



OPTIMIZE LIVING AND ENVIRONMENT

KD Navien Sustainability Report 2024



Optimize Living and Environment

About this Report

Cover Story



This report introduces KD Navien's sustainable management activities and ESG strategies, pursued to promote harmony between people and the environment based on the theme of 'Invitation to a comfortable living environment', in a both emotionally engaging and a systematic way.

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Report Overview

This report is KD Navien's 2024 Sustainability Report, reflecting the financial, environmental and social values and efforts created through our business activities guided by our philosophy of "Contribute to Society through Enterprise". KD Navien annually publishes a sustainability report to communicate with stakeholders and transparently disclose ESG performance and activities.

Reporting Principles

This report has been prepared in accordance with the 2021 GRI (Global Reporting Initiative) Standards, the international sustainability reporting guidelines. It also incorporates indicators required by the Electrical & Electronic Equipment standards of the SASB (Sustainability Accounting Standards Board) and recommendations from the TCFD (Task Force on Climate-related Financial Disclosures).

Reporting Period

This report covers financial, environmental, and social performance from January 1, 2024, to December 31, 2024. Certain performance data include information up to March 2025, and quantitative performance includes figures from the past three years to support trend analysis.

Reporting Scope

Financial performance and greenhouse gas data in this report are presented on a consolidated basis. Non-financial performance excluding greenhouse gases is reported on a separate basis covering KD Navien's domestic business sites, including the Seoul office, research institute, and production sites (Seotan, Pyeongtaek, Songtan, Gasan). Partial environmental and social performance data from key affiliates such as KD Everon, KD Polyum, KD TS and Navien, Inc. are also included.

Report Assurance

This report underwent independent assurance from the Korea Management Registrar (KMR) to ensure transparent disclosure of sustainability management activities to stakeholders. The assurance statement can be found on page 107 of this report.

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ESG Steering Committee Chair Message

Greetings to all stakeholders supporting KD Navien's sustainable growth.

The year 2024 brought significant changes to the global economy due to unstable international conditions and industrial structural shifts. In particular, the global supply chain crisis caused by abnormal climate events and geopolitical risks worldwide has heightened uncertainty in the business environment more than ever. Despite these challenges, in alignment with our corporate philosophy of providing necessary technology and services for the society, we have been securing global competitiveness by introducing innovative products. To "Optimize Living and Environment" for our customers, KD Navien will continue to strive to practice sustainable management.

As part of this effort, KD Navien has established a systematic 'ESG governance' framework and developed a sustainable mid- to long-term growth strategy. Based on this, we voluntarily participate in global initiatives such as TCFD (Task Force on Climate-related Financial Disclosures) and CDP (Carbon Disclosure Project), and have built an ESG risk management system at the supply chain level through ESG diagnosis and due diligence targeting key suppliers.

Especially since 2024 marked the inaugural year for KD Navien's advancement in ESG management, our mid-to long-term carbon neutrality roadmap was also further refined. We established greenhouse gas inventory across all domestic and overseas business sites and conducted Life Cycle Assessment (LCA) tasks focusing on our key product lines. As a result, we are able to effectively identify both direct and indirect greenhouse gas emissions at business sites (Scope 1 and 2), as well as emissions linked to all business activities (Scope 3), and thus take actions to significantly reduce these emissions.

Continuing last year's efforts in 2025, we conducted a Double Materiality Assessment (DMA) roundtable with key stakeholders to derive sustainable growth strategies. Particularly, we directly incorporated stakeholders' opinions throughout the entire process of deriving key ESG issues and identifying risks, thereby enhancing procedural validity and credibility. In accordance with the interest of our global stakeholders, KD Navien will do its utmost to create a comfortable living environment and provide a healthy planet for future generations.

First, we will establish a sustainable corporate culture through company-wide ESG management.

KD Navien embraces "Contribute to Society through Enterprise" as its corporate philosophy, striving to ensure that all corporate activities have a positive impact on the environment and society. To this end, we are cultivating our corporate culture to ensure that ESG management is embedded throughout the organization. Additionally, in line with the eco-friendly trend of energy transition, we are introducing high-efficiency energy solutions to drive innovation across the industry, encouraging ESG management for our partners and seeking ways to move forward together.

Second, we will fulfill social responsibility management by coexisting with local communities.

KD Navien always aims to be a partner in mutual growth that grows together with its stakeholders. In continuation of last year, we actively promoted human rights management by expanding a non-discriminatory personnel system and an inclusive organizational culture. As a member of the local community, we have continuously worked to improve living conditions through providing heating equipment and supporting cultural project sponsorships. This year we are preparing to implement human rights impact assessments, and strengthen social responsibility management by concretizing our mid- to long-term vision.

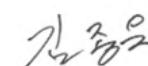
Third, we will continue on a steadfast path and take the lead in carbon reduction through sustainable technology.

Since developing and pioneering the first condensing boiler in Asia in 1988, KD Navien has driven change toward carbon reduction. Maintaining this direction unwaveringly, we have expanded our business domestically to include ventilation purifiers and kitchen appliances. Through this, we provide differentiated air quality management solutions and lead the shift toward integrated management of air quality factors such as temperature, humidity, and cleanliness. Similarly, in the global market, we have launched the condensing hydro furnace which combines condensing technology with the North American heating furnace method, and plan to promote eco-friendly values with various products like high-efficiency heat pump water heaters that reduce carbon emissions.

KD Navien continues to make various efforts for a sustainable future for all of us. We kindly ask all stakeholders for your strong support and unwavering commitment as we take steps toward a comfortable living environment and a healthier planet.

Thank you.

KD Navien ESG Steering Committee Chair
Kim Jong-uk



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Company Introduction

Company Profile

KD Navien creates a comfortable living environment with products and services responsible for temperature, humidity, and air quality from boilers to water heaters, heating and cooling systems, and ventilation. Since its establishment in 1978, KD Navien has grown into South Korea's leading boiler manufacturer. In 1988, it introduced Asia's first high-efficiency condensing technology, and starting exports in 1991, it has maintained the top export position for 34 consecutive years, leading the domestic boiler industry.

Driven by a commitment and passion for the environment, society, and technology, KD Navien has focused on condensing technology that recycles heat more than anyone else. Beyond boilers, it has realized its vision as a partner for comfortable living environments by offering integrated air quality management solutions to consumers through sleep mattress pads that provide optimal sleep environments, ventilation purifiers, and kitchen appliances.

With convenient and reliable technology, KD Navien provides the best living environment solutions that always make customers' daily lives comfortable. Furthermore, guided by the belief to create optimal global and urban environments, it will continue moving forward toward tomorrow.

Company Name	KyungDong Navien Co., Ltd.	NAVIENT : Navigator + Energy Environment
CEO	Sohn Yeon-ho, Sohn Heung-rak, Jang Hi-cheol	
Established	March 16, 1978	
Head office	95 Suwolam-gil, Seotan-myeon, Pyeongtaek-si, Gyeonggi-do	
Business areas	Boilers, water heaters, ventilation air purifiers, sleep mattress pads, smart home systems, etc.	
Website	https://www.kdnavien.co.kr	



Global Network

KD Navien has firmly established a global network spanning the world. It has secured strategic bases worldwide, including the United States, Canada, and Mexico—key markets in North America; Russia and Uzbekistan—major hubs in Eurasia; China—one of the largest markets globally; and the United Kingdom—a major market in Europe. Building on this global network, we continue to pursue relentless innovation and challenges to fulfill our vision of becoming a global energy company optimizing living and environment, boldly advancing in the global market.



Overseas		Domestic	
Country	Name	Name	Site
United States	Navien, Inc.	All	Seoul Office
Canada	Navien Canada, Inc.		Seotan Factory
Mexico	Navien Mexico, S.A. de C.V.		Research Institute
Russia	Navien RUS LLC	KD Navien	Pyeongtaek Factory
Uzbekistan	Navien UBX LLC		Songtan Factory
China	Beijing KyungDong Navien Heat Energy Equipment Co., Ltd.		Gasan Factory
	Hebei KyungDong Navien Heat Energy Equipment Co., Ltd.	KD Everon	Chungju Factory
		KD Polym	Asan Factory
UK	Navien UK Ltd.	KD TS	Human Resources Development Center

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Business Introduction

KD Navien focuses its core capabilities on providing integrated living environment solutions that harmoniously combine environmentally optimized technology with lifestyle-optimized technology, ensuring every moment customers experience in their daily lives is comfortable and convenient. KD Navien's core business direction is to enhance usability and competitiveness in the process of employing technology that makes customers' daily lives more comfortable, and ultimately to create value closely connected to their lives.



Optimize: KD Navien's Brand Identity

To provide optimal living environment solutions that make customers' daily lives comfortable while also including the idea of creating the best possible global and urban environment.

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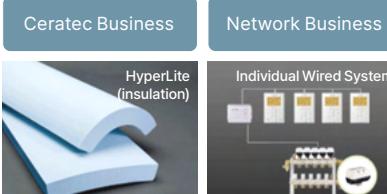
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Our Affiliates

Partners Creating Value in Energy and Environment

The five KD Living Environment partner companies are collaboratively combining their capabilities to become global leaders in their respective fields, driven by continuous technological innovation and creative thinking. Simultaneously, they are advancing together towards a shared vision of enriching and enhancing customers' daily lives, creating synergy along the way.

Key Business and Products



A holding company of the group and an innovative leader in developing eco-friendly building and commercial materials, as well as advanced home network systems.

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Introduction

KD One was launched in 2010 as a holding company for investments and brand management of KD affiliates, merging KD Ceratec (eco-friendly materials) and KD Network (home network). Through the integration of these three companies, we are focusing on our business capabilities and maximizing synergy into becoming a leading company in energy-saving technology.

Performance¹

2024 Sales	155,844,294
2023 Sales	131,648,859
2022 Sales	119,025,247

1) Separate basis



A company specialized in developing and producing core components that increases longevity of products.



A company specialized in developing and producing water piping modules and core components that determine the performance of boilers, water heaters, and sleep mattress pads.



A service-specialized company securing customer rights protection through providing services for all KD products and fostering excellent engineers.

KD TS stands for KD Total Solution & Service, providing comprehensive services for boilers, water heaters, ventilation air purifiers, and living environment devices. It cultivates excellent service engineers at its own training center, focusing on customer satisfaction and rights protection, growing into a global service-specialized company with customer-centric management.

(Unit: KRW thousand)

2024 Sales	217,895,493
2023 Sales	197,153,226
2022 Sales	204,221,318

2024 Sales	105,866,038
2023 Sales	88,807,584
2022 Sales	106,843,918

2024 Sales	26,197,979
2023 Sales	23,295,849
2022 Sales	19,493,505

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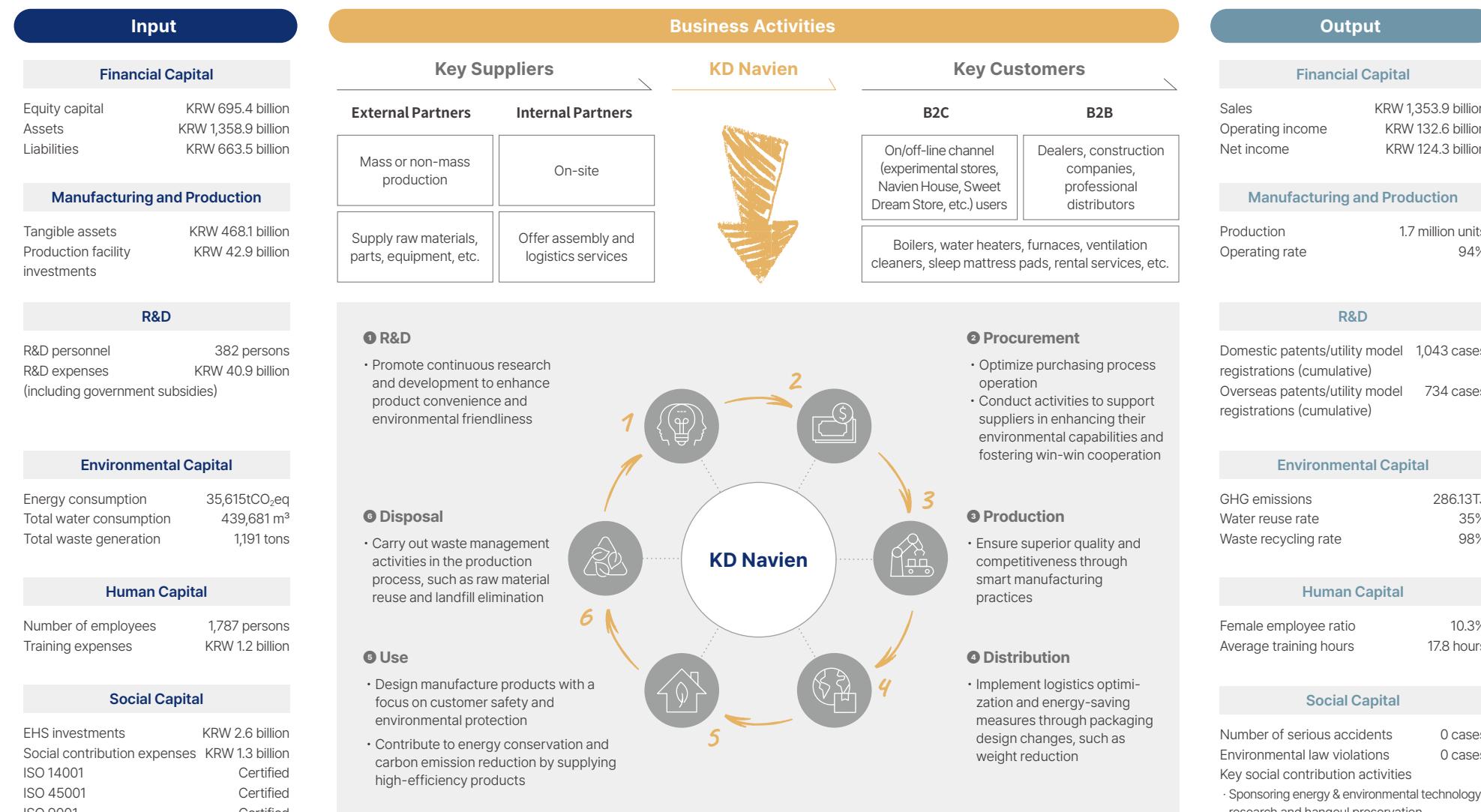
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Sustainable Value Chain



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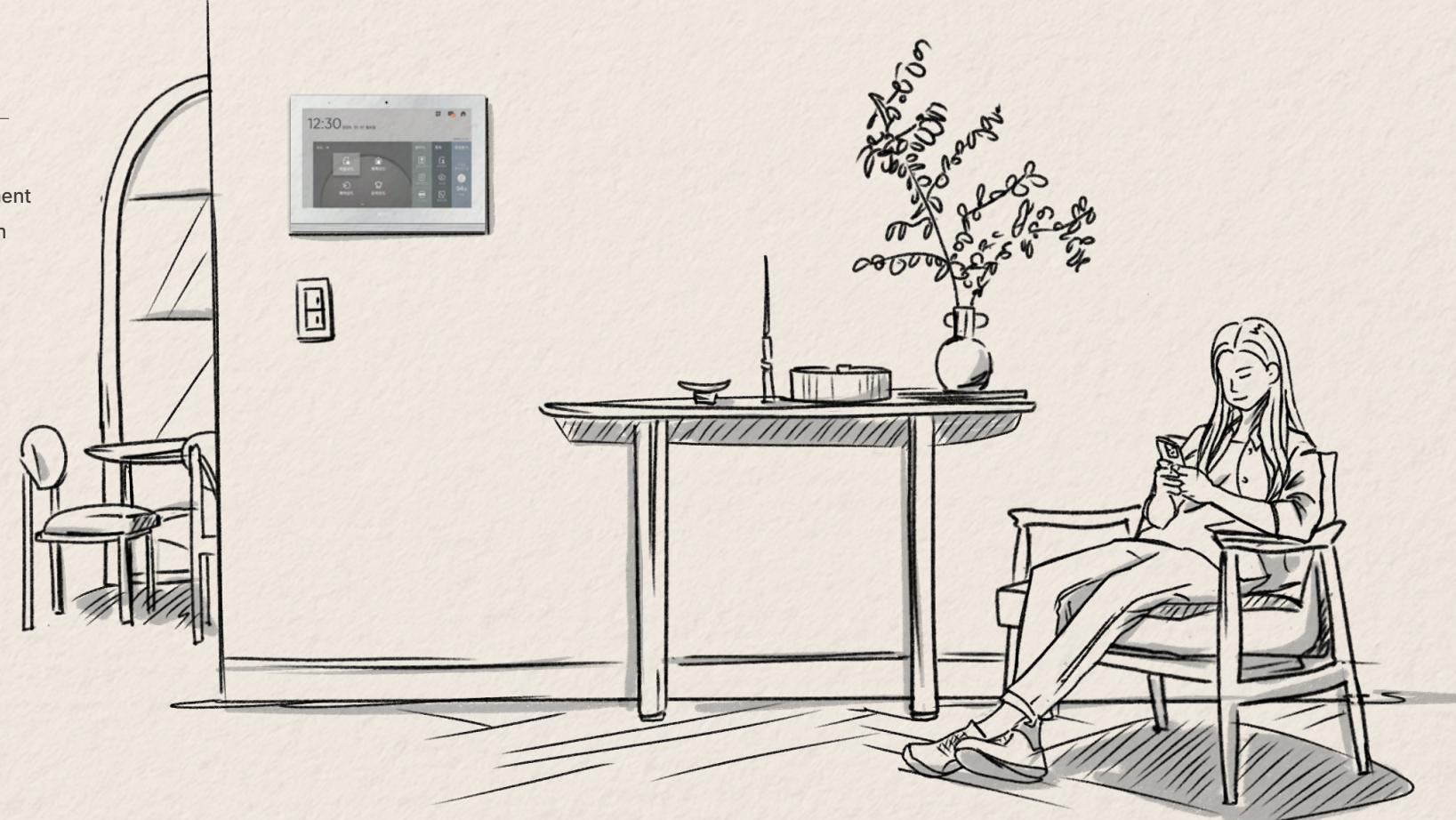
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Think Living and Environment for a Better Tomorrow

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KD Navien ESG Strategy

ESG Strategy System

KD Navien has long strived to improve quality of life based on its sincere beliefs, pursuing harmony among energy, environment, and daily living while achieving continuous growth. To demonstrate our vision of "Optimize Living and Environment", and in response to rapidly changing internal and external business environments, we have established an ESG strategic framework that embodies the company's core identity and future direction to create sustainable value. Under the ESG slogan "Think Living and Environment for a Better Tomorrow", we have embedded an ESG strategic framework—comprising three pillars: Environment, People, and Trust, along with 11 key management areas—into all aspects of our business operations, progressively implementing initiatives in key areas. Especially within the product sector, we aim to provide comfort in everyday life through factors such as temperature, humidity and cleanliness with differentiated technologies that address natural elements such as water, air, and soil with the centralization on our new brand identity, 'optimize'.



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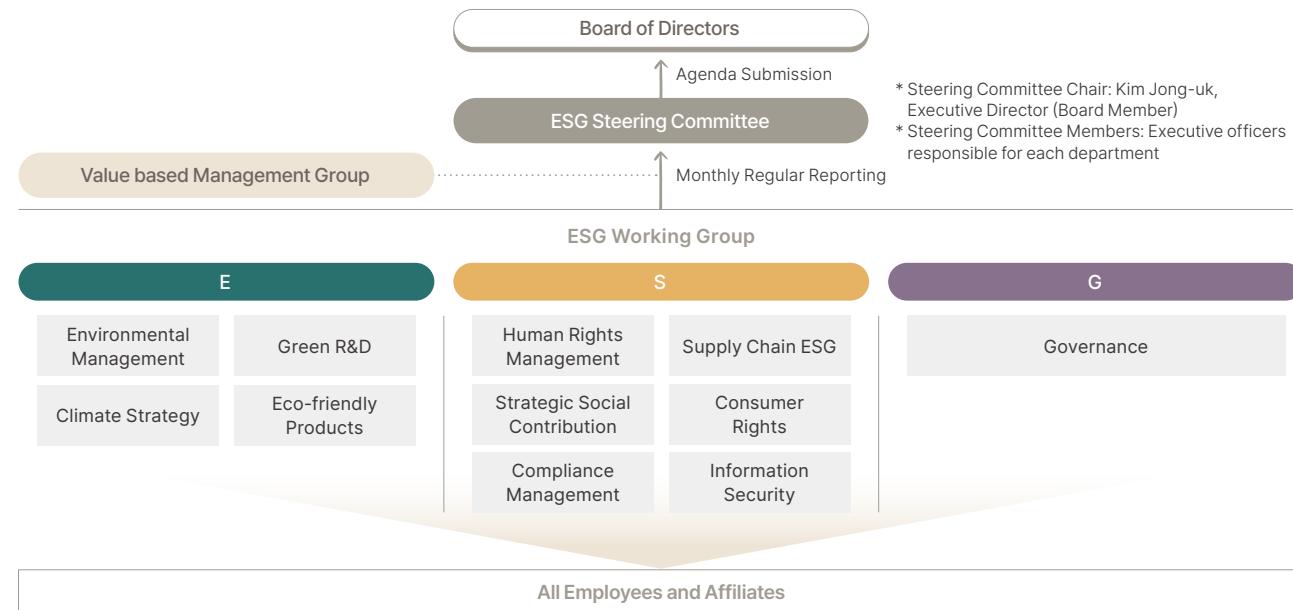
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KD Navien ESG Strategy

ESG Governance

Since revamping the ESG governance system in 2023, KD Navien has further strengthened operational effectiveness in 2024. Additionally, it operates an ESG Steering Committee with executive participation and an ESG Working Group dedicated to carrying out ESG initiatives.

KD Sustainability Management Governance



ESG Steering Committee

The ESG Steering Committee consists of the ESG Steering Committee Chair and key executive officers, responsible for reviewing and approving major ESG strategies and plans, as well as managing and supervising related performance. Important matters requiring deliberation or reporting by the highest decision-making body on ESG operations are submitted as agenda items to the board of directors.

ESG Working Group

The ESG Working Group consists of 11 ESG practical teams covering areas such as environmental management, climate strategy, human rights management, supply chain ESG, and governance, is made up of designated departments for each team. They regularly discuss and identify improvement tasks for each area and share the results of their implementation.

Value based management Group

Under the Management Planning Division, the Value based Management Group is responsible for establishing and operating the ESG governance system and handles company-wide ESG planning and management tasks such as responding to ESG evaluations and external disclosures.

ESG Training

In 2024, advanced training was conducted for key practitioners to strengthen ESG strategy implementation capabilities. This training, aimed at enhancing understanding of the ESG guidelines and internalizing practical execution skills, featured a curriculum composed of seven topics and involved 140 employees from related departments.

Additionally, card-style newsletters on major issues such as supply chain ESG and taxonomy were distributed on four separate occasions, facilitating online communication activities for all employees. In 2025, we plan to establish a customized ESG training roadmap that takes into consideration the roles and levels of ESG understanding of members to enable more effective internalization activities.

Topic	Key Content
Sustainable Products	Understanding and application of TCFD and circular business models
Taxonomy	Eco-friendly certification standards, carbon footprint, greenwashing, etc.
Supply Chain ESG	Supply chain mapping and supplier sustainability due diligence
Human Rights Management	Human rights impact assessment/organizational culture/DEI
Sustainable Consumption	Understanding and application of global consumer rights protection
Local Community	Community engagement and development/strategic social contribution



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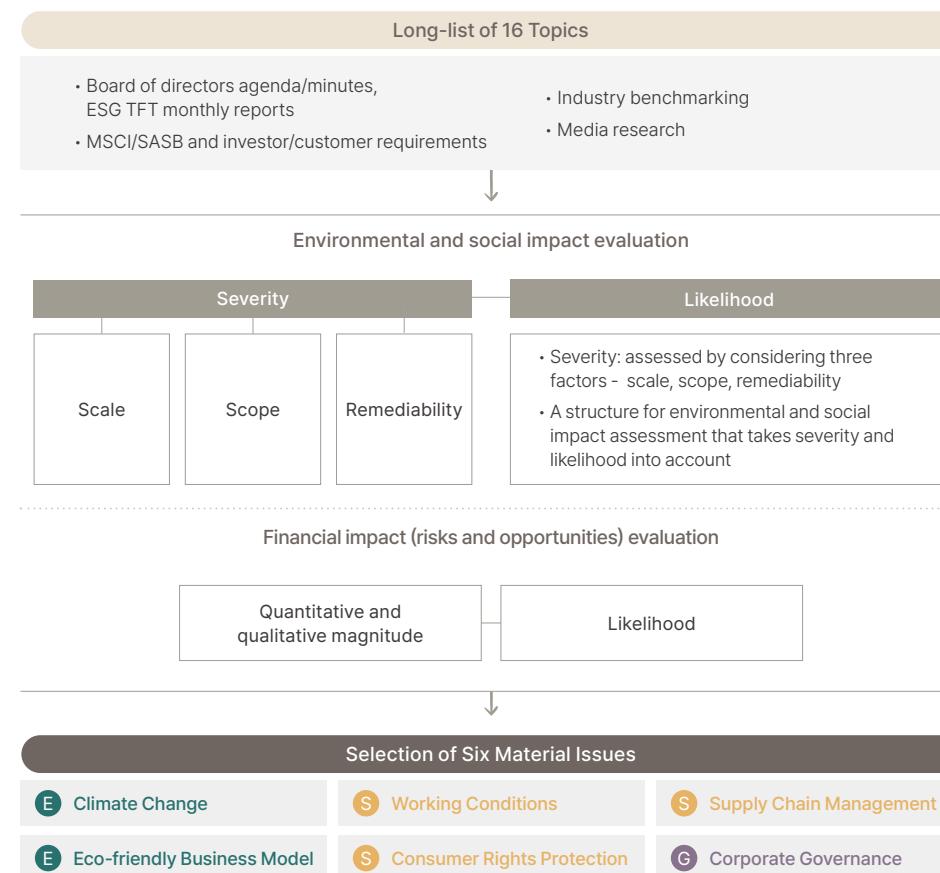
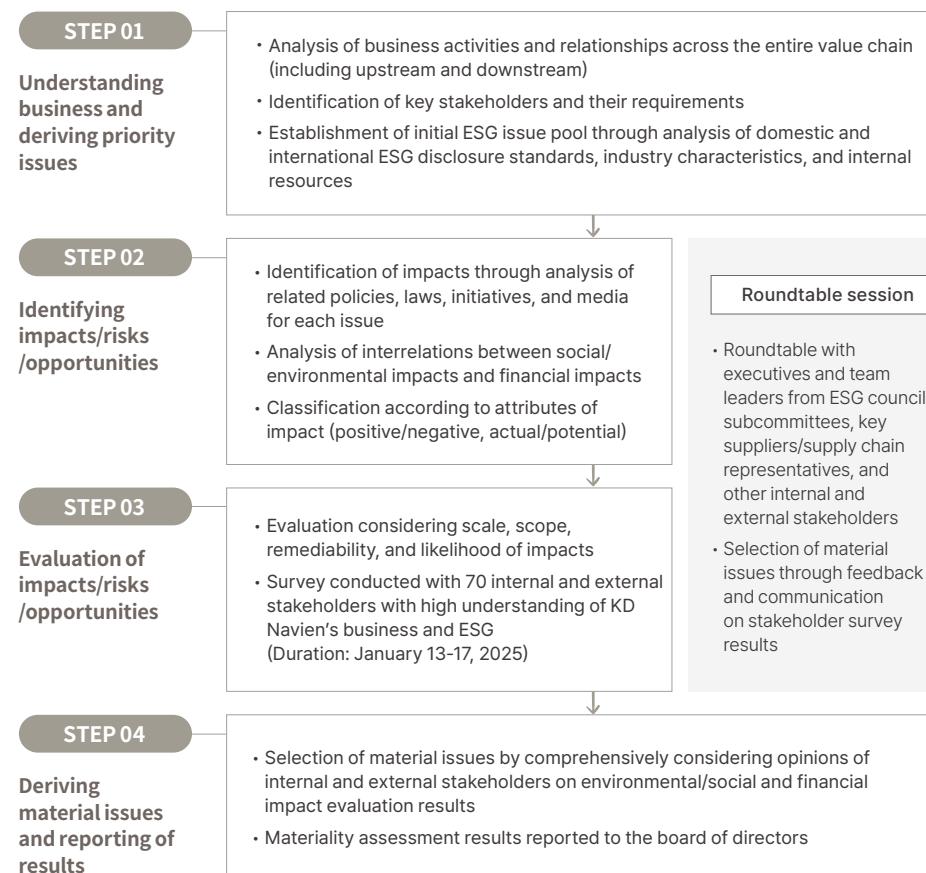
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Double Materiality Assessment

Double Materiality Assessment Process

KD Navien has adopted a double materiality assessment methodology that aligns with global sustainability disclosure standards to systematically identify and manage key issues in ESG management. This assessment was conducted in accordance with the requirements of the European Union Corporate Sustainability Reporting Directive (EU CSRD) and the Global Reporting Initiative (GRI) Standards 2021, applying the concept of double materiality that comprehensively considers KD Navien's social, environmental, and financial impacts. Based on the European Sustainability Reporting Standards (ESRS) double materiality assessment framework, the assessment was carried out in four stages.



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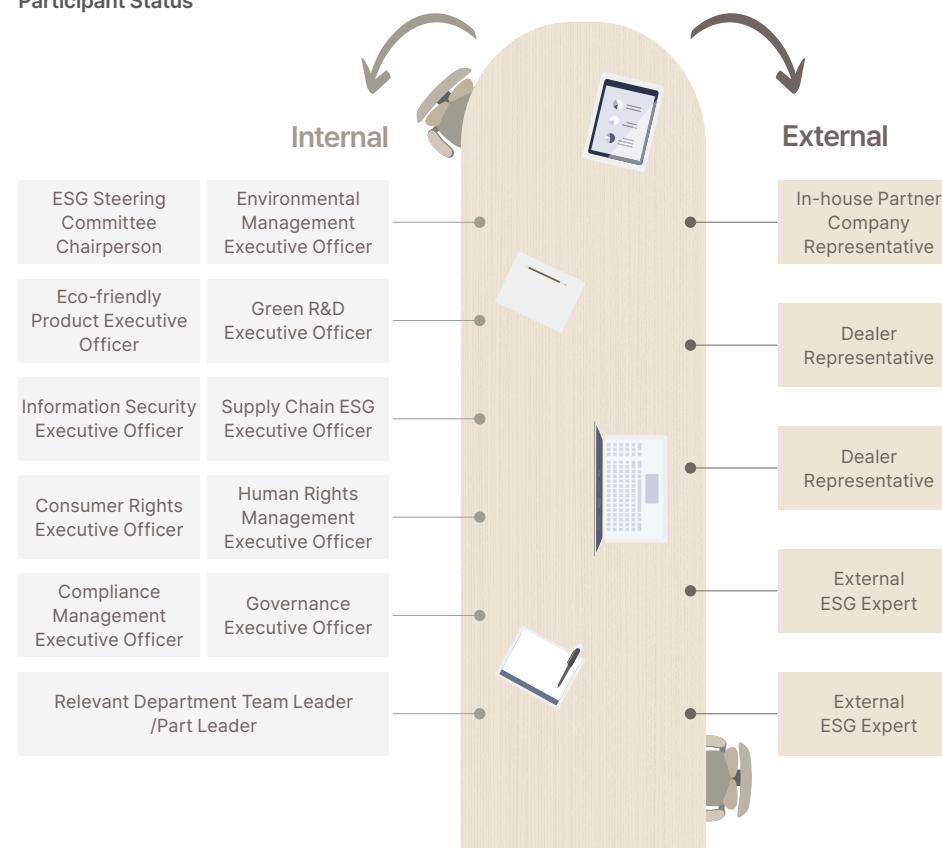
Double Materiality Assessment

Double Materiality Assessment Roundtable

Overview

KD Navien planned and held a roundtable to enhance reliability of the double materiality assessment and to identify key ESG issues reflecting the substantive opinions of stakeholders. This roundtable was attended by responsible executives of the ESG Steering Committee, external stakeholders, and team leaders from the ESG Working Group along with other employees in charge of practical matters. Collaboratively, a mutual discussion took place where insights and opinions about important ESG issues at the company-wide level were gathered from various perspectives on the future direction of KD Navien's ESG management.

Participant Status



Roundtable Results

The main purpose of the roundtable was to gather feedback on the material issues derived from the assessment and discuss implementation plans for ESG strategies. During the process of deriving material issues, KD Navien's value chain was thoroughly reviewed, and was confirmed that the impact assessment survey results were rightfully incorporated.

In respect to the execution of ESG strategy, key actions include boosting ESG capabilities of partner companies, setting up support systems, and developing improvement measures based on feedback from both internal and external stakeholders.



2024 Double Materiality Assessment Roundtable

Topic	Key Opinions
Climate Change	<ul style="list-style-type: none"> Various internal activities are underway to reduce greenhouse gas emissions KD Navien plans to continuously identify and implement tasks by preemptively reviewing negative impacts of its direct and indirect GHG emissions on the external environment
Eco-friendly Business Model	<ul style="list-style-type: none"> Active marketing of KD Navien's product eco-friendliness and establishment of institutional support measures for purchasing eco-friendly products are needed Expansion of R&D investment for product improvement linked to consumer product usability is necessary
Supply Chain Management	<ul style="list-style-type: none"> Monitoring of domestic and international policy trends regarding supply chain management is required Concerns exist about difficulties in adapting to legal requirement changes for small and medium-sized partner companies, such as Fair Trade Commission laws, leading to increased management and maintenance costs for partner companies
Consumer Rights Protection	<ul style="list-style-type: none"> Consumer rights are a critical topic closely related to the nature of the business and require continuous management
Health and Safety	<ul style="list-style-type: none"> While health and safety management at manufacturing sites within business premises is excellent, meticulous management is needed for blind spots at construction /installation sites
Local Communities	<ul style="list-style-type: none"> Based on KD Navien's corporate philosophy of "Contribute to Society through Enterprise", continuous activities are necessary as local community contribution is an important issue the company should pursue

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Double Materiality Assessment

Double Materiality Assessment Results

As a result of the double materiality assessment in 2024, 'eco-friendly business model', 'work conditions', 'consumer rights protection', 'supply chain management', and 'corporate governance' were identified as material issues. The outcome of 'climate change' and 'eco-friendly business model' as material issues indicates that eco-friendly initiatives are becoming a crucial growth driver for KD Navien amid the global carbon neutrality trend. Additionally, 'supply chain management' and 'working conditions' were scored highly due to increasing social attention on supply chain and talent management, while 'corporate governance' reflects expectations for transparent management systems. Furthermore, 'consumer rights protection' is analyzed as reflecting market and regulatory demands regarding the safety and accessibility of products and services.

Material Issue	Environmental and Social Impact		Financial Impact		Impact
Climate Change	• Acceleration of climate change due to greenhouse gas emissions during the manufacturing process of products such as boilers and water heaters, leading to intensified environmental risks including abnormal weather and sea level rise	Negative -Actual	• Increased initial investment and operating costs due to the introduction of greenhouse gas reduction facilities and transition to renewable energy	Risk	●●●
	• Deterioration of air quality and increased health risks for nearby residents caused by greenhouse gases and air pollutants emitted during product use	Negative -Actual	• Concerns over damage to production facilities and increased restoration costs at business sites due to natural disasters	Risk	●●●
Eco-friendly Business Model	• Improvement of energy consumption efficiency and reduction of greenhouse gas emissions through innovation in high-efficiency, eco-friendly energy technologies and product development	Positive -Actual	• Increased sales through expansion of eco-friendly product line in response to growing interest in eco-friendly consumption, expanded policies for installing eco-friendly/high-efficiency devices, and strengthened customer climate change responses	Opportunity	●●●
	• Spreading consumers' green awareness and establishing a sustainable consumption culture through the development and distribution of eco-friendly products	Positive -Actual	• Burden of increased development costs and prolonged investment recovery period due to continuous R&D investment growth	Risk	●●●
Working Conditions	• Enhancing employee satisfaction through work-life balance and family-friendly system operation, fulfilling social value by fostering a family-centered culture	Positive -Actual	• Fines and penalties incurred upon violation of employment-related laws such as the Labor Standards Act and Persons with Disabilities Employment Act	Risk	●●●○
	• Strengthening employee capabilities and improving work productivity through the establishment of digital-based training platforms and smart work environments	Positive -Actual	• Increased education and operating costs due to expansion of job training and capability enhancement programs	Risk	●●●○
Consumer Rights Protection	• Contributing to social welfare enhancement by improving customer accessibility through provision of customized products and services for vulnerable groups	Positive -Actual	• Sales decline due to negative perception of product safety caused by safety accidents during consumer use	Risk	●●●
	• Threats to consumer health and decreased trust from stakeholders in case of safety accidents such as fires during product use	Negative -Potential	• Effect of increased purchases and sales expansion among general consumers by securing convenience and safety of key products and services	Opportunity	●●●
Supply Chain Management	• Establishing a sustainable supply chain system to build trust between enterprises through supporting supplier growth and strengthening the stability of small and medium-sized enterprises	Positive -Actual	• Occurrence of regulatory violation fines and legal costs related to supply chain human rights violations, safety accidents, and environmental violations at the respective business sites	Risk	●●○○
	• In occurrence of human rights violations among workers within the supply chain, fundamental rights are infringed and social inequality deepens	Negative -Potential	• Emergency procurement cost savings and cost reduction through supplier risk management	Opportunity	●●○○
Corporate Governance	• Enhancing corporate governance credibility and strengthening communication with stakeholders through transparent disclosure of the board of directors' capabilities and expertise	Positive -Actual	• Increased capital inflow by securing stakeholder trust through proactive shareholder return policies	Opportunity	●●○○
	• Weakened decision-making independence and reduced governance transparency due to inadequate operation of board committees	Negative -Potential	• Improved decision-making efficiency and management performance through board composition with diverse expertise in industry, management, and finance	Opportunity	●●○○

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Double Materiality Assessment

Management Approach

KD Navien has developed systematic management strategies and concrete action plans for six material issues identified through the double materiality assessment and these critical issues were officially reported at the board of directors meeting in February 2025. We are pursuing continuous improvement and development based on various activities implemented in 2024 according to management plans established for each material issue. Moving forward, we will further advance our ESG management standards through ongoing performance reviews and improvement efforts.

