JFE Group Value Chain

The JFE Group’s value chain encompasses upstream and downstream activities across the globe. In conducting business, we seek to accurately identify and steadily respond to the social challenges that the Group needs to address, and the risks and opportunities that the Group must resolve through its business operations.

We will continue to implement further countermeasures throughout our value chain and strengthen the sustainability of the entire Group.

Steel Business and Trading Business

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, North and South America, Russia, and Africa and transport materials to the steelworks on a special vessel. Equipment and materials used at steelworks plants are also purchased globally.

The JFE Group is one of the world’s largest steelmakers and has cutting-edge technologies for the efficient production and stable supply of high-quality steel products, used in products indispensable to daily life such as automobiles, infrastructure, and home appliances. We also promote resource recycling by recycling steel scrap generated in the process of producing steel products while also repurposing iron and steel slag in cement and other construction materials.

Procurement of Raw Materials and Machinery

- Fair procurement
- Complete abolition of child labor and forced labor
- Prohibit the use of conflict materials
- Reduce CO2 emissions during transportation

Manufacturing, Production, and Shipping

- Ensure occupational safety and health
- Stable supply of steel products
- Develop and ensure stable supply of high-quality products
- Co-existence and mutual prosperity with local communities
- Reduce CO2 emissions
- Reduce waste
- Prevent water resource exhaustion

Recycling and Reuse of Resources

- Respect human rights
- Workstyle reform

Social Challenges

1. Social Challenges

- Increased environmental impact of raw material procurement

2. Risks

- Occurrence of accidents, including industrial accidents
- Potential human rights risks related to business activities

2. Opportunities

- Develop a system to ensure stable procurement by calling on suppliers to expand CSR procurement

Initiatives of JFE Steel and JFE Shoji Trade

- Publicly release information on the Purchasing and Procurement Policies to suppliers and request that they take action
- Confirm that suppliers are not using conflict materials
- Reduce CO2 emission during transportation by improving logistics efficiency

- Ensure quality through testing, inspection, and quality audits
- Strategic investment and renovation of facilities to ensure high stability and increased productivity
- Promote research and development
- Promote stakeholder understanding through production site tours
- Develop and provide eco-friendly products
- Develop and install energy-saving equipment for environmental protection
- Recycle industrial water by water purification

- Ensure adherence to the Corporate Ethical Standards and compliance
- Uphold human rights throughout the value chain in accordance with the JFE Group Human Rights Basic Policy
- Maintain steady employment
- Enhance childcare and nursing care support programs

Note: Climate change-related risks and opportunities in line with TCFD recommendations and the JFE Group’s responses are introduced in “JFE’s Climate Change Initiatives” (pages 25–32).
The JFE Group is committed to developing eco-friendly products such as high tensile strength steel sheets that help reduce the weight of automobiles as well as electromagnetic steel plates used in electric vehicles. We support the frontier of production by responding to the diverse needs of different industries through research and development and by improving production technologies.

Sales and Usage

Steel products at the end of their product life cycle are collected as steel scrap and recycled as materials for the steel production cycle.

Collecting Steel Scrap

- Compete fairly
- Reduce CO₂ emissions during product transportation
- Reduce CO₂ emissions during product use

- Prevent resource depletion
- Increase the volume of scrap generated

- Legal risks such as violations of antitrust law or competition law
- Increased environmental impact during product use

- Decline in the grade of scrap

- Labor risks pertaining to workstyles
- Labor shortage
- Cyber security risks

- Contribute to reduced CO₂ emissions by providing high-performance steel such as high tensile strength steel sheets and electromagnetic steel plates

- Increased use of scrap
- Expand the scrap distribution business

- Conduct compliance training on antitrust law, prohibition of bribery, etc.
- Actively promote a shift in transportation modes
- Reduce CO₂ emissions during product use by reducing the weight of steel, realized as a result of increasing steel strength

- Efficient transportation for collecting steel scrap
- Efficient use of resources by increasing steel production using scrap

- Carry out initiatives to maintain and enhance the health of employees and their families
- Implement safety initiatives in collaboration with business associates
- Actively hire and develop diverse human resources including women and foreign nationals
- Enhance labor saving and increase productivity by utilizing AI and IoT

Recycle

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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 new 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.
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 Operation/Operation Support**

**Bearing the Responsibility of Supporting Daily Life**

- Ensure product quality
- Preserve living environments
- Issues regarding waste reduction
- Occupational safety and health
- Improve productivity
- Disaster prevention and mitigation
- Reduce CO2 emissions
- Issues regarding waste treatment
- Labor shortage
- Cyber security risks

**Ensure information security**

- Pollution of the environment, environmental accidents
- Effects of meteorological disasters
- Cyber attack risks such as malware
- Environmental accidents during operations or maintenance
- Meteorological disasters affecting operations
- Culture of passing down technical skills is dying out
- Occurrence of accidents, including industrial accidents
- Violation of environmental regulations and laws

**Labor shortage**

- Saving labor through new technology
- Expand the business scale through privatization of public services
- Need for remote monitoring and automation due to labor shortage and shortage of skilled technicians
- Need for improving operational efficiency and reducing environmental impact

**Introduce a labor-saving construction method**

- Promote waste recycling
- Use AI and IoT to develop technologies for remote monitoring and automation of operations as well as to prevent mechanical breakdowns
- Optimize operations by analyzing incinerator combustion conditions, reduce environmental impact

**Prevent industrial accidents by introducing a labor safety management system**

- Environmental management, energy saving activities, and legal compliance by each construction site and company
- Co-existence with the local community

**Implement safety initiatives in collaboration with business associates**

- Hire and develop diverse human resources, including women and foreign nationals
- Develop and educate human resources
- Improve environmental performance by introducing an environmental management system