Continuing to Focus on Stable Management While Integrating ESG into the Management Decision-Making Process

We will use the latent strengths that have emerged on our front lines to steadfastly carry out our mission and responsibilities, while considering the uncertainties arising from COVID-19.

Eiichi Takahashi

Representative Director,
Senior Managing Executive Officer,
Chief Financial Officer, and Chief Executive in charge of the Management Planning Headquarters

Summary of the Results for Fiscal 2019 and Earnings Forecast for Fiscal 2020

Despite the impact of the spread of COVID-19 in the fourth quarter, it had a limited impact on our results for fiscal 2019, which surpassed our initial expectations. In the Global Logistics business, operations of Ocean Network Express Pte. Ltd. got on track as the company entered its second year of business, improving its bottom line by optimizing its cargo portfolio, trades, and vessel deployment to achieve a sharp increase in profits from the previous fiscal year. In the Bulk Shipping segment, the Car Transportation and Energy divisions performed strongly. In the changeover to marine fuels compliant with sulfur oxide (SOx) regulations, which had been a matter of concern, careful preparations made with relevant parties, including Group companies, enabled us to continue the smooth provision of stable transportation services after the regulations came into force on January 1, 2020. Beyond demonstrating the NYK Group's strong response capabilities, this was very significant in that we managed to gain the understanding of our customers regarding the considerable cost burden by appealing to them from a perspective of environmental conservation.

In our results outlook for fiscal 2020, amid a high level of uncertainly, assuming that the economic impact of COVID-19 will peak around April to June, with the situation gradually picking up from there, we are projecting recurring profit of ¥20.0 billion in fiscal 2020. Looking at the situation by business, in the Energy Division we are expecting continued, stable profits centered on long-term contracts and supported by firm demand as a part of the social infrastructure. The Global Logistics business, which transports general consumer and durable goods, and the Car Transportation Division were heavily impacted by the stall in economic activity from an early stage, but cargo demand appears to be gradually recovering after bottoming

out in the first quarter. In the Dry Bulk Division, there have been no major changes, but we must expect a decline in profits for the full fiscal year as the market has endured a prolonged slump and is not stable.

Financial Strategy and Progress under the Medium-Term Management Plan

We face a highly uncertain business environment; however, as a corporate group that supports society and industry through transportation services, we are constantly aware that we can only carry out our mission and responsibilities by ensuring not only stable services but also stable management. To this end, we have secured approximately ¥300.0 billion in commitment credit lines from financial institutions to create a rock-solid financial foundation. We have separately borrowed approximately ¥120.0 billion in long-term funds to cover repayments in fiscal 2020. Even if we were to face a new wave of COVID-19 infections, we would not have any financial concerns for the time being.

Meanwhile, with regard to investments, we plan to steadily allocate funds toward future growth. We have strictly selected investments in new vessels, with the amount of decided investments totaling around ¥230.0 billion as of March 31, 2020, compared with ¥1,130.0 billion at March 31, 2009, during the global financial crisis. In considering new investments, we will prioritize securing free cash flow while aiming for a sustainable business structure and continue to look for opportunities to invest in future growth. Furthermore, as we promote ESG management in the NYK Group going forward, we will also apply an ESG perspective to investment decisions and fund procurement. We believe it is important to integrate ESG properly into our management decision-making process.

In fiscal 2019, as operating cash flows recovered to a certain extent and progress was made in asset disposals, we recorded positive free cash flow of over ¥60.0 billion, which was used to reduce interest-bearing debt. On the balance sheet, the amount of interest-bearing debt has not changed much, but this result includes the impact of around ¥90.0 billion from the adoption of the new IFRS 16 lease accounting standard at the Company's overseas consolidated subsidiaries. In real terms, we reduced our interest-bearing debt by the same amount. We plan to continue liquidizing assets such as cross-shareholdings and real estate. To provide stable returns to our shareholders, we have retained the same dividend policy targeting a dividend payout ratio of 25% and a lower limit on annual dividends of ¥20 per share.

Turning to our medium-term management plan, under which we have set a target for recurring profit of between ¥70.0 billion and ¥100.0 billion, excluding the impact of COVID-19, our earnings capability has recovered to the point where we can generate between ¥50.0 billion and ¥60.0 billion in recurring profit, and we are making steady progress toward this target. We are also advancing strongly on our ROE target of 8%, with a result of 6.6% as of March 31, 2020. We are still some distance from our target debt-to-equity ratio (DER) of 1.5 times or lower, however, with a result of 2.27 times. That being said, this partly reflects the impact of applying the aforementioned lease accounting standard, and we will continue to improve until we reach our DER target. Once we reach a stage where the impact of COVID-19 becomes clearer, we have plans to revise our targets, including quantitative ones. Nevertheless, we are certain that the direction of the business and financial strategies in the medium-term management plan is correct, and at this point we do not intend to change said direction significantly.

Difficult Times Highlight the Latent Strength of the NYK Group's Accounting Division

As the Accounting Division proceeded with the task of preparing the full-year financial results for fiscal 2019 during the COVID-19 pandemic, we placed employee safety as our first priority and implemented strong measures to prevent infection as much as possible, such as avoiding crowding by using other office spaces and asking people to come to the office only when necessary. As employees from the Accounting Division prepared financial results for the end of the fiscal year in March, our overseas Group companies faced a difficult task amid city-wide lockdowns. However, thanks to all relevant Group company employees carrying out their duties faithfully, we managed to announce our financial results. In a time of unprecedented difficulty, the fact that we have been able to finalize our financial results as in other fiscal years is a testament to the latent strength of the Group's Accounting Division, and I would like to express my gratitude and admiration for their performance.

While people may tend to take preparation of financial results for granted, I believe it is important to strengthen our structures to ensure financial results can be announced properly in any situation to ensure that we are trusted as a company. Going forward, we intend to learn from this experience and review and streamline our existing procedures.

Efforts to Mitigate Climate Change

The NYK Group recognizes climate change as an important management issue. In December 2018, we announced our support for the final recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and are taking steps to examine the content of our information disclosures and our disclosure measures to ensure they meet the TCFD's stringent expectations. In April 2020, we rebuilt our corporate governance framework to include more concrete indicators and goals as part of efforts toward mitigating climate change, and we have developed related activities on a companywide basis.

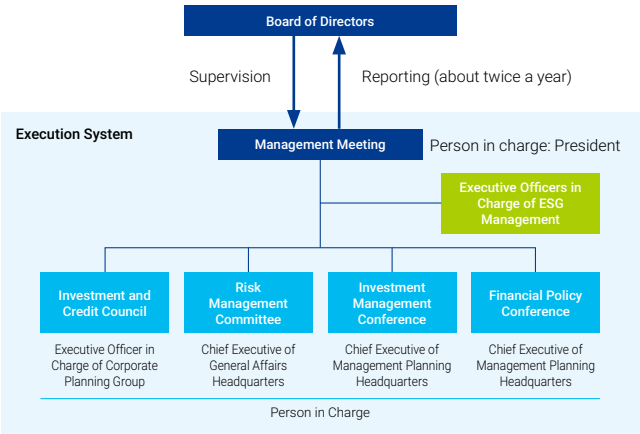
Governance

It is necessary to measure the impact of climate change on the NYK Group's business over the long term and factor these measurements into specific management strategies and other actions. Therefore, in April 2020 we established a management framework, headed by the president, for responding to climate change.

Key Management Points

- Under the framework for promoting ESG Management (see page 17 for details), matters related to climate change are reported to the Management Meeting (see page 66 for details) by way of a task force comprising members from throughout the Company, and decisions are made after thorough discussion.
- The Management Meeting reports on climate change related matters to the Board of Directors about twice a year in accordance with the Rules of the Board of Directors.
- Executive officers in charge of ESG management participate in meetings of four important decision-making bodies—the Investment and Credit Council, the Risk Management Committee, the Investment Management Conference, and the Financial Policy Conference.

