

Value Creation by the JR East Group	Business Strategies		Strategies That Support Growth		Sustainability	Data
Sustainability Strategies, Promotion Structure, and Our Sustainability Goals	Providing Society with Safe, Reliable Infrastructure	Creating a Vibrant Society	Enriching the Global Environment	Providing Society with Innovative Technologies and Services	Increasing the Engagement of All Group Employee	Improving Confidence in Management

Sustainability Strategies, Promotion Structure, and Our Sustainability Goals

Sustainability Strategies

The JR East Group’s businesses fulfill a wide range of important functions in the daily lives of customers and are indispensable to local communities and society. While ensuring appropriate profits, we will practice environmental, social, and governance (ESG) management that implements necessary measures from a medium- to long-term perspective, and aim to contribute to the sustainable development of local communities, achieve the Sustainable Development Goals (SDGs), earn even more trust from customers and local residents, enhance corporate value, and grow sustainably as a group.

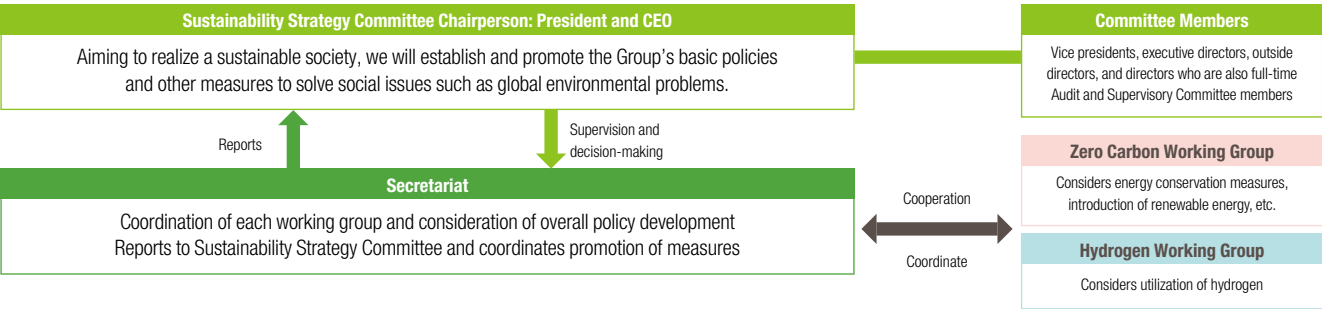
The following summarizes our view of the risks and opportunities associated with materiality that may affect management policies and strategies over the medium to long term.

<p>Providing Society with Safe, Reliable Infrastructure</p> <p>We will provide society with safe, reliable infrastructure by placing safety at the top of management.</p> <p>Risks and Opportunities</p> <ul style="list-style-type: none">• The occurrence of an accident or other incident is a risk that could have a serious impact on business management.• Safety inspires and increases trust, which is the foundation of all our businesses.	<p>Providing Society with Innovative Technologies and Services</p> <p>We will create new services and expedite their introduction to society by actively advancing new technologies and digital transformation in all of our businesses and by taking on ambitious initiatives that go beyond the boundaries of existing businesses.</p> <p>Risks and Opportunities</p> <ul style="list-style-type: none">• In addition to providing solutions that improve our responses to disasters and accidents, we will improve labor saving and efficiency.• While improving services and adding value in all our businesses, we will secure earnings and maintain levels of employment through business creation.
<p>Creating a Vibrant Society</p> <p>We will provide quality services that are inclusive and convenient. We will work in partnership with the local communities to develop vibrant towns.</p> <p>Risks and Opportunities</p> <ul style="list-style-type: none">• Given the risk of continued decline in Japan’s population and other factors, we will work with local communities to increase usage of our transportation services by growing the number of people engaging with regions.• We will increase usage and help create vibrant communities by promoting understanding of diversity, equity, and inclusion (DE&I); enhancing accessibility; and catering to demand for convenient, contactless services.	<p>Increasing the Engagement of All Group Employees</p> <p>We will make our Group companies places where each of the Groups’ diverse employees can demonstrate their abilities in a challenging and rewarding environment.</p> <p>Risks and Opportunities</p> <ul style="list-style-type: none">• We will attract personnel who have diverse values and can think flexibly.• We will fundamentally reform businesses through integration and collaboration; realize innovation; and heighten productivity through the upgrading of work practices.
<p>Enriching the Global Environment</p> <p>We will realize carbon neutrality and secure stable energy supplies, taking into account the effect of climate change on our businesses. We will lead efforts to realize a recycling-based society.</p> <p>Risks and Opportunities</p> <ul style="list-style-type: none">• Mindful of the risks posed to railway operations and businesses by climate change, we will reduce energy consumption, ensure stable supplies of energy, enhance our environmental advantages, and continue to provide services that are the preferred choice of customers.	<p>Improving Confidence in Management</p> <p>We will build a solid governance system that is resilient to changes to facilitate new challenges, while respecting human rights and conducting trustworthy corporate management.</p> <p>Risks and Opportunities</p> <ul style="list-style-type: none">• We will transform into a corporate group that gives each employee a sense of participation in management and which realizes bottom-up, people-focused value creation.• We will distribute the added value that we create to a wide range of stakeholders, thereby increasing corporate value.• We will build an effective management structure and create a corporate culture that supports and heightens trust.

Promotion Structure

With respect to the management system for implementing sustainability strategies, the Sustainability Strategy Committee, which is chaired by the president and CEO, has been established to set and promote the Group’s basic policies and other measures with a view to addressing various social issues and realizing a sustainable society.

Promotion Structure



Materiality Identification: Approach and Process

Aiming to realize fundamental change in the post-COVID-19 era and become a corporate group that grows sustainably over the long term, in 2023 we reanalyzed and discussed the impact of various factors on corporate value enhancement and business foundations. We then backcast from specific goals that reflect our purpose and vision and revised the materiality-related tasks of business management. In revising the materiality-related tasks, the Integrated Report Review

Subcommittee, which has been established under the Sustainability Strategy Committee, held discussions on materiality revision; the senior management team fully discussed the subcommittee’s proposals in light of stakeholder opinions; and the Sustainability Strategy Committee made the final decision. Important targets have been incorporated into the numerical targets for specific measures under “Move Up” 2027, and additional measures will be implemented accordingly.

