	Isocyanate Polyol	Participants watch urethane, the uses of which include cushion materials, pillows and refrigerator insulation, being foamed and experience reaction heat and differences in hardness
Slime • Making your own slime • Making jumbo slime together • Shiny slime • Slime ball	Polymer properties	—	By making "slime" (i.e. cross-linking polyvinyl alcohol with water using borax), participants learn that water can be confined and about the gels around us in our everyday lives
Light experiments with polarizing plate	Light	—	Participants learn about the passage of light through a kaleidoscope fitted with a polarizing plate that converts natural light into linear light, as used in mobile phones and other such devices
Chromatography art	Adsorption and separation	—	Participants learn that the ink in a water-based pen contains a mixture of various different colors (pigments)
Plastic board	Polymer properties	General plastics	Participants learn about the properties and separation of plastics, by using the heat shrinkable properties of polystyrene to make their own original accessories
Let’s make Cartesian divers!	Buoyancy	—	Participants learn about buoyancy and pressure, by making a Cartesian diver from a PET bottle and a plastic soy sauce container
Let’s investigate the properties of aqueous solutions using red cabbage	Acids and alkalis	—	Using anthocyanin extracted from red cabbage, participants investigate the properties of everyday liquids and learn about acids and alkalis
Let’s make an air freshener using spongy polymers	Polymer properties	Nonwoven fabrics	Participants learn about the principle of water retention, by making an air freshener from a water-absorbing polymer, as used in disposable diapers, gardening supplies and other such products
Let’s make a rainbow tower	Specific gravity	—	Participants learn about the specific gravity (relative density) of fluids, by pouring colored waters with varying concentrations together to make a tower
Let's make a freezer!	Heat of solution	Urea	Participants learn about the principle of heat adsorption via the heat of solution of urea, as used in such products as fertilizer and moisturizing cream
Learn how bubble bath works!	Reaction of acid and salt	—	Participants learn about how carbon dioxide is produced, by making bubble bath from baking soda and citric acid

Learn about acid rain!	Acid and alkali Oxidation/reduction	—	Participants learn about acid rain and what causes it, by measuring the pH using red cabbage extract and conducting a bleaching experiment using iodine
Let's make paper!	Recycling / Making paper	Acrylamide	Using everyday implements, participants experience paper recycling from old paper and learn about papermaking and recycling
Let's make small objects from melted plastic!	Polymer properties	General thermoplastics	Participants learn about the properties of thermoplastics, which melt when heated, by using a glue gun to melt resin and make small objects
Experience the wonders of shrinking films!	Polymer properties	Films, PET, etc.	Participants learn about the principle of heat shrinkage, by using shrinkable film to attach labels and make their own PET bottle
See the power of air!	Hydrodynamics	—	Participants learn about air resistance, by observing air rings emitted from an air cannon
Let's make snow on pine cones!	Crystals	Urea	Participants learn about crystal deposition, by observing dissolved urea being sprayed onto pinecones and drying
Let's make light like a firefly!	Enzymes	—	Participants learn about the difference between bioluminescence and chemiluminescence by making light using each of luciferase enzymes taken from fireflies and using mineral-based chemicals
Let’s try and absorb oil!	Polymer properties	TAFNEL™	Participants learn about the principles and how to use adsorbent materials, by absorbing only the oil from mixed oil and water substances They also learn about the impact on the environment of oil spillage
Expand? Shrink? Disappear?! Let’s look into the properties of mystery plastics!	Polymer properties	Absortomer™	Participants learn about the properties of a variety of plastic films, by taking steps to expand, shrink, and dissolve various plastics. They also learn about changes in polymers (plastics) attributable to temperatures

Management System	Laboratory Classes on the Wonders of Chemistry	Nurturing Future Generations
Environment	International Exchanges and Cooperation	Support for Employees' Participation in Social Activities
Disaster Relief	Working in Harmony with Local Communities	

Nurturing Future Generations

The future rests on the shoulders of adolescents and children. With that in mind, we carry out various activities aimed at teaching the young that chemicals are all around us, and showing them how fun, interesting and mystifying chemistry can be, as well as getting them interested in science, and inspiring them to create the technologies of the future.

Cosponsoring of Robotics Competition

Mitsui Chemicals cosponsored the Japanese portion of "FIRST LEGO League 2018* (FLL 2018)," the world's largest robotics competition. In line with our social activities policies aimed at fostering the future generation, as well as the active development of a wide range of robot components, we endorse FIRST LEGO League's (FLL) idea of "providing children with an opportunity to experience the excitement of solving issues in the real world while utilizing active learning and science, technology, engineering and mathematics (STEM), cultivating the talents required by a future society."

In the Japanese section of FLL 2018 held on February 11, 2019, our booth displayed panels concerning solar cells, some installed on satellites, along with the sealing materials used in the cells. This display was jointly organized with our group company, Mitsui Chemicals Tohcello, Inc. under this year's FLL theme, "INTO ORBIT." The booth also displayed a range of robot components produced across the Group companies. Further, we held Laboratory Classes on the Wonders of Chemistry and demonstrated a heat absorption experiment using urea.

* FIRST LEGO League 2018:
FIRST LEGO League is one of the world's largest robotics competitions sponsored by FIRST, a nonprofit organization in the United States, and the LEGO Group (the Japanese championship is sponsored by For Inspiration and Recognition of Science and Technology). FLL is currently held in more than 88 countries around the world, and the number of students participating in FLL is more than 260,000. Two to 10 children make a team to participate in the robotics competition and conduct scientific research and its presentation based on the theme of the competition. Top teams at the championship in each country will qualify for the world competition.

FIRST LEGO League

Laboratory Classes on the Wonders of Chemistry



Tournament





Mitsui Chemicals' booth

Receiving Internship Trainees

The Mitsui Chemicals Group accepts internship trainees at each of its offices and business affiliates. Internship training was undertaken for 206 interns at Group companies in fiscal 2018.

Sun Medical Co., Ltd. participates in the All Shiga de Internship program* since fiscal 2018. Held by Shiga Prefecture, this program is designed to help university students living in the prefecture develop a clearer idea about their future career through internships as well as spark the interest of students in local companies.
Sun Medical accepted two students in August and September in fiscal 2018, one from the University of Shiga Prefecture and the other from Kyoto Tachibana University, providing internships of five days and 14 days, respectively. On the final day of their internship periods, the students gave a presentation to report on the features of Sun Medical from a student's viewpoint and on what they had learned and noticed through their internships. This presentation session gave a good opportunity for the attending employees to review their own work and inspire them to make improvements. We are continuing this internship program in fiscal 2019.

* All Shiga de Internship :
A program to support corporations and agricultural organizations in the prefecture to secure human resources by promoting their businesses among candidates and advising on recruitment strategies. This internship program is managed by the Shiga Internship Promotion Council to cultivate a practical viewpoint in students about employment and develop an understanding of local companies through prefectural internships, thereby encouraging students to choose to work in Shiga and matching the needs of students and corporations.



Science Technology Seminar for High School Students

Mitsui Chemicals Singapore R&D Centre Pte. Ltd. (MS-R&D) received a visit from about 40 students and teachers from Izumo Senior High School, Shimane Prefecture, on January 25, 2019. The visit was realized as a result of the school being designated as a Super Science High School*1 and Super Global High School*2 by MEXT.
During the school visit, MS-R&D researchers talked about their roles in society and the purpose of R&D. We also held

a Q&A-style workshop concerning the resin we produce and the students discussed how they could use the product while actually handling resin pellets. Many of them were impressed by the process of the resin being formed into pellets and then into actual products.
MS-R&D believes that it is important for a corporation to contribute to the local community through supporting educational activities. We continue to offer our help so that future scientists can work actively in a bright future.

*1 Super Science High School
A next-generation human resource development project operated by the Japan Science and Technology Agency.
The Ministry of Education, Culture, Sports, Science and Technology (MEXT) hosts the project to provide advanced scientific and mathematical education, including research and development on improvement of the educational curriculum, in order to cultivate the scientific abilities of students and foster human resources committed to science and technology who will work actively across the world.

*2 Super Global High School :
MEXT designates high schools that provide an advanced education curriculum as Super Global High Schools, aiming to foster students' talents so they can serve as global leaders in the future. The aim is to equip students with international capabilities, including an interest in and deep knowledge of social issues, communication skills, and problem-solving skills.



Cooperation in Experiential Study Programs for Teachers

The Company held Experiential Study Programs for Teachers for three days from August 7, 2018. Sponsored by the Japan Institute for Social and Economic Affairs, these training sessions date back to 1983. Geared towards teachers from elementary, junior high and high schools, the aim is for them to experience corporate activities, and to convey these experiences to the children who hold the future in their hands. The Company has participated in this program every year since fiscal 2006.
This year, 12 teachers from elementary schools in the Tokyo metropolitan area participated. At the Head Office, the educators had the opportunity to learn about the Group's corporate mission, corporate sustainability management, Responsible Care initiatives, and human resources development. They also saw a demonstration of the Laboratory Class on the Wonders of Chemistry. They visited the production site at the Ichihara works and participated in hands-on laboratory training at the Mitsui Chemicals Plant Operation Technology Training Center. The educators and researches at the Plant Operation Technology Training Center engaged in a lively exchange of opinions, including on the importance of "experience and feeling" as well as "taking notice of and giving thought to something."



An educator training session at the Plant Operation Technology Training Center

Social Activities

Environment

With the goal of realizing a cohesive society in harmony with the environment, the Mitsui Chemicals Group engages in a variety of environment communication activities.

Open Event Concerning Marine Plastic Waste

Since 2015 Mitsui Chemicals has supported the Japan Environmental Action Network (JEAN), a pioneer organization fighting against marine litter in Japan, through the One-Coin Club, a joint CSR project by the company and our employees.
On November 7, 2018, as a part of our support work, we invited Ms. Azusa Kojima, the deputy director of JEAN, to hold an open event to consider the issue of marine plastic waste. More than 100 people from inside and outside the company attended the event. The active question-and-answer session demonstrated the high level of interest in this issue. This event also is a part of the Plastic Smart campaign hosted by the Ministry of the Environment.



Open event



Example of marine plastic waste

Donating Benches Made of Felled Invasive Bishopwood

Mitsui Chemicals and Mitsui Chemicals Industrial Products Ltd. together donated benches made of bishopwood in a planting ceremony at the Ogasawara Mulberry Forest in Ogasawara Village on December 9, 2018. The planting ceremony is part of our support for the Ogasawara Mulberry Restoration Project, the second round of the Mitsui

Chemicals Group World Natural Heritage Support Project. The benches are an effective way to use the bishopwood trees that were felled in clearing this invasive plant in Ogasawara.
To mark the 50th anniversary of reversion in 2018, Ogasawara Village is running a project to restore the woodland of Ogasawara Mulberry (Morus boninens), a species indigenous to the area. Ogasawara Mulberry once accounted for a large proportion of the woodlands on the Ogasawara Islands. However, the tree was highly prized as a source of timber, leading to uncontrolled felling early in the islands' development. Coupled with the encroachment of bishopwood, this has resulted in the Ogasawara Mulberry population being reduced to just 100 trees throughout the archipelago today. The endemic species has therefore been designated as endangered and was placed on the Ministry of the Environment's Red List. To support the replanting project, which is focused on Ogasawara Village's next 50 years, we turned felled bishopwood into benches and signs for the Ogasawara Mulberry Forest on Chichijima Island and the Forest on Hahajima Island. The benches and signs are treated with NONROT™*, a protective wood coating supplied by Mitsui Chemicals Industrial Products. We also cleaned up the beaches upon learning that marine litter was an issue on the Ogasawara Islands. The cleanup was a part of the Plastic Smart campaign hosted by the Ministry of the Environment.

* NONROT™:
With ultra water-repellency, UV resistance, anti-septic / anti-fungal / anti-insect properties, NONROT™ is highly safe paint which maximizes the breathability (humidity control) that wood naturally possesses. It does not disturb the breathing of wood, allowing it to release the refreshing wood aroma.

Second round of the Protecting Our World Natural Heritage Project - Supporting Ogasawara Islands' endemic Morus boninens regeneration project -

Marine Litter Cleanup on World Natural Heritage Site Ogasawara Islands



Children sitting on a bishopwood bench, effective use of an invasive plant

Wildlife Survey on Rice Fields Providing Opportunities to Learn about Biodiversity

Mitsui Chemicals' affiliate Mitsui Chemicals Agro, Inc. (MCAG) held the Wildlife Survey on Rice Fields together with JA (Japan Agriculture) Asahina (Taiwa Town, Kurakawa-gun, Miyagi Prefecture) on June 2018. MCAG has been conducting these surveys each year since 2012, which involves giving JA members, agricultural organizations, farmers, and consumers an opportunity to investigate what organisms live in rice fields while also facilitating serious consideration about agriculture, food, and the environment going forward.
This year, 31 people, including 10 grade three students from Tsurusu Elementary School located in Taiwa Town participated in the program, during which they observed a diverse variety of wildlife living in rice paddies while learning about the importance of growing rice in harmony with the environment.
We also conducted a program in cooperation with the Tohoku University Qatar Science Campus[*1] and JA Sendai. This program involved 56 participants, including elementary school students and their guardians selected from regions across Miyagi Prefecture.
Not only involved in sales of agrochemicals, MCAG surveys the effects of agrochemical use on wildlife in rice paddies, which is useful for the improvement and development of agrochemical products. Further, MCAG conducts wildlife

surveys, and we publish results summaries of these wildlife surveys that certify that rice was grown in rice paddies inhabited by a wide variety of wildlife, which contributes to adding value to local rice.
Further, we exhibited wildlife found in rice fields on Kasumigaseki Visiting Day for Children[*2] held on August 2, 2018. Water scorpions and killifish, which are difficult to find in cities, were shown in water tanks along with guide panels. The children observed the creatures while we explained the importance of rice growing methods that gave consideration to biodiversity.