Framework for Climate Change Response Management



Key Initiatives after Establishing Framework for Climate Change Response Management

- An executive officer in charge of ESG management has participated in all meetings held by the four aforementioned bodies (at least one officer between the officer in charge and the assistant officer in charge).
- The Risk Management Committee has discussed risks and opportunities related to climate change (see the following page).
- The Management Meeting has held discussions on greenhouse gas emissions reduction as a climate change countermeasure.

Strategy and Risk Management

Scenario Analysis

The NYK Group recognizes the importance of scenario analysis to assess risks and opportunities related to climate change as well as the importance of understanding the impact of climate change on the Group's businesses, strategies, and finances. Taking a long-term perspective, we are factoring climate change into our original forecasts on transportation demand, in addition to taking steps to manage risks and grasp opportunities based on socially plausible scenarios. The Company uses the World Energy Outlook presented by the International Energy Agency (IEA) as a reference point for future energy-related trends and analyzes the IEA's main Stated Policies Scenario (STEPS) and Sustainable Development Scenario (SDS), which assume the Sustainable Development Goals (SDGs) of the United Nations will be fulfilled. We make independent calculations to measure the impact that risks and opportunities related to climate change will bear on energy transportation demand, and on seaborne trade demand in particular. In addition, the existence of necessary parameters, such as exchange rates, fuel prices, and carbon taxes, will be also reflected in the Group's business operations.

Ahead of other divisions, in the Energy Division we are making preparations for an effective scenario analysis by identifying any factors that could affect scenarios facing the division, quantifying them in terms of uncertainty and degree of impact, and then mapping out each factor. We are looking into introducing scenario analyses for the Dry Bulk Division and the Car Transportation Division in the future. Based on the information brought to light through these efforts, we will proceed with disclosure to project our future vision and to show its resilience over the long term.

Major Potential Risks and Opportunities from Climate Change

The NYK Group is working to understand the various risks and opportunities that may arise from climate change. The Risk Management Committee (see pages 71 and 72 for details) monitors the risks facing the Group and its responses thereto and meets annually to confirm the impact of climate change on the Group's businesses from a long-term perspective.

Potential Risks and Opportunities

Potential risks and opportunities			Impact on the Group
Transition Risk	Policies, laws, regulations	• Stricter environmental regulations (EEDI, GHG reductions) • Restrictions on the use of heavy oil, fuel conversion, obligatory use of renewable energy • Adoption of market-based measures (MBMs)	• Increased capital expenditure, ships become stranded assets • Reduced service capabilities • Increased costs to purchase credits
	Technology	• Response to new technologies and investment	• Higher R&D expenses to develop new technologies • Existing technology or technology under development becomes obsolete
	Market	• Changes in logistics market (local production and consumption, recycling) • Installation of renewable energy and autonomous vehicle technology	• Changes in cargo demand, reduced cargo volume • Increased capital expenditure
	Reputation	• Avoidance of use of fossil fuels • Bidding criteria introduced for environmental performance	• Earlier conversion to new fuels • First-mover market capture, increased differentiation
Physical Risk	Acute	• Increased incidences of abnormal weather	• Schedule delays, increased cargo damage, and quality impairment • Increased risk of machinery troubles and ship-handling accidents • Increased ship operating costs
	Chronic	• Climate change-induced shifts in populations, regional activity • Ship investment to meet cargo demand trends • Impact on port facilities from rising sea levels	• Changes in cargo demand, reduced cargo volume • Revised investment plans, increased investment costs
Opportunity	Market	• Development of new businesses • Development of new technologies	• Increased business related to renewable energy such as wind power • Increased shipping opportunities for alternative energy sources such as biomass, hydrogen, and ammonia • Development of new businesses using existing technologies • Reduced fuel consumption due to new technologies

Countermeasures for Climate Change-Related Risks (example)

The NYK Group is moving forward with the following measures to mitigate risks related to climate change.

- Development of governance system
- Development of decision-making process for investments that factors in climate change
- Introduction of risk management methods that account for climate change and performance of scenario analysis
- Greater understanding of cargo demand, including fossil fuels, etc.
- Promotion of switch to LNG-fueled vessels
- Development and practical application of technology for switching to new types of fuel to power vessels
- Acceleration of fuel conservation activities
- Stable procurement of fuel oil compliant with IMO regulations
- Active ESG engagement with financial institutions and investors

Metrics and Targets

We are engaged in companywide discussions about undertaking greater disclosure of specific metrics and targets. Details of our efforts and qualitative targets are set to be disclosed in the NYK Group ESG Story, which is scheduled to be released within fiscal 2020. Going forward, we will establish quantitative metrics and targets for disclosure from fiscal 2021.

Medium-Term Management Plan Progress

We launched our five-year medium-term management plan, "Staying Ahead 2022 with Digitalization and Green," in fiscal 2018. Each business division is now implementing measures in line with the three basic strategies outlined below and achieving steady results. Here, we will look back on the main initiatives and progress in fiscal 2019, the second fiscal year of the medium-term management plan.

Medium-Term Management Plan

Staying Ahead 2022 with Digitalization & Green

Reconfigure the business portfolio to withstand volatile market conditions

- Completely overhaul **the dry bulk business**
- **Prepare ONE,** the new joint-venture in the liner trade business, for future success

Develop a well-balanced earnings structure

- Enhance **the logistics business** with wholly owned subsidiary Yusen Logistics Co., Ltd.
- Strengthen **the car carrier and automobile logistics businesses**
- Reinforce **the LNG and offshore businesses**

Pave the way for future growth by constantly improving technological, informational, and network-related capabilities

- **Implement Digitalization and Green** initiatives

Progress in Fiscal 2019

➡ Examples of Initiatives

		Plan	Fiscal 2019 results	
STEP 1 Optimize the business portfolio	Dry Bulk	Strictly control market risk exposure Reform our fleet portfolio Strengthen medium- to long-term relationships with customers	Reduced rate of market exposure in the fleet from 35% to 28% (compared with March 31, 2018) Decided to make early redelivery of two high-cost chartered vessels (nine vessels in total since fiscal 2018) Increased medium- to long-term contracts by 15% (compared with March 31, 2018)	➡ 1
	Container	Integration of our liner business together with those of MOL and "K" Line (ONE) Pursue efficiencies and economies of scale to generate ¥110 billion through synergies	Compared with FY2018, performance improved dramatically with profitability restored by thoroughly carrying out the following initiatives: • Cargo portfolio optimization and reinforcement of yield management • Product rationalization • Organization optimization Achieved synergistic effects one year earlier than planned	
	Others	—	NCA: Restarted operations after all aircraft temporarily grounded due to improper maintenance. Certificate of continuing airworthiness reinstated after responding to business improvement order	➡ 2
STEP 2 Expand businesses that secure stable freight rates	Promote Growth	Leverage Group business infrastructure for strengthening sales Develop finished vehicle logistics terminals that provide high value-added	Cooperation with YLK resulted in securing project cargo Signed finished vehicle logistics terminal operation agreement in Egypt	➡ 3
	Enhance Investment	LNG fleet plan: around 100 vessels (end of FY2022) Developing business at every stage of the energy value chain, from upstream to downstream	LNG carriers: 78 vessels in operation (nine new LNG carriers will be delivered from FY2020 onward) Signed medium- to long-term contracts for three shuttle tankers and one FPSO	➡ 4
STEP 3 Increase efficiency and create new value	Digitalization	Thorough application of the latest digital technology	Conducted trial of MarCoPay, an onboard cashless system. Received approval from Bangko Sentral ng Pilipinas (central bank of the Philippines) Successfully conducted the world's first manned autonomous ship trial Realized sophisticated maintenance through constant monitoring and diagnosis via sensors Established the NYK Digital Academy to nurture leaders who will drive innovation	
	Green	Create new value for the next generation under themes including renewable energy	Signed memorandum of understanding to enter the offshore wind power business with overseas partners Started operation of tidal power generation Started survey of microplastics in oceans Executed sustainability-linked loans	➡ 5

