



MOL Group
Safety, Environmental
and Social Report

2017

Bluer Oceans,
Cleaner Environment and
Sustainable Future



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Editorial Policy

To emphasize MOL Group's worldwide leadership in safe operation, it changed the name of the report's title to Safety, Environmental and Social Report in 2015. The report provides a detailed explanation of the actions taken on those issues and data on the results based on the critical issues that MOL identified, as well as background information on the role of ocean shipping and the challenges it faces.

In addition, the Annual Report and the Safety, Environmental and Social Report have different contents. While the former mainly targets shareholders and other investors, the latter is for customers and other stakeholders. Please refer to QR codes or URLs for related topics in the Annual Report.

Period

FY2016 (April 1, 2016 to March 31, 2017). (Some information is from outside the report period and as such will be denoted with asterisks and footnotes.)

Scope

In principle, all MOL Group companies that do business in Japan and overseas. (Activities and data that are limited in scope are reported with asterisks and footnotes.)

* The MOL Group:

Mitsui O.S.K. Lines, Ltd., 368 consolidated subsidiaries, 76 equity method affiliates, and other affiliated companies.

* "The company" in this report refers to Mitsui O.S.K. Lines, Ltd. (MOL).

Reference Guidelines

- Environmental Report Guidelines 2012, Japanese Ministry of the Environment
 - Environmental Accounting Guidelines 2005, Japanese Ministry of the Environment
 - GRI (Global Reporting Initiative) "GRI Guidelines Version 4" (core)
- Please visit the website for charts comparing the GRI Guidelines and UN Global Compact.

Issue Date

July 2017 (Previous issue: July 2016; Next issue: July 2018 (scheduled))

Envision the Future of an MOL Group that Can Grow Sustainably, Evolve to Create Value, and Become a Truly Resilient, Flexible Organization

Anticipate changes, and become “a resilient, flexible corporate group that always accompany with customers”

The MOL Group established its new management plan, “Rolling Plan 2017” in April 2017. The “Rolling Plan” reflects our commitment to further growth even under a significantly changing business climate, and sets out a vision for the MOL Group 10 years from now and the mid- and long-term management direction as shown below, with yearly reviews of the plan. This is based on the MOL Group Corporate Principles: We will actively contribute to global economic growth and development, anticipating the needs of our customers and the challenges of this new era as a multimodal transport group.

Vision for the MOL Group 10 years from now

- The MOL Group will provide stress-free services that are truly convenient for customers worldwide, with the aim of serving customers as a solid and reliable partner at all times.
- The group will develop the environment and emission-free businesses into one of its future core operations.
- The group will strategically allocate resources to carefully selected businesses that have a clear competitive edge. The goal is to make the MOL Group a collection of businesses boasting the highest competitiveness in their respective fields.

We set three strategies for realizing our vision in the new management plan. First is “Carefully select opportunities for new investments and pursue business models focused on cash flow.” Second is “Prioritize resources to develop and defend business fields.” And as the third strategy, we set marine technical skills, ICT, technology development, environment, and workstyle reforms as “Group-wide priorities for strengthening the MOL Group.”

Remember that ocean shipping is a key element of the economic infrastructure, connecting the world, and contribute to achievement of SDGs through our businesses

As the world economy grows and becomes borderless, intricately connected global risks continue to grow, among them climate change, depletion of various resources, human rights issues, income disparity and poverty, and political uncertainty.

Naturally, the 17 targets of the Sustainable Development Goals (SDGs) for sustainable development toward 2030, adopted at the United Nations in September 2015, must be addressed on a global scale. It is critical to address

these issues in cooperation with international society to realize a sustainable future. If corporations are to proactively contribute to solutions, cooperation with stakeholders and new innovations are indispensable.

In addition, corporate initiatives on the environmental and social aspects now have a strong and growing impact on corporate management and corporate value. The MOL Group, whose core business is international ocean shipping, recognizes the value of managing its operations with a thorough understanding of how its activities affect society.

Therefore, we identified core issues in line with the new management plan “Rolling Plan 2017” and set new mid-term CSR targets and action plans based on the SDGs that are most closely related to our group activities. Our CSR targets are based on an awareness that international ocean shipping is a key part of the economic infrastructure that connects the world, and safe, reliable services contribute to the achievement of SDGs such as eradication of poverty, technological innovation, supply of sustainable energy, and conservation of the marine environment.

Safe Operation

The MOL Group’s ultimate social mission: Offer safe and reliable services

The ocean shipping business faces myriad risks, and a moment of carelessness may lead to a serious incident, so our group aims to realize the “Four Zeroes” (zero serious marine incidents, zero oil pollution, zero fatal accidents, and zero serious cargo damage).

In November 2016, we launched the “ISHIN NEXT – MOL SMART SHIP PROJECT –.” In this project, we will conduct a comprehensive study of customer needs and underlying seed technologies by sharing our technology development policy with stakeholders including customers. We will also promote technology development that proactively adopts ICT (IoT/Big Data), which is expected to drive innovation, and we will work as one team, on land and at sea, to become the world leader in safe operation, while realizing optimal operation to provide added value to customers.

Environment

Realize environmental management priorities ~ Environment and emission-free business ~

At COP21, held in Paris in December 2015, the long-term goal of limiting the increase in the worldwide average temperature to 2°C in the second half of this century was adopted. In November 2016, the Paris Agreement was issued, starting the creation of detailed rules. And in

October 2016, the IMO adopted a regulation to limit the sulfur content of vessel fuel oil to 0.5% in general sea areas starting in 2020.

Ocean shipping is considered a superior means of transporting mass volumes of cargo, compared to other modes, from the viewpoints of energy efficiency and prevention of air pollution. On the other hand, the shipping industry exhausts a large volume of CO₂ emissions, placing a significant burden on the environment while transporting cargo. In consideration of an increase in cargo trade in line with worldwide economic growth in the future, it is indispensable to step up our efforts to reduce this burden. We see initiatives on the environment as business opportunities and ways to gain a competitive advantage.

Against that backdrop, MOL introduced the “Environment Vision 2030” in April 2017. We will grasp the environmental concerns of our stakeholders and work to provide solutions, while growing our environment and emission-free activities as the core business of the next generation.

Governance/Compliance

Create a deeply embedded culture of ‘do the right thing’

We view compliance as the top priority of all management issues and the very foundation of sustainable corporate growth. We sincerely accept the fact that we committed a violation of the Antitrust Act in 2014, and since then have continued thorough initiatives to prevent similar cases from occurring in the future. Personally, I am committed to honest conduct: “Do the right thing” with tenacious determination and continue to insist on that until it takes root as the MOL Group’s corporate culture.

We also have an ongoing commitment to sustainable growth and maximizing mid- and long-term group’s corporate value, based on the MOL Group Corporate Principles, long-term vision, and new management plan.

Human Resources Development

The MOL Group’s qualities all come down to human qualities

People are the driving force behind our group’s growth and the source of value creation and added value, since people establish long-term trusting relationships with society and customers. We strive to become the first company that comes to mind when customers think of a logistics partner, and create a presence that gives customers peace of mind if they leave everything to MOL. To achieve that, all MOL employees must fully understand the issues facing society and our customers, and have the foresight to predict new issues and think ahead to provide solutions.

Therefore, I think, we need to provide “stress-free services that are truly convenient for customers,” “innovation” as well as “challenge,” which is one of the group’s shared values expressed as “MOL CHART.”

We have taken various measures including efforts to promote diversity and work-life balance, but we will further foster a new corporate culture through “workstyle reforms,” which allow every employee to work more energetically, think more freely, unbound from traditional models, and be ready for any new challenge. In addition, we aim to increase our competitiveness and realize ongoing innovation, by carrying forward development of personnel who can play an active role in global market by “commitment to acting with a sense of ownership.”

Contribute to worldwide economic growth as a multimodal transport group

The MOL Group, whose core business is ocean shipping, has supported the prosperity of people all over the world and contributed to the growth of local industries by transporting cargoes that are indispensable to everyday life. Our safe, reliable transport service is an important lifeline for the global and to communities all over the world. As the world’s population increases and emerging nations’ economies expand in the future, the role of ocean shipping will become even more critical in the future, and as the main artery of the world economy, its social responsibilities will become greater than ever. As a multimodal transport group, the MOL Group pledges to actively contribute to global economic growth and development, anticipating the needs of our customers as stated in the MOL Group Corporate Principles. We think that embodying this principle is the group’s social responsibility and our reason for being. We will continue to focus primarily on this principle as we manage our business, create new values, and sustainably grow with society by leading the world ocean shipping under the recognition that corporate activity itself is a corporate social responsibility.

July 2017

Junichiro Ikeda

President & CEO
Mitsui O.S.K. Lines, Ltd.



A Multimodal Ocean Shipping Group Holding One of the World's Largest, Most Diversified Business Portfolios

The MOL Group's business centers on international ocean shipping, and supports people's livelihood and industries around the world through the transport of resources, energy, raw materials, finished products, and other goods. Playing an indispensable role in the sustainable growth of the world economy, the MOL Group meets the needs of the times while carefully addressing environmental issues and social needs in its business activities.



Business summary by segment



Financial section



MOL Group companies



Japan/overseas networks

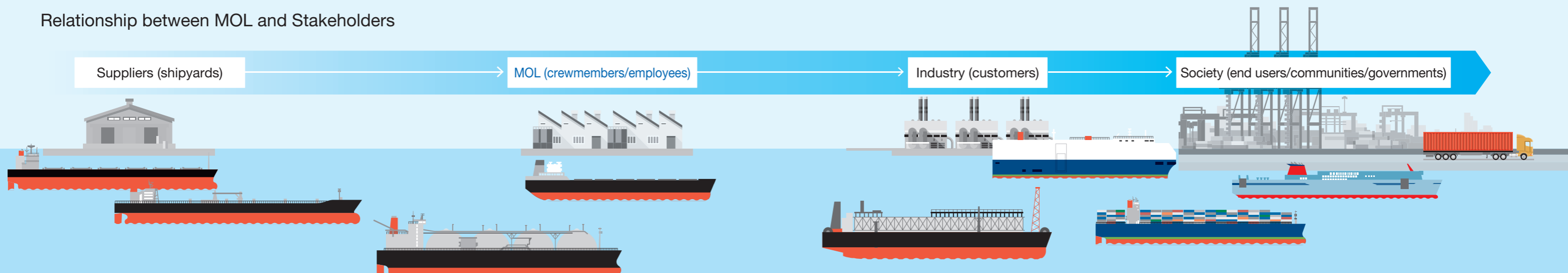
MOL Group Fleet Scale

847 vessels

(As of March 31, 2017)

| Dry Bulker Business | Energy Transport Business | | | Product Transport Business | | | Associated Businesses |
|---|---|--|--|---|---|---|---|
|  <p>Dry Bulkers (excluding Coal Carriers) Dry bulkers transport large quantities of ore, grain, wood chip, cement, fertilizer, and salt, as bulk cargoes without any kind of packaging. The MOL Group reliably meets customers' cargo transport needs with one of the world's largest fleets.</p> |  <p>Tankers The very large crude oil carriers (VLCCs) that transport crude oil, the product tankers that carry petroleum products, the chemical tankers that carry liquid chemical products, the LPG tankers that carry liquefied petroleum gas, and so on, are all part of our tanker fleet, which is one of the largest in the world. The MOL Group serves as a global lifeline to keep the world moving.</p> |  <p>LNG Carriers/ Offshore Business Liquefied natural gas (LNG) is drawing considerable attention as a clean energy source, and demand has been increasing all over the world. With one of the world's leading LNG carrier fleets, the MOL Group ensures the safe transport of this vital commodity. Taking advantage of the experience accumulated in energy transport with LNG carriers and tankers, the MOL Group is also proactively engaged in offshore business projects including FPSOs and FSRUs.</p> |  <p>Coal Carriers The MOL Group transports coal for thermal power, mainly under mid- and long-term contracts with power companies in Japan, and works aggressively to expand its services into emerging countries where we can expect strong growth in the future. This business segment meets diversified customer needs, working in unison with other divisions as part of the Energy Transport Business Unit.</p> |  <p>Car Carriers Ever since MOL launched the first pure car carrier in Japan, the MOL Group has set the pace in operation of pure car carriers, which can efficiently transport all kinds of vehicles, from passenger cars to construction machinery. We meet the needs of automakers whose production centers and markets now span the entire world, with safe, reliable transport services.</p> |  <p>Containerships The MOL Group containerships ply a worldwide network of routes, transporting a wide array of products and general goods such as electric appliances, automobile parts and components, clothes, furniture, and food. In addition, we are proactively developing our terminal business, which is part of the container transport value chain, as a tool to diversify our services.</p> |  <p>Ferries/Coastal Liner/ Ro-Ro Ships The MOL Group not only supports livelihoods and industries through Japan's largest network of car ferry and coastal service, but also contributes to the reduction of CO₂ emissions in Japan's overall logistics industry by working to meet the needs of the "Modal Shift" promoting the use of transport modes that offer a reduced environmental impact.</p> |  <p>Associated Businesses Cruise ships, tugboats, land transport, warehousing, and maritime consulting are just a few of the ocean-shipping related business fields the MOL Group is engaged in. Still other MOL businesses include travel, marine/civil engineering, office building leasing, property management, finance, trading, insurance, IT systems and telecommunications, staffing, and supporting a national program to build an emergency oil stockpile. The MOL Group launches Environment and Emission Free Businesses as a new business.</p> |

Relationship between MOL and Stakeholders



The MOL Group expresses its basic stance toward corporate social responsibility (CSR) in the MOL Group Corporate Principles.

Based on the corporate principles, the group aims to foster a corporate group that grows sustainably in harmony with society with CSR at its foundation. In April 2017, MOL established the new management plan "Rolling Plan 2017" and environmental management policy "MOL Group Environmental Vision 2030" (please refer to page 15 for details).

MOL Group Corporate Principles

As a multi-modal transport group, we will:

- actively contribute to global economic growth and development, anticipating the needs of our customers and the challenges of this new era
- strive to maximize corporate value through creativity, operating efficiency and promotion of ethical and transparent management
- nurture and protect the natural environment by maintaining the highest standards of operational safety and navigation

Long-Term Vision

To develop the MOL Group into an excellent and resilient organization that leads the world shipping industry

New Management Plan: 'Rolling Plan 2017'

1 Vision for the MOL Group Ten Years from Now (2027)

- The MOL Group will provide stress-free services that are truly convenient for customers worldwide, with the aim of serving customers as a solid and reliable partner at all times.
- The Group will develop the environment and emission-free businesses into one of its future core operations.
- The Group will strategically allocate resources to carefully selected businesses that have a clear competitive edge. The goal is to make the MOL Group a collection of businesses boasting the highest competitiveness in their respective fields.

2 Strategies for Realizing the Vision

- Carefully select opportunities for new investments and pursue business models focused on cash flow
- Prioritize resources to develop and defend business fields
- Group-wide priorities for strengthening the MOL Group

- Marine technical skills:** Provide services that fully harness the MOL Group's marine technical skills
- ICT:** Provide visualization of maritime operations (safe and optimal vessel operation) and added value to customers
- Technology development:** Push ahead with the ISHIN NEXT – MOL SMART SHIP PROJECT – (advanced support technologies for safer vessel operation and technologies for reducing environmental impact)
- Environment:** Develop and promote environment and emission-free businesses as innovative, future core businesses by staying on top of changes in the external environment
- Workstyle reforms:** Enhance human resources competitiveness and achieve innovation through an organizational culture that encourages employees to work vibrantly and productively



Identifying Key Issues Based on SDGs *1, which Are Closely Related to MOL Group Activities

MOL set CSR and environmental targets after identifying three items to be addressed —“safe operation,” “the environment,” and “human resources development.” After designating those issues and setting targets, we selected the items based on what we could contribute through our businesses, from SDGs adopted by the United Nations, in addition to international CSR-related guidelines, opinions of internal and external stakeholders, and customers’ responses to a questionnaire survey. The CSR Committee held final deliberations and acquired the approval of top management.

The MOL Group continually promotes business activities that reflect our awareness of 17 SDGs and 169 targets.

[Please refer to the MOL web site for objectives and organizational structure of CSR initiatives]



CSR Targets

Basic Concept: The MOL Group realizes that ocean shipping is an important economic infrastructure connecting the world, providing safe and reliable services, and contributing to achievement of the Sustainable Development Goals (SDGs*1) advocated by the United Nations, such as eradication of poverty, technological innovation, supply of sustainable energy, measures to address climate change, and conservation of the ocean, through the group's core businesses.

| | Mid-Term Targets | Action Plan |
|---|--|--|
| Enhancement of Governance | Continue sustainable growth and increase corporate value by making decisions swiftly and deliberately, backed by appropriate risk management, while securing transparency and fairness of management. | <ol style="list-style-type: none"> 1. Enhance the effectiveness of the Board of Directors. 2. Pursue specific goals the new management plan "Rolling Plan," and conduct periodic monitoring and review. 3. Promote businesses on a group-wide basis as one team through "One MOL," and enhance corporate governance among group companies. 4. Establish more appropriate, more efficient system of business conduct, and strengthen business continuity plan (BCP) system. 5. Promote dialogue with various stakeholders such as customers, investors, communities, and employees, and sufficiently fulfill responsibility for information disclosure. |
| Thoroughness of Compliance | Compliance with laws and regulations such as the Antitrust Act, anticorruption statutes, and standards of social ethics. Instill group employees with an awareness that compliance must be the top priority in all management issues. | <ol style="list-style-type: none"> 1. Continue review of past serious non-compliance issues and ensure they do not fade away from memory. 2. Widely disseminate and ensure thoroughness of compliance to laws and regulations to group employees. 3. Internal audits using a Risk Based Approach? 4. Enhance internal reporting system. 5. Identify signs of non-compliance and prevent violations. |
| Thoroughly Implement Safe Operation | All MOL Group employees learn that safe and stable cargo transport is the group's ultimate social mission, and the absolute necessity to achieve the targets of "Four Zeroes" (zero serious marine incidents, zero oil pollution, zero fatal accidents, and zero serious cargo damage). KPI targets: Downtime per ship (24.00 hours per year), Incidents per ship resulting in stoppage (1.00 per year), Less than 0.70 LTIF *3 (Lost Time Injury Frequency). | <ol style="list-style-type: none"> 1. Foster a culture of safety by improving all group employees' "ability to think of safety." 2. Enhance analysis and information sharing to prevent the reoccurrence of accidents and problems. 3. Eliminate human errors, using and applying AI/ICT technologies. 4. Promptly spread information and enhance risk management to respond to global conditions. 5. Enhance ship management centering on a review of the dry bulk management system. |
| Environmental Initiatives | Progressively address the solution of environmental issues such as emissions of greenhouse gases (GHG), air pollution, and inhibition of biodiversity. Grasp environmental concerns of customers and other stakeholders to provide innovative solutions, and grow the environment and emission-free businesses into a next-generation core business. KPI targets: Reduce GHG emissions by 2% per unit load every year in comparison with the previous year. | <ol style="list-style-type: none"> 1. Promote the ISHIN NEXT – MOL SMART PROJECT –, adopt technologies for reducing environmental impact and advanced support technologies for safer vessel operation. 2. Participate in projects to construct vessels that use LNG and other alternative fuels as well as fuel supply infrastructure. 3. Reduce greenhouse gas emissions through continuous efforts on optimal vessel operations by use and application of ICT. 4. Use renewable energies such as wind power and solar power for vessel propulsion and for group facilities in Japan and overseas. 5. Create environment and emission-free businesses. 6. Study the use of emissions rights to achieve the greenhouse gas reduction targets. 7. Ensure an appropriate and advanced response to prevention of air pollution and conformity with ballast water management regulations. 8. Promote the modal shift by expanding ferry and RoRo ship services in Japan. |
| Initiatives on Human Resources Development | Develop personnel who can cope flexibly with changes in the business climate, support a vibrant, innovative organization that grows sustainably, and develop an environment in which diverse personnel can play active roles. | <ol style="list-style-type: none"> 1. Cross-sectional development and assignment of personnel at group companies in Japan and overseas, to enhance its competitiveness as "One MOL." 2. Expand system of education and programs for training global personnel and next-generation leaders. 3. Develop networks that promote cooperation among industry, government, and academia to promote further innovation. 4. Establish the personnel system for promotion of diversity (including for women to play active roles). 5. Promote workstyle reforms toward creation of a sound, dynamic organization. 6. Open a new maritime academy in the Philippines to ensure the recruitment and training of top-quality seafarers. 7. Promote personal development through the group's shared values, as expressed in "MOL CHART." |
| Social Contribution Activities | MOL Group employees realize that the group's businesses contribute to society, and every employee takes the initiative in working to achieve the SDGs advocated by the United Nations. | <ol style="list-style-type: none"> 1. Provide ocean transport for educational and medical programs to developing countries. 2. Activities to support environmental conservation. 3. Maritime educational activities to increase awareness of ocean shipping's essential role. 4. Group executives and employee proactively participate in social contribution activities. |

*1 SDGs: Adopted at the United Nations summit in September 2015, requiring corporations = to contribute to SDGs through their core businesses. Toward 2030, it identifies global-scale priority issues to be addressed for sustainable development, and mobilizes global-scale initiatives around a series of common goals and targets. SDGs urge governments, corporations, and societies to work on a global scale to keep from going beyond the Earth's limitations, to end poverty, and allow every person to live in dignity with fair access to opportunity.

*2 Risk Based Approach: Aims to improve the likelihood of achieving objectives and goals by identifying factors that may compromise or promote the achievement, clarifying these effects, and thinking about necessary measures.

*3 LTIF: Lost Time Injury Frequency. The number of industrial accidents occurring per 1 million man-hours.