*1 Tohoku University Qatar Science Campus:
The Qatar Science Campus was created using funds from the Qatar government for the fostering of next-generation leaders in reconstruction efforts following the Great East Japan earthquake. As part of the project, the Tohoku University School of Engineering conducts manufacturing and scientific experiment-related events for elementary, junior high school, and high school students in Miyagi Prefecture.

*2 Kasumigaseki Visiting Day for Children
A joint initiative by MEXT and other ministries and agencies to give children a better understanding of the work undertaken there. This is an opportunity for children and their families to enjoy guided tours of government buildings to learn more about society during their summer holidays, while also deepening family relationships.

Mitsui Chemicals Agro Takes Schoolchildren on Exploration of Rice Paddy Organisms
Raising awareness of biodiversity conservation in rice cultivation



Wildlife survey on rice fields





Kasumigaseki Visiting Day for Children

Donation to the Singapore Government to Support Coral Protection

Five Mitsui Group companies in the Asia Pacific region* participated in the Grow-A-Reef-Garden project led by JTC Corporation and the National Parks Board (NParks). The project aims to protect coral reefs in the offshore of Small Sister's Island in Singapore by sinking a large-scale artificial reef structure. The project opening ceremony was held with a great fanfare on October 18, 2018, attended by the Speaker of the Singapore Parliament and representatives from numerous donors, including from our company.

* Five companies of Mitsui Chemical Group in Asia-Pacific region :
Mitsui Chemicals Asia Pacific, Ltd., Mitsui Phenols Singapore Pte. Ltd., Mitsui Elastomers Singapore Pte. Ltd, Mitsui Chemicals Singapore R&D Centre Pte. Ltd., Prime Evolue Singapore Pte. Ltd.



Photo courtesy of JTC Corporation

International Exchanges and Cooperation

Cultural Exchange Program for Employees' Children

To promote cultural exchange in the Mitsui Chemicals Group, we launched the Youth go Global initiative in 2016—an intra-group exchange program designed for our employees' children to experience a homestay with another group employee's family living in a different country.
We expect that this program will provide an opportunity for our employees' children to open a door to the world and deepen their understanding of different cultures, while also strengthening employees' bonds with our Group and engagement in their work. A total of three pairs of children experienced exchange homestays in fiscal 2018 (Japan & Germany, Germany & the US, and Germany & Malaysia). The children who attended the program expressed their excitement, commenting, "This experience of a different culture will be beneficial for my future career," and "I could think and act by myself without relying on my parents."



Children attending the program

Do Green™ Activities

As part of the Mitsui Chemicals Group's efforts to realize a cohesive society in harmony with the environment, the Group offers a wide selection of plant-derived products under the name Do Green™.
Do Green™ MR-60™ and MR-174™ are the world's first high-refractive-index lens materials for vision correction to be plant-derived, allowing for CO_2 emissions to be cut by roughly 14 percent when compared to conventional lenses. These materials have received biomass product certification from JORA[*1] and USDA[*2], and provide the same level of material quality as conventional petroleum-derived lens materials. Other products include the plant-derived poly-

isocyanate STABiO™, and ECONYKOL™, a polyol derived from plants used in automobile seat cushions. Based on fostering awareness toward the global environment through Do Green™ products, we pursue Do Green™ activities with the aim of promoting ethical, humanitarian initiatives to improve the lives of producers of raw plant materials and help solve challenges facing agricultural regions.

Working with South Korean-based lens manufacturer CHEMILENS*3, which supported and endorsed the efforts taken here, Mitsui Chemicals undertook a third round of activities under its Do Green™ initiative. Over an eight-day period from November 10, 2017, we implemented “Activities for Eye Health,” which included eye examinations for 1,011 local residents and children along with education on eye treatment and care for vision loss prevention in Jhabua, part of the Indian state of Madhya Pradesh. The eye examinations carried out here revealed 247 people needing glasses, prompting a second period of activity from June 27, 2018, that spanned three days. Individually prescribed glasses were distributed to these local residents, helping to improve conditions for work and education.

*1 JORA (Japan Organics Recycling Association) certification:
Provided to environmentally friendly products using plant-derived resources (biomass) certified by the Japan Organics Recycling Association and which meet certain quality, related laws, standards and regulations, etc.

*2 USDA (U.S. Department of Agriculture) certification:
USDA BioPreferred® provided to plant-derived products certified by the United States Department of Agriculture.

*3 CHEMILENS:
A plastic lens manufacturer established in South Korea in 1988 and the world’s top producer of lenses using Mitsui Chemicals’ high-refractive-index Do Green™ MR materials.

Mitsui Chemicals Provides Third Round of Do Green™ Support Activities for Rural Communities in India



First activity:
Residents receive a talk on the importance of eye treatment and care



Second activity:
Happy students wear their new glasses

Outline of Do Green™ Activities in India

Period	November 10 to November 17, 2017 (eight days) June 27 to June 29, 2018 (three days)
Subjects	A total of 1,011 residents of Jhabua, Madhya Pradesh, India
Content	First period of activity (November 2017): Eye examinations delivered by doctors, with prescriptions issued to those needing glasses and cataract patients referred to hospital
	Second period of activity (June 2018): Distribution of individually prescribed glasses to a total of 241 residents (81 school students, 160 villagers)

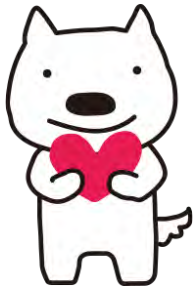
Supporting organizations	Coordination: • The Institute of Cultural Affairs (Director: Shizuyo Sato) • Holistic Child Development India (Director: N. Thomas Rajkumar)
	Eye examinations: • Navjeevan Kendra Jhabua (Director: Sr. Jolly SJSM) • Jeevan Jyothi Hospital Jhabua (Eye technicians)

Social Activities

Support for Employees' Participation in Social Activities

As its employees maintain a keen awareness toward social challenges, Mitsui Chemicals provides support for them to remain human resources that voluntarily take it upon themselves to contribute to society.

One-Coin Club



We set up the One-Coin Club in November 2007. Employees who join the club choose an amount to be deducted from their wages or bonuses, which is then donated to organizations involved in social activities. The review and selection process of an organization that will benefit from the donations is conducted by the One-Coin Club Management Committee, which is made up of club volunteers and gives due consideration to the organization's connection to Mitsui Chemicals' businesses. As of March 2018, the club had 725 members, who between them donated approximately ¥4.1 million to the fund in fiscal 2017.
In fiscal 2018, we donated a total of ¥5.6 million — ¥2.8 million from One-Coin Club and the contribution of a matching gift* from the Company — to a total of 14 organizations involved in a range of social activities. We also donated ¥800,000 from our fund to support those who suffered from the heavy rains in July 2018.

* Matching gifts：
A support that supports employees' social contribution activities whereby the Company provides a matching donation of the same amount whenever an employee makes a donation to a social or environmental organization.

Organizations That Benefited from Donations in Fiscal 2018

Organization Name (In random order)	Priority Area of Support	Past Donation History (Years)
United Nations World Food Programme (Japan)	Activities aimed at nurturing future generations/saving lives and protecting the livelihoods of children	08-18

Japan Committee, Vaccines for the World's Children	Activities aimed at nurturing future generations/saving lives and protecting the livelihoods of children	08-18
SUCCESS	Activities aimed at nurturing future generations/saving lives and protecting the livelihoods of children	11-18
Nanbyo Network	Activities aimed at nurturing future generations/saving lives and protecting the livelihoods of children Activities aimed at supporting people with disabilities/contributing to patients with intractable diseases	09-18
Guide Dog & Service Dog & Hearing Dog Association of Japan	Activities aimed at supporting people with disabilities/contributing to patients with intractable diseases	08-18
Japan Marrow Donor Registry Promotion Conference	Activities aimed at supporting people with disabilities/contributing to patients with intractable diseases	08, 10-18
Helicopter Emergency Medical Network (HEM-Net)	Activities that contribute to medical/maintenance disaster response systems	10-18
team RESCUE	Activities that contribute to medical/maintenance disaster response systems	12-18
Asia Prevention of Blindness Association	Activities that contribute to medical/maintenance disaster response systems	13, 16-18
MEDECIN SANS FRONTIERES	Activities that contribute to medical/maintenance disaster response systems	14-18
Japan Environmental Action Network	Activities that protect the global environment	15-18
Chance for Children	Activities aimed at nurturing future generations/saving lives and protecting the livelihoods of children	17-18
Kamonohashi Project	Activities aimed at nurturing future generations/saving lives and protecting the livelihoods of children	15, 18
5years	Activities aimed at supporting people with disabilities/contributing to patients with intractable diseases	New

As a part of our health and productivity management, the Company and labor union have called on employees to participate in the "WFP Walk the World" charity walk event put on by the United Nations' World Food Programme, which affords employees an opportunity to help raise awareness of world hunger, since fiscal 2014.



Marché Supporting the Independence of Disabled People

With a joint effort between the company management and employees, we held the Para-Sports Welfare Produce Marché, hosted by the Association of Para-Sports Promotion in Japan (APSPJ) at the head office on September 12, 2018. This market is to support the independence and work opportunities for disabled people by selling agricultural produce and foods processed by work support organizations for disabled people across Japan. More than 100 employees visited the marché to support people with disabilities by enjoying the foods they produced, and, as a result, the foods were almost sold out.
We continue to support the independence and creation of work opportunities for disabled people and provision of accessible social contribution activities for our employees.



Community Service Leave Program

In August 2008, we introduced a community service leave program to provide support for employees participating in social activities, by enabling them to take up to two day's paid leave a year. In fiscal 2018, employees made use of the program 123 times.
Since 2011, we have also been allowing employees to take up to eight days' special leave each year, so that they can engage in social activities aimed at providing disaster relief.

Management System | Laboratory Classes on the Wonders of Chemistry | Nurturing Future Generations
Environment | International Exchanges and Cooperation | Support for Employees' Participation in Social Activities
Disaster Relief | Working in Harmony with Local Communities

Disaster Relief

The Mitsui Chemicals Group is committed to building a system that can quickly and effectively provide relief that closely fits the needs of people in areas affected by a disaster by working closely with organizations such as NPOs and local authorities. We are also exploring actions that can contribute to enhanced co-creation as part of our New Disaster Recovery Activities.

Disaster Relief Supplies

Our disaster relief activities here at Mitsui Chemicals originated from suggestions submitted by employees, who wanted to help those affected by earthquakes and other major disasters by providing them with useful Mitsui Chemicals products. In fiscal 2009, we set up warehouses to store relief supplies at two of our sites – the Iwakuni-Ohtake Works (Yamaguchi Prefecture) to cover West Japan and the Mobara Branch Factory (Chiba Prefecture) to cover East Japan – and put in place the necessary framework to swiftly send out supplies upon request from contact partners[*1] and local governments. We have stockpiles of items such as urethane mattresses (cushioned materials to lay on the floors of gymnasiums being used as evacuation shelters), waterproof tarpaulin sheets (to cover buildings damaged by water or landslides), and air cushions[*2] (for use at evacuation shelters) at both of these warehouses.
In addition to the support sent to the areas affected by the Great East Japan Earthquake in March 2011, emergency relief supplies were also forwarded to areas stricken by flooding and landslides after the torrential rains in eastern Japan caused the Kinu River to burst its banks in September 2015, areas affected by the Kumamoto earthquake in April 2016, Northern Osaka Earthquake in June 2018 and heavy rains in July 2018.
We donated 10,000,000 yen to the Japan Red Cross Hiroshima Chapter to help people who suffered from heavy rains in the area in July 2018, and the restoration of the infrastructure.

*1 Contact partners:
Team Rescue
Peace Winds Japan

*2 Air cushion:
Developed by Wako Plastic Industry Co., Ltd. in response to comments from people affected by the Great East Japan Earthquake, air cushions provide an alternative to pillows, conventional cushions, and matrasses. Boasting a host of features, air cushions provide sound protection and comfort against the hard and cold floors of evacuation shelters.
Made from the polyethylene EVOLUE™ material manufactured by Prime Polymer Co., Ltd., a Mitsui Chemicals Group company, the cushioning properties of these air cushions can be adjusted using a single straw. These air cushions also withstand heavy loads and offer environmentally friendly properties.



Goods delivered by an NPO to an evacuation center



Urethane mattresses carried by an NPO to an evacuation center

Distribution of Disaster Relief Supplies in Fiscal 2018

In June 2018, the 2018 Northern Osaka Earthquake occurred. Also, in July 2018, Hiroshima Prefecture suffered from excessively heavy rains. The Mitsui Chemicals Group provided company products in a bid to help victims and rebuild the afflicted area.