Results of Initiatives

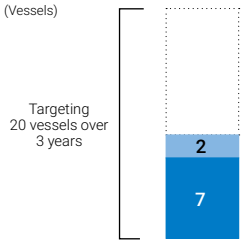
Example Initiative

1 STEP 1

Decisively Reform Dry Bulk Business to Withstand Volatile Market Conditions

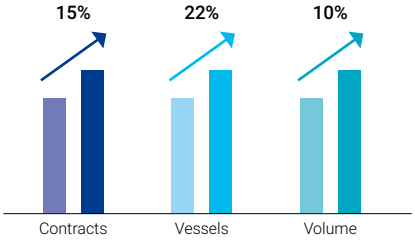
To optimize the portfolio, we are completely overhauling our business and undertaking structural reforms. We are working to increase the number of vessels on medium- to long-term contracts through the early redelivery of high-cost chartered vessels and strengthening medium- to long-term partnerships with customers. We will also manage operations by strictly controlling market risk exposure and utilizing ICT and other tools to reduce costs through efficient vessel allocations and operations, aiming to establish a stable earnings structure.

Early Redelivery of High-Cost Chartered Vessels



FY2018 FY2019

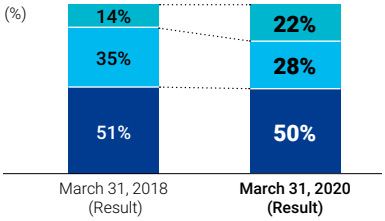
Securing Medium- to Long-Term Contracts



* Comparison between March 31, 2018 and March 31, 2020 on a consolidated basis
* Figures are the number of new contracts including vessels to be delivered since April 2018 minus the number of expired contracts. All figures refer to consecutive voyage charters and contracts of affreightment with periods of two or more years (on a consolidated basis).

Reduce Market Risk Exposure

Through early returns of high-cost chartered vessels and the securing of medium- to long-term contracts, the exposure fleet rate contracted to **28%**.



- Medium- to long-term vessel contracts / medium- to long-term cargo contracts
- Medium- to long-term vessel contracts / short-term cargo contracts
- Short-term vessel contracts / short-term cargo contracts

* Medium to long term: more than two years
* Graph percentages are approximate and may not sum to 100% due to rounding after the decimal point.

Example Initiative

2 STEP 1

Build an Operational Framework That Ensures Reliability and Safety for the Re-Born NCA

Nippon Cargo Airlines Co., Ltd. (NCA) has been conducting a complete overhaul of its business to restore trust since receiving a business improvement order and operation improvement order from the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) in fiscal 2018. The company has carried out extensive activities in various areas, including strengthening control and supervisory functions on the front lines and at the business management level, reforming safety promotion meetings, and establishing an information-sharing system and links between frontline operations and back-office divisions. Through these activities, NCA is working to ensure safety and build a stable operating structure.

Response to Business Improvement Order

June 2018	All eight of NCA's B747-8F aircraft were grounded for safety checks.
July 2018	A business improvement order and an operation improvement order were received from the MLIT (certificate of continuing airworthiness revoked). The NCA Investigation Committee and the NYK Response Committee were establish.
August 2018	A 69-point improvement plan was submitted to the MLIT.
January 2019	The NCA Investigation Committee drafted the Investigation Committee Report containing 43 proposals. All eight of the B747-8F aircraft resumed operations.
February 2019	NCA made an interim report to the MLIT on the improvement measures.
June 2019	A progress report was made to the MLIT. All 69 of the planned improvement measures were completed, while subsequent measures to ensure full adherence to the aforementioned improvement measures were implemented.
February 2020	NCA received notice of approval of its request for the certificate of continuing airworthiness from the MLIT.
March 2020	NCA made its final report to the MLIT on improvement measures. Seven improvement measures and 12 proposals were incorporated into systems and regulations. NCA continued to conduct measures to ensure full adherence over the medium to long term.
As of August 2020	Five of the eight B747-8F aircraft have acquired the certificate of continuing airworthiness. All eight aircraft are scheduled to be certified by January 2021.

Main Improvements

- Shifted to single-aircraft-type operating system for B747-8F aircraft
- Rebuilt maintenance system
- Ensured companywide awareness regarding the observation of manuals and compliance
- Strengthened control and supervisory functions across the company, including not only at maintenance divisions but also at the business management level

Initiatives for Acquiring Continuous Airworthiness Certificate

To receive a safety reevaluation, coordination between the maintenance front lines and the back-office divisions (engineering, maintenance planning, and quality assurance) is important. Individual maintenance operational procedures were thoroughly reviewed and extensive education and awareness-raising among maintenance technicians were carried out to ensure that maintenance operations are executed properly. Furthermore, when situations arise that have not been anticipated by back-office divisions, the front lines indicate areas needing improvement and back-office divisions respond accordingly to ensure mutual understanding through cooperation between both sides and to promote operational improvements. The 60 or so maintenance technicians are divided into three teams to upgrade the management structure. In addition, on-site points of contact with back-office divisions were established to create an environment that facilitates consultations with maintenance engineers. Furthermore, the monthly safety promotion meetings* have been reorganized to involve members from management, business, and corporate planning divisions, including those on the maintenance front lines and belonging to back-office divisions, to create a structure that allows companywide safety-related discussions and sharing of information. Going forward, building a safe operating structure will continue to be our top priority in the re-born of NCA.

* A meeting under the Safety Promotion Committee, chaired by the president, for promoting concrete safety activities across the organization. The meeting discusses measures to address safety concerns.

Example Initiative 3 STEP 2

Expand the Automobile Logistics Business

In the automobile logistics business, we are working to expand earnings by operating new finished vehicle logistics terminals in regions around the world. We aim to make transportation and cargo handling more efficient by using digital technology, respond proactively to the environment, and realize sophisticated finished vehicle logistics with an eye on structural changes in the overall automobile industry.

August 2020
Start of Operations at Yokohama Daikoku C-3 Terminal

The Company started operations at its first finished vehicle logistics terminal in Japan. Port of Yokohama handles one of the highest volumes of finished vehicles of any terminal in Japan. We operate a finished vehicle logistics terminal leased from Yokohama Kawasaki International Port Corporation. With the introduction of LED lighting for the port and the establishment of a break facility for employees, we aim to make the terminal considerate to both the environment and people.

First Half of 2021
Commencement of Operations at Finished Vehicle Logistics Terminal in Turkey

The Company has established a joint venture with a Turkish port management company for building a finished vehicle logistics terminal in Yarımca near Istanbul. This is the first large-scale terminal for handling finished vehicles near Istanbul. It will be equipped with a multistory car park on-site and offer added-value services, such as pre-delivery inspection (PDI) services, including repair and parts application.

Second Half of 2020
Start of Wind Power Generation Operations at Finished Vehicle Logistics Terminal in Belgium

The Group operates one of the world's largest finished vehicle logistics terminals at the port of Zeebrugge. We have installed 11 wind turbines at the port in cooperation with the Zeebrugge port authorities and ELECTRABEL SA. We will seek to use the insight gained from this green project to expand this approach to terminals in other locations.

Second Half of 2021
Opening of First Finished Vehicle Logistics Terminal in Egypt

In December 2019, the Group signed an agreement with the General Authority for the Suez Canal Economic Zone to operate a finished vehicle logistics terminal at East Port Said in Egypt. We will collaborate with Bolloré Africa Logistics and Toyota Tsusho Corporation to construct the first dedicated terminal for finished vehicles in Egypt, in order to meet rising demand in this regard going forward.