Materiality, Sub-Materiality, Goals, and KPIs

Materiality	Sub-Materiality	Goals	KPIs (Fiscal 2028 numerical targets)
Providing Society with Safe, Reliable Infrastructure For business foundations		Provision of safe, reliable transportation, products, and services	<ul style="list-style-type: none">• Accidents due to internal causes...0*¹• Serious incidents...0*¹• Railway accidents (compared with fiscal 2019)...20.0% reduction*¹Including passenger injuries on platforms (compared with fiscal 2019)...30.0% reduction*¹ <hr/> <ul style="list-style-type: none">• Transportation disruptions due to internal causesConventional lines within 100 km of Tokyo...55.0% reduction (compared with fiscal 2019)JR East Shinkansen...75.0% reduction (compared with fiscal 2019)• Total delay time due to internal causes, conventional lines within 100 km of Tokyo...70.0% reduction (compared with fiscal 2019) <hr/> <ul style="list-style-type: none">• Countermeasures for major earthquakes (seismic reinforcement): Shinkansen viaduct columns (subject to ministerial ordinances, etc.)...100.0%*²• Countermeasures for major earthquakes (seismic reinforcement): Conventional line rigid-frame bridge abutments (subject to ministerial ordinances, etc.)...100.0%• Railway stations and tracks with automatic platform gates...330 railway stations, 758 tracks*³
	Creating a Vibrant Society For future corporate value	Regional Revitalization Growth in the number of people engaging with eastern Japan Promotion of regional economic revitalization	<ul style="list-style-type: none">• Collaborative initiatives with local communities to increase tourism and revitalize regions...150 in total*⁴
Creating a Vibrant Society For future corporate value	Comfortable Cities	One-stop provision of various high-value-added services Realization of seamless, stress-free travel Creation of diversely appealing towns with consideration for the environment, disaster prevention, and communities	<ul style="list-style-type: none">• JRE POINT reward program members...30.0 million• Transactions on the MaaS platform, Mobility Linkage Platform, provided by JR East...100.0 million <hr/> <p>In Tokyo metropolitan town development projects led by JR East, implementation of the following:</p> <ul style="list-style-type: none">• Introduction of energy sources with advanced environmental performance...100.0%• Establishment of facilities to accommodate people unable to return home at times of disruption/disaster...100.0%• Establishment of town management promotion systems...100.0%• Establishment of systems to utilize road spaces...50.0%
	Inclusive Society	Development of hospitality-minded employees Improvement in service quality through dialogues with people with disabilities Promotion of understanding of an inclusive society through parasports experience and support activities	<ul style="list-style-type: none">• Care-fitter qualification acquisition rate...80.0%• No. of exchanges per year involving people with disabilities at all regional organizations (two headquarters and 10 branch offices)...1 or more• No. of parasports tournaments held at head office and regional organizations per year (two headquarters and 10 branch offices)...1 or more
	Enriching the Global Environment For future corporate value	Carbon Neutrality Zero Carbon Challenge 2050 Utilization of diverse energy	<ul style="list-style-type: none">• CO₂ emissions (for all Group companies)...50.0% reduction*⁵(compared with fiscal 2014)• Development of renewable energy-based power sources...700,000 kW*⁵ <p>For target details, see section beginning on page 85</p>
	Circular Economy	Promotion of 3Rs	<ul style="list-style-type: none">• Recycling rate for waste (PET bottles) generated at stations and on trains...100.0%*⁵• Recycling rate for waste (general/industrial) (for all Group companies)...73.0%*⁵(compared with fiscal 2014) <p>For target details, see section beginning on page 93</p>
Providing Society with Innovative Technologies and Services For future corporate value	Technology Innovation	Provision of operational management solutions and realization of social innovation through continuous technology innovation based on utilizing external technologies and digital transformation Development and empowerment of employees with digital technology skills	<ul style="list-style-type: none">• Percentage of patent and design applications related to digital transformation and services...50.0% <hr/> <ul style="list-style-type: none">• Participants in digital technology training...30,000 or more in total*⁶
	New Fields	Provision of new services and proposal of new lifestyles	<ul style="list-style-type: none">• Kilometers of optical fiber cores leased...400 km in total*⁴
Increasing the Engagement of All Group Employees For business foundations	Promotion of Diversity, Equity, and Inclusion (DE&I)	Empowerment of diverse personnel Realization of flexible workstyles	<ul style="list-style-type: none">• Percentage of managers who are female...10.0%• Percentage of directors who are female...30.0%• Percentage of managers hired as experienced personnel...20.0%• Percentage of employees with disabilities...2.70%• Establishment of facilities suitable for diverse personnel (LGBTQ, etc.)...100.0% (at the time of new construction or major renovations) <hr/> <ul style="list-style-type: none">• Acquisition rate of paternity leave...85.0% or more
	Human Resource Development	Cultivation of innovation-oriented thinking and diverse career development Expansion of fields of activity	<ul style="list-style-type: none">• No. of participants in self-development courses on new value creation...10,000 in total*⁴• Assignment of personnel to key growth fields...2,000 or more in total*⁴
	Health and Productivity Management	Promotion of employee health	<ul style="list-style-type: none">• Percentage of employees receiving regular health checkups...100.0%• Percentage of employees receiving stress checks...95.0% or more
	Occupational Safety	Accident-free, safe workplaces	<ul style="list-style-type: none">• Fatal employee accidents (for all Group and partner companies)...0*¹
Improving Confidence in Management For business foundations	Internal Control That Promotes the Undertaking of Bold Challenges	Risk management that supports ambitious new initiatives Ensuring stable, appropriate operational management Business management in compliance with laws and regulations and corporate ethics, and ensuring information security	<hr/> <hr/> <ul style="list-style-type: none">• Implementation percentage for compliance and information security training sessions (for all Group employees)...100.0%
	Respect for Human Rights	Instilling of respect for human rights Sustainable procurement	<ul style="list-style-type: none">• Implementation percentage for seminars on human rights (for all Group companies)...100.0%• Penetration of initiatives related to human rights, the environment, and other issues into major suppliers (supply chain penetration percentage)...100.0%

*1 Targets for fiscal 2024 *2 Targets for fiscal 2026 *3 Target for approximately fiscal 2032 *4 Cumulative targets from fiscal 2024 onward *5 Targets for fiscal 2031

*6 Cumulative targets from fiscal 2022 onward

Providing Society with Safe, Reliable Infrastructure

We will provide society with safe, reliable infrastructure by placing safety at the top of management.

Goal • Provision of safe, reliable transportation, products, and services

Fundamental Concept

Since the establishment of JR East, safety has been our first priority of business management, and we have worked relentlessly to heighten our levels of safety. Earnest efforts to learn from unfortunate accidents in the past have enabled JR East to further the prevention of future accidents through its continued development of both tangible and intangible measures. JR East is committed to steadily improving tangible countermeasures as well as to ensuring that each one of its employees takes all possible intangible measures. Furthermore, by pursuing ultimate safety levels, we will steadily reduce the risk of accidents and thereby build trust, which is the foundation of all business, and provide society with safe, reliable infrastructure.

Our Fundamental Concept of Safety

General Principles of Safety

JR East has prescribed General Principles of Safety in the Code of Conduct for its safety-related employees.

General Principles of Safety

- I. Safety is the most important mission in transportation.
- II. Ensuring safety is based on exact observance of rules and procedures, and is achieved through constant practice.
- III. Enforcement of confirmation and complete contact is most important for ensuring safety.
- IV. For ensuring safety, we should cooperate together and go beyond our official responsibility.
- V. When we have questions or must choose among several options, we should remain calm, think by ourselves, and take the safest course after thorough consideration.

Group Safety Plan 2023

Since its establishment, JR East has been implementing a series of five-year safety plans. In November 2018, we formulated Group Safety Plan 2023, which is our seventh safety plan. JR East Group companies, partner companies, and affiliated companies will together aim for ultimate safety levels starting with the safety actions of each person.

Group Safety Plan 2023 consists of two building blocks, “Evolution” and “Move Up,” which are based on three pillars: (1) Evolution and enhancement of each person’s safety actions (2) Evolution and enhancement of safety management (3) Maintenance of safety equipment by actively utilizing new technologies.

In consideration of rapid environmental changes both within and outside the Group, we will take specific measures to respond properly to these changes. Fiscal 2024 will be the final year of Group Safety Plan 2023, and we are currently formulating the next safety plan, which will be our eighth such plan.

Further Evolution of Our Safety Culture

The safety culture, upon which JR East Group has continually placed great value, including the Five Cultures, the CS (Challenge Safety) Activity, and the Three Actualities Principle, is the foundation of various safety initiatives.

Stop the Train When It Is Unsafe to Proceed

Safe and stable transportation is important for our railways. Safety means protecting lives, while stability means ensuring the on-time operation of our trains. However, although stable transportation is important for us, safety comes first. Trying too hard to keep to schedules sometimes results in not properly following safety confirmation procedures, which leads to placing the safety of train operations at risk.