Northern Osaka Earthquake

Date Provided	Location	Contact	Details of Relief Supplies Provided
June 22	Ibaraki City Hall, Osaka Prefecture	Osaka Emergency Control Office	- Tarpaulin sheets (L) 200 - Tarpaulin sheets (S) 200
June 23	Minoh City (Baika Women's University) Ibaraki City (Ritsumeikan University)	Team Rescue	- Urethane mattresses 120 - Inflatable cushions 300 - Emergency water bags 500 - Tarpaulin sheets (L) 100

Heavy rain in July 2018

Date Provided	Location	Contact	Details of Relief Supplies Provided
July 12	Mihara City Funaki Fureai Center, Hiroshima Prefecture Mihara City Hongo Lifelong Learning Center, Hiroshima Prefecture	Social Emergency Management Alliance (SEMA) (Peace Winds Japan)	- Urethane mattresses 150
July 15	Mihara City Yamato Branch, Hiroshima Prefecture	Social Emergency Management Alliance (SEMA) (Peace Winds Japan)	- Emergency water bags 100
July 25	Mihara City Disaster Prevention Center, Hiroshima Prefecture	Hiroshima Prefecture	- Tarpaulin sheets (L) 200
July 25	Evacuation center (Sunstar Hall) in Saka-cho, Aki-gun, Hiroshima Prefecture	Social Emergency Management Alliance (SEMA) (Peace Winds Japan)	- Urethane mattresses 35

Establishment of SEMA, Japan's First Private-led Disaster Response Alliance

Alongside 17 other private companies[*1] and six non-profit organizations[*2] Mitsui Chemicals participated in the establishment of SEMA (Social Emergency Management Alliance), Japan's first privately led disaster support alliance. The organization provides one-stop support, including goods and services of participating companies and NPOs in the event of a large-scale natural disaster in Japan. The Great East Japan Earthquake showed us that municipalities themselves can be greatly damaged in a disaster, making the assessment of local conditions and support to those in need all the more difficult. The SEMA organization crosses the divide between companies and NPOs and aims to minimize the impact of natural disasters of the nation's citizens and speed recovery efforts.
The SEMA organization makes in advance a list of goods and services offered by participating companies and organizations, and during a natural disaster can rapidly send packaged support based on that list to afflicted areas. The organization also aims to cooperate with public institutions in offering support and exchanging information, with the general aim of reducing the burden on municipalities and cutting down on waste and unnecessary support.

SEMA organization partners (51 companies and six civil groups, as of March 1, 2019)

*1 Private companies:
Askul, FSX, Asahi Kasei, Oisix.daiichi, Kirin, Gunze, Saraya, JG Marketing, Johnson & Johnson Japan, Star Festival, Snow Peak, Seino Transportation, Seibu Properties, SoftBank, Japan Airlines, Heart Moving Service, FamilyMart, V-cube, Yahoo! Japan and others

*2 Non-profit organizations:
Asia Pacific Alliance for Disaster Management (Japan), specified non-profit corporation ADRA Japan, specified non-profit corporation HuMA, Civic Force (a public interest incorporated association), specified non-profit corporation Peace Winds (Japan), and The NGO Collaboration Center for Hanshin Earthquake Rehabilitation.

Great East Japan Earthquake: Working to Support New Disaster Recovery Activities

In 2016, five years after Great East Japan Earthquake, the Mitsui Chemicals Group, alongside four companies already supporting the town of Minamisanriku and one new company, launched Discover the Future Minamisanriku, centered on co-creative activities, with the goal of meeting the town's request to "create industries that bring together the community and companies while fostering local pride."
The initiative involves engaging in discussions about creating a vision of community pride, what is required to realize this, and what companies can do to help, including how to utilize businesses and products, and cooperation between companies and NGOs to "build back better[*] " based on the community's history, culture, and disaster status. In keeping with the town's characteristics under the key words—forest, home, ocean, and people— the project presented a future-oriented joint business creation action to the community that leverages the strengths of each company.
In fiscal 2018, 23 employees from eight group companies visited Minamisanriku to discuss what each company could do under the theme of "Design the Future Minamisanriku," which focuses on forestry-related activities. We then started our projects, working together with organizations related to forestry to realize our plans. We are engaged in discussions regarding specific actions aimed at creating a new Minamisanriku by 2030. As a new way to support reconstruction efforts moving forward, we will continue to promote cooperative action with the people of the town and the partner organizations.

* Build back better：
Build back better refers to reconstruction after a disaster with an eye toward creating a more resilient community able to better withstand any future disasters.

2018 DESIGN THE FUTURE Minamisanriku【Short Ver.】

2018 DESIGN THE FUTURE Minamisanriku【Long Ver.】

Management System	Laboratory Classes on the Wonders of Chemistry	Nurturing Future Generations
Environment	International Exchanges and Cooperation	Support for Employees' Participation in Social Activities
Disaster Relief	Working in Harmony with Local Communities	

Working in Harmony with Local Communities

At each of its business sites, the Mitsui Chemicals Group believes that relationships of trust, based on close-knit relations with everyone in the local area, are crucial to the normal and stable operation of its businesses. The Group thus provides opportunities for communication with everyone in the vicinity of its facilities.

Local Communication at Each Business Site

At each of our business sites, we invite local residents living in the vicinity to opinion exchange meetings and tours of our facilities. At the opinion exchange meetings, we provide an overview of the works and showcase our efforts to protect the environment, safety initiatives and activities designed to contribute to society. Lively discussions have ensued from residents living in the vicinity of our facilities speaking about their day-to-day feelings and any requests they had. We would like to reflect everyone’s opinions and requests in the management of our business sites.
We are working to further deepen mutual understanding by holding events and actively taking part in local events.

Examples of Opinion Exchange Meetings and Facility Tours

Ichihara Works

Date	Those for Whom Meeting / Tour Organized	Details
Nov. 8, 2018	Local women's association	• Summarized explanation of plant • Plant tour
Dec. 7, 2018	All neighboring town representatives	• Introduction to Safety and Environment Initiatives • Plant tour • A meeting to exchange opinions

Mobara Branch Factory

Date	Those for Whom Meeting / Tour Organized	Details
Sept. 5, 2018	Local neighborhood council officers	Fureai Park 2018 • Various stage shows • A meeting to exchange opinions

Oct. 31, 2018	Local neighborhood council officers	• Summarized explanation of plant • Plant and Technology Training Center tour • A meeting to exchange opinions（About environmental protection and disaster prevention initiatives, etc.）
Feb. 18, 2019	Officers and employees of companies joined the Mobara Chamber of Commerce and Industry and Togane Chamber of Commerce and Industry	• Summarized explanation of plant • Plant and Technology Training Center tour • A meeting to exchange opinions（About environmental protection and disaster prevention initiatives, etc.）
Feb. 23, 2019	Local elementary schools	• Summarized explanation of plant • Technology Training Center tour • Conducted Laboratory Class on the Wonders of Chemistry
Mar. 11, 2019	Local neighborhood council officers	• A meeting to exchange opinions about environmental protection and disaster prevention initiatives • Plant and Technology Training Center tour

Nagoya Works

Date	Those for Whom Meeting / Tour Organized	Details
2Aug. 6, 2018	Children's clubs from neighboring school districts	• Plant tour • Conducted Laboratory Class on the Wonders of Chemistry
Oct. 27, 2018	Local residents	• Autumn festival
Nov. 29, 2018	Officers from neighboring school districts	• Plant tour
Feb. 28, 2019	Women's associations from neighboring school districts	• Plant tour
Mar. 15, 2019	Heads (men and women) of neighboring school district associations, ward office staff	• A meeting to exchange opinions（About environmental protection and process safety as well as disaster prevention initiatives, dialogue with local communities, etc.）

Osaka Works

Date	Those for Whom Meeting / Tour Organized	Details
June. 4, 2018	Local neighborhood council officers	• Plant overview and explanation on such matters as safety and disaster prevention activities • Plant tour • A meeting to exchange opinions
Mar. 1, 2019		
Dec. 2018-Feb. 2019 (Total of 6 times)	Local elementary schools	• Summarized explanation of plant • Fire fighting facilities and plant tours • Conducted Laboratory Class on the Wonders of Chemistry

Iwakuni-Ohtake Works		
Date	**Those for Whom Meeting / Tour Organized**	**Details**
July. 9, 2018	Heads of local neighborhood councils and those in charge of volunteer disaster response organizations	• Plant overview and explanation on such matters as safety and disaster prevention activities • Plant tour • A meeting to exchange opinions
Sept. 12, 27, 2018	Local residents	

Omuta Works		
Date	**Those for Whom Meeting / Tour Organized**	**Details**
Oct. 5, 2018	Related parties of local neighborhood councils	• Plant overview and explanation on such matters as safety and logistics safety • A meeting to exchange opinions
Aug.-Sept. 2018 (Total of four times)	Local residents	• Plant tour • A meeting to exchange opinions



Cleanup activities around Ichihara Works



Meeting to exchange opinions at Mobara Branch Factory



Holding of a chemistry laboratory class at Nagoya Works



Osaka Works supporting girls kick baseball tournaments



Meeting to exchange opinions at Iwakuni-Ohtake Works



Autumn Festa at Omuta Works

Participation in "Fureai" Programs and Concerts

We have been providing support for the activities carried out by the "Fureai (Friendship) Trio," which brings classical music to people throughout Japan, since 2003.
The Fureai Trio undertakes support activities in the areas of education, culture and welfare. There are three mainstay activities: "Fureai Programs" aimed at elementary school children who rarely get the opportunity to experience live music; "Fureai Concerts" designed to get more people interested in classical music; and "Fureai Markets" held in conjunction with social welfare facilities. To date, the trio has put on more than 470 performances in towns and cities around Japan.
In fiscal 2018 as well, employees and their families volunteered to assist with performances for audiences primarily

made up of people with disabilities in Osaka and Tokyo. The participants provided general assistance and helped members of the audience to share in the wonders of classical music, through activities such as trying to play the violin.



A "Fureai" Concert



A "Fureai" Program

ESG Performance Data

Environment

Input ⇒ Output Data（FY2018）

Greenhouse Gas（GHG） Energy

GHG

	Scope	2015	2016	2017	2018
GHG emissions (Scope1) / thousand tons	Mitsui Chemicals, Inc.	3,640	3,700	3,570	3,450
	Domestic subsidiaries & affiliates*1	400	310	270	110
	Overseas subsidiaries & affiliates*1	170	250	260	220
	Global	4,210	4,260	4,100	3,780
GHG emissions (Scope2) / thousand tons	Mitsui Chemicals, Inc.	860	740	750	720
	Domestic subsidiaries & affiliates*1	180	170	180	160
	Overseas subsidiaries & affiliates*1	540	550	550	560
	Global	1,580	1,460	1,480	1,440
GHG emissions (Scope1, Scope2) / thousand tons	Global	5,780	5,730	5,580	5,220
GHG emissions (Scope3) / thousand tons	Mitsui Chemicals, Inc.	10,290	10,710	11,080	—
GHG emissions intensity per unit of sales / tons • billion yen^{-1}	Global	430	472	420	352

GHG emissions reduction rate (compared with fiscal 2005, operating at full capacity) / %	Mitsui Chemicals, Inc.	17.5	22.6	24.5	27.2

Energy

	Scope	2015	2016	2017	2018
Energy consumption / PJ	Mitsui Chemicals, Inc.	77.7	78.3	76.2	75.1
	Domestic subsidiaries & affiliates*1	4.2	4.1	4.2	3.9
	Overseas subsidiaries & affiliates*1	12.8	14.3	14.6	13.9
	Global	94.7	96.7	94.9	92.9
Energy intensity index (FY2009=100)	Mitsui Chemicals, Inc.	93.4	94.0	93.4	94.6
Five-year annual energy intensity reduction rate / %	Mitsui Chemicals, Inc.	1.0	1.4	1.3	△0.3

Industrial Waste

	Scope	2015	2016	2017	2018
Waste generated / thousand tons	Mitsui Chemicals, Inc.*2	148.5	131.8	125.8	127.1
	Domestic subsidiaries & affiliates*3	—	—	54.0	50.1
	Overseas subsidiaries & affiliates*3	—	—	56.0	58.6
	Global	—	—	235.7	235.8
Hazardous waste / thousand tons	Mitsui Chemicals, Inc.*2	—	—	1.2	1.3
Waste sent off-site / thousand tons	Mitsui Chemicals, Inc.*2	86.1	82.3	94.9	102.0
	Domestic subsidiaries & affiliates*3	29.5	35.0	34.3	32.4
	Overseas subsidiaries & affiliates*3	42.3	39.9	42.9	47.2
	Global	157.9	157.2	172.1	181.7

Recycling

	Scope	2015	2016	2017	2018
	Mitsui Chemicals, Inc.*2	59.3	54.3	61.4	68.0

Amount recycled externally / thousand tons	Domestic subsidiaries & affiliates*3	26.3	31.5	31.1	28.8
	Overseas subsidiaries & affiliates*3	35.8	31.3	32.3	34.7
	Global	121.4	117.1	124.8	131.7
Recycling rate / %	Domestic*2*3	74.0	73.1	71.6	72.1
	Overseas*3	84.6	78.4	75.3	73.5

Landfill

	Scope	2015	2016	2017	2018
Landfill / thousand tons	Mitsui Chemicals, Inc.*2	0.7	0.6	0.5	0.4
	Domestic subsidiaries & affiliates*3	0.1	0.1	0.1	0.1
	Overseas subsidiaries & affiliates*3	0.2	0.2	0.1	0.2
	Global	1.0	0.9	0.7	0.7
Landfill rate for industrial waste / %	Domestic*2*3	0.4	0.4	0.3	0.3
	Overseas subsidiaries & affiliates*3	0.4	0.4	0.3	0.4
	Global	0.4	0.4	0.3	0.3

Substances Subject to the PRTR Act

	Scope	2015	2016	2017	2018
Substances subject to the PRTR Act emissions / tons	Mitsui Chemicals, Inc.*2	1,099	789	766	816