Material Issue	Impacts and Reasons for Selection	Management Plan	2024 Key Performance	UN SDGs	Page
Climate Change	<ul style="list-style-type: none"> Increased frequency of natural disasters due to rapid climate change and demand from external stakeholders for GHG emissions reduction Growing necessity to reduce GHG emissions during the use phase of KD Navien's key products such as boilers 	<ul style="list-style-type: none"> Establishment of climate change and carbon neutrality roadmap Implementation of GHG emissions reduction activities 	<ul style="list-style-type: none"> Conducted scope-specific GHG reduction activities including vehicle electrification and process improvements Established R&D roadmap for eco-friendly products focusing on reducing GHG and NOx emissions Obtained and maintained eco-friendliness certifications such as energy efficiency improvements and carbon footprint certification for products 		21~31, 34
Eco-friendly Business Model	<ul style="list-style-type: none"> Development of eco-friendly technologies and market expansion driven by accelerated climate change Increased need for technological innovation to improve energy efficiency and reduce GHG emissions Rising market demand for low-carbon products and strengthening regulations Need for marketing strategy changes due to the expansion of sustainable consumption trends 	<ul style="list-style-type: none"> Establishment of eco-friendly R&D roadmap Development of eco-friendly boilers and expansion of product lines Enhancement of eco-friendliness in existing products Planning and execution of eco-friendly campaigns 	<ul style="list-style-type: none"> Supply expansion R&D of electric heat pumps and hydrogen boilers Development of condensing hydro furnace and condensing boilers with improved energy efficiency Provided subsidies to customers purchasing AI condensing boilers and ventilation air purifiers during Green Consumption Week 	 	18~19, 34
Working Conditions	<ul style="list-style-type: none"> Growing social interest in workplace human rights issues Emerging need to create a family-friendly work environment Increasing demand for improved educational environments for employee capability development, including online training collaboration, and digital learning platforms Expanding demand for productivity improvement through AI technology adoption 	<ul style="list-style-type: none"> Operation and establishment of employee capability development systems Expansion of employee welfare benefits 	<ul style="list-style-type: none"> Plan and progress for obtaining family-friendly certification Operation of digital learning platform via e-Campus Establishment of AI-based smart work environment through MOU with Microsoft 	 	46~52
Consumer Rights Protection	<ul style="list-style-type: none"> Increasing social demand to ensure usability and safety of key products and services Growing necessity to improve product safety and accessibility for vulnerable groups 	<ul style="list-style-type: none"> Renewal and acquisition of product safety certifications Compliance with electrical appliances and consumer products safety control act Enhancement of awareness regarding product accessibility 	<ul style="list-style-type: none"> Development of Navien Condensing ON AI Boiler Inclusion of product labeling, chemical information, installation, and usage information Revision of 2024 KD standard quality assurance and loss compensation agreement Visual impairment interface support and mobile center operation 	-	55~60
Supply Chain Management	<ul style="list-style-type: none"> Expansion of legal obligations for disclosure of human rights /environmental information through global supply chain due diligence Strengthened demands from stakeholders regarding supply chain control Building trust with key trading suppliers and enhancing SME safety through establishment of a sustainable supply chain system 	<ul style="list-style-type: none"> Conducting ESG evaluation of suppliers Expanding support for suppliers Operating VOC channel for suppliers 	<ul style="list-style-type: none"> Establishment and revision of supply chain related policies Assessment of suppliers' financial risk and response to environmental/hazardous substances Receiving VOCs on systems/purchasing and quality processes from trading suppliers 	-	64~68
Corporate Governance	<ul style="list-style-type: none"> Increased need to enhance predictability of dividends including revision of corporate governance report guidelines Growing demand for disclosure on board capacity enhancement and appropriateness of composition to strengthen ESG management 	<ul style="list-style-type: none"> Active implementation of shareholder return policies Improving expertise and efficiency through establishment of relevant committees within the board 	<ul style="list-style-type: none"> Eight consecutive years of increasing dividends per share 30 consecutive fiscal years of dividend payments, improving predictability of dividend occurrence Disclosure of board capacity composition chart 	-	76~80

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Stakeholder Communication

Category	Purpose	Communication Channels
Customers	<ul style="list-style-type: none"> Introduce technology Provide brand experience Understand customer needs Fulfill responsibilities for products and services 	<ul style="list-style-type: none"> Global exhibitions (AHR EXPO, Installer Show, etc.) Navien House experience store Navien House official online store, Sweet Dream store, Navien LIVE commerce Customer service center, website
Shareholders & Investors	<ul style="list-style-type: none"> Protect shareholder and investor rights Disclose financial performance through business reports Promote transparent governance disclosures Reinforce the role of ESG management 	<ul style="list-style-type: none"> General shareholders' meeting Reports (business report, audit report, corporate report, sustainability report) IR meeting (conference, in-person meeting) Website
Employees	<ul style="list-style-type: none"> Develop employee capabilities and ensure diversity Guarantee a safe, healthy working environment Form healthy labor-management relations Share management performance and information Implement security and compliance pledge across the company 	<ul style="list-style-type: none"> Communication channel "KyungDong in" Grievance handling system and online whistleblowing channel Labor-Management Council, on site meeting for each position Employee training and workshops In-house clubs Job-related education and training (KD Academy) Health care and welfare programs Company-wide security and compliance pledge
Suppliers	<ul style="list-style-type: none"> Create shared growth value Strengthen supplier communication and capabilities 	<ul style="list-style-type: none"> Programs to enhance supplier competitiveness (training, technical, safety, expenses, welfare, etc.) Supplier grievance handling channel (SRM, online whistleblowing channel, etc.)
Local Communities	<ul style="list-style-type: none"> Promote the local economy and support cultural activities Improve heating conditions and living environments Protect the environment of local communities 	<ul style="list-style-type: none"> Sponsorship of cultural organizations Support for vulnerable groups Establishment and sponsorship of 'Condensing Environmental Fund'
Government	<ul style="list-style-type: none"> Promote faithful tax payments Comply with statutes and regulations Respond to air pollutant discharge regulations Promote anti-corruption and ethical management 	<ul style="list-style-type: none"> Reports (business report, audit report, corporate report, sustainability report) Website Ministry of Environment
Academia	<ul style="list-style-type: none"> Eco-friendly and living environment product technology R&D involvement Support academic advancement 	<ul style="list-style-type: none"> Industry-Academia-Research cooperation on technology (development of hydrogen boiler, etc.) Establishment of the 'Condensing Environmental Fund' and sponsorship of academic societies

2024 Stakeholder Communication Highlights



Customers

Participation in the 2024 Climate Industry International Expo



Participation in the 2024 Korea International Heating, Ventilation, and Air Conditioning Exhibition



• Participated in an expo to showcase eco-friendly technologies and products aligned with energy policy directions in the Carbon-Free Energy (CFE) era, exhibiting high-efficiency eco-friendly products such as hydrofurnaces, hydrogen boilers, and condensing air conditioners.



Support for vulnerable groups in the community

• Provided sleep mattress pads to help socially vulnerable groups spend a safe and warm winter.



Sponsorship of Pyeongtaek Cultural Foundation

• Sponsored the Pyeongtaek Cultural Foundation to support cultural development in Pyeongtaek City, where KD Navien's Seotan factory is located.



Business Agreement for the Gyeonggi-do Clean Air Project

• Participated in the public-private CSR project led by the government of Gyeonggi province and sponsored kitchen appliances to improve indoor air quality in facilities used by vulnerable groups.



Completion Ceremony of Public-Private Partnership Old Housing Improvement Project

• Participated in the public-private partnership old housing improvement project to provide comfortable living environments and provide boilers for vulnerable groups.



Advancing Hydrogen Boiler Development

• Advancing development of 100% hydrogen boiler technology through industry-academia research collaborations with KAIST, Inha University, and others.



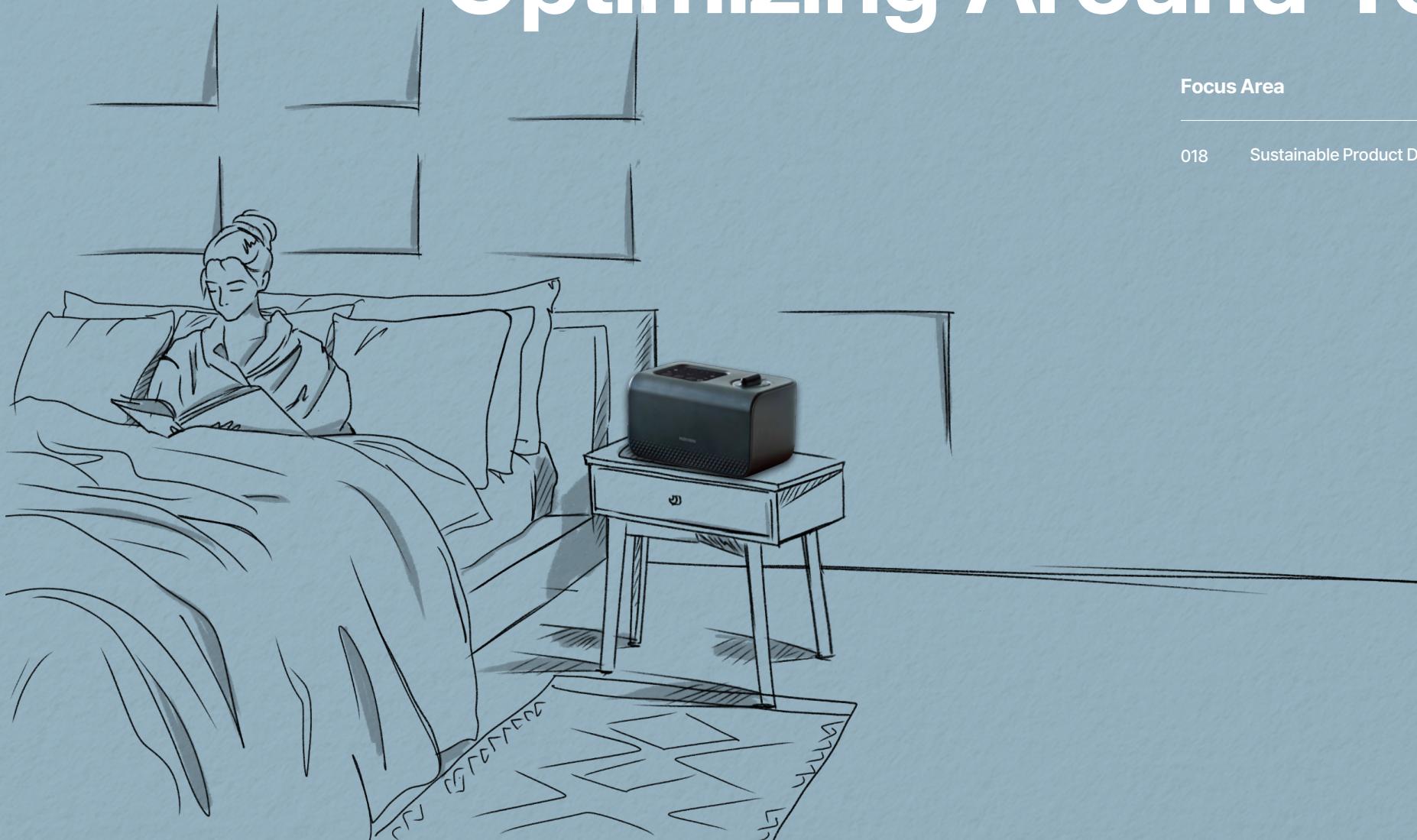
Academia

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Optimize Living and Environment

Optimizing Around You



Focus Area

018 Sustainable Product Development

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Sustainable Product Development

Environment Optimization

Under the vision of "Optimize Living and Environment", KD Navien has led technological innovation to achieve energy efficiency and carbon neutrality. Starting with the development of Asia's first condensing boiler in 1988, the company has continuously introduced eco-friendly, high-efficiency solutions such as hydro furnaces, electric heat pumps, and hydrogen boilers, contributing to the sustainability of next-generation living environments. Amid rapidly changing global eco-friendly policies and energy transition trends, KD Navien is dedicated to sustainable product development to become a comprehensive HVAC (Heating, Ventilation, and Air Conditioning) company based on technological innovation across all areas including heating, cooling, ventilation, and air quality management, setting new standards for future living environments.

Improvement of Energy Efficiency

Boiler



Reduction of Air Pollutants

Reduction in Water Usage

- Condensing Gas Boiler NCB753: Uses an eco-friendly low-NOx certified burner, reducing nitrogen oxides (NOx) by 87%, carbon dioxide (CO₂), and carbon monoxide (CO) by 70% compared to older boilers
- When using the hot water ready system, standby time is reduced to within 10 seconds, saving 20 tons of water annually. The low-NOx certified burner reduces NOx emissions by 87%, CO by 19%, and CO₂ by 70% compared to older boilers

Water Heater



Reduction in Energy Usage

Reduction in Gas Usage

- Condensing Gas Water Heater NPW: Applies downward combustion method and condensing technology to provide excellent energy efficiency of 98.7%
- Through flame control technology (TDR), heat output is precisely controlled up to ten levels for stable hot water supply and reduced gas

Hydro Furnace



Reduction in Energy Usage

Reduction in Carbon Emissions

- A condensing product with an Annual Fuel Utilization Efficiency (AFUE) of 97%, delivering excellent energy savings. Uses high-efficiency ECM motors for energy savings and product sustainability
- An eco-friendly low-NOx product meeting the South Coast Air Quality Management District (SCAQMD) standards in the U.S.

Transition to Eco-friendly Fuel

Heat Pump



Reduction in Energy Usage

Reduction in Carbon Emissions

- A high-efficiency heating and cooling system that uses electricity to heat or cool water by utilizing the thermal energy of air
- Applies natural refrigerant (R-290) with a Global Warming Potential (GWP) of 3 or less

Heat Pump Water Heater



Reduction in Energy Usage

Reduction in Carbon Emissions

- Absorbs heat from air, ground, and water using electricity for heating and cooling
- Achieves energy cost savings and carbon emission reductions with higher efficiency than electric water heaters

Hydrogen Boiler¹⁾



Reduction of Air Pollutants

Reduction in Carbon Emissions

- Utilizes green hydrogen produced from renewable energy and water electrolysis as fuel, emitting no air pollutants such as CO₂
- When mixed with 20% hydrogen, annual carbon emissions can be reduced by 11% (0.27 ton CO₂eq) compared to condensing boilers
- Zero CO₂ emissions when using 100% hydrogen boilers

¹⁾ The hydrogen boiler is currently under product development

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Sustainable Product Development

Living Optimization

KD Navien demonstrates the optimization of living environments through smart technologies and product innovations that make customers' daily lives more convenient and efficient. We continue to make various efforts to provide comprehensive home appliances proven for environmental performance, safety, and convenience, and are especially expanding the application of technology in diverse fields such as ventilation purifiers, kitchen appliances, sleep aids, and smart home systems. Additionally, we are steadily increasing investments in living environment systems to create optimized indoor comfort.

Enhanced Indoor Environment

3D Air Hood



Removal of Harmful Substances
Convenience

- Prevents the spread of harmful substances generated during cooking with a 3D air curtain emitting air from three directions
- Maximizes exhaust performance by connecting with the Ventilation Air Purifier main unit

Ventilation Air Purifier



Indoor Air Quality Management
Clean Filter System

- Integrated air quality management system capable of both air purification and ventilation
- Prevents heat loss through heat exchangers and saves up to 67% energy compared to natural ventilation

Air Monitor



Convenience
Reduction in Energy Usage

- Real-time measurement of eight air quality indicators including integrated air quality, PM2.5, radon, CO₂, TVOC, temperature, and humidity
- Displays major pollution levels in four color stages according to real-time air quality changes: Blue - Good, Green - Moderate, Yellow - Poor, Red - Very Poor

Improved Sleep Efficiency

Hot Water Mattress Pad



Safety
Individual Temperature Control

- Provides an optimal sleeping environment tailored to individuals through real-time temperature control, improving customer's sleep efficiency by up to 18.6%
- Approximately 21% energy cost reduction when using Hot Water Mattress Pad

Carbon Mattress Pad



Prevention of Harmful Chemical Substances
Individual Temperature Control

- Prevents harmful electromagnetic waves and fire risks through front temperature sensing of the mattress pad, detachable adapter, and application of low-voltage direct current (DC 24V)
- Provides an ideal sleeping environment by delivering warmth deep into the body via far-infrared rays from carbon heating wires

Smart Indoor Environment Management

Wall Pad



Living Environment Control
Convenience

- Controls devices within the household such as lighting, gas, cooling, ventilation, and elevator calls
- Supports remote control through linkage with Navien Smart App

Individual Navien AI



User Customization Control
Convenience

- Adjust the temperature of each room to suit your lifestyle and minimize heating in unused spaces
- Provided when installing a boiler linked with the HEMSTM report, which allows you to check monthly energy consumption status and recommended usage methods

1) Home Energy Management Systems

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Think Environment for Sustainability

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Climate Action

Board and Management Roles

Role of the Board of Directors

The board of directors performs the ultimate management and supervisory function regarding climate-related matters. They review climate-related agenda items at semiannual regular meetings and hold approval authority over core activities such as climate change strategy, budget allocation, performance evaluation, and disclosure. Additionally, the board continuously monitors the status of achieving climate change goals, performance indicators, and risk management systems to ensure the effectiveness of company-wide climate change responses.

Climate Action Organizational Structure



1) Responsible executives: Executives at an ESG-related division or department, who oversees ESG strategies in each of the 11 responsible areas and reports to the CEO

Governance

Role of the Management

Effective response to climate change requires proactive commitment and execution by the management. The CEO, as the top decision-maker and a key member of the ESG Steering Committee, directly reviews evaluations, risk management, and specific response measures related to climate change issues, playing a leading role in addressing climate change.

ESG Steering Committee

Composed of executive directors and key responsible executives, the ESG Steering Committee selects annual priority ESG initiatives and sets execution directions. Through quarterly regular meetings and ad hoc meetings as needed, it systematically manages ESG activity performance and comprehensively reviews the status of climate-related activities, goal achievement, and risk management. Key matters discussed by the committee are reported to the board semiannually and reflected in top-level decision-making processes.

ESG Working Group

The ESG Working Group is responsible for establishing detailed implementation plans for the company's overall ESG strategy, including climate change, and for monitoring the progress of these plans. Comprising five parts—climate strategy, environmental management, eco-friendly products, eco-friendly R&D, and supply chain ESG—the Working Group operates with the participation of relevant department staff in each field. The Working Group continuously monitors progress toward climate change goals and regularly reports to the ESG Steering Committee through monthly reports, thereby strengthening the company's overall ESG execution capabilities.

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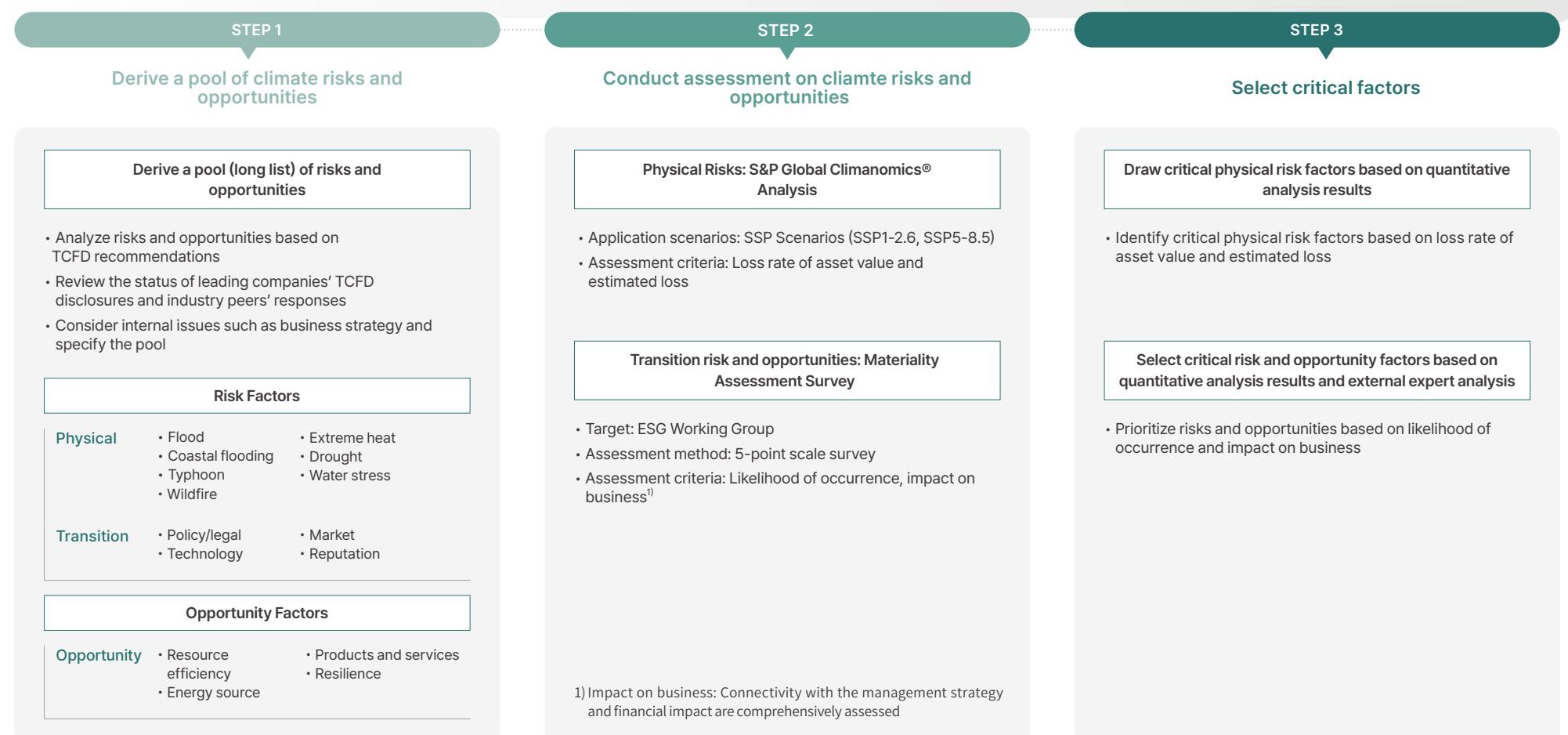
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Risk and Opportunity Identification and Assessment

Identification Process

KD Navien selected 22 risk/opportunity factors based on the TCFD recommendations, analyzing cases from peer and leading companies and considering internal circumstances. Prioritization was set through financial impact analysis of physical risks using specialized climate modeling tools and assessment of transition risks and opportunities via internal stakeholder surveys. Based on these results, we are advancing resilience enhancement strategies in response to climate change.

Climate-related Risk/Opportunity Identification Process



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Physical Risk

Analysis Methodology Overview

As extreme weather events caused by climate change occur more frequently, physical risks that damage company asset values are also increasing. Accordingly, the TCFD recommendations advise analyzing the financial impact of climate-related risks on enterprises using various scenarios, including those under 2°C, and assessing organizational resilience. KD Navien has comprehensively reviewed the financial impacts of physical risks on 11 major business sites of KD Navien and its affiliates in accordance with the TCFD recommendations.

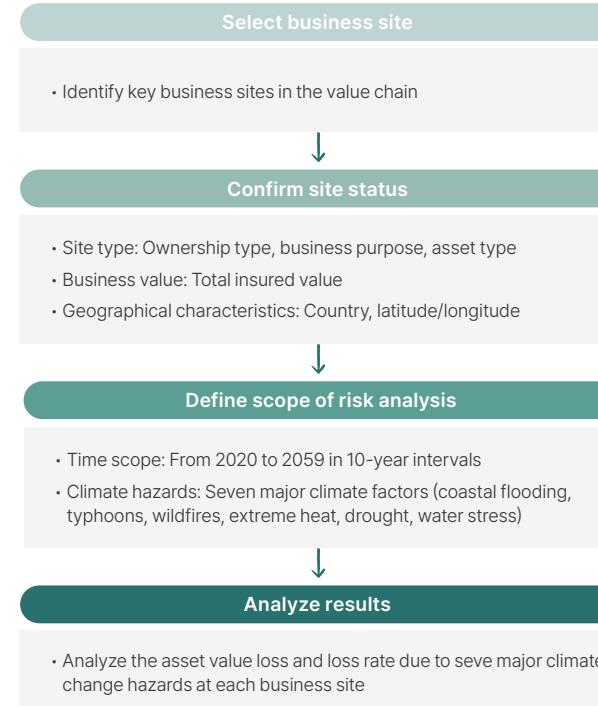
Target Analysis



	Seoul	Seoul Office, Research Institute
South Korea	Pyeongtaek	Seotan Factory, Pyeongtaek Factory, Songtan Factory
	Asan	Gasan Factory, Asan Factory (KD Polym)
	Chungju	Chungju Factory (KD Everon)
United States	Irvine	US Sales Corporation
	Toano	US Sales Corporation Warehouse
China	Beijing	Beijing Production Corporation

Analysis Process

KD Navien utilized S&P Global's Climanomics® Hazard Modeling, an advanced climate impact assessment tool, to comprehensively analyze asset value loss rates due to seven major climate factors (floods, droughts, extreme heat, cold waves, sea level rise, wildfires, hurricanes, etc.) in 10-year intervals from 2020 to 2059. This sophisticated modeling system quantifies physical climate risks and predicts financial impacts, providing essential data-driven insights for the company to establish long-term climate resilience strategies.



Scenario Description

The analysis model employed two extreme SSP scenarios from the IPCC Sixth Assessment Report: SSP1-2.6, expected to have the least physical risk, and SSP5-8.5, expected to have the most extreme risk. Additionally, the analysis periods were divided into ① short-term (2020–2029), ② mid-term (2030–2039), and ③ long-term (2040–2059) to systematically evaluate risk changes over time.

Types of SSP Scenarios

Category	Definition	Adaptation Efforts	Earth Temperature in 2100
✓SSP1-2.6	Powerful carbon emission reduction scenario	Where eco-friendly and sustainable economic growth is possible due to the development of renewable energy technology	+1.8°C
SSP2-4.5	Moderate carbon emission reduction scenario	Where climate change mitigation and socioeconomic development are in the intermediate stage	+2.7°C
SSP3-7.0	Scenario where the carbon emissions double at the end of the century	Where the social structure is vulnerable to climate change due to passive climate change mitigation policies and slow technological development	+3.6°C
✓SSP5-8.5	Scenario where 2050 carbon emissions are double the current level	A case focused on rapid industrial technology development with high fossil fuel use and expanded indiscriminate development	+4.4°C

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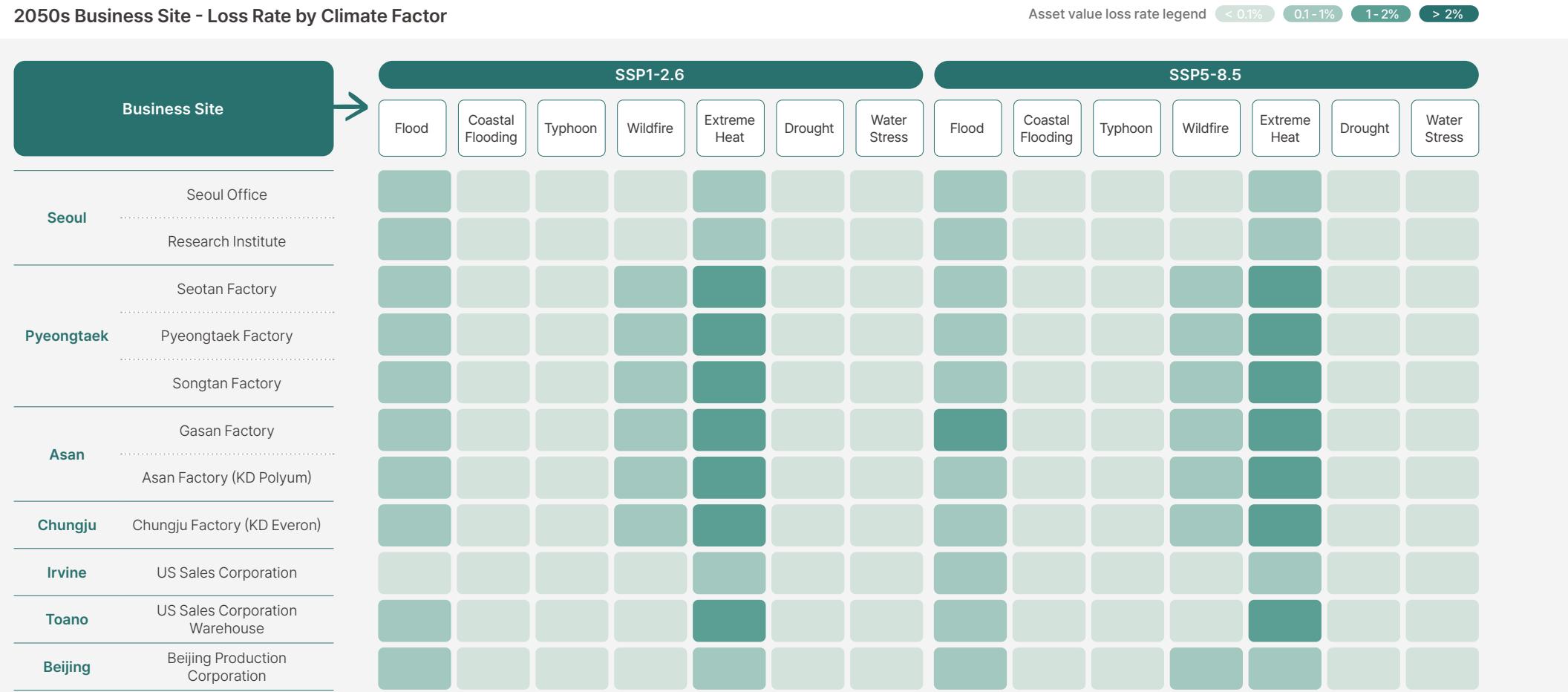
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Physical Risk

Financial Impact Analysis

According to the analysis results of SSP1-2.6 and SSP5-8.5 scenarios, it was confirmed that the asset value loss rate by climate factors at all business sites except the Gasan factory in the 2050s is below 3%. Production sites such as Seotan factory and Gasan factory showed relatively higher asset value loss rates compared to non-production sites like the Research Institute or warehouses; however, no business sites were identified as being exposed to high overall risk. Among the seven climate factors analyzed, extreme heat and flood were identified as the main disaster factors, while asset value loss rates for five factors—coastal flooding, typhoon, wildfire, drought, and water stress—were all analyzed to be below 1%.

2050s Business Site - Loss Rate by Climate Factor



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Physical Risk

Detailed Analysis by Major Disasters

The major disasters that could cause physical risks at KD Navien's key business sites have been identified as extreme heat and floods, with the largest loss proportion attributed to heat. Under the SSP5-8.5 scenario, it was confirmed that in the 2050s, losses due to heat would account for approximately 68% of the total.

Extreme heat

As the severity of climate change intensifies, the frequency and intensity of extreme heat events are on the rise. The financial impact caused by abnormal temperature was calculated by reflecting reduced work efficiency due to heat-related illnesses among workers and increased energy costs from operating cooling devices.

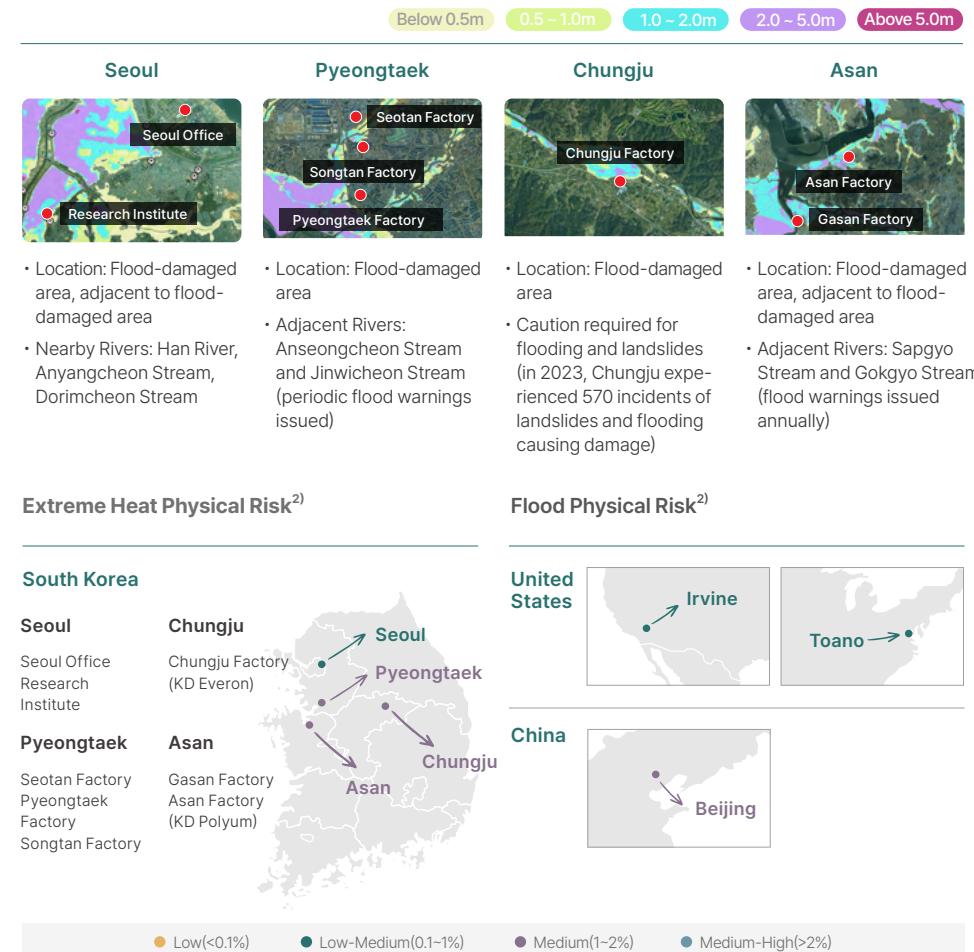
Analysis applying the SSP5-8.5 scenario projects that asset value losses due to extreme heat will steadily increase from 5.6 billion KRW in the 2030s to approximately 8.4 billion KRW in the 2050s. Although the extreme heat-related loss rates at each business site were all found to be within 2% as of the 2050s, production sites located in Pyeongtaek, Asan, Chungju, and Beijing showed higher loss rates than other facilities, necessitating countermeasure development for these production sites. Based on these analysis results, KD Navien has established company-wide heat-related illness prevention guidelines and conducts annual heatwave response training with step-by-step action plans, making multifaceted efforts to prevent heat-related illnesses.

Flood

Due to climate change, the frequency of heavy rainfall is increasing, and floods caused by existing drainage systems failing to handle sudden heavy downpours are on the rise. Financial losses caused by floods were estimated based on business operation interruptions due to inundation and equipment restoration costs.

Analysis based on the SSP5-8.5 scenario confirmed that physical flood risks at all business sites except Gasan factory near Gokgyo Stream are at a low level below 1%. However, as asset value losses from floods are expected to gradually increase from 1.7 billion KRW in the 2030s to 3.1 billion KRW in the 2050s, proactive measures to prevent flood damage are required. Accordingly, KD Navien continuously monitors flood risks at key business sites and systematically conducts preemptive preparedness activities such as revising crisis management manuals.

Key Business Site Flood Risk Map¹⁾



1) Ministry of Environment Flood Risk Map Information System (2023) for the 2050s

2) SSP5-8.5

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Transition Risks and Opportunities

Assessment Process

Climate Risk and Opportunity Materiality Assessment Process

STEP 1 | Analyze the external environment of climate change

Analysis of risk and opportunity disclosure status of the industry

- Analyze disclosure status and best practices of global boiler and water heater manufacturers



STEP 2 | Derive a long list of climate risks and opportunities

Conclude a pool of risks and opportunities

- Incorporate global disclosure and evaluation indicators (CDP, TCFD), trends of advanced companies and the industry, and internal opinions

Risk and opportunity pool · Physical/Transition Risks: 7 / 11 · Opportunities: 10



STEP 3 | Conduct climate change risk and opportunity materiality assessment

Materiality assessment to determine key risks and opportunities

- Conduct an assessment of the importance of climate change risks and opportunities from KD Navien's internal perspective through a survey of relevant teams

Transition risk	Likelihood of occurrence	Impact on business
Opportunity	Quantitative evaluation (5-point scale)	

KD Navien Climate-related Transition Risks and Opportunities

Type	Transition Risks & Opportunities	Key Content	Key Risks and Opportunities
Policy and law	Carbon pricing system	Increase in raw material procurement and production/operation costs due to introduction of internal carbon pricing system such as internal carbon tax and potential costs	O
	Enhanced requirements for disclosing greenhouse gas emissions	Increased investment and capital expenditure due to strengthened GHG emissions reporting obligations and carbon neutrality implementation	O
	Implementation of obligations and regulations for existing products and services	Sales restrictions and revenue decline due to strengthened global regulations such as restrictions on gas boiler installation	O
	Exposure to litigation risks	Litigation costs and compensation expenses due to exposure to litigation risk, sales decline due to customer boycotts	
Technology	Emergence of low-carbon alternatives to existing products and services	Market contraction due to emergence of low-carbon alternatives such as hydrogen boilers, sales impact due to intensified competition in eco-friendly boilers/water heaters	O
	New technology investment failures	Market position weakening due to failure of new technology investments, sales decline and increased capital expenditure due to reduced competitiveness	
	Transition costs associated with low-carbon technology	Increased costs for R&D of eco-friendly products and process improvements due to transition to a low-carbon society	
Market	Changes in customer behavior	Sales decline and deterioration of operations/cash flow due to decreased demand for gas boilers/water heaters	O
	Changes in consumer preferences	Failure to respond to changes in consumer preferences may result in decreased sales due to reduced company competitiveness and product demand, as well as funding difficulties caused by declines in corporate evaluation, brand value, and stock price	
	Preconceived notions about the business field	Negative social perceptions of fossil fuel-related businesses such as gas boilers lead to market contraction and decreased product sales	
Reputation	Stakeholder concerns and negative perceptions	Damage to trust and sales decline due to increased concerns or negative views from stakeholders (ESG declaration, reputation loss from failure to achieve CO ₂ neutrality) and weakened market position	
	Utilization of highly efficient production and logistics systems	Reduction of operating costs through establishment of high-efficiency production and logistics systems such as smart factory	
	Transition to high-efficiency and eco-friendly buildings	Increased sales of condensing boilers/water heaters and clean ventilation system products during the transition to high-efficiency/eco-friendly buildings, including regulatory mandates ¹⁾	O
Resource efficiency	Reduction of water resource consumption	Reduction of operating costs through decreased water resource usage and expanded use of reused water	
	Recycling and reuse	Reduction of operating costs through establishment of waste management systems and expansion of recycling	
	Utilization of low-carbon energy sources	Expansion of eco-friendly product markets and increased sales such as heat pumps due to bans on new fossil fuel boiler installations and establishment of renewable energy-based heating systems in major European countries (including Germany)	O
Products and services	Development of low-carbon products and services	Strengthened market competitiveness and increased sales through sales of eco-friendly products such as high-efficiency clean ventilation systems, HVAC, and condensing boilers	O
	Development of climate change adaptation measures	Increased sales through climate change adaptation measures and resilience	O
	Innovation in new products and services through R&D	Financial benefits and increased sales through development and commercialization of new products such as hydrogen boilers and heat pumps	O
Resilience	Changes in consumer preferences	Increased demand and sales for new products/services such as HVAC and clean ventilation systems due to changes in consumer preferences	
	Resource securing and diversification	Increase in fixed asset value due to relocation to suitable areas in low-lying coastal regions for securing and diversifying alternative resources	

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Transition Risks and Opportunities

Impact and Response Strategy by Key Factors

A comprehensive assessment of transition risks and opportunities arising from climate change identified the introduction of obligations and regulations on existing products and services, as well as changes in customer behavior, as major risk factors. Conversely, the use of low-carbon energy sources and the development of low-carbon products and services were analyzed as the most promising business opportunities. KD Navien has established a management system to respond to these policy environment changes and is proactively addressing various regulations and increasing demand for eco-friendly products by improving the environmental performance of its products. Furthermore, to strengthen corporate competitiveness and secure market leadership, we are systematically adapting to the new environment brought about by climate change by expanding investments in green R&D.

