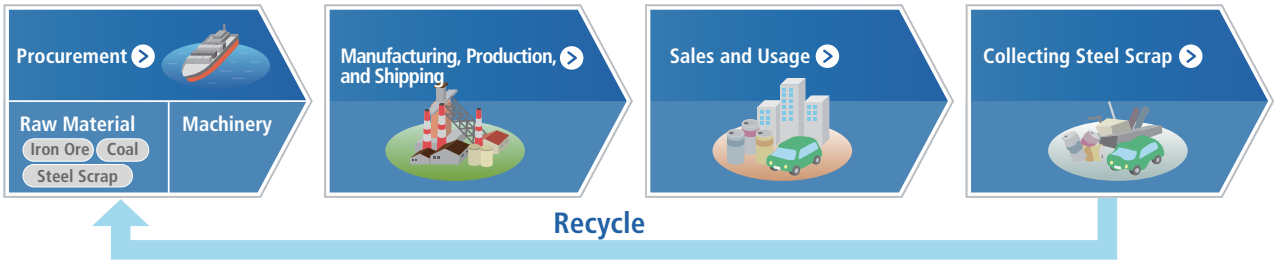
JFE Group Value Chain

The JFE Group's value chain encompasses upstream and downstream activities across the globe. We seek to address social challenges by identifying the risks and opportunities that the Group must resolve through its business operations and pursue initiatives that tackle those challenges. We will also continue to strengthen the sustainability of the entire Group and implement countermeasures throughout our value chain.



Overview of the Value Chain



Procurement

To ensure stable supply of iron ore and coal used as raw materials in the production of steel products, we purchase from various sources around the world such as Australia and South America and transport materials to the steelworks on a special vessel. Equipment and materials used at steelworks plants are also purchased globally, and we promote the recycling of steel scrap from the steelmaking process. JFE Steel has established these JFE Steel Procurement Guidelines in accordance with the JFE Group Standards of Conduct and the JFE Group Basic Policy on Human Rights, to enhance sustainability across its entire supply chain. We share these guidelines with our business partners and promote sustainability initiatives throughout our supply chain.

Manufacturing, Production, and Shipping

The JFE Group is one of the world's largest steelmakers, with cutting-edge technologies for the efficient production and stable supply of high-quality steel products used in products indispensable to daily life, including automobiles, infrastructure, and home appliances. We also promote resource recycling by repurposing iron and steel slag generated in the process of producing steel into such products as cement and other construction materials. In addition, we are planning to use such slag in environment recovery materials such as "Marine Stone™," which works effectively as a base for the adhesion of organisms and for improving the marine environment.

Sales and Usage

We pay due consideration for the global environment in our own steel production processes as well as by developing eco-products and solution technologies that contribute to the reduction of GHG emissions across society. Furthermore, we work at the frontier of production by responding to the diverse needs of different industries through research and development and by improving production technologies.

Collecting Steel Scrap

We collect steel scrap generated by customers after processing and use, as well as scrap from the market, and repurpose it as raw material for steelmaking.

Risks and Opportunities in the Value Chain

Challenges in the Value Chain	Procurement		Manufacturing, Production, and Shipping	Sales and Usage	Collecting Steel Scrap
	Raw Material Iron Ore/Coal/ Steel Scrap	Machinery			
Address Climate Change Issues					
The JFE Group views climate change as a critical managerial concern from the perspective of business continuity, and it considers achieving carbon neutrality by 2050 a top priority. By designating climate change issue as a material issue of corporate management, we are actively tackling the challenge to resolve this issue.					
Risks • Increased instability in raw material procurement • Decline in production caused by typhoons, heavy rains, or droughts at manufacturing sites • Burden of investment required for introducing new technologies to realize large-scale decarbonization • Introduction of carbon pricing • Intensified competition and surge in the price of cold iron sources (scrap and reduced iron) • Increased demand for electricity due to a transition from blast furnaces to electric arc furnaces • Decline in the sales volume of steel products due to a reduction in internal combustion engines caused by the spread of EVs, and the shift to alternative materials caused by multi-material manufacturing	●	●	●	●	●
Opportunities • Increased demand for steel products with high environmental value for achieving decarbonization • Growth in demand for products used in EVs caused by expanded production of EVs	●	●	●	●	●

Key Initiatives

› Initiatives to Address Climate Change (P. 49)

Related Pages

› Policy Engagement (P. 89) › Identification and Assessment of Risks and Opportunities (TCFD Scenario Analysis) (P. 113)
› Supply Chain Management (P. 233) › Environmental Data (P. 273)