Air

	Scope	2015	2016	2017	2018
Volatile organic compound (VOC) emissions / tons	Mitsui Chemicals, Inc.*2	2,018	1,676	1,574	1,621
	Domestic subsidiaries & affiliates*3	379	408	395	350
	Overseas subsidiaries & affiliates *3	67	84	62	64

	Global	2,464	2,168	2,031	2,035
NOx emissions / tons	Mitsui Chemicals, Inc.*2	2,786	2,588	2,311	2,110
	Domestic subsidiaries & affiliates*3	320	303	295	253
	Overseas subsidiaries & affiliates*3	348	456	203	195
	Global	3,454	3,348	2,809	2,558
SOx emissions / tons	Mitsui Chemicals, Inc.*2	374	261	273	223
	Domestic subsidiaries & affiliates*3	145	135	131	97
	Overseas subsidiaries & affiliates*3	22	25	41	67
	Global	541	422	444	387
Soot and dust emissions / tons	Mitsui Chemicals, Inc.*2	123	128	114	101
	Domestic subsidiaries & affiliates*3	34	22	18	13
	Overseas subsidiaries & affiliates*3	21	27	30	90
	Global	178	176	162	204
Emissions of hazardous air pollutants / tons	Mitsui Chemicals, Inc.*2	24	14	15	13
Fluorocarbons emissions / tons	Mitsui Chemicals, Inc.*2	5	3	4	5
	Domestic subsidiaries & affiliates*3	0	0	0	0
	Overseas subsidiaries & affiliates*3	6	4	11	10
	Global	11	7	15	15

Water

Efficient Use of Water

	Scope	2015	2016	2017	2018
	Mitsui Chemicals, Inc.*2	473.2	474.3	460.4	507.1

Total volume of water withdrawal (tap water, groundwater, industrial water, and seawater) / million m^3	Domestic subsidiaries & affiliates[*3]	23.1	23.7	21.6	20.1
	Overseas subsidiaries & affiliates[*3]	12.3	11.4	11.8	11.4
	Global	508.5	509.5	493.8	538.6
Tap water / million m^3	Mitsui Chemicals, Inc.[*2]	0.7	0.7	0.8	0.8
	Domestic subsidiaries & affiliates[*3]	0.3	0.3	0.3	0.3
	Overseas subsidiaries & affiliates[*3]	0.6	0.5	0.6	0.5
	Global	1.6	1.5	1.7	1.6
Groundwater / million m^3	Mitsui Chemicals, Inc.[*2]	1.1	0.6	0.6	0.7
	Domestic subsidiaries & affiliates[*3]	2.6	2.6	2.5	1.0
	Overseas subsidiaries & affiliates[*3]	0.2	0.2	0.2	0.2
	Global	4.0	3.4	3.3	1.8
Industrial water / million m^3	Mitsui Chemicals, Inc.[*2]	97.1	76.1	83.5	83.0
	Domestic subsidiaries & affiliates[*3]	3.8	12.1	10.3	9.7
	Overseas subsidiaries & affiliates[*3]	10.7	11.1	11.0	10.7
	Global	111.6	99.3	104.8	103.4
Seawater / million m^3	Mitsui Chemicals, Inc.[*2]	374.2	396.9	375.5	422.7
	Domestic subsidiaries & affiliates[*3]	9.0	8.8	8.4	9.1
	Overseas subsidiaries & affiliates[*3]	0.0	0.0	0.0	0.0
	Global	383.3	405.7	384.0	431.8
Recycled water / million m^3	Mitsui Chemicals, Inc.[*2]	1,829.2	1,747.9	1,692.4	1,667.1
	Domestic subsidiaries & affiliates[*3]	101.2	101.0	101.2	100.9
	Overseas subsidiaries & affiliates[*3]	32.5	34.0	39.0	40.0
	Global	1,963.0	1,882.9	1,832.6	1,808.1
	Domestic[*2*3]	79.5	78.8	78.8	77.0

Water recycling ratio / %	Overseas subsidiaries & affiliates*3	72.6	74.8	76.8	77.8
	Global	79.4	78.7	78.8	77.0
Discharge water volume / million m^3	Mitsui Chemicals, Inc.*2	447.7	457.5	436.6	491.3
	Domestic subsidiaries & affiliates*3	16.0	23.0	21.4	19.8
	Overseas subsidiaries & affiliates*3	5.3	4.7	4.8	4.8
	Global	469.0	485.2	462.9	515.9
Water consumption / million m^3	Mitsui Chemicals, Inc.*2	25.5	16.8	23.8	15.9
	Domestic subsidiaries & affiliates*3	7.1	0.7	0.2	0.3
	Overseas subsidiaries & affiliates*3	7.0	6.7	7.0	6.6
	Global	39.5	24.3	30.9	22.8

Emissions of Water Pollutants

	Scope	2015	2016	2017	2018
COD, BOD emissions / tons	Mitsui Chemicals, Inc.*2	1,032	849	889	888
	Domestic subsidiaries & affiliates*3	63	75	68	72
	Overseas subsidiaries & affiliates*3	1,588	1,927	2,944	2,601
	Global	2,684	2,851	3,901	3,561
Total nitrogen emissions / tons	Mitsui Chemicals, Inc.*2	867	866	1,053	1,138
Total phosphorous emissions / tons	Mitsui Chemicals, Inc.*2	39	40	33	41

Environmental Accounting

	Scope	2015	2016	2017	2018
Environmental preservation costs (Investment) / billion yen	Mitsui Chemicals, Inc.*2	14	9	13	19
Environmental preservation costs (Expenditure) / billion yen		222	220	212	217

Economic impact of environmental initiatives / billion yen		18	14	13	12

Visualization of Contributions to the Environment

	Scope	2015	2016	2017	2018
Blue Value™ products sales ratio / %	Global	15	17	17	16

Others

	Scope	2015	2016	2017	2018
Number of environment-related accidents	Global	0	0	0	0
Number of violations to environmental laws and regulations	Global	0	0	0	0
Purchased raw materials / thousand tons	Mitsui Chemicals, Inc.*2	5,272	4,936	5,122	4,721
	Domestic subsidiaries & affiliates*3	502	515	534	519
	Overseas subsidiaries & affiliates*3	2,516	2,749	2,809	2,432
	Global	8,290	8,200	8,465	7,672
Purchased materials / thousand tons	Mitsui Chemicals, Inc.*2	33	22	25	22
	Domestic subsidiaries & affiliates*3	18	20	20	23
	Overseas subsidiaries & affiliates*3	93	88	89	77
	Global	144	130	134	122
Products shipped / thousand tons	Mitsui Chemicals, Inc.*2	5,526	5,126	5,189	4,789
	Domestic subsidiaries & affiliates*3	555	579	575	537
	Overseas subsidiaries & affiliates*3	2,529	2,867	3,009	2,775
	Global	8,610	8,572	8,773	8,100

*1 Consolidated subsidiaries

*2 Parent production sites and the Sodegaura Center

*3 Production sites operated by consolidated subsidiaries and affiliated companies eligible for Responsible Care support

INPUT⇒OUTPUT Data (FY2018)

Mitsui Chemicals Group

INPUT		Mitsui Chemicals Group	OUTPUT	
Energy			**Products, etc.**	
Energy consumption (PJ)	92.9		Products shipped (thousand tons)	8,100
Purchased materials			**Atmospheric emissions**	
Raw materials (thousand tons)	7,672		GHG (thousand tons)	5220
Purchased materials (thousand tons)	122		Fluorocarbons (tons)	15
Water resources			NOx (tons)	2,558
Water withdrawal (million m³)	538.6		SOx (tons)	387
Tap water (million m³)	1.6		Hazardous air pollutants (tons)	13
Ground water (million m³)	1.8		VOC (tons)	2,035
Industrial water (million m³)	103.4		Soot and dust (tons)	204
Seawater (million m³)	431.8		**Industrial waste**	
(Recycled water (million m³))	1,808.1		Waste sent off-site (thousand tons)	181.7
			Amount recycled externally (thousand tons)	131.7
			Off-site landfill (thousand tons)	0.7
			Wastewater	
			COD、BOD (tons)	3,561
			Total nitrogen (tons)	1,138
			Total phosphorous (tons)	41
			Effluent (million m³)	515.9
			Wastewater treatment (million m³)	55.1

Mitsui Chemicals, Inc.

INPUT		Mitsui Chemicals, Inc.	OUTPUT	
Energy			**Products, etc.**	
Energy consumption (PJ)	75.1		Products shipped (thousand tons)	4,789
Purchased materials			**Atmospheric emissions**	
Raw materials (thousand tons)	4,721		GHG (thousand tons)	4170
Purchased materials (thousand tons)	22		Fluorocarbons (tons)	5
Water resources			NOx (tons)	2,110
Water withdrawal (million m³)	507.1		SOx (tons)	223
Tap water (million m³)	0.8		Hazardous air pollutants (tons)	13
Ground water (million m³)	0.7		VOC (tons)	1,621
Industrial water (million m³)	83.0		Soot and dust (tons)	101
Seawater (million m³)	422.7		**Industrial waste**	
(Recycled water (million m³))	1,667.1		Waste sent off-site (thousand tons)	102
			Amount recycled externally (thousand tons)	68
			Off-site landfill (thousand tons)	0.42
			Wastewater	
			COD、BOD (tons)	888
			Total nitrogen (tons)	1,138
			Total phosphorous (tons)	41
			Effluent (million m³)	491.3
			Wastewater treatment (million m³)	55.1

Domestic Subsidiaries & Affiliates

INPUT		Domestic Subsidiaries & Affiliates	OUTPUT	
Energy			**Products, etc.**	
Energy consumption (PJ)	3.9		Products shipped (thousand tons)	537
Purchased materials			**Atmospheric emissions**	
Raw materials (thousand tons)	519		GHG (thousand tons)	270
Purchased materials (thousand tons)	23		Fluorocarbons (tons)	0
Water resources			NOx (tons)	253
Water withdrawal (million m³)	20.1		SOx (tons)	97
Tap water (million m³)	0.3		VOC (tons)	350
Ground water (million m³)	1.0		Soot and dust (tons)	13
Industrial water (million m³)	9.7		**Industrial waste**	
Seawater (million m³)	9.1		Waste sent off-site (thousand tons)	32.4
(Recycled water (million m³))	100.9		Amount recycled externally (thousand tons)	28.8
			Off-site landfill (thousand tons)	0.1
			Wastewater	
			COD、BOD (tons)	72
			Wastewater discharge (million m³)	19.8

Overseas Subsidiaries & Affiliates

INPUT		Overseas Subsidiaries & Affiliates	OUTPUT	
Energy			**Products, etc.**	
Energy consumption (PJ)	13.9		Products shipped (thousand tons)	2,775
Purchased materials			**Atmospheric emissions**	
Raw materials (thousand tons)	2,432		GHG (thousand tons)	770
Purchased materials (thousand tons)	77		Fluorocarbons (tons)	10
Water resources			NOx (tons)	195
Water withdrawal (million m³)	11.4		SOx (tons)	67
Tap water (million m³)	0.5		VOC (tons)	64
Ground water (million m³)	0.2		Soot and dust (tons)	90
Industrial water (million m³)	10.7		**Industrial waste**	
Seawater (million m³)	0.0		Waste sent off-site (thousand tons)	47.2
(Recycled water (million m³))	40.0		Amount recycled externally (thousand tons)	34.7
			Off-site landfill (thousand tons)	0.2
			Wastewater	
			COD、BOD (tons)	2,601
			Wastewater discharge (million m³)	4.8

Ichihara Works

We commenced operations at our Ichihara Works in 1967. It is one of the leading comprehensive petrochemical Works in the country, manufacturing various resins, chemical products and other derivatives around a central ethylene plant. Production activities continue to go from strength to strength, as our core Works for petrochemical and basic chemical products.

https://www.mitsuichem.com/jp/corporate/group/domestic_02.htm

INPUT	
Energy	
Energy consumption (thousand GJ)	30,313
Purchased materials	
Raw materials (thousand tons)	2,002
Purchased materials (thousand tons)	6.8
Water resources	
Water withdrawal (thousand m³)	357,089
Tap water (thousand m³)	0
Ground water (thousand m³)	138
Industrial water (thousand m³)	21,831
Seawater (thousand m³)	335,120
(Recycled water (million m³))	388,451

Ichihara Works

OUTPUT	
Products, etc.	
Products shipped (thousand tons)	1,969
Atmospheric emissions	
GHG (thousand tons)	1,488
Fluorocarbons (tons)	0.9
NOx (tons)	881.4
SOx (tons)	147.1
Hazardous air pollutants (tons)	0.7
VOC (tons)	351.0
Soot and dust (tons)	36.1
Industrial waste	
Waste sent off-site (thousand tons)	17.5
Amount recycled externally (thousand tons)	17.4
Off-site landfill (thousand tons)	0.00
Wastewater	
COD、BOD (tons)	71.6
Total nitrogen (tons)	23.9
Total phosphorous (tons)	2.2
Wastewater discharge (thousand m³)	340,775
Wastewater treatment (thousand m³)	6,149

Mobara Branch Factory

We commenced operations at our Mobara Branch Factory in 1957, with the aim of expanding the chemical industry using natural gas as a raw material. These days, it specializes in manufacturing highly functional products. We established our Plant Operation Technology Training Centeronsite in 2006, as an educational facility and a focal point for transferring skills throughout the company.