[Time of occurrence] short-term: 2025 mid-term: 2030 long-term: 2050

Category	Type	Issue	Factor	Financial Impact	Time of Occurrence	Importance		Response Strategy
						Likelihood	Impact	
Risk	Policy and law	Carbon pricing system	<ul style="list-style-type: none"> Application of GHG emissions trading system Introduction of internal carbon pricing system Strengthened Carbon Border Adjustment Mechanism(CBAM) 	<ul style="list-style-type: none"> Profit reduction due to increased production costs Increased investment costs for greenhouse gas emission reduction facilities 	Mid-term	●●●	●●●	Establishment of management system
		Enhanced requirements for greenhouse gas emissions disclosure	<ul style="list-style-type: none"> Expansion of workplaces subject to reporting GHG emissions Increased need for emissions reporting to comply with CBAM 	<ul style="list-style-type: none"> Costs incurred for establishing GHG emissions management processes Increased costs for GHG verification response 	Short-term	●●●	●●○	
Opportunity	Resource efficiency	Transition to high-efficiency/ eco-friendly buildings	<ul style="list-style-type: none"> Reduced sensitivity to carbon cost changes due to transition to eco-friendly business sites 	<ul style="list-style-type: none"> Operating cost reduction through decreased energy procurement costs Reduced exposure to future fossil fuel price increases 	Short-term	●●○	●●○	<ul style="list-style-type: none"> Establish a monitoring and management system for external trends such as environmental policies Review the upgrade of the carbon neutrality roadmap Disclose transparent and proactive climate information through CDP response and publication of sustainability reports, etc. Introduce solar power generating facilities (US corporation and Seotan factory)
Risk	Policy and law	Implementation of obligations and regulations for existing product and services	<ul style="list-style-type: none"> Restrictions on sales of fossil fuel-based products due to strengthened global regulations related to boilers¹⁾ 	<ul style="list-style-type: none"> Revenue decline due to decreased demand for existing products Decline in value of existing assets due to policy changes 	Short-term	●●●	●●●	Enhancement of product eco-friendliness
	Market	Changes in customer behavior	<ul style="list-style-type: none"> Increased customer demand for enhanced product environmental performance Decline in market competitiveness of existing gas products 	<ul style="list-style-type: none"> Revenue decline due to decreased demand for existing products 	Long-term	●●●	●●●	
Opportunity	Energy source	Utilization of low-carbon energy sources	<ul style="list-style-type: none"> Increased demand for eco-friendly products due to strengthened global decarbonization policies²⁾ 	<ul style="list-style-type: none"> Revenue increase from sales growth of eco-friendly products 	Short-term	●●●	●●●	<ul style="list-style-type: none"> Review LCA performance on key products Enhance the energy efficiency and eco-friendliness of main condensing models Diversify the eco-friendly product portfolio and increase production volume
	Products and services	Development of climate change adaptation measures	<ul style="list-style-type: none"> Increased demand for products and services that assist climate change adaptation, such as ventilation air purifiers 	<ul style="list-style-type: none"> Sales increase through launching products and services aligned with customer interests and market trends 	Short-term	●●○	●●○	
Risk	Technology	Emergence of low-carbon alternatives to existing products and services	<ul style="list-style-type: none"> Intensified competition in eco-friendly boilers/water heaters and contraction of existing product markets 	<ul style="list-style-type: none"> Sales decline due to reduced demand for existing products Increased R&D costs related to new technologies 	Mid-term	●●●	●●●	Green R&D
Opportunity	Products and services	Development of new products and services through Innovation	<ul style="list-style-type: none"> Development and commercialization of clean energy products such as hydrogen boilers and electric heat pumps 	<ul style="list-style-type: none"> Revenue increase through launch of eco-friendly products Strengthening corporate competitiveness by reducing scope 3 emissions 	Mid-term	●●●	●●●	
	Products and services	Development of low-carbon products and services	<ul style="list-style-type: none"> Strengthened market competitiveness through sales of low-carbon products such as hydro furnaces, condensing boilers, and water heaters 	<ul style="list-style-type: none"> Increased sales due to rising demand for low-carbon products Strengthening market competitiveness through enhanced product environmental performance 	Short-term	●●●	●●●	

1) Restrictions on gas product installation and tightening of boiler NOx Emission Standards

2)Eco-friendly boiler installation, zero-energy buildings, mandatory condensing for residential water heaters (U.S. DOE minimum efficiency standards), etc.

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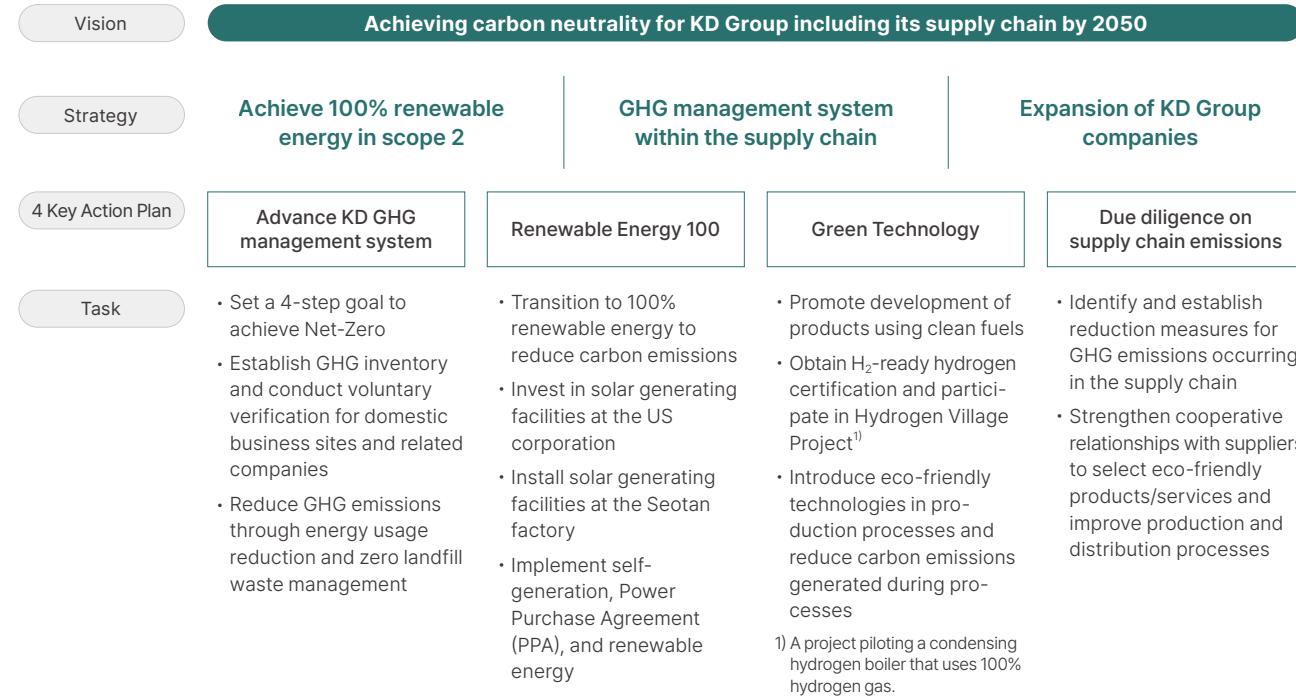
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Transition Risks and Opportunities

2050 KD Green Roadmap

KD Navien is not subject to domestic greenhouse gas reduction systems such as the greenhouse gas emissions trading scheme or mandatory emissions verification sites. However, as an eco-friendly leading company, we have proactively and voluntarily expanded our scope in 2023 to include domestic consolidated affiliates to calculate greenhouse gas emissions. Alongside external verification of scope 1 and 2 emissions by specialized agencies, internal calculations were conducted for partial categories of scope 3, establishing a more comprehensive greenhouse gas inventory system. The company is also advancing various greenhouse gas reduction initiatives, including life cycle assessment (LCA) reviews of key products. KD Navien has developed the '2050 KD Green Roadmap,' a carbon-neutral blueprint for long-term and sustainable greenhouse gas management and reduction, and plans to progressively develop it further.

2050 KD Green Roadmap



Resilience

KD Navien is conducting strategic resilience reviews through scenario analysis to effectively respond to future climate-related risks and opportunities. Based on this, it has established the 2050 KD Carbon Neutrality Roadmap and is actively promoting R&D for eco-friendly product development.

Additionally, based on SSP scenarios, the asset value loss rates of major business sites were analyzed from multiple perspectives. Even under the SSP5-8.5 scenario, the likelihood of facing severe physical risks was assessed as low. However, as risks due to extreme heat are expected to gradually increase, these physical risk analysis results will be systematically reflected in the facility management plan for business sites.

Going forward, scenario analyses on not only physical risks but also transition risks and opportunity factors will be conducted in parallel. By integrating the financial impact analysis results caused by climate change into long-term management plans and strategy formulation processes, the organization's resilience to climate change will be further strengthened.

Strategic Resilience

According to the analysis using S&P Global's Climconomics® Hazard Modeling, even under the most extreme climate change scenario of SSP5-8.5, the asset loss rate for all KD Navien business sites is assessed to be below 3% by the 2050s. This suggests that the company's facilities can maintain relatively stable resilience against long-term climate change impacts. However, the asset loss rate due to extreme heat is predicted to continuously increase until the 2050s, reaching 20.93%. KD Navien plans to proactively incorporate this into its business site facility management plans to respond in ahead of time.

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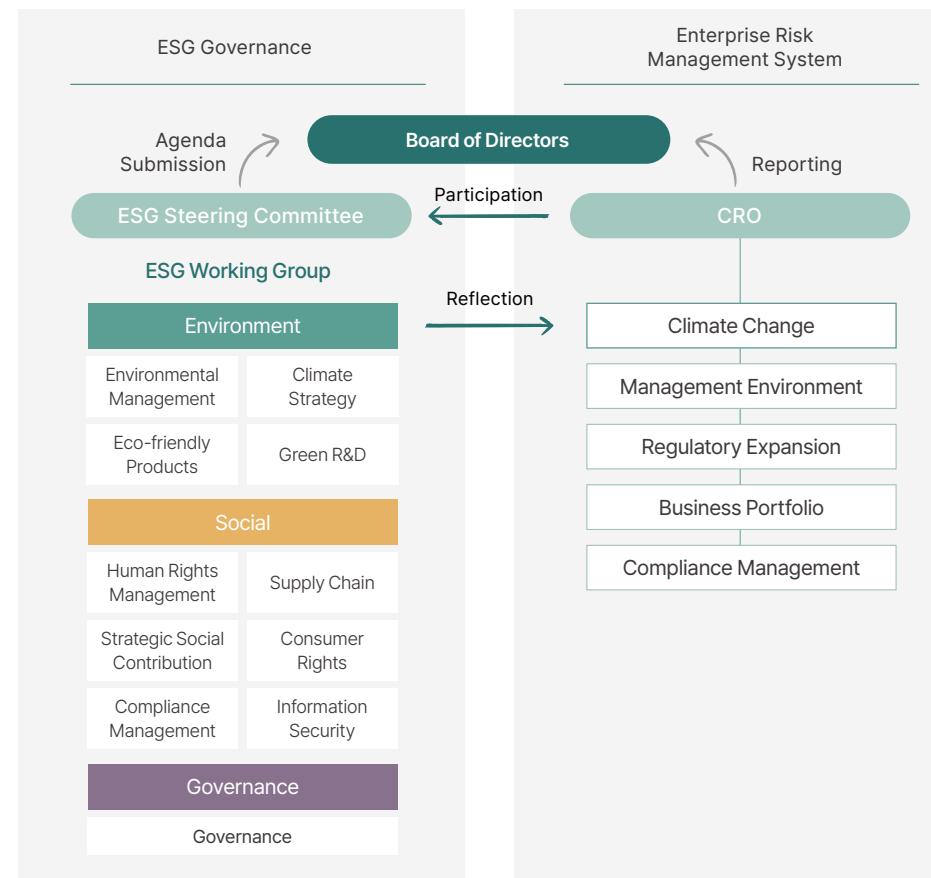
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Climate Action

Climate Risk Management

Climate Risk Management Governance

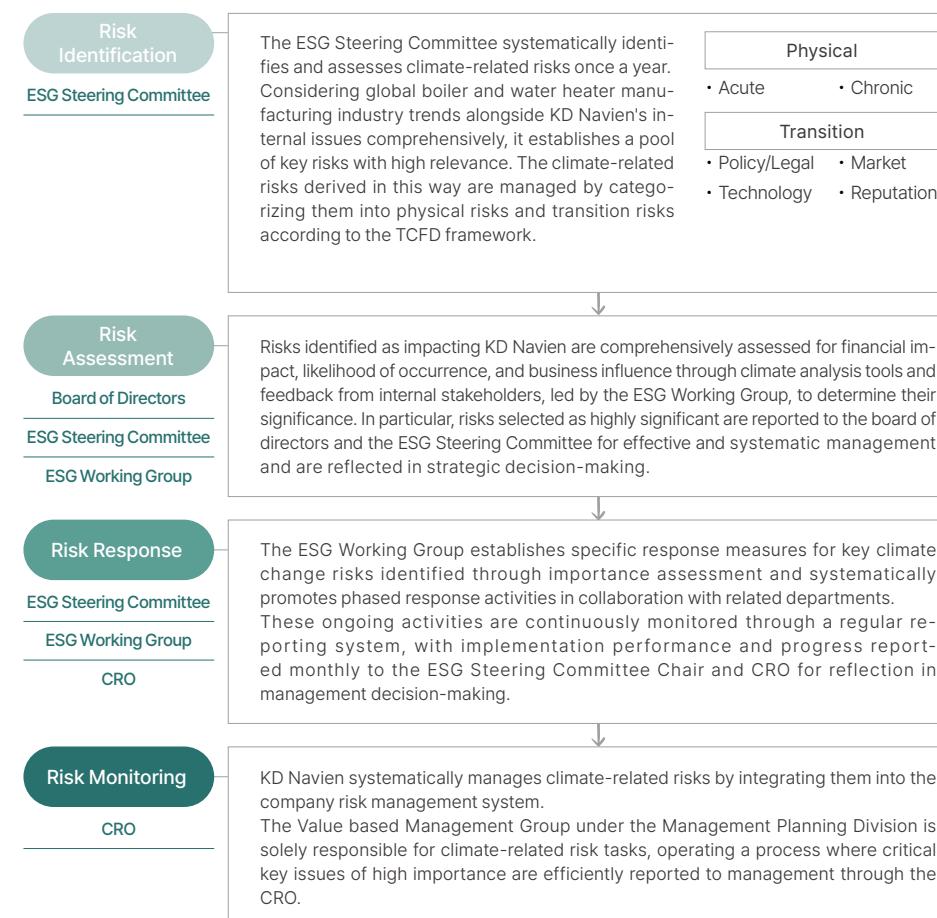
KD Navien has established a company-wide response system for climate-related risks by integrating climate change risks into the company risk management framework for systematic management. An annual process is conducted to identify, assess, and manage climate-related risks, which is continuously monitored under the supervision of the Chief Risk Officer (CRO). Particularly significant climate-related issues are directly reported to the board of directors and the ESG Steering Committee and reflected in management decision-making.



Risk Management

Climate Risk Management Process

KD Navien operates a systematic process for managing climate change risks. The ESG Steering Committee regularly identifies and assesses climate-related risks and integrates them into the enterprise risk management system for oversight. Significant issues are reported to the ESG Steering Committee and the board of directors through the Chief Risk Officer (CRO), and countermeasures are established addressing risks from various perspectives such as economic/legal, technological, market, and reputational aspects.



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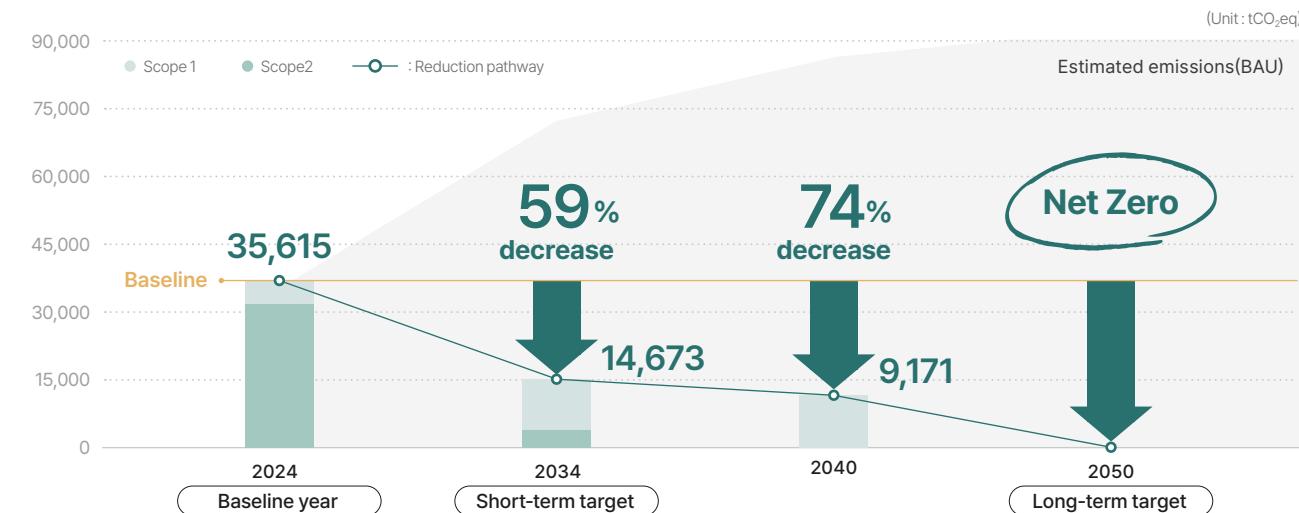
Climate Action

2050 Net Zero

Scope 1, 2 Emission Management

KD Navien has established a GHG reduction roadmap to achieve carbon neutrality by 2050 as an active response to climate change. By analyzing greenhouse gas emissions and energy consumption at domestic and overseas sites, we have set short- and mid-to-long-term reduction targets considering the SBTi reduction scenarios. Additionally, 2024 has been designated as the baseline year for greenhouse gas reduction, and based on projected emissions, the necessary reduction amounts have been calculated. We are continuously identifying and reviewing direct and indirect reduction measures to achieve carbon neutrality. In particular, considering the business characteristics with a high proportion of electricity usage, expanding the use of renewable energy has been prioritized, and mid- to long-term reduction strategies have been established, including process efficiency improvements within business sites and electrification of vehicles and equipment. Based on this, we will prepare to progressively implement carbon neutrality.

2050 GHG Reduction Roadmap¹⁾



1) Calculation of consolidated emissions for 2024 and review of greenhouse gas emission reductions

Scope 3 Emission Management Scope 3 emissions by category

KD Navien has been systematically managing indirect scope 3 GHG emissions arising from the value chain related to business activities, which it does not directly own or control, since 2022. In 2024, the scope of GHG management was expanded compared to the previous year, calculating emissions for 7 out of 15 scope 3 categories, including purchased goods and services, use of sold products, and end-of-life treatment of sold products, with emissions totaling to 44,676,050 tCO₂eq. Going forward, we plan to gradually expand disclosure items targeting major emission sources and strengthen the management system for emission items. In particular, we aim to focus on reducing emissions occurring during the use phase through the development of clean fuel-based products and eco-friendly technologies.

Metrics & Targets

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2050 Net-Zero Strategy

Scope 1+2

1. Renewable energy use

Reviewing PPA agreements with a focus on long-term supply stability and cost-effectiveness



2. Green Premium & REC purchase

Purchasing of Renewable Energy Certification (REC)



3. Electric Vehicle(EV) transition

Operation and expansion of solar power facilities at business sites



4. Self-generating solar power

Operation and expansion of solar power facilities at business sites



5. Continuous energy efficiency

Improvement of equipment and processes across all sites; considering external reduction projects and offsets for some remaining amounts



Climate Action

Climate Change Management Incentive

KD Navien recognizes that company-wide participation in protecting the environment is a key factor for the successful implementation of climate change response and transition plans. Consequently, climate-related items have been specifically incorporated into the KPI indicators of department heads reporting directly to the CSO (head of division) and staff members of relevant departments in the ESG Working Group and the Environment Subcommittee. Additionally, an incentive system is in place that differentiates the payment of base salary and performance bonuses according to the achievement of climate change response outcomes and management indicators.

Target	Incentives	KPI
CSO Direct Department Manager (NA Safety Division Head)	Monetary compensation (differentiated base salary/ performance bonus)	Compliance rate with ESG process establishment goals • Revision of integrated EHS standards • ESG environmental management tasks • Reduction of GHG emissions • Minimization of hazardous chemical substances

GHG Reduction Targets

KD Navien has set 2024 as the baseline year for GHG emissions reduction and established systematic short- and mid-to-long-term reduction targets considering the SBTi reduction scenario. By analyzing performance status compared to our 2024 GHG emission targets, we can confirm our reduction activities were based on scientific evidence and continue to strive to achieve our goals.

Category	Unit	Performance Against 2024 Targets	
		Target	Performance
Scope1		5,178	5,214
Scope2	tCO ₂ eq	30,194	30,430
Total		35,372	35,615

Metrics & Targets

GHG Emission Reduction Activities

Electric forklift battery replacement

KD Navien replaced seven electric forklifts in the factory from lead-acid batteries to lithium iron phosphate batteries. Evidently, it reduced electricity consumption during forklift charging by approximately 23,100 kWh and is expected to annually reduce GHG emissions by about 14.2 tCO₂eq.

Minimizing combustion within the factory

KD Navien replaced six forklifts in the factory with AGVs¹⁾ and conveyor lifts. This reduced electricity consumption during forklift charging by approximately 9,583 kWh.²⁾ We plan to continue such efforts in 2025 to achieve zero forklifts in the gas building at Seotan factory.

Improvement of high-efficiency lighting facilities

KD Navien continues energy reduction activities through lighting facility improvements. In 2023, 56 metal lamps at Gasan factory were replaced with high-efficiency LED lights. In 2024, 24 fluorescent lamps at Pyeongtaek factory³⁾ were replaced with LEDs, and 47 lights at Asan factory were also converted to LED lighting. These replacements contribute to reducing energy consumption and GHG emissions. In 2025, the company plans to continue improving facilities across all business sites to enhance electricity use efficiency within factories.



Introduction and expansion of solar power generation facilities

KD Navien is introducing solar PV at domestic and overseas business sites as a part of its strategy to expand renewable energy adoption. In South Korea, construction is underway to install approximately 4,200 kW of solar PV on a site of about 30,000m² at the Seotan factory, the production base. The solar PV installation is scheduled to be completed in 2025 and will contribute to GHG emissions reduction and enhancing energy self-sufficiency. At Navien INC., solar PV installations have been completed on approximately 1,985m² of building roofs and unused parking lot areas, and full operation began in March 2024. This facility partially self-supplies the electricity needed for building operations and produced 0.50 TJ of power in 2024, making a tangible contribution to local GHG emissions reduction. KD Navien plans to expand renewable energy adoption centered on domestic and overseas business sites to establish a sustainable energy system and contribute to achieving global carbon neutrality goals.

1) AGV: Automatic Guided Vehicle

2) Based on lithium iron phosphate batteries

3) Pyeongtaek Factory LE Business Division

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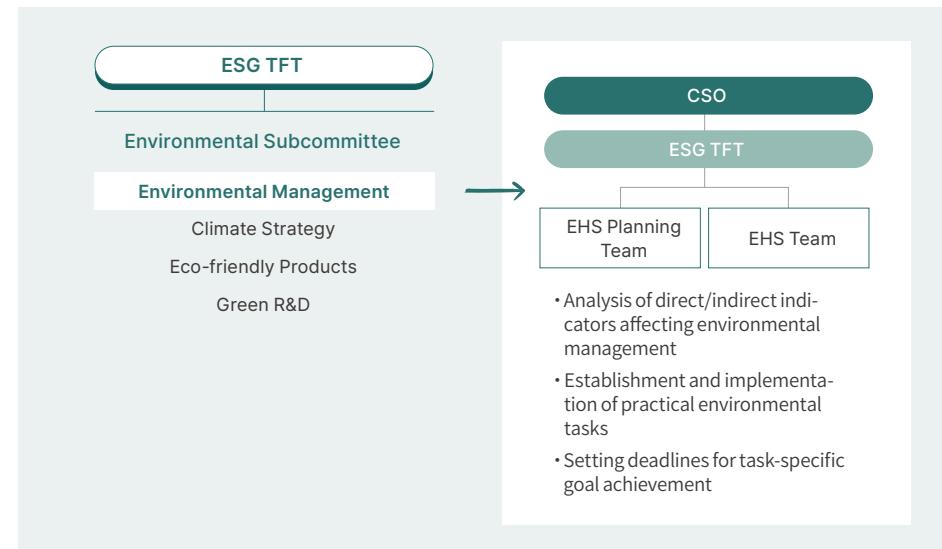
Environmental Management

Environmental Management System

Organizational Structure

Under the overall supervision of the ESG TFT (Task Force Team), KD Navien subdivides the environmental domain into four core parts: environmental management, climate strategy, eco-friendly product, and green R&D, establishing and implementing systematic ESG action plans. Key tasks for each part are rigorously managed through monthly written reports and semiannual settlements and performance reports. The environmental management part, centered on the EHS Planning Team and EHS Team, conducts comprehensive analysis of environmental impact indicators, sets customized tasks for each department, and regularly monitors goal achievement. In particular, through monthly CSO regular reporting meetings, the core achievements of each business sites are closely reviewed, including improvements in environmental facility efficiency and identification and response measures for potential environmental risks.

Environmental Management Governance



Environmental Management Policy

[Environmental Management Policy](#)

KD Navien's management policy is based on the vision of "Optimize Living and Environment", aiming to create a healthy and comfortable living environment for customers and a sustainable global environment for future generations. We recognize that the environment is essential to our management strategy and have developed an environmental policy with eight principles to guide ESG practices across the product lifecycle. KD Navien advances environmental management by focusing on key initiatives like creating a global system, tackling climate change, exceeding legal standards through self-regulation, creating eco-friendly products, maintaining sustainable operations, assisting partners in environmental efforts, conserving biodiversity, and transparently sharing environmental data.

Environmental Management System

KD Navien has obtained ISO 14001 Environmental Management System certification to systematically manage the environmental impact of its products and services. Certified sites undergo annual internal audits and external certification body audits, with renewal audits every three years to verify system effectiveness. The certification scope has also been expanded to subsidiaries to strengthen group-level environmental management.



Environmental Compliance

KD Navien proactively responds to environmental risks by continuously monitoring environmental-related laws and regulations on air quality, water quality, waste, chemical substances, etc., under the goal of 'Zero Environmental Law Violations.' Compliance with environmental laws at all business sites is thoroughly checked through regular EHS audits conducted semiannually. In 2024, through enhanced EHS planning inspections, the status of environmental facilities and legal compliance at each business site was closely reviewed. Alongside a proactive crisis management response system prepared for major environmental risks, situation-specific response manuals were established to further strengthen environmental management capabilities.

2024 EHS Audit conducted

Semiannually

Number of environmental law violations in 2024

Zero cases

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Environmental Management

Environmental Management Training

KD Navien provides various environmental training programs to ensure that employees clearly recognize the importance of environmental protection and effectively integrate environmental values into their daily work. In 2024, on-site practical environmental competency enhancement training was conducted for the Environmental Management department and related personnel. Additionally, the second advanced ESG practical training for executives, team leaders, and staff helped disseminate the real value and importance of sustainability management throughout the organization. In 2025, customized advanced environmental training tailored to the characteristics of each business site will be conducted primarily for members of the Environmental Management department. Through systematic completion of legally mandated training, we plan to further improve the efficiency and performance of environmental management at our business sites.

2024 Environmental Management Training Implementation Status

Subject	Target	Method	Key Content	Number of Participants
Environmental practical skills enhancement training	Members of the Environmental Management Department	One-day lecture by invited experts	Training on energy efficiency activities and pollutant improvement	25
Statutory mandatory training for environmental technicians	Environmental personnel	Online and offline learning hosted by the Korea Association for Environmental Preservation	Legal training on water quality, air quality, waste, noise/vibration, etc.	4
Second advanced ESG practical training	Employees apart of the ESG Working Group	Invited experts; offline learning (training, workshop)	Understanding and application of the TCFD framework and circular business model	40



'Condensing Once More' Campaign

KD Navien continuously promotes the 'Condensing Once More' eco-friendly campaign to spread the value of protecting the environment and resource circulation. The first campaign successfully held an offline event where citizens who participated in plastic waste collection were given tree-shaped recycling key chains. Subsequently, through industry-academic cooperation with Kookmin University, the second campaign 'Rediscovery of Value' project presented a meaningful attempt to transform scrap from boilers into art. In 2025, KD Navien plans to expand the boiler upcycling project in collaboration with 'Seoul Upcycling Plaza,' a complex cultural space operated by the Seoul Design Foundation. Through this, KD Navien will socially spread the value of resource circulation and strengthen its role as an enterprise practicing environmental responsibility.



Participation in Global Initiatives

KD Navien participates in global initiatives to fulfill international environmental and social responsibilities. Since 2023, we have transparently disclosed climate change strategies and GHG emissions through CDP and enhanced transparency by disclosing climate change information according to TCFD recommendations.

Going forward, we plan to expand the application of global guidelines to strengthen response capabilities regarding climate change, circular economy, biodiversity, and more.

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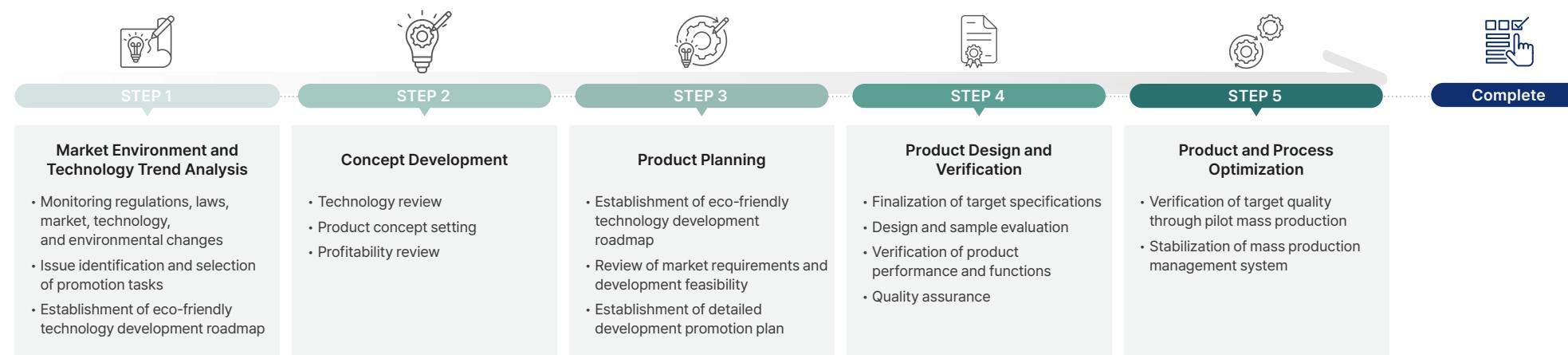
Environmental Management

Environmental Management Activities

Green R&D

As a living environment solution provider, KD Navien meticulously analyzes environmental risks and opportunities during the development and investment of eco-friendly technologies, actively seeking ways to improve product energy efficiency to provide customers with optimal living environments. Building on a solid position in the domestic market, we are accelerating entry into overseas markets to further promote the excellence of K-boiler and water heater products on a global scale. KD Navien has achieved record-high overseas sales by customizing its product line to meet regional and local needs. Our expansion beyond boilers and water heaters to high energy-efficiency electric products, such as heat pumps and heat pump water heaters, supports sustainable growth and aligns with global decarbonization trends. Looking ahead, KD Navien aims to lead evolving ESG consumption patterns by developing hydrogen boiler technology as part of the transition to a hydrogen-based economy in the carbon-neutral era.

Eco-friendly Product R&D Process



Eco-friendly Certification Technology Certification

KD Navien continuously improves product energy efficiency and application of eco-friendly materials through ongoing technological innovation, objectively demonstrating product excellence by acquiring numerous strict eco-friendly and high-efficiency certifications worldwide. By obtaining and systematically maintaining various domestic and international environmental certifications, it strengthens competitiveness in the global market and solidifies its status as an eco-friendly company.

Certification Name	Eco Label	Environmental Product Declaration	Green Technology Product	Certificate of High Efficiency Product	Energy Star
Applicable Country	Korea	Korea	Korea	Korea	USA
Number of Certifications (registered models)	13 certifications (242 models)	12 certifications (12 models)	3 certifications (19 models)	17 certifications (17 models)	33 certifications (33 models)
Product Line	Gas Boiler	Gas Boiler	Ventilation Air Purifier	Gas Vacuum Water Boiler, Commercial Boiler	Gas Boiler, Gas Water Heater

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Environmental Management

Eco-friendly Sales

KD Navien has established and applied strict internal eco-friendly product compliance standards¹⁾ equivalent to third-party certification criteria for condensing boilers and condensing water heaters. As of 2024, the proportion of sales from eco-friendly products reached 74%, maintaining a high eco-friendly product sales ratio above 60% for three consecutive years.

1) In Korea, this includes Type 1 certification under the Air Quality Management Area Act, and in the U.S., products certified by ENERGY STAR, among others.

Eco-friendly Sales

Category	Unit	2022	2023	2024
Eco-friendly Sales	KRW million	802,678	794,908	996,961
Consolidated Sales	KRW million	1,160,861	1,204,312	1,353,879
Proportion	%	69%	66%	74%

Green Procurement

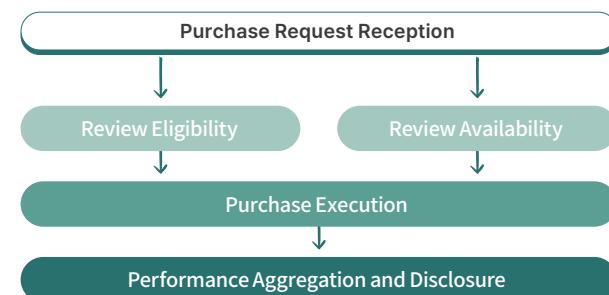
KD Navien implements the green procurement policy established last year to minimize environmental burden and efficiently utilize resources. This policy specifies the roles and responsibilities of each department, including the EHS Planning Team, Purchasing and Procurement Planning Team, and General Affairs Team, as well as the principles of green purchasing, the definition and scope of green products, and the purchasing process considering eco-friendliness.

KD Navien Green Procurement Policy

1. Fulfill corporate social responsibility and comply with laws to conserve the environment through green procurement activities.
2. Continuously secure a pool of suppliers and strive to build organic relationships with them to ensure stable green procurement activities.
3. Except in unavoidable circumstances, prioritize purchasing green products when quality and conditions are equivalent to establish a green procurement culture.
4. Continue efforts to discover eco-friendly products to expand green procurement.



Green Procurement Process

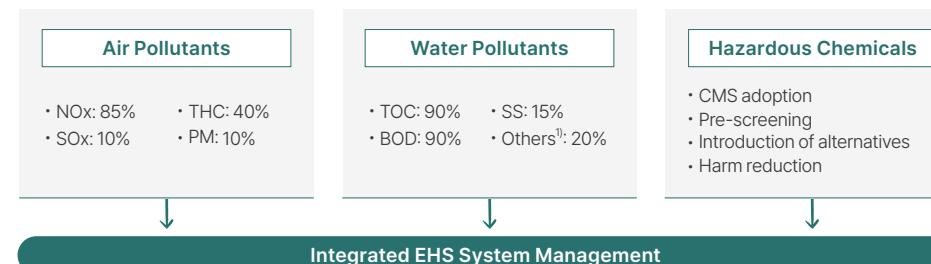


Environmental Impact Management

Pollutant Management System

KD Navien has established its own standards and complies with domestic and international regulations to manage environmental impacts. Through the establishment of a company-wide EHS System, emissions are efficiently managed. In 2024, a pre-screening environmental assessment procedure was introduced to proactively review environmental factors when introducing new facilities and processes. In particular, we are managing air pollutants and water pollutants by applying self-management standards that are stricter than the legal emission standards, and for hazardous chemical substance management, we are operating a pre-screening system through the Chemical Substance Management System (CMS) to restrict the introduction of products containing hazardous chemicals, and are actively promoting the introduction of substitutes for toxic substances and activities to reduce hazards.