Example Initiative 4 STEP 2

Business Expansion through Energy Value Chain Strategy

In the LNG and offshore businesses, the NYK Group is steadily accumulating medium- to long-term projects with a view to building a stable earnings base. In addition, by responding to demand for LNG bunkering and LNG fuel supply/sales business and new sources of energy, we aim to expand our business into fields where we can leverage our technological capabilities.

LNG Fleet Plan

FY2020 or afterward: On Order **9** vessels

As of end of FY2019: Fleet in operation **78** vessels → About **100** vessels planned as of end of FY2022

	Charterer	Vessel Name / Shipyard	Project	FY2020	FY2021	FY2022	FY2023
1	**EDF**	Elisa Larus	U.S.				
2	**Mitsubishi Corporation**	HHI	U.S.				
3	**Total**	SHI	Worldwide				
4	**Mitsubishi Corporation**	HHI	Canada				
5	**Mitsubishi Corporation**	HHI	Canada				
6	**Total**	SHI	Worldwide				
7	**Total**	SHI	Worldwide				
8	**Total**	SHI	Worldwide				
9	**Edison**	HIHI	Worldwide				

Offshore Business Projects on Order

	Value chain	Charterer	Oil Field / Area / Scope	FY2020	FY2021	FY2022	FY2023
1	**Shuttle Tanker**	Equinor ASA	Brazil / Roncador				
2	**Shuttle Tanker**	Equinor ASA	Brazil / Roncador				
3	**Shuttle Tanker**	Total	Brazil / Roncador				
4	**Shuttle Tanker**	ENI	North Sea and Barents Sea				
5	**Shuttle Tanker**	ENI	North Sea and Barents Sea				
6	**FPSO**	Petrobras	Brazil / Roncador				
7	**Shuttle Tanker**	PetroChina	Brazil / Roncador				

Example Initiative

5 STEP 3

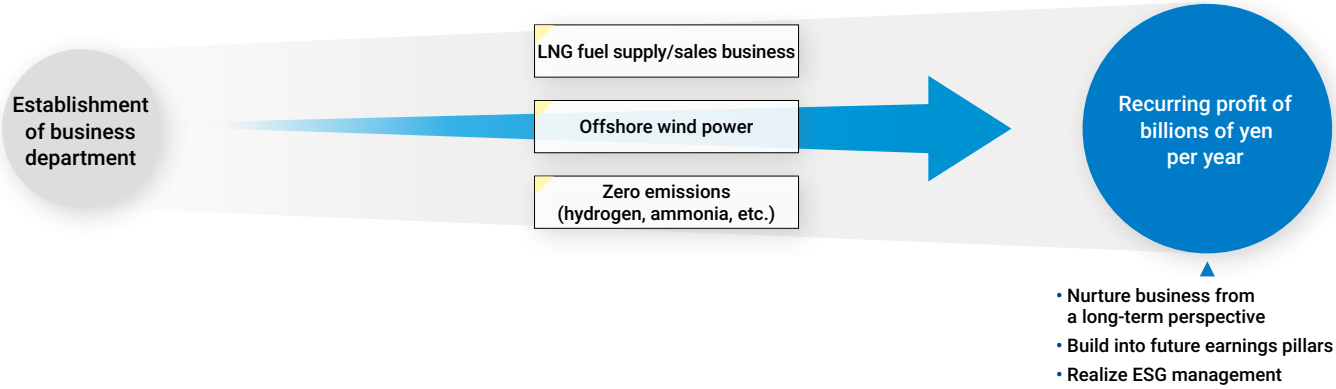
Expand Green Business

The NYK Group established the Green Business Group to advance initiatives under Green, one of the themes of the medium-term management plan. As part of these initiatives, we aim to build new business models (see page 30 for details) in the renewable energy field, such as domestic offshore wind power, and centered on the use of LNG fuels as well as hydrogen and ammonia in order to reduce the environmental impact of the Group's fleet. To build these business models into future business pillars, the Group will freely utilize all manner of available resources, including its sales, technology, and intelligence, and promote ESG management.

April 2019 — 2020 ◄——► 2030

Investment of several tens of billions of yen over a decade

Just one year after the establishment of the Green Business Group within the Energy Division, the number of projects increased to several dozen.



- Nurture business from a long-term perspective
- Build into future earnings pillars
- Realize ESG management

TOPICS

ESG Approach and Its Relationship to the SDGs

In the medium-term management plan, formulated in March 2018, the NYK Group selected six of the United Nations Sustainable Development Goals (SDGs) to contribute to through its business activities.

The NYK Group's Contributions to Achieving the SDGs

As the NYK Group is dependent upon the oceans to conduct its business activities, it is inevitably drawn to Goal 14 (Conserve and sustainably use the oceans, seas and marine resources). To encourage employees to recognize how the SDGs relate to their own lives, we conducted activities concerning this goal in fiscal 2019.

The SDG Closely Related to the NYK Group

1. We invited Yukihiro Misawa, manager of plastic countermeasures from WWF Japan, to give a lecture to employees at the head office and at Group companies in Japan on the issue of ocean plastic waste.
2. We instituted a policy of serving beverages in paper containers instead of PET bottles to visitors to our head office customer conference room. (Offering refreshments has since been suspended during the COVID-19 pandemic.)
3. At the in-house office shop, plastic containers and straws are no longer used/offered, and plastic shopping bags are no longer provided with purchases. We have also introduced a discount system for people bringing their own cups. (The bringing of one's own cup has been suspended during the COVID-19 pandemic.)

CSR > SDGs Initiatives

We have narrowed down our initiatives through business activities to focus on seven key themes. (as of July 2020)

Main Themes	Main Activities	Sustainable Development Goals
Education for ship crew candidates	• NTMA • In-house training	4, 8, 17
Training of the next generation and initiation of workstyle reform	• Fostering generalists • NYK Digital Academy • NYK Business College • NYK Maritime College • OLIVE and POPEYE projects*	4, 8, 9, 17
Improvements to onboard cash management	• Onboard cashless system (MarCoPay)	8, 9, 17
Green business	• Offshore wind power and tidal power • LNG fuel supply/sales business	7, 8, 9, 13, 17
Innovation	• The concept ship NYK SUPER ECO SHIP 2050 (NYK SES 2050)	7, 9, 13, 17
Safe operation and reduction of environmental impact	• Employment of IoT, big data, AI, and other digital technologies • Adherence to environmental regulations and reductions in CO_2 emissions	8, 9, 13, 17
Conversion to next-generation fuels	• Low carbonization of marine fuels • Decarbonization	7, 9, 13, 17

* OLIVE (Outdate Long-standing work practices and Increase Vitality of Employees) M-OLIVE (OLIVE Project for Mariners)

* POPEYE (Promotion of Physical & Mental Enrichment of Yusen Group Employees) and POPEYES (Promotion of Physical & Mental Enrichment of Yusen Group Employees and Seafarers) health management projects

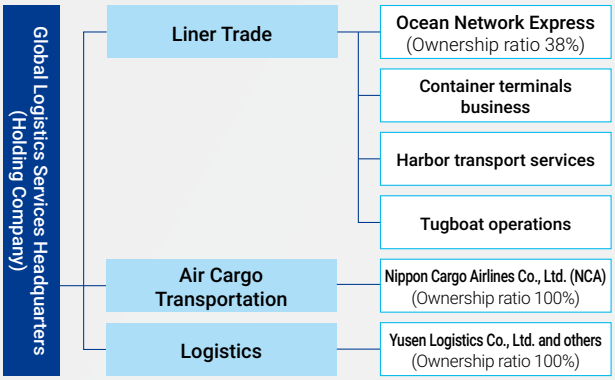
CSR > Human Resources

Global Logistics

We will strengthen the relationships with each operating company and encourage collaboration, aiming to create a sustainable business with stable freight rates as a public service provider.