https://www.mitsuichem.com/jp/corporate/group/domestic_08.htm

INPUT	
Energy	
Energy consumption (thousand GJ)	750
Purchased materials	
Raw materials (thousand tons)	54
Purchased materials (thousand tons)	1.3
Water resources	
Water withdrawal (thousand m³)	924
Tap water (thousand m³)	3
Ground water (thousand m³)	498
Industrial water (thousand m³)	423
Seawater (thousand m³)	0
(Recycled water (million m³))	30,500

Mobara Branch Factory

OUTPUT	
Products, etc.	
Products shipped (thousand tons)	50
Atmospheric emissions	
GHG (thousand tons)	38
Fluorocarbons (tons)	0.0
NOx (tons)	15.8
SOx (tons)	0.0
Hazardous air pollutants (tons)	0.0
VOC (tons)	16.1
Soot and dust (tons)	0.2
Industrial waste	
Waste sent off-site (thousand tons)	2.0
Amount recycled externally (thousand tons)	0.3
Off-site landfill (thousand tons)	0.00
Wastewater	
COD、BOD (tons)	8.8
Total nitrogen (tons)	2.8
Total phosphorous (tons)	1.2
Wastewater discharge (thousand m³)	593
Wastewater treatment (thousand m³)	356

Nagoya Works

We were the first in Japan to use our own unique technology to manufacture polyvinyl chloride resins at our Nagoya Works in 1951, using unique technology that had never previously been used in Japan. These days, the works has transformed into a production hub specializing in electronic and IT materials and products. Its main products include processing tape for manufacturing integrated circuits(IC) and sealant sheets for solar cells.

https://www.mitsuichem.com/jp/corporate/group/domestic_03.htm

INPUT	
Energy	
Energy consumption (thousand GJ)	666
Purchased materials	
Raw materials (thousand tons)	40
Purchased materials (thousand tons)	2.7
Water resources	
Water withdrawal (thousand m³)	1,616
Tap water (thousand m³)	4
Ground water (thousand m³)	0
Industrial water (thousand m³)	1,612
Seawater (thousand m³)	0
(Recycled water (million m³))	13,849

Nagoya Works

OUTPUT	
Products, etc.	
Products shipped (thousand tons)	40
Atmospheric emissions	
GHG (thousand tons)	33
Fluorocarbons (tons)	0.1
NOx (tons)	3.0
SOx (tons)	0.0
Hazardous air pollutants (tons)	0.2
VOC (tons)	1.4
Soot and dust (tons)	0.1
Industrial waste	
Waste sent off-site (thousand tons)	6.2
Amount recycled externally (thousand tons)	3.3
Off-site landfill (thousand tons)	0.01
Wastewater	
COD、BOD (tons)	0.0
Total nitrogen (tons)	0.0
Total phosphorous (tons)	0.0
Wastewater discharge (thousand m³)	3,154
Wastewater treatment (thousand m³)	0

Osaka Works

Located in the Sakai Senboku Coastal Industrial Zone, one of the leading industrial areas in Japan, our Osaka Works has a large dock capable of accommodating 100,000－ton tankers. Production activities make the most of the Works' ideal location, in terms of operations and distribution, with nearly half of all products and raw materials transported by ship.

https://www.mitsuichem.com/jp/corporate/group/domestic_04.htm

INPUT	
Energy	
Energy consumption (thousand GJ)	27,885
Purchased materials	
Raw materials (thousand tons)	1,965
Purchased materials (thousand tons)	1.8
Water resources	
Water withdrawal (thousand m³)	77,794
Tap water (thousand m³)	78
Ground water (thousand m³)	0
Industrial water (thousand m³)	21,439
Seawater (thousand m³)	56,277
(Recycled water (million m³))	730,526

Osaka Works

OUTPUT	
Products, etc.	
Products shipped (thousand tons)	2,039
Atmospheric emissions	
GHG (thousand tons)	1,521
Fluorocarbons (tons)	1.8
NOx (tons)	565.0
SOx (tons)	20.0
Hazardous air pollutants (tons)	8.1
VOC (tons)	84.7
Soot and dust (tons)	13.2
Industrial waste	
Waste sent off-site (thousand tons)	14.5
Amount recycled externally (thousand tons)	12.0
Off-site landfill (thousand tons)	0.12
Wastewater	
COD、BOD (tons)	266.9
Total nitrogen (tons)	531.2
Total phosphorous (tons)	5.5
Wastewater discharge (thousand m³)	66,136
Wastewater treatment (thousand m³)	11,438

Iwakuni-Ohtake Works

We commenced operations at our Iwakuni-Ohtake Works in April 1958, as Japan's first comprehensive petrochemical works. It manufactures PTA, the raw material in polyester fibers, and PET resin, which is used to make plastic bottles, and is one of the largest scale facilities of its kind in the country.

https://www.mitsuichem.com/jp/corporate/group/domestic_05.htm

INPUT		OUTPUT	
Energy		**Products, etc.**	
Energy consumption (thousand GJ)	8,057	Products shipped (thousand tons)	439
Purchased materials		**Atmospheric emissions**	
Raw materials (thousand tons)	397	GHG (thousand tons)	562
Purchased materials (thousand tons)	1.8	Fluorocarbons (tons)	1.3
Water resources		NOx (tons)	157.2
Water withdrawal (thousand m³)	61,928	SOx (tons)	47.2
Tap water (thousand m³)	125	Hazardous air pollutants (tons)	3.9
Ground water (thousand m³)	0	VOC (tons)	771.6
Industrial water (thousand m³)	30,465	Soot and dust (tons)	20.2
Seawater (thousand m³)	31,337	**Industrial waste**	
(Recycled water (million m³))	271,061	Waste sent off-site (thousand tons)	5.5
		Amount recycled externally (thousand tons)	5.0
		Off-site landfill (thousand tons)	0.01
		Wastewater	
		COD、BOD (tons)	236.5
		Total nitrogen (tons)	39.8
		Total phosphorous (tons)	21.6
		Wastewater discharge (thousand m³)	62,937
		Wastewater treatment (thousand m³)	17,453

Omuta Works

We commenced operations at our Omuta Works in 1912 and continued to operate as a coal complex through to the early 1960s, using byproducts from Mitsui Mining's coke ovens. These days, the Works specializes in organic synthesis technology and serves as our main fine chemical facility, primarily manufacturing functional chemicals.

https://www.mitsuichem.com/jp/corporate/group/domestic_06.htm

INPUT		OUTPUT	
Energy		**Products, etc.**	
Energy consumption (thousand GJ)	7,196	Products shipped (thousand tons)	252
Purchased materials		**Atmospheric emissions**	
Raw materials (thousand tons)	262	GHG (thousand tons)	517
Purchased materials (thousand tons)	7.5	Fluorocarbons (tons)	0.5
Water resources		NOx (tons)	488.0
Water withdrawal (thousand m³)	7,698	SOx (tons)	9.0
Tap water (thousand m³)	495	Hazardous air pollutants (tons)	0.4
Ground water (thousand m³)	0	VOC (tons)	396.0
Industrial water (thousand m³)	7,203	Soot and dust (tons)	31.0
Seawater (thousand m³)	0	**Industrial waste**	
(Recycled water (million m³))	232,637	Waste sent off-site (thousand tons)	55.7
		Amount recycled externally (thousand tons)	29.7
		Off-site landfill (thousand tons)	0.27
		Wastewater	
		COD、BOD (tons)	304.0
		Total nitrogen (tons)	540.0
		Total phosphorous (tons)	10.4
		Wastewater discharge (thousand m³)	17,590
		Wastewater treatment (thousand m³)	19,641

Sodegaura Center (R&D Center)

Including affiliates, our R&D center brings together around 1,000 researchers, all of whom continue to create new technologies and materials in an effort to make society a more comfortable place.

https://www.mitsuichem.com/jp/corporate/group/domestic_07.htm

INPUT		OUTPUT	
Energy		**Products, etc.**	
Energy consumption (thousand GJ)	239	Products shipped (thousand tons)	0
Purchased materials		**Atmospheric emissions**	
Raw materials (thousand tons)	0	GHG (thousand tons)	12
Purchased materials (thousand tons)	0	Fluorocarbons (tons)	0.0
Water resources		NOx (tons)	0.0
Water withdrawal (thousand m³)	87	SOx (tons)	0.0
Tap water (thousand m³)	63	Hazardous air pollutants (tons)	0.0
Ground water (thousand m³)	24	VOC (tons)	0.0
Industrial water (thousand m³)	0	Soot and dust (tons)	0.0
Seawater (thousand m³)	0	**Industrial waste**	
(Recycled water (million m³))	49	Waste sent off-site (thousand tons)	0.9
		Amount recycled externally (thousand tons)	0.4
		Off-site landfill (thousand tons)	0.00
		Wastewater	
		COD、BOD (tons)	0.3
		Total nitrogen (tons)	0.3
		Total phosphorous (tons)	0.0
		Wastewater discharge (thousand m³)	71
		Wastewater treatment (thousand m³)	71

* Total wastewater treatment, nitrogen, phosphorous and hazardous air pollutants are only for Mitsui Chemicals, Inc.
* Scope of Mitsui Chemicals, Inc: Parent company production sites and the Sodegaura Center. GHG emissions and energy consumption includes offices.
* Scope of domestic and overseas affiliates: Production sites operated by consolidated subsidiaries and affiliated companies eligible for Responsible Care support. However, the scope of GHG emissions and energy consumption covers the production facilities of consolidated subsidiaries and for Japan also includes offices.

ESG Performance Data

Society

Employees

	Scope	2015	2016	2017	2018
Number of employees	Global	—	13,423	17,277	17,743
	Mitsui Chemicals, Inc.*4	6,733	6,516	6,541	6,670

Region

	Scope		2016	2017	2018
Ratio of region / %	Global	Japan	67.0	57.5	57.0
		China	5.6	6.6	6.6
		Asia	8.8	9.7	9.8
		Europe	8.2	17.0	17.5
		North, Central, and South America	10.3	9.2	9.1
		Others	0.1	0.0	0.0

Gender

	Scope		2015	2016	2017	2018
Number of employees	Mitsui Chemicals, Inc.*4	Male	5,925	5,709	5,720	5,827
		Female	808 (12.0%)	807 (12.4%)	821 (12.6%)	843 (12.6%)
		Total	6,733	6,516	6,541	6,670

Age

	Scope		2016	2017	2018
		Male	—	42.3	41.9

Average age / age	Mitsui Chemicals, Inc.*4	Female	—	44.6	44.5
		Total	—	42.5	42.2
Number of employees	Mitsui Chemicals, Inc.*4	10s (Ages 18 or older)	86	116	136
		20s	940	1,015	1,112
		30s	1,082	1,128	1,204
		40s	2,451	2,254	2,079
		Over 50s	1,957	2,028	2,139
		Total	6,516	6,541	6,670

Nationality

	Scope	2015	2016	2017	2018
Number of non-Japanese employees	Mitsui Chemicals, Inc.*4	56	55	57	54

Disabilities

	Scope	2015	2016	2017	2018
Ratio of employees with disabilities / %	Mitsui Chemicals, Inc.*4	2.2	2.3	2.3	2.4

Management Positions

	Scope		2015	2016	2017	2018
Number of management staff	Mitsui Chemicals, Inc.*4	Male	2,739	2,748	2,777	2,801
		Female	181 (6.2%)	197 (6.7%)	223 (7.4%)	234 (7.7%)
		Total	2,920	2,945	3,000	3,035
Number of management staff (manager-level or above)	Mitsui Chemicals, Inc.*4	Male	1,421	1,558	1,561	1,543
		Female	29 (2.0%)	35 (2.2%)	43 (2.7%)	46 (2.9%)
		Total	1,450	1,593	1,604	1,589
Number of management staff (general manager-level or above)	Mitsui Chemicals, Inc.*4	Male	—	401	400	402
		Female	—	4 (1.0%)	5 (1.2%)	6 (1.5%)

		Total	—	405	405	408
Number of new management staff (manager-level or above)	Mitsui Chemicals, Inc.*4	Male	102	92	100	84
		Female	3 (2.9%)	7 (7.1%)	9 (8.3%)	5 (5.6%)
		Total	105	99	109	89

Labor union members

	Scope	2015	2016	2017	2018
Ratio of labor union members / %	Mitsui Chemicals, Inc.*4	50	47	54	54

Employee-friendly Working Environment

Service and Turnover

	Scope		2016	2017	2018
Average length of service / years	Mitsui Chemicals, Inc.*4	Male	19.7	19.2	18.8
		Female	21.1	21.1	21.0
		Total	19.9	19.5	19.1
Employee turnover rate / %	Mitsui Chemicals, Inc.*4	Male	—	4.75	3.68
		Female	—	2.42	3.29
		Total	—	4.46	3.63
Voluntary turnover rate / %	Mitsui Chemicals, Inc.*4	Male	0.91	0.91	0.86
		Female	1.46	0.85	1.76
		Total	0.98	0.90	0.97
Ratio of re-employment for retired employees / %	Mitsui Chemicals, Inc.*4		81.3	76.7	87.6

Overtime

	Scope		2015	2016	2017	2018
Number of employees whose overtime hours exceeded 80 hours / month	Mitsui Chemicals, Inc.*4	Non-management staff	502	216	100	22
		Management staff	326	120	67	36
		Total	828 (12.3%)	336 (5.2%)	167 (2.6%)	58 (0.9%)

Average overtime hours / hours/month	Mitsui Chemicals, Inc.*4	—	21.4	21.4	21.1

Paid Leave

	Scope		2015	2016	2017	2018
Paid leave usage rate / %	Mitsui Chemicals, Inc.*4	Non-management staff	86	81	79	83
		Management staff	63	56	56	62
		Total	76	70	69	74