Participating in the UN Global Compact

With business activities spread across the globe, the MOL Group believes that building good relationships with various stakeholders worldwide and contributing to the realization of sustainable growth of society are vital as it seeks to realize the ideas set forth in the MOL Group Corporate Principles. In order to contribute to an international framework for realizing these goals, MOL became the first Japanese shipping company to participate in the United Nations Global Compact in 2005. Since then, MOL has worked to support and practice the 10 principles in 4 areas of the UN Global Compact, which shares the same values as MOL's Rules of Conduct, which were established as a set of guidelines for executives and employees.



10 Principles of the Global Compact

| | | |
|-----------------|---------------|--|
| Human Rights | Principle 1: | Businesses should support and respect the protection of internationally proclaimed human rights; and make sure that they are not complicit in human rights abuses. |
| | Principle 2: | |
| Labour | Principle 3: | Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; the elimination of all forms of forced and compulsory labour; |
| | Principle 4: | |
| | 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; |
| | Principle 8: | undertake initiatives to promote greater environmental responsibility; and |
| | 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. |

Initiatives on Human Rights

MOL participates in the United Nations Global Compact, supporting universal principles regarding human rights and labor and putting them into practice. In addition, the treaty concerning the Maritime Labor Convention in 2006 (MLC2006), which stipulates the basic rights of crewmembers, sets forth the following four acts regarding human rights:

1. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
2. The elimination of all forms of forced and compulsory labor;
3. The effective abolition of child labor; and
4. The elimination of discrimination in respect of employment and occupation.

Our vessels adhere to onboard compliance guidelines, respect the four human rights as mentioned above, prohibit discrimination by religion, nationality, age, and gender, and establish procedures to address complaints of harassment. They also hold monthly onboard compliance committee meetings to implement and evaluate efforts on human rights issues, discrimination, and harassment through dialogues between crewmembers and onboard compliance officers.

To build awareness of human rights, we organize lectures to prevent harassment at briefing sessions for expatriates before their assignments in Japan and overseas, in addition to training sessions about human rights-related issues in position-specific programs at the Head Office.

Enhancement of Corporate Governance

MOL continually strives to bolster its corporate governance to ensure sustainable growth and maximize mid- and long-term group corporate value. The corporate value is based on the group corporate philosophy and long-term vision, as well as the values set out in the midterm management plan.

The ocean shipping business environment and risk factors change rapidly. As we set our course, we must accurately grasp business environment, always confront risks appropriately, and effectively utilize our management resources in a careful balance of offense and defense. We believe that the essentials of corporate governance are fostering sustainable growth and increasing corporate value by making decisions swiftly and boldly. They are guided by appropriate risk management, while ensuring the transparency and fairness of management by carefully considering the viewpoints of our diverse stakeholders such as customers, investors, and communities.

MOL Corporate Governance Organizational Structure

At MOL, we believe that the optimal form of governance is to have the president serve as the chief executive officer to execute business operations, backed by the supervisory function of the Board of Directors and the auditing function of the Audit & Supervisory Board. To increase the effectiveness of the Board of Directors, we prepare information necessary for outside directors in advance, and increase the transparency of management by repeating discussions based on common information among both internal and outside directors.

In addition, we also foster a free exchange of opinions about corporate strategies and long-term vision with outside directors and outside auditors.

We accept any contacts about compliance online for outside the company.

Please refer to the annual report for more information about corporate governance.

Initiatives on Compliance

The Japan Fair Trade Commission (JFTC) found that the MOL Group had violated Article 3 of the Japanese Antimonopoly Act in certain car carrier shipping trades in 2014. The MOL Group has taken this finding very seriously. The group vows to never forget this violation and never permit the reoccurrence of such an office. We have taken thorough measures to reinforce our compliance efforts and etch the importance of compliance deeply into the minds of executives and employees as the major premise of all corporate activities. The Compliance Committee, chaired by the Chief Compliance Officer, meets every three months to monitor our compliance.

Initiatives on Compliance with the Antitrust Act

Since it became apparent that we needed to revamp the MOL Group's corporate culture, while investigating the cause of the Antitrust Act violations in 2014, we have conducted a questionnaire survey of employees about our corporate culture and implemented corporate culture reforms through a newly formed working group. MOL also held E-learning sessions about the Antitrust Act and Competition Act to provide distance learning targeting overseas group companies. About 11,185 employees in Japan and overseas completed the E-learning program. In FY2016, we also hold sessions about the Antitrust Act and Competition Act for all employees advancing to a new career level, and added sessions presented by an attorney.

E-learning Participation Rate (FY2016)

| Antitrust Act or Competition Law | Anti-Corruption (Anti-Bribery) | Internal Control | Information Security |
|----------------------------------|--------------------------------|------------------|----------------------|
| 96.2% | 96.7% | 93.1% | 94.6% |

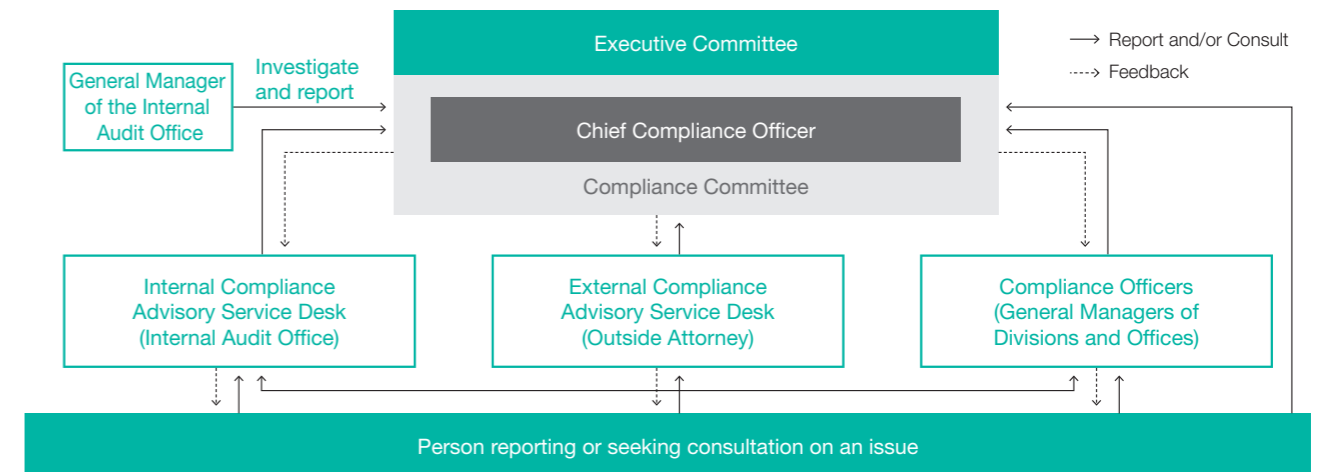
Initiatives on Anti-Corruption

MOL established "Mitsui O.S.K. Lines' Anti-Corruption Policy in October 2015 to eliminate bribery and excessive business entertaining of public servants as well as those outside the government. That ensures that we "Build good relationships based on trust with clients and contractors," as stated in the Compliance Policy. In addition, we present lectures about legal affairs and insurance through E-learning for group companies in Japan and overseas.

Compliance Advisory Service Desks

MOL has two Compliance Advisory Service Desks – internal and external – for group company employees. Outside attorneys are responsible for the external desk, providing consultation and reporting issues to the Compliance Committee Office. They handle follow-up contacts between persons reporting or seeking consultation on various issues related to the company. The desks also accept anonymous reports, strictly maintaining the confidentiality of anyone reporting an issue. In addition, those who report a breach of compliance, and those who cooperate in related investigations are fully protected from any reprisal. We also accept reports online for those outside the group companies, i.e. business partners in Japan and overseas.

Compliance Structure (As of July 2017)



Information Security

The MOL Group Rules of Conduct clearly state: "Protect confidential information and respect intellectual property rights," and the MOL Group Electronic Information Security Rules are aimed at putting this into practice. The rules set standards for managing electronic information handled by the group, protecting various types of confidential information, and so on, reinforcing security to prevent leaks of corporate information and unauthorized access from inside and outside the company. Furthermore, we formed a computer security incident response team (MOL-CSIRT) as an internal professional organization to reinforce our emergency response capabilities, and joined the Japan CSIRT Association in February 2017. In addition, we regularly offer E-learning sessions to increase awareness of information security among group executives and employees, and conduct a training program for new employees.

* Japan CSIRT Association: CSIRT is the collective term for organizations that respond to incidents related to computer security. The association not only acts on its own as an independent CSIRT, but also promotes opportunities for mutual cooperation. It was established to provide a place to solve common problems while aiming to realize closer high-level cooperation system than ever before.

Basic Procurement Policy

To fulfill our responsibility as a corporate group that plays a part in our customers' supply chains, we introduced the "MOL Group Basic Procurement Policy." That outlines our stance on CSR activities related to MOL Group's procurement systems. We strive to contribute to the realization of sustainable societies together by complying with laws and regulations covering supply chains, as well as social norms, protecting the environment, doing our utmost to ensure safety, promoting fair trade, and building trust, while instilling this policy throughout the MOL Group and gaining the understanding and cooperation of our business partners.

MOL Group Basic Procurement Policy

1. We comply with applicable laws, regulations and social norms, and pay due consideration to the protection of the environment.
2. We procure goods and/or services, including the delivery or execution of such goods and/or services that meet high safety standards.
3. We conduct fair trade, and endeavor to establish trusting relationships with contractors.



Shizuo Takahashi
Senior Managing Executive Officer (Chairman of CSR Committee)
Mitsui O.S.K. Lines, Ltd.



Eiichiro Adachi
Counselor
Head of ESG Research Center
The Japan Research Institute, Ltd.

Aiming at Sustainable Growth with Society Working to Create a Better Tomorrow

The MOL Group set its vision 10 years from now in the new management plan “Rolling Plan 2017.” Reaching the goals set out in the plan will require enhanced marine technical skills, IoT, technology development, new approaches to the environment, workstyle reforms, and other achievements. In this section, we invited Eiichiro Adachi of The Japan Research Institute, Ltd. to participate in a dialogue with CSR Committee Chairman Shizuo Takahashi and evaluate the group’s initiatives.

Advanced initiatives to solve environmental issues reflect our social commitment as an ocean shipping company

Adachi: In international society, the Paris Agreement was adopted at COP21 in 2015, showing the world’s common goals for a post-carbon society. On the other hand, I think there is still a demand for providing transport services as long as some customers need fossil fuel energy sources such as coal and petroleum. It is often said that ocean shipping’s business model demands prior investment and needs to forecast the next change by closely monitoring social trends as well as providing services. What do you think about the difficulties it faces?

Takahashi: There is a term “stranded asset” – if efforts to reduce CO₂ emissions, result in reduced demand for fossil fuels such as coal and petroleum, we may also see a scale-down of the need for vessels that carry such cargoes. We recognize that such a significant change is very likely to start by 2050. In the new management plan “Rolling Plan 2017” introduced the other day, we discussed the vision for the company 10 years from now and looked at methods to achieve that vision in three-year business strategies. This is attributed to the possibility of significant changes even in the ocean shipping business. For example, the U.S. was expected to become a huge LNG importing nation in the early 2000s, but actually, the continued development of shale

gas has turned the U.S. into an LNG exporter rather than an importer. That means, in most cases, the world economy will be moving in a different direction than anticipated. Therefore, our group selected an approach to shift our business strategies to match changes in the world and fulfill our vision for the future. And we put “the environment” at the core of the plan’s management strategies, which form the basis of the “Environmental Vision 2030.”

Adachi: I think the ocean shipping industry’s business environment has undergone extreme changes, making it very difficult to steer from a business management perspective. Actually, the market and business sentiment of the entire world economy have a direct impact on the business, so it is very important to formulate business strategies flexibly and from a mid- and long-term standpoint. What discussions did you actually have before deciding on “the environment” as one of your management strategies?

Takahashi: Ocean shipping is considered a superior means of transporting mass volumes of cargo from an environmental viewpoint, but the fact is that CO₂ emissions from vessels account for about 2% of the world’s total greenhouse gas (GHG) emissions, generating a significant impact on the environment. Vessels will emit GHGs as long as we are in business, even if we switch to LNG and other fuels that generate lower CO₂ emissions.

We saw the possibility to make our business emission-free overall, and reduce the environmental impact of the services we provide for our customers, through our carbon offset capability, primarily through renewable energy, with GHGs generated by ocean transport, if we can grow the renewable energy business as core business. Our approach to viewing environmental issues as strategic business opportunities resulted in the “Environmental Vision 2030.”

Adachi: Today, we see an increase in ESG investment, which evaluates the integrity of changes in cost structure, and consistency between its irreversible flow and management strategies from a long-term perspective. It will be very interesting to see how ESG analysts will look at this “Environmental Vision 2030.”

You also set specific target of reducing GHGs, don’t you?

Takahashi: We don’t have a plan to completely offset carbon from our ocean transport in the environment and emission free businesses. But our goal is to reduce GHG emissions by 50% per transport unit in 2050. We think we can achieve a 30% reduction using our existing technologies and programs, introduction of new technologies, offset of GHGs by the environment and emission free businesses, and so on. However, we need new innovations to achieve the remaining 20% reduction. Then, we initiated the “Environmental Vision 2030” to share the necessity of innovation with all employees.

Adachi: You set an ambitious reduction target. Does that mean the key to achieving your target depends on new innovation in the future?

Takahashi: Setting a target that we can achieve by steadily executing existing programs is just a matter of homework. As long as we set the vision, we need to foster innovation and it will require a great leap to drastically reduce GHGs.

Adachi: I heard your ideas behind the vision, and appreciate that the MOL Group set a vision that goes beyond the existing image of an ocean shipping company. In particular, I feel a visionary, pioneering spirit from the idea that “The vision is not just the goal or the homework.” Japanese corporations tend to have absolute views as what they absolutely must achieve as soon as they set targets. This may generate a kind of rigidity. At the MOL Group, the story of value creation is clear and in addition, the management plan matches the environmental vision. I think it is wonderful if the business portfolio will be steadily restructured.

Offering truly optimal solutions to international society, from the stance of an ocean shipping company

Adachi: It is important to play a leadership role in making international rules and lead the industry toward sustainable growth with society.

Takahashi: There are various international rules, such as treaties, relating to regulations and systems about the environment and safety. Of course, this affects our group, too. The Ballast Water Management Convention will enter into force on September 8, 2017. As a result, all MOL Group vessels also need to be equipped with ballast water treatment systems. Further, regulations on NOx and SOx emissions, which cause air pollution, and CO₂ emissions regulations for prevention of global warming will be tightened. We will comply with those regulations, of course, but we also see compliance with the environmental regulations as strategies for differentiation, and will strive to proactively expand applications for excellent environmental technologies.

The impact of Japanese ocean shipping industry and shipbuilding industry is limited when it comes to rulemaking. This is because the IMO members that are not necessarily ocean shipping nations take their own initiatives during multilateral talks involving IMO member nations. This is the current status of international society when it comes to rulemaking.

We think it will become even more critical to offer truly optimal solutions to international society, through proposals and solutions from the stance of an ocean shipping company and vessel operator. Therefore, we think it's important to cooperate with the government as well as create our own internal system.

Adachi: Not many Japanese corporations take a leadership role in international rulemaking. However, in the long-term view, the reality is that it has become difficult to differentiate services due to the mature economy and intensified competition among corporations. So corporate strategies in trying to lead rulemaking and government industrial policies become very important.

Takahashi: We are trying to change methods of public announcements and public relations to demonstrate our stance as a corporation. Traditionally, we have disclosed information on our achievements, but we are planning to lead open innovation to address social concerns and invite partners by proactively disclosing the concept and ideas at the initial stage of projects. Furthermore, to realize innovation toward autonomous sailing and global environmental conservation in the "ISHIN NEXT – MOL SMART SHIP PROJECT –," launched in 2016, our newbuilding vessels will adopt both "advanced support technologies for safer vessel operation" and "technologies for reducing environmental

impact," and conduct demonstration tests to verify practical effects of these technologies every year after the vessels go into service, and publicly announce the results as needed. We also connect customers' potential needs by combining the group's operational know-how and the underlying seed technologies of IoT, seeking to become the world leader in safe operation and global environmental protection.

Offering services with 'marine technical skills' at the core

Adachi: By the way, what do you mean by "marine technical skills," stated as one of the group-wide priorities for strengthening the MOL Group in the new management plan?

Takahashi: "Marine technical skills" means being able to operate the ship safely and provide reliable transport. The most important foundation for our group, which runs an ocean shipping business, is safe operation. However, as you know, natural disasters and threats occur at sea to a much larger degree than on land. Thickness of steel hull plate is 2cm to 3cm in general. A 200m-long vessel is built with 2cm-thick plates and floats. If you were looking at a 20cm-long scale model of a ship, that steel plate would be as thin as aluminum foil. Those plates are affected by waves and winds on the open sea, requiring all kinds of know-how and expertise from both hardware and software aspects to operate vessels safely. On the other hand, unfortunately, around 70% of marine incidents and vessel failures are caused by human errors. Therefore, operational systems that prevent human errors and enhancement of technological capabilities will lead to safer operation.

"Marine technical skills" tends to be generally thought as the skill to run the engine and operate the vessel, but actually the term includes various other abilities. We need distinctive skills to analyze what the risks are and cope with them not individually but through teamwork. No one except crewmembers can do such jobs, so the employee at sea is the driving force of differentiation. We will enhance marine technical skill by visualizing implicit knowledge by using IoT, and passing on both technology and know-how to the next generation.

Adachi: Weather at sea is also affected by climate change. Are there any threats or other challenges to overcome?

Takahashi: Typhoons lashing Japanese coastal waters, cyclones in the Indian Ocean, and hurricanes in the Caribbean bring very powerful low pressure like we've never seen in the past. In recent years, we have encountered disasters of a greater magnitude than ever before. And it is not an excuse to say that it was unexpected at sea. We have to anticipate the climate changes that we will have to cope with. At sea, we have to spot strong typhoons beforehand and make sure we have enough of a margin of safety to avoid them.

Trying to avoid a low pressure system consumes additional fuel and take extra time. So we are acutely aware of the effects of climate change.

Adachi: That point links to the establishment of the "Environment Vision 2030," and is one of the factors behind your initiatives, isn't it?

Workstyle reforms

- To do more innovative work -

Adachi: Most of the ocean shipping industry, including supply chains, still depends on people, and is managed by people. Conversely, I feel this industry cannot be fully automated, manualized, or made routine. May I ask your thoughts about human resources development in relation to the "marine technical skills" we were talking about?

Takahashi: Our company has a 133-year history, and we have developed sophisticated know-how on ocean transport and division of labor, and built a system that can safely and efficiently carry massive volumes of cargoes anywhere, over any distance, by recruiting and allocating highly skilled people. However, there are irreversible changes going on in the world. Sailing ships were replaced with steamers, and coal was replaced by petroleum fuel. In recent years, cargo transport was containerized. There is no turning back from such events. I think innovation is the progress made by concentrating people's wisdom but never turning back again, aside from factors such as global warming, which has occurred as a result of human being activities.

It's important that the personnel on the front lines, who are directly responsible for providing customers with safe, reliable transport service, are the ones who will "create the ocean shipping industry of tomorrow."

Adachi: That means, know-how and experience, wisdom and tact, and various other things are needed to sail the ship. And the key is to share all that with younger members and help them advance in their careers.

Takahashi: What's more, I think "employees at sea and on land work hand in hand and work to create the ocean shipping industry of tomorrow." These are the ideal personnel that the industry needs. Efforts to foster the corporate culture for those ideal personnel are "workstyle reforms." This stems from the need to train innovative personnel who have creativity and the ability to take action to realize the vision for the MOL Group 10 years from now. I think this will create synergy and make the company more energetic, through cross-divisional and cross-hierarchical communication. Of course, we emphasize reduction of overtime work and work-life balance. However, the nature of workstyle reforms in our group is the creation of an environment where innovative personnel who have creativity and the ability to take action can work in comfort, and do the work that will create the MOL Group of tomorrow. Therefore, discussions among people with various backgrounds, experience, and expertise, who

gather and view the same topic from different viewpoints, are the cradle that nurtures new ideas. We need to energize that cradle.

Adachi: This story makes me keenly aware that the ocean shipping is a business run by organizations. Individual personnel need competence, and their competence should not go to pieces nor become obsolete through routines. This requires diversified personnel, and a system (the company, management, projects) to manage them. I can see that ocean shipping is a business in which the organization has considerable capabilities at its roots; one that requires teamwork to survive and thrive; and one in which technologies, know-how, and experience must be handed down to foster the expertise of future generations. I also feel that risking one's life on the job is closely related to the high tension level of teamwork during onboard operation.

Helping solve global-scale issues as a global corporate citizen

Adachi: Currently, geopolitical risks are increasing, and corporations need to address various situations in an appropriate manner. From one aspect, private companies are expected to contribute to global-scale issues such as SDGs. And we might face this situation in the future: Corporations cannot operate businesses soundly without a healthy world and society. What do you think of this point?

Takahashi: The keyword is "poverty." The large and growing gap between rich and poor causes social instability and increases geopolitical risks. The United Nations also lists eradication of poverty in its SDGs. Contributing to global economic growth and improving the welfare or livelihoods of people around the world is spelled out in our corporate principles, which also state that our business helps to stabilize society and promote peace.

Adachi: As you advocate contribution to achievement of SDGs in your corporate social responsibility targets, you transport various cargoes in your main business and your business activities themselves are related to many targets. In addition, I expect to see various initiatives in this field since your network connects to the entire world, including emerging countries.

Takahashi: Thank you very much for your insights today. The MOL Group works together as one team to realizing sustainable growth in step with society, aiming to become a multimodal transport group that leads the world.



MOL Group Environmental Vision 2030

As the Paris Agreement was adopted in December 2015 and nations set targets to reduce greenhouse gas emissions, environmental awareness has continued to increase.

Under the “MOL Group Environmental Policy Statement,” the MOL Group established the “MOL Group Environmental Vision 2030” as a group-wide environmental management policy. It expresses the MOL Group’s viewpoint on addressing environmental issues in the new management plan.