Hiroki Harada
Director, Senior Managing Executive Officer
Chief Executive of Global Logistics Services Headquarters

Business Model of the Global Logistics



Establishing a Sustainable Business Model at the Global Logistics

The Global Logistics Services Headquarters differs from other headquarters in that it is organized as a holding company. Its role is to bring the operating companies together and support them. Each operating company has its own management targets and business plans. However, the Company works to ensure that these targets and plans always align with the medium- to long-term targets of headquarters by strengthening relationships, reinforcing governance, and disseminating the NYK Group's strategies through numerous two-way discussions between each business company and management. The container shipping business, which delivers general consumer goods and production components around the world; the Air Cargo Transportation, which meets emergency transport demand; and the Logistics, a non-asset-type business that comprehensively responds to diverse requests, truly embody the concept of "Bringing value to life." Amid the spread of COVID-19, we faced a novel set of challenges, such as implementing telecommuting, preventing infection in frontline operations and overcoming difficulties in relieving seafarers and crew changes. However, if we failed to deliver our cargoes, people around the world would be unable to continue their daily lives. For this reason, I believe that our mission as a public service provider is to steadily carry out our operations with a strong commitment to ensuring the continued flow of logistics. As we go forward, we will need to be highly sensitive of changes in supply chains and other areas. However, as long as populations increase and economies grow, demand will always be there. To continue meeting all manner of needs throughout the world, the Global Logistics must have a business structure capable of generating sustainable earnings. The Global Logistics business is part of the infrastructure supporting the global economy and society, and my aspiration is to see it become a sustainable business with stable freight rates. Looking ahead, we aim to achieve a win-win future with all of our stakeholders, including the employees of each operating company, our customers, and business partners.

Liner Trade

Review of Fiscal 2019 and Business Direction for Fiscal 2020

As a result of global-scale business integration, the operating environment of the container shipping business now has seven or eight companies of considerable size operating globally. Three major alliances created by these companies have been controlling supply appropriately in response to demand since before the current COVID-19 outbreak, which is gradually stabilizing the freight rate market. Ocean Network Express Pte. Ltd. (ONE) started operations in April 2018, following its formation by three Japanese shipping companies, and in fiscal 2018 recorded heavy losses as the three aforementioned companies worked to reorganize and integrate their business processes after establishing ONE and took time to create the best practices for the new company, drawing from their

own respective legacies. In fiscal 2019, however, ONE recorded a dramatic improvement, with a profit of US$105 million, as the company improved its cargo portfolio and its contracts with customers to leverage the benefits of its scale. Since April 2020, the global economy has deteriorated rapidly with the spread of COVID-19. Cargo movements have slumped as demand has receded, but we expect them to recover gradually after bottoming out in the first quarter. ONE will continue to monitor demand trends and proactively adjust capacity to maintain stable freight rates and utilization. Naturally, we do not consider the current profit level to be satisfactory, and we will continue to pursue cost-competitiveness within the industry. Today, the only way to pack products and intermediate goods into standardized boxes and deliver them intact to their final consumption destination is to use shipping containers. Containers are an excellent means of transportation capable of carrying all manner of cargoes, including raw materials and resources, all over the world. We believe they will continue to be needed in the future, and that this business will grow.

Air Cargo Transportation

Review of Fiscal 2019 and Business Direction for Fiscal 2020

Despite a continuing contraction in cargoes arriving in and leaving from Japan due to factors such as the trade dispute between the U.S. and China, since the outbreak of COVID-19 began in March 2020, air transportation supply has been forced to squeeze, and market prices have improved rapidly. Around half of all international air cargoes are carried in the belly space of passenger aircraft. We view the current market environment with 90% of passenger services suspended as just a temporary situation. During the COVID-19 pandemic, NCA has handled a steep increase in demand for medical supplies and related materials and PC-related items for working from home. We are proud to be playing an important role in supporting society in such a manner.

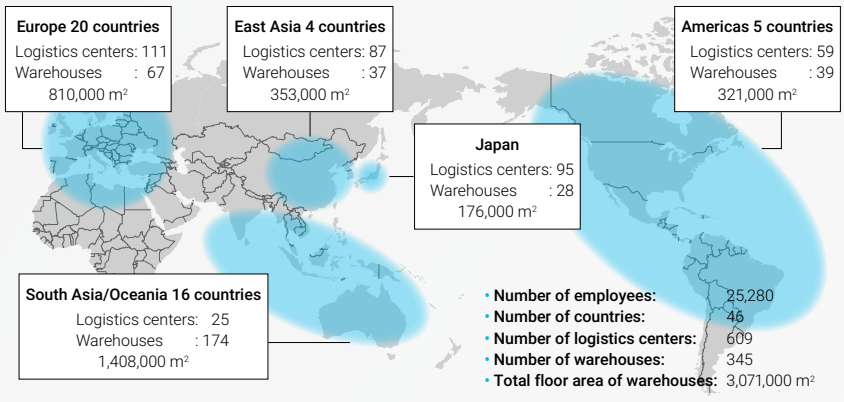
It is extremely unlikely that demand will remain stable in the air cargo sector. In our business, centered on eight dedicated cargo aircraft, we still face the issue of being unable to generate sustainable profit during normal times, and radical measures need to be considered. On the other hand, we have now seen that international air cargo transportation has an issue in that cargo movement is dependent on human movement, and this could lead to a rethink regarding the need for large-scale, dedicated cargo aircraft. By making full use of the characteristics of such aircraft, we will maintain a production system of necessary supply that can cope with emergency demand while continuing to provide safe operations and stable transportation services.

Logistics

Review of Fiscal 2019 and Business Direction for Fiscal 2020

In both the ocean-freight-forwarding and logistics businesses, handling volumes dropped significantly due to background factors including the trade dispute between the U.S. and China, unrest in Hong Kong, and the COVID-19 pandemic. On the other hand, a dramatic decrease in international passenger flights has given rise to dramatic and unusual changes in the supply and demand environment for the air-freight-forwarding business. Yusen Logistics Co., Ltd. (YLK) has been moving ahead with revising its medium-term management plan TRANSFORM 2025 Phase 2, which was originally scheduled to start in fiscal 2020. However, the environment has been dramatically altered due to the COVID-19 pandemic, and we have been obliged to revise the specific numerical targets for fiscal 2020. YLK will evolve into a strategic partner by closely aligning with its customers and providing new value. At the same time, it will pursue operational efficiency gains through the integration of business processes, which has been an issue to be addressed, and proactively improve its regional business portfolio and organization. Moreover, YLK has developed a global network and is easily the NYK Group's most prominent customer contact point. With its ability to link the Group's frontline capabilities and technologies with customer needs and desires, in addition to its ability to generate ideas and identify opportunities for advancing businesses with partners around the world, YLK is expected to be a powerful supporting force for the NYK Group.

Logistics Center Locations (As of March 31, 2020)



Car Transportation Division

In an era of dramatic transformation in the automotive industry, we will continue to work on improving profitability and efficiency by making use of next-generation technology to push through with sustainable growth and business development.

Takaya Soga

Managing Executive Officer
Chief Executive of Automotive Transportation Headquarters

Establishing a Sustainable Business Model at the Car Transportation Division

The specifications and forms of ownership and sales of automobiles are changing dramatically, from gasoline cars to electric vehicles, from human driving to autonomous driving, from ownership to sharing, and from in-person sales to online sales. Despite these changes, the role of automobiles as tools to enrich human lives remains the same, and their production in areas all over the world is likely to continue. In the same way, as the production and sale of finished vehicles become localized going forward, although we may see a decrease in long-haul ocean transport volumes and an accelerating modal shift toward railway transportation, the logistics-related demand for finished vehicles itself will always be present. Since the Car Transportation Division is involved with extensive operations, from pure car and truck carriers to the automobile logistics business, we should be able to respond flexibly to various needs, whatever form they may take. We will work to continue creating and providing value for the wide-ranging automotive industry.