Environmental Impact Management System



1) T-P/T-N, N-H

Management Goal

Pollutants	Management Indicator	Performance Against 2024 Targets	
		Target	Performance ¹⁾
Air	NOx	2,600kg	15% increase
	PM	250kg	74% decrease
Water Quality	TOC	0.4 ton	70% increase
	SS	0.08 ton	4% reduction
Hazardous Chemicals	Number of hazard reduction measures	3 or more	4(methanol, zinc oxide, etc.)

1) Reduction compared to 2023

Pollutant Management Activities

Air Pollutants

KD Navien operates strict internal management standards that exceed the emission limits of the Air Environment Conservation Act and continuously reduces air pollutant emissions through ongoing improvements in prevention facility efficiency. In 2024, by reviewing and replacing the existing boiler equipment at the Seotan factory with environmentally certified products, a concrete achievement of reducing annual NOx emissions by 0.4 tons was accomplished. Through such continuous environmental improvement efforts, major air pollutant emission concentrations are managed at levels significantly lower than legal limits, playing a leading role in protecting the air environment.

Water Pollutants

KD Navien applies internal standards that are more stringent than the discharge limits required by the Water Environment Conservation Act to manage wastewater generated from production activities. Wastewater prevention facilities are continuously maintained for stable wastewater treatment operations, and a system is in place to respond promptly in case of unexpected events. In 2024, to improve product quality and manage pollutant risks, the high-concentration wastewater treatment process at the Pyeongtaek factory was improved, effectively reducing T-P (total phosphorus) emission concentrations. Additionally, by replacing the filter media in the wastewater treatment facility at the Seotan factory, overall wastewater treatment efficiency was enhanced.

Hazardous Chemicals

KD Navien has established and operates a systematic process for chemical management. A pre-screening system and comprehensive health and environmental management system are implemented for all chemicals to strictly control the use of chemical products containing hazardous chemicals. Furthermore, by developing and introducing CMS, a system has been established to prevent chemical-related accidents in advance and manage them effectively.

Hazardous Chemical Reduction Activities

Chemical Name	Reduction Implementation	Improvement plan	Completion Date
Methanol	December 2022	Introduction of alternatives	2024.10
Zinc Oxide	January 2024	Discontinuation	2024.06
Aluminum Chloride	January 2024	Introduction of alternatives	2024.10
Refractory Ceramic Fiber	January 2024	Under review	2024.12
MDI ¹⁾	January 2025	Under review	2025.03

1) Methylene diphenyl diisocyanate

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Environmental Impact Management

Water Resource Management System

Water Resource Management Policy

KD Navien aims to minimize dependence on external water sources in managing water resources necessary for business sites operations, and targets establishing a water-neutral system through rainwater utilization and its own wastewater treatment system. Monthly systematic aggregation and analysis of tap water, groundwater, and reused water usage are conducted, with specific targets set for reused water usage rates. Additionally, monthly performance is regularly reported to management to enable continuous improvement and reflect it in company policies.

Management Goal

KD Navien regularly reviews the reused water process to improve water usage efficiency and systematically monitors tap water usage by major application areas. Considering actual operating conditions comprehensively—including water characteristics by process, limitations of existing reuse facilities, and potential technical improvements—it has established feasible management goals. Based on this, strategic activities such as in-depth review of the reused water process and related facility expansions are actively pursued to achieve a process water reuse rate of over 38% by 2027.

Strategy	Details
Improvement of reused water cooling system efficiency	Enhancement of reused water cooling tower operation rate and expansion of additional facilities
Reduction of direct water usage	Reuse of wastewater from washing 2 in the painting line → used as washing water for washing 3

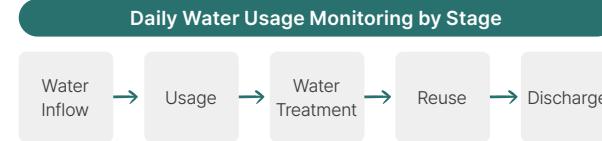
Category	Management Indicator	Performance Against 2024 Targets		Management Targets	
		Target	Performance	2025	2027
Water reuse	Reuse rate	At least 35%	35%	36% or more	38% or more

Water Resource Management Activities

Water Usage

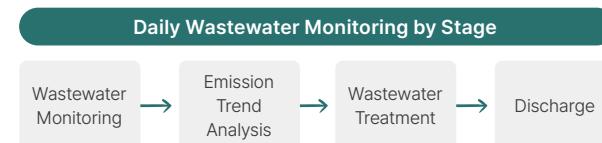
Management process

KD Navien has established and operates a systematic management process for efficient use of water resources. In particular, at the Seotan factory, measuring devices are installed to accurately grasp water usage status at each process stage, enabling detailed daily monitoring. Efficient management of water resources is achieved through enhanced monitoring of tap water usage. Investments are being actively considered to bolster water reuse infrastructure by upgrading treatment facilities, expanding water storage, and increasing treatment capacity. These efforts aim to establish a robust framework for improving the rate of water reuse.



Water use reduction activities

The Seotan factory is establishing an eco-friendly production environment by converting the supply water used for wet cleaning vehicles within the facility into recycled water. Additionally, by switching the chemicals mixing and filter backwash water required for the wastewater treatment process to recycled water, the water treatment center has been transformed into Seotan factory's first Water Re-use facility. Furthermore, by actively utilizing treated sewage (discharged water) in cleaning facilities within the treatment process, the factory is realizing its environmental goal of establishing a 'water-neutral' workplace.



Wastewater

Management process

KD Navien operates a systematically designed wastewater management process to minimize environmental impact from wastewater discharge. Through continuous improvement of wastewater treatment methods and process efficiency, discharge concentration is strictly controlled below 2 ppm (currently maintained at about 1 ppm), contributing to water quality preservation.

Wastewater emission reduction activities

KD Navien's total discharge volume¹⁾ decreased by approximately 18% compared to the previous year (about 28% reduction in reused water discharge, about 4% reduction in actual wastewater discharge). The Seotan factory, KD Navien's primary production site, actively monitors key wastewater discharge areas and optimizes water usage in its production processes. As a result, the factory has successfully reduced wastewater discharge by approximately 6% compared to the previous year. Looking ahead, the company plans to further reduce discharge volumes by expanding business sites and investing in facilities to enhance the quality management of reused water.

¹⁾ Total wastewater discharge volume is calculated by summing the discharge volumes of reused water (exempt water) and actual wastewater (treated wastewater).

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Environmental Impact Management

Waste Management System

Waste Management Policy

KD Navien minimizes resource waste and faithfully fulfills recycling obligations and responsibilities throughout the value chain—including production, sales, consumption, disposal, and recycling—through the Extended Producer Responsibility (EPR), Waste Charge System, and Environmental Guarantee System. Through these efforts, we continuously strive to ultimately achieve complete recycling of all waste.

Management Goal

Since 2002, KD Navien has been working towards achieving zero waste sent to landfills by establishing zero-landfill business sites, with the Seotan factory as the central hub. We plan to extend these efforts to all domestic business locations in the future, aiming to enhance the recycling rate and achieve the Zero Waste to Landfill (ZWTL) certification.

Strategy	Details		
ZWTL	<ul style="list-style-type: none"> Establish ZWTL landfill business site Acquire ZWTL certification Expand recycling Achieve 100% recycling rate 		

Category	Performance Against 2024 Targets		2025 Target	2026 Target	2027 Target
	Target	Performance			
Recycled rate	96% or higher	98%	98% or more	98% or more	98% or more
Waste generation intensity	0.098 or less	0.096	0.096 or less	0.095 or less	0.095 or less

Waste Management Activities

Recycling Waste

Recycling waste pallets

KD Navien recovers and recycles waste pallets, which were previously discarded after use during production and transportation stages, to reduce waste generation and increase reuse rates. In particular, we achieved an 80% reduction in wood waste by recovering waste wood pallets used for loading water heaters and reusing them when loading range hoods.

Wood Waste Reduction Rate

80%

Landfill Waste Reduction

21 tons

Waste Cost Reduction

34%

Material Disposal Rate

0.82%

Consumption Reduction Rate

73%

Recycling castable production waste

At the Seotan and Pyeongtaek factories, castable waste previously disposed of in sacks and landfilled has been switched to ton-bag storage, reducing annual landfill waste generation by approximately 21 tons.

Increased recycling and separation of designated waste

At the Seotan and Pyeongtaek factories, separate collection boxes for waste gloves and waste boots were produced, and designated waste is separated according to contamination status, reducing waste treatment costs by approximately 34%.

Waste Reduction

Waste rate management through quality check

KD Navien actively engages in resolving quality issues through daily settlements and the use of Q-bank, resulting in a waste rate of just 0.82% for materials such as heat exchangers and stators. By setting annual waste rate targets, the company systematically tracks and analyzes trends to manage any increases or decreases in waste effectively.

Resource preservation through vinyl packaging improvement

KD Navien continuously promotes activities such as improving the connecting tube vinyl packaging to reduce vinyl waste generation. In 2024, small packaging vinyl of 13m/ea was replaced with large packaging vinyl of 10m/ea, reducing vinyl usage by approximately 73% (mm³/ea), resulting in a reduction of about 3.465 tCO₂eq¹⁾ in GHG emissions.

1) Assumed vinyl density: 0.9 g/cm³; GHG emission factor for waste synthetic resins: 0.029 tCO₂/ton

Packaging specification improvement

KD Navien is undertaking various packaging specification improvement activities, such as downsizing water heater products and reducing the height of packaging boxes, to reduce the amount of waste generated that causes environmental pollution.

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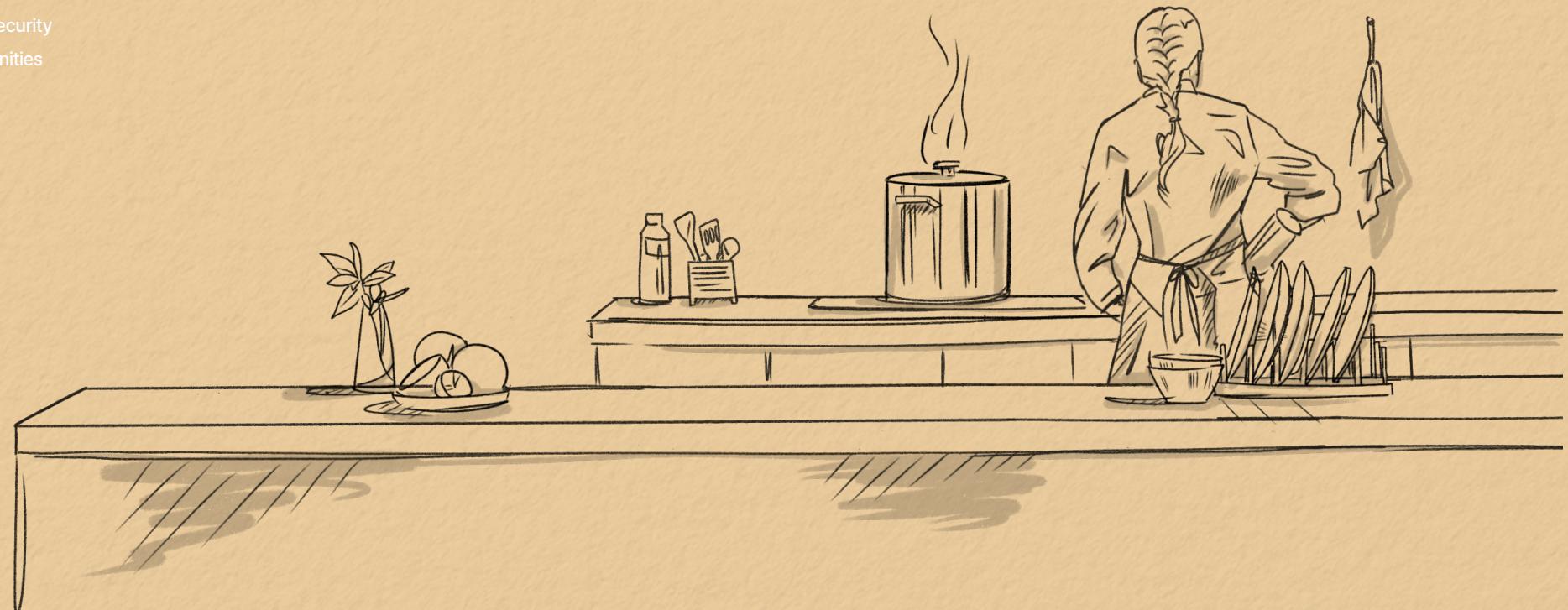
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Think People for Sustainability

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- 064 Supply Chain Control
- 069 Information Security
- 071 Local Communities



Health and Safety Management

Health and Safety Management System

Organizational Structure

KD Navien has established the EHS Planning Team, a dedicated unit reporting directly to the CSO, to systematically operate the health and safety management system and drive the development and enhancement of comprehensive health and safety protocols.

Health and Safety Governance



Health and Safety Management

KD Navien has obtained ISO 45001 Health and Safety Management System certification to operate a top-level safety management system, and continuously monitors and improves health and safety performance through annual internal audits and verification by external certification bodies.

1) Based on domestic production sites, offices, and research institutes

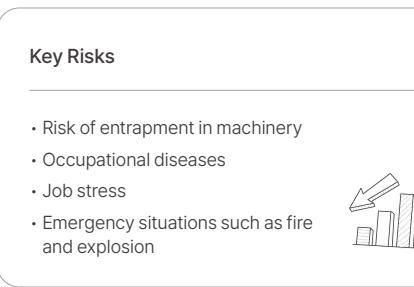


ISO 45001 certified business sites ratio¹⁾

100%

Strategy [Health and Safety Management Policy](#)

KD Navien strives to create a safe and healthy work environment based on its Health and Safety Management policy. We set up medium to long-term goals for health and safety management, identify key risks accordingly, and plan and implement risk response and improvement activities.



Medium to Long-term Health and Safety Goals

KD Navien has set a medium to long-term goal of zero serious industrial accidents, striving to establish a company-wide safety culture and prioritize the health and safety of workers in its management practices.

Goal	Unit	2025	2026	2027
Serious industrial accidents	cases	Zero	Zero	Zero
target accident rate	%	0.03	0.03	0.03

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Zero Safety Accidents

Working Environment Improvements

Quarterly theme inspections

KD Navien prioritizes selecting high-risk themes within business sites each quarter, regularly inspecting, identifying, and improving potential accident types arising from these themes to strengthen preventive measures.

Inspection Items

Machinery and Equipment Safety	Risk Assessment	Accident Prevention	Chemicals
			

Identification of operating machinery and equipment and prevention of entrapment accidents through inspection/ improvement of protective devices

Identification of hazardous and risky factors in business sites and establishment/improvement of reduction measures for those factors

Selection of fire-prone areas within business sites and fire prevention through risk inspection/improvement

Identification of handled chemical substances and prevention of health hazards through inspection/improvement

Pre-screening safety assessment system

KD Navien evaluates the safety of facilities from the design stage, including the introduction, relocation, and structural changes of facilities that could impact accidents, through pre-screening safety assessments to ensure fundamental safety in advance and eliminate legal risks.

Critical management facility risk assessment

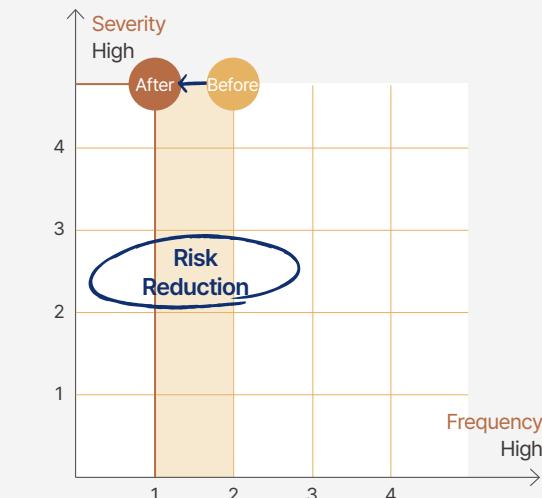
KD Navien intensively manages high-risk production processes by calculating risk levels based on frequency and severity during production evaluations. The company conducts process risk assessments according to a grading cycle to identify and mitigate potential risks. These assessments are then used to reassess the risk grade every six months.

Floor height limit guidelines

Our ventilation care service adheres to health and safety regulations by implementing specific standards for safely servicing units based on their installation height. We conduct regular inspections to identify potential hazards and actively gather feedback from workers to continuously enhance a safe and healthy working environment.

Mitigating forklift-employee collision risk

In 2024, KD Navien implemented several measures to reduce collision risks between forklifts and employees within the factory. We designated separate pedestrian pathways to keep forklift operations and foot traffic apart. Additionally, physical speed limiters were installed on forklifts, and hemispherical mirrors were positioned to enhance visibility in blind spots. These actions led to a significant improvement in the incidence frequency score from risk assessments, with a reduction of approximately 50% compared to previous scores. This confirms the effectiveness of the measures in enhancing employee safety by minimizing collision hazards.



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Zero Safety Accidents

Working Environment Improvements

Listening to health and safety opinions

KD Navien conducts regular surveys to systematically collect on-site opinions by actively communicating with employees to identify workplace hazards early and initiate effective improvement activities. Additionally, Tool Box meetings are held for all workers including suppliers to continuously gather health and safety-related feedback, and immediate work environment improvement measures are established and implemented for issues classified as high-risk.

Opinion Collection and Processing Process



Operation of hazardous work permit system

To prevent safety accidents that may occur irregularly during hazardous work such as commissioning, inspection, and maintenance within business sites, hazardous work is standardized into eight types, and prior approval is mandatory under the 'Hazardous Work Permit System.' Before work begins, safety training using 22 types of manuals is conducted, and thorough on-site management and supervision are performed during work to manage safety risks throughout the entire process.

Hazardous work accidents¹⁾

0 cases

¹⁾ Number of occupational accidents among 976 hazardous work permits in 2024

Supplier Health and Safety Management

We provide both institutional and technical support, along with open communication, to enhance the health and safety management capabilities of our suppliers. By developing a cooperative partnership system, we assist suppliers in establishing independent health and safety management systems and building internal capacities. Our goal is to improve safety standards throughout the entire supply chain and promote sustainable, shared growth.

Supplier Health and Safety Management Activities

Activity	Details
 Supplier qualification assessment	Confirm the health and safety management capabilities of suppliers through an initial evaluation and annual renewal evaluations
 Hazardous work permit and workplace inspection	Conduct daily health and safety inspections on hazardous work for in-house suppliers or contractors to frequently identify and mitigate harmful risk factors
 Council composition and operation	Manage communication with all in-house suppliers, including monthly meetings to gather opinions on health and safety
 Quarterly joint inspections and assessments	Establish an inspection group of contractors and contractees to conduct joint health and safety inspections quarterly, aiming to enhance the health and safety system
 Support for establishment of health and safety system	Develop a health and safety system to improve the autonomous management capabilities of suppliers

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Health and Safety Management

Enhancement of Workplace Health and Safety Capabilities

Establishment of Safety Culture System

We run a comprehensive training program to boost employees' awareness of health and safety and to enhance their practical skills. Our focus is on developing safety leadership through various safety culture initiatives aimed at Health and Safety Management Officers, safety managers, health managers, and supervisors. Key activities include holding health and safety declaration ceremonies led by supervisors to increase safety awareness and hosting participatory safety education events, such as quiz competitions, using our self-published safety training guide, 'Wise Safety Life with the EHS Team'.



Risk Management Through Preventive Activities

KD Navien is committed to preventing equipment-related accidents and major incidents, striving for zero occurrences. We conducted thorough internal safety inspections on 727 machines and devices within our workplace to identify potential risks and implement corrective measures swiftly. To improve safety management efficiency, we created a manual for inspecting safety and protective devices, which has been distributed to supervisors. We also instituted regular tests of protective device operations to ensure ongoing equipment safety. Through these proactive safety initiatives, we effectively manage on-site risks and maintain a safe working environment.



Hazard and Risk Factor Inspection

KD Navien consistently inspects workplace hazards and risk factors to enhance the work environment. Key elements such as local exhaust ventilation, lighting, and personal protective equipment are regularly evaluated to proactively identify potential hazards. By actively implementing improvement measures, we aim to prevent work-related illnesses and ensure a safer workplace.

Inspection Items	Related Diseases	Targets (cases)	Improvement Rate(%)
Local exhaust ventilation	Occupational respiratory diseases	186	
Lighting	Visual impairment, musculoskeletal disorders	145	
MSDS	Chemical poisoning	760	100
Personal protective equipment	Occupational diseases such as hearing loss	168	
Rest facilities	Fatigue	120	



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Employee Health Promotion

Operation of Employee Health Promotion Programs

To enhance employees' health awareness and prevent diseases, the Yeouido office operates health training programs including hypertension and dyslipidemia. Additionally, in cooperation with the Yeongdeungpo health center, metabolic syndrome screenings and follow-up management are conducted to support continuous health care for employees. In addition, we are establishing a systematic health management system by minimizing the number of people missing health checkups by providing on-site checkups in cooperation with the KMI Korean Medical Research Institute.



Job Stress Prevention and Management

KD Navien operates a systematic health promotion program to manage employees' job stress and prevent cerebrovascular and cardiovascular diseases. Through our in-house psychological counseling center we intensively manage high-risk groups for job-related stress. Out of 776 individuals, 37 were classified as high-risk and after counseling sessions, it showed effective results with an improvement rate of 78%. Moreover, a total of 284 individual psychological counseling sessions were provided to volunteers, new employees, and per request by departments, offering practical support for employees' mental health promotion.



In addition, under close cooperation with the community, a cerebrovascular and cardiovascular disease prevention program is operated to diligently manage employees' physical health. In collaboration with the Songtan health center, stress assessments were conducted on a total of 118 employees. Through the National Fitness 100 program, various fitness components—including cardiopulmonary endurance, flexibility, strength (sit-ups), body composition (InBody), and agility (standing long jump, high jump)—were comprehensively measured and managed, providing multifaceted support for employees' proactive health improvement.



Health Improvement Activities

Lifestyle improvement

We encourage activities that increase basal metabolic rate through weekly walking competitions of over 70,000 steps, and provide opportunities to assess employees' regular health management status and test their basic fitness through random mini health contests. We are implementing a win-win health promotion program in which we participate together with our suppliers to achieve shared health goals.



Musculoskeletal disorder prevention

In the turtle neck correction exercise class, participants experienced a reduction of pain level and significantly improved cervical scoliosis angle by 90% after engaging in the exercises. Additionally, the taping operation class offers education on self-care techniques that help alleviate pain from repetitive tasks, strengthen muscles, and provide support and protection for joints and ligaments to prevent injuries.



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Crisis Management Response System Institutionalization

Disaster Prevention Safety

Emergency evacuation drill

To improve employees' crisis response skills, we partnered with Guro Fire Station and the health center to conduct emergency evacuation drills and CPR training. We organized joint fire drills with the Guro Fire Station, simulating fire scenarios at the research institute to evaluate practical response capabilities. Additionally, evacuation drills were carried out following the crisis management response manual, allowing supervisors to practice SNS work reporting procedures. First aid training was also provided to ensure everyone is familiar with emergency response processes. These programs aim to enhance employees' ability to evacuate swiftly and effectively respond to crises.



Improvement of laboratory safety environment

A safety inspection was conducted on approximately 600 power strips in use within the Guro Research Institute laboratories in order to reduce fire risks. The inspection revealed fire hazards due to overloads from daisy-chained extensions and dust accumulation caused by old power strips. In response, ongoing on-site improvements to power strip safety rules are being implemented, automatic fire suppression patches have been attached to all power strips, and any power strips failing to meet safety standards are immediately discarded upon inspection. These measures enhance electrical safety within laboratories and minimize potential fire risks.



Gas Safety

KD Navien Guro Research Institute is enhancing its risk management strategies to address potential hazards associated with the use of various experimental gases and combustion experiments within enclosed chambers. To proactively prevent suffocation and explosion risks, the center has installed gas detectors specifically designed to match the characteristics of the gases used in its experiments. Furthermore, a status board has been implemented to improve visibility, enabling staff to easily monitor the gas conditions during research and development activities. In addition, immediate response procedures have been established to ensure prompt action in the event of a gas-related incident.



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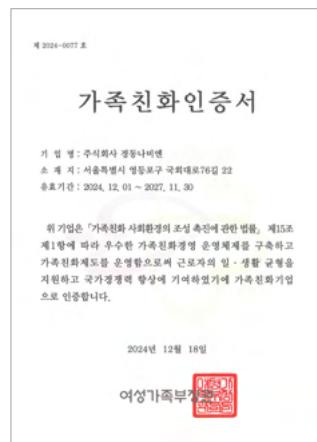
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Healthy Organizational Culture

Family-friendly Certification

KD Navien is dedicated to supporting its employees' work-life balance by introducing various policies and systems to address the challenges of marriage, childbirth, and childcare. The company has developed comprehensive systems for childbirth, childcare, and educational support, alongside programs for employees and their families. KD Navien also fosters a family-friendly workplace culture and assesses management satisfaction in these areas. As a result of these initiatives, we obtained a certification as a model operator of family-friendly systems after thorough document reviews and on-site inspections. Following this accomplishment, the company has updated its maternity protection system to create an organizational culture where employees can successfully balance work and family responsibilities with high satisfaction.



Welfare Benefits

KD Navien has introduced and implemented various welfare benefit systems to improve employees' quality of life, enhance job satisfaction, and encourage work engagement. To provide employees with a flexible working environment, we have introduced a half-day leave system that encourages using vacation time on an hourly basis. Additionally, to help employees maintain a healthy work-life balance, we have established a separate family-friendly welfare program and extended its coverage to include employees' families, fostering a family-centered atmosphere within the company.

Family-friendly	Life	Leisure
 <ul style="list-style-type: none"> Maternity and childcare leave Family care leave and leave of absence 	 <ul style="list-style-type: none"> Holiday/birthday gift points provided 	 <ul style="list-style-type: none"> Paid summer vacation (5 days every summer)
 <ul style="list-style-type: none"> Employee health check-ups 	 <ul style="list-style-type: none"> In-house welfare spaces (health care room, gym, female lounge, physical therapy room)¹⁾ 	 <ul style="list-style-type: none"> Provision of condominium memberships
 <ul style="list-style-type: none"> Tuition and outsourced childcare fees support Infant care support 	 <ul style="list-style-type: none"> Operation of in-house cafes by business site 	 <ul style="list-style-type: none"> Support funds for clubs
 <ul style="list-style-type: none"> In-house loan system 	 <ul style="list-style-type: none"> Company product discounts 	 <ul style="list-style-type: none"> Shuttle bus operation¹⁾

1) Limited to some business sites

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Healthy Organizational Culture

Employee Communication

KD Navien is committed to cultivating a positive organizational culture by actively communicating its vision and core values to employees. Throughout 2024, the company implemented various communication programs designed to refine and enhance its working methods. These programs emphasized voluntary participation and encouraged feedback from employees, ensuring that the company's practices align with its values.

Organizational Culture Communication Talk Concert

In 2024, KD Navien held the 'Organizational Culture Communication Talk Concert,' where all employees directly participated, shared opinions, discussed organizational culture concerns, and collectively defined our working methods. Through this event, beyond simple opinion exchange, employees derived actionable plans for organizational culture development and established practical guidelines to create a better working environment.



Junior board activities

Starting in 2024, KD Navien revitalized its junior board to foster better communication within the organization and promote a more adaptable corporate culture. The junior board is made up of representatives from each department, primarily new employees and meet monthly to plan and execute various projects, playing a role in driving tangible change.

KD Radio

'KD Radio', one of the junior board activities, serves as a communication channel to enhance internal communication at KD Navien. It functions as a platform for expressing gratitude among employees and sharing special experiences. Through YouTube Live, appreciation messages to colleagues, travel stories, and various other topics were communicated, strengthening bonds among employees and fostering a warm organizational culture.



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Employee Communication

Reverse mentoring

The 'reverse mentoring' initiative, part of the junior board activities, aims to improve intergenerational understanding and promote a culture of communication and collaboration within the organization. Unlike traditional mentoring, this program involves younger employees serving as mentors to senior employees. By sharing insights on the latest technologies, trends, and cultural developments, the initiative helps bridge generational gaps and offers mutual learning opportunities.



KD Gourmet Club

'KD Gourmet Club,' one of the junior board activities, was established to encourage close communication among employees.

This activity involved collecting recommendations for popular local restaurants near each workplace and holding employee votes to determine the best restaurant. The aim was to provide practical assistance in selecting dining spots for business trips or team gatherings. Through this initiative, the club sought to promote information sharing among members, encourage friendly communication, and cultivate a lively and enjoyable work environment.



KD Work Way

KD Navien operates Change Agents in each division to improve organizational culture, collecting feedback on actual work environments through employee in-person interviews and workshops. As a result, the company developed its unique way of working, the 'KD Work Way' and is conducting various internal campaigns and practical activities to enable employees to naturally incorporate it into their daily routines.



Establishing a smart work environment

KD Navien signed a business agreement with Microsoft Korea for the 'Creation and Advancing of an AI-based Smart Work Environment' and is progressing with building a smart work environment. By implementing Microsoft's M365 solutions company-wide, it is enhancing collaboration efficiency and establishing a productive work environment.



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Healthy Organizational Culture

Labor-Management Council

Regulations

KD Navien has developed the Labor-Management Council Regulations aligned with the Act on Promotion of Worker Participation and Cooperation. The council is designed to promote mutual benefits through active employee involvement, nurturing a collaborative relationship between labor and management. It operates on the principles of equality, mutual respect, and good faith, with the goal of fostering a positive labor-management cooperation culture and establishing a mutually beneficial relationship.

Composition status

KD Navien's Labor-Management Council is comprised of ten members, with equal representation from labor and management—five representatives from each side. The council meets quarterly to propose and discuss key agendas, including the 2024 wage increase rate and improvements to welfare benefits. Among the topics addressed are expanding support for employee health checkups, enhancing the scope of congratulations and condolences support, increasing meal allowances, expanding commuting routes, and negotiating wages. These discussions and resolutions contribute to the development of a positive and robust labor-management culture at the company.

Additionally, the agendas discussed are applied fairly and actively shared with all employees using internal groupware, thereby establishing transparent communication and a trust-based labor-management relationship.

Activities to Achieve Labor-Management Harmony

Labor-management meetings

KD Navien regularly holds labor-management meetings to build a win-win labor-management relationship and fulfill transparent and fair management activities. Through these meetings, major management issues are shared and opinions on wage negotiations and employee welfare levels are freely exchanged.

On-site grievance handling

In 2024, seven on-site grievance handling sessions were conducted to receive inconveniences, improvement needs, and grievances during on-site work. A total of 34 cases were addressed, leading to improvements such as factory environment enhancement, expanded support for employee children's outsourced childcare, additional on-site rest areas, and replacement of physical therapy room equipment.

2024 Labor-Management Council Activity Performance

Category	Meetings Held	Cases Handled
Labor-Management Council/ Meeting	5 times	9 cases
On-Site Grievance Handling	7 times	34 cases
Total	12 times	43 cases

Pride enhancement

To foster pride, semiannual group sports events are held in February and October, organized by the Labor-Management Council and the supporting team. In the first half of 2024, a Cheoksa competition (Yutnori) was held, and in the second half, a cheerful sports event (shoe throwing into a basket) took place. Efforts are being made to inject some vitality into the repetitive work life, and labor and management will collaborate to develop various programs so that employees can enjoy their workplace experience.



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Human Resource Management System

Personnel Management Direction

KD Navien implements a personnel management system based on trust to encourage employee growth and performance creation. It pursues a virtuous cycle structure where individual growth leads to company development by linking a performance-based personnel system grounded in a balance of responsibility and autonomy. By creating an environment where members can fully demonstrate their capabilities and potential, organizational competitiveness is strengthened.



Employee Assessment

Fair evaluation

KD Navien aligns company-wide goals with individual objectives to help each employee set and achieve clear targets. Through a fair evaluation process, we identify individual strengths and provide tailored feedback to enhance performance. Regardless of personal characteristics such as gender, we uphold performance-based evaluation and compensation principles, actively reflecting evaluation results in rewards. Employees who strive to develop their skills and improve performance are offered greater reward opportunities, fostering mutual growth for both individuals and the company.

Evaluation Process

At the beginning of each year, individual annual goals linked to the company's management policies and each organization's objectives are established, and work is performed based on these goals for one year. The achievement level of these goals is used as an indicator for future performance assessments.



Management Goal

KD Navien supports employees to effectively respond to changing business environments and embody corporate value. Based on the belief that individual employee growth leads to enhanced corporate competitiveness, emphasis is placed on developing and strengthening employee skills and capabilities.

Talent Management Goal

Activation of in-house training to strengthen job-specific competencies



- Expansion of company-wide mandatory job-related training
- Establishment of a learning system that provides timely access to necessary training such as external job training, e-learning, and language speaking courses
- Provision of coaching programs to enhance strength-based leadership skills

Expansion of employee diversity



- Expansion of employment for persons with disabilities (KD Navien and affiliates) and enhancement of employee diversity
- Cultural diversity expansion through recruitment and development of specialized local personnel by job at overseas local subsidiaries in the U.S., Russia, China, the U.K., etc.

Training and campaigns to raise ESG awareness



- Fostering a healthy corporate culture through mandatory legal education (prevention of workplace harassment, sexual harassment prevention, disability awareness improvement, privacy protection training, industrial health and safety courses, etc.)
- Strengthening safety awareness through health and safety education (legal and internal training)
- Enhancing employee transparency through ethics and anti-corruption training

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Human Resource Management

Talent Recruitment

KD Navien conducts open and ad hoc recruitment to hire talents that best fit our ideal talent profile.

To ensure objective and fair evaluation during the recruitment process, we have refined our recruitment procedures and guarantee equal opportunities without discrimination based on gender, age, religion, social status, region of origin, academic background, disability, marital status, or pregnancy.

The recruitment process starts with documentation screening then two interviews, a job-focused interview followed by a personality-focused interview, with thorough review at every stage to secure suitable talent. To make the application process more accessible and convenient for candidates, we offer video interviews for those who may find it challenging to attend in-person interviews. Furthermore, we aim to recruit experts from diverse fields by utilizing a variety of recruitment channels.

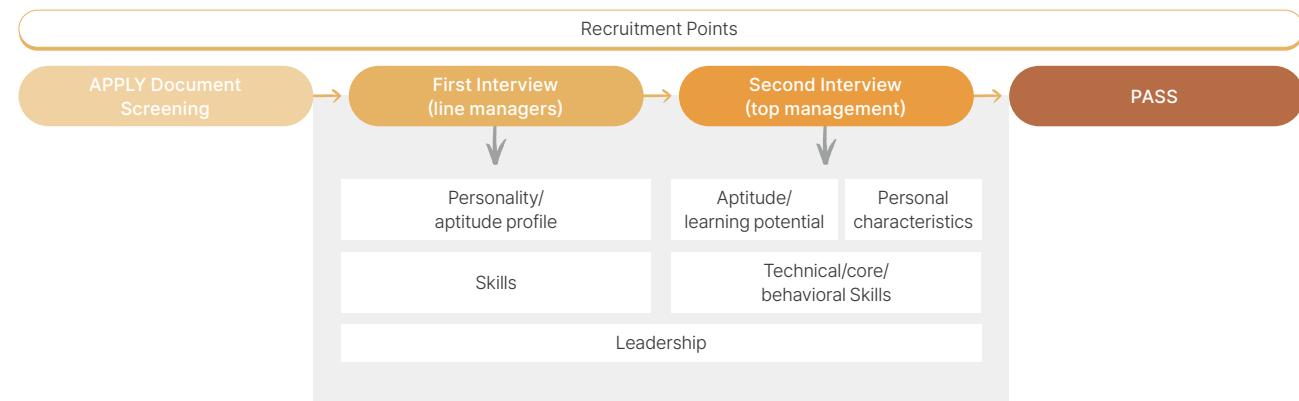
Open and ad hoc recruitment

We conduct regular open recruitment annually and secure necessary talent depending on each team with ad hoc recruitments.

Year-round recruitment

We operate a continuous recruitment talent database to hire outstanding candidates in advance, and when hiring is needed, we prioritize reviewing applications within this database.

Recruitment Process



Expanding employment for people with disabilities

KD Navien has signed business agreements with the Korea Employment Agency for the Disabled and the Pyeongtaek Disabled Sports Association to expand employment for individuals with disabilities. Additionally, we have established a KD Disabled Sports Team, fostering an inclusive workplace where people with and without disabilities can collaborate effectively. Looking ahead, KD Navien plans to extend these employment initiatives beyond its own operations to affiliated companies, aiming to create an environment where individuals with disabilities can fully showcase their skills and talents.



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Human Resource Development

Training System

KD Navien fosters talent heading toward the future by creating an autonomous learning environment and providing practical, work-oriented training programs that reflect the characteristics of the job.

Goal	Direction
Strengthening basic competitiveness	Product and technical training ▶ Strengthening technical mastery and job performance capabilities through practice-centered training
Internalizing core values	E-Campus ▶ Continuous support of educational content for competency development
Digital transformation	Hybrid learning system ▶ Establishment of online learning environment through Metaverse training center development

Training Programs

Employee Training Program

Mandatory Training			Optional Training		
Tiered by position	Job skills	Common skills	Tiered education	Job function skills	Common skills
<ul style="list-style-type: none"> New employee orientation (open recruitment/on-demand) Promotion training (new team leaders, senior manager promotions) Position level training (senior manager, manager) Leadership training (executives, team leaders) 	<ul style="list-style-type: none"> Quality mindset training (basic/advanced) Cost mindset training Product and technology training (for sales and marketing departments) In-house instructor development program DT training (basic data analysis) Expatriate training 	<ul style="list-style-type: none"> Ethical management training Mandatory legal training Core value internalization training 	<ul style="list-style-type: none"> Telephone foreign language Cyber language learning In-house language classes 	<ul style="list-style-type: none"> External professional institution training Division/organization-specific training 	<ul style="list-style-type: none"> Cyber training center (e-campus)

Other Training

- Company-wide organizational activation course
- Retirement preparation training
- Department workshops

Effectiveness evaluation

In 2024, core training by position is conducted for employees across the company, and evaluations on training courses, management direction, and instructors are performed for those who complete the training to measure and manage satisfaction and achievement. Based on the results, the quality of training programs is enhanced, and an optimal learning environment is established to strengthen employee capabilities.

Effectiveness Evaluation of Position-based Training



Purpose of Evaluation

To enhance KD employees' competitiveness by acquiring professional knowledge and skills related to individual job functions and to support employee growth and development.