MOL Group Environmental Vision 2030

Shipping companies are responsible for undertaking the marine transportation vital to the infrastructure underpinning people’s daily lives worldwide.

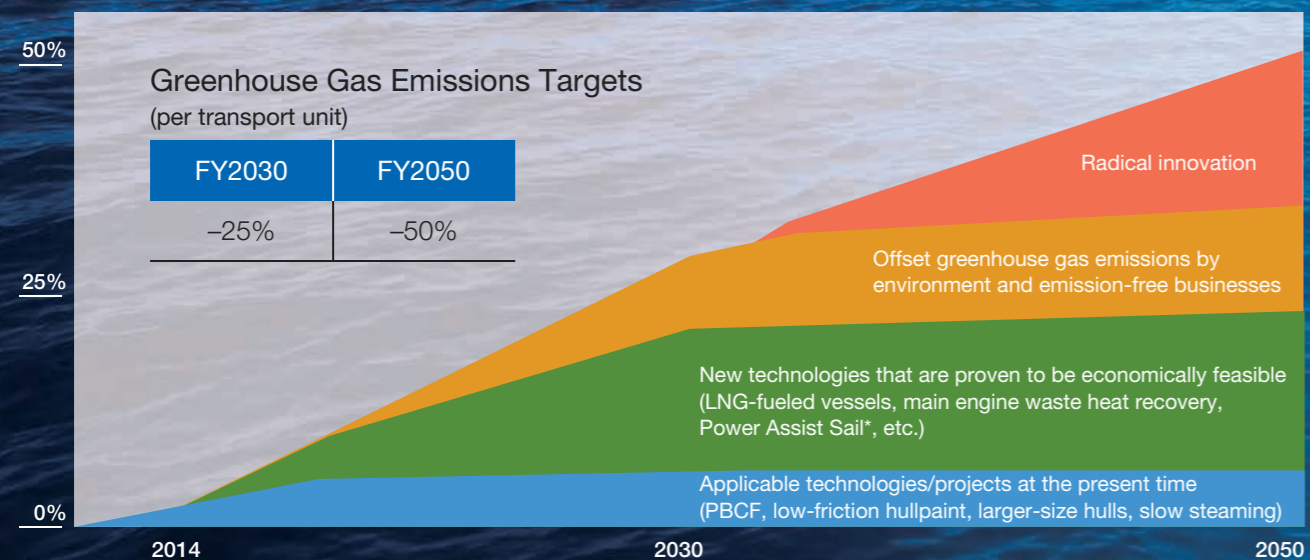
Meanwhile, the ratification of the Paris Agreement on climate control has unified efforts by the international community to mitigate global warming. With this in mind, the MOL Group believes that it has a social obligation to take innovative steps to help solve environmental issues such as greenhouse gas emissions, air pollution, and biodiversity impediments.

The MOL Group will grasp the environmental needs of customers and other stakeholders and provide solutions, in tandem with developing its environment and emission-free businesses into future core operations, with the aim of contributing to global environmental preservation.

Greenhouse Gas Emissions Targets

The MOL Group targets reduction of greenhouse gas emissions per unit load by 25% by 2030 and by 50% by 2050 compared to fiscal year 2014.

‘Environmental Vision 2030’ Roadmap to Reduce Greenhouse Gas Emissions



* Power Assist Sail: Sailing rigs that provide supplementary propulsion force for the vessel by using the lift force of crosswinds, similar to the wings of an airplane, and drag from tailwinds.

Environmental Management Action Plan

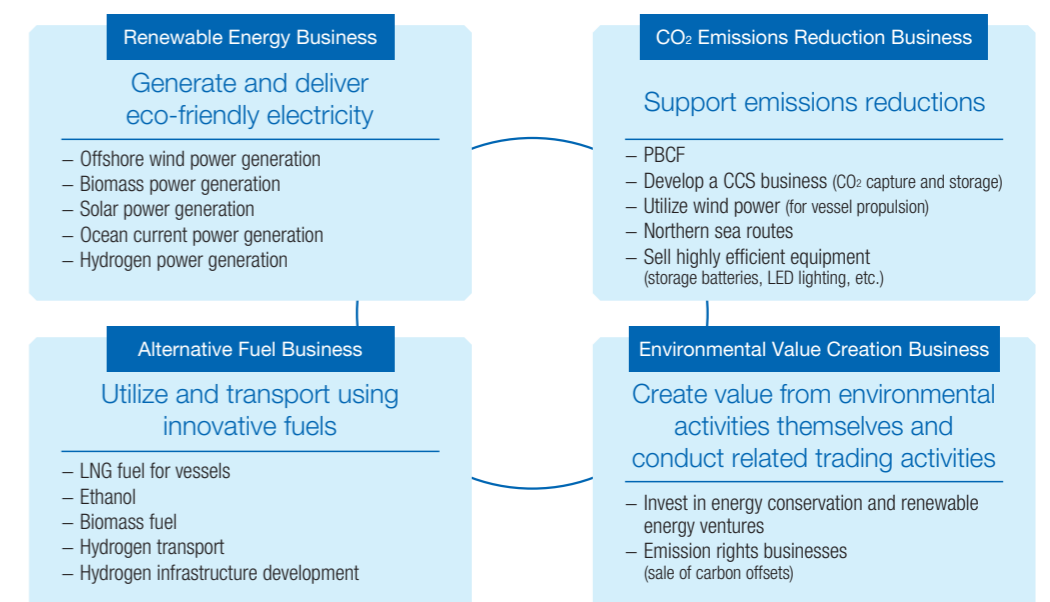
| Action Plan | Reduction of GHG Emissions | Prevention of Air Pollution | Biodiversity |
|---|----------------------------|-----------------------------|--------------|
| 1. Grow the group’s environment and emission-free business as core business | ● | ● | ● |
| 2. Promotion of the ISHIN NEXT – MOL SMART SHIP PROJECT – | ● | ● | |
| 3. Expand use of LNG fuel by building LNG-fueled vessels and participating in the LNG-fuel supply business | ● | ● | |
| 4. Continue to optimize vessel operations with the objective of reducing fuel costs through use and application of ICT | ● | | |
| 5. Application of fuel cells and hydrogen fuel as alternative energy | ● | ● | |
| 6. Use of wind power and solar power as propulsion power for vessels | ● | ● | |
| 7. Promotion of modal shift in logistics in Japan (expansion of the ferry and RoRo ship businesses) | ● | ● | |
| 8. Enhance energy savings in group facilities in Japan and overseas | ● | | |
| 9. Study on application of emission trading related to the environment and emission-free businesses | ● | | |
| 10. Effective use of low sulfur fuel | | ● | |
| 11. Use of SOx scrubbers | | ● | |
| 12. Use of NOx reduction systems (SCR/EGR) | | ● | |
| 13. Promote the installation of vessel DPF systems that eliminate particulate emissions | | ● | |
| 14. Equip vessels with ballast water treatment systems ahead of regulations and proactively release MOL’s research results and opinions to the industry, positioning the company as a pioneer in adopting the systems | | | ● |
| 15. Clean vessel hulls to remove attached marine organisms | | | ● |
| 16. Careful operation in large-sized marine life habitats | | | ● |
| 17. Proactively promote environmental response based on the philosophy of Sustainable Development Goals (SDGs) *1 | ● | ● | ● |
| 18. Promote initiatives that contribute to biodiversity in partnership with other companies and organizations | | | ● |

*1 SDGs: The action plan “Sustainable Development Goals” to end poverty, protect the planet and ensure that all people enjoy peace and prosperity, adopted at the United Nations General Assembly in September 2015. It comprises 17 goals and 169 targets.

MOL Group Environment and Emission Free Businesses

The MOL Group will develop and drive the new “Environment and Emission Free Businesses” with the aim of making them core operations in the next generation. These include “Renewable Energy Business,” “Alternative Fuel Business,” “CO₂ Emissions Reduction Business,” and “Environmental Value Creation Business,” which we see as business opportunities. CO₂ emissions from ocean-going vessels account for 2% of the worldwide total, in fact, negatively impacting the environment. Therefore, we will steadily promote those businesses as part of our social responsibility as an ocean shipping company.

MOL Group Environment and Emission Free Businesses



Promoting Environmental and Emission Free Businesses/‘ISHIN NEXT’ Project

The MOL Group set out its vision 10 years from now and direction of mid- and long-term management in the new management plan “Rolling Plan 2017.” We set five priorities in the Group-wide priorities for strengthening the MOL Group and help us realize this vision: “Marine technical skills,” “ICT,” “Technology development,” “The environment,” and Workstyle reforms.”

This section focuses on “Technology development” and “The environment” and outlines our initiatives in the “ISHIN NEXT” project (advanced safe operation support technologies and technologies to reduce our environmental impact) and “Environment and emission-free businesses.”

**Vision for the MOL Group
10 Years from Now**

- The MOL Group will provide stress-free services that are truly convenient for customers worldwide, with the aim of serving customers as a solid and reliable partner at all times.
- The Group will develop the environment and emission-free businesses into one of its future core operations.
- The Group will strategically allocate resources to carefully selected businesses that have a clear competitive edge. The goal is to make the MOL Group a collection of businesses boasting the highest competitiveness in their respective fields.

‘ISHIN NEXT – MOL SMART SHIP PROJECT –’

MOL launched the ISHIN NEXT – MOL SMART SHIP PROJECT – a new technological development project that builds on the success of the Senpaku ISHIN Project *1, announced in 2009.

We will share this project’s technological development policies with customers and other stakeholders, and thereby grasp their needs and acquire various seeds of technologies.

MOL will deepen its efforts toward “safer vessel operation” and “technologies for reducing environmental

impact” by connecting those needs and seeds as One MOL and advance technology development to meet customers’ needs, at the same time enhancing our business capabilities and increasing corporate value.

*1 Senpaku ISHIN Project: MOL planned its next-generation concept ships and developed the underlying technologies required for the concept.

Renewable Energy

Investing in Self-Elevating Platform Vessel Business

MOL invested in Seajacks International Limited (Seajacks) Group, which owns and operates five Self-Elevating Platform (SEP) vessels*2.

This is a new offshore business for MOL, and also the

first step into the renewable energy business field through involvement in installation of offshore wind power generation systems, which is expanding in Europe and other areas around the world.

MOL continually contributes to environmental protection in areas and ports worldwide, and takes a proactive stance in promoting thoroughly safe operation and ocean and global environmental protection in compliance with our corporate principles.

Alternative Fuels

Methanol-Fueled Vessels

Equipped with Dual-fueled, Low-rev Main Engine Using Methanol and Fuel Oil

Three MOL-operated 50,000 DWT-type methanol carriers, which were delivered in 2016, are equipped with 2-stroke dual-fueled low-rev main engines capable of running on methanol, which is a biodegradable, clean burning marine fuel.

This engine produces lower emissions of carbon dioxide (CO₂) and nitrogen oxide (NO_x) in comparison with conventional ones, which use heavy oil. Use of methanol fuel can reduce emissions of sulfur oxide (SO_x) by 99%, NO_x by 18%, and particulate matter (PM) by 99%, in addition to cutting CO₂ by 10%, in comparison with traditional fuels. In addition, it is a cutting-edge “eco ship” as it is equipped with a ballast water treatment system, ahead of treaty requirements mandating such systems, and adopts energy-saving accessories in front of and astern of the propellers.



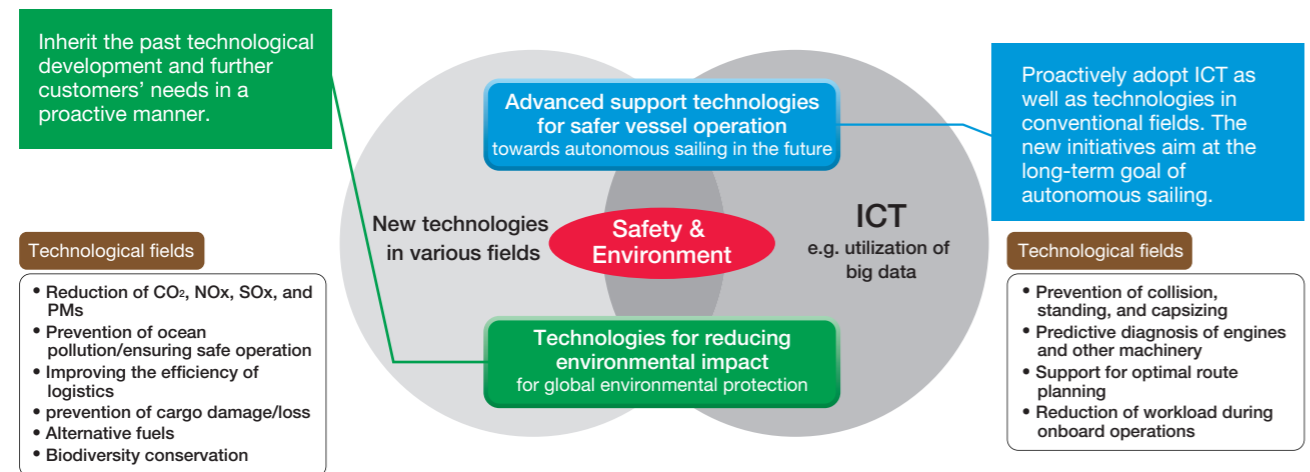
One of the world’s largest Self-Elevating Platform vessels, the Seajacks Scylla, owned and operated by Seajacks

*2 SEP vessels: The platform is equipped with legs that rest on the seabed and move up and down. The vessel installs offshore wind power generation systems by moving the platform up to the sea surface with a crane. By raising and maintaining a level higher than the waves, the generators can operate even in rough seas. It can be used not only to install offshore wind power generation systems, but also to help maintain offshore oil and gas rigs.



Methanol carrier the Manchac Sun

Concept of the project



MOL Sets its Sights on Construction of LNG-fueled Tugboat

1st LNG-fueled Tugboat in Osaka Bay, Promoting 'ISHIN NEXT'

LNG fuel results in virtually zero SOx emissions, significantly reduces NOx emissions, and can also reduce CO₂ emissions by around 20% in comparison with conventional heavy fuel oil. It is an effective means of significantly reducing the environmental impact of ocean transport.

In May 2017, MOL decided to build an LNG-fueled tugboat. It will be the first LNG-fueled tugboat in Japan conforming to the IGF code*1 issued in January 2017 subject to review by Japan's Ministry of Land, Infrastructure, Transport and Tourism.

MOL will own the tugboat, slated for construction at Kanagawa Dockyard Co., Ltd. Yanmar Co., Ltd. will supply LNG-fueled engines. Osaka Gas Co., Ltd. will supply LNG fuel to the tugboat. Nihon Tug-Boat Co., Ltd. will operate the tugboat.

The new tugboat will be deployed in Osaka Bay in April 2019. It will be equipped with high-performance dual fuel engines*2 that allow high-speed operation and superior environmental performance, and will be the first LNG-fueled tugboat to escort large-scale freighters in Osaka Bay and the Seto Inland Sea. The development of this tugboat will also spur the initial development of an LNG fuel supply system for vessels in Osaka Bay.

The tugboat will be built as an element of "ISHIN NEXT – MOL SMART SHIP PROJECT –," and knowledge and expertise gained through its development and operation will be fed back to various types of LNG-fueled ships including the environment-friendly ferry (ISHIN-II). This project also reflects MOL's proactive stance in promoting LNG fuel through technological development of LNG-fueled vessels and enhancement of safe operation.



LNG-fueled tugboat (for illustrative purposes only)

*1 IGF Code: The International Code Of Safety For Ships Using Gases Or Other Low-Flash Point Fuels. The code stipulates safety requirements for vessels using gas and other low-ignition fuels, and was issued on January 1, 2017.

*2 Dual Fuel Engine: Dual-fueled engines, which run on either A heavy oil or LNG

Research Project of LNG-fueled Capesize Bulker

Teaming up with DNV GL/Rio Tinto/BHP Billiton/Woodside/SDARI

MOL has reached an agreement to launch a joint study of a liquefied natural gas (LNG)-fueled Capesize bulker with five other companies- DNV GL (headquarters: Norway), BHP Billiton (headquarters: Australia/U.K.), Rio Tinto (headquarters: Australia/U.K.), Woodside Energy (headquarters: Australia/U.K.), and Shanghai Merchant Ship Design and Research Institute (SDARI; headquarters: China). The parties signed a letter of agreement at a ceremony held in Singapore on January 20.

The joint research project, called "Green Corridor," aims to reduce merchant vessels' emissions of NOx and SOx in advance of international treaties calling for stricter emissions standards, and will examine the technological and economic feasibility of an LNG-fueled bulker.



MOL Managing Executive Officer Toshiaki Tanaka, second from left, at the signing ceremony

World's largest 20,000 TEU-class Containership

Improving Transport Efficiency and Increasing Fuel Efficiency

The world's first largest over 20,000 TEU-class (capacity: 20,170 TEUs) was launched on the Asia/North Europe routes, and is operated by MOL.

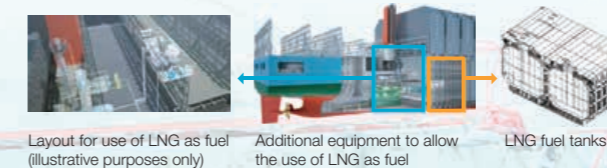
The vessel is equipped with a range of highly advanced energy-saving technologies including low friction underwater paint, a high efficiency propeller and rudder, a Savor Stator stream fin on the hull body, and an optimized fine hull form which together can further reduce fuel consumption and CO₂ emissions per container moved by about 25-30% when compared to 14,000 TEU-class containerships.

Additionally, the vessel has been designed with a retrofit option to convert to LNG fuel in view of the implementation of the new regulation in the future.

The MOL *Triumph* is equipped with the Hull Stress Monitoring System, which constantly monitors the status of the hull while the vessel is underway, and a ship operation monitoring system using high-speed data transmission technology, in addition to environmental technology. Swift transmission of information between ship and shore also contributes to safer vessel operation.



Containership MOL Triumph



MOL Ferry Co., Ltd. Launches *Sunflower Furano*

MOL Ferry's cutting-edge *Sunflower Furano* went into service in May 2017. It offers significant improvements in fuel efficiency and environmental performance thanks to the adoption of contra-rotating propellers (CRP) and a hybrid propulsion system.

The ferry was designed to be "both eco- and people-friendly," featuring water-saving systems that keep the restrooms clean and environment-friendly, expanding barrier-free facilities onboard, and so on.

Following the *Sunflower Furano*, the MOL Group will launch three newbuilding ferries with the same features by 2018. The group is united in developing a fleet of safe and environment-friendly ferries.



Ferry Sunflower Furano

[Please refer to the website for initiatives on environmental technologies.]



MOL Group Advances 'Workstyle Reforms'

MOL established the Improvement of Work Efficiency Committee in September 2016, categorized items to be addressed into short-term, mid-term, and long-term, and started the reforms.

President & CEO Ikeda assumed chairmanship of the committee in April 2017, and since then, we have moved ahead with our efforts under the slogan "Smart ON! Smart OFF!"

To think about future "workstyle reforms," five members — young, mid-career, and management-level employee, the president & CEO, and the executive officer responsible for workstyle reforms — got together and discussed current issues and how to address them, from the point of view of each position.

Discussion Held on May 9, 2017

Participants

- Junichiro Ikeda** (President & CEO)
- Kayo Ichikawa**
(Executive Officer, responsible for work efficiency improvement)
- Hirohiko Okada**
(Mitsui O.S.K. Lines (Japan), Ltd., General Manager)
- Masatake Yamamoto**
(Tanker Safety Management Office, Manager)
- Yasuo Matsunaga**
(Corporate Planning Division, Manager)
- Shunichiro Fushiya**
(General Affairs Division, Assistant Manager)
- Rumi Tomizawa**
(Dry Bulk Carrier Division (A), 4 years since joined MOL)
- [Facilitator]
- Hideki Takahashi** (Scholar Consult Co., Ltd.)



Objectives and Initiatives

Objectives of MOL's "workstyle reforms" are to "increase our personnel's competitiveness and realize innovation through a corporate culture that allows employees to work with vigor and enthusiasm." This is based on a concept that requires free thinking unencumbered by traditional views and a culture and organizational capabilities that foster an environment of unfettered creativity, in addition to accomplishing current essential work with higher efficiency, upon realizing "the vision 10 years from now." MOL will improve hourly output, set aside hours to perform innovative business operations* that are not tied to traditional ways, achieve targets, and at the same time, work to create a corporate culture that allows all employees to gain fulfillment from their work.

* Global business, strategy-oriented, value innovation, etc.

Issues to be Addressed

- Short-term:** Reforms of traditional methods of work such as management of meetings, reporting of information, filing
- Mid-term:** Reform of personnel system, proactive use of IT, renovation of office layout
- Long-term:** Improvement of individual operational abilities and skills/promoting a wider view of things, creation of a corporate culture allowing the exercise of innovation and creativity



Okada: A good point of our company is that employees are entrusted with assignments early in their careers and undertake those assignments responsibly, as I did. However, in recent years, it tends to put more weight on processes, and I sometimes worry whether young employees can proactively express their opinions. We need to create a foundation in which their managers are eager to listen to their opinions. Therefore, I think vitalization of communication is the most effective way.



Hirohiko Okada
General Manager
Mitsui O.S.K. Lines (Japan), Ltd.

In addition, I realize that "workstyle reforms" are not only for the company, but also for individuals.

Fushiya: I feel that the sense of distance among individuals at MOL is very close regardless of the hierarchical relationship. I myself was just assigned to the current division, so I want to directly meet colleagues and talk with them so that we can get to know each other. But face-to-face communication requires people to be together in a certain time and place, although it is easier to convey detail and nuance. So I think it is important to optimize communication by combining face-to-face talks with email, social media, and so on.



Shunichiro Fushiya
Assistant Manager
General Affairs Division

However, we tend to contact different divisions just by email. If we strive for well-balanced communication, the corporate culture and environment will become even better since the company has already has a good foundation.