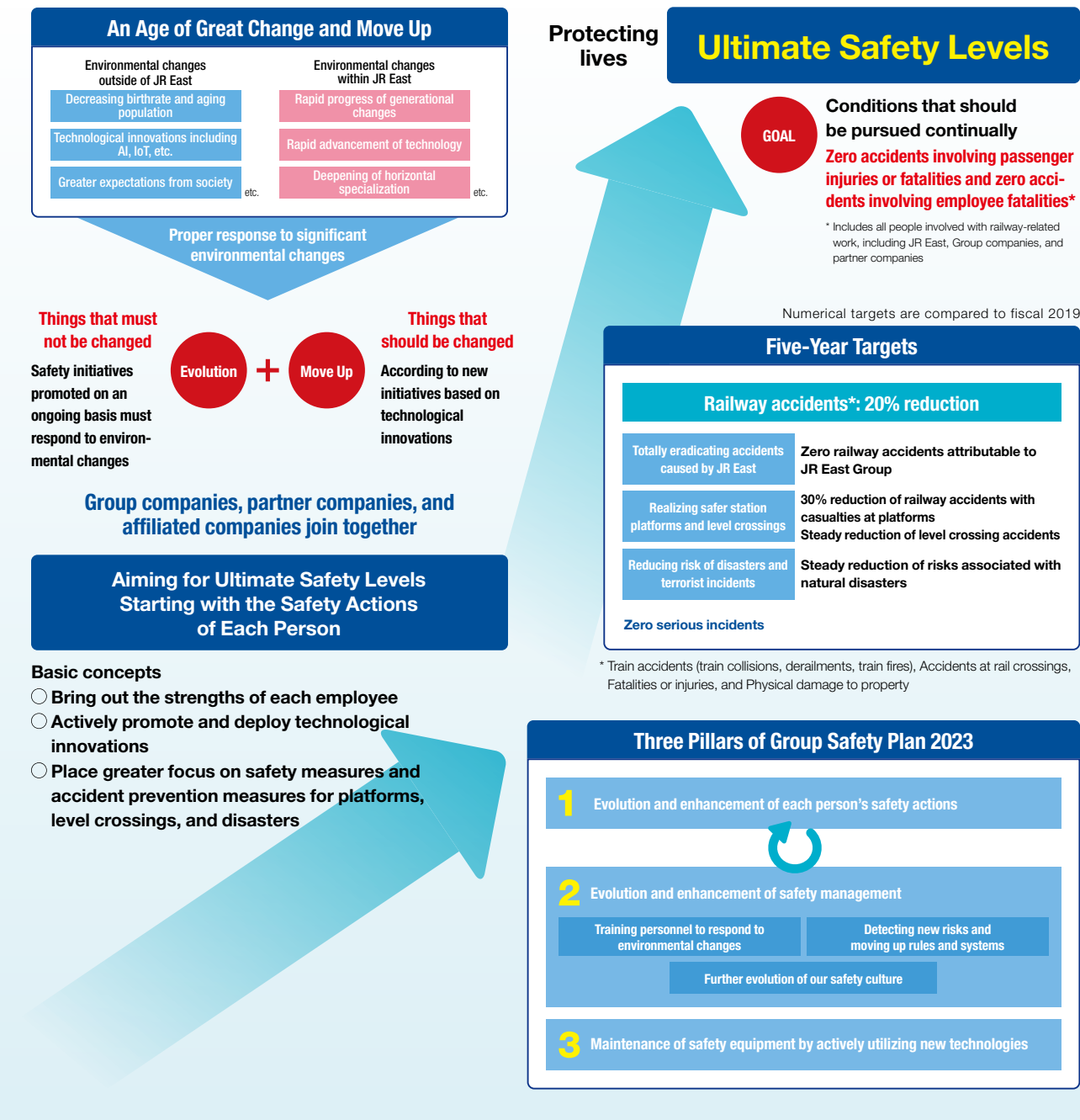
To secure the safety of our railway operations, the whole JR East Group will always follow our firm Code of Conduct to stop the train when it is unsafe to proceed.

Further Ingraining the Five Cultures

A culture of proper reporting	The prompt and proper reporting of accidents and incidents, and the prevention of the recurrence of accidents
A culture of awareness	The recognition and sharing of information regarding the potential sources of accidents in order to prevent accidents and incidents
A culture of direct confrontation and debate	The open and frank discussion and exchange of opinions in investigating the causes of accidents and incidents in order to identify the causes of accidents and to take truly effective countermeasures against their recurrence
A culture of learning	The continuous awareness of others; learning from accidents and incidents that occur in all places of work, not just in one’s own workplace; and the implementation of appropriate countermeasures
A culture of action	Safety can be ensured only by taking safe actions. Think and act by yourself. This is at the core of our safety



Overview of Group Safety Plan 2023



CS (Challenge Safety) Activity

We encourage all employees to use their initiative in taking charge of safety, and we encourage them to participate in safety-related deliberation in the workplace.

Through our CS Activity, we aim to change our emphasis from reactive safety to proactive safety, such that each employee thinks about safety and addresses the related issues. We cultivate a culture of ongoing efforts to enhance safety, where individual employees are aware of safety and where field sites, branches and offices, and the head office are united in the process of discussing safety and formulating safety measures.

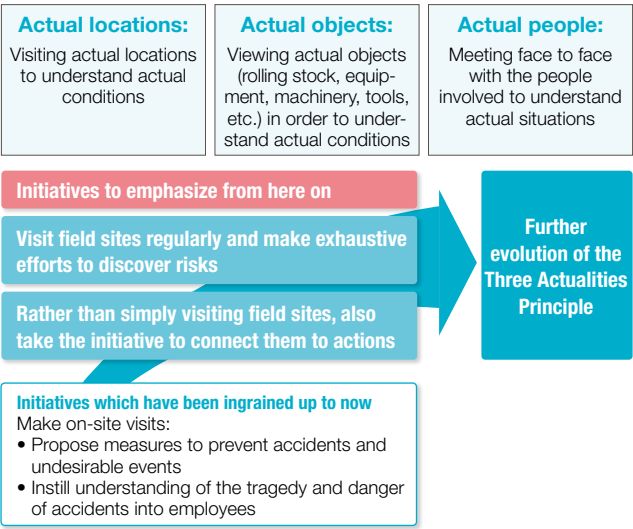
To share information useful to these activities, we periodically publish a safety newsletter, Challenge Safety *Aoshingo*.

Providing Society with Safe, Reliable Infrastructure

The Three Actualities Principle

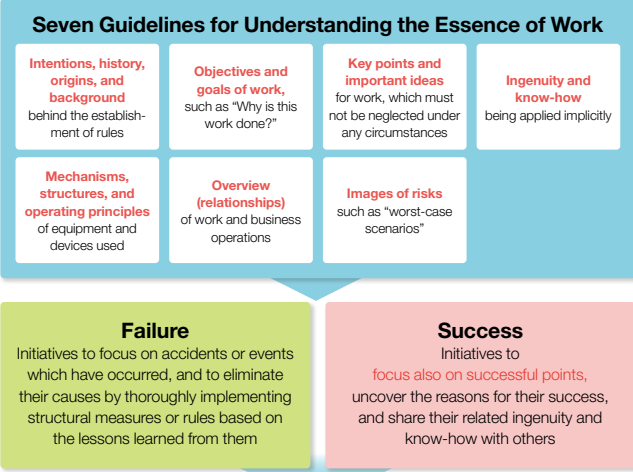
Accidents and incidents always occur at the *Genba*.* This means that the sources of accident prevention can also be found at the *Genba*. JR East Group continues to search for answers which cannot be found on paper, using on the Three Actualities Principle as its standard for action—actual locations, actual objects, and actual people.

* *Genba* refers to the actual locations, objects, and people directly related to the safety of our operations, including points of contact with our customers, and fields or workplaces of transport or services.



Facilitating Understanding of the Essence of Work

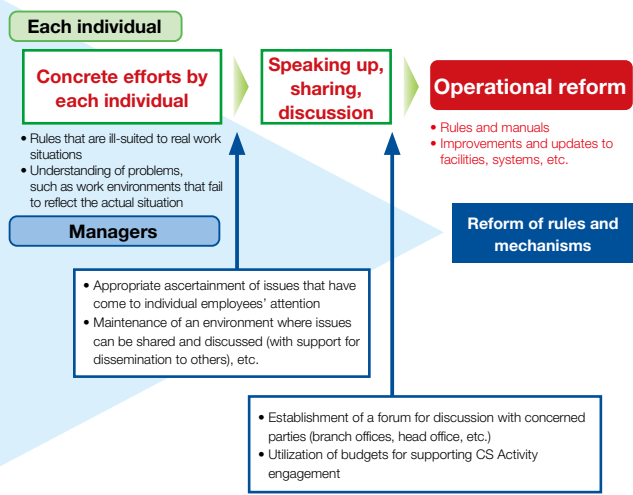
To properly respond to significant environmental changes, rather than merely learning the procedures and methods of work, we must be conscious of the Seven Guidelines, which include the purposes of work, the origins of rules, and the operating principles of equipment, to deepen our understanding of the essence of work.