Childcare

	Scope		2015	2016	2017	2018
Number of employees taking childcare leave	Mitsui Chemicals, Inc.*4	Male	62	62	71	89
		Female	33	16	17	13
		Total	95	78	88	102
Childcare leave usage rate / %	Mitsui Chemicals, Inc.*4	Male	32	39	40	56
		Female	100	100	100	100
		Total	42	45	45	59
Return rate of employees from childcare leave / %	Mitsui Chemicals, Inc.*4	Male	—	—	97	99
		Female	—	—	100	100
		Total	—	—	98	99
Employee retention rate three years after childcare leave / %	Mitsui Chemicals, Inc.*4	Male	—	—	91	94
		Female	—	—	96	93
		Total	—	—	92	94
Number of employees using short working hours for childcare	Mitsui Chemicals, Inc.*4	Male	1	2	3	1
		Female	86	88	91	85
		Total	87	90	94	86
Number of employees using the work-from-home program for childcare	Mitsui Chemicals, Inc.*4	Male	5	5	9	10
		Female	13	19	22	31
		Total	18	24	31	41

Family Care

	Scope	2015	2016	2017	2018
Number of employees taking paid family care leave	Mitsui Chemicals, Inc.*4	0	0	0	0
Number of employees using short working hours for family care	Mitsui Chemicals, Inc.*4	1	1	1	0
Number of employees using the work-from-home program for family care	Mitsui Chemicals, Inc.*4	2	1	5	7

Recruitment

	Scope		2017	2018
Total number of employees hired	Mitsui Chemicals, Inc.*4	Male	298	333
		Female	35 (11%)	46 (12%)
		Regular recruitment	202	267
		Mid-career recruitment	131	112
		Total	333	379

Number of Employees Hired through the Regular Recruitment

	Scope		2017	2018
Regular administrative positions	Mitsui Chemicals, Inc.*4	Male	12	10
		Female	10 (46%)	9 (47%)
		Total	22	19
Regular technical positions	Mitsui Chemicals, Inc.*4	Male	49	73
		Female	6 (11%)	14 (16%)
		Total	55	87
General positions	Mitsui Chemicals, Inc.*4	Male	121	153
		Female	4 (3.2%)	8 (5.0%)
		Total	125	161

Number of Employees Hired through the Mid-career Recruitment

	Scope		2017	2018
Regular administrative positions	Mitsui Chemicals, Inc.*4	Male	35	41
		Female	2 (5.4%)	8 (16%)
		Total	37	49
Regular technical positions	Mitsui Chemicals, Inc.*4	Male	52	35
		Female	7 (12%)	3 (7.9%)
		Total	59	38
General positions	Mitsui Chemicals, Inc.*4	Male	29	21
		Female	6 (17%)	4 (16%)
		Total	35	25

Human Resources Development

	Scope	2017	2018
Training hours per person / hours	Mitsui Chemicals, Inc.*4	15	34
Training cost per person / million yen		0.29	0.27

Evaluation

	Scope	2015	2016	2017	2018
Conducting rate of feedback meetings in the previous fiscal year / %	Mitsui Chemicals Labor Union registered members	98	96	98	98
Degree of satisfaction over evaluation feedback / %		89	89	90	86

Safety and Prevention

	Scope	2015	2016	2017	2018
Number of major accidents	Global	0	0	0	1
Number of abnormal conditions/accidents	Mitsui Chemicals, Inc.*5	10	4	4	7
	Domestic subsidiaries & affiliates*6	0	0	0	4

	Overseas subsidiaries & affiliates*6	0	0	2	0
	Global	10	4	6	11
Significant occupational injury frequency	Mitsui Chemicals, Inc.*5	0.25	0.15	0.42	0.19
	Domestic subsidiaries & affiliates*7	0.35	0.48	0.14	0.29
	Construction subcontractors	0.39	0.27	0.13	0.51
	Overseas subsidiaries & affiliates*7	0.32	0.21	0.00	0.51
	Global	0.30	0.23	0.24	0.33

Occupational Health

	Scope	2017	2018
Average rate of lifestyle-related disease（male） / %	Mitsui Chemicals, Inc.*4	9.6	9.7
Frequency of absences from work due to health disorders	Mitsui Chemicals, Inc.*4	0.60	0.78
Frequency of absences from work due to mental health disorders	Mitsui Chemicals, Inc.*4	0.34	0.45
Ratio of smokers / %	Mitsui Chemicals, Inc.*4	25.7	24.2
Harmful substance risk assessment implementation rate / %	Mitsui Chemicals, Inc.	100	100

Product Stewardship

	Scope	2017	2018
Product risk assessment implementation rate / %	Mitsui Chemicals, Inc.	36	100
Provision ratio of the latest safety information for all products / %	Mitsui Chemicals, Inc.	100	100
Number of legal and regulatory violations	Mitsui Chemicals, Inc.	0	0

Quality of Products and Services

	Scope	2017	2018

Number of PL accidents	Global	0	0
Number of major quality-related legal and regulatory violations	Global	0	0

Logistics

	Scope	2017	2018
Number of significant occupational injuries in logistics	Global	2	2
Number of major accidents in logistics	Global	0	0
Incidence of issues impacting customers / ppm	Global	42	70
Number of legal and regulatory violations	Global	0	0

Sustainable Procurement

	Scope	2017	2018
Sustainable procurement ratio / %	Mitsui Chemicals, Inc.	39	44

Social Activities

	Scope	2015	2016	2017	2018
Social contribution expenditure / million yen	Global	167	142	152	214
Number of employees taking community service leave	Mitsui Chemicals, Inc.*4	194	162	118	123

Visualization of Contributions to the Society

	Scope	2016	2017	2018
Rose Value™ products sales ratio / %	Global	14	14	13

*4 Mitsui Chemicals, Inc. registered employees

*5 Parent production sites and the Sodegaura Center

*6 Affiliated companies eligible for Responsible Care support

*7 Consolidated subsidiaries and affiliated companies eligible for Responsible Care support

ESG Performance Data

Governance

Board of Directors

	Scope		2015	2016	2017	2018	As of September 2019
Number of members of the Board	Mitsui Chemicals, Inc.	Male	7	7	7	7	6
		Female	1 (12.5%)	1 (12.5%)	1 (12.5%)	1 (12.5%)	2 (25.0%)
		Independent outside directors	3	3	3	3	3
		Total	8	8	8	8	8

Compensation of Members of the Board and Corporate Auditors

	Scope		2015	2016	2017	2018
Total compensation / million yen	Mitsui Chemicals, Inc.	Members of the Board (excluding outside directors)	408	340	360	371
		Tsutomu Tannowa	—	—	(112)	(117)
		Corporate auditors (excluding outside auditors)	63	63	64	64
		Outside directors and corporate auditors	51	67	72	75
		Total	522	470	496	509

Compliance

	Scope	2015	2016	2017	2018
Number of major legal and regulatory violations	Global	0	0	1	0

Number of Risk Hotline Operations	Global	7	12	13	17
Number of exclusion recommendations from relevant authorities, such as Fair Trade Commission	Japan	0	0	0	0
Number of operations / business suspensions due to misconduct	Japan	0	0	0	0
Number of criminal charges in compliance-related accidents / incidents	Japan	0	0	0	0
Number of cases detected by price cartel	Overseas	0	0	0	0
Number of cases detected due to bribery	Overseas	0	0	0	0
Number of cases detected due to other incidents	Overseas	0	0	0	0

Guideline Cross-reference Tables

GRI Standards Content Index

100 series (Universal) 200 series (Economic topics)
300 series (Environmental topics) 400 series (Social topics)

100 series (Universal)

GRI 102: General Disclosures 2016

1. Organizational profile

102-1 Name of the organization

Corresponding Sections

Corporate Overview

102-2 Activities, brands, products, and services

Corresponding Sections

Corporate Overview
Business & Products

102-3 Location of headquarters

Corresponding Sections

Corporate Overview

102-4 Location of operations

Corresponding Sections

Domestic Sites
Domestic Subsidiaries & Affiliates
Overseas Subsidiaries & Affiliates

102-5 Ownership and legal form

Corresponding Sections

Corporate Overview
Security Reports

102-6 Markets served

Corresponding Sections

Five business domains contributing to future society

Business & Products
Fact Book > Segment data

102-7 Scale of the organization

Corresponding Sections

Corporate Overview
Fact Book > Financial highlights
Security Reports
INPUT⇒OUTPUT

Remarks

Domestic Sites
Domestic Subsidiaries & Affiliates
Overseas Subsidiaries & Affiliates

102-8 Information on employees and other workers

Corresponding Sections

ESG Performance Data > Society

102-9 Supply chain

Corresponding Sections

Sustainable Procurement

102-10 Significant changes to the organization and its supply chain

Corresponding Sections

There were no applicable instances.

102-11 Precautionary Principle or approach

Corresponding Sections

Key Issues and Initiatives
Product Stewardship

102-12 External initiatives

Corresponding Sections

Support Initiatives

102-13 Membership of associations

Corresponding Sections

Support Initiatives

2. Strategy

102-14 Statement from senior decision-maker

Corresponding Sections

Message from the CEO

102-15 Key impacts, risks, and opportunities

Corresponding Sections

Key Issues and Initiatives
Climate Change and Problems with Plastic
Blue Value™ / Rose Value™
Risk and Compliance

3. Ethics and integrity

102-16 Values, principles, standards, and norms of behavior

Corresponding Sections

Mitsui Chemicals Group's Future Vision
Action Guidelines

102-17 Mechanisms for advice and concerns about ethics

Corresponding Sections

Risk Prevention Measures

4. Governance

102-18 Governance structure

Corresponding Sections

Corporate Governance
Sustainability Management

102-19 Delegating authority

Corresponding Sections

Corporate Governance
Sustainability Management

102-20 Executive-level responsibility for economic, environmental,and social topics

Corresponding Sections

Sustainability Management

102-21 Consulting stakeholders on economic, environmental,and social topics

Corresponding Sections	Remarks
–	Sustainability Management

102-22 Composition of the highest governance body and its committees

Corresponding Sections

Corporate Governance

102-23	Chair of the highest governance body

Corresponding Sections	Remarks
Corporate Governance Report	Corporate Governance Board of Directors

102-24	Nominating and selecting the highest governance body

Corresponding Sections

Corporate Governance Guidelines

102-25	Conflicts of interest

Corresponding Sections

Corporate Governance

102-26	Role of highest governance body in setting purpose, values,and strategy

Corresponding Sections

Sustainability Management

102-27	Collective knowledge of highest governance body

Corresponding Sections

Sustainability Management

102-28	Evaluating the highest governance body’s performance

Corresponding Sections	Remarks
–	Sustainability Management

102-29	Identifying and managing economic, environmental, and social impacts

Corresponding Sections

Sustainability Management

102-30	Effectiveness of risk management processes

Corresponding Sections

Sustainability Management
Risk and Compliance

102-31	Review of economic, environmental, and social topics

Corresponding Sections

Sustainability Management

102-32	Highest governance body’s role in sustainability reporting

Corresponding Sections

–

102-33	Communicating critical concerns

Corresponding Sections

Sustainability Management

102-34	Nature and total number of critical concerns

Corresponding Sections

–

102-35	Remuneration policies

Corresponding Sections

Corporate Governance
Security Reports
Corporate Governance Report

102-36	Process for determining remuneration

Corresponding Sections

Corporate Governance
Security Reports
Corporate Governance Report

102-37	Stakeholders' involvement in remuneration

Corresponding Sections

–

102-38	Annual total compensation ratio

Corresponding Sections

–

102-39	Percentage increase in annual total compensation ratio

Corresponding Sections

–

5. Stakeholder engagement

102-40	List of stakeholder groups

Corresponding Sections

Stakeholders

102-41	Collective bargaining agreements

Corresponding Sections

–

Remarks

ESG Performance Data > Society

102-42	Identifying and selecting stakeholders

Corresponding Sections

Stakeholders

102-43	Approach to stakeholder engagement

Corresponding Sections

Stakeholders

102-44	Key topics and concerns raised

Corresponding Sections

–

Remarks

Risk Prevention Measures

Initiatives to Prevent Major Accidents

6. Reporting practice

102-45	Entities included in the consolidated financial statements

Corresponding Sections

Security Reports

102-46	Defining report content and topic Boundaries

Corresponding Sections

Editorial Policy

102-47	List of material topics

Corresponding Sections

The 2025 Long-term Business Plan Environmental and Social Targets

Key Issues and Initiatives

102-48	Restatements of information

Corresponding Sections

There were no applicable instances.

102-49	Changes in reporting

Corresponding Sections

There were no applicable instances.

102-50	Reporting period

Corresponding Sections

Editorial Policy

102-51	Date of most recent report

Corresponding Sections

Editorial Policy

102-52	Reporting cycle

Corresponding Sections

Editorial Policy

102-53	Contact point for questions regarding the report

Corresponding Sections

Contact Us

102-54	Claims of reporting in accordance with the GRI Standards

Corresponding Sections

–

102-55	GRI content index

Corresponding Sections

GRI Standards Content Index

102-56	External assurance

Corresponding Sections

Editorial Policy

GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its Boundary

Corresponding Sections

The 2025 Long-term Business Plan Environmental and Social Targets
Key Issues and Initiatives

103-2	The management approach and its components

Corresponding Sections

Please refer to "Management System" in each reporting page.