The Car Transportation Division has all manner of well-honed technologies related to the building and operation of pure car and truck carriers. We continue to pursue the ultimate in transportation quality through deck strength, securing methods, slope anti-slip technologies, established loading/unloading paths, and damage prevention. For example, Group company MTI Co., Ltd. conducts vibration experiments at its lab to propose the most suitable securing methods for new vehicle models. We have a proud tradition of upholding customer trust through such activities. With the coming shift to electrification and advances in automated driving, we envisage new needs such as battery charging and adjustment and supplementation of electronic components during transportation. To meet any kind of request, advanced technical expertise and skills are needed along with a global logistics network. The NYK Group will continue to create added value using its combined technological capabilities, including those of its Group company Yusen Logistics Co., Ltd.

The division has long been a pioneer in preparing next-generation environmental vessels with a view to promoting ESG management. Over the coming 10 years, all newly built pure car and truck carriers will be LNG-fueled vessels. From the mid-2030s, we aim to switch to zero-emission vessels using new marine fuels such as hydrogen and ammonia. Environmental conservation initiatives are now essential. In this context, the amount of CO_2 emitted in producing a car and delivering it to the end consumer, as well as how much of a contribution the NYK Group can make to reducing said amount, are important matters. We believe that being among the industry front-runners in this regard is itself an important differentiating factor.

In a period of major change, with a dramatic transformation of the automotive industry, a strong emphasis on protecting the environment, and the emergence of a new normal after COVID-19, the Car Transportation Division will not react passively, but will continue actively making and testing hypotheses to push through with sustainable growth and the development of its business.

Global Car Transport Fleet Ranking (As of December 31, 2019)

Rank	Operator	Vessels	Share (%)	Capacity (Cars)	Share (%)
1	NYK	103	15.0%	616,015	15.2%
2	MOL	92	13.4%	545,309	13.5%
3	Glovis	80	11.6%	444,292	11.0%
4	"K" Line	74	10.8%	458,371	11.3%
5	EUKOR	68	9.9%	369,145	9.1%
6	Grimaldi	59	8.6%	269,137	6.7%
7	WWO	54	7.9%	298,655	7.4%
8	HAL	46	6.7%	524,790	13.0%
9	Toyofuji Shipping	17	2.5%	77,060	1.9%
	Total	687			

Source: NYK based on Hesnes Shipping AS, The Car Carrier Market 2019
Note: Table includes only vessels with a capacity of 2,000 vehicles or more.

Review of Fiscal 2019 and Business Direction for Fiscal 2020

In fiscal 2019, the Car Transportation Division set a target of increasing profitability. Our various initiatives included withdrawing from or reducing unprofitable service routes, assigning vessels with a balance between outbound and inbound vessels, optimizing the fleet's scale, making sweeping improvements to fuel efficiency, and steadily changing over to very low sulfur fuel oil. Furthermore, in the auto logistics business, we expanded the finished vehicle logistics terminal business, while revising our business portfolio based on the operations and financial status of Group companies and deciding to withdraw from or liquidate several of them. Thanks to these initiatives, the Car Transportation Division has achieved its overall initial targets.

Automobile sales activities decreased all over the world from late March 2020 due to the impact of the COVID-19 pandemic, which forced a halt to production activities. The number of finished vehicles shipped out and the number of vehicles transported inland both decreased dramatically in April and May. Thereafter, with the resumption of economic activity in each country, cargo volumes have begun to gradually recover since around July. However, the speed of recovery differs by region, appearing slower in Europe, Latin America, and the Middle and Near East than in North America, Australia, and other places. Looking at the full-year projection, the number of vehicles shipped is expected to fall to around 70% or 80% of the previous year's level, with the Car Transportation Division's profits expected to decline as a result.

In this business environment, the Car Transportation Division will continue to work on improving profitability and efficiency as it did in fiscal 2019. At the same time, we plan to examine and implement strategies for reducing our head count in cargo-handling and pre-delivery inspection (PDI) operations with a view to creating a non-contact business process as a countermeasure to COVID-19. Specifically, at the terminals in Belgium of Group company International Car Operators N.V. (ICO), we are trialing the use of auto guided vehicles (AGVs) to move automobiles mounted on pallets around the cargo-handling yard. Up until now, six human drivers were needed to move an equivalent number of vehicles, but using an AGV enables a single driver to move them. Once the operational efficiency gains and safety are confirmed, we plan to roll out AGVs in Singapore, Thailand, and other countries as well. In addition, we are examining the potential for using cameras to enable remote management of cargo-handling and PDI operations to address issues around maintaining and improving transportation quality.

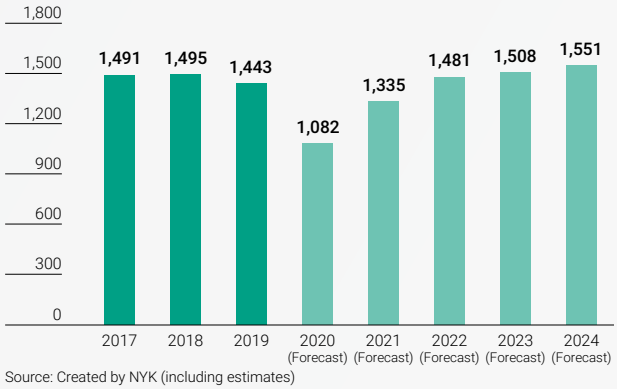
Progress on the Medium-Term Management Plan

As part of our efforts to strengthen the automobile logistics business, we are proceeding with the opening of finished vehicle logistics terminals globally. Construction on Egypt's first finished vehicle logistics terminal will start in 2021. On August 1, 2020, the Yokohama Daikoku C-3 Terminal commenced operations. Yokohama Port has one of the highest handling volumes of finished vehicles in Japan, and it is NYK's first finished vehicle logistics terminal in the country, leased from Yokohama Kawasaki International Port Corporation (YKIP). To establish a stable revenue structure and enable provision of value to various stakeholders, we plan to include ESG and sustainability considerations in the operation of the terminal. We have also been promoting wind-power generation at the ICO terminals as a Green initiative and plan to start operations at the end of 2020. Moreover, with regard to Digitalization initiatives, we analyze big data collected by in-house developed ship information management system and now functioning effectively and playing a major role in preventing accidents involving pure car and truck carriers. In fiscal 2019, we achieved zero accidents.

Amid a major transformation in the automotive industry with connected, autonomous, shared & service, and electric (CASE) technologies, we are researching the development of a system for the integrated management of individual vehicle information, from production to delivery to the consumer, using the connected information held by automakers. There are numerous technological hurdles to be cleared, and the system is expected to need a little more time before it is complete, but we believe it will make a huge difference in transforming and streamlining the logistics operations processes for finished vehicles.

Worldwide Car Transport Volume

(Millions of vehicles)



Source: Created by NYK (including estimates)

Dry Bulk Division

We will aim to stabilize our earnings structure by promoting reforms to create a flexible organization that is resilient to market volatility.