Tomizawa: There is a "minister of workstyle reforms" in the Dry Bulk Carrier Division (A), where I am assigned. The minister produces e-mail magazines, organizes information collected in the division, and encourages us to realize higher priority ideas. However, we have issues to be addressed, too. We need to secure time away from our daily assignments to realize some of those priority ideas. Therefore, I want to ask our managers to get involved and create a balance with our existing assignments. We, as employees, will come to like the company and enjoy working here. We also seek to gain a sense of fulfillment



by working for society. In my case, a spirit of “Let’s do our best!” can emerge if people listen to one of my ideas and someone tells me “Let’s do that!”



Rumi Tomizawa
Dry Bulk Carrier Division (A)
4 years since joined MOL

In my current onshore assignment as a maritime officer, I see the difficulty of reforms. For example, we had a project to develop robots to support onboard crewmembers. We put our heads together to come up with various ideas. We selected several ideas and started thinking about how we could make the progression. However, we were instructed that the people who proposed the selected ideas had to realize the project. I understand the intention to create a workplace that allows efforts on such initiatives on a daily basis, but they already have daily duties and it would require considerable time to take responsibility for the project in their spare time. At the time, I felt it is a little different that “the person who comes up with ideas” must also be “the person who executes them.”

Yamamoto: I felt motivating people to improve meant providing continuous instruction and support when I was assigned to onboard operations as a crewmember. Because all crewmembers are working toward the goals of safe operation and operational efficiency, I felt that they did not have a mindset of providing new ideas and opinions for improvement to make operations more efficient. However, when I gave specific instructions on how to improve and by what process, even young crewmembers were engaged in making operations more efficient. Styles of work are different between jobs at sea and on land, but I thought it was important to clearly show them the process of bringing an idea to fruition and support them.

Matsunaga: I have a lot of empathy with Mr. Yamamoto’s story. I think they would welcome being told “You don’t have to do the current tasks. We will entrust you with the new project,” when they have so many other things to do.



Yasuo Matsunaga
Manager
Corporate Planning Division

I think the entire view will be increased by clarifying the goal of “workstyle reforms” and sharing it company-wide. “Workstyle reforms” encompass a wide range of themes, so maybe it is better to divide them into Phase I, Phase II, and Phase III. Put the reforms into practice by having empathy for other people and their ideas. Thus, it is important to accumulate success stories.

Ikeda: I have two points I thought of while listening to your comments.

First, there are still a few cases in which you come up with ideas and they are implemented. I always mention my desire to create a corporate culture in which everyone

can share their opinions freely. However, after all, it is not interesting or fun to come up with ideas alone. It is important to create the process that will put those ideas into tangible form.

Second, what should we do at the top management level to create new value? One extreme suggestion is that we drop 20 of 100 assignments we are doing now, and do 20 new assignments that create higher value. New value cannot be created without a high level of preparedness. We cannot survive without a strong determination to “change.” Top management must carefully evaluate those who want to move into the ranks of management, and hope that they have ideas that will help us change.



Junichiro Ikeda
President & CEO

Ichikawa: The “workstyle reforms” started as a company-wide project, but we cannot accomplish it in a short term and must continue for an extremely long term, what seems like an eternity. In this sense, it is important to voluntarily, continually make improvement that are close to home for all members, first toward achievement of their division targets. Company-wide projects are also individual projects. I hope the accumulation of small efforts – “I want change. I can do this” – will expand throughout the entire company and this will become a big wave.

On the other hand, it needs to be deployed in a top-down fashion, for example, making internal rules and reforms of the personnel system. We will also work to create a system that can develop good examples horizontally across divisions.

The ideals are: Everyone always comes up with ideas and creates new values even if there is neither a system



Kayo Ichikawa
Executive Officer
Responsible for work efficiency improvement

nor projects—I will create such a corporate culture and foundation as a part of the company.

Comment from Facilitator

Takahashi: Important terms are: “Sense of ownership” and “independence.” “Independence” means proactively getting others more involved, while “sense of ownership” means how I personally get motivated. A large organization requires a “sense of ownership.” Therefore, you must create mutual communication with each other, and step into a “sense of ownership.”

I expect that with efforts based on those terms, you will create ideas that serve a dual purpose, and foster a corporate culture with vigor and enthusiasm by continuing those efforts, which will improve individual members’ operational abilities and skills and broaden their viewpoints.



Hideki Takahashi
(Facilitator)
Scholar Consult Co., Ltd.

Masatake Yamamoto
Manager
Tanker Safety Management Office



Forging Ahead to Become 'The World Leader in Safe Operation'



CSR Targets in the Midterm Management Plan

Thoroughly Implement Safe Operation

All MOL Group employees learn that safe and stable cargo transport is the group's ultimate social mission, and the absolute necessity to achieve the targets of "Four Zeroes" (zero serious marine incidents, zero oil pollution, zero fatal accidents, and zero serious cargo damage).

KPI targets: Downtime per ship (24.00 hours per year), Incidents per ship resulting in stoppage (1.00 per year), Less than 0.70 LTIF *1 (Lost Time Injury Frequency).



Opportunities and Risks

Opportunities

- Earn customers' trust and create new business opportunities by accumulating a solid record of safe, secure, and reliable transport services.
- Increase competitiveness by meeting customer needs and continually enhancing the safety of our operations.

Risks

- Significant impact on society, the environment, and corporate management in the event of an incident.
- Loss of trust from customers and business opportunities due to incidents or decline in service quality.

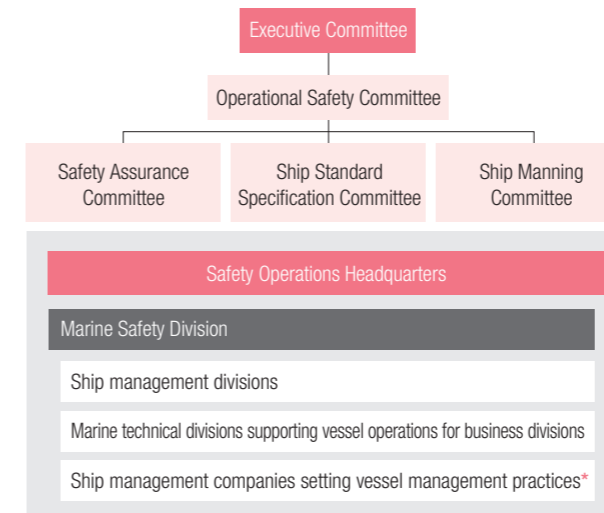
MOL's Approaches

All land-based and ocean-going personnel are united in working to achieve our goals including the "Four Zeroes."

Anchor Safety Operation Management Structure

The MOL Operational Safety Committee, chaired by the president, meets bimonthly to deliberate basic policies, countermeasures, and other items related to secure and completely safe operation of MOL- and MOL Group-operated vessels, and makes decisions on safety related measures.

Committees Related to Safe Operation



* MOL Ship Management Co., Ltd., and MOL LNG Transport Co., Ltd.

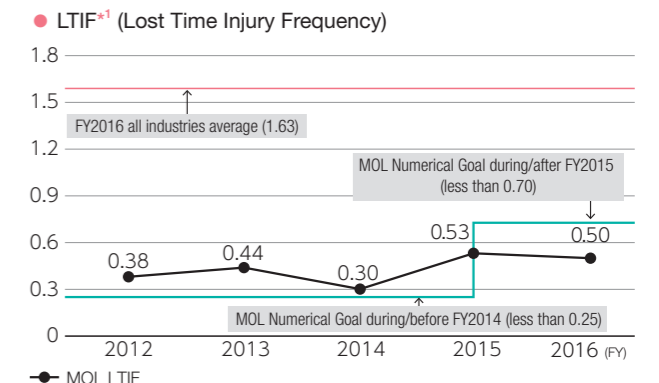
Anchor Safety Cost-focus Management

A well-known oil spill occurred off Spain in 2002, which resulted in the spill of about 63,000 tons of heavy oil after the oil tanker *Prestige* suffered hull damage and sank. Victims' claims totaled about 1 billion euros (about ¥140.0 billion). This is typical of a serious marine accident that results in significant damage to the environment.

MOL established its unique "MOL Safety Standard Specifications (please refer to page 27 for details)." The standards include the "fail safe" concept required to ensure safety even at the ship design and construction stages. This also includes additional installation of backup equipment and other devices that allow for emergency operations. Normally, specifications and estimates quoted from shipyards are based on the standard specifications, but MOL is committed to taking additional safety measures even though it increases vessel construction costs by 2% to 3%. This can add up to hundreds of millions of yen per ship, but all of MOL's vessels offer the most advanced safety specifications.

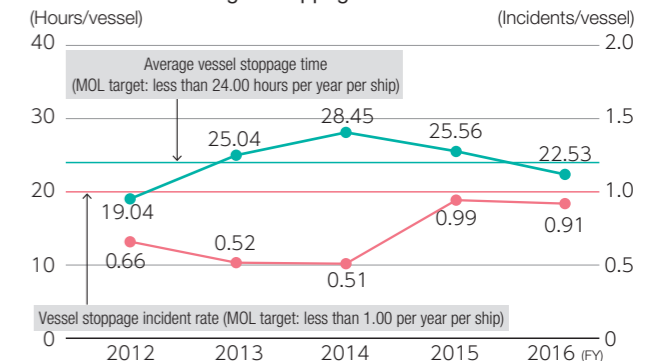
Anchor Key Performance Indicators (KPIs)

- ① "Four Zeroes" (zero serious marine incidents, zero oil pollution, zero fatal accidents, and zero serious cargo damage) as the MOL Group
- ② Less than 0.70 (from FY2015) LTIF (Lost Time Injury Frequency)*1
- ③ Less than 24.00 hours of downtime per ship per year*2
- ④ Less than 1.00 incidents per ship per year that require stopping the ship.*3



*1. Conventionally, occupational injuries and illnesses that forced seafarers to disembark vessels were counted. But starting in FY2015, the total includes cases in which seafarers did not have to disembark, but were unable to return to work, including light duty. Reference: Overall industry average (2016): 1.63, water transportation industry: 1.51 (2016), transportation machinery and equipment manufacturing industry: 0.39 (2016) (source: Ministry of Health, Labour and Welfare "Outline of 2016 Survey on Industrial Accidents")

Anchor Average Vessel Stoppage Time*2, and Percentage of Incidents Resulting in Stoppage*3



*2. Annual incident-related stoppage hours per vessel
*3. Annual number of incidents per vessel resulting in vessel stoppage

Anchor Wider Application of ICT/Smart Shipping Office

Information and Communication Technology (ICT) such as IoT and big data analysis has been growing rapidly and potential applications at sea and between sea and shore are expanding. MOL established the Smart Shipping Office as a core division. The office aims to deliver a new level of customer service by incorporating the underlying seed technologies of ICT into the MOL Group's ship operational know-how and fully grasping customers' potential needs as the group forges ahead to become the world leader in safe operation.

In addition, the office will take responsibility for development of advanced support technologies for safer vessel operation, one of the concepts behind the "ISHIN NEXT - MOL SMART SHIP PROJECT -" (please refer to page 17 for details). In May 2017, a joint project between MOL and Mitsui Engineering & Shipbuilding Co., Ltd. to develop the technological concept for an autonomous ocean transport system was selected by Japan's Ministry of Land, Infrastructure, Transportation and Tourism (MLIT) for its FY2017 Transportation Research and Technology Promotion Program. The joint project will develop the concept for autonomous vessels, drawing upon the strengths of each participating company and organization, setting a course toward development of the technology needed to realize autonomous vessels that can provide reliable, safe, and efficient ocean transport.

During Ship Construction

In cooperation with shipowners and shipbuilding companies, MOL continually strives to maintain and improve the quality of all MOL Group-operated vessels.

Anchor MOL Safety Standard Specifications/MOL Standards

With the goal of effectively maintaining the safety of our operated vessels, MOL formulated the first edition of the "MOL Safety Standard Specifications" in the aftermath of serious marine incidents in 2006, and since then has been revising it accordingly. Serious incidents such as collisions and groundings, fires, sinking, loss of hull stability, and oil spills and other environmental pollution can have a huge impact on both society at large and the group's profitability, not to mention the loss of trust from customers and other stakeholders. In FY2016, we decided to expand the scope of

the specifications to include workplace accidents.

The "MOL Standards" systematically compile knowledge and expertise—gained through many years of experience in ship operation—related to countermeasures for issues such as inferior quality oil, which inhibits ship operation, effective maintenance procedures, and policies and practices that contribute to life saving, security, and environmental protection, based on extensive technical and economic analysis.

Some of these countermeasures are as follows.

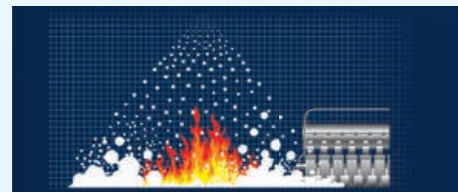
Countermeasures 1 AED—Automated External Defibrillator

Just in case a crewmember suffers cardiac arrest, one of his or her shipmates can use the AED to administer an electric shock to return the heartbeat to normal, often a life-saving procedure.



Countermeasures 2 High Expansion Foam Fire Extinguishing System

In the past, engine rooms were filled with CO₂ gas to fully extinguish fires, but if there are any crewmembers on the scene, they may not be able to exit quickly enough and run the risk of oxygen deprivation. Or air could be pumped back into the engine room if the air vent is not closed properly, and the fire will not be extinguished as quickly. To eliminate such risks, MOL introduced the foam extinguisher system that fills the engine room with a massive amount of foam to put out fires.



Countermeasures 3 Security Cameras in Engine Room

Security cameras in the engine room are set to monitor the equipment that supplies the main engine and generator with fuel. They are also placed along the evacuation route from the engine room. The cameras help us accurately assess the situation when a fire occurs, secure the safety of crewmembers during fire extinguishing operations and evacuation, and review the security camera footage after the fact.



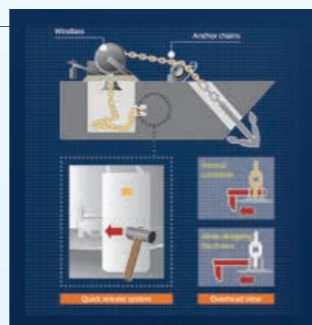
Countermeasures 4 Portable Davits

We assume that crewmembers may not be able to move during operations in closed zones such as ballast tanks. Use of portable davits allows for speedy and reliable rescue.



Countermeasures 5 Quick Release System for Anchor Chain

During the incident that led to the grounding and sinking of an iron ore carrier in 2006, the anchor chain could not be released quickly. This was one of the factors that greatly worsened the situation. Based on this bitter experience, we introduced a quick release system for our vessels' anchor chains. In an emergency, if the anchor cannot be winched aboard by the windlass, or when there is no time to winch the anchor and anchor chain aboard, the quick release system lets the vessel drop the anchor chain by quickly releasing the connection between the anchor chain and the hull to free the vessel, ensuring the safety of the ship and saving lives.



During Cargo Transport 1

24/7/365 Support from the Safety Operation Supporting Center (SOSC)

Anchor Strong Determination to Safe Operation

Four serious marine incidents occurred in 2006. After those incidents, MOL thoroughly investigated the causes, and in 2007, we established the SOSC, with the motto "Never let the captain get isolated." MOL Group executives and employees, working together, took the lessons learned from those incidents to heart, and developed measures that will help us "forge ahead to become the world leader in safe operation."

Anchor Various Risks Surrounding Vessels

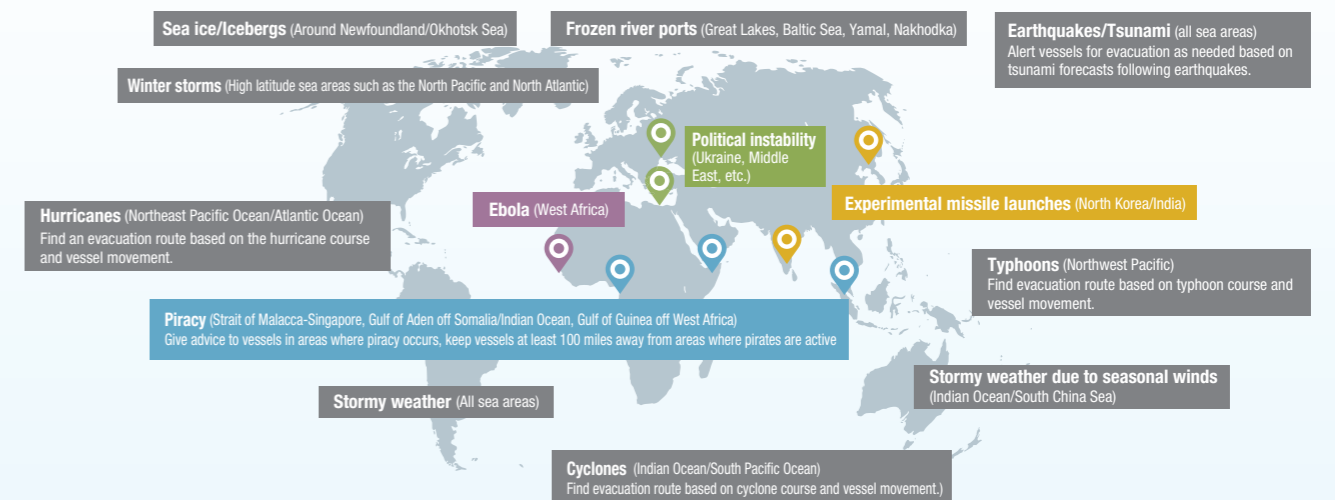
MOL Group vessels navigate oceans all over the world. Not only in bad weather situations such as winter storms, hurricanes and typhoons, and frozen river ports, but also in places like the Middle East and Ukraine, where political situations can be volatile, we must always be ready to take appropriate measures. We also go where there is a risk of piracy. In other words, we must appropriately address myriad situations on a daily basis.

Global warming is upon us, and that serves to increase the power of tropical depressions – winds are stronger and

accompanying rains are fiercer, so the linkage between vessels and shore becomes even more important. In addition, ship-to-shore cooperation becomes more crucial as deteriorating international conditions require greater preparation against possible pirate or terrorist attacks.



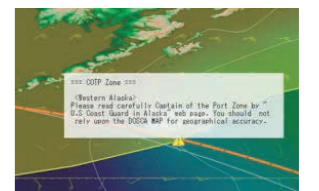
Our SOSC grasps these risks in real time, confirming that communication among vessels, ship management companies, marine technical teams, and personnel responsible for vessel operation is clear and constant. The SOSC's motto is "Never let the captain get isolated," and its initiatives are built on that premise. There are always two people on watch at the SOSC, one of whom must have experience as a captain of a vessel. Information on weather, reports from overseas media, and other things that might have something to bear on vessels underway is gathered. Thus, the SOSC is always ready to offer timely information and advice, and help prevent serious accidents before they happen.



TOPICS

'Hazard Map' Function, Operational Support Tool, Aiming at a New Level of Safety

MOL has added a hazard map function to the Captain's Dynamic Operation System for Counter planning and Analysis (Capt.'s DOSCA). The content of the hazard map includes past incidents involving operated vessels, hazardous sea areas, regions subject to special regulations, and actual measured weather information. The enhanced system makes it easier for crewmembers to recognize potential hazards near the routes they are using. Mariners who have this kind of information in advance can recognize problems before they occur and operate their vessels with greater safety and efficiency.



During Cargo Transport 2

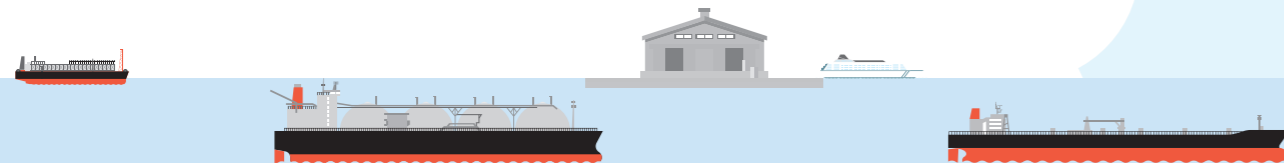
Multinational, Diversified Seafarers Hone MOL Seamanship to Address Any Situation

Thorough Investigation by Highly Skilled Ship Inspectors

Two ship inspectors, who have a thorough knowledge of MOL's safety standards through onboard experience as a captain or chief engineer, visit ships in person and conduct a detailed investigation based on a checklist of about 500 items, such as qualifications and career experience of crewmembers, records of the hull's maintenance status, and engine inspection and maintenance records.

If they spot an unsafe condition, they make sure the vessel and concerned ship management company take appropriate corrective measures so the ship meets MOL's strict safety standards.

Their completed report, which covers the entire inspection and is illustrated with photographs, is circulated among relevant divisions including the responsible business division. Thus, the quality of the vessel is confirmed. In the case of charter vessels, the shipowner receives any corrective guidance through the business division. This consistent, professional approach ensures the safety of both owned and chartered ships.



Fostering a Culture of Safety

Discussion of Serious Marine Incidents in 2006

Last year was a milestone, 10 years after 2006, when four serious marine incidents occurred, shaking the foundation of our safe operation. MOL held a discussion of serious marine incidents in 2006 to make sure the lessons of those incidents do not fade from memory and to foster a culture of safety. Employees who were in charge of responding to the incidents talked about the terror they experienced and the severity of the response, which cannot be fully communicated through DVDs or written reports.



Safety Campaign

MOL launches a biannual Safety Campaign with a different theme each time, during which executives and employees conduct an extensive series of visits to MOL-operated vessels and exchange information and opinions about ways to prevent incidents. Proposals and ideas gained through this campaign are shared throughout the MOL Group and among group-operated vessels to further enhance the group's safe-operation structure. Since FY2014, the theme of the Safety Campaign is "Behavior Based Safety (BBS)*." And in FY2015, we began providing background information on recent incidents and near-miss cases, and holding discussions about measures to eradicate incidents caused by overconfidence that stems from complacency and carelessness. Land-based executives and employees also think about what goes into each onboard task and the

role and importance of safe operation. In these ways, we strive to build company-wide safety awareness and create a sense of unity among all executives and employees, whether they work on shore or at sea.