Evaluation Results (5-point scale)

Course	Instructor	Operation
4.7	4.8	4.8

Human Rights Management

Human Rights Management System

Organizational Structure

KD Navien operates the Human Rights Management part within the social sector under the overall supervision from the ESG TFT, establishing and implementing related practical tasks. The annually set key initiatives are intensively managed through semiannual settlement and performance reports. The Human Rights Management part consists of the HR Team at the core, along with the Management Improvement Department and management teams at each business site, performing key responsibilities related to human rights management such as identifying and responding to human rights risks, operating grievance handling channels, and planning and implementing human rights impact assessments.

Human Rights Management Governance



Human Rights Management Policy

KD Navien is committed to upholding human rights and has implemented a Human Rights Management Policy approved by top management and also introduced a 'Supplier Code of Conduct' to ensure our commitment to human rights extends to all stakeholders. KD Navien is dedicated to respecting the rights of all employees, suppliers, and anyone exposed to human rights risks at its business sites, with the goal of achieving mutual growth.

Management Goal

KD Navien has established a medium to long-term plan for human rights management to systematically manage human rights risks and practice human rights management.

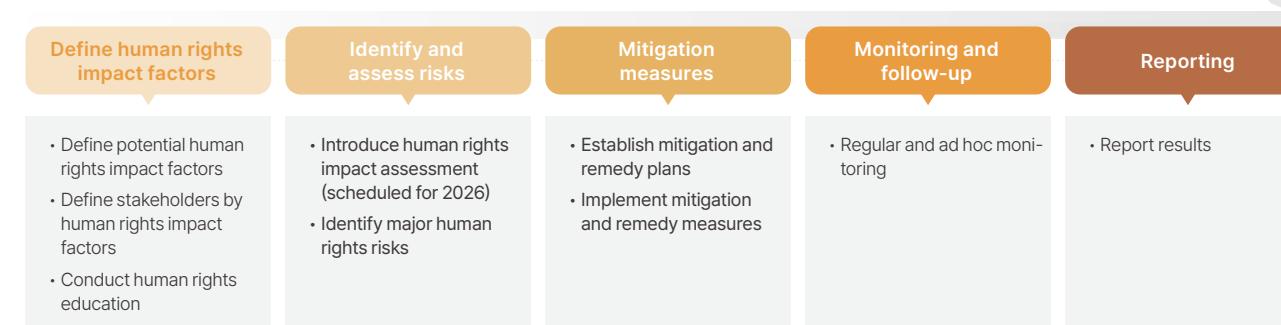
Medium to Long-Term Human Rights Management Plan



Management Process

KD Navien operates a human rights risk management process to minimize human rights risks that may occur during business operations.

Risk Management Process



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Human Rights Management

Human Rights Management Activities

Human Rights Impact Assessment

KD Navien plans to conduct full-scale human rights impact assessments starting in 2026, in accordance with its mid- to long-term human rights management plan. To this end, assessment questions will be designed based on the company's Human Rights Management Policy and the National Human Rights Commission's Human Rights Management Guidelines and Checklist, and vulnerable jobs or departments to human rights risks will be identified among internal employees.

In 2025, as a preparatory step for the human rights impact assessment, a survey will be conducted among employees to identify key risks that require priority improvement. Going forward, the scope of the assessment will be expanded to include various stakeholders such as suppliers, aiming to establish a more comprehensive and substantive human rights management system.

Human Rights Impact Assessment Plan

Category	Details
Frequency	Once a year
Format	Self-assessment survey
Scope	Internal employees • Groupware users: electronic survey via groupware • Non-groupware users (e.g. production employees): internet portal form
Evaluation areas	Human Rights Management System, Non-discrimination, Humane Treatment, Prohibition of Forced Labor, Child Labor/Young Worker Employment, Industrial Safety Assurance, Information Security

Human Rights Management Training

KD Navien offers human rights management training to enhance employees' awareness and foster a culture of respect for human rights. The training covers essential topics such as preventing sexual harassment, improving disability awareness, preventing workplace harassment, ensuring information security, and promoting ethical management. Through this training, employees are encouraged to respect human rights and apply ethical judgment in their daily work activities.

Human Rights Management Training

Category	Details	Target
Sexual harassment prevention training	Sexual harassment prohibition guidelines	
Disabilities awareness training	Non-discrimination against persons with disabilities, prejudice improvement	
Workplace harassment prevention training	Prevention and avoidance of member harassment	All employees
Information protection training	Personal information protection guidelines	
Ethical management training	Ethical reporting, grievance handling	

Grievance Handling

Grievance handling channel

KD Navien actively gathers feedback and concerns about human rights protection, working conditions, and the work environment from various stakeholders, such as employees and suppliers. This is done through channels like the internet, intranet, and labor-management organizations. Any issues reported are sent to the appropriate departments, which then communicate directly with each stakeholder to address them. Throughout this process, the company ensures that the identity and personal information of those who report issues are kept strictly confidential.

Channel	Business Site	Responsible Department
Cyber Ombudsman	Company-wide	Management Improvement Department
Workplace Harassment Report	Seoul Office/Branches/Dealers Research Institute	HR Team Research Management Team
Workplace Sexual Harassment Report	Seotan/Pyeongtaek/Songtan/Gasan Seoul Office/Branches/Dealers Research Institute	Operations Support Team Responsible personnel at each business site and HR Team
Labor-Management Council (Grievance Handling Committee)	Seotan/Pyeongtaek/Songtan/Gasan	Operations Support Team

Grievance reporting and handling status¹⁾

KD Navien officially and unofficially receives and processes grievances through grievance handling channels such as the cyber ombudsman and individual phone contacts with responsible personnel. In 2024, a total of 14 grievances were received and referred to relevant departments for processing.

Category	Unit	2022	2023	2024
Number of cases received	Cases	14	13	14
Number of cases processed	Cases	14	13	14
Processing rate	%	100	100	100

1) Includes performance of affiliates

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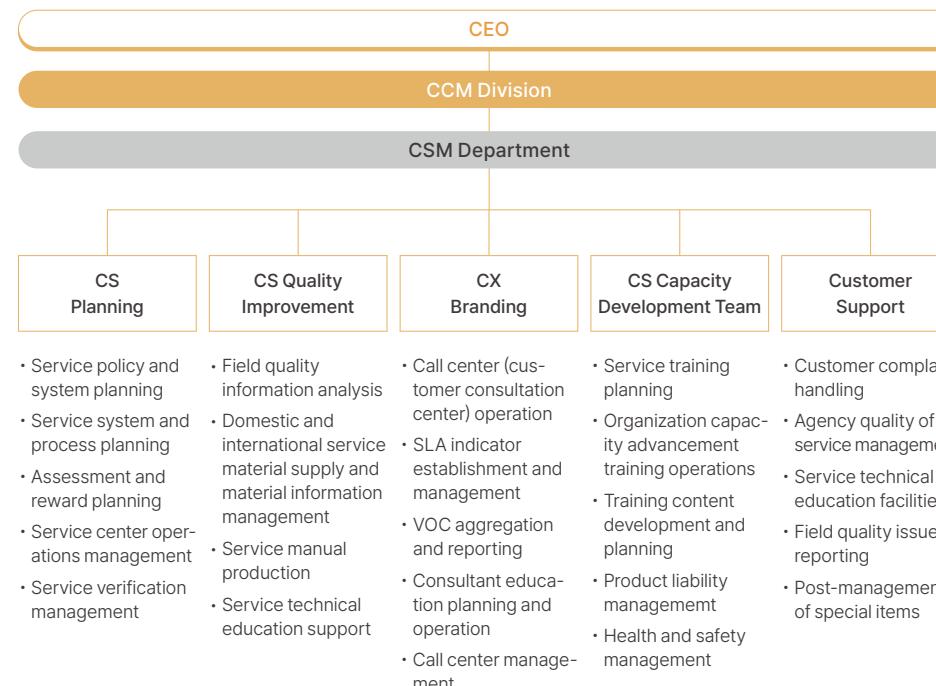
Customer Value

Customer-Centered Management System

Organizational Structure

KD Navien systematically operates a dedicated customer service organization to ensure transparent customer communication, strict service quality management, and customer-centric content provision.

KD Navien Service Organization



Customer-Centered Management Policy

Based on the customer satisfaction management policy and customer charter approved by top management, all employees actively participate in practicing customer-centered management and achieving its goals. We provide customers with the highest quality products, promote advanced technology and innovation to optimize living and environment, and practice customer satisfaction management.

Management Goal

KD Navien envisions a future focused on customer value-centered management by addressing highly personalized customer needs through digital customer service innovation. We are committed to enhancing customer satisfaction and driving service innovation. To achieve this, KD Navien plans to develop a service infrastructure rooted in digital customer service advancements, optimize the customer experience, and broaden the scope of self-service options that customers can actively utilize.



External Certifications

Since acquiring the Consumer Centered Management (CCM) certification from the Fair Trade Commission in 2011—the first in the industry—KD Navien has continuously maintained this certification and also holds the Korea Service Quality Excellence (SQ) Certification.

KD Navien prioritizes enhancing customer rights and operates a systematic manual for customer-centric management company-wide. We collect VOC through various channels, build a sophisticated data analysis system to actively reflect consumer improvement requests, and thoroughly protect consumer rights.

Additionally, we also conduct regular training and performance evaluations for field service personnel and specialized service centers to provide consumers with high-quality service. Additionally, by implementing an AI chatbot system, we are overcoming the time and space limitations of face-to-face consultations and driving innovation in service quality.



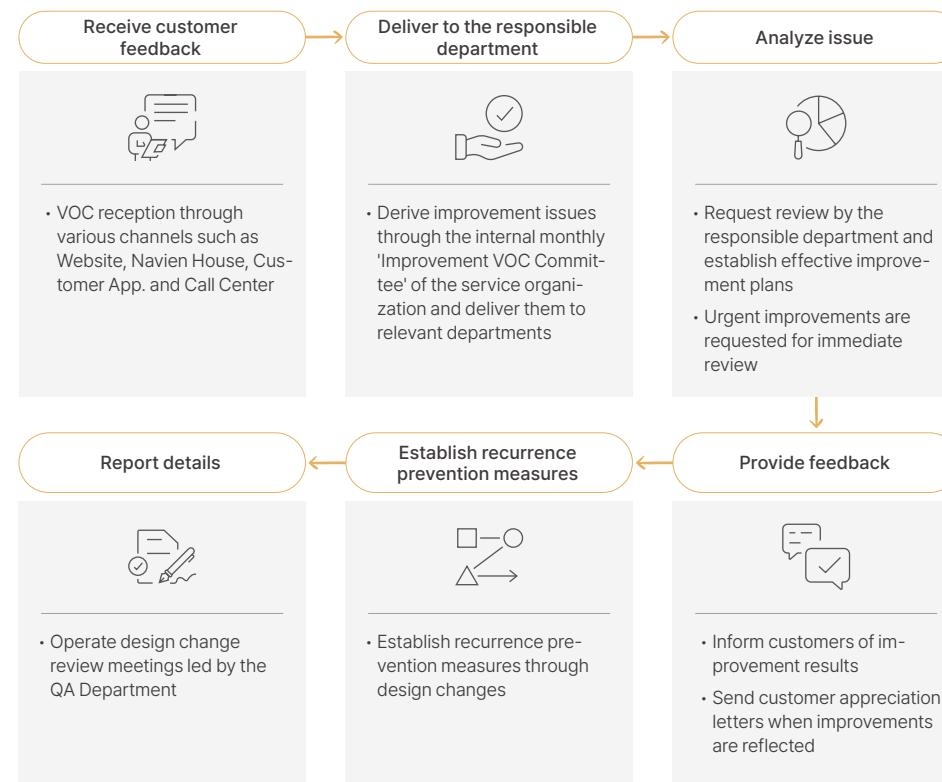
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Consumer Rights Risk Management

VOC Integration Processing Procedure

KD Navien operates a VOC processing system to systematically collect and effectively manage customer feedback. Through this VOC process, issues requiring improvement are quickly identified, driving tangible enhancements in quality and service.

VOC Improvement Process



KD Navien Cascade Care Service

Starting from April 2024, KD Navien has started operating the Cascade Care Service and aim to provide customer with stable and reliable service through regular inspections and systematic maintenance.

To this end, Navien service managers from headquarters directly visit sites to perform regular inspection services, maximizing product performance through the maintenance program. Additionally, through Navien Care Service, energy consumption is reduced by optimizing product operation efficiency, contributing to lowering customers' operating costs. Preventive management through pre-inspections creates a stable and efficient usage environment.



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Customer Value

Customer Satisfaction Activities

Customer Satisfaction Services

KD Navien implements various customized activities and operates customer participation programs to realize customer satisfaction.

Customer Satisfaction Programs

Category	Details
Sweet Dream Store	<ul style="list-style-type: none"> Direct and indirect product experience services and provision of sleep solutions
Navien House (official online store)	<ul style="list-style-type: none"> Providing benefits through event and promotion planning Resolving consumer inquiries by expanding communication channels such as operating Navien LIVE
Curation Service	<ul style="list-style-type: none"> Product recommendations tailored to lifestyle including usage environment and preferences
Air Change Service	<ul style="list-style-type: none"> After A/S registration for sleep mattress pads, immediate provision of replacement products to reduce lead time during the recovery process
Commissioning Center	<ul style="list-style-type: none"> Ensuring installation/construction quality and preventing potential issues during product use through operation of specialized installation and supervision teams
Pre-inspection Service for Commercial Facilities	<ul style="list-style-type: none"> Product inspection and safety accident prevention campaigns through pre-inspection services for commercial facilities in preparation for winter

Rights Protection

KD Navien provides various channels and convenience features to ensure all customers can easily access information related to our products and services, continuously improving accessibility. Additionally, we operate a systematic management system to protect the valuable rights of each customer and create a safe service usage environment, striving to do our best.

Rights Protection Activities

Category	Details
Support for people with visual impairments	<ul style="list-style-type: none"> Temperature controller and interface support for visually impaired people
Consultation services	<ul style="list-style-type: none"> Diversified consultation services including AI chatbot consultation, 24-hour customer consultation, video-supported consultation, and real-time 1:1 chat consultation
Expansion of directly operated centers	<ul style="list-style-type: none"> Operation of directly operated centers for customer satisfaction and smooth service (6 new centers opening in 2024, total 22 centers in operation)
Operation of mobile centers	<ul style="list-style-type: none"> Improving regional and physical accessibility to services
Extension period for free A/S	<ul style="list-style-type: none"> Expansion of free A/S period from 2 to 3 years
Standard service fee guidance	<ul style="list-style-type: none"> Provision of standard service fees and ensuring transparency through use of service app

Operation of Sleep Platform <Navien Sweet Dream Store>

Sweet Dream Store is an online platform focused on enhancing sleep quality through personalized solutions. With 'sleep' as its central theme, the platform emphasizes building strong relationships with customers by offering tailored sleep solutions that are updated seasonally. These solutions include expert consultations, a variety of sleep-related products, and opportunities for free product trials, all designed to actively engage customers and enhance their experience. Since its launch, Sweet Dream Store has attracted approximately 30,000 members, welcomed about 1.2 million visitors, and facilitated around 40,000 event participations over three years, consistently fostering active and meaningful communication with its audience.



Sweet Dream Service User

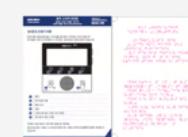
(...) If you're thinking about buying a sleep mattress pads, I recommend participating in next year's Sweet Dream experience first and feeling, "Ah, this is truly a whole new world," before making your purchase. I bought one after trying it this time, and I want to purchase another one through the Sweet Dream experience center next year!

Visual Impairment Interface Support

KD Navien has pioneered the development of the industry's first indoor temperature controller equipped with voice guidance, specifically designed to improve accessibility and usability for visually impaired individuals. The product range includes several models, from basic to premium (NCB300/500/700). To further enhance usability, braille stickers, braille product manuals, and voice manuals are also provided. In 2024, technical reviews have been completed for new features, including AI-based voice recognition. The company plans to introduce and expand a variety of user interfaces to further improve product accessibility for customers.



Standard Model (NR-30S)



Premium Model (NR-67P)

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Customer Satisfaction Activities

Customer VOC Management

Complaint handling process

KD Navien has implemented a structured complaint handling process to effectively address customer concerns and issues. Feedback from customers is compiled into monthly reports that are shared with all executives, ensuring that their voices are heard at the highest levels of the company. In addition, customer feedback is also transformed into video content and distributed among employees to enhance awareness and understanding.

KD Navien acknowledges the importance of VOC as crucial information for improving product and service quality. By systematically managing VOC and implementing quality enhancement activities across the company, KD Navien successfully recorded zero product recalls in 2024. The company remains committed to using customer feedback as a foundation for ongoing quality improvements, aiming to deliver safer and more reliable products and services.

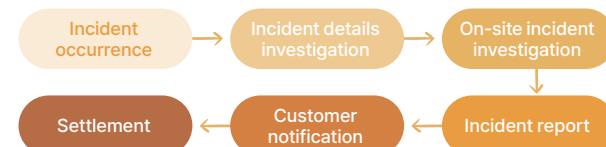
VOC handling

Every month the customer service center gathers and analyzes data from VOC channels, comparing the current status of complaints with those from the same period last year. Specifically, significant types of complaint from different branches are reclassified based on internal criteria to pinpoint customer issues. Internal discussions are then held to decide whether to implement customer suggestions, with the goal of developing improvement strategies.

Customer damage response procedure

KD Navien has established a procedure to address customer damages promptly and fairly. When an incident occurs, the dedicated product liability team begins an investigation and if further action is needed, a company-wide product liability team is called upon to conduct additional on-site investigations. Once the incident report is approved by management, settlements are reached with customers and appropriate compensation for damages is provided.

Damage Response Procedure



VOC Reception and Processing Status¹⁾

Category	Unit	2022	2023	2024
Reports received	Cases	2,277	2,068	2,112
Reports handled	Cases	2,277	2,068	2,112
Handling rate	%	100	100	100

1) Data compiled based on complaint VOC among VOC management types (complaint, suggestion, praise)

Introduction of NEWENAI Quettai Platform

KD Navien has introduced the digital-based NEWENAI Quettai Platform to maximize customer satisfaction and respond swiftly to diverse customer voices by operating an online VOC reporting system.

Quettai utilizes WEB Crawling technology to systematically collect and analyze online customer opinions that are not directly received by the company, establishing a foundation to identify customer complaints and demands early and respond effectively.

Through this platform, KD Navien monitors a wide range of customer responses in real time across major SNS and online communities such as news sites, cafes, blogs, communities, knowledge-sharing platforms, Twitter, YouTube, Instagram, KakaoStory, Facebook, as well as institutional, organizational, and government sites.

The collected VOC data is used to quickly diagnose and analyze customer expectations and complaints, directly contributing to improving customer experience and service quality. In particular, through the Quettai program, negative issues are detected in real time and promptly addressed as a watchdog role, minimizing customer inconvenience and achieving customer satisfaction.

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Ensuring Customer Safety

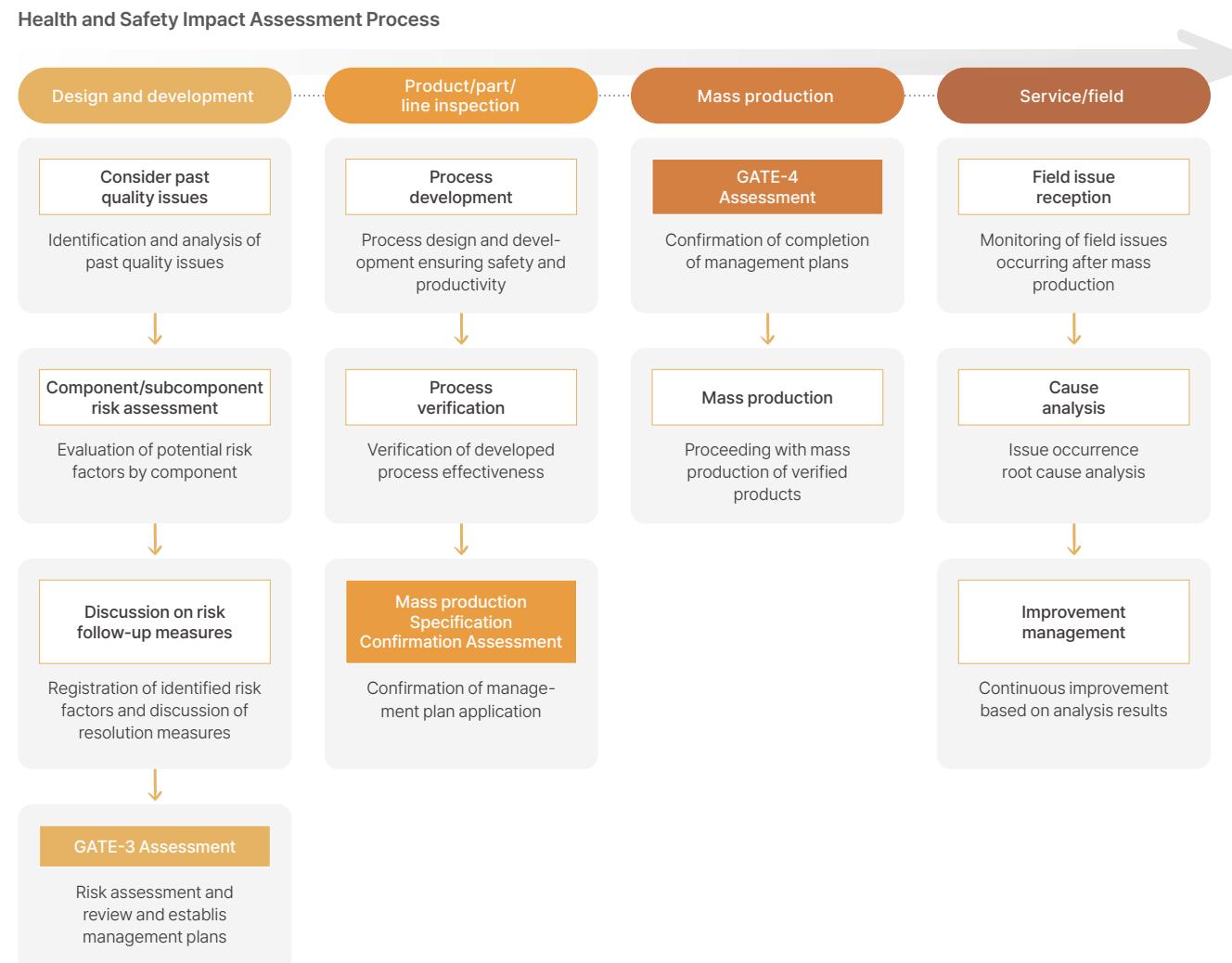
Health and Safety Impact Assessment

KD Navien has enhanced its quality management system by shifting its focus from quality to a Product Safety Quality Management System (PS QMS) that prioritizes consumer safety. This strategic shift aims to develop safe products and minimize potential safety issues during product use. A key aspect is the implementation of risk assessments during the new product development phase. These assessments are designed to identify and evaluate potential safety risks proactively. By reinforcing the verification process, KD Navien ensures that customer safety is maintained throughout the product lifecycle.

Assessment process

In response to past quality issues, we perform risk assessments and collaborate with relevant departments to review and establish management strategies at the 'GATE-3 Assessment.' Following this, we confirm the implementation of these strategies at the 'Mass Production Specification Confirmation Assessment.' To ensure the effectiveness of these plans, we further verify implementation in processes and among partners during the 'GATE-4 Assessment.'

To proactively prevent product liability quality issues in our domestic and international boiler and water heater products, we have launched the G-Project (Gas Project) across the company. This initiative involves a thorough assessment of risks at both the component and assembly levels, identifying areas for improvement, and implementing necessary changes.



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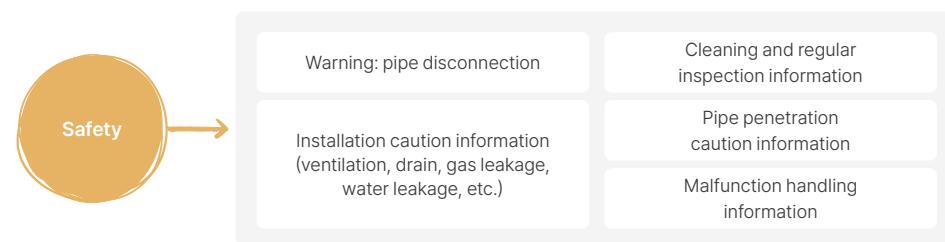
Customer Safety Assurance

Activities to Enhance Customer Safety

KD Navien manages and discloses environmental impact substances and information generated throughout the manufacturing process through product certification, and transparently provides customers with relevant information for product installation and safe use to ensure customer safety.

Product labeling

Labeling processes are mandated within the product development process and applied to all products, transparently disclosing origin, usage conditions, safety certification numbers, power consumption, capacity, and more.



Installation and use information

KD Navien provides 'Safety Precautions and Measures' to prevent major industrial and public accidents such as fire, electric shock, gas leakage, and water leakage that may occur during product installation and use, providing detailed information categorized by hazard level.

Hazard Level Classification for Precautions



Chemicals [Types of Chemicals Used and Safety Information](#)

Only chemicals that have passed chemical safety inspections are used in the ventilation air purifier dust filter cleaning service, and detailed information on chemical substances is announced on the website.

Product Safety Certification

KD Navien verifies product safety through independent third-party testing and certification bodies across continents including the Americas, Europe, Asia, and Oceania to secure consumer rights and safety.

KD Navien ensures that all products developed, produced, sold, and serviced meet the legal and standard requirements of each country. Our manufacturing and quality management processes strictly adhere to standard specifications, maintaining the safety and performance criteria set by national and international standards. As of 2024, we have obtained and maintained a total of 46 certifications, and we plan to further expand both domestic and international safety certifications to enhance customer safety.

Major Certification Status

Region	Certification						
Americas/ Latin America	• ASME • CSA	• UL • ETL	• NSF • UPC	• NOM • SEC	• Energy Star • IAPMO	• AHRI • AQMD	
Europe	• CE • UKCA	• WRAS	• EAC	• FAC	• UkrSEPRO	• FC	
Asia/Oceania	• KC	• KS	• CCC	• BSMI	• SRRC	• RCM	

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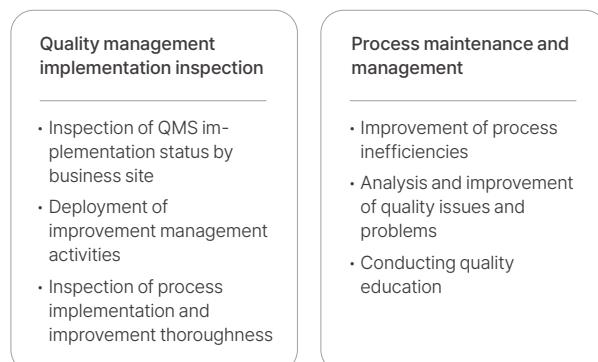
Quality Management System

Organizational Structure

KD Navien has established specialized organizations under the Quality Management Headquarters, including Quality Planning, HVAC Quality, Parts Quality Control, Market Quality Control, and Reliability teams, systematically securing product quality through close collaboration among related departments.



In 2019, under the slogan "Together with QMS, the Beginning of Quality Innovation," KD Navien declared quality innovation and is actively promoting activities to revitalize the company-wide Quality Management System.



Quality Management Policy

KD Navien has implemented a comprehensive quality management system, approved by top management, to ensure excellence in product design, production, and service, while securing global quality competitiveness. The system is grounded in the principles of ISO 9001, 14001, and 45001 standards, forming the basis for the company's product safety quality policy and quality objectives. Responsibilities and authorities for essential quality activities are clearly defined to proactively prevent defects and nonconformities at all stages. Through this approach, KD Navien is committed to delivering superior products and services to its customers.

Quality Policy

Achieving customer satisfaction by providing the best products and services

Quality is synonymous with trust and our pride; with this mindset, all employees are committed to achieving customer satisfaction by providing the best products and services in every aspect of management, from design and production to service.

Employee Compliance Requirements

Compliance with quality laws and requirements

Integrity

Securing growth momentum through continuous Improvement

Continuous Improvement

Realizing customer satisfaction through emotional satisfaction

Customer First

Establishment of process-based work procedures

System Management

Management Goal

KD Navien sets quality assurance as a key goal for global market entry and establishes the foundation for high quality by setting and implementing detailed objectives across three dimensions.

New Leap Forward through Competitiveness Enhancement

Personnel Optimize

- Innovation and internalization of work methods
- Flexible and rapid strategic operation through organizational efficiency
- Establishment of a foundation for responsible management based on the organization's profit and loss system

Process Optimize

- Establishment of smart workplace
- Securing differentiated technology and quality completion
- Improving manufacturing cost efficiency through inspection optimization

Product Optimize

- Securing an overwhelming competitive edge in existing pioneering projects
- Focused quality management for the global market
- Completing infrastructure for new global ventures

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Quality Management Framework

Quality Management System

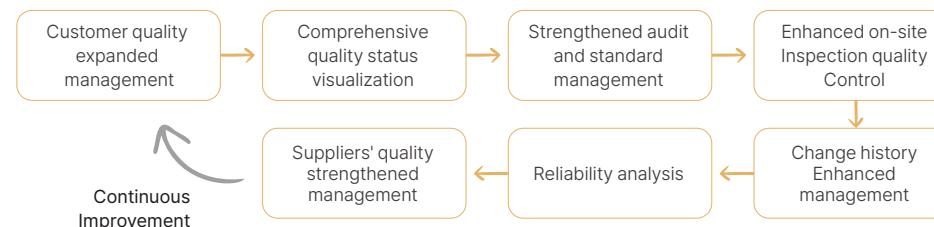
KD Navien has established 220 quality management processes based on ISO standards to secure growth drivers and quality consistency, conducting improvement activities by area. Additionally, the quality management System has been expanded to subsidiaries, and the Global Quality Management System (G-QMS) has been implemented to monitor and analyze quality information in real time.

Integrated quality management system

While maintaining the key functions of the existing quality management system, a collaborative information-sharing framework is being established to comprehensively manage the quality of mass-produced products. In particular, potential quality risks arising during product development are visualized and linked to improvement activities, thereby establishing a continuously evolving quality management framework.



Core Functions of Integrated Quality Management



Quality Certification

KD Navien has acquired and maintained nine KS Certifications over the past 46 years, gaining recognition for quality and technology in the mechanical metal field. Based on KS Certification, we will continue technological and quality innovation to establish ourselves as a reliable partner in customers' living environments.

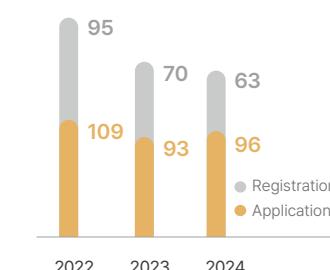
KS Certification Acquisition Status

Product	Year Acquired
Oil Hot Water Boiler	1982
Gas Hot Water Boiler	1991
Condensing Gas Hot Water Boiler	2000
Heat Recovery Ventilation System	2013
Automatic Temperature Control System for Heating	2014
Instant Gas Water Heater	2016
Water-to-Water Geothermal Heat Pump Unit	2017
Gas Stove	2020
Ventilator	2021

Patent Ownership Status

KD Navien actively manages its intellectual property portfolio, focusing on quality-driven innovation. The company holds around 1,700 domestic and international patents, including utility models. In 2024, KD Navien filed and registered over 150 domestic patents, excluding international filings. Looking ahead to 2025, the company plans to sustain a similar number of patent applications as in the previous year, while continuing to engage in a range of technological innovation initiatives.

Patent Application and Registration Status



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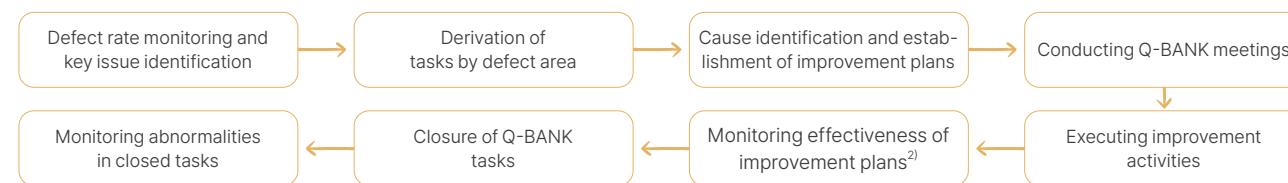
Quality Control Activities

Q-BANK

KD Navien is promoting company-wide improvement activities to address the root causes of issues. Evidently, quarterly improvement tasks are identified and dedicated departments are assigned by cause to strengthen design and process improvements.

Furthermore, KD Navien holds weekly executive meetings involving company-wide leadership to facilitate swift decision-making and to develop improvement measures aimed at preventing recurrence of issues. During these meetings, defect rates are monitored to identify key problems, which are then recorded as Q-BANK tasks for follow-up with improvement activities. For tasks that remain unresolved, accelerated improvement schedules are created, and additional improvement efforts are carried out simultaneously to effectively minimize issues.

Q-BANK Process



Daily Quality Review

KD Navien conducts daily quality review activities to quickly identify and address problems in parts, processes, and market areas. By monitoring daily issues, the company can develop new tasks aimed at reducing these problems. Core issues are targeted for improvement by connecting them with Q-BANK, and tag management methods are employed to clearly pinpoint the causes of these issues and facilitate ongoing improvement efforts.

Daily Quality Review Process



Daily Quality Review Operation Status¹⁾

Management Category	Entity	Improvement Completion Rate (%)
Process Improvement	KD Navien	88.4
External Parts Management	-	93.6
Market Improvement	-	88.2
Affiliate Parts Management	KD Polym	85.5
	KD Everon	93.6

Quality Education

KD Navien conducts quality education for all employees to enhance the importance of quality and understanding of the quality management system.

Throughout 2024, KD Navien conducted training programs to strengthen capabilities across various stages of the manufacturing process, from development and mass production to on-site and affiliate training, with the aim to further improve quality. Customized on-site training videos are produced for each business site to share quality success and failure cases, thereby creating a continuous learning environment. Additionally, mindset enhancement training is operated to foster a sense of ownership in work.

2024 Quality Training Performance

Target	Training Course	Number of Sessions (times)
On-site	Basic on-site quality training	3
Management	Basic quality training and quality mindset training	7

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1) As of December 31, 2024

2) Review of target defect rate achievement

3) Process closing: Full attendance of technical departments including Quality and Production Technology

4) Daily closing: Review of daily quality issue status within the quality department

Supply Chain Management

Supply Chain Control System

Organizational Structure

KD Navien has designated the Procurement Planning Team as the core responsible department to conduct strategic supplier management. Under the ESG TFT, the Supply Chain ESG part operates the supplier ESG capability assessment system led by the Procurement Planning Team, monitoring the sustainability performance of internal and external suppliers and establishing and implementing an action roadmap for improvement.

Supply Chain Management Governance



Supply Chain Management Policy [Supplier Code of Conduct](#)

KD Navien establishes and operates a Supplier Code of Conduct approved by top management to build a robust supply chain ecosystem and proactively manage ESG risks.

In alignment with global sustainability management trends, the company regularly evaluates suppliers on ESG criteria to identify potential risks early and mitigate their impact. This approach also emphasizes fostering a culture of mutual growth by supporting suppliers in enhancing their ESG capabilities.

This code of conduct applies to all supply chain stakeholders (internal and external suppliers) who have direct or indirect transactional relationships with the company. Additionally, we continuously monitor relevant domestic laws, international standards, stakeholder feedback, and external environmental changes to revise and supplement the code of conduct as necessary.

By 2025, we plan to establish a 'Supply Chain Policy' encompassing overall supply chain sustainability to build a systematic and strategic supply chain ESG risk management system.

Management Goal

KD Navien integrates ESG criteria into its purchasing system to manage suppliers' ESG performance systematically. When onboarding new suppliers, an ESG status check is performed along with regular assessments to evaluate their ESG capabilities. The company conducts supply chain ESG assessments, including document reviews and on-site evaluations, for the top 75% of suppliers based on the previous year's purchase volume. Suppliers are assigned ESG ratings, and those receiving an excellent rating of A or higher are awarded extra points in the comprehensive assessment process. This incentivizes supplier participation in ESG assessments and allows for a gradual expansion of the scope of assessed suppliers. Additionally, KD Navien promotes consulting and educational support activities to enhance the overall ESG levels of its suppliers.



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Supply Chain Management

Supply Chain ESG Management Activities

Supply Chain Status

KD Navien systematically manages the status of domestic and international suppliers, conducting regular annual recruitment announcements to continuously expand a pool of excellent suppliers equipped with quality certification and quality management system capabilities. Each year, KD Navien seeks out new potential suppliers to enhance the competitiveness and diversity of its supply chain. In 2024, the company launched a new Supplier Relationship Management (SRM) system, designed to offer suppliers opportunities to broaden their sales channels and submit transaction proposals freely. This system includes a new transaction proposal feature and a Global Partner Searching System to expand the pool of global suppliers. This approach lays the groundwork for increasing transaction opportunities with high-quality suppliers both domestically and internationally.

KD Navien Supply Chain Status

Category	Suppliers	Key Areas
Domestic	321	Products, Components, A/S, Packaging Materials, etc.
Overseas	53	Electronic Components, EMS, etc.