Sustainability in the Mitsui Chemicals Group
Risk and Compliance
Responsible Care
Engagement with Society

103-3 Evaluation of the management approach

Corresponding Sections

Sustainability Management

200 series (Economic topics)

GRI 201: Economic Performance 2016

201-1 Direct economic value generated and distributed

Corresponding Sections

Security Reports

201-2 Financial implications and other risks and opportunities due to climate change

Corresponding Sections

Climate Change Policy
Climate Change-Related Information (CDP) ＞C2.3, C2.3a, C2.4, C2.4a, C2.5

201-3 Defined benefit plan obligations and other retirement plans

Corresponding Sections

Security Reports

201-4 Financial assistance received from government

Corresponding Sections

Security Reports

GRI 202: Market Presence 2016

202-1 Ratios of standard entry level wage by gender compared to local minimum wage

Corresponding Sections	Remarks
–	Evaluation/Compensation ＞ Legal Wage Compliance

202-2 Proportion of senior management hired from the local community

Corresponding Sections	Remarks
—	Human Resources Development Sustainability Discussion

GRI 203: Indirect Economic Impacts 2016

203-1 Infrastructure investments and services supported

Corresponding Sections

Disaster Relief

203-2 Significant indirect economic impacts

Corresponding Sections

—

GRI 204: Procurement Practices 2016

204-1 Proportion of spending on local suppliers

Corresponding Sections

—

GRI 205: Anti-corruption 2016

205-1 Operations assessed for risks related to corruption

Corresponding Sections	Remarks
—	Bribery Prevention From a corruption prevention perspective, the primary screening of 17 countries was undertaken based on the information of Transparency International. It was determined that risks may exist for seven of the 17 countries. Plans are in place to collect information in the future.

205-2 Communication and training about anti-corruption policies and procedures

Corresponding Sections	Remarks
—	Compliance Training Bribery Prevention • Regarding M&A and selecting new business partners, the Company not only complies with business-related laws but also hires consultants and legal advisors to conduct investigations based on its status as a signatory to the UN Global Compact. We also examine M&A based on legal due diligence in accordance with each country's legal regulations.

- In light of the high risk of fraud (including various permits and licenses) related to operating manufacturing facilities in emerging countries, Mitsui Chemicals' Internal Control Division in particular conducts audits covering all aspects of business operations.

205-3 Confirmed incidents of corruption and actions taken

Corresponding Sections

There were no applicable instances.

ESG Performance Data ＞ Governance

GRI 206: Anti-competitive Behavior 2016

206-1 Legal actions for anti-competitive behavior, anti-trust,and monopoly practices

Corresponding Sections

There were no instances where the Group was involved in legal action.

ESG Performance Data ＞ Governance

300 series (Environmental topics)

GRI 301: Materials 2016

301-1 Materials used by weight or volume

Corresponding Sections

INPUT⇒OUTPUT

301-2 Recycled input materials used

Corresponding Sections

—

301-3 Reclaimed products and their packaging materials

Corresponding Sections

—

GRI 302: Energy 2016

302-1 Energy consumption within the organization

Corresponding Sections

GHG and Energy
ESG Performance Data > Environment
Climate Change-Related Information (CDP) >C8.2

302-2 Energy consumption outside of the organization

Corresponding Sections

GHG and Energy
Climate Change-Related Information (CDP) >C8.2

302-3 Energy intensity

Corresponding Sections

GHG and Energy
ESG Performance Data > Environment

302-4 Reduction of energy consumption

Corresponding Sections

GHG and Energy
ESG Performance Data > Environment
Climate Change-Related Information (CDP) >C8.2

302-5 Reductions in energy requirements of products and services

Corresponding Sections

Blue Value™ / Rose Value™
GHG and Energy
Climate Change-Related Information (CDP) >C8.2

GRI 303: Water 2016

303-1 Water withdrawal by source

Corresponding Sections

Water
ESG Performance Data > Environment
Water-related Information (CDP) >W1.2

303-2 Water sources significantly affected by withdrawal of water

Corresponding Sections	Remarks
–	Water Water-related Information (CDP) >W1.2

303-3 Water recycled and reused

Corresponding Sections

Water
ESG Performance Data ＞ Environment
Water-related Information (CDP) ＞W1.2

GRI 304: Biodiversity 2016

304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas

Corresponding Sections

Biodiversity

304-2 Significant impacts of activities, products, and services on biodiversity

Corresponding Sections

Biodiversity

304-3 Habitats protected or restored

Corresponding Sections

Biodiversity

304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations

Corresponding Sections

Biodiversity

GRI 305: Emissions 2016

305-1 Direct (Scope1) GHG emissions

Corresponding Sections

GHG and Energy
ESG Performance Data ＞ Environment
Climate Change-Related Information (CDP) ＞C4.1, C51, C5.2, C6.1, C6.7, C7.1a

305-2 Energy indirect (Scope 2) GHG emissions

Corresponding Sections

GHG and Energy
ESG Performance Data ＞ Environment
Climate Change-Related Information (CDP) ＞C5.1, C5.2, C6.2, C6.3

305-3 Other indirect (Scope3) GHG emissions

Corresponding Sections

GHG and Energy
Climate Change-Related Information (CDP) ＞C6.5

305-4 GHG emissions intensity

Corresponding Sections

GHG and Energy
ESG Performance Data ＞ Environment
Climate Change-Related Information (CDP) ＞C6.10, C7.1a

305-5 Reduction of GHG emissions

Corresponding Sections

GHG and Energy
ESG Performance Data ＞ Environment
Climate Change-Related Information (CDP) ＞C4.3a, C4.3b

305-6 Emissions of ozone-depleting substances (ODS)

Corresponding Sections

INPUT⇒OUTPUT
ESG Performance Data ＞ Environment

305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions

Corresponding Sections

Air
INPUT⇒OUTPUT
ESG Performance Data ＞ Environment

GRI 306: Effluents and Waste 2016

306-1 Water discharge by quality and destination

Corresponding Sections

Water
INPUT⇒OUTPUT
ESG Performance Data ＞ Environment

306-2 Waste by type and disposal method

Corresponding Sections

Industrial Waste
INPUT⇒OUTPUT
ESG Performance Data ＞ Environment

Of the 127,000 tons of waste generated by Mitsui Chemicals, Inc. hazardous waste makes up 1,343.8 tons.

306-3 Significant spills

Corresponding Sections

No incidence of significant spill.

306-4 Transport of hazardous waste

Corresponding Sections

Difficulties in obtaining information: This information is not currently being collected.

306-5 Water bodies affected by water discharges and/or runoff

Corresponding Sections

Water

GRI 307: Environmental Compliance 2016

307-1 Non-compliance with environmental laws and regulations

Corresponding Sections

ESG Performance Data > Environment

Environmental Compliance

GRI 308: Supplier Environmental Assessment 2016

308-1 New suppliers that were screened using environmental criteria

Corresponding Sections	Remarks
–	Supplier Evaluation and Guidance for Improvement

308-2 Negative environmental impacts in the supply chain and actions taken

Corresponding Sections

Supplier Evaluation and Guidance for Improvement

400 series (Social topics)

GRI 401: Employment 2016

401-1 New employee hires and employee turnover

Corresponding Sections

Human Resources Management > Management System

ESG Performance Data > Society

401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees

Corresponding Sections

Employee-friendly Working Environment

401-3	Parental leave

Corresponding Sections

ESG Performance Data > Society
Employee-friendly Working Environment

GRI 402: Labor/Management Relations 2016

402-1	Minimum notice periods regarding operational changes

Corresponding Sections

Labor-management Relations Based on Frank Dialog and Mutual Understanding

GRI 403: Occupational Health and Safety 2016

403-1	Workers representation in formal joint management–worker health and safety committees

Corresponding Sections

Safety and Prevention > Management System
Occupational Health > Management System

403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities

Corresponding Sections

Safety and Prevention > Management System
Accidents and Occupational Injuries
Occupational Health
ESG Performance Data > Society

- There have been no employee fatalities over the past three years.
- There was one incident involving a contractor fatality during the past three years.

403-3	Workers with high incidence or high risk of diseases related to their occupation

Corresponding Sections	Remarks
–	Preventing Exposure to Harmful Substances

403-4	Health and safety topics covered in formal agreements with trade unions

Corresponding Sections	Remarks
–	Safety and Prevention > Management System Occupational Health > Management System

GRI 404: Training and Education 2016

404-1 Average hours of training per year per employee

Corresponding Sections

ESG Performance Data > Society
Training
Human Resources Development

404-2 Programs for upgrading employee skills and transition assistance programs

Corresponding Sections

Human Resources Development

404-3 Percentage of employees receiving regular performance and career development reviews

Corresponding Sections

Evaluation / Compensation
ESG Performance Data > Society

GRI 405: Diversity and Equal Opportunity 2016

405-1 Diversity of governance bodies and employees

Corresponding Sections

Corporate Governance
Diversity
ESG Performance Data > Society
ESG Performance Data > Governance

405-2 Ratio of basic salary and remuneration of women to men

Corresponding Sections

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GRI 406: Non-discrimination 2016

406-1 Incidents of discrimination and corrective actions taken

Corresponding Sections

There were no applicable instances.

GRI 407: Freedom of Association and Collective Bargaining 2016

407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk

Corresponding Sections	Remarks
—	We request our suppliers to comply with the contents of the Mitsui Chemicals Group Sustainable Procurement Guidelines. Supplier Evaluation and Guidance for Improvement

GRI 408: Child Labor 2016

408-1 Operations and suppliers at significant risk for incidents of child labor

Corresponding Sections	Remarks
—	We request our suppliers to comply with the contents of the Mitsui Chemicals Group Sustainable Procurement Guidelines. Supplier Evaluation and Guidance for Improvement

GRI 409: Forced or Compulsory Labor 2016

409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor

Corresponding Sections	Remarks
—	We request our suppliers to comply with the contents of the Mitsui Chemicals Group Sustainable Procurement Guidelines. Supplier Evaluation and Guidance for Improvement

GRI 410: Security Practices 2016

410-1 Security personnel trained in human rights policies or procedures

Corresponding Sections	Remarks
—	Respect for Human Rights

GRI 411: Rights of Indigenous Peoples 2016

411-1 Incidents of violations involving rights of indigenous peoples

Corresponding Sections

—

GRI 412: Human Rights Assessment 2016

412-1 Operations that have been subject to human rights reviews or impact assessments

Corresponding Sections	Remarks
—	Respect for Human Rights 17 countries included in the scope of first human rights risk screening.

412-2 Employee training on human rights policies or procedures

Corresponding Sections	Remarks
—	Consideration for Human Rights within Mitsui Chemicals Diversity

412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening

Corresponding Sections	Remarks
—	Consideration for Human Rights in Investment Activities

GRI 413: Local Communities 2016

413-1 Operations with local community engagement, impact assessments, and development programs

Corresponding Sections	Remarks
—	Social Activities

413-2 Operations with significant actual and potential negative impacts on local communities

Corresponding Sections	Remarks
—	Initiatives to Prevent Major Accidents

GRI 414: Supplier Social Assessment 2016

414-1 New suppliers that were screened using social criteria

Corresponding Sections	Remarks
—	Supplier Evaluation and Guidance for Improvement

414-2 Negative social impacts in the supply chain and actions taken

Corresponding Sections

Supplier Evaluation and Guidance for Improvement

GRI 415: Public Policy 2016

415-1 Political contributions

Corresponding Sections

ESG Performance Data > Governance

GRI 416: Customer Health and Safety 2016

416-1 Assessment of the health and safety impacts of product and service categories

Corresponding Sections	Remarks
–	Product Stewardship Quality of Products and Services

416-2 Incidents of non-compliance concerning the health and safety impacts of products and services

Corresponding Sections	Remarks
–	Product Stewardship Quality of Products and Services ESG Performance Data > Society There were no instances of fines or penalties relating to any regulatory violation by Mitsui Chemicals, Inc.

GRI 417: Marketing and Labeling 2016

417-1 Requirements for product and service information and labeling

Corresponding Sections

Blue Value™ / Rose Value™
Product Stewardship
Quality of Products and Services
Logistics

417-2 Incidents of non-compliance concerning product and service information and labeling

Corresponding Sections

Product Stewardship
Quality of Products and Services
ESG Performance Data > Society

There were no instances of fines or penalties relating to any regulatory violation by Mitsui Chemicals, Inc.

417-3 Incidents of non-compliance concerning

Corresponding Sections

There were no applicable instances.

GRI 418: Customer Privacy 2016

418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data

Corresponding Sections

There were no applicable instances.

GRI 419: Socioeconomic Compliance 2016

419-1 Non-compliance with laws and regulations in the social and economic area

Corresponding Sections

There were no applicable instances.

External Assessments

ESG Indices

The Mitsui Chemicals Group is listed as a constitute company in the following ESG indices based on evaluations of its initiatives aimed at the sustainable development of society and the Mitsui Chemicals Group. (As of September 15, 2019)

DJSI Asia/Pacific

DJSI , the index jointly developed by S&P Dow Jones Indices, United States and RobecoSAM, Switzerland., evaluates the corporate sustainability of the company from the economic, environmental, and social factors, and selects the leading sustainability-driven companies. DJSI Asia Pacific covers approximately 600 major companies in the Asia-Pacific region, and 148 companies have been selected in 2019.

FTSE4Good Index Series

FTSE4Good Global Index was developed by FTSE Russell of the London Stock Exchange Group. This index selects companies based on evaluations of their initiatives in the areas of environmental management, climate change, human & labor rights, supply chain labor standards, and preventing bribery.