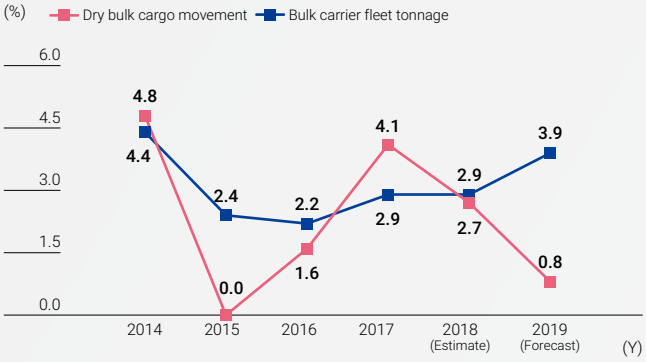
Koichi Uragami
Managing Executive Officer
Chief Executive of Dry Bulk Division

Establishing a Sustainable Business Model at the Dry Bulk Division

Dry bulk cargoes such as iron ore and grains amount to about 6.0 billion tons annually, around half of total global seaborne trade, which amounts to more than 12.0 billion tons. To meet this transportation demand, the Dry Bulk Division operates about 400 vessels in all, from large dry bulkers, known as capesize vessels, to small dry bulkers, also referred to as handysize vessels. We transport cargoes such as iron ore, grains, coal, and wood chips to destinations in Japan and other countries throughout the world, supporting people's lifelines and industries. The division also transports fossil fuels such as coal, which have become controversial in the face of increasing demand to reduce CO_2 emissions. However, for now these cargoes are vital for relieving chronic energy shortages in rapidly growing Southeast Asian economies and other emerging countries, and for supplying stable electric power to support their social and industrial development. We therefore intend to provide safe, reliable transportation of these cargoes to meet customers' needs. On the other hand, considering the modes of transportation provided by the NYK Group, we will aggressively promote initiatives to reduce CO_2 emissions. In fiscal 2019, we decided to order new large dry bulkers promising to be the world's first to run on LNG fuel for use in transporting coal for thermal power plants. Our ultimate goal in the future is to realize zero-emission vessels. At the present time, however, we will proceed with the conversion to LNG fuel as a bridging solution. Moreover, with regard to our existing vessels, we will actively adopt our refined, low-environmental-impact technologies and strategies for reducing fuel consumption, such as ensuring efficient operations. Through these measures, we will work earnestly with customers deeply invested in environmental issues to reduce our CO_2 emissions.

In the operating environment of the dry bulk business, the proportion of long-term contracts that provide a foundation for stabilizing earnings is decreasing, and medium- and short-term contracts are increasing. In addition, partly due to the issue of high-cost vessels previously procured, the division currently has a business model that is highly exposed to market volatility. We still intend to continue advancing our countermeasures for high-cost vessels, but by properly ensuring that freight contract periods should meet charter contract periods of vessels, we believe we can create a business that is not only capable of stably generating earnings but is also resilient to market volatility. Amid a growing sense of uncertainty regarding the future, it is anybody's guess how cargo demand will change. That is all the more reason to create an organization that can freely reform its business model and adjust its scale in response to cargo movements and market volatility. In doing so, we will continue to carry out our responsibilities while adhering to our basic commitment of "assigning appropriate vessels when needed to prove worthy of customers' trust" under any conditions.

Growth in Cargo Movements and Fleet Tonnage



Source: NYK based on Clarksons Research Dry Bulk Trade Outlook, February 2020

Review of Fiscal 2019 and Business Direction for Fiscal 2020

From January 2020, sulfur oxide (SOx) regulations were enacted, leading to an increase in the dry-docking of vessels to fit them with scrubbers for reducing sulfur emissions. Doing so resulted in a decrease in operational vessels, but did not fully relieve the oversupply of vessels. Market conditions for fiscal 2019 trended firmly until the end of the second quarter before reversing direction from the third quarter onward. In the fourth quarter, record torrential rain damage prolonged a stall in cargo movements of iron ore loaded in Brazil, while the COVID-19 pandemic compounded the situation with a deterioration in market sentiment, driving freight rates lower than the decrease in cargoes. The division's use of freight forward agreements (FFAs) as hedges succeeded in minimizing these impacts. Fiscal 2020 has started under difficult conditions due to the COVID-19 pandemic. However, as the first country to restart economic activity, China's activity has been increasing with a slight year-on-year rise in crude steel production and strong year-on-year growth in raw material imports, and larger vessels in particular have been on a recovery trend since around the end of May. Countries are coming out of lockdown and beginning to produce economic measures, and thus cargo movements in Japan, Europe, and the United States are expected to recover gradually. Under these testing market fluctuations, the division is working to build a dry bulk business that is highly resilient to market conditions by further developing and accelerating its key initiatives for improving its earnings structure. In addition, we reorganized the entire division in April 2020 to examine more rational methods. Our first step in this regard was to establish a Tramp Fleet Team to undertake centralized management of our exposure to market conditions. Such management will strengthen the division's countermeasures for high-cost vessels and its formulation and rapid execution of FFA policy. The second step was to establish a Dry Bulk Operation Team. The division's strength and source of differentiation is its capability in vessel operations. Up until now, we have accumulated our operational expertise and the necessary information in each group within the Dry Bulk Division by type of cargo and vessel. By eliminating these boundaries and bringing together the personnel in charge of overseeing vessel operation orders and those on the front lines, we will aim to share best practices to achieve higher levels of performance. Moreover, with regard to budgeting and forecasting revenue and expenses, we have launched a project for establishing common processes within the division and managing them. It will be no easy task to communize administrative processes that each group within the division has spent a great deal of time developing. However, in order for the Dry Bulk Division to work as one to achieve transformation, we believe it is essential to have a common platform comprising the most efficient and highly accurate processes to enable faster and more appropriate decision-making.

Progress on the Medium-Term Management Plan

Our aim is to build a business portfolio to create a stable business that can secure a certain level of earnings under any market conditions. To that end, we are executing four key initiatives. The first is to meticulously control our exposure to market conditions. By steadily advancing returns of high-cost vessels, we have reduced our exposure to market conditions from 35% to 28%, compared with the end of fiscal 2017, and improved the ratio of matches between freight contracts periods and charter vessel periods. The second is maintaining and expanding long-term contracts. As the pace of change in social trends and in the global economy accelerates, we are strengthening partnerships through proposal-based sales. We have been working to become our customers' preferred solution provider by offering the NYK Group's high-value-added vessels incorporating environmentally compliant technologies along with world-class operational capabilities and maritime expertise. As a result, in fiscal 2019 we won 13 long-term contracts spanning five years or longer. The number of medium- to long-term contracts increased 15% compared with the end of fiscal 2017, showing steady progress. Our third key initiative is securing stable revenues from market-to-market business. In April 2019, we created the Tramper Group, and this has enabled us to steadily secure a certain level of profitability even under low-freight-rate market conditions by efficiently assigning vessels, procuring optimal vessels for contract timings and periods, and securing cargo contracts using our global sales network and other strengths. The fourth key initiative is to open up businesses peripheral to dry bulk. There is a desperate need for a modal shift to vessels that can transport large volumes at once in areas such as bulk logistics and coastal transportation projects, with such vessels also expected to reduce CO_2 emissions. Going forward, we will identify and engage in projects that will constantly drive new value creation, also integrating the perspective of promoting ESG management.

Bulk Carrier Fleet Ranking (As of January 1, 2020)

Rank	Company	Kt (dwt)	Vessels
1	China COSCO Shipping	31,977	295
2	NYK	15,989	173
3	"K" Line	13,845	115
4	Fredriksen Group	13,529	109
5	Star Bulk Carriers	12,922	117
6	China Merchants	12,922	111
7	MOL	11,277	95
8	Berge Bulk	11,041	56
9	Polaris Shipping Co	9,120	33
10	Oldendorff Carriers	9,043	88
11	Pan Ocean	8,703	62
12	Angelicoussis Group	8,568	49
13	Imabari Shipbuilding	8,563	80

Source: Compiled by NYK based on Clarksons Research Database

Energy Division

We will grasp demand trends from a long-term perspective and use our global network to pursue new business opportunities and further added value.