Total Safety Campaign Attendance (unit: persons)

| FY2014 | FY2015 | FY2016 |
|--------|--------|--------|
| 464 | 780 | 805 |

* Behavior Based Safety (BBS) is the concept that increases "safe behavior" and ensures the safety of the vessel by thinking of background factors when people select "safe behavior" or "unsafe behavior" and working on the factors behind the selection process.

Safety Conference

As a part of our measures to ensure safe operation, we have held Safety Conferences every year since 2007. In February and March 2017, Safety Conferences were held in Tokyo, the Philippines, Croatia, and India, and attended by 663 crewmembers who were on leave. They actively exchanged opinions about causes and prevention of marine incidents, as well as industrial accidents.

Beach Cleanup at Kashima-nada Beach

Since the grounding of the MOL-operated Giant Step in 2006, MOL Group executives and employees meet every year at Kashima-nada Beach for a cleanup project. In October 2016, 144 members, including President & CEO Ikeda, cleaned up the Kashima-nada Beach Hikawahama swimming area. This activity aims to prevent the lessons of this incident from fading, foster safety consciousness, raise awareness of marine environmental preservation, and contribute to the community.



Development of Telecommunication Infrastructure

MOL reviews existing fleet broadband (the ship-to-shore telecommunication environment) as appropriate, and began introducing high-speed, high-capacity telecommunication service using the state-of-the-art IMMARAT GX satellite. This allows us to grasp real-time information such as locations of vessels in operation, speed, and engine status, and contributes to further reduction of CO₂ emissions and realizing safe operation. In addition, this facilitates smooth communication between ship and shore and a better work environment for crewmembers.



TOPICS

'MOL Body FIT Exercise' Program Receives 'The Best Practice Award of Seafarers Onboard Safety, MLIT'

MOL has actively encouraged adoption of the "MOL Body FIT Exercise" program as a daily routine, with the goal of reducing the incidence of onboard injuries. The program includes calisthenics based on stretching, which develops strength in the trunk and leg muscles, while improving the mariners' sense of balance and reducing the risk of falls. It was awarded the "The Best Practice Award of Seafarers Onboard Safety 2016" from the Ministry of Land, Infrastructure, Transport and Tourism (MLIT).

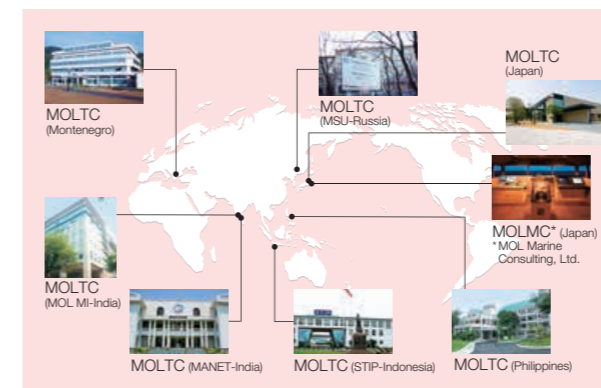


MOL Body FIT Exercise

Human Resources Development

To achieve safe operation, we must have highly qualified crewmembers, which means recruiting and developing the very best people we can find. MOL employs the best personnel, regardless of nationality, and gives them the high level of education and training required to cultivate high morale, technical skills, and knowledge. The MOL Training Center provides not only the basic skills necessary for vessel operation, but also operational techniques specific to ship types. Thus, the center holds a wide variety of training programs from theoretical studies in the classroom

Training Highly Competent Crewmembers on a Global Scale (MOL Training Centers)



Crewmembers Receiving Instruction at MOL Training Centers (unit: persons)

| | FY2014 | FY2015 | FY2016 |
|-----------------|--------|--------|--------|
| The Philippines | 8,511 | 6,114 | 5,417 |
| India | 2,067 | 1,405 | 1,650 |
| Europe | 1,046 | 1,035 | 1,067 |

to practical training that uses actual equipment and various types of simulators.

In addition, MOL has introduced its unique systems such as "Cadet Actual Development for Education with Tutorial (CADET Training)," a practical training program aboard its operated vessels, and the "OJT Instructor System," in which experienced captains and chief engineers go aboard a vessel and provide direct advice and instruction. These are just a few of our initiatives to hone the seamanship skills of mariners throughout the MOL Group.

Inaugurating New Maritime Academy in Philippines

MOL will inaugurate a new maritime academy, MOL Magsaysay Maritime Academy Inc. (MMA), in Dasmariñas City, Cavite State, in June 2018. Filipino seafarers serve as the core of the workforce serving aboard our operated vessels, and we expect them to play an even more critical role as technology advances. The academy will provide continuous training programs to develop top-quality seafarers who can hit the ground running through a four-year curriculum that encompasses basic education and specialized coursework. With our local partner Magsaysay Maritime Corporation (MMC), we plan to recruit about 300 graduates every year.



Further enhancing initiatives to reduce environmental impact as an Environmentally Advanced Company



CSR Targets in the Midterm Management Plan

Environmental Initiatives

Progressively address the solution of environmental issues such as emissions of greenhouse gases (GHG), air pollution, and inhibition of biodiversity. Grasp environmental concerns of customers and other stakeholders to provide innovative solutions, and grow the environment and emission-free businesses into a next-generation core business.
 KPI targets: Reduce GHG emissions by 2% per unit load every year in comparison with the previous year.



Opportunities and Risks

Opportunities

- Use technology to differentiate the MOL Group and gain a competitive advantage, while meeting the needs of customers who have especially high standards regarding environmental performance.
- Environmental measures help reduce fuel consumption and result in lower operating costs.

Risks

- Environmental laws and regulations covering the shipping industry have become more stringent, and companies that do not respond quickly enough risk losing business opportunities.
- Delaying the response to laws and regulations also results in higher costs.

MOL's Approaches

The Paris Agreement was established, United Nation's Sustainable Development Goals (SDGs) were adopted, and the International Maritime Organization reinforced various environmental regulations in recent years. Concern continues to grow regarding ways to protect the global environment, including measures to prevent global warming. The MOL Group established the "MOL Group Environmental Vision 2030" in April 2017 to clarify its stance on addressing global environmental conservation as an advanced environmental corporation.

(Please refer to page 15-16 for details of the "MOL Group Environmental Vision 2030.")

MOL Group Environmental Policy Statement

Philosophy

As one of the world's leading multi-modal transport groups, the MOL Group is committed to protecting the health of our marine/global environment and therefore promotes and supports the following policies.

Policies

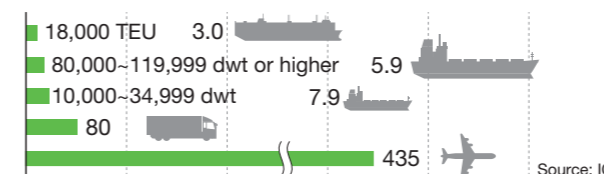
1. Protect all aspects of the marine/global environment and foster safe operation;
2. Comply with all environmental legislation and regulations required by law, and all relevant standards and other requirements that we subscribe to. And, whenever possible, further reduce the burden on the environment by setting and achieving even tougher voluntary standards;
3. Periodically review and revise our environmental protection measures on the basis of our framework for setting and reviewing environmental objectives and targets;
4. Conserve energy and materials through recycling and waste reduction programs;
5. Purchase and use environmentally safe goods and materials;
6. Promote the development and use of environmentally safe technology;
7. Educate and encourage group employees to increase their focus on protection of the environment through enhanced publicity efforts, and communicate our Environmental Policy to group employees;
8. Publish our Environmental Policy Statement and disclose our environmental information on a regular basis; and
9. Always strive to ensure that our business activities contribute to and adequately support worthy environmental protection activities.

Anchor Ocean Shipping's Impact on the Environment

Compared to other modes of transport, ocean shipping can transport larger volumes of cargo at once and is a generally environment-friendly mode, with lower emissions per unit load of CO₂ and other air pollutants.

However, with growth of the world economy spurred by the development of emerging markets, overall world ocean cargo traffic continues to increase. Seaborne trade has exceeded 10 billion tons, and we anticipate further increases in the future. As seaborne trade increases, CO₂ emissions will rise in step with growing energy consumption. This can exacerbate pressing environmental issues. CO₂ emissions from merchant vessels account for about 2% of global emissions, and the shipping industry must do more to protect the environment. MOL strives to control emissions of pollutants through initiatives such as the adoption of advanced technologies and slow steaming. In FY2016, we reduced CO₂ emissions per ton-mile by 6.5% in comparison with the previous year. We will proactively promote the adoption of technologies to reduce our environmental impact through the "ISHIN NEXT – MOL SMART SHIP PROJECT –" launched last year. We are also committed to entering environmental business areas such as renewable energy and develop them as a core business in the future.

Comparison of CO₂ Emissions from Aircraft, Trucks, and Ocean Vessels (Unit: grams/ton-km)

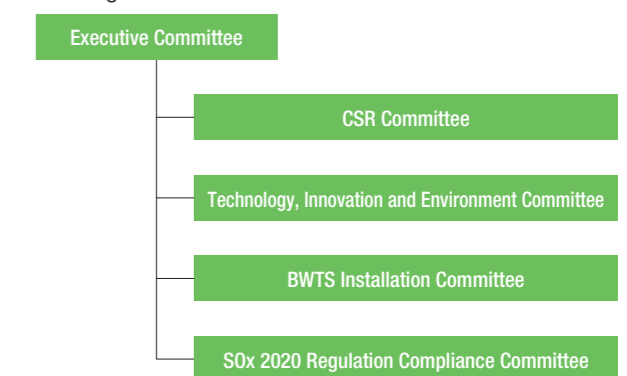


Anchor Organizational Structure for Environmental Initiatives

To effectively promote environmental initiatives based on the MOL Group Environmental Policy Statement, the CSR Committee, a subcommittee of the Executive Committee, oversees planning and promotion of environment-related measures under the direction of the president. The CSR Committee assesses environment-related risks and opportunities involving MOL, identifies the highest-priority issues in the group's environmental management, and sets environmental targets. MOL proactively addresses customers' environmental needs as an advanced environmental corporation.

MOL established the Technology, Innovation and Environment Committee to handle strategic planning on technological innovation and environmental initiatives strategy, the BWTS Installation Committee to respond appropriately to ballast water regulations, and the SOx 2020 Regulation Compliance Committee to address the stricter 2020 global limit on sulfur content in fuel oil.

Organizational Structure to Promote Environmental Management



Addressing Environmental Issues with Advanced Technologies

Viewing its response to environmental regulations as a business opportunity and a strategy for differentiation, the MOL Group proactively develops and adopts advanced technologies that reduce the environmental impact of our business and set the stage for real solutions to global environmental issues.

Preventing Global Warming

The Paris Agreement was adopted at the 21st Conference of the Parties (COP21) of the United Nations Framework Convention on Climate Change (UNFCCC) in December 2015. This is an innovative framework with the participation of UNFCCC 196 member countries. The universal agreement's main aim is to keep the rise of global temperatures below 2 degrees Celsius. It also mentioned that the 1.5 degrees Celsius limit is a significantly safer defense line to reduce risk. The agreement commits to net zero greenhouse gas (GHG) emissions resulting from human activities during the second half of the century.

The International Maritime Organization (IMO) is responsible for developing measures to reduce GHG emissions in the international shipping industry. In 2013, the Energy Efficiency Design Index (EEDI) and the Ship Energy Efficiency Management Plan (SEEMP) became mandatory. The EEDI regulates CO₂ emissions at the stage of new ship design. Starting in 2019, vessels will be required to collect and report data such as CO₂ emissions via the Data Collection System (DCS). The IMO will analyze collected data and set strategies toward reduction of GHG emissions.

Example of Initiatives Upgraded PBCF

MOL Techno-Trade, Ltd., an MOL Group company, has launched sales of an upgraded version of its energy-saving Propeller Boss Cap Fins (PBCF). MOL Techno-Trade has sold more than 3,100 PBCFs to ship owners all over the world. The new type of PBCF was jointly developed by MOL, Akishima Laboratories (Mitsui Zosen) Inc., and MOL Techno-Trade. The new design enhances propeller thrust and reduces torque thanks to refinements in fin shape and height. Tests of the new type PBCF on vessels in service confirmed energy saving of around 5% compared to sister vessels not equipped with PBCF.



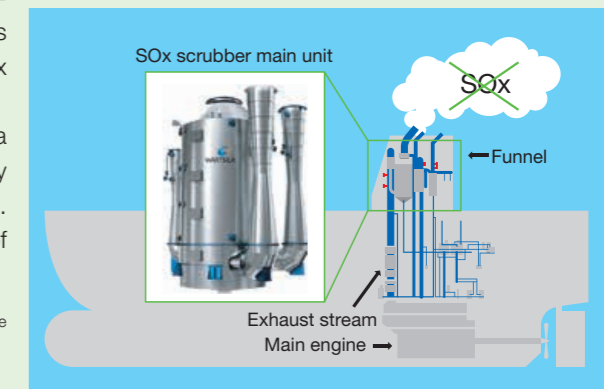
Upgraded PBCF

Preventing Air Pollution

Nitrogen oxides (NOx) and sulfur oxides (SOx) cause acid rain and air pollution. As industrialization has grown, air pollution has become even problematical, affecting the daily lives of people and damaging the natural environment. In October 2016, IMO decided to reduce the maximum permitted sulfur content in fuel oil from the current 3.5% or less to 0.5% or less after 2020. A critical issue is whether shipping companies will be able to procure fuel oil that meets those standards on a timely basis. Other MOL countermeasures include conducting a study on the installation of SOx scrubbers*1 on vessels and construction of vessels that use LNG as alternative fuel.

Methanol is another alternative fuel. MOL has started owning and operating methanol carriers that can use dual fuels of methanol and heavy oil. Methanol fuel can reduce SOx emissions by 99%. (Please refer to page 18 for details.)

In addition, MOL is moving ahead with plans to build a tugboat powered by an engine that can run on either heavy oil A or LNG, which is expected to go into service in 2019. This will contribute to MOL Group R&D on construction of LNG-fueled vessels. (Please refer to page 19 for details.)



*1 An SOx scrubber is installed in the funnel of the ship, and sprays seawater into the exhaust gas to eliminate sulfur.

Regulations to Prevent Global Warming

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2025 |
|-------|-----------|---------|------|------|------|------|-----------|---------|
| EEDI | Phase 0 | Phase 1 | | | | | Phase 2 | Phase 3 |
| SEEMP | Mandatory | | | | | | | |
| DCS | | | | | | | Mandatory | |

In 2013, conventions related to energy efficiency (EEDI and SEEMP) were adopted as measures to reduce GHG emissions from international ocean shipping.

EEDI: Energy Efficiency Design Index. It is required that CO₂ emissions in theory conform to the regulations at the design stage of a newbuilding vessel. Target of reduction rate in each phase: Phase 0 = 0; Phase 1 = 10%; Phase 2 = 20%; and Phase 3 = 30%.

SEEMP: Ship Energy Efficiency Management Plan. Selection of an operational method for each vessel to improve energy efficiency, documentation of the action plan, and adoption of method aboard the vessel are required. SEEMP targets both newbuilding vessels and existing vessels.

In addition, IMO plans adoption of DCS to further reduce GHG emissions.

DCS: Data Collection System. The system is intended to report fuel consumption data from ships to the IMO, which will analyze it and set strategies toward reduction of GHG emissions, including introduction of market based measures.

Regulations to Prevent Air Pollution

| | | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------------------|------------------|---------------------|---------------------|------|---------------------|------|------|---------------------|
| SOx (sulfur oxides) | General sea area | Sulfur content 3.5% | | | | | | Sulfur content 0.5% |
| | ECA | Sulfur content 1.0% | Sulfur content 0.1% | | | | | |
| NOx (nitrogen oxides) | General sea area | Tier II regulation | | | | | | |
| | ECA | Tier II regulation | | | Tier III regulation | | | |

SOx Emissions Regulations: Sulfur content in fuel oil is controlled to reduce SOx in exhaust emissions. From 2015, the ratio level in the Emission Control Areas (ECAs^{*2}) was reduced to 0.1% or less. In October 2016, the IMO decided to reduce sulfur content in fuel oil to 0.5% or less even in general sea areas.

NOx Emissions Regulations: NOx in exhaust gas from engines is controlled in a step-by-step manner. Tier I regulates emission levels by rated engine rpm, targeting vessels built between 2000 and 2010. Tier II requires vessels built in 2011 or later to reduce a further 15.5-21.8% from the Tier I level. In the ECAs^{*2}, Tier III applies to vessels built in 2016 or later, requiring reduction of 80% from the Tier I level.

*2 ECA-designated sea areas: (1) North America Coast – within 200 nautical miles (SOx/NOx), (2) United States Caribbean Sea (SOx/NOx), and (3) Baltic Sea and North Sea (currently SOx only. SOx/NOx in 2021 and later.)

Contributing to Conservation of Biodiversity

Ballast Water Issues

Ballast water, which is discharged while loading cargo, carries marine organisms around the world and can have a negative impact on marine ecosystems and biodiversity. Accordingly, the International Maritime Organization (IMO) adopted the Ballast Water Management Convention in 2004. As the requirements for its ratification were satisfied in September 2016, the convention is slated to go into effect in September 2017.

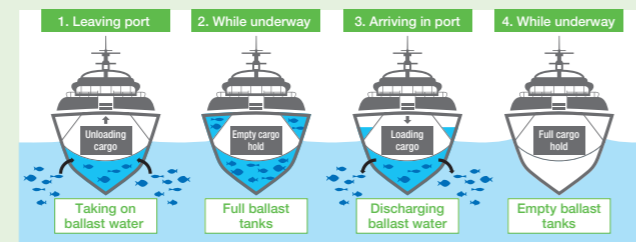
Example of Initiatives Early Installation of Ballast Water Treatment System

In 2014, MOL established a company-wide policy to install ballast water treatment systems on our vessels before the convention took effect, and press ahead with installation. As of June 2017, we had installed the system on a total of 87 ships. We continue to accumulate expertise on ballast water treatment systems, based on the operation of these vessels.

Viable Organism Analyzer in Ballast Water

Satake Corporation and MOL Engineering Co., Ltd. jointly developed the compact "Ballast Water Sample Concentrator" to detect the presence of large-size organism (minimum diameter $\geq 50\mu\text{m}$) in ballast water samples. The concentrator and the Satake-designed and -developed "Viable Organism Analyzer" are designed and sized to make them easy to carry onto vessels.

Transfer of Aquatic Organism via Ballast Water



Safe, Environment-friendly Ship Recycling

Ship Recycling Issues

Aged vessels need to be scrapped from the viewpoint of both safe operation and marine environmental protection. In May 2009, the IMO adopted the Hong Kong Convention for the purpose of solving scrapping-related issues, and the ratification process is moving ahead. The convention prohibits or limits the content of stipulated harmful substances aboard throughout the life of the vessel, and requires ship owners to create, maintain, and update an inventory list including the amount and locations of harmful substances aboard. The inventory list is provided to the recycling yard when the ship goes out of service.

Example of Initiatives Ship Recycling

We select environment-friendly recycling yards in conformity with the Hong Kong Convention. We check a broad range of items through site inspection including whether a particular yard's environmental management meets ISO 14001 or equivalent standards, and whether scrapping methods and procedures meet acceptable requirements such as environmental protection, occupational safety, and human rights.

The MOL Group was one of the first to start preparing inventory lists to ensure a smooth response to the requirements of the convention. We share information related to ship recycling as well as conditions at recycling yards.



Scrapping operations at a safe, environment-friendly recycling yard

Regulations to Protect the Marine Environment

| | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-------------------------------------|------------------|--|-----------|------|-----------|------|------|
| Ballast Water Management Convention | General sea area | Adopted in 2004: yet to take effect | | | Mandatory | | |
| | USCG regulations | Enforced in 2012 | Mandatory | | | | |
| Ship Recycling Convention | | Adopted in 2009: yet to take effect, effective year undetermined | | | | | |
| Convention on Biofouling on Hulls | | Guidelines adopted in 2011 | | | | | |

Ballast Water Management Convention: It aims to prevent cross-border transfer of foreign marine organisms through ballast water of vessels. It was adopted in 2004 and is slated to go into effect in September 2017. Vessels are mandated to install a ballast water treatment system by the stipulated deadline, within seven years from the effective date at the longest.

USCG Ballast Water Management Regulations: The United States Coast Guard regulations took effect in 2012. They are almost the same in content as the Ballast Water Management Convention; they require a unique type of approval for ballast water treatment systems. From 2016, all vessels calling at U.S. ports are required in principle to install ballast water treatment system at the first docking.

Ship Recycling Convention: It aims to prevent workplace accidents and environmental pollution in ship recycling. It was adopted in 2009, and will be issued 24 months after the requirements are satisfied. It sets standards for ship recycling facilities and recycling procedures, and requires ships to create, maintain and update an inventory list of onboard hazardous substances.

Convention on Biofouling on Hulls: As marine organisms attached to the bottom of ships and crossing national borders have emerged as an environmental issue, IMO is discussing ways to address it. The "Guidelines for the Control and Management of Ships' Biofouling to Minimize the Transfer of Invasive Aquatic Species" was adopted in 2011. After the review period (five years), it may become a convention in 2017 or later.