Supplier Registration Status through Recruitment Announcements

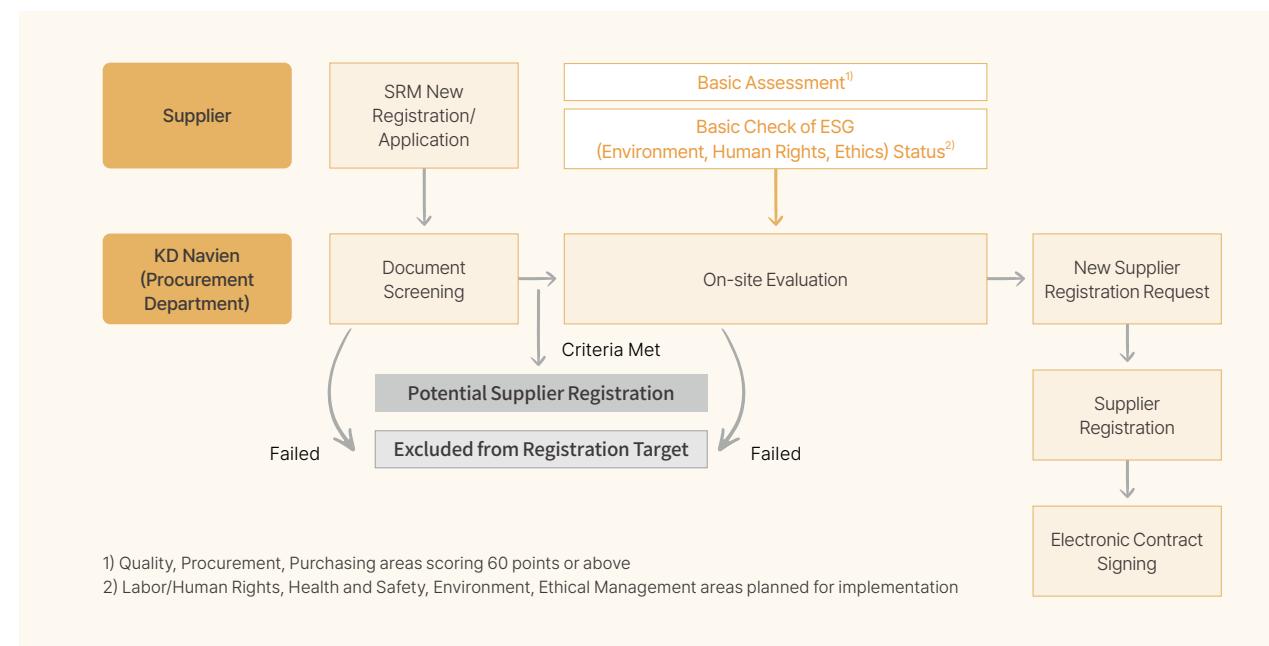
Year	Registered Suppliers	Remarks
2022	11	Transaction Supplier Registration: 1 case Potential Supplier Registration: 10 cases
2023	7	Transaction Supplier Registration: 1 case Potential Supplier Registration: 6 cases
2024	3	Transaction Supplier Registration: 0 cases Potential Supplier Registration: 3 cases

Supplier Selection

KD Navien employs a transparent and fair selection process for choosing suppliers. Potential suppliers must first pass a document assessment, which evaluates their alignment with the industry and their financial stability. Following this, an on-site evaluation is conducted to verify their quality management capabilities, procurement capacity, purchasing proficiency, and management skills. Suppliers who successfully complete both assessments are registered as new suppliers. Once approved, these suppliers undergo regular assessments to continuously monitor their capabilities and manage any associated risks.

Furthermore, ESG evaluation areas (labor/human rights, health and safety, environment, ethical management capabilities) have been newly revised to closely monitor the ESG implementation status of both new and existing suppliers. To further strengthen this supply chain management system, an integrated purchasing system has been established to enhance transparency and cohesion across all supply chain-related business processes including supplier information management, assessment and registration, contract management (including code of conduct management), and quotation operations.

Selection Process



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Supply Chain ESG Management Activities

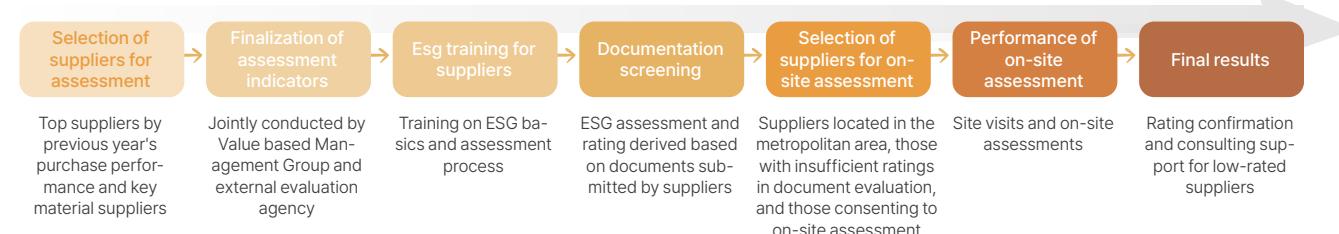
Supplier ESG Assessment

KD Navien conducts ESG assessments of suppliers to build a sustainable supply chain ecosystem, aiming to effectively manage risks across the supply chain and enhance suppliers' sustainability capabilities. Additionally, to ensure objective evaluation of suppliers' ESG levels and develop quality improvement measures, a professional assessment system has been introduced in collaboration with specialized evaluation institutions, enabling direct and indirect responses to global regulations such as the Canadian Human Rights Act and EU CSDDD.

Supply chain ESG assessment system

KD Navien has established a comprehensive assessment system for systematic evaluation of supply chain ESG capabilities. The assessment is conducted across three areas: Environment (E), Social (S), and Governance (G), with final evaluation results classified into seven ratings from A+ to D (A+, A, B+, B, B-, C, D). Differentiated follow-up actions are implemented according to each rating, particularly for suppliers rated C or below, where on-site assessments are conducted to provide guidance on improving weaknesses identified in document evaluations and to collect feedback on challenges. Going forward, we plan to actively support the enhancement of suppliers' ESG capabilities through consulting support activities.

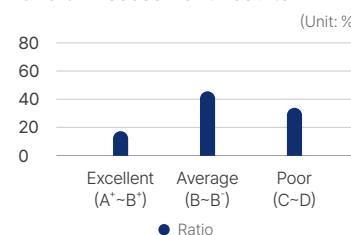
Supply Chain ESG Assessment Process



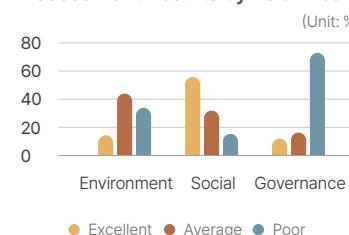
Supply chain ESG assessment results

In 2024, supply chain ESG assessments were conducted on 37 suppliers, with a generally high proportion receiving average ratings. By category, the social area was evaluated relatively favorably, while governance was identified as an area requiring focused improvement going forward. We will strive to enhance suppliers' sustainability management capabilities considering future assessment results.

Overall Assessment Results



Assessment Results by ESG Area



Key Assessment Items

- E** Environmental policy, energy usage, measurement of raw material usage, etc.
- S** Labor contracts, human rights policy, health and safety management, etc.
- G** Establishment of ethical management policies, training status, etc.

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Supply Chain ESG Management Activities

Supplier Hazardous Chemical Management

Management of eco-friendly verification data

KD Navien reviews whether supplied products contain hazardous substances by receiving data from suppliers through the GPS system from the new product development stage and approves them according to the standards. If substances exceeding the standards are found during the review process, alternative substances are identified and applied to continuously manage the production of eco-friendly products.

Supplier hazardous substance assessment

KD Navien regularly tests and verifies whether the parts supplied by suppliers during the development and mass production stages comply with environmental regulations. If improvements are needed based on the verification results, we conduct guidance activities for suppliers to support maintaining the eco-friendly standards of the supplied products.

Environmental regulation management

RoHS
<ul style="list-style-type: none"> Cd: 80 mg/kg Pb, Hg, ChromeVI : 800 mg/kg PBBs, PBDEs : 800 mg/kg DEHP/BBP/DBP/DIBP: 800 mg/kg

TSCA
<ul style="list-style-type: none"> PIP(3:1) PCTP (Pentachlorothiophenol) 2,4,6 TTBP (Tri-Tert-Butylphenol) HCBD (Hexachlorobutadiene) decaBDE &TCE (Trichloroethylene)

REACH
<ul style="list-style-type: none"> Substances of very high concern (SVHC) management SVHC candidate substance management

Proposition 65
<ul style="list-style-type: none"> Proposition 65 substance list

Win-Win Cooperation Activities

VOC Channels

KD Navien continuously strengthens its communication system with suppliers through the establishment of various channels. The VOC received from suppliers is reviewed by the relevant departments, which then establish improvement plans and provide guidance on the improvement results.

Responsible Department	Channel	Activity	2024 Key Performance
Management Improvement Team	Cyber Ombudsman	Reports of subcontracting act violations and employee unethical conduct	0 received cases
Safety Health	Health and Safety Council	VOC reception for health and safety improvement issues and grievances of employees and supplier workers at business sites	Processing rate 100% (5 cases completed)
Purchasing Procurement Team	SRM System	Reception of grievances and VOC related to external supplier purchasing systems and other work-related issues	Received 0 cases
Quality Planning Team	Quality improvement measures meeting	Monthly direct face-to-face reception of defect issues and difficulties from suppliers	73 sessions (target: 45 companies)
Sales Operations Team	Meetings and CRM ¹⁾ system	Regular meetings with agency owners and receiving business-related complaints or issues	44 received and completed cases

1) Customer Relationship Management

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Supply Chain Management

Win-Win Cooperation Activities

Supplier Support

KD Navien always recognizes that win-win cooperation with suppliers is essential to securing competitive advantage. Accordingly, we operate various support policies to foster a cooperative culture that enables mutually beneficial growth with suppliers.

Category	Details	2024 Key Performance
Financial Support	Operation of Accounts Receivable System <ul style="list-style-type: none"> Provision of credit and reduction of interest burden for suppliers 	Credit granted worth 11.3 billion KRW to 45 suppliers
	Improvement of Payment Terms <ul style="list-style-type: none"> Cash payment of transaction amounts upon supplier request 	Cash payments totaling 83.6 billion KRW to transaction suppliers
	Operation of Paid Subcontracting System <ul style="list-style-type: none"> Operation of paid supply system for items with large price fluctuations and prevention of raw material supply issues 	Supported 30 suppliers with the paid subcontracting system
Competitiveness Enhancement Support	Support Supplier ESG Assessment & Report Publication <ul style="list-style-type: none"> Basic ESG training and written evaluation for suppliers accounting for the top 75% of purchases Support status checks and report publication through on-site assessments 	ESG assessment support provided to a total of 37 suppliers (including on-site assessment of 10 suppliers)
Training Support	Quality Improvement Guidance <ul style="list-style-type: none"> Technical support quality improvement, supplier quality guidance, and system enhancement 	Supplier quality enhancement support activities (40 suppliers with 124 selected tasks and collaborative improvements)
	Equipment Infrastructure Inspection Support <ul style="list-style-type: none"> Establishment of inspection/production infrastructure and inspection support 	Supplier process monitoring support activities (21 suppliers with 185 inspection tasks and collaborative improvements)
	Chemical Substance Management <ul style="list-style-type: none"> Establishment of hazardous substance analysis database for supplied products 	Inspection of 1,169 supplied products
Supplier Support	Environmental Regulation Response Mindset Training <ul style="list-style-type: none"> Training on environmental regulation trends and response methods for each regulation 	Conducted collective training on 'Global Environmental Regulations' for 120 suppliers
Training Support	Supplier Quality Training <ul style="list-style-type: none"> Training on strengthening return defect management and basic quality accident cases 	Held 17 supplier briefings on key parts of new products
	Supplier Preventive Quality Support <ul style="list-style-type: none"> Quality maintenance through linkage between inspection equipment EES and SPC systems 	Support strengthening SPC management through ESS data linkage
	SRM System Training <ul style="list-style-type: none"> SRM (Strategic Purchasing, Procurement) system education for new suppliers 	Training conducted for 57 suppliers

Dealer Support and Protection

KD Navien carries out various support activities for dealers that provide differentiated services at the closest point to customers.

Category	Details	2024 Key Performance
Financial Support	Promotion and Sales Support <ul style="list-style-type: none"> Support agency promotional and sales activities in the field Production of store display products and promotional materials 	Nationwide personnel support for 61 promotional activities
	Online-Offline Win-Win Model <ul style="list-style-type: none"> Operation of online partner system to promote mutual growth between agencies and headquarters in 2024 	Provided display products and promotional materials worth approximately 98million KRW
	Outstanding Dealer Awards <ul style="list-style-type: none"> Awards for Top Sales dealer 	Selected as 'companion of dealers' enterprise by the Fair Trade Commission
Education Support	New Dealer Support <ul style="list-style-type: none"> Operation of establishment support system for new dealers 	Awarded the top 10 sales dealers nationwide
Welfare Benefits	Interior Support <ul style="list-style-type: none"> Support interior costs during store openings, dealer relocations, and renewals 	Support training and establishment costs of 16 new dealers
	Logistics Support <ul style="list-style-type: none"> Free shipping of products ordered (upon meeting the requirements) 	Support worth 92 million KRW including sign-board production
	Policy Guidance <ul style="list-style-type: none"> Headquarters policy, business direction guidance, and new product training 	Free logistics cost worth 3 billion KRW
Dealer Protection	Product/ Technical Training <ul style="list-style-type: none"> Implementation of practical training, sales training, etc. 	Conducted regional hub tour and training
	Provision of Materials and Resources <ul style="list-style-type: none"> Provision of necessary materials and resources for dealer operations 	Conducted 63 training sessions including product installation/practice, sales, and customer service conducted
	Holiday Gift Support <ul style="list-style-type: none"> Gift sets provided to dealer employees during Lunar New Year and Chuseok holidays 	Production of educational videos in eight categories including gas boiler, individual room, cascade, ventilation, etc
Dealer Protection	Operational Supplies Support <ul style="list-style-type: none"> Support production of work uniforms, diaries, and calendars 	Gift set support worth 67 million KRW
	Congratulations and Condolences Support <ul style="list-style-type: none"> Support provided in case of dealer congratulations and condolences events 	Support totaling 130 million KRW
	Dealers Protection <ul style="list-style-type: none"> Use of Fair Trade Commission standard dealer contract Guarantee of Contract Renewal Request Rights 	Support congratulations and condolences expenses and wreaths worth 8 million KRW

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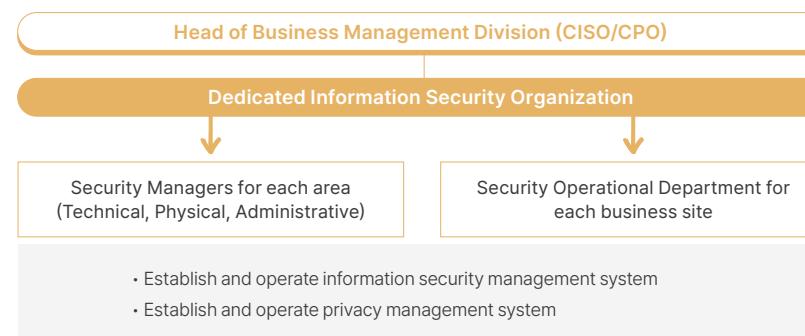
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Information Security

Security Management System

Organizational Structure

KD Navien has appointed the Head of Management as the Chief Information Security Officer (CISO) and Chief Privacy Officer (CPO) in accordance with relevant laws such as the Act on Promotion of Information and Communications Network Utilization and Information Protection, and the Personal Information Protection Act. Additionally, KD Navien operates a specialized organization directly under the CISO to enhance expertise and accountability in information security, systematically implementing administrative, technical, and physical safety measures to effectively prevent loss, theft, leakage, alteration, or damage of personal information.



Information Security and Privacy Policy

KD Navien establishes information security and privacy protection policies with the final approval from top management, systematically protecting important company assets such as business strategies, core technologies, research information, and personal information. The information security policy includes enforcement rules and detailed manuals such as Information Security Management Regulations, Information System Security Rules, and Physical Security Rules, which apply equally to employees as well as external stakeholders like suppliers and outsourcing companies.

KD Navien's privacy protection policy consists of enforcement rules and detailed manuals such as the Internal Personal Information Management Plan, Video Information Processing Device Operation Management Rules, and Outsourcing Subcontracting and Provision Management Rules, which are transparently disclosed for employees and all partners to access at any time. Additionally, the company clearly posts the Privacy Policy on its website and various systems to help customers and employees easily understand the status of personal information management.

Information Security and Privacy Protection Standard

In an environment where cyber security threats are increasing and the importance of information security is emphasized, KD Navien has voluntarily obtained international information security standard certifications: the Information Security Management System (ISO 27001) and the Privacy Information Management System (ISO 27701) simultaneously to more robustly protect customer personal information.

In efforts to demonstrate "Optimize Living and Environment", we are providing customers with a more comfortable life through smart home and Internet of Things (IoT) technologies. This certification strengthens security measures to safely protect the personal information of users not only of the official shopping mall Navien House but also smartphone app users controlling various products such as boilers and sleep mattress pads via the Navien Smart app.

Furthermore, we continuously enhance information security level by establishing detailed response manuals according to the risk levels of information assets through collaboration with external experts, and are systematically expanding investments to strengthen information security capabilities of overseas corporations.



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Information Security

Security Enhancement Activities

Strengthening Response to Security Vulnerabilities

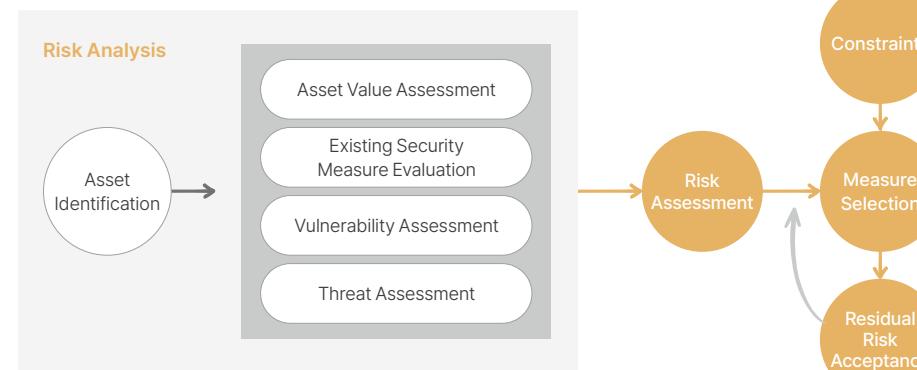
In 2024, KD Navien enhanced its ability to protect customers' businesses by introducing the Attack Surface Management (ASM) solution. This proactive approach aims to more effectively safeguard both domestic and international corporate assets and improve our response to external threats. Our system is designed to minimize asset exposure and identify potential security vulnerabilities in advance. Furthermore, by collaborating with external security experts, we conducted penetration testing on customer services to identify and address security weaknesses immediately, thereby strengthening overall security.

Risk Assessment

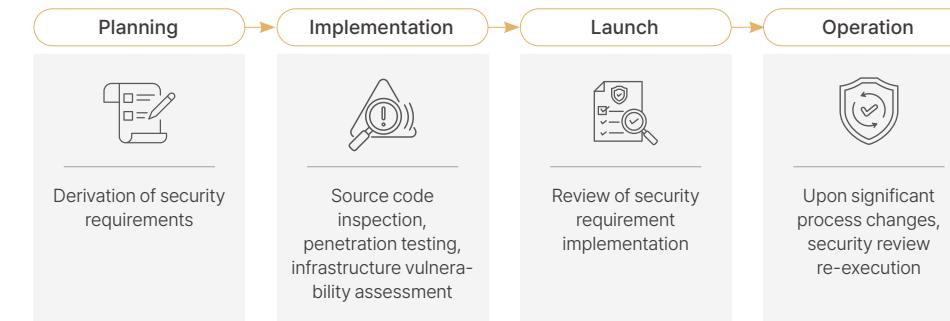
KD Navien conducts an annual regular risk assessment based on ISO 27001 and ISO 27701 control standards to ensure effective information security. For risk factors identified in the assessment results that require action, we select protective measures and implement security enhancement activities.

Risk Assessment Process

Risk Management



Security Review



KD Navien has a systematic approach to enhancing the security of its solutions and services, starting from the planning stage. We thoroughly derive and review security requirements to ensure robust protection. During implementation, we engage in a range of security quality activities, including inspecting source code, conducting penetration tests, and assessing infrastructure vulnerabilities. Before launching a service, we carry out security reviews to ensure all security requirements have been properly addressed and integrated.

In the operation phase, when there are process changes or significant reorganizations within the service, we re-conduct security reviews to continuously maintain a safe and reliable service environment.

Training and Campaigns

KD Navien enhances company-wide security awareness by improving employees' ability to identify and respond to malicious emails through malicious email mock drills conducted for domestic and overseas employees.



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Local Community Management System

Organizational Structure

KD Navien establishes annual goals and directions for social contribution through an organizational structure, developing social contribution strategies accordingly.

Local Community Management Governance



Implementation System

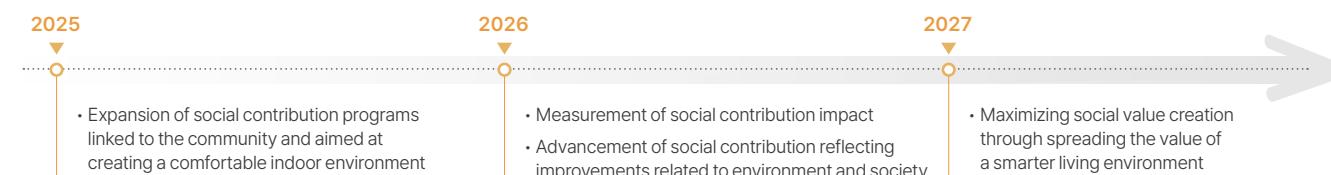
Based on the corporate philosophy of Contribute to Society through Enterprise, KD Navien pursues various social contribution activities to create social value across consumers' daily lives, urban, and global environments. Centered on three core business areas Improving Living Environment, Support for Future Generations, and Community Coexistence all employees participate in social contribution activities in partnership with the community.

Notably, the company supports boilers and sleep mattress pads to help vulnerable groups enjoy a more comfortable living environment. It collaborates with the nonprofit organization 'Nulpurun' to support energy technology research by university and graduate students, striving to build a sustainable future. Additionally, it supports the Hangeul Nuri Foundation to contribute to the development of culture and arts and to promote Hangeul as a globally recognized script.



Management Goal

KD Navien strengthens its social contribution policy that harmonizes environment, society, and enterprise by considering community issues and environmental impacts. To this end, it analyzes the impact of social contribution activities to develop policies and programs that promote sustainable development and enhance community welfare.



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Improvement of Living Environment

Housing Environment Improvement Activities

KD Navien strives to provide a more comfortable living environment by conducting direct and indirect housing environment improvement activities targeting socially vulnerable groups. By participating in housing environment improvement projects with various organizations such as Korea Habitat and POSCO, we create synergy effects in these initiatives. Additionally, we collaborate with government agencies including the government of Gyeonggi province and the Ministry of Environment to offer a comfortable living environment to diverse stakeholders.

Supporting Vulnerable Groups

Activity	Details	Beneficiary Benefits ¹⁾
Sponsorship of Korea Habitat Housing Environment Improvement Project	Contributing to the self-reliance of homeless low-income groups by supporting boilers at housing construction and repair sites	8,771,000 KRW
Sponsorship of POSCO Eco Dream Project	Reducing nitrogen oxide emissions through support of eco-friendly condensing boilers, lowering heating costs for low-income groups, and improving quality of life for low-income households including shelters for female abuse victims and elderly living alone	745,000 KRW
Sponsorship of KD City Gas Warm World for Children Project	Providing city gas, fee support, and heating environment improvements to vulnerable groups and welfare facilities in Ulsan through the Green Umbrella Children's Foundation Ulsan branch	3,821,000 KRW
Clear Air Project by the government of Gyeonggi province	Participation in public-private CSR project led by the government of Gyeonggi province and sponsorship of kitchen appliances to improve indoor air quality in facilities used by vulnerable groups	1,235,000 KRW
Additional support for boiler replacement for low-income groups	Full coverage of replacement costs exceeding government subsidies for recipients, near-poor, and low-income groups wishing to replace old boilers with eco-friendly condensing boilers	1,400,810,000 KRW
Ministry of Environment indoor environment improvement project for environmentally vulnerable groups	Agreement with Seoul city hall for donation of eco-friendly boilers to energy-vulnerable groups and support for heating environment improvement through boiler provision	1,958,198 KRW

1) Benefits incurred to beneficiaries through in-kind donations and social contribution activities

Supporting Vulnerable Groups

KD Navien donates heating products to assist socially vulnerable groups exposed to winter cold, such as elderly living alone and low-income groups. We provide sleep mattress pads to those facing heating difficulties due to economic hardship, supporting them to spend a warm and safe winter. These activities contribute to enhancing community welfare as part of our corporate social responsibility.

2024 Support Activities for Vulnerable Groups in the Community

Activity	Details	Beneficiary Benefits ¹⁾
Sponsorship of Green Umbrella Children's Foundation	Support of sleep mattress pads to alleviate heating cost burdens for marginalized and low-income families	196,850,000 KRW
Sponsorship of Elderly Living Alone Comprehensive Support Center	Support of sleep mattress pads to help elderly living alone stay warm during severe cold seasons	196,850,000 KRW



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Support for Future Generations

Support for Energy and Environmental Technology Research

KD Navien donates to the Nulpurun Foundation, enhancing social interest and participation in the energy sector and supporting various practical projects aimed at solving environmental issues. Established in April 2000 through a contribution from KD Navien CEO Sohn Yeon-ho, Nulpurun is a non-profit public corporation under the Ministry of Environment that seeks to promote technological innovation for harmonious coexistence between humans and nature based on the ethical guideline of sustainability. Nulpurun undertakes diverse initiatives to become a leader opening a creative future together with all those concerned about energy and environmental issues.

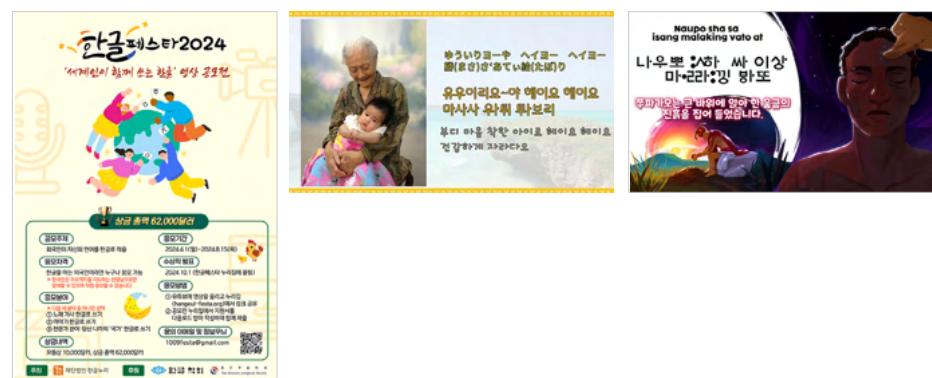


Support for Cultural Preservation Using Hangeul

KD Navien donates to the Hangeul Nuri Foundation, supporting activities that widely promote the spirit of Hunminjeongeum's creation and the excellence of Hangeul domestically and internationally. Established in 2022 by a personal asset contribution from KD Navien CEO Sohn Yeon-ho, the foundation conducts independent research centered on the Hangeul Nuri Research Institute and actively supports scholars and Hangeul research organizations. Through these efforts, it contributes to establishing Hangeul as a global common script.

Hangeul Festa 2024 Event

The Hangeul Nuri Foundation holds the annual Hangeul Festa to widely promote the excellence of Hangeul and confirm its potential as a global common script. The Hangeul Festa is a contest where participants worldwide submit their native languages transcribed phonetically using Hangeul and Hunminjeongeum, aiming to showcase the beauty of Hangeul and foster cultural exchange. The second Hangeul Festa held in 2024 selected 99 award-winning works from 240 submissions by participants from 48 countries, considering factors such as accuracy and efficiency of notation, originality, and artistic quality of the videos, awarding top prizes including the grand prize and the runner-up prize.



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Community Coexistence

Culture and Arts Sponsorship

Support for Pyeongtaek Cultural Foundation

KD Navien has been supporting the Pyeongtaek Cultural Foundation since 2022 to promote cultural development in Pyeongtaek, where the Seotan factory is located. In 2024, it sponsored the 'Sara Jang Violin Recital' and the year-end concert 'Christmas Gift' to support cultural and artistic activities for Pyeongtaek citizens.



Support for K-Music Philharmonic Orchestra

KD Navien sponsors regular concerts by the K-Music Philharmonic Orchestra, a non-profit organization composed of instrumental majors. The orchestra raises funds to support marginalized groups in the cultural and artistic fields, including individuals with disabilities, children from single-parent families, and elderly people without support. Through their performances of Korean classical music, pieces by Korean composers, and the national anthem, they aim to convey hope, courage, and inspiration.



Global Social Contribution

KD Navien served as a major sponsor of the 21st Ambassador Cup Junior Taekwondo Competition, which took place from September 3 to 5, 2024, at the Taekwondo-exclusive gymnasium in Tashkent. The event garnered significant local interest and was attended by



Paris Olympic medalists. Building on its support from 2023, KD Navien aimed to promote youth sports development and engage in social contribution by purchasing event prizes. The company's participation in the opening ceremony and the local media coverage underscored its commitment to corporate social responsibility. This involvement not only enhanced the sense of belonging among employees but also strengthened ties with local institutions. As a global company, KD Navien plans to continue its diverse social contribution activities, striving to coexist with and support local communities worldwide.

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Korean Red Cross MOU Blood Donation



KD Navien has signed a 'Life Sharing' agreement with the Korean Red Cross to strengthen cooperation with the community. As part of this agreement, we are fostering a healthy donation culture through regular blood donation activities. In 2024, a total of 137 employees participated in blood donations over four sessions, and we are continuing to promote ongoing blood donation efforts. Through the blood donation campaign, we are creating a culture of respect and consideration and leading the realization of social value.

2024 Red Cross Kimchi Sharing Volunteer



KD Navien participated in the kimchi-sharing volunteer activity organized by the Korean Red Cross to support vulnerable groups and partner households in the Seoul area where our business locations are situated, together with our company partner, the Export-Import Bank of Korea. About 10 employees, along with representatives from the Korean Red Cross and the Export-Import Bank of Korea, joined in preparing 700kg of kimchi to be delivered to 100 households.

Member Participation Social Contribution Activity 'Love Sharing Flea Market'

The Junior Board operated the 'Love Sharing Flea Market' to activate communication among members and spread a culture of sharing. The events held in 2024 at the Seoul office and Seotan factory received donations of approximately 200 and 170 items respectively. All proceeds and remaining items were donated to 'Beautiful Store.' In celebration of Vision 50-50, an additional donation of 50 sleep mattress pad hot water units and 50 sleep mattress pad carbon units were made to fulfill corporate social responsibility. The flea market will be expanded to other business sites to encourage more members to participate in social contribution activities.



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Board Composition

Members

KD Navien considers governance transparency, expertise, and stability as essential elements for the sustainable growth and value enhancement of the enterprise, as well as for protecting the rights and interests of shareholders and other stakeholders. Based on a board of directors-centered management approach, the company strives to establish a governance structure that reflects its growth trajectory and organizational culture. All internal regulations related to governance, including the Board of Directors Operating Regulations and Board Committees Regulations, along with records of activities, are disclosed on the website to help stakeholders clearly understand the governance and to enhance transparency. Additionally, the CEO is appointed as the chairperson of the board to promote efficient and smooth board operations. The board composition includes nine experts from diverse fields to ensure that major company decisions are made carefully from various perspectives.

KD Navien Board Composition

As of March 31, 2025

Category	Name	Gender	Date of Birth	Year of Appointment	Duties	Career	Board Committees
Executive Director	Sohn Yeon-ho ¹⁾	Male	1951.07	March 2024 (reappointed)	Overall Management Supervision	(Current) Chairperson & CEO, KD Navien	Management Committee (Chairperson)
	Sohn Heung-rak	Male	1981.06	March 2024 (reappointed)	Sales & Marketing, Production & Quality	(Former) Executive Director, KD Navien (Former) Vice President, KD Navien (Former) President, KD Navien (Current) Vice President & CEO, KD Navien	Management Committee
	Jang Hi-chul	Male	1965.03	March 2025 (newly appointed)	CSO, Production & Quality	(Former) Head of India/China Production Division, LG Electronics (Former) Executive Director, KD Navien (Former) Vice President, KD Navien (Current) Vice President & CEO, KD Navien	Management Committee
	Kim Jong-uk	Male	1964.09	March 2024 (reappointed)	NE Business	(Former) Head of Research Institute, Hanwha Techwin (Former) Vice President & CEO, KD Navien (Current) Vice President, KD Navien	-
	Kim Yong-bum	Male	1966.04	March 2024 (reappointed)	Sales, Marketing	(Former) Executive Director, KD Navien (Former) Managing Director, KD Navien (Current) Vice President, KD Navien	Management Committee
	Park Seong-keun	Male	1964.07	March 2024 (newly appointed)	Management	(Former) Executive Director, KD Navien (Current) Vice President, KD Navien	Management Committee
Independent Director	Sohn Yang-hoon	Male	1958.09	March 2024 (reappointed)	Overall management	(Former) President, Korea Energy Economics Institute (Former) President, Korean Resource Economics Society (Former) Professor, Department of Economics, Incheon National University (Former) Independent Director and Audit Committee Member, E1 (Current) Independent Director, KD Navien (Current) Independent Director, SK Gas	-
	Hong Joon-kee	Male	1958.10	March 2024 (reappointed)	Overall management	(Former) CEO, Coway (Former) CEO, KD Navien (Former) Independent Director, Solum (Current) Independent Director, KD Navien	-
	Oh Sun-young	Male	1967.01	March 2024 (newly appointed)	Overall management	(Former) Executive Director, Samil PwC (Current) Full-time Auditor, Cosmax BTI (Current) Visiting Professor, Seoul National University Business School (Current) Independent Director, KD Navien	-

1) Chairperson of the board

Governance

Board Composition

Independence

KD Navien operates a well-balanced board of directors that ensures no bias towards any specific stakeholders or professional groups that allows the board to effectively oversee management. To ensure transparent governance, we actively disclose related procedures and outcomes and have established internal regulations including the articles of incorporation and the Board of Directors Operating Regulations to ensure mutual checks and balances among the board, management, and lead-independent directors. Additionally, to enhance the efficiency of board operations, the CEO has been appointed as the chairperson of the board. Furthermore, the criteria for appointing independent directors have been formalized in the Board Operating Regulations to enable independent management oversight and prevent conflicts of interest. When a board member has a special interest in a resolution, their voting rights are restricted. Matters involving conflicts of interest as defined under Articles 397-2 (Prohibition of Misappropriation of Corporate Opportunities and Assets) and 398 (Transactions between Directors and the Company) of the Commercial Act require a resolution by at least two-thirds of the board members in accordance with the Articles of Incorporation.

KD Navien Board Skills Matrix (BSM)¹⁾

Category	Executive Director					Independent Director				Definition
	Sohn Yeon-ho	Sohn Heung-rak	Jang Hi-chul	Kim Jong-uk	Kim Yong-bum	Park Seong-keun	Sohn Yang-hoon	Hong Joon-kee	Oh Sun-young	
Leadership	●	●	●	●	●	●	●	●	●	Understanding of corporate strategy, human resources and organizational management, risk management, and growth drivers
CEO Experience	●	●	●	●	●	●	●	●	●	Experience in corporate management or expertise in corporate management
Management	●	●	●	●	●	●	●	●	●	Understanding and expertise in domestic and international economic trends and financial market changes
Economics/Finance						●				Understanding and expertise in accounting standards and financial statements
Accounting/Corporate Finance						●				Expertise in digitalization and its integration of business processes
Digital/IT			●	●						Industry-related Expertise (Major, Business Experience)
Industry	●	●	●	●	●	●	●	●	●	Experience in new product development through research and management of new technologies
R&D	●			●	●					Experience in improving efficiency of entire supply chain processes including production, procurement, and distribution
Supply Chain/ Procurement	●	●	●	●						Global business experience based on global environment, economy, and legal aspects
Global Business	●		●		●					

1) As of March 31, 2025

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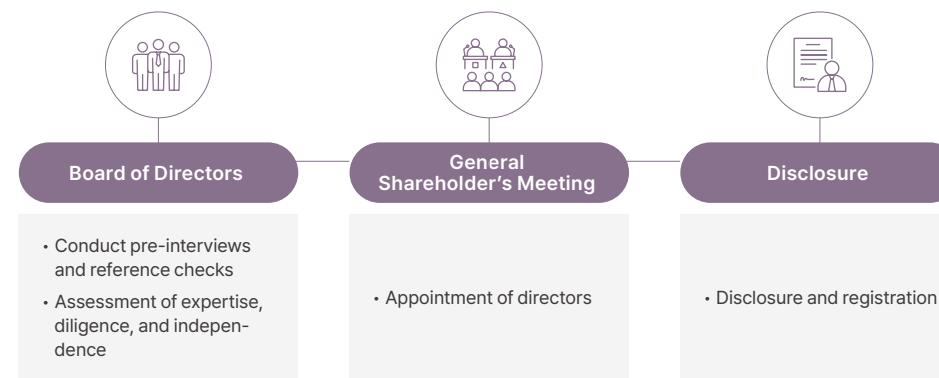
Board Composition

Appointment of Directors

KD Navien adheres to fair and transparent procedures to appoint directors that align with the interests of shareholders and stakeholders.

We conduct pre-interviews and undergo reference checks on independent director candidates who can represent diverse stakeholders, rigorously verifying their qualifications in accordance with the Commercial Act, Public Service Ethics Act, and other relevant legislation.

Additionally, during the director appointment process, we comprehensively assess candidates' expertise, diligence, and independence, objectively appointing directors while considering board diversity and the management environment.



Board Committees

A management committee has been established within the board of directors to enhance the efficiency and promptness of key management decisions. Composed of five executive directors with specialized management knowledge and experience, the management committee thoroughly reviews and resolves major management matters, financial issues, and other important agendas delegated by the board. The matters decided by the management committee are reported to each director in accordance with Article 14 of the Management Committee Operating Regulations and Article 393-2, Paragraph 4 of the Commercial Act. Upon receiving these reports, directors may request a board meeting if necessary. The board may re-deliberate on the decisions made by the management committee, thereby ensuring the principles of checks and balances are upheld. Additionally, at the 2023 regular shareholders' meeting, the Articles of Incorporation were amended to allow the establishment of additional committees within the board, such as the Independent Director Candidate Recommendation Committee, ESG Committee, Internal Transaction Committee, and Remuneration Committee.