Contribute to the Realization of a Recycling-Oriented Society					
Recognizing that the transition to a circular economy is essential for realizing a circular society, we will advance this initiative beyond the scope of the JFE Group through collaboration with our value chain partners. We will work to convert byproducts and waste into resources, develop resource-efficient eco-products and solution technologies, and expand the use and sale of recycled resources.					
Risks • Resource depletion • Shortage of disposal sites for waste generated • Declining in the grade, rising price, and difficulty of obtaining obsolete scrap	●	●	●		●

Challenges in the Value Chain	Procurement		Manufacturing, Production, and Shipping	Sales and Usage	Collecting Steel Scrap
	Raw Material Iron Ore/Coal/ Steel Scrap	Machinery			
Opportunities • Renewed interest in recyclability of steel products • Increased demand for eco-products and solutions • Expanded use and sales of steel slag products and steel scrap • Increased demand for recycled materials	●		●	●	●

Key Initiatives

> **Initiatives to Transition to a Circular Economy** (P. 126)

Related Pages

> **Environmental Data** (P. 273)

Acquire Robust Profitability

To achieve the JFE Vision 2035, the JFE Group's Aspirations for 2035, we will strive to construct a streamlined yet resilient domestic structure based on growth strategies and realize growth through the expansion of business in overseas growth regions "from the inside."

Risks • Decline in domestic demand • Difficulty in securing human resources due to the contraction of Japan's labor force • Stagnation in the drive for decarbonization • Expansion in markets for low-priced products from overseas and other competitors • Tighter tariff policies and the rise of protectionism in various countries • Improvement in technological capabilities of overseas competitors			●	●	●
Opportunities • Increased demand for eco-products that contribute to reducing CO_2 emissions (steel sheets, high-strength steel sheets, etc.) • Increased demand for GX steel and steel products used for new energy applications • Progress in the development of a circular economy • Capture demand in overseas growth markets			●	●	●

Key Initiatives

> **Initiatives to Address Climate Change** (P. 49) > **Initiatives to Transition to a Circular Economy** (P. 124)

> **Human Capital** (P. 186)

Related Pages

> **JFE Group Report** (https://www.jfe-holdings.co.jp/en/investor/library/group-report/)

> **JFE Group Long-term Vision "JFE Vision 2035" and the Eighth Medium-term Business Plan (FY2025-FY2027)** (https://www.jfe-holdings.co.jp/en/investor/management/plan/)

> **DX REPORT** (https://www.jfe-holdings.co.jp/en/investor/library/dxreport/)

Challenges in the Value Chain	Procurement		Manufacturing, Production, and Shipping	Sales and Usage	Collecting Steel Scrap
	Raw Material Iron Ore/Coal/ Steel Scrap	Machinery			
Ensure Occupational Safety and Health for Employees					
Ensuring the occupational safety and health of employees is a basic corporate requirement for manufacturers and is fundamental to the continued existence of any company. The JFE Group adheres to the philosophy of safety first, and, together with its Group companies and partner companies (including contractors), is promoting safety and health activities to create safe and healthy workplaces where all employees remain physically and mentally fit as they continue working for many years.					
Risks • Occurrence of accidents, including occupational injuries • Talent drain			●	●	
Opportunities • Stable recruitment of human resources and improvement in labor productivity			●	●	
Key Initiatives › **Occupational Health and Safety** (P. 202) **Related Pages** › **Social Data** (P. 286)					
Promote Human Capital Management					
The JFE Group believes that human resources are the driving force for corporate growth in times of transformation. In executing and realizing our management strategies, we formulated our human resources strategy from a long-term perspective with the understanding that the Company's sustainable growth must be actively linked with the personal growth of employees. This strategy focuses on securing skilled resources to build our talent portfolio, advancing DEI to maximize individual capabilities, and enhancing work engagement.					
Risks • Labor shortage • Talent drain • Culture of passing down technical skills is dying out	●	●	●	●	●
Opportunities • Acquisition of diverse talent for promoting the Company's growth strategies • Improvement in employee engagement • Improvement in labor productivity			●	●	
Key Initiatives › **Human Capital** (P. 186) › **Promoting Diversity, Equity and Inclusion (DEI)** (P. 190) › **Promoting Talent Acquisition and Development** (P. 188) › **Improving Work Engagement** (P. 195) **Related Pages** › **Supply Chain Management** (P. 233) › **Social Data** (P. 286)					

