

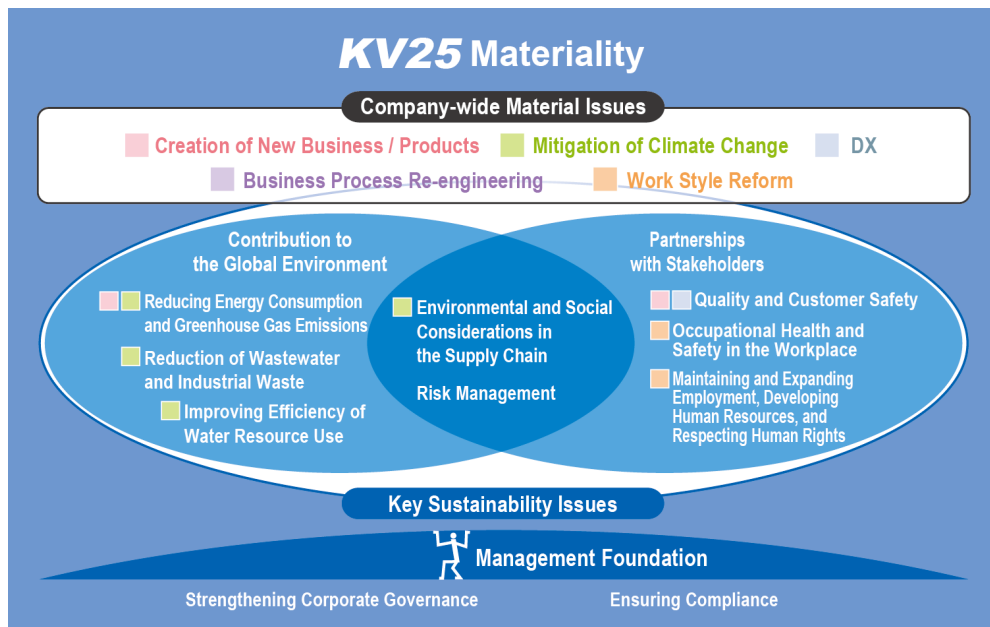
Important Issues (Materiality)

KV25 Materiality

In order to realize its mission of being a company with a strong presence that can consistently provide happiness and delight to the environment, society and all stakeholders under the **KAYAKU spirit**, the Nippon Kayaku Group has analyzed disparities between its goals and the current situation and identified five key company-wide material issues (materiality) to be addressed as priorities: Creation of New Business and Products, Mitigation of Climate Change, DX, Business Process Re-engineering and Work Style Reform.

We have also appropriately identified key themes faced by the Group in implementing sustainable management, from both internal and external perspectives, defined them as key sustainability issues (materiality), and formulated a Sustainability Action Plan linked to our business activities.

KV25 places top priority on addressing these company-wide material issues and the key sustainability issues that supplement them, to contribute to the creation of a sustainable environment and society based on our Basic Policy on Sustainable Management. **KV25** Materiality is a generic term combining these company-wide material issues and key sustainability issues.



* The "■" symbol in front of each key sustainability issue indicates that initiatives addressing company-wide material issues also link to initiatives addressing sustainability-related issues.

Company-wide Material Issues Initiatives

In order to realize its mission, the Nippon Kayaku Group analyzed disparities between its goals and the current situation and identified five key issues that should be prioritized in company-wide cross-organizational projects, as company-wide material issues: Creation of New Business and Products, Mitigation of Climate Change, DX, Business Process Re-engineering and Work Style Reform. Our Materiality Cross-Functional Team (M-CFT), composed of members selected from multiple divisions, is working to instill awareness of initiatives addressing company-wide material issues and speed up the resolution of each issue.

Company-wide material issues	Initiatives
Creation of New Business and Products	Creation of New Business and Products Team will collaborate with our three business units to create new businesses and products in the four fields of Mobility, Environment & Energy, Electronics, and Life Science, transcending the boundaries of existing organizational units and contributing to the realization of our mission.
Mitigation of Climate Change	We will work to prevent global warming—such as the reduction of greenhouse gases emissions—and achieve carbon neutrality, and make united efforts with each plant and research institute to combat climate change risks.
DX	Our current goals are to drive DX (digital transformation) throughout the Group, increase sales through process transformation, and expand our businesses by reducing costs. Specifically, we will work to achieve DX in the areas of (1) IT education and awareness reform, (2) strengthening IT infrastructure through ERP and IT infrastructure restructuring, etc., (3) R&D, production, sales/marketing and management business processes.
Business Process Re-engineering	We will work to improve our asset efficiency and earning power by reviewing our group business management, business operation / control (management) and cost control methods, and by improving work efficiency and productivity through A3 (KAIZEN)* activities aimed at business process improvement—to eliminate all kinds of waste—and cost reduction.
Work Style Reform	We will work to implement workstyle reforms and personnel system reforms to enable every employee to work energetically and increase employee engagement, with the aim of being a good, strong, energetic company.