Akira Kono
Senior Managing Executive Officer
Chief Executive of Energy Division

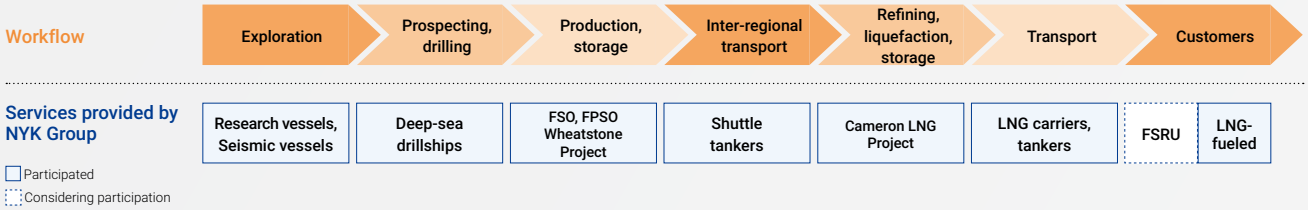
Establishing a Sustainable Business Model at the Energy Division

As stated in Sustainable Development Goal No. 7, "Ensure access to affordable, reliable, sustainable and modern energy for all," energy is essential for human life. Yet, over one billion people around the world do not have access to electricity in their environments. We believe that the Energy Division's business is connected with our social mission, "Bringing value (in the form of energy) to life.," so that various stakeholders will have access to safe, stable, and secure energy.

Energy demand is calculated by predicting population growth, economic growth, and to what extent growth of the economy will raise living standards. The global population currently stands at 7.7 billion and is projected to increase 26%, to 9.7 billion, in 2050. Growth of the economy, however, is difficult to project. That being said, based on annual growth of 2%, for example, the economy is expected to grow by more than 80% by 2050. Considering that living standards are expected to improve, energy demand is virtually guaranteed to continue expanding in the future. The main mission of the Energy Division is thus to make sure it can properly meet demand as it continues to grow, while contributing to the stable supply of energy with a good balance of both fossil fuels and renewables. The division's value chain strategy calls for it to play a part in business at every stage of the energy value chain, from upstream to downstream. Doing so will enable us to quickly observe energy demand fluctuations and trends going forward so that we can identify new business opportunities and pursue further added value by using our insight and expertise.

On the other hand, considering the long life span of the Energy Division's LNG carriers and offshore business projects, at between 20 and 30 years, and the number of years from making the decision to invest to completing construction, it is necessary to take an extremely long-term view of demand trends and risks. For this reason, the division uses the Stated Policies Scenario (STEPS) in the International Energy Agency's (IEA) annual World Energy Outlook as an indicator of energy demand trends. STEPS is the predominantly used scenario, assuming energy consumption growth of 1.0% per year through to 2040 and the achievement of Nationally Determined Contributions under the Paris Agreement by all countries around the world. However, there is also the Sustainable Development Scenario (SDS), which envisages further reductions in greenhouse gas emissions beyond each country's environmental policies to control the rise in temperatures. To respond to changes in such future scenarios, we have started an initiative in which we list important change phenomena based on STEPS and make fixed-point observations to monitor events that can trigger these phenomena. Looking ahead, we will use scenario analyses to ascertain the impacts and risks to our operations, and utilize these in discussing business

Offshore Business and LNG Value Chain



strategies. Taking a bird's-eye view of the outlook for overall energy demand and approaching business management with a long-term perspective are essential for promoting the ESG management advocated by the Company. We will continue to develop these initiatives going forward.

Review of Fiscal 2019 and Business Direction for Fiscal 2020

Some of very large crude-oil carriers (VLCCs) in the market became non-operational due to economic sanctions on multiple countries and trade friction involving the U.S. The resulting pressure on capacity supply created a surge in freight rates around the summer of 2019. Moreover, the Organization of Petroleum Exporting Countries (OPEC), centered on Saudi Arabia, and other major non-federated oil-producing countries such as Russia, which together make up OPEC Plus, embarked on a large-scale and coordinated oil production cut. A further factor is the emergence of new geopolitical risks sparked by COVID-19. These factors together with global economic trends will need to be monitored carefully going forward.

Overall energy demand at the present time has contracted sharply due to the impact of COVID-19. However, 80% of the division's energy transportation operations comprise medium- and long-term contracts, so we were able to accumulate the anticipated number of long-term contracts in fiscal 2019. During the fiscal year under review, we completed the construction of three new LNG carriers, as well as acquiring a long-term contract that involves an order for one newly built vessel. In our offshore business, we made new contracts for three shuttle tankers and also acquired a medium- to long-term contract for one FPSO.* Certain business talks were delayed due to the impact of COVID-19, but we expect to be able to capture new contracts in fiscal 2020 as well. Furthermore, we are slated to start phased operations of the Cameron LNG project in the U.S. Thus, the impact of COVID-19 on the Energy Division has been limited, and we anticipate record stable earnings once again in fiscal 2020.

* Floating production, storage, and offloading system

Progress on the Medium-Term Management Plan

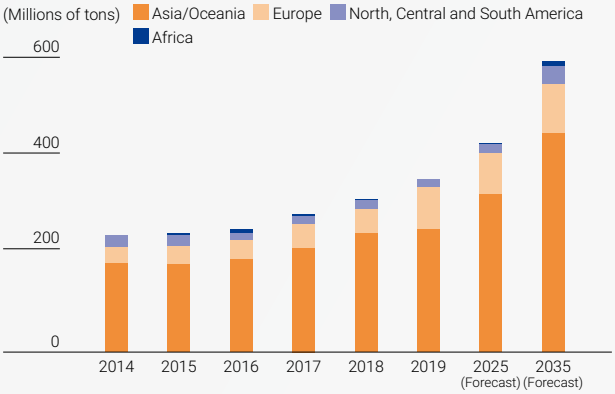
The Energy Division is steadily carrying out the role expected of it under the medium-term management plan, including accumulating long-term contracts and expanding "Digitalization and Green" initiatives.

In Digitalization initiatives, the division has started trialing the Ship Information Management System (SIMS), which is being used in other divisions, on its own LNG carriers with cooperation from customers. LNG requires extremely sophisticated cargo management as its liquid temperature is minus 160˚C, and the Group has refined its technologies for safely transporting LNG through many years of operational experience. By utilizing this expertise to analyze our accumulated operational big data and realize optimal operations, we can contribute to reducing fuel consumption, helping bring down both costs and CO_2 emissions. In addition to providing economic benefits and reducing environmental impact, we believe this analysis will help prevent accidents. Another area of focus is to quantitatively visualize these benefits, and we will make use of such efforts as a new kind of added value in business talks going forward.

In our activities for commercializing Green initiatives, one year has passed since we established a dedicated department in April 2019 within the division, and the number of projects has climbed to several dozen. By 2030, we plan to grow this business to a scale where recurring profit reaches several billion yen. We are now about to enter the period for introducing LNG fuel for ships, and we expect to see growth in this area from the late 2020s through to the 2030s. In efforts to achieve zero emissions, there is an increasing focus on alternative fuels such as hydrogen and ammonia, but the technology for these fuels is still currently at the pre-commercial development stage. Going forward, the Energy Division will collaborate with relevant government agencies and leading partners in Japan and overseas, leveraging the NYK Group's strengths in technology and expertise to drive forward R&D and spurring the creation of new value and new businesses.

Renewable energy is a field with high growth potential, and the Company plans to engage in it fully. As a first step, we will target the Japanese offshore wind power business, partnering with leading overseas experts through the Group's global network to provide added value at various stages in the value chain, from transportation of materials to power generation and transmission.

LNG Transactions and Demand Forecasts by Major Market



Source: Compiled by NYK based on IHS Markit LNG Supply Demand Gap 2019