Role of the Management Committee

Category	Roles
General Management	<ul style="list-style-type: none"> Mid- to long-term management policies and strategies Determination of business planning and restructuring Decisions on new entry, relocation, or withdrawal of overseas branches and local subsidiaries Enactment and amendment of important company regulations Mid- to long-term technology development plans Mid- to long-term human resource operation plans Determination of executive retirement benefit payment rates Other key management issues
Finance	<ul style="list-style-type: none"> Execution of contracts delegated by the board Mid- to long-term budgeting, accounting, and financing plans Financial transactions according to financial practices or internal rules of external trading partners (minutes equivalent to board minutes are prepared regardless of scale if requested by external trading partners) Other major financial issues
Others	<ul style="list-style-type: none"> Other important management matters and delegated matters by the board

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Board Operations

Board of Directors Activities

KD Navien conducts regular board meetings quarterly and convenes extraordinary board meetings as needed to ensure appropriate and effective board operations. The schedule and agenda are provided to each director and auditor at least seven days prior to the meeting.¹⁾ Executive directors are prohibited from concurrently serving as directors, executive officers, or auditors in two or more companies other than KD Navien, pursuant to Article 34, Paragraph 5, sub-paragraph 3 of the Enforcement Decree of the Commercial Act. On March 26, 2025, KD Navien updated its Board of Directors' Operating Regulations to better support the independent and professional roles of independent directors. The new regulations allow independent directors to use external experts at the company's expense when necessary, without needing a board resolution. While attendance at board meetings is generally required in person, directors may remotely participate via real-time audio communication in unavoidable circumstances.²⁾ Furthermore, as per Article 15 of the Board of Directors Operating Regulations, minutes recording the agenda, progress, results, and any dissenting opinions along with their reasons are organized and signed or sealed by attending directors and auditors. Key contents are then published on the company's website on a quarterly basis. In 2024, six board meetings were held, during which 13 reporting agendas—including sustainability management materiality assessment results—were presented, and 19 major agendas such as board and director self-assessments and approval of business acquisitions were deliberated and approved.

Category	Meetings Held (sessions)	Items Deliberated/ Reported (cases)	Average Attendance Rate (%)
2022	6	20/9	100
2023	6	15/13	100
2024	6	19/13	93

1) Convening procedures may be omitted if all directors and auditors agree

2) The relevant director is confirmed to have directly attended the board of directors meeting

Board of Directors Assessment

Board members conduct a self-assessment of the board and its directors once a year to evaluate their accountability and the effectiveness of the board's operations. After the evaluation, the results are reported to the board and used to improve and develop operational methods.

2024 Board of Directors Assessment Results (5-point scale)

Category	Assessment Areas	Score
Board Assessment	Roles and Responsibilities of the Board	4.8
	Board Structure	4.2
	Board Operations	4.2
	Reflection of Evaluation Results	4.3
Director Self-Assessment	Engagement	4.7
	Experience and Knowledge	4.5
	Contribution to Board Operations	3.8
	Board Accountability	4.6

Board Renumeration System and Status

KD Navien directors receive renumeration within the limits set by the shareholders' meeting. Independent directors receive a fixed salary, determined by internal criteria that take into account the responsibilities and risks associated with their roles, as well as renumeration levels at other companies. Executive directors' annual salaries are calculated based on their contributions to the company, and they receive performance bonuses that are tied to the company's annual sales performance, as well as evaluations of organizational and individual performance.

Board Remuneration Status (Unit: KRW million)

Year	Category	Number of Directors	Total Remuneration	Average Remuneration per Person
2022 ¹⁾	Executive Director	5	1,301	325
	Independent Director	4	116	39
2023	Executive Director	4	1,109	277
	Independent Director	3	126	42
2024 ²⁾	Executive Director	5	1,469	294
	Independent Director	4	126	32

1) Including one executive director and one independent director who retired in 2022

2) Including one independent director who retired in 2024

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Shareholders' Rights

Dividend Policy

KD Navien conducts dividend distributions by balancing continuous business investments for future growth with shareholder returns through profit realization, establishing stability and predictability as the standards of its dividend policy. KD Navien avoids downward adjustments of dividends per share and maintains stable dividends that are at least equal to or gradually increasing compared to the previous year. During the 44th to 48th fiscal years, as well as the 50th and 51st fiscal years, KD Navien increased dividends per share by KRW 50 annually. In the 49th and the most recent 52nd fiscal year, dividends per share saw a larger annual increase of KRW 100 compared to the previous year. This consistent strategy has resulted in nine consecutive years of increased dividends per share. Furthermore, the company has maintained a tradition of issuing fiscal year-end dividends for 31 consecutive years, demonstrating its commitment to providing predictable and stable returns to shareholders. Moving forward, the company will continue to review financial status, cash flow, changes in business environment, and investment plans to maximize corporate growth, shareholder returns, and shareholder value from a long-term perspective.

Composition of Shares and Shareholders

According to KD Navien's Articles of Incorporation, the total number of shares authorized for issuance is 30,000,000 shares with a par value of KRW 1,000 per share. The total number of shares issued to date is 14,568,592 shares. Excluding 115,660 treasury shares, the number of outstanding common shares is 14,452,932. As of December 31, 2024, major institutions holding more than 5% of shares include KD One.

Major Shareholders and Related Parties

Category	Number of Shares Owned	Shareholding Ratio (%)
KD One	8,263,287	56.72
Sohn Yeon-ho	129,262	0.89

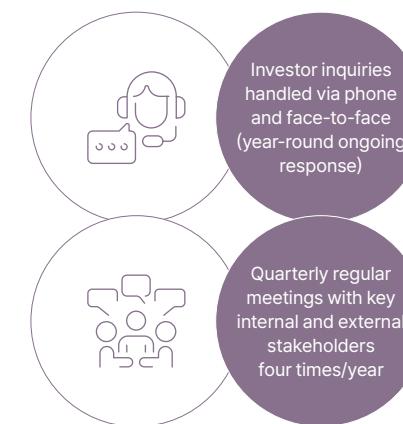
Shareholder Status

Category	Number of Shares Owned	Shareholding Ratio (%)
Shareholder with more than 5% KD One	8,263,287	56.72
Shareholders with less than 1%	4,324,774	29.69

Investor Communications

KD Navien continuously engages with major investors to understand the needs of various stakeholders and responds to inquiries.

Communication with Key Investors in 2024



Shareholders' Meeting Resolution Plan

KD Navien has implemented electronic voting and proxy voting recommendations consecutively for nine years through the 2025 shareholders' meeting to enhance shareholder rights and increase tangible shareholder value.

Details regarding proxy voting recommendations and electronic voting exercises are disclosed through the Financial Supervisory Service's electronic disclosure system in shareholders' meeting notices and proxy voting recommendation reference materials.

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Risk Management

Risk Management System

Organizational Structure

KD Navien is facing various external environmental changes, including rapid growth in overseas sales, strengthened environmental regulations by country, and the legalization of eco-friendly product usage. In particular, to respond to expanding regulations such as building energy decarbonization policies, the company is considering transitioning to a hydrogen gas grid and applying electric heat pumps. Additionally, it is diversifying its business model by expanding and developing O2O businesses alongside B2B ventures like sleep mattress pads, subscription services, and rental businesses.

In the face of such rapid environmental changes, business expansion presents KD Navien with an opportunity to leap forward as a global leader in living environments, while simultaneously posing the challenge of securing capabilities to respond to complex uncertainties such as geopolitical risks and the intensification of the climate crisis. Accordingly, the head of business management has been designated as the Risk Management Committee Chair (CRO), and a company-wide risk response system has been established and is being operated. The planning team within each division carries out basic risk management tasks tailored to the characteristics of products and business sector. Each department head and division manage risks within their respective areas, while the CRO oversees company-wide risk management.

Additionally, through various meeting bodies including monthly strategic meetings by divisions, management committees, and weekly executive meetings, key laws/regulations related to environmental management and climate change, as well as financial and non-financial risks, are proactively identified and reviewed. Risks that are difficult for individual units to handle are jointly addressed through collaboration among related departments, thereby strengthening an integrated risk management system.



Risk Management Governance



Key Roles by Organization

Category	Function
Board of Directors	<ul style="list-style-type: none"> Risk review, supervision, and policy establishment
Chief Risk Officer (CRO)	<ul style="list-style-type: none"> Overall responsibility for risk management Support to the board of directors and reporting of key matters
Meeting bodies and each planning organization	<ul style="list-style-type: none"> Identify, prevent, monitor and respond to risks Executive effective risk management plans

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Risk Management

Risk Response Measures

Key Risks

KD Navien identifies eight key risks, including financial and non-financial risks, to ensure the stability of business operations. After the identification of risks, specific response measures are established, and through a continuous monitoring system, we strengthen our company-wide risk response capabilities.

Category	Risk	Response Measures
Financial	All	<ul style="list-style-type: none"> Conduct company-wide reviews of economic, social, and environmental changes, as well as financial and non-financial risks, through weekly and monthly meetings of consultative bodies comprising key executives
	Strategy/Operations	
	Foreign Exchange	<ul style="list-style-type: none"> Establish an exchange risk management system to standardize foreign currency funding schedules Continuously monitor exchange rates for key transaction currencies (USD, EUR, CNY, etc.)
	Interest Rate	<ul style="list-style-type: none"> Monitor interest rates and fluctuation forecasts closely Adjust the balance between fixed and variable interest rate borrowings
	Tax	<ul style="list-style-type: none"> Highest priority tax policy: Strictly comply with tax policy, ensuring adherence to tax regulations and timely completion of tax payments Evaluate tax risks in advance and implement follow-up management with advice from accounting team and external experts
Non-financial	Environment	<ul style="list-style-type: none"> Apply internal criteria stricter than statutory regulations for air and water polluting substances Establish a voluntary GHG emissions management system and expand renewable energy use through initiatives such as solar generating facilities installations
	Health and Safety	<ul style="list-style-type: none"> Strengthen response capabilities by appointing the Chief Safety Officer (CSO) as the top decision-maker for health and safety-related operations Give greater emphasis to fire occurrence risks and establish cooperative systems with local fire stations
	Quality	<ul style="list-style-type: none"> Establish and operate activities related to quality management systems Provide user manuals to consumers to minimize problems during product use
	Regulatory	<ul style="list-style-type: none"> Introduce a compliance officer system Utilize internal and external professional personnel and legal counsel effectively

Potential Risks

KD Navien identifies potential risks based on external trends and analyzes their financial and non-financial impacts to establish a proactive response system for possible risks.

Industry/market changes related to carbon neutrality

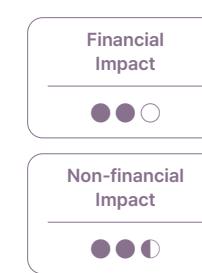
Policies and regulations aimed at achieving global carbon neutrality (net zero) are rapidly tightening. In particular, the EU's Energy Performance of Buildings Directive (EPBD), passed by the European Parliament in March 2024, targets complete decarbonization of buildings by 2050. It includes measures such as strengthening energy performance standards for buildings, mandating the use of renewable energy, halting subsidies for fossil fuel boilers, and their gradual phase-out.



In response, KD Navien is expanding research, development, and investment focused on carbon-neutral technologies like electric heat pumps, hydrogen combustion technology, and high-efficiency HVAC products. Additionally, by analyzing global market trends and establishing response strategies, we plan to gain competitiveness in the global low-carbon transition.

Supply chain sustainability management

The importance of managing global supply chain sustainability, including the EU's mandatory human rights and environmental due diligence, is rising, and the scope of related regulations is expected to expand gradually. In response, KD Navien is establishing a system that can proactively address these regulations despite increased operating costs due to support activities aimed at strengthening supplier capabilities. We are also implementing phased measures to mitigate negative impacts related to labor/human rights and the environment, striving to build a sustainable supply chain environment.



To enhance supply chain sustainability management, KD Navien operates a Supplier Code of Conduct and plans to introduce a supply chain evaluation system covering key issues such as labor/human rights and the environment. Moving forward, we intend to identify and manage negative impacts across the entire supply chain through the advancement of this evaluation system.

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Compliance

Compliance Management System

Organizational Structure

KD Navien appointed a Compliance Officer at the board of directors meeting held on March 24, 2021, in accordance with Article 542-13 of the Commercial Act (Standards for Compliance Guidelines and Compliance Officers). The Compliance Officer inspects the overall business operations and employees' compliance, implements corrective actions for legally problematic conduct, and reports the results directly to the board of directors to enable immediate recognition and response by management. Additionally, the Legal Affairs Team and Compliance Team under the Compliance Office substantively support the activities of the Compliance Officer, focusing on establishing a company-wide compliance culture and preventing legal risks.

Compliance Organization



Fair Trade Principles

Based on the founding philosophy of 'Social contribution through business', KD Navien has established a 'Code of Ethics' and 'Code of Ethics Practice Guidelines' that clearly present value judgment criteria and behavioral principles to be observed by employees as well as in relationships with employees, stakeholders, and customers.

In particular, it aims to ensure fairness and transparency in all business operations based on strict compliance with fair trade laws. Under the final approval of top management, the company has established and implemented 'Compliance Guidelines' to promote fair business conduct, solidify the foundation for sound corporate development, and secure customer trust.

Internal Control Policy

KD Navien systematically operates an internal accounting management system to prevent errors and fraud in financial statements in advance and to prepare and disclose reliable financial information. In 2021, in accordance with the revision of the Act on External Audit of Stock Companies, a new model internal accounting management system and operating system were introduced, and a dedicated organization was established to assess the effectiveness of system design and operation and to secure Independence.

Performance assessment criteria for the internal accounting management system have been established, linking related operational status with the work goals of employees to enable more responsible system operation management. The CEO and internal accounting managers review the effectiveness of the system's design and operation every fiscal year and directly report the results to the audit, board of directors, and shareholders' meeting. Furthermore, the appropriateness of system operation is objectively verified and certified by an independent external auditor to maintain a transparent accounting management system.

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Compliance Management Activities

Fair Trade Management Activities

KD Navien reviews the enactment and revision of major fair trade-related laws related to our business every month and continuously monitors changes in government policies. In 2024, we contributed review opinions on various fair trade regulations such as the Fair Transactions in Subcontracting Act and the Act on Fair Labeling and Advertising, and reviewed opinions on the Civil Act, Building Act, Copyright Act, Postal Service Act, etc., as well as a manual for calculating litigation costs, which were distributed company-wide. In addition, the "Compliance Weekly Report," which summarizes fair trade-related issues, implications, and overseas trends, is published weekly to help all employees strengthen their awareness of fair trade and support effective fair trade management activities. In 2025, we plan to promote the enactment and revision of the company-wide standard contract, provide guidance and monitoring on major issues and compliance issues for the entire company and related departments, and carry out activities such as deriving and mitigating improvements related to fair trade laws and monitoring their implementation.

Fair Trade Risk Assessment

KD Navien identifies Compliance issues in each transaction area and monitors the response status of relevant departments for identified issues.

Particularly, in 2024, through monitoring government ministries, we assessed our status regarding individual compliance issues identified, checked compliance implementation, and derived improvements. We also managed risks by providing guidance and distributing related training materials to relevant departments concerning the prohibition of technology data provision requests and misuse under the Fair Transactions in Subcontracting Act and Act on the Promotion of Mutually Beneficial Cooperation between Large Enterprises and Small and Medium Enterprises.

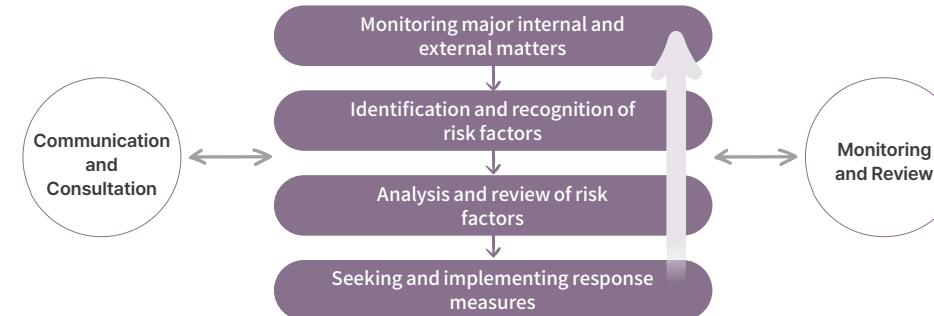
Going forward, we will continue to identify risk factors based on major internal and external issues and situations, analyze, review, and respond to minimize risks affecting business activities.

Compliance Training

KD Navien establishes and implements differentiated compliance training and education programs by job function for employees to prevent legal risks and achieve work efficiency.

In 2024, excluding mandatory legal training, we conducted three independent compliance training sessions to enhance employees' compliance awareness.

Risk Assessment Process



2024 Compliance Training

Date	Details	Participants
April	Training on Legal Procedures for Debt Collection	75 persons (Departments related Debt Collection Management)
October	Training on Fair Transactions in Subcontracting Act	101 persons (Departments related Subcontracting Transaction)
December	Training on Keeping and Management of Contracts	83 persons (Departments Keeping and Management of Contracts)

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Ethics Management

Ethical Management System

Organizational Structure

KD Navien systematically operates a specialized organization, the Management Improvement Department, to continuously conduct internal audits. The Management Improvement Department performs objective and transparent audits on the company's accounting and overall operations, enhancing fairness and securing corporate value. The audit department, including full-time auditors, consists of members with extensive work experience and deep understanding of business processes who inspect and improve work processes based on ethical standards, contribute to cost reduction, and establish and operate internal control processes to ensure employees perform their duties fairly and transparently. Additionally, by establishing an ethical management system and operating an independent and objective audit organization, efforts are made to achieve clean and ethical management.



Ethical Regulations

KD Navien has established a clear framework for ethical and responsible management through its Code of Ethics, which emphasizes individual ethical awareness and fosters strong trust with customers. This Code of Ethics was officially established in 2004 with the approval of top management. To further encourage ethical practices, the company also introduced the 'Code of Ethics Practice Guidelines.' These guidelines outline the appropriate behaviors and standards for decision-making that all members must adhere to. By making these guidelines accessible, KD Navien promotes active ethical management and ensures that employees understand and adopt these principles as their code of conduct.

[Code of Ethics](#) [KD Code of Ethics](#)

To comply with corporate ethics and fulfill corporate social responsibility in all relationships with stakeholders, we established a Code of Ethics containing the standards for value judgment and principles of conduct that all employees must follow. The code clearly presents the value judgments and behavioral guidelines to be observed in relationships with customers, society, suppliers, employees and the company, as well as shareholders. All employees are obligated to comply and stakeholders related to KD Navien are encouraged to actively adhere to the Code of Ethics.

[Code of Ethics Practice Guidelines](#) [Practice Guidelines](#)

The Practice Guidelines define principles of conduct and standards for value judgment regarding various ethical issues employees may face in daily life to enhance their ethical awareness. These include detailed behavioral principles to prevent unethical acts such as fraud/corruption, bribery, conflicts of interest, unfair trade practices like antitrust/collusion, and money laundering.

[Anti-Corruption Policy](#)

KD Navien has established an Anti-Corruption Policy to strengthen trust and partnership with various stakeholders and to enhance anti-corruption awareness among employees and suppliers. This policy presents ethical and moral standards to prevent potential risks arising from corruption and bribery in advance and to ensure compliance with relevant laws and regulations.

All employees must comply with relevant laws and regulations during their work. For overseas corporations, local anti-corruption laws are prioritized to ensure fair and transparent operations.

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Ethical Management Activities

Ethical Risk Monitoring

KD Navien's Management Improvement Department establishes an annual audit plan and diagnoses and evaluates overall management activities through regular and irregular audits, proposing areas for improvement. It also performs follow-up audits to check and manage the implementation of corrective actions. Additionally, it investigates violations of ethical regulations by employees and enforces appropriate disciplinary measures based on the results.

Reporting Process

KD Navien operates a cyber ombudsman on the company website to enable employees, suppliers, and internal and external stakeholders to freely submit reports. The system also provides multiple reporting channels via telephone and mail. Through these reports, violations of ethical regulations—including employee fraud and corruption, unfair treatment of suppliers, conflicts of interest, legal violations, and behaviors detrimental to organizational culture—are promptly addressed and corrected. In accordance with the Whistleblower Protection Principle, the identity of informants and the contents of their reports are kept confidential, and discrimination, disadvantages, or retaliation against informants are strictly prohibited. Violations of this principle result in disciplinary action in accordance with internal regulations.

Ethical Management Report Submission

Subject to Report	Reporting Channels
<ul style="list-style-type: none"> Employee fraud and corruption Unfair treatment of suppliers Conflicts of interest such as transactions with stakeholders and loans between employees Other acts violating ethical management 	<ul style="list-style-type: none"> Online reporting:  Online Report Submission mail submission: Management Improvement Department, 9th Floor, C.C.M.M Building, 101 Yeoui Park-ro, Yeongdeungpo-gu, Seoul Phone: 02)3489-2444, 02)6444-7186

Handling Status

In 2024, KD Navien's cyber ombudsman received 18 reports. Among these, four cases involved violations of ethical management, such as misuse of company funds, embezzlement, safety regulation breaches, abusive behavior by suppliers, workplace harassment, management negligence, and dereliction of duty. These violations led to business improvements and disciplinary measures. Other reports, including customer complaints and after-sales service requests, were forwarded to the appropriate departments to enhance service quality and problem-solving efficiency. The Management Improvement department was responsible for verifying the outcomes of these processes.

Ethics Training

KD Navien conducts regular ethics training for all employees to ensure organizational integrity through ethical management. Annual orientation training is provided for new employees, and mandatory online education is conducted for all employees to enhance ethical awareness and implementation. Additionally, an ethics management resource center is operated to disseminate the importance of ethical management and raise ethical practice levels by providing cases of ethical dilemmas encountered during work, related books, and films.

2024 Ethics Training Status

Category	Attended	Completed	Completion Rate	
Ethical Management Training	New Employee Orientation Training	129	129	100%
	All Employees Ethics Training ¹⁾	1,709	1,709	100%

1) Based on the status of KD Navien employees at the time of education implementation

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ESG Performance Data

Financial Performance

Summarized Consolidated Statement of Financial Position

Particulars	Unit	2022	2023	2024
[Current assets]	Million KRW	523,038	554,862	735,123
[Non-current assets]	Million KRW	494,982	505,696	623,748
Total assets	Million KRW	1,018,019	1,060,558	1,358,870
[Current liabilities]	Million KRW	423,564	410,012	581,653
[Non-current liabilities]	Million KRW	76,751	65,951	81,800
Total liabilities	Million KRW	500,315	475,963	663,453
[Equity attributable to owners of the parent]	Million KRW	517,705	584,595	695,417
[Non-controlling interest]	Million KRW	0	0	0
Total equity	Million KRW	517,705	584,595	695,417
Sales revenue	Million KRW	1,160,861	1,204,313	1,353,879
Operating profit	Million KRW	59,771	105,911	132,576
Net income	Million KRW	53,582	83,149	124,341
Owners of the parent	Million KRW	53,582	83,149	124,341
Non-controlling interest	Million KRW	0	0	0
Earnings per share	KRW	3,707	5,753	8,603
Number of consolidated companies	Count	11	12	12

Consolidated Statement of Income

Particulars	Unit	2022	2023	2024
Sales	Million KRW	1,160,861	1,204,313	1,353,879
Cost of sales	Million KRW	692,953	690,334	743,320
Gross profit	Million KRW	467,908	513,979	610,559
Selling, general, and administrative expenses	Million KRW	408,137	408,068	477,983
Operating profit	Million KRW	59,771	105,911	132,576
Other income ¹⁾	Million KRW	7,014	10,267	3,512
Other expenses ¹⁾	Million KRW	6,566	5,279	3,628
Financial income ¹⁾	Million KRW	51,514	25,585	53,061
Financial expenses ¹⁾	Million KRW	39,008	29,192	32,765
Net income before income taxes	Million KRW	72,724	107,292	152,756
Income taxes	Million KRW	19,142	24,143	28,415
Net income	Million KRW	53,582	83,149	124,341

1) Past performance that reflect the changes in account items and calculation methods resulting from corrected business reports

Consolidated Cash Flow Statement

Particulars	Unit	2022	2023	2024
Cash flow from operating	Million KRW	9,346	197,363	52,522
Cash flow from investing	Million KRW	(56,546)	(76,524)	(114,367)
Cash flow from financing	Million KRW	79,209	(113,622)	75,730
Difference by changes in foreign exchange rates	Million KRW	1,285	(2,135)	3,348
Increase in cash and cash equivalents	Million KRW	33,294	5,082	17,233
Cash and cash equivalents at the beginning of year	Million KRW	44,396	77,689	82,772
Cash and cash equivalents at the end of year	Million KRW	77,689	82,772	100,005

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ESG Performance Data

Environmental Performance

Greenhouse Gas

	Category	Unit	2022 ²⁾	2023 ³⁾	2024						
					KD Navien	KD Everon	KD Polym	KD TS	Other	Total	
Emissions	Scope 1+2 Emissions ¹⁾	tCO ₂ eq	13,509	37,629	13,989	14,605	3,274	1,203	2,544	35,615	
	Scope 1	Subtotal	tCO ₂ eq	3,582	5,329	3,631	288	10	792	494	5,214
	Scope 2	Subtotal	tCO ₂ eq	9,477	32,300	10,367	14,321	3,267	423	2,054	30,430
Intensity	Subtotal	tCO ₂ eq/100 million KRW	1.379	3.125	1.122	6.703	3.093	4.592	-	2.631	
	Scope 1	tCO ₂ eq/100 million KRW	0.366	0.443	0.291	0.132	0.009	3.023	-	0.385	
	Scope 2	tCO ₂ eq/100 million KRW	0.967	2.682	0.831	6.572	3.086	1.615	-	2.248	

1) Scope 1+2 emissions may differ from the sum of individual emission types due to rounding down below decimal points when totaled

2) KD Navien separate basis

3) Data correction based on consolidated emissions data calculation

Scope 3 Emissions¹⁾

	Category	Unit	2022	2023	2024
Scope 3 ²⁾	Subtotal	tCO ₂ eq	147,646	36,756,005	44,676,050
	1. Purchased goods and services	tCO ₂ eq	147,577	235,616	383,539
	2. Capital goods	tCO ₂ eq	N/A	13,796	17,663
	4. Upstream transportation and distribution	tCO ₂ eq	N/A	21,414	18,672
	5. business sites generated waste	tCO ₂ eq	69	80	98
	9. Downstream transportation and distribution	tCO ₂ eq	N/A	2,929	2,338
	11. Use of sold products	tCO ₂ eq	N/A	36,482,169	42,247,391
	12. End-of-life treatment of sold products	tCO ₂ eq	N/A	N/A	2,006,350

1) KD Navien separate basis

2) Data self-generated by KD Navien; for '11. Use of sold products,' emissions were calculated for major products sold domestically and in North America (boilers, water heaters).

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Environmental Performance

Eco-friendly Business

Category	Unit	2022	2023	2024
Eco-friendly products and services	Sales from to eco-friendly products and services	Million KRW	802,678	794,908
	Sales ratio	%	69	66
				74

Energy

Category	Unit	2022	2023	2024
Consumption	Total energy consumption	TJ	266.01	263.59
	Gasoline	TJ	1.18	2.87
	Diesel	TJ	2.79	1.61
	Kerosene	TJ	4.23	1.37
	LNG	TJ	58.89	56.83
	LPG	TJ	0.82	1.55
	Indirect	Purchased electricity	TJ	198.10
				199.37
	Intensity ²⁾	TJ	-	-
	Reduction ³⁾	TJ/100 million KRW	0.027	0.022
Renewable energy generation ⁴⁾				
	TJ	0.82	2.42	(22.54) ⁵⁾

1) Calculated excluding renewable energy generation

2) Aggregation and disclosure of renewable energy generation from 2024 onward due to solar power installations by the U.S. corporation in 2023

3) Based on separate sales figures

4) Energy reduction compared to the previous year

5) Calculated including renewable energy generation for 2024

Air Pollutants

Category	Unit	2022	2023	2024
Nitrogen Oxides (NOx)	Emissions	kg	2,005.9	2,652.5
	Concentration	PPM	28.7	9.8
Sulfur Oxides (SOx)	Emission	kg	0.1	448.5
	Concentration	PPM	0.4	4.2
Particulate Matter (PM)	Emission	kg	87.1	479.3
	Concentration	PPM	0.7	1.6
				0.5

Water Pollutants

Category	Unit	2022	2023	2024
Total Organic Carbon (TOC)	Emissions	Ton	0.37	0.53
	Concentration	mg/L	7	5.19
Biochemical Oxygen Demand (BOD)	Emissions	Ton	0.28	0.32
	Concentration	mg/L	5	5.08
Suspended Solids (SS)	Emissions	Ton	0.04	0.13
	Concentration	mg/L	0.4	3.25
				6.58

Chemicals

Category	Unit	2022	2023	2024
Hazardous chemicals consumption	Ton	0	0.02	4.74
Chemical discharge	Ton	0.002	0.002	8.5

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Water Usage

Category		Unit	2022	2023	2024
Total	Total water consumption	m ³	467,714	540,001	532,495
	Total water withdrawal	m ³	270,259	308,891	345,229
	Groundwater	m ³	99,429	100,331	98,734
	External organization	m ³	170,830	208,560	246,495
	Reuse	m ³	197,455	231,110	187,266
	Reuse rate	%	42	43	35
	Total discharge ¹⁾	m ³	88,630	109,601	89,910
	Total consumption	m ³	181,629	199,290	255,319
	Water consumption intensity ²⁾	m ³ /100 million KRW	48	54	43
	Total water withdrawal	m ³	140,256	176,875	188,250
Seotan factory	Groundwater	m ³	70,536	77,208	73,270
	External organization	m ³	69,720	99,667	114,980
	Reuse	m ³	197,455	231,110	187,266
	Total discharge	m ³	80,276	98,366	79,053
	Total consumption	m ³	59,980	78,509	109,197
Pyeongtaek factory	Total water intake	m ³	21,876	18,576	18,288
	Groundwater	m ³	21,876	18,576	18,288
	External organization	m ³	0	0	0
	Total discharge	m ³	6,352	9,365	8,981
	Total consumption	m ³	15,524	9,211	9,307
Songtan factory ³⁾	Total water intake	m ³	6,278	6,415	9,907
	Groundwater	m ³	6,112	4,061	7,176
	External organization	m ³	166	2,354	2,731
	Total discharge	m ³	2,002	1,870	1,876
	Total consumption	m ³	4,276	4,545	8,031
Gasan factory	Total water intake	m ³	905	6,153	11,681
	Groundwater	m ³	905	486	0
	External organization	m ³	0	5,667	11,681
	Total discharge	m ³	0	0	0
	Total consumption	m ³	905	6,153	11,681
Research Institute	Total water intake	m ³	100,944	100,872	117,103
	Groundwater	m ³	0	0	0
	External organization	m ³	100,944	100,872	117,103
	Total discharge	m ³	0	0	0
	Total consumption	m ³	100,944	100,872	117,103

1) Based on freshwater (same for all facilities)

2) Based on separate sales

3) Data correction due to changes in the discharge volume calculation criteria

Waste

Category		Unit	2022	2023	2024
Generated	Subtotal	Ton	897	972	1,191
	Designated waste	Ton	37	31	32
	General waste	Ton	860	942	1,159
	Subtotal	Ton	53	36	27
Disposed	Designated waste	By type	Landfill	Ton	0
		By method	Incineration	Ton	31
		By type	Internal	Ton	0
		By method	External	Ton	31
	General waste	By type	Landfill	Ton	23
		By method	Incineration	Ton	0
		By type	Internal	Ton	0
		By method	External	Ton	23
Recycled	Subtotal	Ton	844	937	1,164
	Waste-to-resource ratio	%	94	96	98
	Designated	By type	Processed for reuse	Ton	0
		Waste	Recycled	Ton	7
General	By method	Internal	Ton	0	0
		External	Ton	7	4
		By type	Processed for reuse	Ton	278
		Waste	Ton	560	774
	By method	Internal	Ton	0	0
		External	Ton	837	933
		By type	Processed for reuse	Ton	277
		Waste	Ton	560	774
Intensity	Waste generation intensity		Ton/100 million KRW	0.092	0.098
				0.096	

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Employee Status¹⁾

Category		Unit	2022	2023	2024	
Total number of employees		Persons	1,500	1,646	1,787	
Subtotal		Persons	8	8	9	
By gender	Male	Persons	8	8	9	
	Female	Persons	0	0	0	
Registered Executives ²⁾	Under 30 years old	Persons	0	0	0	
By age	30 To under 50 years old	Persons	1	1	1	
	50 Years old and above	Persons	7	7	8	
Subtotal		Persons	1,492	1,638	1,778	
By gender	Male	Persons	1,163	1,247	1,304	
	Female	Persons	151	173	184	
By country	South Korea	Persons	1,314	1,419	1,488	
	China	Persons	0	1	0	
By employment type	Full-time	Under 30 years old	231	271	257	
	By age	30 To under 50 years old	919	979	1,041	
		50 Years old and above	164	170	190	
Employees	Part-time (fixed-term)	Male	158	196	254	
		Female	20	22	36	
	By country	South Korea	Persons	178	218	290
	By gender	Male	141	145	152	
		Female	4	6	7	
By Position	Team Leader level and above ³⁾	Under 30 years old	0	0	0	
	By age	30 To under 50 years old	72	79	86	
		50 Years old and above	73	72	73	
	By gender	Male	1,180	1,298	1,406	
		Female	167	189	213	
	Staff ⁴⁾	Under 30 years old	320	369	376	
	By age	30 To under 50 years old	924	997	1,092	
		50 Years old and above	103	121	151	

Employees	By job	Category		Unit	2022	2023	2024
		By gender	By age	Male	Persons	127	169
Planning & Support	By age	Female	Under 30 years old	Persons	34	45	44
		Male	30 To under 50 years old	Persons	41	51	36
		Female	50 Years old and above	Persons	101	132	123
	By gender	Male	Under 30 years old	Persons	19	31	20
		Female	30 To under 50 years old	Persons	223	225	281
		Male	50 Years old and above	Persons	54	59	69
Sales, Marketing, and service	By age	Female	Under 30 years old	Persons	49	44	48
		Male	30 To under 50 years old	Persons	199	210	256
		Female	50 Years old and above	Persons	29	30	46
	By gender	Male	Under 30 years old	Persons	29	30	46
		Female	30 To under 50 years old	Persons	675	710	780
		Male	50 Years old and above	Persons	49	55	64
Production and quality	By age	Female	Under 30 years old	Persons	169	199	224
		Male	30 To under 50 years old	Persons	452	466	512
		Female	50 Years old and above	Persons	103	100	108
	By gender	Male	Under 30 years old	Persons	103	100	108
		Female	30 To under 50 years old	Persons	296	339	345
		Male	50 Years old and above	Persons	34	36	38
R&D	By age	Female	Under 30 years old	Persons	61	75	64
		Male	30 To under 50 years old	Persons	244	268	285
		Female	50 Years old and above	Persons	25	32	34
	By gender	Male	Under 30 years old	Persons	25	32	34
		Female	30 To under 50 years old	Persons	61	75	64
		Male	50 Years old and above	Persons	244	268	285

1) Number of employees as of the end of the current year

2) Includes one full-time auditor

3) Excludes team leader level and above, and registered executives

4) Excludes team leader level and above

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Diversity

Category		Unit	2022	2023	2024
Persons with Disabilities ¹⁾	Number of employees with disabilities	Persons	7	30	47
	Employment rate of persons with disabilities	%	0.49	1.88	2.64
National Veterans	Number of national veteran employees	Persons	10	10	10
	Employment rate of national veterans	%	0.67	0.61	0.56
Female	Number of female employees ²⁾	Persons	151	173	184
	Percentage of female employees ²⁾	%	10.1	10.6	10.3
	Number of female managers	Persons	4	6	7
	Number of female executives ³⁾	Persons	2	2	2
Female non-registered executives ratio		%	8	8	6

1) Based on the 'Korea Employment Agency for Persons with Disabilities (KEAD)' performance report

2) Based on employees with indefinite-term contracts

3) Includes female registered and non-registered executives

Recruitment

Category		Unit	2022	2023	2024
New hires ¹⁾	Total number of new hires	Persons	238	192	175
	New hire rate	%	18	14	12
	By gender	Male	196	152	146
		Female	42	40	29
	By Age	Under 30 years old	Persons	108	91
		30 years old and above	Persons	128	97
		Under 50 years old	Persons	2	4
	By Region	50 years old and above	Persons	2	4
		South Korea	Persons	238	191
		China	Persons	0	1

1) Based on employees with no fixed term of employment

Retention¹⁾

Category		Unit	2022	2023	2024
Average years of service	Subtotal	Years	7.3	6.9	6.9
	By Gener	Male	Years	7.4	7.1
		Female	Years	6.0	5.4
					5.3

1) Based on employees with no fixed term of employment

Turnover

Category		Unit	2022	2023	2024
Number of turnovers	Total number of turnovers	Persons	199	141	132
	By Gender	Male	Persons	175	119
		Female	Persons	24	22
	By age	Under 30 years old	Persons	56	34
		30 Years old and above under 50 years old	Persons	119	97
		50 Years old and above	Persons	24	10
	By Region	South korea	Persons	199	141
		Total turnover rate	%	13.34	8.61
	Turnover rate	Voluntary turnover rate	%	12.06	7.42
				8.12	6.92

Parental Leave

Category		Unit	2022	2023	2024
Employees taking parental leave ¹⁾	Subtotal	Persons	23	22	24
	Male	Persons	14	19	19
	Female	Persons	9	3	5
	Employees who returned from parental leave	Subtotal	Persons	12	23
		Male	Persons	7	18
		Female	Persons	5	5
	Employees with over one year of service since returning from parental leave	Subtotal	Persons	4	8
		Male	Persons	3	3
		Female	Persons	1	5
	Return rate from parental leave	Subtotal	%	80	85
		Male	%	70	90
		Female	%	100	71
Percentage of employees with over one year of service since returning from parental leave	Subtotal	%	100	57	48
	Male	%	100	33	33
	Female	%	100	100	100

1) Based on start time of use of parental leave

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Equal Opportunity

Category		Unit	2022	2023	2024
Female salary ratio	Compared to male ¹⁾	G1	%	100	100
		G2	%	99	98
		G3	%	99	98
		G4	%	110	112
Average salary per person	By gender	Male	Million KRW	67	60
		Female	Million KRW	53	50

1) Ratio based on full-time G job group; positions are structured in order from G1 to G4

Non-discrimination

Category		Unit	2022	2023	2024
Discrimination Cases ¹⁾	Number of discrimination cases	Cases	0	0	0
	Under investigation	Cases	0	0	0
Discrimination case management status	Action plan established	Cases	0	0	0
	Action completed	Cases	0	0	0

1) Number of reports related to human rights issues

Labor-Management Relations

Category		Unit	2022	2023	2024
Labor-management council meetings held		Times	9	9	5