Complementary effects of both sides
Promote initiatives to not only learn from failures but also focus on successful points

Moving Up Rules and Mechanisms

As the environment changes dramatically, the mechanisms of work change significantly as well, and by extension the risks of accidents and other events also change and new risks emerge. In order to comprehend changes in the environment and respond to new risks, our efforts start at the individual level, from which we work to obtain an accurate grasp of the actual situation on the front line and push through reforms to rules and mechanisms to suit real work situations.



How We Organize Safety Management

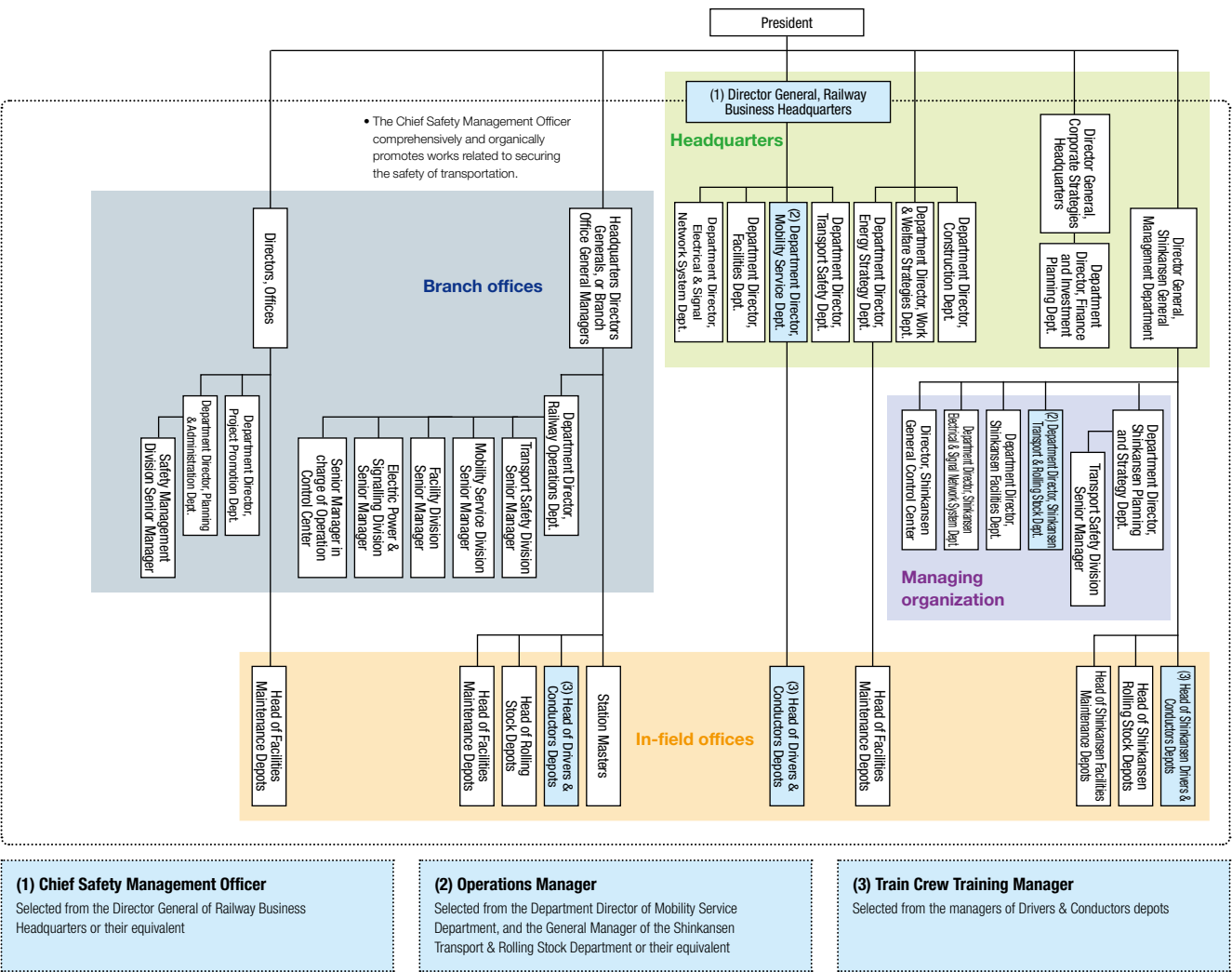
Safety Management Regulations

In response to a revision of the Railway Business Act, JR East formulated its safety management regulations in October 2006. These stipulate various safety management-related matters such as the responsibilities of top management executives in ensuring the safety of operations and in organizational matters and the selection of chief safety management officer, operation managers, and train crew training managers. To ensure transportation safety, we have built a system to promote operations centered on safety management officers and involving executives responsible for safety through to front line staff.

Structures to Promote Safety Measures

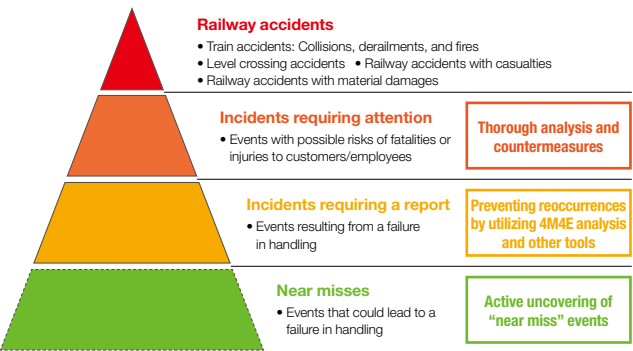
In 1987, we established the Railway Safety Promotion Committee, chaired by the director general of the Railway Operations Headquarters, at head office. This committee aims to enhance railway safety and prevent accidents by elucidating the causes of major accidents, formulating measures to prevent recurrence, and determining and promoting measures for safety-related equipment and rolling stock. We also have Regional Safety Promotion Committees, which are chaired by the heads of branch offices. These committees enhance railway safety at branch offices and seek to prevent accidents. They also liaise with the Railway Safety Promotion Committee to implement specific measures.

Management Structure for Transportation Safety



Rules for Reporting Accidents and Incidents

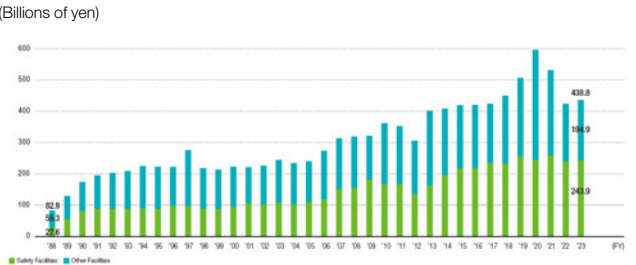
We endeavor to accurately understand accidents and incidents, analyze their causes, and implement measures to prevent them from occurring and recurring. To this end, we work to further enhance safety through accident reporting and the establishment of rules pertaining to classes of accidents.



Investment in Safety Facilities

JR East has invested more than ¥5.2 trillion in safety since its establishment. In its Group Safety Plan 2023, JR East undertook to invest approximately ¥1.2 trillion in safety measures during the five years from fiscal 2020 to fiscal 2024. We will continue to focus on putting safety facilities in place. At the same time, we will actively embrace new technologies and respond to new risks.