* A3 activities (KAIZEN): Awareness reform activities—based on awareness of reducing costs—designed to develop individual and organizational strengths (skills and expertise) and autonomy, to make the Nippon Kayaku Group an energetic company.

Method for Identifying Key Sustainability Issues

To appropriately grasp issues facing the Nippon Kayaku Group from both internal and external perspectives and respond to the expectations and demands of stakeholders, the Group identified key medium-term CSR issues in 2019.

To coincide with the start of the new Medium-term Business Plan—**KAYAKU Vision 2025**—and the shift from CSR management to sustainable management, in April 2022, we changed the term "key CSR issues" to "key sustainability issues" and reviewed them in order to appropriately respond to the diversification of our business activities and various changes in social issues.

STEP 1

Recognition of themes

- We identified themes based on those identified in the GRI Standards on requirements demanded by our diversifying society, with the addition of the Group's previous key sustainability issues (**KAYAKU Next Stage** Medium-term Business Plan Key CSR Issues).

STEP 2

Creating point scores from internal and external opinions

- A. Point scores from external assessments
Industry-specific assessment standards for the Company from multiple international assessment bodies promoting responsible investment and SASB* industry-specific requirements were linked to key themes and converted into point scores as external evaluations.
- B. Point scores from internal assessments
The key themes of the Medium-term Business Plan for each internal business division and corporate division were linked to key themes and converted into point scores as internal evaluations.

* SASB: Sustainability Accounting Standards Board. A US-based non-profit organization that formulates and publishes industry-specific sustainability disclosure standards.

STEP 3

Mapping materialities

- The themes "strengthening corporate governance" and "thorough compliance" were identified as the most important issues for corporate survival, while other themes were mapped as materialities based on point-scored internal and external evaluations. Threshold values were added to a point-based map, with themes exceeding those values identified as materialities.

STEP 4

Validation and approval

- The methods used for identifying materialities and results obtained were reviewed by the Sustainable Management Committee—one of the Company's decision-making bodies—while at the same time incorporating the opinions of experts in the field of sustainability, and approved after two sessions of discussions.

Key Sustainability Issues Initiatives and KPIs

The Nippon Kayaku Group has formulated a Sustainability Action Plan linking its business activities with the identified key sustainability issues. We also utilize the SDG Compass to link each materiality with one or more of the 17 SDGs. By implementing initiatives to achieve the KPIs in the Sustainability Action Plan, we will contribute to the achievement of the SDGs and the creation of a sustainable society.

Key Sustainability Issues

We have classified our key sustainability issues into three categories—most important issues for corporate survival, most important issues, and important issues—and established action plans for each issue.



Sustainability Action Plan

The Nippon Kayaku Group's Sustainability Action Plan utilizes the SDG Compass to link each key issue (materiality) with one or more of the 17 SDGs. By managing and disclosing the progress of KPIs every year and implementing sustainability activities, the Group aims to create environmental, social and economic value, help to achieve the SDGs (i.e., to create a sustainable society) and increase corporate value.

	Key sustainability issues	Corresponding SDGs	Action plans	Indicators (KPI)	FY2025 Targets	FY2022 Results	FY2022 Topics for initiatives
Most important issues for corporate survival	Ensuring Compliance		<ul style="list-style-type: none"> Exercise thorough compliance, which is a basic principle for conducting corporate activities, and engaging in fair business operations Maintain and enhance an open corporate culture with a high sense of ethics 	Number of serious compliance violations ^{*1}	0	0	<ul style="list-style-type: none"> No significant compliance violations Compliance training incorporates the theme of psychological safety in the workplace and was conducted at all Group companies in Japan As a result of checking all Group companies for the presence of internal reporting services, external reporting services and the establishment of regulations, we determined that reporting services had not been established at three overseas Group companies
				Compliance training rate	100%	97%	
				Percentage of group companies with compliance / whistleblowing hotlines	100%	83%	
Strengthening Corporate Governance			<ul style="list-style-type: none"> Strengthen corporate governance of the entire group and manage in a highly transparent and sound manner 	Number of times that the assessment on the effectiveness of the Board of Directors meetings is evaluated	Once per year	Once	<ul style="list-style-type: none"> Conducted a questionnaire about assessment on the effectiveness of the Board of Directors, ascertained the current situation, identified issues, and formulated measures under an action plan. Improvements underway. Enhanced timely disclosure information, Corporate Governance Report and disclosure of Company's Articles of Incorporation in English Promoted adoption of DX in management of the Board of Directors Appointed one independent Outside Audit & Supervisory Board Member Promoted formulation of intellectual property policy and strategy for intellectual properties (responding to the revised Corporate Governance Code) Promoted disclosure policies for human resource development and enhancing the internal work environment (responding to the revised Corporate Governance Code)
					Number of times internal business audits are performed by the Audit Division	60 times in four years	