Environmental Initiatives in Business Activities

| Environmental Impact of Business Activities | Environmental Initiatives | Ship Construction | Cargo Transport | Scrapping |
|---|--|---|---|-------------------------------|
| Global Warming | Measures to reduce CO ₂ emissions | Main engine: Research and development of a system that recovers waste heat from sources of low-temperature heat Improve transport efficiency by adopting larger vessels Introduction of Propeller Boss Cap Fins (PBCF) Introduction of low-friction ship bottom paint Introduction of high-efficiency waste heat recovery system Research on special rotation nozzles Adoption of wind-pressure resistance-reducing design Introduction of hybrid car carriers Research on Power Assist Sail Participation in Wind Challenger Project Study of LNG-fueled Vessels | Expansion of Eco Sailing Use of optimal operation support system Use of optimal trim calculation system | |
| | | Measures to reduce NOx emissions | Selective Catalytic Reduction (SCR) | |
| Air Pollution | Measures to reduce SOx emissions | Use of low-sulfur fuels Study of SOx scrubber LNG-fueled vessels Methanol-fueled vessels | | |
| | | Measures to reduce particulate matter (soot and dust) emissions | Self-cleaning particulate matter (PM) Filter System Use of on-shore electricity in berth | |
| Marine Environmental Pollution | Initiatives on marine environmental conservation | Double hull structure on tankers Double hull structure on fuel tanks Adoption of NSafe™-Hull with improved collision safety | Proper treatment of waste, waste oil, and bilge | Initiatives on ship recycling |
| | Initiatives on biodiversity | Installation of ballast water treatment system before convention takes effect Prevention of biofouling | | |

(Please refer to the website for details.)

Maximizing the Potential of Human Resources: the Driving Force behind Growth and Value Creation



CSR Targets in the Midterm Management Plan

Initiatives on Human Resources Development

Develop personnel who can cope flexibly with changes in the business climate, support a vibrant, innovative organization that grows sustainably, and develop an environment in which diverse personnel can play active roles.



Opportunities and Risks

Opportunities

- The driving force behind any company's growth and value creation is the power of its people, so employees' growth and development are essential in expanding our business and differentiating the MOL Group from its competitors.
- Putting the responsibility for decision making in the hands of personnel with various backgrounds and characteristics makes it easier for everyone to accept a more diversified sense of values. This gives the MOL Group an edge in adapting to market changes and risk tolerance.

Risks

- If we face a shortage of skilled seafarers, we will lose competitiveness and miss business opportunities.
- MOL's brand image and trust are backed by our people, and failing to adequately develop human resources, accumulate know-how, and create an effective working environment will hamper the MOL Group's growth.

MOL's Approaches

Aiming at development of global human resources — personnel who channel the group's common sense of values, MOL CHART, to our corporate culture, recognize our social responsibility, and can create shared value with society

Group's Common Sense of Values, MOL CHART



- Challenge** Innovate through insight
- Honesty** Do the right thing
- Accountability** Commit to acting with a sense of ownership
- Reliability** Gain the trust of customers
- Teamwork** Build a strong team

MOL CHART is aimed at shaping the MOL Group into an excellent and resilient organization that leads the world shipping industry, while strengthening and concentrating its comprehensive group-wide efforts. We encourage MOL Group employees to keep MOL CHART values foremost in mind as they execute business operations. We use MOL CHART to ensure compliance, build a more thorough awareness of safe operation, and nurture independent-spirited personnel who are committed to acting with a sense of ownership, by instilling employees at Group companies and seafarers aboard vessels with the values outlined in MOL CHART.

Fostering an MOL Group that Allows Diversified Personnel to Play Active Roles with a Sense of Unity

To strengthen and concentrate the MOL Group's comprehensive efforts, from an early stage, we have pushed forward with group-wide initiatives to develop independent-spirited personnel who are committed to acting with a sense of ownership and playing an active role in global markets. We will further enhance our human resources development, aiming to create a vibrant, innovative organization powered by a diverse and dynamic workforce.

Personnel System

MOL is strengthening its personnel system and moving ahead to create an environment that allows diverse personnel to play active roles with a sense of unity.



Column

MOL CHART Episode

About 10 years ago, I received an inquiry about exporting plants with soil to China. I thought it would be difficult due to the possibility of insect infestation. I asked the plant quarantine station, and they said there had never been a case of plants being exported through the Port of Moji. Although we had reached a deadlock, I did not give up, and asked them to check into records from other ports around Japan. A few days later, I received the answer, "There was a case in Okinawa. If you pass the necessary inspections on the Chinese side, the export can be approved."

Every day I continued to repeat the disinfection process under strict conditions set by the Chinese side that never allow even a single insect. Finally, we satisfied the criteria and passed quarantine without any trouble.

Today, the Port of Moji is synonymous with exports of plants and we are proud to hold the top share among agencies there. I will hand down the excitement of this pioneering experience while securing the assistance of the Port and Harbor Authority and our business partners, and share the best part of overcoming the most challenging hurdles with our younger members.

Yoshiki Sakamoto
Green Shipping, Ltd.



Export operations



Plant quarantine

Practice of MOL CHART

In April 2015, MOL introduced MOL CHART as the group's common sense of values, as the group businesses become multinational and diversified. MOL CHART is aimed at achieving the company's long-term vision and enhancing its corporate value, while strengthening and concentrating its comprehensive group-wide efforts, by encouraging MOL Group employees to keep this common sense of values foremost in mind as they execute business operations. It has taken hold as a key element of MOL Group culture. In 2016, the second year since the introduction, we wanted to encourage every employee to more effectively use MOL CHART in each business operation, so we produced a video of best practices selected among episodes contributed from all over the world, and shared it throughout the group.



MOL CHART workshop

Global Human Resources Development

MOL Global Management College (MGMC)

MOL launched MGMC in FY2014 with the objectives of improving diversity management skills in our cross-cultural working environment and cultivating the next-generation of “One MOL global executives.” FY2017 marks the fourth session of the program. Every year, participants from all over

the world are invited to Japan. The participants not only learn personal empowerment, organizational management, and leadership in today’s global business environment, but also review their own careers from the standpoint of “MOL CHART.” In addition, they form teams of several members each to research and deliberate group-wide issues and determine how to move forward. On the final day, they present their ideas to MOL top executives.



Spirited debate among team members

Presentations on the final day

Speaking out: MGMC Graduates in London Talk by MGMC Graduates in London

Matthew Richardson

What I learnt was so great. It is like a mini MBA, and still make effective use not only of techniques such as how to make a presentation, but also significance of leading the organization. It is a great treasure to discuss issues with MOL colleagues and make the presentation. We held many discussions about MOL CHART, which expresses MOL’s core values. Each word in CHART is a basic concept that everyone can understand, and I use it as a tool to make decisions and lead the team.

Gavin Stevens

I learned a lot, but I want more MOL Group colleagues to learn details about the program. I hope what each of them learned will be incorporated into the evaluation system.

Munawar Fakhri

MGMC was very fruitful. Members of our team have various backgrounds, so the workshop—create one thing as a team—was a very good lesson, though we had disagreements with each other. I believe teamwork

is very important in working at MOL, because we have many opportunities to do business across positions and borders. Since unexpected matters sometimes occur when doing business, I am facing new challenges every day.

Yuta Ito

I worked at the Head Office in Tokyo when I took part in MGMC. At first, I did not feel confident about holding discussions and making presentations in English, but over the course of the program, I was able to enjoy it. MGMC also gave me lots of time to understand MOL CHART, which has not fully penetrated the organization, so I will continually share it with my colleagues.



From left: Yuta Ito, Munawar Fakhri, Gavin Stevens, Matthew Richardson

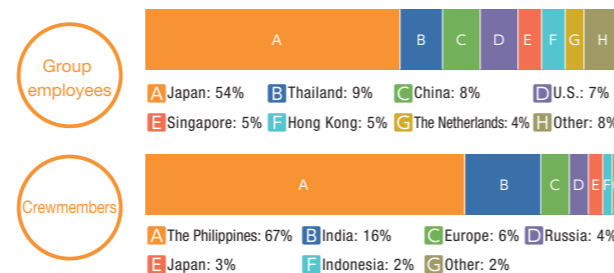
Diversity, Work -life Balance, Development of Work Environment

Striving to develop an environment where multinational, diversified personnel can maximize their personal development

Promotion of Diversity

The MOL Group, which develops businesses globally, has about 20,000 employees and crewmembers of various nationalities. We have worked to develop an environment that will increase our group-wide comprehensive strength and allow multi-national, diversified personnel including women to play more active roles.

Employment by Region



Establishment of Diversity and Healthcare Management Office

MOL has established the “Diversity Management Unit” and “Healthcare Management Unit.” However, we formulated a new unit organization in April 2017 to implement “diversity management” and “healthcare management,” which are key issues in our management strategy, by enhancing the responsiveness of the organization. We will promote the company’s long-term, continuous growth by supporting the creation of a work environment and healthcare management system that allow group employees from various different backgrounds to play active roles.

Promoting Women’s Initiatives

To encourage women to play more active roles in the company, we have worked not only to fulfill systems centering on childcare support, but also to expand support for female personnel in pursuing their career paths and increasing motivation. We have been promoting more active roles for women in the MOL Group, in line with our action plan, which is based on the Act on Promotion of Women’s Participation and Advancement in the Workplace.



Madre Bonita* session



Dialogue among career-track women at Shosen Koun Co., Ltd.

* Madre Bonita: A non-profit organization that engages in study, development, and dissemination of healthcare programs specialized for before and after childbirth.

Voice of an Employee

I have resided in Hong Kong for six years. My husband took a new job in Hong Kong along with my job transfer. But after the birth of my daughter two years ago, he resigned from his job and became a househusband. In Hong Kong, many families hire a housekeeper to handle childcare, but my husband willingly agreed to care for the children by himself. I may look like a selfish wife who has her husband



do everything, but we will build our own lifestyle by thoroughly discussing issues together and coming to a common understanding.

Taeko Mizayaki
Assistant Vice President,
Trans-Pacific Trade management

Promotion of Work-life Management and Development of Workplace Environment

In consideration of changes in life stages and lifestyles of employees and crewmembers, and for them to work energetically, MOL enhances career support, realizes flexible workstyles, and promotes approaches to work that are effective and emphasize the proper perspective while striking an overall balance. To work in excellent health, both mentally and physically, we strive toward the development of a workplace environment that helps employees manage their health and work in comfort, as well as comply with laws, regulations, and treaties, and seek to accelerate communication.

First in MOL: ‘Recruitment of an Athlete’

MOL recruited its first athlete in 2016, hiring a wheelchair rugby player, Kae Kurahashi. She balances both office work and athletic activities—working at the Human Resources Development Division two days a week (including telecommuting for a day), and practicing three days a week.

As One MOL, MOL Group executives and employees eagerly support Kurahashi, who participates in tournaments in Japan and overseas and always delivers outstanding performance. In addition, in 2017 MOL signed an official sponsorship agreement with BLITZ, Kurahashi’s wheelchair rugby team.

MOL is promoting the expansion of wheelchair rugby through its official sponsorship of BLITZ, and fosters an environment that encourages its diverse employees to play active roles inside and outside the company.



Kae Kurahashi
Diversity and Healthcare Management Office
Human Resources Division

About Wheelchair Rugby

Wheelchair rugby was designed in Canada in 1977, and is a team sport for athletes who have disabilities requiring them to use wheelchairs. This is the only sport in the Paralympic Games that permits contact between wheelchairs. This sport combines elements of rugby, basketball, volleyball, and ice hockey and is played indoors on a regulation sized basketball court. Players are allotted from 0.5 to 3.5 points depending on their level of disability. Under this system, the total points of four players on the court must be within 8.0 points. The wheelchairs used in the game are reinforced to make them durable enough to withstand extreme contact, and modified for players in different positions.

MOL's Social Contribution Policies

1. Contribution to Sustainable Development Goals (SDGs^{*1}) ~ As a corporation growing in step with economic expansion around the world, including emerging countries.
2. Contribution to biodiversity and protection of nature ~ As a corporation that produces a large volume of CO₂ emissions, whose business activities are at sea the reservoir of living organisms.
3. Contribution to communities where the MOL Group does business ~ As a good Corporate Citizen.

^{*1} SDGs: Adopted at the United Nations summit in September 2015, requiring corporations to contribute to SDGs through their core businesses. Toward 2030, it identifies global-scale priority issues to be addressed for sustainable development, and mobilizes global-scale initiatives around a series of common goals and targets. SDGs urge governments, corporations, and societies to work on a global scale to keep from going beyond the Earth's limitations, to end poverty, and allow every person to live in dignity with fair access to opportunity.

CSR Targets in the Midterm Management Plan

Social Contribution Activities

MOL Group employees realize that the group's businesses contribute to society, and every employee takes the initiative in working to achieve the SDGs advocated by the United Nations.

Educational Activities to Convey the Significance of Japan's Maritime Industry

MOL continues to promote activities aimed at Japanese people, and especially children and young people, to build familiarity with ships, which support their daily lives and encourage them to learn more about the sea and the ocean shipping industry.

Presenting Tour of Car Carrier on 'Marine Day'

On July 18, 2016, MOL offered tours of a car carrier, the Aquamarine Ace, as a part of the "Marine Day" event called the "Umi-to-Nippon Project (The Ocean and Japan Project)^{*2}". About 200 elementary and junior high school students and their families participated in this event, and boarded the huge vessel, about 200m long and 45m high. The visitors toured the bridge, lounge, crew quarters, and so on.

^{*2} Umi-to-Nippon Project (The Ocean and Japan Project): A joint project organized by the Cabinet Office's Headquarters for Ocean Policy, the Ministry of Land, Infrastructure, Transport and Tourism, and The Nippon Foundation, engaging in various events related to the ocean in cooperation with industry, academia, and the private sector, such as concerned ministries and agencies, local government, and various organizations, corporations, and universities.



MOL Teams Up with Sogo & Seibu and International NGO JOICFP^{*3} to Build Awareness of Ocean Shipping

MOL provides transport service for used children's shoes that Sogo & Seibu Co., Ltd. collected and donated through its trade-in service to Zambia, in cooperation with the Japanese Organization for International Cooperation in Family Planning (JOICFP). Recently, the three parties cooperated on a project that not only promoted donations of shoes, but also enlightened the public about maritime affairs. Called "Experience the World of Oceans and Ships," the event was held at a Sogo & Seibu store, and included information panels about shoe donation projects and featured a quiz game led by an MOL marine officer.

^{*3} JOICFP: The Japanese Organization for International Cooperation in Family Planning is a non-governmental organization (NGO) that contributes to the welfare of local residents by conducting research related to family planning and maternal and child health in developing nations.

Seagoing Employee Pitches in on Social Studies Field Trip to Port of Yokohama

A seagoing MOL employee served as a guest instructor for a social studies field trip by 81 fourth-grade students from Sagami Women's University Elementary School, and delivered a lecture about ocean shipping and the work seafarers do at the Port of Yokohama's Symbol Tower at Honmoku Pier. The employee's seagoing experience brought the subject to life for the students, giving them an opportunity to learn the fun and attractiveness of working as a mariner, through his words and photos of maritime work at sea and on shore.

Comments from the schoolchildren
 "I found there are many creative ways for seafarers to relax and enjoy their daily lives at sea."
 "I want to know more about ships."



Addressing Social Issues through Added Values Generated by Transport

MOL supports NPOs that engage with people in areas that need aid supplies and those who support them, by providing transport services using its containerships and car carriers.



Providing Voluntary Transport Service of Sporting Goods to Ghana

MOL provided voluntary transport service of sporting goods to Ghana as a consortium member of the international contribution program "Sport For Tomorrow (SFT)^{*4}". We transported a total of 11,538 items, such as soccer shoes, which were collected by other organizations, corporate partners, and individuals. The items were donated to the organizer and participants of a sports event through Enije^{*5}. MOL is the first ocean shipping company to provide large-scale support for SFT programs.

^{*4} Sport For Tomorrow (SFT): The Japanese government is committed to creating a brighter future through the power of sports, helping more than 10 million people in over 100 countries from 2014 until 2020. With the Sport for Tomorrow program, Japan aims to be involved in the promotion of sporting values.

^{*5} Enije: Led by its representative David Yano, the organization began operations in 2007, and was incorporated in 2012. Its activities center on education in Ghana and Japan, supporting independence through construction of schools, education of teachers, and promotion of sports.



Pledging Assistance in Ocean Transport of Mobile Library Vehicles to South Africa

MOL assists the non-profit organization South Africa Primary Education Support Initiative (Sapesi-Japan) with the ocean transport of mobile library vehicles to the Republic of South Africa. We have transported 45 vehicles, including seven in the past year, donated from all over Japan. The mobile libraries that played an important role in local communities in Japan will soon gain new lives visiting elementary and junior high schools in South Africa and contributing to the education of both students and teachers.

^{*6} The NPO Sapesi-Japan: The organization cooperates with the South African Ministry of Education to collect retired mobile library vehicles throughout Japan and donate them to South Africa to raise the level of elementary education. It has promoted mobile library services and worked to improve school libraries.

MOL Hosts Internal Lecture by Organization that Supports Emerging Countries

MOL invited the Japanese Organization for International Cooperation in Family Planning (JOICFP) to explain its various initiatives to reduce maternal mortality in emerging countries and volunteer activities that individuals can take part in. We also invited an NGO called The Volunteers Group to Send Wheelchairs to Overseas Children^{*7} to talk about the significance of its work, how it affects the lives of disabled children, and the specifics of its wheelchair donation and repair activities.

^{*7} NGO The Volunteers Group to Send Wheelchairs to Overseas Children: Established in 2004, the group collects used wheelchairs outgrown by children in Japan, cleans, repairs, and services them, and donates them to physically disabled children overseas. To date it has donated 5,711 wheelchairs to children in 23 nations.



Supporting Disaster-stricken Areas

MOL focuses on support to disaster-stricken areas, supporting ongoing reconstruction efforts as well as responding swiftly to emergencies.



Volunteer Activities in Flood-stricken Joso City

MOL employees listened to the stories of those affected when the Kinugawa River flooded Joso City on September 10, 2015, the sequence of experiences up to the present time, and the reminiscences of a couple who owned a noodle factory severely damaged in the flood. It really hit home that anyone could be a victim of such a disaster and employees felt the pain of losing more than money could ever replace. It was also an opportunity to think about what we could do. Our employees joined in to dismantle the damaged structure, removed flood debris, and produced a signboard announcing that the former factory is now a community center where people can come to relax and share their experience. They experienced things in a way that is only possible when visiting in person and seeing with one's own eyes, came to appreciate the onsite-first principle, and fully understood the difficulties of reconstruction.

Pledging Support for People Afflicted by Kumamoto Earthquake

The MOL Group donated ¥30 million to help with rescue and support activities after a recent earthquake in the Kumamoto region. In addition, we launched a charity donation drive within the MOL Group and donated a total of about ¥4.3 million.

Providing Secondhand Containers to Support Reconstruction in Quake-damaged Areas of Ecuador

MOL contributed secondhand cargo containers to serve as emergency shelters for victims left homeless after the severe earthquake in Ecuador in May 2016. We also stepped up to transport drinking water and other aid supplies.



CSR Activities Results (FY2016)

The Midterm Management Plan:

Aiming to achieve sustainable growth together with society and to respond to stakeholders' trust by making all MOL Group executives and employees aware of our social responsibility and putting it into practice.