Trends in Safety Investment



Providing Society with Safe, Reliable Infrastructure

Efforts to Further Improve Safety Levels

Fostering Safety-Oriented Personnel

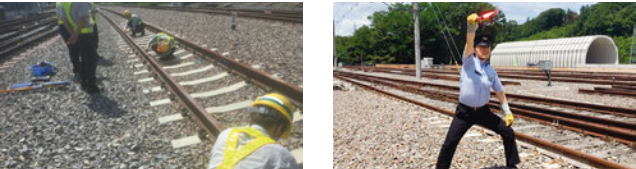
Safety Education and Training

To heighten safety awareness among employees by prioritizing safety education and training, JR East is offering education training opportunities to its employees at the JR East General Education Center in Shirakawa City, Fukushima Prefecture, at general training centers at its branch offices, and through on-the-job training in each workplace.

The JR East General Education Center offers group training for personnel development and the improvement of knowledge and skills, fostering the development of new train crew members while providing the necessary training for job transfers.



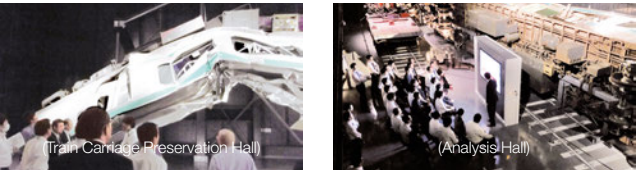
JR East General Education Center



Practical drills on training tracks

Accident History Exhibition Hall

In November 2002, we established the Accident History Exhibition Hall within the JR East General Education Center. This facility provides opportunities for all employees to learn about and reflect on the tragedies of past accidents and the major social responsibility borne by railways. In October 2018, we expanded the Accident History Exhibition Hall and displayed the rolling stock from a 2014 accident involving a derailed Keihin-Tohoku Line train at Kawasaki Station and the construction vehicle that collided with the train. We also opened the Interactive Learning Hall to encourage people to think about train derailment accidents from various perspectives.



Accident History Exhibition Hall

Promoting the Use of Education and Training Facilities

As one aspect of its efforts to train personnel to respond to environmental change, JR East is promoting the establishment of education and training facilities to cultivate an understanding of the essence of work.

By the end of 2019, we had installed crew training simulators at all transportation-related workplaces.

We also opened the Shinkansen Education and Training Center to teach staff about the specific rules and mechanisms of the Shinkansen through the use of related equipment.



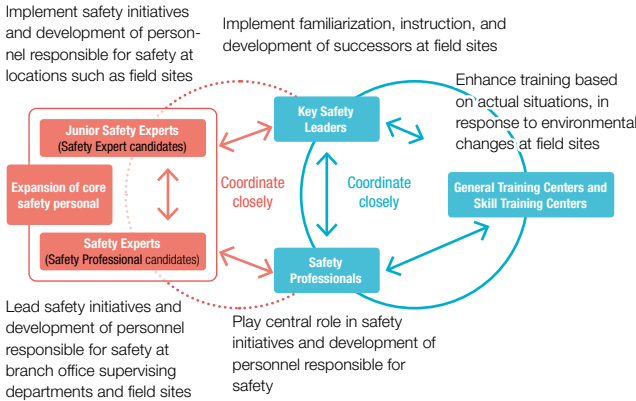
A simulator brings the crew-member training experience to life using actual video footage



Kokku Benrei Sha Safety Learning Center, Takasaki Branch Office

Development of Personnel Responsible for Safety

We are responding to the rapid transition to the next generation of employees by advancing a variety of initiatives that emphasize the cultivation of employees that treat safety as a core value.



Safety Storytellers (Narrators of Oral History)

To educate employees who can share and pass on safety-related knowledge, leadership, and technological capabilities within the Company, we have appointed highly experienced and technologically capable personnel in various specialized fields as safety storytellers, or narrators of oral history.

In addition, our headquarters, branch offices, and front offices also benefit from an environment that encourages employees to voluntarily discuss their experiences. Efforts are expanding to learn lessons from accidents and other events, to gain experience and knowledge, and to pass on such understanding to future generations.



Safety storytellers swearing-in ceremony



Otsuki accident lecture

The Railway Safety Symposium

To further enhance railway safety, each year we hold the Railway Safety Symposium. We strive to gain knowledge through discussion among local experts and share examples of good practice at workplaces.



Railway Safety Symposium

Safety Measures for Train Operation and Maintenance Work

Measures to Prevent Train Collisions

ATS and ATC

To prevent collisions between trains, JR East has installed ATS (Automatic Train Stop) and ATC (Automatic Train Control) systems for its conventional lines and ATC systems for Shinkansen throughout its railway network.



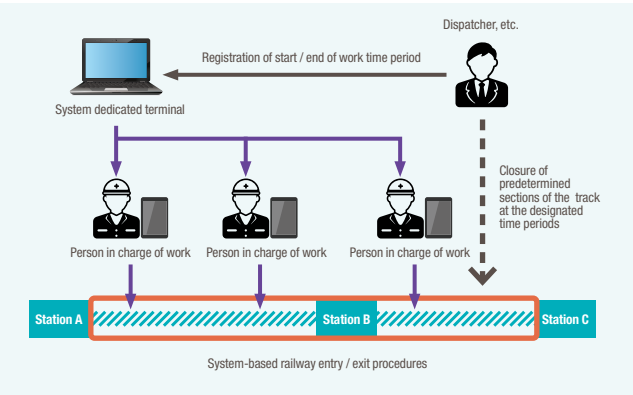
Maintenance Status

	Installation Status as of the End of Fiscal 2023
ATC	Now equipped on all Shinkansen, the Yamanote Line, the Keihin-Tohoku/Negishi Line, and the Joban Local Line
ATACS	Now equipped on the Senseki Line (Aobadori-Higashi Shiogama) and the Saikyo Line (Ikebukuro-Omiya)
ATS-P system	Completed installation in 25 major stations and railway sections for 2,484.7 km
ATS-Ps system	Completed installation in 71 major stations and railway sections for 210.8 km

Improving the Safety of Maintenance Work

During track maintenance work, we ensure the safety of workers by using a track closure procedure, which prevents trains from entering the area while the work is taking place. This involves meetings between the person in charge of the work and the person in charge of managing train operations. Recognizing the possibility of human error in communication between people, from December 2020 we introduced a system that closes the track in advance in a predetermined section for a particular period of time. Staff working on the track enter and leave using the system. This eliminates the need for meetings on the day of work, reduces human error during communications, and eliminates complicated procedures to improve safety.

System-Based Railway Entry/Exit Procedures

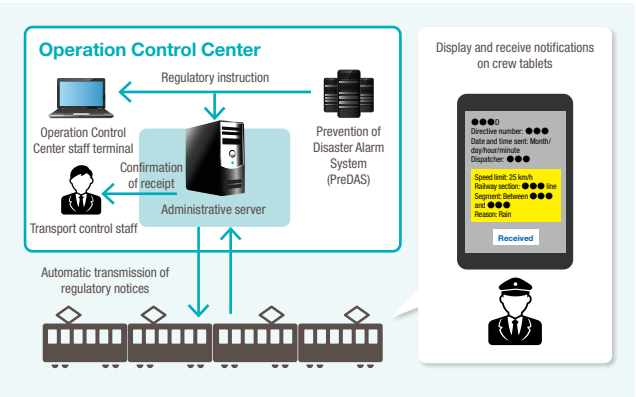


Providing Society with Safe, Reliable Infrastructure

Driving Restriction Notification System

If observed values exceed specified limits at times of heavy rain or strong winds, train speeds are restricted to ensure safety. In the past, the dispatcher transmitted the restrictions to the driver by wireless, but in September 2019, we introduced an automated notification system to help prevent human error.

How the Driving Notification System Works



Safety Initiatives for BRT Services

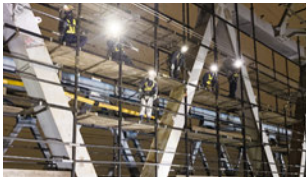
In the Kesenuma Line/Ofunato Line BRT service, we are working to ensure safety in cooperation with our two subcontractors, Miyako Bus Co., Ltd., and Iwate Kotsu Co., Ltd. In addition to various training using actual vehicles and joint information exchange meetings between the three companies, we also share and solve issues as well as work to strengthen collaboration through BRT Safety Meetings, where safety officers exchange opinions on site.