	Key sustainability issues	Corresponding SDGs	Action plans	Indicators (KPI)	FY2025 Targets	FY2022 Results	FY2022 Topics for initiatives
Most important issues	Quality and Customer Safety		<ul style="list-style-type: none"> Enhance our quality control and quality assurance systems by continuously improving our quality management system and ensuring thorough quality-related governance Implement quality management, improve production efficiency and reduce process abnormalities through digitalization 	Number of serious complaints by customers ^{*2}	0	1	<ul style="list-style-type: none"> In FY2020 and FY2021 web conferencing systems and similar solutions were used for most activities including quality audits, quality education and training, and quality improvement activities due to the COVID-19 pandemic, but practical activities have now resumed In terms of educational activities to improve quality assurance and quality, to coincide with the start of KV25, we created a Quality Mandat that forms the basis for the systematic implementation of various quality-related education
					Number of serious quality process abnormalities in processes ^{*2}	0	
Most important issues	Environmental and Social Considerations in the Supply Chain	 	<ul style="list-style-type: none"> Practice supply chain management with consideration for environmental and social aspects, based on the Sustainable Procurement Guidelines 	Response rate for confirmation of consent to Sustainable Procurement Guidelines	(Non-consolidated) 90%	(Non-consolidated) 99%	<ul style="list-style-type: none"> Sent questionnaires based on the details of sustainable procurement guidelines to roughly 300 companies ranked the highest in terms of purchase amounts, collected responses from 229 of them and statements confirming agreement from 226 As no suppliers with human rights or environmental issues were identified based on the details of the sustainable procurement questionnaires that were retrieved, no requests to formulate improvement plans were issued. The details of responses will be checked at the suppliers we plan to audit in FY2023.
					Formulation and implementation of improvement plans using questionnaires to suppliers	(Non-consolidated) Disclose progress	

	Key sustainability issues	Corresponding SDGs	Action plans	Indicators (KPI)	FY2025 Targets	FY2022 Results	FY2022 Topics for initiatives
Most important issues	Reducing Energy Consumption and Greenhouse Gas Emissions Reduction of Wastewater and Industrial Waste Improving Efficiency of Water Resource Use	 	<ul style="list-style-type: none"> Implement energy-saving and global warming countermeasures and achieve FY2030 environmental targets Identify issues and clarify strategies for achieving carbon neutrality by FY2050 	Greenhouse gas emissions (Scope 1+2)	(Targets to be achieved by FY2030) 88,324 tons or less (32.5% reduction or higher compared with FY2019) (Targets to be achieved by FY2022) 119,252 tons or less	108,107 tons	<ul style="list-style-type: none"> Introduction of MFCA and the solar power PPA model were promoted as a part of efforts to reduce greenhouse gas emissions Total waste produced declined by 3.3% compared with FY2021 The recycling of waste that was traditionally disposed of in landfill was further promoted, with the recycling rate improving to 85.0%, and the zero emission rate improving down to 0.8%. Development Status of Environmentally Friendly Products and Technologies [Safety Systems Business] Development of reduced weight cylinder type inflator / green propellant MGG [Polatechno Business] Improved production process, promoted reduced waste generation and emissions treatment energy through product design improvements [Functional materials] In the area of thermosetting resins for CFRP, we introduced customers to development products with potential for rollout Developed a thermosetting resin that uses bio-derived raw material [Color materials] Developed industrial ink jet (for coated paper, flexible packaging and textile printing) Released and expanded sales of heat-sensitive non-phenol developer Accelerated development of PLA (biodegradable) textile dye [Catalysts] Promoted joint development of catalyst for hydrogen production Conversion of Asa Plant's petroleum-based boiler to LPG underway Developed catalyst that helps reduce raw material usage and improve target material yield utilizing materials informatics technologies
				VOC emissions	(Non-consolidated) Disclose results	(Non-consolidated) 38.7 tons	
				COD emissions	(Non-consolidated) Disclose results	(Non-consolidated) 171.8 tons	
				Total waste output	(Non-consolidated) Disclose results	(Non-consolidated) 27,621 tons	
				Recycling rate	(Non-consolidated) 80% or higher	(Non-consolidated) 85.0%	
				Zero emission rate	(Non-consolidated) 1% or less	(Non-consolidated) 0.8%	
				Goal setting in line with SBT and consideration and implementation of specific measures	Disclose progress	Earned A- CDP (climate change) score Implemented improvements to accuracy of Scope 3 emission calculations	
				Disclosure in line with TCFD recommendations	Disclose progress	Information Disclosed	
				Develop products and technologies with consideration for environmental issues	Disclose progress	Listed in Topics	