Challenges in the Value Chain	Procurement		Manufacturing, Production, and Shipping	Sales and Usage	Collecting Steel Scrap
	Raw Material Iron Ore/Coal/ Steel Scrap	Machinery			
Minimize Risks to the Business Foundation					
To achieve the JFE Group's sustainable growth and enhance corporate value, we will promote the establishment and operation of a risk management system to accurately identify and appropriately address risks across the Group.					
Risks • Occurrence of human rights issues and violation of laws and regulations, etc. • Information leaks and system failures caused by cyber-attacks or improper system use • Production and quality issues, decline in customer trust • Deterioration in relationship with local communities • Lack of adequate responses to stricter environmental regulations • Contamination of a drainage destination • Difficulty in fund procurement	●	●	●	●	●
Opportunities • Expansion in sustainable procurement and construction of a stable procurement system • Competitive advantage based on stable production and quality • Diversification in fund procurement	●	●	●	●	●

Key Initiatives

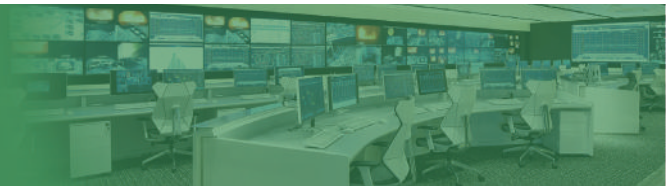
› **Biodiversity Conservation and Nature Positive** (P. 154) › **Compliance** (P. 263) › **Risk Management** (P. 269)

Related Pages

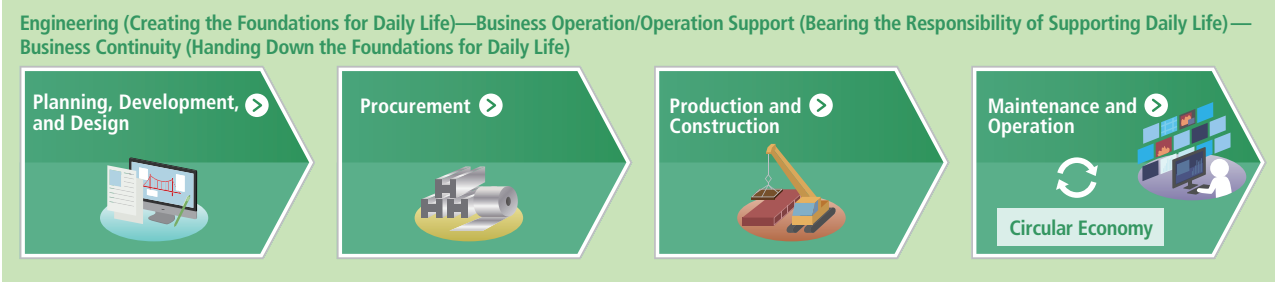
› **Environmental Data** (P. 273) › **Supply Chain Management** (P. 233) › **Governance Data** (P. 292)

› **DX REPORT** (https://www.jfe-holdings.co.jp/en/investor/library/dxreport/)

Engineering Business



Overview of the Value Chain



Engineering (Creating the Foundations for Daily Life)

The JFE Group has built many high-functioning, high-quality facilities in fields such as energy, the environment, and bridges while satisfying the needs of our customers every step of the way, from design to delivery. We have combined and evolved the technologies for processing and assembling in shipbuilding business and technologies relating to materials and combustion in the steel business to create next-generation energy and to address environmental issues. Many of our technologies support society. In addition, we are assembling our resources to develop new business models and technologies based on existing technologies. We produce high-quality products at low cost by establishing production sites, including one of the largest steel structure production factories in Japan, overseas bases centered on Asian countries, and global engineering structures.

Business Operation/Operation Support (Bearing the Responsibility of Supporting Daily Life)

The JFE Group engages in many private-public initiatives in the field of public services by applying the operational and maintenance know-how acquired over many years, primarily with regard to the environment and water and sewage plants. Furthermore, we build plants, engage in the recycling business and renewable energy business, and take the initiative to realize a recycling-oriented sustainable society. Going forward, we intend to expand our initiatives even further.

Business Continuity (Handing Down the Foundations for Daily Life)

The JFE Group is committed to the construction, operation, and maintenance of infrastructure facilities such as plants related to energy and the environment, bridges, and coastal structures to hand down safe and secure foundations for the next generation.