Tsunami evacuation drills

Safety Activities at JR East and Group Companies

The division of work continues between JR East and Group companies. In order to improve safety, however, we must have the same sense of values. We built JR East Safety Network (JES-Net), and 40 companies have now joined it. JES-Net carries out checks to ensure that safety works have been carried out correctly, facilitates discussions, and works to solve problems and improve safety levels across JES-Net.



Confirmation of work by JES-Net

CS General Meetings Conducted by All Office Employees



Mamoru Sugawara

Shinjo Office
JR East Techno Service Co., Ltd.

In response to the string of events that occurred in fiscal 2020, JR East Techno Service Co., Ltd., now holds quarterly CS general meetings for all employees with the aim of raising safety awareness and improving communication skills in the workplace.

Safety meetings tend to be rather formal as accidents and other such matters are discussed. At CS general meetings at the Shinjo office, however, we create an atmosphere that encourages people to feel free to attend and speak in a relaxed manner, and we take up topics of broad interest and promote lively discussions.

By encouraging the participation of all office employees in these CS general meetings, we have raised our level of safety awareness. For example, employees now raise concerns with each other more frequently when they sense that a dangerous incident may occur.



CS general meetings

Preparedness Against Natural Disaster

Natural disasters have been intensifying throughout Japan. For example, in March 2022, the Tohoku Shinkansen derailed due to the 7.4-magnitude earthquake off the coast of Fukushima Prefecture, and Hokuriku Shinkansen carriages were submerged at the Nagano Shinkansen Rolling Stock Center when the Chikuma River flooded during Typhoon No. 19 in 2019. We are therefore implementing a range of measures and initiatives to prepare for such intensifying natural disasters.

Our Measures Against Earthquakes

Seismic Reinforcement Measures

Since 1993, we have been enacting measures to prevent bridge collapses and to seismically reinforce elevated railway track pillars and bridge piers. Since fiscal 2013, following the Great East Japan Earthquake, we have proceeded with measures on sections identified as high priority. Based on knowledge gained from leading-edge earthquake research, in fiscal 2018 we expanded the countermeasure area and began new reinforcement measures targeting Shinkansen girder seams. The earthquakes off the shore of Fukushima Prefecture in February 2021 and March 2022 caused considerable damage to Shinkansen viaducts such as the sinking of girders as well as damage to Shinkansen utility poles. In response, in addition to reviewing the order of priority for all countermeasures, we are expanding our reinforcement plans and working to further improve safety.



Seismic reinforcement of elevated railway tracks



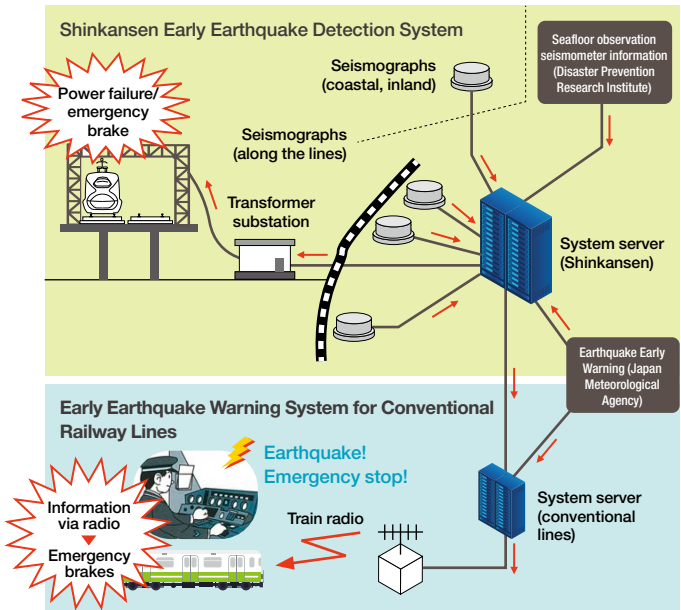
Structural reinforcement of utility poles

Measures for Emergency Stopping of Trains

We are constructing systems to ensure that high-speed trains can stop as quickly as possible in the event of an earthquake. For the Shinkansen, we have installed seismographs along our railway lines, in coastal areas and inland, to provide early warnings of even minor movements. In addition, we employ Earthquake Early Warnings from the Japan Meteorological Agency and underwater seismograph information from the Disaster Prevention Research Institute in our Shinkansen early earthquake detection system.

Using the seismic information provided by this Shinkansen system, we have also installed an early earthquake warning system on conventional lines to provide emergency stop notification if large-scale earthquakes are observed.

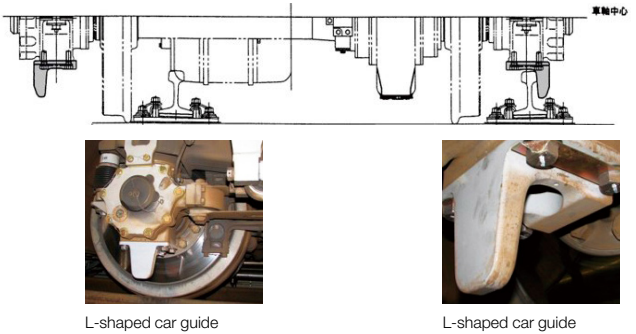
Shinkansen Early Earthquake Detection System



Measures to Prevent Derailment on Shinkansen

We have measures in place to prevent Shinkansen trains from deviating too far from the track even in the event of derailment due to an earthquake.

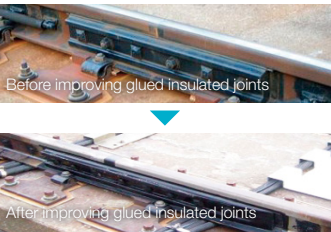
L-Shaped Car Guide



L-shaped car guide

L-shaped car guide

Preventing Breaks at Glued Insulated Joints



General Emergency Drills

Every year, we conduct a comprehensive disaster-preparedness drill, assuming an earthquake has struck. As part of our training during fiscal 2023, we conducted practical drills simulating an earthquake with an epicenter directly beneath Tokyo causing multiple simultaneous derailments on various line sections in the Tokyo metropolitan area as well as injuries to many passengers and others, with a focus on rescue and first aid. We also conducted drills simulating flooding at stations that are prone to such risk.



On-site disaster countermeasure headquarters operational drill



Firefighter drill for rescuing passengers

Implementation of Rescue and First Aid Drills and Preparation of Kits

In the wake of the Great East Japan Earthquake, JR East conducts rescue and first aid training courses with the aim of ensuring passenger safety and teaching our employees first aid to administer as first responders in the event of a major earthquake. We also prepare kits to meet various rescue needs.



JR East rescue/lifesaving course



Rescue kits

Measures Against Tsunamis

Before the Great East Japan Earthquake, we had set operational restriction methods and tsunami danger zones for each location, prepared manuals, and were holding study sessions and conducting drills on guiding passengers to alight from trains for evacuation. We believe that these efforts led to the prompt evacuation of passengers away from tsunami danger zones at the time of the earthquake.



Tsunami evacuation manual



Drill to guide passengers in alighting from a train in an evacuation

Providing Society with Safe, Reliable Infrastructure

Formulating Action Guidelines for Evacuation to Avoid Tsunamis
To prepare for a situation where there is limited time to act before the arrival of a tsunami, JR East in January 2012 formulated action guidelines for evacuation during tsunamis for each of its employees to follow.

Action Guidelines for Evacuation to Avoid Tsunamis

(1) At the time of a large earthquake, be prepared for tsunamis. Gather information by yourselves and if communication lines are disconnected, make your own decisions for evacuation. (Do not hesitate because you are worried about evacuating and then later realizing that a tsunami has not in fact occurred.)