	Key sustainability issues	Corresponding SDGs	Action plans	Indicators (KPI)	FY2025 Targets	FY2022 Results	FY2022 Topics for initiatives
Important issues	Occupational Health and Safety in the Workplace	 	<ul style="list-style-type: none"> Strengthen the foundation for safe operation by thoroughly enforcing basic rules on safety and health and improving equipment and work procedures Implement health and productivity management and provide a workplace environment with a healthy work-life balance where employees can work with enthusiasm 	Number of serious accidents ³	0	0	<ul style="list-style-type: none"> No accidents requiring time off work occurred on a non-consolidated basis at Nippon Kayaku, including Group companies and affiliates within Nippon Kayaku business premises Continuously obtaining Health & Productivity Management Outstanding Organizations certification. Promoted activities to maintain and advance employee health to maintain certification We failed to reach the target percentage of employees taking paid leave, but as previously, we continued to implement awareness raising activities via the Company intranet, had human resources and labor personnel call on employees to take paid leave at each workplace, set days on which employees are recommended to take paid leave, and implemented other measures Mental health training ended in the third year of the three-year plan The percentage of employees undergoing health checks was maintained at 100% We started conducting engagement surveys and conducting interviews with companies that conduct surveys to determine the level of health & productivity management. Full-scale adoption is planned for the following fiscal year.
				Acquisition of certifications under the Certified Health & Productivity Management Outstanding Organizations Recognition Program (Large Enterprise category)	(Non-consolidated) Continued certification	(Non-consolidated) Certification for 2023 Certified Health & Productivity Management Organization Recognition Program (Large Enterprise category)	
				Percentage of paid leave taken	(Non-consolidated) 70% or higher	(Non-consolidated) 63.7%	
				Percentage of employees who take mental health training	(Non-consolidated) 100%	(Non-consolidated) 100%	
				Percentage of employees receiving regular health checkups	(Non-consolidated) 100%	(Non-consolidated) 100%	
				Ascertaining and improving employee satisfaction through questionnaire surveys	(Non-consolidated) Disclose progress	-	

	Key sustainability issues	Corresponding SDGs	Action plans	Indicators (KPI)	FY2025 Targets	FY2022 Results	FY2022 Topics for initiatives
Important issues	Maintaining and Expanding Employment, Developing Human Resources, and Respecting Human Rights	 	<ul style="list-style-type: none"> Promoting diversity and inclusion through the recruitment of diverse human resources, effective HR assignment and exchanges Pass down and strengthen technical capabilities in monozukuri (manufacturing) and achieve globalization in human resources through ongoing human resource development Engage in business operations that pay care and consideration to the human rights of employees and all other people involved in the supply chain 	Percentage of female employees in management posts ^{*4}	(Non-consolidated) 10% or higher	(Non-consolidated) 9.0%	<ul style="list-style-type: none"> Lectures on self-directed career development delivered by female managers for human resources and labor personnel. Lectures delivered by female industrial physicians regarding the advancement of health specific for women. Considered holding training sessions for female employees Continued collaboration with special support schools as an initiative to employ people with disabilities. Collected information about companies engaged in advanced initiatives to expand the job areas and increase employment of people with disabilities through tours and sessions to exchange opinions Conducted e-learning-based training regarding the Nippon Kayaku Group Human Rights Policy and Human Rights Due Diligence System Senior management conducted workshop to identify and evaluate human rights risks. Detected to reconsider methods for risk identification and evaluation.
				Percentage of employees with disabilities	(Non-consolidated) Achieve legal minimum employment rate	(Non-consolidated) 1.98%	
				Amount invested in education and training per employee	(Non-consolidated) Disclose results	(Non-consolidated) ¥83,002 / person	
				Training hours per employee	(Non-consolidated) Disclose results	(Non-consolidated) 14.9 hours	
				Number of training sessions held on human rights	Once or more per year	Once	
				Human rights due diligence: human rights impact assessment rate	(Non-consolidated) FY2022: 100% (Consolidated) FY2025: 100%	(Non-consolidated) Incomplete	
Important issues	Risk Management		<ul style="list-style-type: none"> Respond to various business-related risks and ensure business continuity by maintaining production systems, ensuring the proper procurement of raw materials, and strengthening measures against disasters 	Implementation rate of risk control activities for business, etc., and top five risk control activities	100%	100%	<ul style="list-style-type: none"> Implemented Top 5 risk control activities at each factory of Nippon Kayaku (non-consolidated) and all Group companies (trends include increasing risks such as rising geopolitical risks, sharply rising raw material prices, and disruptions to the supply of raw materials) Conducted interviews regarding points considered to be important for the top 5 risks at two domestic factories and four overseas Group companies Domestic Group companies continued to use an emergency communication system introduced in FY2021 as a BCP drill in preparation for the occurrence of earthquakes BCP drills were conducted under local consulting and guidance of Chinese Group companies
				Number of BCP drills conducted	Once or more per year	2 times	