Legend: ●Achieved ○Generally achieved △Partially achieved ●Did not achieve (target period/content changes)

| CSR Targets in the Midterm Management Plan | | FY2016 Single-year Targets | FY2016 Results | Achievement |
|---|---|---|--|--|
| High Priority | 1. Thoroughly Implement Safe Operation and Provide Safe, Secure, Stable, High-Quality Services. | 1. Achieve "Four Zeros" (an unblemished record in terms of serious marine incidents, oil pollution, fatal accidents, and cargo damage) as MOL group. | ● Could not achieve "Four Zeros" because two fatal accidents occurred on MOL-operated vessels. Identified causes of the accidents, widely disseminated the causes and measures to prevent recurrence. Included these accidents in the training program. | ● |
| | | 2. Achieve KPI targets for vessels owned by MOL (1) Reduce operational stoppage time per vessel (achieve operational stoppage time per vessel of 24 hours/year or less) (2) Reduce operational stoppage accident rate per vessel (achieve target operational stoppage accident rate of 1.00 incident per vessel/year or less) (3) LTIF (0.7 or less) | (1) Reduced operational stoppage time per vessel (achieve operational stoppage time per vessel of 24 hours/year or less) ⇒ 22.53 (achieved) (2) Reduced operational stoppage accident rate per vessel (achieve target operational stoppage accident rate of 1.00 incident per vessel/year or less) ⇒ 0.91 (achieved) (3) LTIF (0.7 or less) ⇒ 0.50 (achieved) | ○ |
| | | 3. With both land-based and seagoing employees, continue full-scale efforts to build awareness of the "Return to Basics" and "Behavior Based Safety" messages. | ● Held united safety campaign for both seagoing/land-based employees on the theme of eliminating accidents caused by bad habits and carelessness. Worked to ensure wider penetration of "Return to Basics" and "BBS." | ○ |
| | | 4. Expand use of IT system for effective utilization of data related to incidents, to help prevent similar incidents in the future. | ● Addressed use, application, and visualization of data on incidents and near-miss cases in the "SHIPNET*" database system for MOL-managed vessels. | ○ |
| | | 5. Fully review the content of Rank Step required duties, position by position, and its operational system. | ● Completed review of Shipboard Operation following established roadmap. Continued review of other items. | ○ |
| | | 6. Enhance and ensure comprehensive initiatives on external crises including piracy/terrorism. | ● Discussed with Ministry of Defense and Ministry of Land, Infrastructure, Transport and Tourism through the Shipowners' Association to more effectively meet the needs of shipping companies in providing escorts in risky sea areas. Solidified operation of new escort system in addition to past escort methods, and started operation of extra escorts (on-demand escort) within a certain period every month. ● Requested disclosure of appropriate security information in a timely manner to institutions concerned. Held regular opinion exchange meetings with Cabinet Secretariat, Ministry of Foreign Affairs, Ministry of Defense, and Ministry of Land, Infrastructure, Transport and Tourism to collect information, as well as through diplomatic channels. | ○ |
| | | 7. Promote services that meet customer needs and are ahead of their time, with the watchwords "One MOL, One Goal." | ● Identified new customer needs as "One MOL" through the Global Strategy Committee. In addition, introduced a "One MOL" logo mark to further raise awareness among group executives and employees to strengthen cooperation and ties among regions and among divisions. | ○ |
| | 2. Deepen Initiatives to Ensure Thorough Compliance. | 1. Do not let the seriousness of the Japan Fair Trade Commission's 2014 ruling that MOL violated the Japanese Antimonopoly Act in certain car carrier shipping trades fade from memory, and do everything in our power to prevent a recurrence. | ● Took various opportunities to present lectures related to the Antitrust Act and compliance, such as stratified training, young manager training, and courses on legal affairs and insurance. ● Provided Antitrust Act-related e-learning, targeting group companies in Japan and overseas. ● Transmitted messages from the president & CEO to all executives and employees. | ○ |
| | | 2. Continue various measures including internal training and E-learning on "compliance with antitrust laws, "anti-corruption," "information security," "prohibiting discrimination and harassment." | ● Provided a lecture related to prevention of corruption (bribery) in the stratified training, and legal affairs and insurance training course. Provided e-learning for group companies in Japan and overseas, too. ● Provided e-learning related to information security in training programs for new employees. ● Provided a training program to prevent harassment, targeting newly-recruited managers and employees who plan to transfer to other companies in Japan and overseas. ● Presented a lecture related to human rights in the stratified training. Employees also attended outside human right lectures. ● Solicited and selected slogans to build awareness of human rights within the group as part of the human rights week project. | ○ |
| | 3. Strengthen Initiatives on Corporate Governance. | 1. Establish a method to assess the overall effectiveness of the Board of Directors. | ● Conducted a review to assess the effectiveness at the Board of Directors meeting. | ○ |
| | | 2. Confirm appropriateness of group companies' operations. | ● Held the group management meeting. ● Held the dialogue with the president & CEO and executives, called the "HOT Dialogue." ● Revised the group company management guidelines to raise the final-decision criteria, and revised group company management practice guidelines. | ○ |
| | | 3. Enhance the Business Continuity Plan (BCP) system by implementing practical drills. | ● Formulated a task force representing seven corporate divisions/offices. Ensured resources (office equipment, batteries, etc.) necessary for execution of operation when natural disasters occurred or during other emergency. Developed a reporting/information sharing system within the task force. ● Developed a way to secure telecommunication methods during a power outage in the Head Office. Reviewed telecommunication methods with business partners and the order of priorities for business operations. Still developing a system that will allow priority operations to continue in all divisions/offices. | ○ |
| | 4. Promote Personnel Training and Diversity to Strengthen Comprehensive Group Capabilities. | 1. Enhance management skills of MOL Group employees, and expand training with the goal of improving the quality of its businesses. | ● Held 7-day onsite training program for new employees at harbors/ports all over Japan. ● Invited expatriates to attend stratified training to ensure that executives gain the knowledge needed at the appropriate time. | ○ |
| | | 2. Instill the concepts of MOL CHART, established as the group's shared sense of value, and promote the creation of an environment that allows diversified personnel to play active roles with a sense of unity. | ● Solicited episodes showing "MOL CHART" in action within the group. Selected seven episodes for use in production of a video on MOL CHART and recognized those who contributed their episodes. Held a "MOL CHART Workshop" with the participation of the president & CEO and executives. | ○ |
| | | 3. Continue to support women employees to encourage their success and career development, toward achieving the target of 8% of women in management ranks in 2020. | ● Held a diversity promotion lecture (lecture by a psychologist on the theme of male and female psychology). Explained unconscious bias. Provided useful skills for mutual understanding among management. ● Enrolled female employees just under management level in the Keidanren's Women's Challenge Support seminar. | ○ |
| | | 4. Promote use of systems that flexibly meet changes in lifestyles to improve work-life balance, and study ways to improve those systems in the future. | ● Established and executed action plans based on The Act on Promotion of Women's Participation and Advancement in the Workplace. ● Introduced a program to support women returning to work after childbirth. Held an in-house seminar by NOP about how to spend before/after childbirth, which will contribute to maintaining/increasing career consciousness, in consideration of mothers' health. ● Joined a caregiving support service arranged by an NPO aimed at employees who must care for family members who live far away. Held a caregiving seminar for employees. | ○ |
| | | 5. Step up preparations to establish a school in the Philippines, with opening slated for 2018, that aims to be one of Asia/Oceania's largest maritime academies. | ● Focused primarily on construction of school buildings, prepared various contracts, and contributed monetary donations and loans as scheduled. All committees have started work. Concluded contractor agreements. | ○ |
| | | 6. Further improve onboard welfare programs. | ● Proactively equipped all in-house tie-in vessels with FBB** or VSAT** fleet broadband. Equipped some vessels with the next-generation satellite GX systems. ● Standardized separation of business operations and private use of onboard LAN and reinforced security. | ○ |
| | 5. Make Further Progress on Solving Social Issues and Promoting Environment Initiatives as an Environmentally Advanced Company. | Please refer to page 45-46. | | Refer to Page 45 and 46. |
| | | | | |
| | Issues | 6. Proactively Disclose Sustainability Data. | 1. Proactively disclose the progress of business structural reforms. | ● Proactively invited interviews with media in Japan and overseas to explain MOL Group business strategies to the entire world. ● Regularly shared information with concerned divisions to promote more proactive disclosure of "safety," "AI/IT," and "the environment." |
| 2. Proactively disclose information based on KPI and achievements on the Web site, Environmental and Social Report, Annual Report, etc. | | | ● Explained the details and background of the Business Structural Reforms and outline of the single-year management plan through Annual Report, etc. Optimized business portfolio and proactively disclosed the company's management strategies, which aim at early returning the company to a growth track, to investors and shareholders. ● Disclosed information on safe operation and diversity initiatives using KPI such as the "Four Zeros," women in management, etc. in the Safety, Environmental and Social Report. | ○ |
| 3. Further increase the transparency of corporate information including negative information, and disclose it in a timely and appropriate manner, as a company trusted by stakeholders. | | | ● Responded to media inquiries on Panama Papers and integration of container shipping business in appropriate manner. | ○ |
| 7. Promote Social Contribution Activities Related to MOL's Businesses. | | 1. Further enhance social contribution activities by executives and employees in Japan and overseas. | ● Assigned new employees to implement support activities in flood-stricken areas of Joso City. ● Invited NPO for which MOL provides transport service to present a lecture for employees. | ○ |
| | | 2. Address social issues using know-how accumulated in the company's main business and drawing upon the company's resources. | ● Joined the international contribution program "Sports For Tomorrow (SFT)". Provided transport services for a total of six containers including donated sporting goods to Ghana. | ○ |
| | | 3. Further enhance educational activities that convey the important role of the maritime industry. | ● Cooperated in "Marine Day" events. Invited about 200 elementary and junior high school students and their families to tour a car carrier. ● Welcomed about 150 elementary and junior high school students for tours of the group facilities. | ○ |
| | | 4. Further enhance support of seafarer supply areas. | ● Provided transport service of wheelchairs for children to the Philippines, which is a major seafarer supply nation. | ○ |
| | 5. Promptly respond to disaster-stricken areas, and continue support for reconstruction of the areas stricken by the Great East Japan Earthquake. | ● Launched a charity donation drive within the group as a support activity for reconstruction after the Kumamoto Earthquake, and donated about 35 million yen including funds provided by the company. ● Transported secondhand containers for use as emergency shelter during reconstruction of earthquake-damaged areas of Ecuador. | ○ | |

*1 LTIF: Lost Time Injury Frequency. The number of industrial accidents occurring per 1 million man-hours. Conventionally, occupational injuries and illnesses, which forced seafarers to disembark vessels, were counted. But starting in FY2015, the total includes cases in which seafarers did not have to disembark, but were unable to return to work, including light duty.

*2 Shipnet : A database system that manages information among vessels and shore, ensuring speedy and accurate transmission of information.

*3 FBB: Fleet Broadband. INMARSAT Satellite telecommunication service, using L Band (frequency range: 1-2 GHz)

*4 VSAT: Very Small Aperture Terminal system. Satellite telecommunication service, using mainly Ku Band (frequency range: 12-18 GHz).

CSR Management

Special Feature

Safe Operation

The Environment

Human Resources Development

Social Contribution Activities

Data/Activities Results



Environmental Activities Results (FY2016)

Midterm Environment Plan:

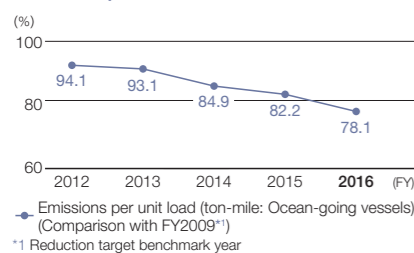
Fully aware of the environmental impact of its business activities, the MOL Group will lead the world shipping industry by proactively responding to environmental regulations and differentiating our services by aggressively developing and adopting the best technologies to protect the environment.

Legend: ●Achieved ○ Generally achieved △Partially achieved ●Did not achieve (target period/content changes)

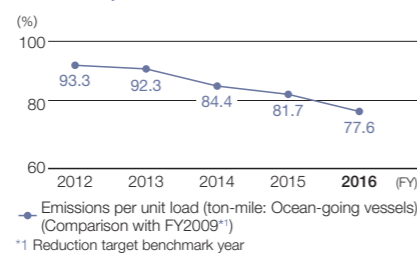
| Objectives | FY2016 Environmental Targets | FY2016 Environmental Results | Achievement | | |
|---|---|--|--|---|--|
| 1. Build Environmental Business, which Contributes to a Sustainable Society | MOL established the Technology, Innovation, and Environment Committee to promote the development and adoption of innovative environmental technologies that increase corporate value and enhance the effectiveness and profitability of our businesses. (1) Build a system that promotes internal sharing, extension, and review of information, and allows us to tap into and discover needs, including potential ones, from our customers' viewpoint. (2) Create a system that sets mid- and long-term targets for environmental technologies, creates road maps, and introduces new technologies in the MOL Group owned and operated fleet. (3) Explore and review issues in the maritime industry and formulate solutions. | (1) Established "MOL Group Environmental Vision 2030," and widely publicized its commitment to promoting environmental management as an environmentally advanced corporation, such as developing the environmental and emission-free businesses into one of its future core operations as stated in the new management plan. (2) Study on construction of LNG-fueled vessels and installation of SOx scrubbers in cooperation with customers. (3) Launched the "ISHIN NEXT – SMART SHIP PROJECT –," which will adopt advanced support technologies for safer vessel operation and reducing environmental impact. Established the midterm environmental targets and roadmap. (4) Established the 2020 SOx Regulations Compliance Committee in line with enactment of the 0.5% SOx cap effective in 2020, and researched and shared trends in the supply of compliant oil in 2020 and scrubber-related information. | ○ | | |
| | Reduce environmental impact through overall optimization and protect the global environment by engaging in company-wide efforts including ballast water management, ship recycling, prevention of global warming, prevention of atmospheric pollution, and response to diverse environmental regulations. | 1. Further promote installation of the ballast water treatment system prior to the enforcement of new regulations, while monitoring developments in the ballast water convention. Test the effectiveness of the ballast water treatment system installed on a vessel, and provide the manufacturer with feedback on defects/malfunctions/failures and requests for improvements. 2. Jointly collect information on scrubbers and fuel supply, with an eye toward retrofitting vessels with SOx emission reduction systems (scrubbers). 3. Collect and verify data on installed NOx reducing systems and complete the demonstration test. 4. Develop and implement specific reduction measures for complying with domestic environmental regulations such as the Amended Energy Conservation Act and Tokyo Metropolitan Environmental Security Ordinance. 5. Select environment-friendly scrapping yards. 6. Prepare the inventory related to the Hong Kong International Convention, and promote its use on vessels. 7. Maintain the same level of paper, water, and electricity consumption as in FY2015. | 1. The Ballast Water Management Convention is set to take effect in September 2017. Installed ballast water treatment systems as planned, while paying close attention to IMO movement. Ballast water treatment systems were installed on a total of 87 vessels as of June 2017. 2. Global cap on SOx emissions taking effect in 2020. (1) MOL completed preparations for installation of SOx scrubber on car carriers in service at the blueprint level and earned certification by Nippon Kaiji Kyokai. (2) Almost completed study on the technology for retrofitting VLCCs. (3) Collecting information about supply situation of low-sulfur fuels from oil companies. 3. Completed demonstration test of the Selective Catalytic Reduction (SCR) through NK subsidy program. Moving ahead to equip vessels with SCR components and continuing testing. 4. Appropriately responded to compliance with domestic environmental regulations such as the Amended Energy Conservation Act and Tokyo Metropolitan Environmental Security Ordinance. 5. Scrapped vessels at select environment-friendly and safe scrapping yards. 6. Started to provide vessel by vessel inventory list. 7. Consumption (comparison with FY2015): paper (A4 sheet): +1%, water (m³): -2%, and electricity (thousand kWh): -2%, waste (tons): -73% | ○ | |
| 2. Comply with Environmental Regulations | Promote energy-saving innovations for ships and eco-sailing through active utilization of refined energy-saving technology that MOL acquired in the ISHIN project for the next-generation vessel concept. Reduce CO ₂ emissions 11.5% per ton-mile by FY2016 compared to FY2009. | 1. Reduce environmental impact (1) Reduce CO ₂ by 1% in FY2016 compared to FY2015. (2) Reduce NOx by 1% in FY2016 compared to FY2015. (3) Reduce SOx by 1% in FY2016 compared to FY2015. 2. Install and verify the VPC system on an actual vessel. 3. Deliver 3 of methanol-fueled vessel series. 4. Continue deeper feasibility study of the specification changes required to equip containerhips with methanol-fueled engines. 5. Study the design, tank, and engine of an LNG-fueled tugboat. Study the conversion of other types of vessels to LNG-fuel. 6. Promote projects that use wind power, such as Power Assist Sail and Wind Challenger Project. 7. Promote R&D on ways to reduce wind resistance on car carriers. 8. Continue to verify wind resistance reducing technologies on containerhips. 9. Continue to verify and develop DPF <PM (particulate matter) removal system> installed on a vessel. 10. Fully practice Eco Sailing/Continue research on the use of big data for vessels. 11. Reduce unit energy consumption at offices and on domestic coastal vessels for the medium to long term. Reduce by 1% in FY2016 compared to FY2015. 12. Move ahead with construction of four ferries, which will offer improved environmental performance (two slated for delivery in 2017, two in 2018). 13. Promote more energy-efficient vessel operation through the use of improved power management systems. | 1. Continually expanded operation of slow steaming. Installed systems to improve propeller efficiency such as PBCF. Studied adoption of the optimal trim system and vessel operation support system and conducted demonstration tests on vessels in operation. (1) Reduced CO ₂ emissions by 6.5% compared to FY2015 (by 22.1% compared to FY2009) (2) Reduced NOx emissions by 6.5% compared to FY2015 (3) Reduced SOx emissions by 4.6% compared to FY2015. 2. Assembled VPC system and started collecting operation data, but problems occurred and an investigation is underway to determine the cause. 3. All three methanol-fueled vessels were delivered. 4. Completed the basic design for compatibility with LNG fuel through the Joint Development Program (collaboration with Samsung Heavy Industries Co., Ltd.) 5. Determined the basic boat shape and installation method of the tank for the LNG-fueled tugboat. Will verify based on regulations and complete a detailed design. Currently studying conversion of other ship types to LNG according to customers' needs. 6. Started study to realize Power Assist Sail/Wind Challenger Plan. 7. Determined the optimal hull shape of the wider-breadth type of car carrier using computational fluid dynamics. Will use this development data for newbuilding vessels to study the optimal shape of specific vessels. 8. Verified the wind resistance-reducing effects on a containerhip for three months. Will continue to verify data. 9. Finished verification and removed DPF from the target vessel. Finished the demonstration test with the vessel in service through an NK subsidy program. Confirmed the effectiveness of the smoke and soot removal filter. 10. Shared information related to problems in slow steaming, and expanded measures to prevent recurrence. Adopted optimal trim system for delivered newbuilding vessels, promoting demonstration tests with vessels in service. The Liner Division introduced the Weathernews' web-based operation monitoring system, Exasite Voyage, to enhance monitoring of fuel consumption. The Iron Ore Carrier Division used and applied the Weathernews' Optimum Ship Routing (OSR) service to study the optimal output and implement optimal route navigation. Targets for analyzing route navigation were expanded to almost all vessels, to broaden the use of Eco Sailing. The Tanker Division deferred its decision to adopt Fleet Nav from Mitsui Engineering & Shipbuilding Co., Ltd., because the simulation data show a margin of error, although it showed a reduction of 2% to 4% in fuel consumption. 11. Unit energy consumption at offices and on RoRo ships increased by 2% from FY2015. 12. The hybrid propulsion system was equipped on "SUNFLOWER FURANO" delivered in May 2017. 13. Installed the wave radar on the target vessel (PCC). Will verify the optimal navigation plan, which combines a wave measurement system with simulation of vessel operations, to vessels in service and conduct a demonstration test of the system's accuracy. | ○ | |
| | | 1. Proactively promote calculation, analysis, and disclosure of following data and disclosure of reduction effect through the Environmental and Social Report, the company website, and various other external media. (1) Energy consumption volume (2) GHG emission volume (including Scope 1-3) (3) SOx, NOx emission volume (4) Consumption volume of other resources 2. Continue third-party verification of CO ₂ emissions. | 1. Proactively disclosed data. Dow Jones Sustainability Index, FTSE4good, and MS-SRI, which are major Social Responsibility Indices (SRIs) continued to include MOL. 2. Conducted third-party verification of CO ₂ emissions. | ○ | |
| | | 1. Prevent serious marine incidents by improving MOL's safe operation system. 2. Further improve the quality of new vessel design and construction through health, safety, and environmental (HSE) activities at shipyards. 3. Continue to adopt the MOL Safety Standard Specifications on newbuilding vessels. | 1. Held table top drills on the assumption of incidents involving a VLCC and iron ore carrier to reinforce the risk management system. Expanded information on oil leakage incidents occurring on vessels operated by other companies. Held Vessel Safety Campaign and workshop to discuss casualties occurring in 2006, and offered e-learning programs about safety culture. 2. Shared information on problems with major manufacturers. Introduced and conducted periodic HSE check system for shipyards where newbuilding vessels are under construction. Offered feedback about evaluations of ship construction superintendents and ship management companies to delivered vessels. 3. Adopted MOL Safety Standards specifications to all delivered vessels. | ○ | |
| | | 1. Continue to reduce waste from vessels such as on-board waste, waste oil, and bilge. 2. Prevent cross-border transportation of foreign marine organisms through ballast water exchange in the open sea, and implement vessel cleaning to remove organisms on vessels to help conserve biodiversity. 3. Support volunteer activities to help conserve biodiversity in Japan and overseas, such as tree planting. 4. Promote navigation with special consideration in the areas with high populations of large-sized marine life. | 1. Sought to collect latest information and share it internally, and widely disseminate how vessels manage waste, at pre-boarding meetings. Established and widely disseminated onboard waste incineration policy. 2. Promoted installation of ballast water treatment systems. Collected the latest information on management of biofouling on hulls, and shared it with concerned parties. 3. Supported tree planting and other volunteer activities in Japan and overseas that contribute to biodiversity. Continued the program to recycle used lashing belts to reduce waste. 4. Collect information on new and updated protected marine areas. Complied with regulations in protected whale habitat in North America. | ○ | |
| | | 1. Make various efforts to encourage the modal shift, which has a low environmental impact, to industry groups, government agencies, and relevant ministries. 2. Actively participate in energy-saving policies. | 1. Made a proposal to promote the Modal Shift, which has a low environmental impact, through the Japan Long Course Ferry Service Association, etc. 2. Made proactive proposals for more practical content in the fuel reporting system (DCS: Data Collection System), through the Japan Shipowners' Association and the Ministry of Land, Infrastructure, Transport and Tourism. | ○ | |
| | | Make environmental investment of 20 billion yen in 3 years, 60 billion yen in 6 years to respond to environmental regulations and to promote energy-saving innovation for vessels. | Environmental investments for three years from FY2014 to FY2016 totaled 14.26 billion yen. The investment in FY2016 was 5.34 billion yen. (Details) Environment-related R&D activities: Methanol-fueled vessels, low-temperature heat recovery system (VPC), etc. 0.35 billion yen Utilization and expansion of existing environmental technologies: PBCF, electronically controlled engine, adoption of Low Load Turning on main engine, low-friction hull paint, etc. 0.51 billion yen Compliance with environmental regulations: Ballast water treatment system, ship recycling regulation and SOx regulation related etc. 3.09 billion yen Ship operations: Fuel additives, optimal trim, vessel operation support system 1.09 billion yen Initiatives of group companies: Environmental investments by international ocean shipping group companies 0.3 billion yen | ○ | |
| | | 4. Actively Disclose Environment | 5. Ensure Safe Operations | 6. Contribute to Conservation of Biodiversity | 7. Advocate Transport Policies and Measures Aimed at Contributing to Reduction of Environmental Impact |

Major Environmental Indicators

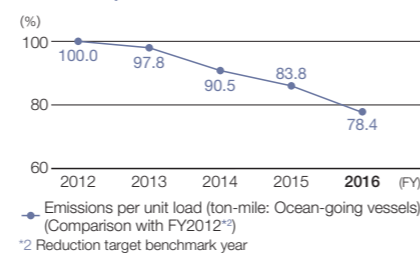
MOL Group CO₂ Emissions



MOL Group NOx Emissions



MOL Group SOx Emissions



Actively Disclose Environmental Data

Clean Shipping Index (CSI)

The Clean Shipping Index is an environmental assessment tool for ships and shipowners, used by a network of cargo owners and forwarders (customers) when buying sea transport. Ship owners present the environmental performance on emissions of CO₂, sulfur oxides, particulate matter and nitrogen oxides and the use and handling of chemicals, waste and waste water. Vessels are then ranked from 'low performance' to 'good performance'. With the information collected, the cargo owners and forwarders evaluate the ship owner in the procurement process. In line with MOL's target to "Actively Disclose Environmental Data", MOL started reporting in CSI in 2013.