Health and Safety Management System¹⁾

Category		Unit	2022	2023	2024
Percentage of business sites with health and safety certification	%	100	100	100	100
Percentage of workers covered by health and safety certification	%	100	100	100	100

1) Based on all employees and non-affiliated workers

Occupational Accidents

Category		Unit	2022	2023	2024
Employees	Number of occupational accidents	Cases	1	1	1
	Occupational accident rate ¹⁾	%	0.07	0.06	0.06
	Lost time injury (LTI)	Cases	1	1	1
	Lost time incident rate (LTIR) ²⁾	-	0.05	0.06	0.06
	Recordable incidents(RI)	Cases	2	1	1
	Total recordable incident rate (TRIR) ³⁾	-	0.11	0.06	0.06
	Fatality (FAT)	Cases	0	0	0
	Fatality rate ⁴⁾	-	0	0	0
Non-Affiliated workers	Total working hours	Hours	3,703,881	3,298,398	3,615,928
	Recordable incidents(RI)	Cases	1	0	1
	Total recordable incident rate (TRIR) ³⁾	-	0.16	0	0.23
	Work-related severe injury	Cases	0	0	0
	Work-related severe injury rate	-	0	0	0
	Fatality (FAT)	Cases	0	0	0
	Fatality rate ⁴⁾	-	0	0	0
	Total working hours	Hours	1,234,627	1,421,653	868,504

1) Occupational Accident Rate = (Number of occupational Accidents / Total Number of employees) x 100

2)) LTIR = (Number of Lost Time Injuries / Total Working Hours) X 200,000

3) TRIR = (Number of Recordable Incidents / Total Working Hours) x 200,000

4) Fatality Rate = (Total number of work-related fatalities/ Total Working Hours) x 200,000

Occupational Diseases

Category		Unit	2022	2023	2024
Employees	Number of deaths caused by occupational disease	Cases	0	0	0
	Number of occupational diseases	Cases	1	1	0
Non-affiliated workers	Number of deaths caused by occupational disease	Cases	0	0	0
	Number of occupational diseases	Cases	1	0	0

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Employee Training

Category		Unit	2022	2023	2024
Training status ¹⁾	Total number of employees completed training	Persons	1,524	1,532	1,732
	Training completion rate	%	102	94	97
	Total training hours	Hours	37,289	31,340	31,645
	Average training hours per employee	Hours/Person	24.99	19.13	17.80
	By gender	Male	Hours/Person	24.23	18.17
		Female	Hours/Person	30.87	26.23
	Average training hours per person	Manager	Hours/Person	20.74	14.53
		Staff	Hours/Person	25.45	19.60
	Total training costs	Million KRW	599	1,248	1,224
	Average training costs per employee	Million KRW/Person	0.60	0.76	0.69
Regular performance evaluation ²⁾	Subtotal		%	90	90
	Percentage of employees receiving regular performance assessment	Male	%	91	91
		Female	%	85	81
	By position level	Manager	%	74	79
		Staff	%	92	91
					94

1) Training performance for all employees (including non-registered executives), aggregated based on total in-house and external company-wide training hours

2) Based on full-time personnel

Marketing and Labeling

Category		Unit	2022	2023	2024
Violations of labeling and advertising related laws/regulations	Penalties	Cases	0	0	0
	Warnings	Cases	0	0	0
	Violation of internal regulations	Cases	0	0	0

Product Health and Safety Impact

Category		Unit	2022	2023	2024
Health and safety impact assessment for key products	Percentage of major product groups subject to health and safety impact assessment	%	100	100	100
Violations of health and safety laws/regulations ¹⁾	Penalties	Cases	0	0	0
	Warnings	Cases	0	0	0
	Number of internal regulation violations	Cases	0	0	0
Recalls ²⁾	Total number of recalls	Cases	0	0	0

1) Numerical changes for 2022-2023 due to change in counting method based on Business Report standards

2) Domestic standard (excluding voluntary recovery actions)

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Governance Performance

Board of Directors and Board Committees

Category		Unit	2022	2023	2024
Board of directors	Meetings held	Times	6	6	6
	Subtotal	Persons	7	7	8
	Executive director	Number of executive directors	4	4	5
	Independent director	Number of independent directors	3	3	3
	Independent director	Independent director ratio	42.9	42.9	37.5
	Female director	Number of female directors	0	0	0
	Female director	Female director ratio	0	0	0
	Subtotal	%	100	100	93
	Executive director	%	100	100	96
	Independent director	%	100	100	89
Agenda ¹⁾	Number of agenda items	Items	20	15	19
	Ratio of agenda items with amendments/ supplements/opposition opinions	%	0	0	0
	Subtotal	Persons	4	4	5
	Number of executive directors	Persons	4	4	5
Board committee	Number of independent directors	Persons	0	0	0
	Meetings held	Number	22	11	18
	Number of agenda	Cases	25	14	21

1) Based on agenda items excluding reports

Auditor

Category		Unit	2022	2023	2024
Audit	Subtotal	Persons	1	1	1
	Statutory auditor	Persons	1	1	1
	Non-statutory auditor	Persons	0	0	0
	Long-term service	Persons	0	0	0
	Audittraining completion rate	%	100	100	100

Independent Director Expertise

Category		Unit	2022	2023	2024
Industry expertise	Number of independent directors with industry expertise	Persons	2	2	2
	Percentage of independent directors with industry expertise	%	67	67	67

Compliance

Category		Unit	2022	2023	2024
Violations of laws/regulations ¹⁾	Monetary sanctions	Cases	1	0	0
	Non-monetary sanctions ²⁾	Cases	0	0	0
Total payment	Amount incurred during current period ³⁾	Million KRW	0	0	0
	Amount incurred during previous period ⁴⁾	Million KRW	1,245	0	0

1) Based on violations of laws under the jurisdiction of the Fair Trade Commission

2) Number of non-monetary sanctions such as warnings or higher imposed during the reporting period related to anti-competitive acts (excluding cases combined with monetary sanctions)

3) Payment amounts related to cases occurred during the reporting period and related to anti-competitive acts

4) Payment amounts related to anti-competitive conduct cases that occurred and were resolved during the reporting period

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Ethics and Fair Trade

	Category	Unit	2022	2023	2024
Ethics	Ethics training	Number of executives who completed ethics education	Persons	5	5
		Percentage of executives who completed ethics education	%	62.5	62.5
	Violation of code of ethics	Number of employees who completed ethics education	Persons	1,429	1,451
		Percentage of employees who completed ethics training	%	95.8	88.6
Anti-corruption	Anti-corruption training	Violation of code of ethics	Cases	10	4
		Number of employees who violated the code of ethics	Persons	15	5
		Number of executives who completed anti-corruption training	Persons	5	5
		Percentage of executives who completed anti-corruption training	%	62.5	62.5
		Number of employees who completed anti-corruption training	Persons	1,429	1,451
	Integrity agreement/supplier code of conduct pledge	Percentage of employees who completed anti-corruption training	%	95.8	88.6
		Number of signed suppliers ¹⁾	Count	279	306
		Percentage of signed suppliers	%	96	98
		Corruption cases	Cases	4	2
		Disciplinary actions taken	Count	3	2
Anti-competitive behavior ²⁾	Corruption cases	Discipline Dismissals	Count	3	1
		Partner contract terminations due to corruption cases	Count	0	0
	Concluded legal cases	Corruption-related legal measures	Count	0	0
		Concluded legal cases	Cases	3	1
		Concluded legal cases	Cases	3	1

1) Based on domestic suppliers who have submitted the Integrity Cooperation Agreement and the Code of Conduct pledge

2) Based on completion of administrative sanctions and appeal procedures (administrative litigation) by administrative agencies due to major legal violations under the jurisdiction of the Fair Trade Commission (Monopoly Regulation and Fair Trade Act, Fair Transactions in Subcontracting Act, Fair Agency Transactions Act, Act on Fair Labeling and Advertising, etc.)

3) Legal cases due to non-compliance with other companies' regulations are excluded

Stakeholder Value Creation and Distribution

	Category	Unit	2022	2023	2024
Government	Income tax	Income before tax	Million KRW	72,724	107,292
		Income tax expenses	Million KRW	19,142	24,143
		Effective tax rate	%	26	23
		Income taxes paid	Million KRW	45,468	30,141
		Rate of taxes paid	%	63	28
Shareholders and investors	Dividends		Million KRW	7,226	7,949
		Interest expense	Million KRW	7,336	9,347
Local communities	Donations		Million KRW	1,112	1,449
		Subtotal	Million KRW	97,967	94,771
Employee	Salary	Total salary	Million KRW	88,927	85,183
		Male	Ratio to legal minimum wage	%	158
		Total salary	Million KRW	9,040	9,589
		Female	Ratio to legal minimum wage	%	158
		Employee benefits	Million KRW	22,590	26,736

Government Subsidies

	Category	Unit	2022	2023	2024
	R&D grants	Million KRW	415	334	79

Retirement Pension¹⁾

	Category	Unit	2022	2023	2024
	Present value of defined benefit obligation	Million KRW	45,426	52,224	59,705
	Fair value of plan assets	Million KRW	59,445	60,104	64,721

1) separate basis

Procurement Practices

	Category	Unit	2022	2023	2024
	Proportion of spending on local suppliers	%	58	63	62

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	2-25	Processes to remediate negative impacts	54, 57, 63	
	2-26	Mechanisms for seeking advice and raising concerns	16, 67, 86	
	2-27	Compliance with laws and regulations	96	
	2-28	Membership associations	104	
	2-29	Approach to stakeholder engagement	16	
	2-30	Collective bargaining agreements	49	
Material topics				
GRI 3: Material Topics 2021	3-1	Process to determine material topics	12-13	
	3-2	List of material topics	14	
Eco-friendly Business Model				
GRI 3: Material Topics 2021	3-3	Management of material topics	15, 18-19	
Climate Change				
GRI 3: Material Topics 2021	3-3	Management of material topics	15, 21-31	
GRI 201: Economic Performance 2016	201-2	Financial implications and other risks and opportunities due to climate change	22-29	
	305-1	Direct (Scope 1) GHG emissions	30, 89, 105	
	305-2	Indirect (Scope 2) GHG emissions	30, 89, 105	
	305-3	Other indirect (Scope 3) GHG emissions	30, 89, 105	
	305-4	GHG emissions intensity	89, 105	
	305-5	Reduction of GHG emissions	30-31, 89, 105	
	305-6	Emissions of ozone-depleting substances (ODS)	-	Not Emitted, Not Applicable
GRI 305: Emissions 2016	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	90	

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GRI Index

Category		Contents																																																																																								
GRI Standards	Indicator	Contents	Page	Remarks																																																																																						
Usage Statement		KD Navien has reported non-financial performance for the period from January 1, 2024 to December 31, 2024 in accordance with GRI Standards.																																																																																								
Use of GRI 1		GRI 1: Foundation 2021																																																																																								
GRI Sector Standards		N/A																																																																																								
<table border="1"> <thead> <tr> <th>GRI Standards</th> <th>Indicator</th> <th>Contents</th> <th>Page</th> <th>Remarks</th> <th></th> </tr> </thead> <tbody> <tr> <td colspan="6">Supply Chain Control</td></tr> <tr> <td>GRI 3: Material Topics 2021</td><td>3-3</td><td>Management of material topics</td><td>15, 64~68</td><td></td><td></td></tr> <tr> <td rowspan="2">GRI 308: Supplier Environmental Assessment 2016</td><td>308-1</td><td>New suppliers that were screened using environmental criteria</td><td>-</td><td>Not Applicable</td><td></td></tr> <tr> <td>308-2</td><td>Negative environmental impacts in the supply chain and actions taken</td><td>67</td><td></td><td></td></tr> <tr> <td rowspan="2">GRI 414: Supplier Social Assessment 2016</td><td>414-1</td><td>New suppliers that were screened using social criteria</td><td>65, 96</td><td></td><td></td></tr> <tr> <td>414-2</td><td>Significant negative social impacts in the supply chain and actions taken</td><td>-</td><td>Not Applicable</td><td></td></tr> <tr> <td colspan="6">Protect Consumer Rights</td></tr> <tr> <td>GRI 3: Material Topics 2021</td><td>3-3</td><td>Management of material topics</td><td>15, 55~60</td><td></td><td></td></tr> <tr> <td rowspan="2">GRI 416: Customer Health and Safety 2016</td><td>416-1</td><td>Assessment of the health and safety impacts of product and service categories</td><td>59, 95</td><td></td><td></td></tr> <tr> <td>416-2</td><td>Incidents of non-compliance concerning the health and safety impacts on products and services</td><td>95</td><td></td><td></td></tr> <tr> <td rowspan="3">GRI 417: Marketing and Labeling 2016</td><td>417-1</td><td>Requirements for product and service information and labeling</td><td>60</td><td></td><td></td></tr> <tr> <td>417-2</td><td>Incidents of non-compliance concerning product and service information and labeling</td><td>95</td><td></td><td></td></tr> <tr> <td>417-3</td><td>Incidents of non-compliance concerning marketing communications</td><td>95</td><td></td><td></td></tr> <tr> <td>GRI 418: Customer Privacy 2016</td><td>418-1</td><td>Substantiated complaints concerning breaches of customer privacy and losses of customer data</td><td>-</td><td>Not Applicable</td><td></td></tr> </tbody> </table>						GRI Standards	Indicator	Contents	Page	Remarks		Supply Chain Control						GRI 3: Material Topics 2021	3-3	Management of material topics	15, 64~68			GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	-	Not Applicable		308-2	Negative environmental impacts in the supply chain and actions taken	67			GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	65, 96			414-2	Significant negative social impacts in the supply chain and actions taken	-	Not Applicable		Protect Consumer Rights						GRI 3: Material Topics 2021	3-3	Management of material topics	15, 55~60			GRI 416: Customer Health and Safety 2016	416-1	Assessment of the health and safety impacts of product and service categories	59, 95			416-2	Incidents of non-compliance concerning the health and safety impacts on products and services	95			GRI 417: Marketing and Labeling 2016	417-1	Requirements for product and service information and labeling	60			417-2	Incidents of non-compliance concerning product and service information and labeling	95			417-3	Incidents of non-compliance concerning marketing communications	95			GRI 418: Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	-	Not Applicable	
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GRI Standards	Indicator	Contents	Page	Remarks
Work Environment				
GRI 3: Material Topics 2021	3-3	Management of material topics	15, 46~52	
	401-1	New employee hires and employee turnover	93	
GRI 401: Employment 2016	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	46	
	401-3	Parental leave	93	
GRI 402: Labor/Management Relations 2016	402-1	Minimum notice periods regarding operational changes	-	Not Applicable
	404-1	Average hours of training per year per employee	95	
GRI 404: Training and Education 2016	404-2	Programs for upgrading employee skills and transition assistance	52	
	404-3	Percentage of employees receiving regular performance and career development reviews	95	
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	76, 92	
	405-2	Ratio of basic salary and renumeration of women to men	94	
GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	94	

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GRI Standards	Indicator	Contents	Page	Remarks
Non-material topics				
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	7, 88, 97	
	201-3	Defined benefit plan obligations and other retirement plans	97	
	201-4	Financial assistance received from government	97	
GRI 202: Market Presence 2016	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	97	
	202-2	Proportion of senior management hired from the local community	-	Not Applicable
GRI 203: Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	72-74	
	203-2	Significant indirect economic impacts	18-19, 72	
GRI 204: Procurement Practices 2016	204-1	Proportion of spending on local suppliers	97	
GRI 205: Anti-corruption 2016	205-1	Operations assessed for risks related to corruption	84, 86	
	205-2	Communication and training about anti-corruption policies and procedures	85-86, 97	
	205-3	Confirmed incidents of corruption and actions taken	97	
GRI 206: Anti-competitive Behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	97	
GRI 207: Tax 2019	207-1	Approach to tax	81-82	
	207-2	Tax governance, control, and risk management	82	
	207-3	Stakeholder engagement and management of concerns related to tax	16	
	207-4	Country-by-country reporting	97	
GRI 302: Energy 2016	302-1	Energy consumption within the organization	90, 101	
	302-2	Energy consumption outside of the organization	-	Not Applicable
	302-3	Energy intensity	90	
	302-4	Reduction of energy consumption	90	
GRI 303: Water and Effluents 2018	303-1	Interaction with water as a shared resource	36-37, 91	
	303-2	Management of water discharge-related impacts	36-37	
	303-3	Water withdrawal	91	
	303-4	Water discharge	91	
	303-5	Water consumption	91	

GRI Standards	Indicator	Contents	Page	Remarks
Non-material topics				
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	38	
	306-2	Management of significant waste-related impacts	38	
	306-3	Waste generated	91	
GRI 403: Occupational Health and Safety 2018	306-4	Waste diverted from disposal	38, 91	
	306-5	Waste directed to disposal	91	
	403-1	Occupational health and safety management system	40	
GRI 403: Occupational Health and Safety 2018	403-2	Hazard identification, risk assessment, incident investigation	41-42	
	403-3	Occupational health services	41-45	
	403-4	Worker participation, consultation, and incident investigation	16, 42, 49	
GRI 403: Occupational Health and Safety 2018	403-5	Worker training on occupational health and safety	45	
	403-6	Promotion of worker health	44	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	41-44	
GRI 403: Occupational Health and Safety 2018	403-8	Workers covered by an occupational health and safety management	40, 94	
	403-9	Work-related injuries	94	
	403-10	Work-related ill health	94	

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SASB Index

Resource Transformation (Electrical & Electronic Equipment)

Sustainability Disclosure Topics & Accounting Metrics

Category		Disclosure Item	Unit	2022	2023	2024	Remarks
Energy Management	RT-EE-130a.1	Total energy consumed	TJ	266.01	263.59	286.13	
		Percentage grid electricity	%	100	100	100	
		Percentage renewable	%	0	0	0.2	Solar panel facility installation in 2023
Hazardous Waste Management	RT-EE-150a.1	Hazardous waste generated	Metric tons (t)	37.37	30.71	31.51	
		Hazardous waste recycling ratio	%	18	14	14	
Product Safety	RT-EE-150a.2	Number of reportable spills	Cases	0	0	0	No reported spills
		Total amount of hazardous spills	kg	0	0	0	
		Recovered amount of hazardous spills	kg	0	0	0	
Product Lifecycle Management	RT-EE-250a.1	Number of recall announcements	Cases	0	0	0	Domestic standard (excluding voluntary recalls)
		Total units of recalled products	Units	0	0	0	
		Total monetary loss due to legal proceedings related to product safety	Million KRW	0	0	0	Based on Annual Report
Material Sourcing	RT-EE-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances	%	-	-	-	Not applicable
	RT-EE-410a.2	Percentage of eligible products, by revenue, that meet ENERGY STAR® criteria	Million KRW	633,054	611,972	818,975	Based on own eco-friendly sales criteria (U.S.)
	RT-EE-410a.3	Revenue from renewable energy-related and energy efficiency-related products	Million KRW	-	-	-	Refer to p. 35
Business Ethics	RT-EE-440a.1	Description of the management of risks associated with the use of critical materials	N/A	-	-	-	Not applicable
		1) Description of policies and practices to prevent corruption and bribery	N/A	-	-	-	Refer to pp. 64, pp. 83-86
	RT-EE-510a.2	2) Description of policies and practices to prevent anti-competitive behavior	N/A	-	-	-	
	RT-EE-510a.2	Total monetary losses as a result of legal proceedings associated with bribery or corruption	Million KRW	0	0	0	Based on Annual Report
	RT-EE-510a.3	Total monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations	Million KRW	1,245	0	0	Excludes internal costs incurred before incidents/litigation, fees paid to appraisers/agents, and costs for implementation after resolutions/judgments

Activity Metrics

Category	Disclosure Item	Unit	2022	2023	2024	Remarks
RT-EE-000. A	Number of products produced by product category	Units	1,332,007	1,338,814	1,538,905	
RT-EE-000. B	Number of employees	Persons	1,500	1,646	1,787	Including Registered Executives

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TCFD Index

Category	TCFD Recommendations	Page
Governance	Description of Board's oversight of climate-related risks and opportunities	21
	Describe the management's role in assessing and managing climate-related risks and opportunities	21
Strategy	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	22~23, 26~27
	Describe the impact of climate-related risks and opportunities on the organization's business, strategy, and financial planning	25, 27~28
	Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	27~28
Risk Management	Describe the organization's processes for identifying and assessing climate-related risks	22, 26
	Describe the organization's processes for managing climate-related risks	29
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	29
Metrics and Targets	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	29
	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	24~25, 27, 30~31
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	30~31

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UN SDGs

Goal	KD Navien 2024 Key Activities		Page
 1 NO POVERTY	No Poverty	<ul style="list-style-type: none"> Support activities for winter heating products targeting elderly living alone and low-income groups (Sponsorship of 2,000 sleep mattress pads) 	71~72
 4 QUALITY EDUCATION	Quality Education	<ul style="list-style-type: none"> Implementation of core education by level and effectiveness assessment for all employees (Course satisfaction: 4.7/5) ESG management theory education to raise ESG awareness (140 employees from related departments of the ESG Working Group) 	11, 46~52
 6 CLEAN WATER AND SANITATION	Clean Water and Sanitation	<ul style="list-style-type: none"> Utilization of reused water through water resource management process operation at Seotan factory (Reuse rate achieved: 35%) Reduction of T-P (total phosphorus) emission concentration and improvement of wastewater quality through enhancement of high-concentration wastewater treatment process at Pyeongtaek factory 	36~37
 7 AFFORDABLE AND CLEAN ENERGY	Affordable and Clean Energy	<ul style="list-style-type: none"> Installation of 370 kWh solar PV facilities at the U.S. subsidiary to reduce greenhouse gas emissions and transition to renewable energy; Production of 139,521 kWh electricity through solar power generation facilities at the U.S. subsidiary 	18~19, 31
 8 DECENT WORK AND ECONOMIC GROWTH	Decent Work and Economic Growth	<ul style="list-style-type: none"> Signing of business agreements with Korea Employment Agency for the Disabled and Pyeongtaek Disabled Sports Association to expand employment for persons with disabilities; establishment of KD Disabled Sports Team Operation of grievance handling channel to receive and address grievances from employees and suppliers' staff 	51, 54, 67
 11 SUSTAINABLE CITIES AND COMMUNITIES	Sustainable Cities and Communities	<ul style="list-style-type: none"> Expansion of eco-friendly lineup by developing hydrogen boilers and electric heat pump technologies Cost support for replacement and installation of eco-friendly condensing boilers for low-income households (Additional support for 6,411 boiler replacements) Community sponsorship activities by Uzbekistan subsidiary 	18~19, 72, 74
 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Responsible Consumption and Production	<ul style="list-style-type: none"> Hazard reduction activities for hazardous chemicals (methanol, zinc oxide, aluminum chloride) Reduction in waste generated due to recycling and changes in waste treatment methods (50% reduction in wood waste, 21 tons reduction in landfill waste) 	32~38
 13 CLIMATE ACTION	Climate Action	<ul style="list-style-type: none"> Implementation of greenhouse gas emission management (Scope 1, 2, 3) and reduction activities Response to climate change initiatives (TCFD disclosure, voluntary participation in CDP with B grade) 	21~31, 33
 16 PEACE, JUSTICE AND STRONG INSTITUTIONS	Peace, Justice and Strong Institutions	<ul style="list-style-type: none"> Operation of ethical management reporting channel and disciplinary actions for ethical management violations (Total 18 cases) Ethical management education for new hires and all employees (100% completion rate) 	85~86

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Memberships and Awards

Association Name	Purpose of Membership
Korea Information and Communication Technology Association	Participation in standardization committee activities, access to standardization committee materials, and monitoring technology standard trends
ASHRAE	Acquisition of journals to understand the latest trends in heating, refrigeration, and air conditioning technologies
Connectivity Standards Alliance	Incorporation of Zigbee global Standard (Matter) and securing CSA Membership qualification
Korea Mechanical Equipment Construction Association	Renewal of construction capability assessment through reporting specialized construction business performance and updating license upon business scope changes
The Korean Society of Mechanical Engineers	Monitoring technology trends related to mechanical engineering and maintaining collaboration with external technical institutions
The Korean Society of Facility Engineering	Sharing information on attendance at various seminars, academic conferences, lectures, and training sessions
Occupational Health Association	Development of health manager competencies and identification of areas for improvement
Korea Fair Trade Federation	Collecting trends and information from the Fair Trade Commission, submitting opinions on amendments to laws and administrative regulations
Korea Advertisers Association	Sharing new media trends and building relationships with expert groups
Korea Machinery Industry Promotion Association	Supporting member companies' R&D and fostering the machinery industry service sector
Korea Management Association	Monitoring HRD-related trends
Korea Remodeling Association	Understanding market trends through mutual exchange among member companies
Korea Industrial Technology Promotion Association	Maintaining certification of Technical Research Centers (HEATING, TAC, System, SH)
Korea Listed Companies Association	Obtaining information on relevant laws and amendments and responding effectively to policies
Korea Facility Technology Association	Monitoring technology trends, promoting company technology through lectures, supporting research projects
Korea AI Smart Home Industry Association	Promoting home network business, development, and advancing smart home-related projects
Korean Society of Indoor Environment	Gathering information related to indoor air quality and others
Korea Energy Equipment Industry Promotion Association	Promoting common interests and development of energy equipment manufacturers
Korean Combustion Society	Monitoring academic journals and technical papers related to the society
Korea Information and Communication Construction Association	Maintaining eligibility for public institution bidding sites and providing technical support for information and communication construction works
Korea Product Safety Association	Acquiring product safety technology information and managing difficulties in product safety certification
Korea Intellectual Property Association	Strengthening IP competitiveness, sharing information and know-how on IP management and patent dispute responses
Korean Standards Association	Obtaining KS standards, international standards (ISO, etc.) information, and managing completion of KS statutory education
Korea Ventilation Industry Association	Collecting information on preventing indoor air pollution through ventilation and air purification

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GHG Verification Statement

Kyungdong Navien Co., Ltd.

95, Suworam-gil, Seotan-myeon, Pyeongtaek-si, Gyeonggi-do

1. Verification Goal

The goals of greenhouse gas (GHG) emission verification (hereinafter referred to as 'verification') conducted by the Korean Standards Association are as follows.

- Confirming the conformity with standards and procedures of GHG emission and GHG emissions calculated within the scope of verification
- Checking the validity of declarations related to the organization's GHG emissions or removals
- Confirming the effective implementation of the organization's management of GHG emissions or removals
- Confirming the conformity of processes for implementing, managing and improving the organization's GHG emissions or removals estimates

2. Verification Scope

Korean Standards Association conducted limited assurance verification of Kyungdong Navien Co., Ltd. and its group companies' Scope1 and Scope2 GHG statement.

- Reporting Target : Domestic and Overseas sites under Financial Control
 - Domestic : Kyungdong Navien, Kyungdong Everon, Kyungdong Polym, Kyungdong TS, Time Kyeon Asia
 - Overseas : Navien, Inc., Navien Canada, Inc., Navien Mexico S.A. DE C.V., Navien Russia LLC, Beijing Kyungdong Navien Heat Energy Equipment Co., Ltd., Navien UK Ltd
- Boundary : Scope1(Direct emissions), Scope2(Indirect emissions)
 - Scope1 : Stationary combustion, Mobile combustion
 - Scope2 : Externally purchased power
- Year : January 1, 2024 to December 31, 2024

3. Verification Criteria and Guidelines

Korean Standards Association conducted verification according to the procedures stipulated in ISO 14064-3 : 2019.

- Calculation criteria
 - KS I ISO 14064-1 : 2018
 - Verification Guidelines for the Operation of the Greenhouse Gas Emissions Trading System (Ministry of Environment Notice No. 2025-64)
 - 2006 IPCC (Intergovernmental Panel on Climate Change) Guidelines
 - WRI (World Resources Institute) Greenhouse Gas Protocol

4. Level of assurance verification and Responsibility

Korea Standards Association provides verification at limited level of assurance to strengthen GHG management for your company's GHG emissions.

- On-site inspection : Visit to the Seotan factory of Kyungdong Navien Co., Ltd. and three other sites
- Method of confirmation
 - Interview with greenhouse gas emissions manager and field staff
 - Review of the management system and data used to calculate greenhouse gas emissions during the reporting period
 - Tracking review of internal documents and basic data

Kyungdong Navien Co., Ltd. and its group companies should provide fair data on information and evidence related to GHG emissions, and the KSA is limited to guaranteeing GHG emissions.

5. Verification Limit

GHG emissions can be affected by factors such as data limits and uncertainties in the scope of verification, and inherent limitations may exist accordingly.

6. Verification Conclusion

No errors or false facts were found in Kyungdong Navien Co., Ltd. and its group companies' GHG emissions verified through the ISO 14064-3 verification procedure within the scope of verification.

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Appendix. Greenhouse Gas Emissions and Energy Consumption

Category	Location-based emissions (tCO ₂ -eq)			Market-based emissions (tCO ₂ -eq)			Energy usage (GJ)
	Scope1	Scope2	Total	Scope1	Scope2	Total	
KD Navien	3,631	10,367	13,989	3,631	10,367	13,989	285,622
KD Everon	288	14,321	14,605	288	14,321	14,605	303,585
KD Polym	10	3,267	3,274	10	3,267	3,274	68,400
Kyundong TS	792	423	1,203	792	423	1,203	21,354
Time Kyeon Asia	-	121	120	-	121	120	2,518
Navien, Inc.	86	835	920	86	735	821	8,857
NAVIENT CANADA, INC.	12	7	19	12	7	19	305
NAVIENT MEXICO S.A. DE C.V.	-	5	5	-	5	5	36
NAVIENT RUS LLC	19	87	106	19	87	106	637
Beijing Kyungdong Navien Heat Energy Equipment Co., Ltd.	106	1,068	1,173	106	1,068	1,173	6,050
NAVIENT UBK LLC	48	17	64	48	17	64	800
NAVIENT UK LTD	223	14	236	223	14	236	3,299
Total	5,214	30,530	35,714	5,214	30,430	35,615	701,463

*Note 1 : The overseas Corporation Hebei Kyungdong Navien Heat Energy Equipment Co., Ltd. (Hebei, China) was excluded from the calculation.

*Note 2 : The final GHG emissions was cut below the decimal point and expressed in integer units.

EVC-25-026-7

GHG Emission Verification Opinion

Kyungdong Navien Co., Ltd.
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1. Verification Goal
The goal of greenhouse gas (GHG) emission verification (hereinafter referred to as 'verification') conducted by the Korean Standards Association are as follows.
 • Confirming the conformity with standards and procedure of GHG emission and GHG emissions calculated with the organization's management system
 • Checking the validity of declarations related to the organization's GHG emissions or removals
 • Checking the conformity of processes of the organization's management of GHG emissions or removals
 • Confirming the conformity of processes for implementing, managing and improving the organization's GHG emissions or removals system.

2. Verification Scope
Korean Standards Association conducted limited assurance verification of Kyungdong Navien Co., Ltd. and its group companies' Scope1 and Scope2 GHG statement.
 • Reporting Target : Domestic and Overseas sites under Financial Control
 - Domestic : Kyungdong Navien Co., Ltd., Kyungdong Everon Co., Ltd., Kyungdong TS, Time Kyeon Asia - Overseas : Navien, Inc., Navien Canada, Inc., Navien Mexico S.A. DE C.V., Navien Russia LLC, Beijing Navien Co., Ltd.
 • Boundary / Scope1 (Direct emissions), Scope2 (Market emissions)
 - Scope1 : Stationary combustion, Mobile combustion
 - Scope2 : Purchased electricity, Purchased steam
 • Year : January 1, 2024 to December 31, 2024

3. Verification Criteria and Guidelines
Korean Standards Association conducted verification according to the procedures stipulated in ISO 14064-3 and IAF/IAF-16.

4. Level of assurance verification and Responsibility
Korean Standards Association provides verification at limited level of assurance to strengthen GHG management system.
 • On-site inspection : Visit to the Seoan Plant of Kyungdong Navien Co., Ltd. and three other sites
 • Management system review : Interview with greenhouse gas emissions manager and field staff
 - Review of the management system and data used to calculate greenhouse gas emissions during the verification
 - Tracking review of internal documents and basic data
 - Tracking review of internal documents and basic data

5. Verification Limit
GHG emissions can be affected by factors such as data limit and uncertainties in the scope of verification, and inherent limitations may exist accordingly.

6. Verification Conclusion
No errors or false facts were found in Kyungdong Navien Co., Ltd. and its group companies' GHG emissions verified through the ISO 14064-3 verification procedure within the scope of verification.

Appendix. GHG Emissions and Energy Consumption

Division	Location-based(tCO ₂ -eq)			Market-based(tCO ₂ -eq)			Energy Consumption (GJ)
	Scope1	Scope2	Subtotal	Scope1	Scope2	Subtotal	
Kyungdong Navien	3,631	10,367	13,989	3,631	10,367	13,989	285,622
Kyungdong Everon	288	14,321	14,605	288	14,321	14,605	303,585
Kyungdong Polym	10	3,267	3,274	10	3,267	3,274	68,400
Kyungdong TS	792	423	1,203	792	423	1,203	21,354
Time Kyeon Asia	-	121	120	-	121	120	2,518
Navien, Inc.	86	835	920	86	735	821	8,857
NAVEN CANADA, INC.	12	7	19	12	7	19	305
NAVEN MEXICO S.A. DE C.V.	-	5	5	-	5	5	36
NAVEN RUS LLC	19	87	106	19	87	106	637
Beijing Kyungdong Navien Heat Energy Equipment Co., Ltd.	106	1,068	1,173	106	1,068	1,173	6,050
NAVEN UK LTD	48	17	64	48	17	64	800
Total	5,214	30,530	35,714	5,214	30,430	35,615	701,463

X Note 1 : The overseas Corporation Hebei Kyungdong Navien Heat Energy Equipment Co., Ltd (Hebei, China) was excluded from the calculation.

X Note 2 : The final GHG emissions was cut below the decimal point and expressed in integer units.


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KSA IAF 국립환경과학원

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 **navien**
Sustainability Report 2024

Independence Assurance Statement

To readers of KD Navien Sustainability Report 2024

Introduction

Korea Management Registrar (KMR) was commissioned by KD Navien to conduct an independent assurance of its Sustainability Report 2024 (the "Report"). The data and its presentation in the Report is the sole responsibility of the management of KD Navien. KMR's responsibility is to perform an assurance engagement as agreed upon in our agreement with KD Navien and issue an assurance statement.

Scope and Standards

KD Navien described its sustainability performance and activities in the Report. Our Assurance Team carried out an assurance engagement in accordance with the AA1000AS v3 and KMR's assurance standard SRV1000. We are providing a Type 2, moderate level assurance. We evaluated the adherence to the AA1000AP (2018) principles of inclusivity, materiality, responsiveness and impact, and the reliability of the information and data provided using the Global Reporting Initiative (GRI) Index provided below. The opinion expressed in the Assurance Statement has been formed at the materiality of the professional judgment of our Assurance Team.

Confirmation that the Report was prepared in accordance with GRI standards 2021 was included in the scope of the assurance. We have reviewed the topic-specific disclosures of standards which were identified in the materiality assessment process.

- GRI Sustainability Reporting Standards 2021
- Universal standards
- Topic specific standards
 - GRI 201-2: Financial implications and other risks and opportunities due to climate change
 - GRI 305: Emissions
 - GRI 308: Supplier Environmental Assessment
 - GRI 401: Employment
 - GRI 402: Labor/Management Relations
 - GRI 404: Training and Education
 - GRI 405: Diversity and Equal Opportunity
 - GRI 406: Non-discrimination
 - GRI 414: Supplier Social Assessment

- GRI 416: Customer Health and Safety
- GRI 417: Marketing and Labeling
- GRI 418: Customer Privacy

As for the reporting boundary, the engagement excludes the data and information of KD Navien's partners, suppliers and any third parties.

KMR's Approach

To perform an assurance engagement within an agreed scope of assessment using the standards outlined above, our Assurance Team undertook the following activities as part of the engagement:

- reviewed the overall Report;
- reviewed materiality assessment methodology and the assessment report;
- evaluated sustainability strategies, performance data management system, and processes;
- interviewed people in charge of preparing the Report;
- reviewed the reliability of the Report's performance data and conducted data sampling;
- assessed the reliability of information using independent external sources such as Financial Supervisory Service's DART and public databases.

Limitations and Recommendations

KMR's assurance engagement is based on the assumption that the data and information provided by KD Navien to us as part of our review are provided in good faith. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied. To address this, we referred to independent external sources such as DART and National Greenhouse Gas Management System (NGMS) and public databases to challenge the quality and reliability of the information provided.

Conclusion and Opinion

KD Navien has developed and maintained different stakeholder communication channels at all levels to announce and fulfill its responsibilities to the stakeholders. Nothing comes to our attention to suggest that there is a key stakeholder group left out in the process. The organization makes efforts to properly reflect opinions and expectations into its strategies.

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To readers of KD Navien Sustainability Report 2024

Inclusivity

KD Navien has developed and maintained different stakeholder communication channels at all levels to announce and fulfill its responsibilities to the stakeholders. Nothing comes to our attention to suggest that there is a key stakeholder group left out in the process. The organization makes efforts to properly reflect opinions and expectations into its strategies.

Materiality

KD Navien has a unique materiality assessment process to decide the impact of issues identified on its sustainability performance. We have not found any material topics left out in the process.

Responsiveness

KD Navien prioritized material issues to provide a comprehensive, balanced report of performance, responses, and future plans regarding them. We did not find anything to suggest that data and information disclosed in the Report do not give a fair representation of KD Navien's actions.

Impact

KD Navien identifies and monitors the direct and indirect impacts of material topics found through the materiality assessment, and quantifies such impacts as much as possible.

Reliability of Specific Sustainability Performance Information

In addition to the adherence to AA1000AP (2018) principles, we have assessed the reliability of economic, environmental, and social performance data related to sustainability performance. We interviewed the in-charge persons and reviewed information on a sampling basis and supporting documents as well as external sources and public databases to confirm that the disclosed data is reliable. Any intentional error or misstatement is not noted from the data and information disclosed in the Report.

Competence and Independence

KMR maintains a comprehensive system of quality control including documented policies and procedures in accordance with ISO/IEC 17021:2015 - Requirements for bodies providing audit and certification of management systems. This engagement was carried out by an independent team of sustainability assurance professionals. KMR has no other contract with KD Navien and did not provide any services to Navien NAVIEN that could compromise the independence of our work.



June 2025 Seoul, Korea

CEO *E. J. Hwang*

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