(2) Having decided to evacuate, judge the conditions of passengers, and promptly guide passengers to evacuate.

(3) In alighting from trains, evacuating, and gathering information, ask passengers and local people to cooperate.

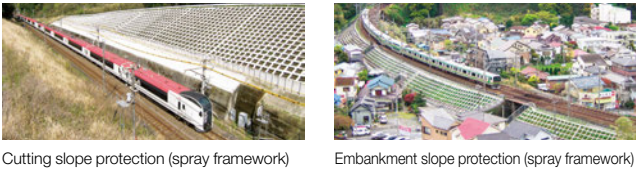
(4) Even after evacuation, keep moving toward higher places without assuming that you are high enough to be safe.

(5) Stay evacuated with customers and do not return to field offices or trains while tsunami warnings are still being issued.

Tsunami Evacuation Navigation System
Learning from the tsunami evacuation at the time of the Great East Japan Earthquake, we have developed and introduced tools to help crew on trains in operation to guide passenger evacuations in unfamiliar locations.



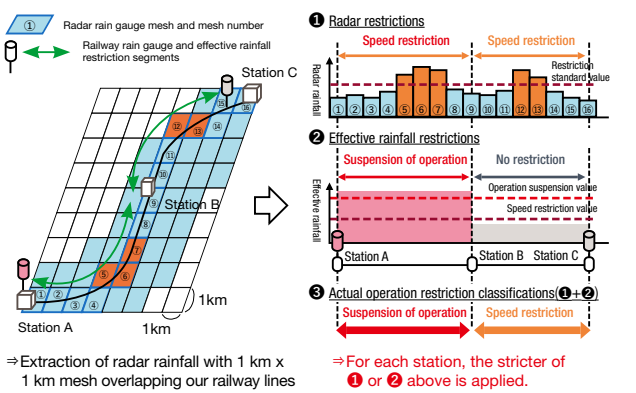
Measures for Rainfall
To prevent landslides due to rainfall, we are systematically implementing disaster prevention measures along slopes and other areas throughout the railway network.



In recent years, rainfall disasters have become more severe as well as more frequent, and localized heavy rains are on the rise. In response, in June 2023, we introduced new operational regulations using precipitation radar on conventional lines. On Shinkansen as well, to prepare for the increased risk of disasters due to record-breaking rainfall and other future anticipated events, since fiscal 2022 we have been proceeding with rainfall disaster prevention work. In addition, in 2020, we introduced new regulations requiring comprehensive assessment

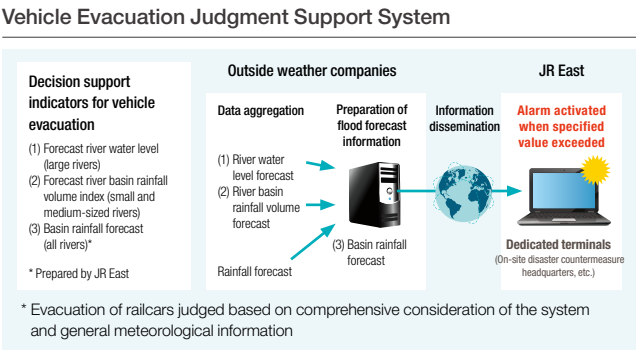
of rainfall volumes using weather radar and the temporary suspension of Shinkansen operations in the event of heavy rain to confirm safety.

Conceptualization of Train Operation Restrictions Using Precipitation Radar on Conventional Lines

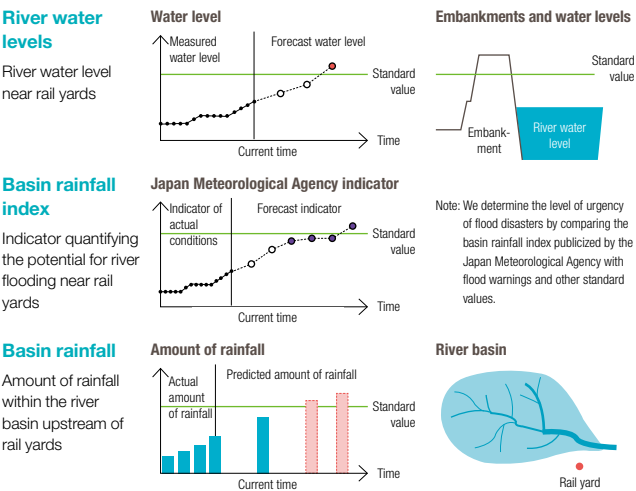


Initiatives to Address Flooding
We have been working to enhance flood-response measures, having suffered significant damage from Typhoon No. 19 in October 2019, when overflowing rivers caused damage to railcars on the Hokuriku Shinkansen.

For railway facilities, we have been setting priorities for each facility and implementing hardware measures. In addition, utilizing hazard maps, we have introduced a Vehicle Evacuation Judgment Support System at rail yards where there is a risk of flooding, to promptly evacuate vehicles in the event of a disaster. With this system, we have developed indicators to support decisions on vehicle evacuation, and when each indicator reaches the set value, an alarm sounds to notify the people concerned.



Indicators to Aid Decisions About Evacuating Railcars



Note: In addition to these indicators, we use general meteorological information to make a comprehensive decision on railcar evacuation.

Protecting Against Strong Winds and Gusts
Since a train accident on the Uetsu Main Line in December 2005, we have introduced the major wind-related initiatives described below.

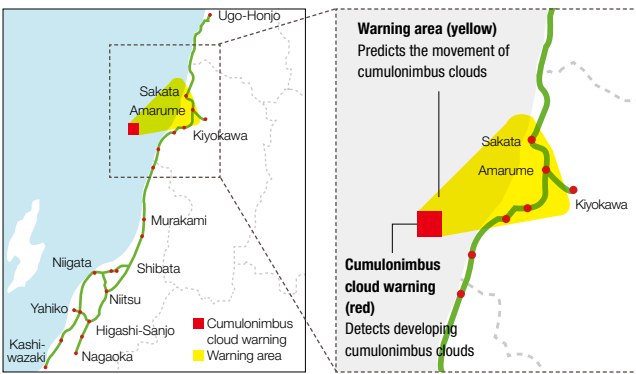
Increased Number of Anemometers (Wind Meters)
We typically install multiple anemometers on sections where wind-based operating restrictions are in effect. We have also increased the number of anemometers in locations where windbreaks have been installed. To ensure accuracy, we are also moving toward the installation of dual anemometers.

Installation of Windbreak Fences
We install windbreaks to protect railcars from the wind.



Utilizing Meteorological Information for Operation Control
We have developed a method to restrict operations using meteorological information, such as rain intensity measured by the Japan Meteorological Agency's weather radar and the agency's "nowcasts" on the likelihood of tornadoes, to predict gusts of wind that could be generated by cumulonimbus clouds. We are currently using this system along sections on the Sea of Japan in winter.

Display Image of Operation Control Area Using Meteorological Information

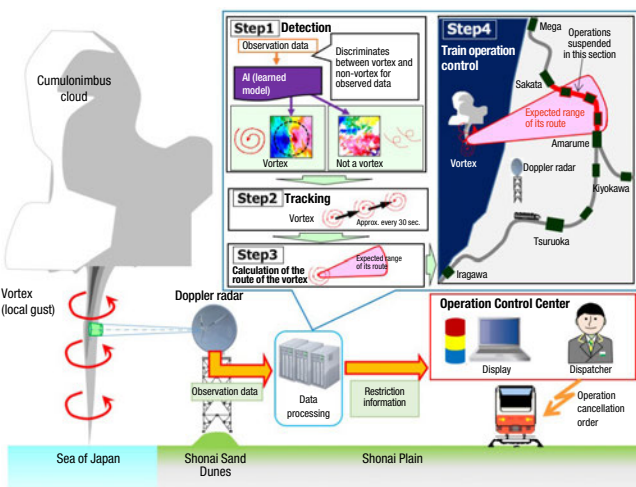


Operation Control Method Against Wind Gusts Using Doppler Radar

The system uses Doppler radar to detect vortices that cause wind gusts by observing the movement of raindrops and other objects in the sky, and it issues an alarm when a train track is located within the predicted path of the vortex. This system was jointly developed with the Japan Meteorological Agency's Meteorological Research Institute and has been in operation on the Uetsu Main Line and in some sections of the Rikuu West Line since winter 2017. Since then, we have continued to expand the scope of train operation regulations and to improve the accuracy of vortex detection using AI.