FTSE Blossom Japan Index

The FTSE Blossom Japan Index is designed to provide market participants with a tool to identify and measure the performance of Japanese companies that demonstrate strong environmental, social and governance (ESG) practices. Using the globally established FTSE4Good Index Inclusion Rules, the FTSE Blossom Japan Index has adopted concerns regarding ESG as its core assessment criteria. The index has been constructed to be industry neutral.
The FTSE Blossom Japan Index has been selected as an ESG index of the Government Pension Investment Fund (GPIF).

MSCI Japan ESG Select Leaders Index

The MSCI Japan ESG Select Leaders Index was established on the basis of MSCI ESG Research. This Index is a comprehensive measure that comprehensively reflects ESG risks in the market portfolio. The Index is also made up of companies with a relatively high ESG performance from a variety of industries.
The MSCI Japan ESG Select Leaders Index has been selected as an ESG index of the Government Pension Investment Fund (GPIF).

MSCI Japan Empowering Women Index (WIN)

The MSCI Japan Empowering Women Index (WIN) is made up of companies that actively promote the empowerment of women. These companies are selected from a variety of industries and exhibit high scores for gender diversity based on data regarding the employment of women disclosed in accordance with Japan's Act on Promotion of Women's Participation and Advancement in the Workplace.
The MSCI Japan Empowering Women Index (WIN) has been selected as an ESG index of the Government Pension Investment Fund (GPIF).

S&P/JPX Carbon Efficient Index

The S&P/JPX Carbon Efficient Index is a means to determine the weight of securities focusing on a company's disclosure status of environmental information and the level of carbon efficiency (carbon emissions per sales) using TOPIX, a representative stock index that shows the trends in the Japanese market, as a "universe."
This index is designated as a reference benchmark by the Government Pension Investment Fund (GPIF).

SNAM Sustainability Index

Launched in 2012, the SNAM Sustainability Index is an investment index managed by Sompo Japan Nipponkoa Asset Management Co., Ltd. (SNAM). Sustainable investments are socially responsible investment (SRI) funds for pension trusts and institutional investors that invest broadly in firms that have strong positive evaluation ratings in each of the environment, society, and governance fields. Considerable weight is placed on ESG evaluation ratings undertaken by research companies when selecting stocks for inclusion in the index which forms the basis for determining long-term investments.

Other Key External Assessments

Mitsui Chemicals Receives the Top Gold Rank in Eco Vadis Supplier Survey

EcoVadis operates shared platforms that enable companies to monitor the sustainability of their suppliers. EcoVadis assesses the sustainability of suppliers based on their activities across four themes: environment, fair labor practices, ethics/fair business practices, and supply chain, with numerous global companies applying survey results to their supplier screening activities.
The Mitsui Chemicals Group received the highest survey rank of Gold from EcoVadis. The Gold rank is given to companies with overall scores in the top fifth percentile. (Certification period to January 2020.)

Mitsui Chemicals Raises Funds with ESG/SDG-Based Syndicated Loan

Mitsui Chemicals, Inc. recently raised a total of 20 billion yen in funds via a syndicated loan offered by Sumitomo Mitsui Banking Corporation (SMBC). The loan is based on account of environmental, social and governance (ESG) factors together with sustainable development goals (SDGs). Based on standards drawn up by SMBC and the Japan Research Institute, Ltd., the syndicated loan provided to Mitsui Chemicals comes on assessment of the applicant's efforts toward ESG targets and SDGs, as well as its disclosure of information. The loan is then formed via financial institutions that approve of the results from these ESG and SDG assessments. As part of this assessment, it was determined that Mitsui Chemicals meets a very high standard regarding ESG factors. Also noted here was that Mitsui Chemicals is doing exceedingly well at implementing initiatives and disclosing information regarding sustainable business management.

Mitsui Chemicals Raises Funds With ESG/SDG-Based Syndicated Loan

Mitsui Chemicals Selected as Nadeshiko Brand for Fiscal 2018

Mitsui Chemicals, Inc. was selected by the Ministry of Economy, Trade and Industry (METI) and the Tokyo Stock Exchange (TSE) as a fiscal 2018 Nadeshiko Brand, an enterprise that excels at encouraging women's success in the workplace. METI and the TSE have been jointly undertaking the Nadeshiko Brand initiative since fiscal 2012, selecting TSE-listed companies that excel at encouraging women's success in the workplace. For 2018, the roughly 3,600 companies listed on the TSE were assessed for their pro-diversity management to raise enterprise value and their publicity of these projects. Forty-two companies in each industry were selected as Nadeshiko Brands.

Mitsui Chemicals Selected as Nadeshiko Brand for Fiscal 2018

Diversity

Mitsui Chemicals Received a Special Award from the Development Bank of Japan (DBJ) under the DBJ Health Management Rating Scheme

In March 2013, Mitsui Chemicals received a special award from the Development Bank of Japan (DBJ) under the DBJ Health Management Rating scheme. Mitsui Chemicals was given the highest ranking and was recognized as a model company for health management, with attention drawn to the excellence of its initiatives for caring for the health of employees. One of the conditions of this financing scheme is that the company receiving the loan has excellent measures in place to manage the health of its employees, as evaluated by the Development Bank of Japan.

Editorial Policy

Through its online Sustainability site, Mitsui Chemicals' goal is to provide stakeholders with a deeper understanding of the Group's efforts to realize sustainable growth in concert with society. The site shines a light on the Group's three-axis management (economy, environment and society), with a focus on environmental and social initiatives. Taking advantage of the unique features of online media, we have made every effort to post comprehensive details encompassing a wide range of areas including the Group's policies, structure and systems, activities, and numerical data.
In addition, plans are in place to issue the Mitsui Chemicals Group ESG Report 2019 by October 2019. This report will contain details posted on the Company's Sustainability site. Users of the site are advised that the Sustainability site may also be frequently updated from October 2018.

Please refer here for the Mitsui Chemicals Group ESG Report 2019 (PDF format).

To understand more about our activities related to creating new value over the medium to long term, which is the Group's aim, please also refer to the annual reports (Mitsui Chemicals Reports) that we have published with the aim of reporting comprehensively on the strategies of three-axis management and its achievements.

About the Mitsui Chemicals Group ESG Report 2019

Scope of Data

Taking the Mitsui Chemicals Group as its basis, any references in this report that fall outside that basis are stated in the text.

Reporting Period

Fiscal 2018(April 1, 2018 to March 31, 2019).
However, certain data that falls outside this coverage period has been included.

Reporting Cycle, Date of most Recent Report

Annually, October 2018

Referenced Guidelines

Global Reporting Initiative (GRI) Sustainability Reporting Standards

GRI Content Index

External Assurance

We have obtained the external assurance on each ESG data in fiscal 2017.

Climate Change-related Verification Statement

ESG Information-related Verification Statement

Verification Statement

3 December 2018

Mr. Tsutomu Tannowa
President & CEO
Mitsui Chemicals, Inc.

Objective

SGS Japan Inc. (hereinafter referred to as "SGS") was commissioned by Mitsui Chemicals Inc. (hereinafter referred to as "the Organization") to conduct independent verification based on Criteria of Verification (ISO14064-3: 2006 and the SGS verification protocol) regarding the data prepared by the Organization on the scope of verification (hereinafter referred to as "the GHG assertion"). The objective of this verification is to confirm that the GHG assertion in the Organization's applicable scope has been correctly calculated and reported in the GHG assertion in conformance with the criteria, and to express our views as a third party.

Scope

The scopes of verification are limited to 6 domestic works of the Organization (Scope 1, 2) and to the products manufactured in Japan (Scope 3) defined by the organization, and the period subject to report are from 1 April 2017 to 31 March 2018 and from 1 April 2016 to 31 March 2017 respectively.

GHG emissions included in the GHG assertion are Scope 1 and 2: energy-related CO_2 emissions and energy consumption, excluded the vehicles which run outside of the sites, and Scope 3: Category 12 (End-of-life treatment of sold products).

Procedure of Verification

The GHG assertion was verified in accordance with Criteria of Verification, and the following processes were implemented at a limited level of assurance:

- Verification of the calculation system: Interviews on the measurement, tabulation, calculation and reporting methods employed by the Organization as well as review of related documents and records
- Verification of the GHG assertion: On-site verification and review of vouchers conducted at Osaka Works and Iwakuni-Ohtake Works, and analytical procedures and interviews for other sites in the scope of verification carried out at the Head Office

The criteria for this review is based on the following documents.

- Act on the Rational Use of Energy
- GHG Emissions Calculation and Reporting Manual Ver.4.3.1
- Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain, Ver. 2.2 and the Database of emissions unit values on the same Accounting Ver. 2.4
- Protocol specified by the Organization

Conclusion

Within the scope of the verification activities employing the methodologies mentioned above, nothing has come to our attention that caused us to believe that the Organization's GHG assertion (Scope1: 3,504 kt-CO_2, Scope2: 733 kt-CO_2, Scope3 (Category 12): 2,431 kt-CO_2) was not calculated and reported in conformance with the criteria.

SGS Japan Inc. affirms our independence from the organization, being free from bias and conflicts of interest with the Organization.

For and on behalf of SGS Japan Inc
Senior Executive & Business Manager
Certification and Business Enhancement

Yuji Takeuchi

ASSURANCE STATEMENT

SGS Japan's Report on Sustainability Activities in the Mitsui Chemicals Group ESG Report 2018 and available on the website.

NATURE AND SCOPE OF THE ASSURANCE

SGS Japan Inc. was commissioned by Mitsui Chemicals Group (hereinafter referred to as "the Organization") to conduct an independent assurance of its ESG Report 2018 and available on the website (hereinafter referred to as "the Report"). The scope of the assurance, based on the SGS Sustainability Report Assurance methodology, is limited to stakeholder management process, data on volume of water withdrawal(tap water, groundwater, and industrial water), COD/BOD emissions , landfill waste , volatile organic compound (VOC) emissions , NOx emissions, SOx emissions, ratio of women in line manager or higher positions, ratio of female employees hired through the regular recruitment, ratio of employees with disabilities, work-related significant occupational injuries and the management systems supporting the reporting process.

The information contained in the Report and its presentation are the responsibility of the directors or governing body and the management of the Organization. SGS Japan Inc. has not been involved in the preparation of any of the material included in the Report.

Our responsibility is to express an opinion on the text, data, graphs and statements within the scope of assurance with the intention to inform all the Organization's stakeholders.

The SGS protocols are based upon internationally recognized guidance, including the Principles contained within the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines for accuracy and reliability and the guidance on levels of assurance contained within the AA1000 series of standards and guidance for Assurance Providers.

The Report has been assured at a moderate level of scrutiny using our protocols for:

- Evaluation of content veracity;
- AA1000 Assurance Standard (2008) Type 2 evaluation of the report content and supporting management systems against the AA1000 Accountability Principles (2008);

The assurance comprised a combination of pre-assurance research, interviews with the management and the person in charge of producing the Report, onsite visits (the Ichihara Works and the Iwakuni-Ohtake Works), verification and confirmation of vouchers, review of related materials and records, and analytical procedures.

Financial data drawn directly from independently audited financial accounts has not been checked back to source as part of this assurance process.

STATEMENT OF INDEPENDENCE AND COMPETENCE

The SGS Group of companies is the world leader in inspection, testing and verification, operating in more than 140 countries and providing services including management systems and service certification; quality, environmental, social and ethical auditing and training; and environmental, social and sustainability report assurance. SGS Japan Inc. affirms our independence from the Organization, being free from bias and conflicts of interest with the Organization, its subsidiaries and stakeholders.

The assurance team was assembled based on the knowledge, experience and qualifications of the each of the team members for this assignment, and comprised auditors registered with lead auditors of ISO9001, ISO14001, ISO45001, SA8000 and lead verifiers of greenhouse gas emissions.

ASSURANCE OPINION

Within the scope of the assurance activities employing the methodologies described above, nothing has come to our attention that caused us to believe that the information and data contained within the Report does not provide a fair and balanced description of the Organization's sustainability activities from 1st April, 2017 to 31st March, 2018.

The assurance team is of the opinion that the Report can be used by the Reporting Organization's Stakeholders. We believe that the Organization has chosen an appropriate level of assurance for this stage in their reporting.

AA1000 ACCOUNTABILITY PRINCIPLES (2008) CONCLUSIONS, FINDINGS AND RECOMMENDATIONS

Inclusivity

The Organization extracted issues through international guidelines such as GRI, ISO 26000 and various stakeholder engagement and identified sustainability issues related to business activities. It was confirmed that the multiple stakeholders were considered and participated in these processes. The identified sustainability issues are reflected in the long-term business plan and addressed to achieve the goals. The ESG promotion structure is integrated into the Organizational structure, and the ESG promotion activities are integrated into business activities to operate.
SGS Japan Inc. confirmed the above processes through the assurance.

Materiality

The extracted issues are evaluated based on two aspects, which are the materiality for the Organization and the materiality for stakeholders, and s are identified as important sustainability issues for both aspects (the Organization and the stakeholders). The Identified sustainability issues are deliberated by external experts and the Corporate Sustainability Committee to confirm the appropriateness. The identified sustainability issues are reflected in the long-term business plan and are surely addressed as business activities.
SGS Japan Inc. confirmed the above processes through the assurance.

Responsiveness

Various activities to address the identified sustainability issues are conducted and are reported to stakeholders by disclosing in the report. The report also shows the relationship between these issues and SDGs. The targets and the results for identified sustainability issues are also disclosed in the report.
SGS Japan Inc. confirmed the above processes through the assurance.

For and on behalf of SGS Japan Inc.
Senior Executive & Business Manager
Certification and Business Enhancement
Yuji Takeuchi

AA1000
Licensed Assurance Provider
000-8

8 March, 2019