Risks and Opportunities in the Value Chain

Challenges in the Value Chain	Planning, Development, and Design	Procurement	Production and Construction	Maintenance and Operations
Address Climate Change Issues				
The JFE Group strives to reduce CO_2 emissions in society through its eco-friendly products and technologies, including renewable energy technologies and energy-saving products in its engineering business. The Group designates climate change as a material issue of corporate management and is tackling the challenge to resolve this issue.				
Risks • Damages incurred by typhoons, heavy rains, or drought at its manufacturing and construction sites	●	●	●	●
Opportunities • Growing demand for strengthening infrastructure and addressing disasters • Greater opportunities for decarbonization and solution businesses	●	●	●	●

Key Initiatives

› Initiatives to Address Climate Change (P. 49)

Related Pages

› Policy Engagement (P. 89) › Identification and Assessment of Risks and Opportunities (TCFD Scenario Analysis) (P. 113)
› Supply Chain Management (P. 233) › Environmental Data (P. 273)

Contribute to the Realization of a Recycling-Oriented Society				
Recognizing that the transition to a circular economy is essential for realizing a circular society, we will advance this initiative beyond the scope of the JFE Group through collaboration with our value chain partners. We will work to convert byproducts and waste into resources, develop resource-efficient eco-products and solution technologies, and expand the use and sale of recycled resources.				
Risks • Lack of disposal sites for waste generated • Depletion of resources		●	●	●
Opportunities • Increased demand for waste-to-resource technologies (plastics recycling, food waste power generation) • Growing demand for more resilient, longer-lasting infrastructure • Growing need for improving operational efficiency and reducing environmental impact	●	●	●	●

Key Initiatives

› Initiatives to Transition to a Circular Economy (P. 126)

Related Pages

› Environmental Data (P. 273)

Challenges in the Value Chain	Planning, Development, and Design	Procurement	Production and Construction	Maintenance and Operations
Acquire Robust Profitability				
To achieve the JFE Vision 2035, we will strengthen our earnings base by leveraging our diverse business portfolio, while expanding our business operations by transitioning to a circular economy.				
Risks • Decline in domestic demand • Difficulty in securing human resources due to the decrease in Japan's labor force • Stagnation in the drive for decarbonization	●	●	●	●
Opportunities • Increased demand for carbon neutral plants, growing need for renewable energy • Capture demand in overseas growth markets	●	●	●	●

Key Initiatives

› **Initiatives to Address Climate Change** (P. 49) › **Initiatives to Transition to a Circular Economy** (P. 126)
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Challenges in the Value Chain	Planning, Development, and Design	Procurement	Production and Construction	Maintenance and Operations
Ensure Occupational Safety and Health for Employees				
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Risks • Occurrence of accidents, including occupational injuries • Talent drain	●		●	●
Opportunities • Stable recruitment of human resources • Improvement in labor productivity	●		●	●

Key Initiatives

› **Occupational Health and Safety** (P. 202)

Related Pages

› **Social Data** (P. 286)

Challenges in the Value Chain	Planning, Development, and Design	Procurement	Production and Construction	Maintenance and Operations
Promote Human Capital Management				
The JFE Group believes that human resources are the driving force for corporate growth in times of transformation. In executing and realizing our management strategies, we formulated our human resources strategy from a long-term perspective with the understanding that the Company's sustainable growth must be actively linked with the personal growth of employees. This strategy focuses on securing skilled resources to build our talent portfolio, advancing DEI to maximize individual capabilities, and enhancing work engagement.				
Risks • Labor shortage • Talent drain • Culture of passing down technical skills is dying out	●	●	●	●
Opportunities • Acquisition of diverse talent for promoting the Company's growth strategies • Improvement in employee engagement • Improvement in labor productivity	●	●	●	●

Key Initiatives

› **Human Capital** (P. 186) › **Promoting Diversity, Equity and Inclusion (DEI)** (P. 190)
› **Promoting Talent Acquisition and Development** (P. 188) › **Improving Work Engagement** (P. 195)

Related Pages

› **Supply Chain Management** (P. 233) › **Social Data** (P. 286)

Minimize Risks to the Business Foundation				
To achieve the JFE Group's sustainable growth and enhance corporate value, we will promote the establishment and operation of a risk management system to accurately identify and appropriately address risks across the Group.				
Risks • Occurrence of human rights issues and violation of laws and regulations, etc. • Information leaks and system failures caused by cyber-attacks or improper system use • Production and quality issues, decline in customer trust • Deterioration in relationship with local communities • Lack of adequate responses to stricter environmental regulations • Contamination of a drainage destination • Difficulty in fund procurement	●	●	●	●
Opportunities • Expansion in sustainable procurement and construction of a stable procurement system • Competitive advantage based on stable production and quality • Diversification in fund procurement	●	●	●	●

Key Initiatives

› **Biodiversity Conservation and Nature Positive** (P. 154) › **Compliance** (P. 263) › **Risk Management** (P. 269)

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