[For details of third-party verification of CO₂ emissions: Page 47]

Clean Cargo Working Group (CCWG)

The global nonprofit organization "Business for Social Responsibility (BSR)," which works with containerhip owners, container shipping customers, and non-vessel operating common carriers, has established the Clean Cargo Working Group (CCWG) in 2003. CCWG measures, evaluates, and reports the Ship owner environmental performance including CO₂, NOx, SOx and Environmental Management System. MOL has been participating since 2012.

CDP

CDP is a U.K.-based non-governmental organization that represents 827 institutional investors all over the world. It holds about \$100 trillion in total. It sends specific questionnaires asking about strategies on climate change and on greenhouse gas emissions to companies. Answers and scores of the results are publicly announced around the world, and the scores are becoming a key indicator in measuring corporate value. MOL has responded to CDP's inquiries every year, and was recognized for Leadership Level "A-" in FY2016.



MOL Group's Environmental Data (As of March 31, 2017)

| Energy Consumption | Unit | FY2014 | FY2015 | FY2016 |
|---------------------------------|-------------------------|---------|---------|---------|
| Fuel oil (C oil) | thousand tons | 5,837 | 5,631 | 5,477 |
| MOL vessels | thousand tons | 4,547 | 4,375 | 4,443 |
| Group company vessels | thousand tons | 1,290 | 1,256 | 1,034 |
| Diesel oil (A oil) | thousand tons | 157 | 312 | 318 |
| MOL vessels | thousand tons | 93 | 210 | 223 |
| Group company vessels | thousand tons | 64 | 102 | 95 |
| Electricity | thousand kWh | 107,383 | 99,294 | 97,446 |
| Municipal gas | thousand m ³ | 1,545 | 1,626 | 1,830 |
| Energy consumption (equivalent) | thousand GJ | 259,996 | 258,290 | 251,759 |

| Greenhouse Gas Emissions | Unit | FY2014 | FY2015 | FY2016 |
|------------------------------------|---------------|--------|--------|--------|
| Scope 1: CO ₂ emissions | thousand tons | 18,803 | 18,676 | 18,204 |
| MOL vessels | thousand tons | 14,547 | 14,380 | 14,621 |
| Group company vessels | thousand tons | 4,216 | 4,229 | 3,517 |
| Others | thousand tons | 40 | 67 | 66 |
| Scope 2: CO ₂ emissions | thousand tons | 62 | 56 | 55 |
| Scope 3: CO ₂ emissions | thousand tons | 8,038 | 7,306 | 7,935 |

| NOx and SOx Emissions | Unit | FY2014 | FY2015 | FY2016 |
|-----------------------|---------------|--------|--------|--------|
| NOx emissions | thousand tons | 503 | 499 | 487 |
| MOL vessels | thousand tons | 389 | 385 | 392 |
| Group company vessels | thousand tons | 114 | 114 | 95 |
| SOx emissions | thousand tons | 335 | 319 | 305 |
| MOL vessels | thousand tons | 260 | 247 | 248 |
| Group company vessels | thousand tons | 75 | 72 | 57 |

| Other Resources | Unit | FY2014 | FY2015 | FY2016 |
|---|-----------------|---------|---------|---------|
| Waste | tons | 114,576 | 180,983 | 48,536 |
| Recycled | tons | 113,940 | 179,974 | 47,516 |
| Non-recycled | tons | 637 | 1,009 | 1,020 |
| Recycling rate (MOL Head Office Building) | % | 66 | 64 | 63 |
| Water | m ³ | 637,694 | 632,174 | 672,783 |
| Tap water | m ³ | 637,694 | 632,174 | 672,783 |
| River water | m ³ | - | - | - |
| Seawater tons (cyclic usage) | m ³ | - | - | - |
| Office paper | thousand sheets | 72,075 | 65,873 | 66,382 |

| Eco Sailing Initiatives | Unit | FY2014 | FY2015 | FY2016 |
|--|--------------|--------|--------|--------|
| Ocean-going vessels | | | | |
| CO ₂ emissions per unit load (ton-mile) | FY2009 = 100 | 85.9 | 83.3 | 77.9 |
| MOL | FY2009 = 100 | 88.7 | 84.7 | 78.5 |
| Domestic coastal vessels | | | | |
| Unit energy consumption | FY2009 = 100 | 101.6 | 101.7 | 103.1 |

| Onshore Initiatives | Unit | FY2014 | FY2015 | FY2016 |
|---|--------------|--------|--------|--------|
| Unit energy consumption (MOL, Daibiru, Shosen Koun) | FY2009 = 100 | 78.3 | 76.1 | 77.8 |
| Solar power generation | thousand kWh | 252 | 203 | 232 |

Data scope • MOL Group consolidated subsidiaries in Japan and overseas. Excludes some small offices
 • Noted areas such as "(MOL)" are limited to that scope

Third-party Verification of CO₂ Emission Data

MOL acquired third-party verification by SGS Japan, Co., Ltd. to ensure the fairness, accuracy, and transparency of FY2016 CO₂ emission data included in this report. The verification was conducted based on ISO14064-3:2006.

Through the third party verification, we will identify issues and enhance our efforts to further reduce CO₂ emissions.

Verification target • Scope 1, 2 (energy originated carbon dioxide emissions) and Scope 3 (downstream leased assets).

C oil/A oil:
Used mainly for vessel fuel.

Energy consumption:
The energy equivalent of heat originated from C oil, A oil, electricity, municipal gas and other energy consumed

Scope 1:
CO₂ emissions originating mainly from A oil and C oil used as fuel in vessels

Scope 2:
CO₂ emissions originating mainly from electricity consumption

Scope 3:
Estimated value of CO₂ emissions originating mainly from A oil and C oil used as fuel in vessels MOL has chartered out to other companies; calculated from FY2012

Waste:
Mainly vessels sold to be scrapped; recycled at scrapping yards

Water:
The volume of water used in offices. Most of the water used in vessels is made from seawater and recycled.



MOL Human Resources Data (As of March 31, 2017)

Employees

| | | FY2014 | | FY2015 | | FY2016 | | |
|---|------------------|------------------|------|------------------|------|--------|------|-----|
| | | Land | Sea | Land | Sea | Land | Sea | |
| Number of employees *1 Excludes expatriate employees, loaned employees, contract employees and part-timers, etc. | Male | 438 | 277 | 465 | 277 | 480 | 288 | |
| | Female | 168 | 7 | 177 | 6 | 190 | 8 | |
| | Total | 606 | 284 | 642 | 283 | 670 | 296 | |
| Number of employees by position *2 Excludes loaned employees, contract employees and part-timers, etc. /Includes expatriate employees | General managers | Male | 21 | 10 | 22 | 8 | 18 | 8 |
| | | Female | 0 | 0 | 2 | 0 | 3 | 0 |
| | | Subtotal | 21 | 10 | 24 | 8 | 21 | 8 |
| | Group leaders | Male | 171 | 113 | 175 | 116 | 177 | 107 |
| | | Female | 8 | 0 | 5 | 0 | 4 | 0 |
| | | Subtotal | 179 | 113 | 180 | 116 | 181 | 107 |
| Managers | Male | 150 | 101 | 143 | 97 | 143 | 95 | |
| | Female | 12 | 0 | 11 | 0 | 16 | 1 | |
| | Subtotal | 162 | 101 | 154 | 97 | 159 | 96 | |
| Below manager level | Male | 289 | 262 | 286 | 271 | 284 | 285 | |
| | Female | 196 | 11 | 200 | 12 | 197 | 12 | |
| | Subtotal | 485 | 273 | 486 | 283 | 481 | 297 | |
| Total | 847 | 497 | 844 | 504 | 842 | 508 | | |
| Ratio of females in managerial positions *2 (%) | | 5.5 | 0 | 5.0 | 0 | 6.4 | 0 | |
| New hires | Male | 19 | 20 | 18 | 25 | 16 | 24 | |
| | Female | 6 | 2 | 8 | 1 | 10 | 1 | |
| | Total | 25 | 22 | 26 | 26 | 26 | 25 | |
| Ratio of employees with disabilities (%) | | 2.0 ³ | | 1.9 ⁴ | | 2.1 | | |
| Average years of continuous service*1 | | 16.0 | 11.0 | 16.1 | 11.0 | 16.0 | 10.5 | |
| Job turnover rate within 3 years of continuous service*1 (%) Calculation method: (New graduate hires resigning within 3 years of joining the company)/ (New graduate hires over past 3 years) | | 2.6 | 1.5 | 3.9 | 1.4 | 2.6 | 1.4 | |

*1. Excludes expatriate employees, loaned employees, contract employees, and part-timers, etc. *2. Excludes loaned employees, contract employees, and part-timers, etc.
 *3. The number of employees with disabilities meets the statutory employment number of employees with disabilities *4. 2.07% as of April 1, 2016

Employee Support Systems

| | | FY2014 | FY2015 | FY2016 |
|---|--|--------|--------|--------|
| Number of annual leave days taken *5 (including summer vacation) | Days | 12.8 | 13.3 | 14.4 |
| | Percentage (%) | 47.4 | 50.3 | 54.4 |
| Maternity leave (pre- and post-childbirth) *6 | Number of employees using system | 7 | 13 | 15 |
| | Ratio (%) | 100 | 100 | 100 |
| Paternity leave usage *5 | Number of employees using system | 21 | 19 | 31 |
| | Ratio (%) | 100 | 73 | 86 |
| Child-care leave system *6 | Number of employees using system (males shown in brackets) | 9(1) | 14(3) | 22(10) |
| | Usage rate (%) | 100 | 100 | 100 |
| Short-time work shift to allow for child-care | Number of employees using system | 1 | 3 | 4 |
| Retirement reemployment system after spouse transfer | Number of employees using system | 0 | 2 | 1 |
| Working mothers *6 | Number | 34 | 33 | 34 |
| Nursing care leave system | Number of employees using system | 0 | 0 | 0 |
| Re-employment system for mandatory retirees | Number of employees | 2 | 0 | 3 |

*5 Excludes personnel working onboard, loaned employees, contract employees, and part-timers, etc. *6 Excludes loaned employees, contract employees, and part-timers, etc.

| Care Support Systems | System | Application Period and Details |
|----------------------|---------------------------------|---|
| Childbirth | Pre-and post-childbirth leave | 8 weeks of leave before and after childbirth (Of those weeks, 6 weeks are paid) |
| | Child-care leave | Until a child reaches 2 years old |
| Childcare | Short-time work shift | 1 hour shorter work day |
| | Overtime work exemption | Until a child reaches 3 years old |
| | System for partial work at home | Can work at home for 6 hours |
| Nursing Care | Nursing care leave | Up to 2 years leave |
| | Short-time work shift | 1 hour shorter work day |
| | Overtime Work Exemption | Up to 1 year (can be extended) |
| | Special working arrangements | Flexible working hours |

Number of MOL Group Employees

| Number of Employees (persons) | FY2014 | FY2015 | FY2016 |
|-------------------------------|----------------|----------------|----------------|
| Bulkships | 1,342 (121) | 1,357 (139) | 1,369 (148) |
| Containerships | 5,534 (350) | 5,456 (354) | 5,808 (378) |
| Ferries & Coastal RoRo Ships | 858 (86) | 845 (62) | 845 (73) |
| Associated Businesses | 2,123 (1,468) | 2,160 (1,489) | 2,075 (1,510) |
| Others | 351 (78) | 355 (71) | 369 (65) |
| Company-wide (common) | 300 (71) | 327 (66) | 328 (61) |
| Total | 10,508 (2,174) | 10,500 (2,181) | 10,794 (2,235) |

(1) The number of employees includes the entire labor force, and the approximate average number of temporary employees is indicated in parentheses.
 (2) The employees indicated as company-wide (common) belong to administrative departments, which cannot be classified in any specific segment.

Other Support System

"Refresh" Leave: Employees are allocated extra holidays after 15 years and 25 years of continuous service.

Industrial Accidents (on land)

| Industrial Accidents (on land) | FY2014 | FY2015 | FY2016 | |
|--|-----------------|--------|--------|---|
| Industrial accidents*7 (excludes commuting accidents) | Number of cases | 6 | 5 | 2 |
| Industrial accident leave | Number of days | 55 | 5.5 | 9 |

*7 Head Office only

Employee Education

| | FY2014 | FY2015 | FY2016 | |
|---------------------------|--------|---------|---------|---------|
| Education / Training cost | Land | 120,000 | 130,000 | 145,000 |
| | Sea | 327,000 | 301,000 | 255,000 |

Note 1) The cost to the Human Resources Division (including part of the costs for English language training programs taken by ocean-going employees)
 (Note 2) Education and training costs for ocean-going employees do not include travel and accommodation expenses.

Overall, CSR Related (Including Socially Responsible Investment (SRI) Index)

Earns inclusion in Dow Jones Sustainability Indices > A

MOL has been included in the Dow Jones Sustainability Indices (DJSI) Asia Pacific thanks to its highly regarded efforts in the areas of environmental protection, CSR, and IR activities. The DJSI identifies companies expected to show long-term sustainable growth. (Since 2003)

Earns inclusion in FTSE4Good Index > B

FTSE Russell is a global index company owned by the London Stock Exchange. FTSE Russell has included MOL in one of its major socially responsible investment indices, the FTSE4Good Index. (Since 2003)

FTSE Blossom Japan > C

MOL has been included in the FTSE Blossom Japan Index, introduced in 2017 by FTSE Russell targeting Japanese companies with excellent performance related to environmental, social, and governance (ESG) issues.

MSCI ESG Leaders Indexes > D

MOL has been included in the MSCI ESG Leaders Indexes for its superior efforts on measures taken for risks and opportunities related to ESG. (Since 2010; index name changed in 2017.)

MSCI Japan ESG Select Leaders Index > E

MOL has been included in the MSCI Japan ESG Select Leaders Index, introduced in 2017 targeting companies with high ESG performance relative to sector peers.

MSCI Japan Empowering Women Index > F

MOL has been included in the MSCI Japan Empowering Women Index, introduced in 2017 targeting companies that promote and maintain a high level of gender diversity among their workforce.

THE INCLUSION OF Mitsui O.S.K. Lines, Ltd. IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF Mitsui O.S.K. Lines, Ltd. BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.

SMBC Sustainability Assessment Loans > G

MOL has received the highest rating for SMBC Sustainability Assessment Loans from Sumitomo Mitsui Banking Corporation and earned the highest mark for its comprehensive information disclosure and efforts to promote sustainability. (2016)

SMBC Nadeshiko Loans

MOL has received SMBC Nadeshiko Loans from Sumitomo Mitsui Banking Corporation since 2016. It was recognized as a leading company for its initiatives aimed at creating a workplace where women can play more active roles. (2017)

'MOL Group Safety, Environmental and Social Report 2016' Earns Award of Merit in Environmental Communication Awards

The "MOL Group Safety, Environmental and Social Report 2016" received the Award of Merit in the Environmental Report category in the 20th Environmental Communication Awards. The report earned high marks for two points. First, it identified five key issues to realize the sustainability of the shipping industry and highly evaluated the group's achievements based on clear targets, which are continually updated. Second, the report outlined the MOL Group's efforts to reduce its impact on the environment and demonstrated how the group views these efforts as business opportunities. (February 2017)

Engine Control Console Installed on Bridge of *Kinkasan Maru* Certified as 'Ship Heritage' > H

The engine control console installed on the bridge of the *Kinkasan Maru*, the world's first diesel-powered general cargo ship equipped with an automated engine was selected for a "Ship Heritage Certificate" from the Japan Society of Naval Architects and Ocean Engineers (JASNAOE). (2017)

IR Related

Internet IR Commendation Award > I

MOL received the Internet IR Commendation Award from Daiwa Investor Relations Co., Ltd. (2016)

Safe Operation Related (Including Recognition of Seafarer Training)

Certification from DNV GL AS for Seafarer Training Related to Liquefied Gas Transport > J

MOL's training programs for seafarers serving on LNG carriers and LEG/LPG carriers, held in Japan and overseas, have earned certification from DNV GL AS, as a program that satisfies the crew competency standards advocated by Society of International Gas Tanker & Terminal Operators Ltd. (SIGTTO). (LNG carriers: since 2007) (LEG/LPG carriers: since 2016)

Certification from DNV GL AS for Seafarer Education and Training Management Program > K

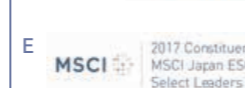
MOL's tanker and LNG carrier divisions have acquired certification from DNV GL AS, in recognition of the effectiveness of its unique seafarer training and education management program and its conformance with the Competence Management System (CMS). (Since 2012)

"MOL Body FIT Exercise" Program Receives MLIT's "The Best Practice Award for Seafarers Onboard Safety"

"MOL Body FIT Exercise" was awarded the "The Best Practice Award for Seafarers Onboard Safety, 2016" from the Ministry of Land, Infrastructure, Transport and Tourism (MLIT). The award honors initiatives by shipowners and other concerned parties to prevent work-related injuries among mariners serving on Japanese merchant ships. (2016)

2 Vessels Earn 2016 'Best Quality Ships Award'

Two MOL-operated and managed vessels – the wood chip carrier *World SwanII* and the containership *MOL Magnificence* – received the 2016 "Best Quality Ships Award" from the Japan Federation of Pilots' Associations (JFPA). (2017)



Environment Related

ISO 14001 Certification > L

MOL has used its own environmental management system, MOL EMS21, since April 2001, and it holds ISO 14001 certification, an international standard for environmental management. (Since 2003)

ISO 50001 Certification

MOL acquired ISO 50001 certification for its energy management system and ISO 14001 certification for its environmental management system.

Certified companies: MOL Ship Management Co., Ltd. (2014), MOL Ship Management (Singapore) Pte. Ltd. (2014), MOL Ship Management (Hong Kong) Company Ltd. (2014), and Magsaysay MOL Ship Management, Inc. (2015)

Certified as "A-" in CDP Climate Change Report 2016

MOL was rated Leadership Level "A-," in research analyzing climate change data through CDP, an international non-governmental organization. (2016).

Marine Engineering of the Year Award

Methanol burned dual-fueled low-speed diesel main engine, which was equipped on MOL methanol carriers, received the Marine Engineering of the Year. (2016)

Commendations from the Port Authorities of Los Angeles and Long Beach, U.S.A. > M

MOL received the Green Flag Award and Vessel Speed Reduction Award from the ports of Long Beach and Los Angeles, respectively, for its efforts to ensure compliance with standards that call for vessels to slow down within 40 nautical miles (nm) of the shore. (2016)

"PBCF" Selected by Port of Vancouver's Environmental Program

Propeller Boss Cap Fins (PBCF), co-developed by MOL, was selected as a vessel noise-reduction technology by the EcoAction Program implemented by Port of Vancouver, Canada. (2017)

NOAA's Channel Islands National Marine Sanctuary Honors MOL with Award

The United States National Oceanic and Atmospheric Administration's (NOAA) Channel Islands National Marine Sanctuary has honored MOL with an award for the company's participation in the 2016 Vessel Speed Reduction (VSR) incentive program.

3 vessels Earn 'Technology Special Prize' in Ship of the Year 2016 Awards > N

Three MOL methanol carriers *Taranaki Sun*, *Manchac Sun*, and *Cajun Sun* – the world's first equipped with methanol-burning dual-fuel low-speed diesel main engines – received the "Technology Special Prize" in the Ship of the Year 2016 awards sponsored by The Japan Society of Naval Architects and Ocean Engineers (JASNAOE). (2017)



The MOL Group discloses CSR and environmental information in:

Safety, Environmental and Social Report 2017



"CSR/Environment" section (Web site)



"CSR/Environment" section (Web site)

<http://www.mol.co.jp/en/csr/index.html>

More detailed information not included in this report can be found on our website.

Other communication tools

Annual Report

Explains detailed investor relations information such as management strategy, business environment, financial reports, and financial data, primarily for shareholders and other investors.

<http://www.mol.co.jp/en/ir/data/annual/pdf/ar-e2017.pdf>



MOL Investor Guidebook

<http://www.mol.co.jp/en/ir/data/ig/index.html>

Explains the MOL Group's management plans, key financial indicators, characteristics of business activities, market position, and operating environment by business division, primarily for shareholders and other investors, with charts and figures in an easy-to-understand way.

Website (<http://www.mol.co.jp/en>)

Provides an overview of businesses and the latest information through press releases for all stakeholders. The website also has links to the sites of MOL Group companies.



Mitsui O.S.K. Lines
<http://www.mol.co.jp>

Corporate Profile (As of March 31, 2017)

| | |
|--------------------------------|--|
| Name: | Mitsui O.S.K. Lines, Ltd. |
| Head Office: | 1-1, Toranomom 2-chome, Minato-ku, Tokyo 105-8688, Japan |
| President & CEO: | Junichiro Ikeda |
| Capital: | ¥65,400,351,028 |
| Number of shares issued: | 1,206,286,115 |
| Number of shareholders: | 96,892 |
| Share listing: | Tokyo Stock Exchange* |
| Business: | Multi-modal transport, mainly by ocean-going vessels |
| Branches and offices in Japan: | Nagoya, Kansai, Hiroshima, Kyushu |
| Overseas network: | 35 nations and regions |
| Number of group companies: | 65 in Japan, 380 overseas; Total: 445 (parent company and consolidated subsidiaries) |
| Number of MOL Group employees: | 10,794 (parent company and consolidated subsidiaries) |
| Group fleet: | 847 vessels, 62 million DWT (including vessels on short-term charter contracts and those owned by joint ventures) |

* Mitsui O.S.K. Lines, Ltd. was delisted from the Nagoya Stock Exchange on May 18, 2017.

For Inquiries

Mitsui O.S.K. Lines, Ltd.
CSR and Environment Office, Corporate Planning Division
1-1, Toranomom 2-chome, Minato-ku, Tokyo 105-8688, Japan
Tel: +81-3-3587-7063 Fax: +81-3-3587-7702
Email: plemo@molgroup.com



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