*1 Number of serious accidents as judged by the Ethics Committee

*2 Losses of 10 million yen or more

*3 Accidents involving three or more people requiring time off work, or resulting in fatalities

*4 Targets for the end of FY2024

Risks and Opportunities for Key Sustainability Issues

The Nippon Kayaku Group recognizes risks and opportunities relating to its identified key sustainability issues. By reducing risks and incorporating opportunities that lead to new business growth, we aim to help create a sustainable society and further increase corporate value.

	Key sustainability issues	Risks	Opportunities
Most important issues for corporate survival	Ensuring Compliance	<ul style="list-style-type: none"> Loss of social credibility due to compliance violations Damage to corporate value Sluggish business activities 	Earning the trust of stakeholders
	Strengthening Corporate Governance	Stagnation of business activities	<ul style="list-style-type: none"> Earning the trust of stakeholders Improvement of social credibility
Most important issues	Quality and Customer Safety	<ul style="list-style-type: none"> Customer disaffection due to quality nonconformities Loss of social credibility due to violations of laws and regulations governing aspects such as quality control and labeling 	Earning the trust of customers by supplying high-quality products
	Environmental and Social Considerations in the Supply Chain	Adverse effects on corporate activities due to illegal acts or compliance violations by suppliers	<ul style="list-style-type: none"> Creation of a sustainable society Increased long-term competitiveness
	Reducing Energy Consumption and Greenhouse Gas Emissions	<p>[Transition risks]</p> <ul style="list-style-type: none"> Increased operating costs due to the impact of tougher emissions regulations Price increases for electric power and LPG, etc. Rise in raw material prices due to the impact of tougher emissions regulations Increase in costs for environmental disclosures and LCA calculations, etc. 	<ul style="list-style-type: none"> Growth of semiconductor-related materials and materials that contribute to achieving lower power consumption, due to the shift to smart cities and the growth of DX Growth of materials for next-generation storage cells / batteries Growth of plastic / resin-type materials that contribute to the weight reduction of vehicle / mobility frames Growth of optical materials for reducing the weight of EVs and sensor materials for use in autonomous driving technologies
	Reduction of Wastewater and Industrial Waste	<p>[Physical risks]</p> <ul style="list-style-type: none"> Increase in costs due to flood damage caused by typhoons, heavy rain, high tides / storm surges, etc. Impact of water shortages on operations Decline in labor productivity due to rising temperatures 	<ul style="list-style-type: none"> Growth of bio-stimulants which contribute to maintaining and improving agricultural productivity, and expanding applications for existing agrochemicals in tackling pests which become new problems as a result of the expected rise in temperatures
Important issues	Occupational Health and Safety in the Workplace	<ul style="list-style-type: none"> Loss of social credibility due to accidents and scandals Decline in labor productivity and outflow of human resources 	<ul style="list-style-type: none"> Fostering a safety culture Improving employee work-engagement
	Maintaining and Expanding Employment, Developing Human Resources, and Respecting Human Rights	<ul style="list-style-type: none"> Standardization of thinking and loss of new business opportunities due to bias in human resource attributes and skills Loss of social credibility due to human rights violations 	<ul style="list-style-type: none"> Fostering a corporate culture that generates new ideas through diversification of values Contributing to the creation of a sustainable society and increasing long-term competitiveness
	Risk Management	Increase in management-related risks	Ensuring business continuity in emergencies