Operation Control Method against Wind Gusts Using Doppler Radar



Initiatives for Volcanic Eruptions
The main characteristics of volcanic disasters are the impacts of volcanic mudflows and ash fall, and in particular even a small amount of volcanic ash fall can potentially impact train operations. JR East uses volcanic hazard maps issued by local governments to identify those railway lines and sections that will likely be affected, and, if there is a risk of a volcanic eruption, we set up a countermeasures headquarters to determine whether train operations can continue and whether evacuation is necessary.

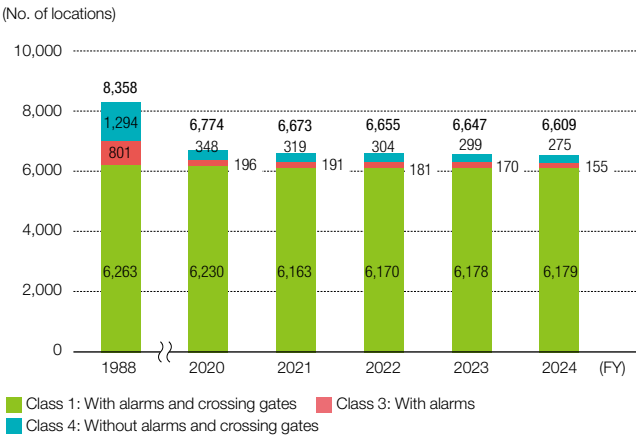
Safety Measures at Level Crossings

Our Efforts to Eliminate Level Crossings
Our principal measure for preventing accidents at level crossings is to eliminate such crossings. We are working with people in local communities to elevate, consolidate, and eliminate level crossings. Where it is difficult to eliminate Class 3 and Class 4 crossings, we are converting them to Class 1 crossings.

Number of Level Crossings Eliminated over Past Five Years (Including Those Transferred to Third-Sector Operators)

FY	2019	2020	2021	2022	2023
Reduction	67	101	18	8	38

Changes to the Number of Level Crossings (As of April 1)



Providing Society with Safe, Reliable Infrastructure

Installation of Obstacle Detectors

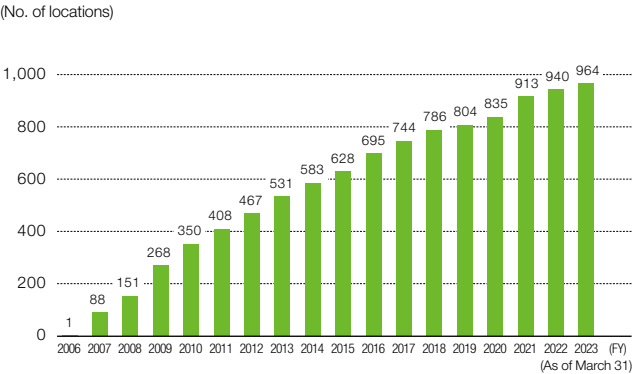
To prevent train derailments due to collisions with vehicles of all sizes, we are installing equipment to detect vehicles stuck at level crossings where trains will be passing through.

Our obstacle detectors use 3D laser radar that covers the overall level crossing area and goes beyond conventional functionality, with newly developed features that set higher standards for detection performance and reduce false positives caused by falling particles such as rain and snow. We began installing these devices in fiscal 2020 and are steadily increasing their number.



3D laser radar obstacle detectors

Number of Locations of 3D Laser Radar Obstacle Detectors



Installation of Level Crossing Obstacle Alarm Devices (Emergency Buttons)

We are installing emergency buttons to notify train operators of danger in the event that a vehicle gets stuck at a level crossing. So far, we have completed the installation of these devices at all level crossings within a 100 km radius of Tokyo where vehicles pass, as well as at level crossings susceptible to tsunami damage. In fiscal 2018, we also improved the visibility of all emergency buttons and standardized guide signs.

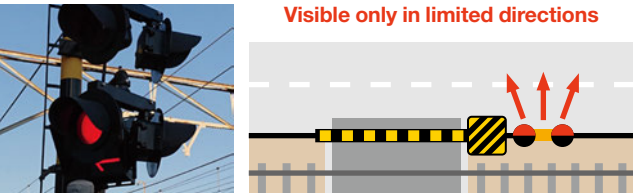


Level crossing obstacle alarm device (emergency buttons)

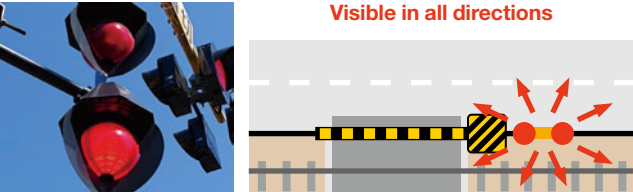
Installing Omnidirectional Warning Lights

Regarding level crossing warning lights to notify the approaching of a train, we are replacing conventional warning lights with omnidirectional warning lights so that they can be easily seen by elderly people with lower sight lines and automobile drivers who enter level crossings from roads.

Conventional Warning Light



Omnidirectional Warning Light



Level Crossings for Easier Passage

Based on the Act on Promotion of Level Crossings, we are elevating and widening roads at level crossings designated for improvement. In addition, where necessary, we are using colored pavements or adopting other approaches for roads that cross railways such as building pedestrian overpasses, and making improvements as dictated by local conditions.



In cooperation with road administrators, we are increasing the width of level crossings and separating crossings for pedestrians from those for automobiles by making the roads and walkways different colors.

Initiatives Involving Class 4 Level Crossings

Class 4 level crossings are not equipped with alarms or crossing gates. We are working with local communities to eliminate such crossings or upgrade them to Class 1 level crossings. In addition, as another measure to prevent accidents at level crossings, we are erecting signs calling for caution and erecting whistle boards to warn people at crossings of approaching trains.



Class 4 level crossing

Campaigns and Other Activities Aimed at People Using Railway Level Crossings

We collaborate with police and other relevant organizations to encourage accident prevention at level crossings and schools. In addition, every year we carry out campaigns such as broadcasting accident-prevention videos and broadcasting radio commercials in cooperation with other railway operators.



Campaigns and other activities at level crossings

Platform Safety Measures

We are working to improve the safety of our platforms from both tangible and intangible perspectives so that passengers can rest assured when using our stations.

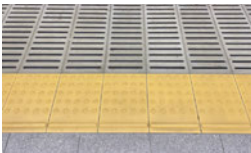
CP (Color Psychology) Lines



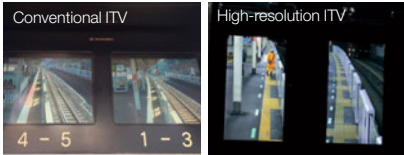
These lines use colors that people associate with danger to encourage a visual and psychological connection between danger and the platform edge.

Braille Blocks That Indicate Which Direction Is Away from The Edge of the Platform

We have designed linear protrusions on the insides of platforms and put in place blocks that make it easy to distinguish the inside of the platform from the platform edge.



Installation of High-Resolution ITVs



We have installed high-resolution ITVs for station staff and conductors to monitor the platforms and tracks.



Fall Detection Mat



A mat placed on the tracks along the platform detects whether a person has fallen onto the tracks and notifies incoming trains to stop.

Emergency Stop Buttons on Platforms



We have installed emergency stop buttons on platform pillars so that people can notify drivers, conductors, and station staff of danger.

Platform Doors

We are installing platform doors to prevent people from coming into contact with trains or falling onto tracks.



Smart Platform Door®

Platform Door Installation

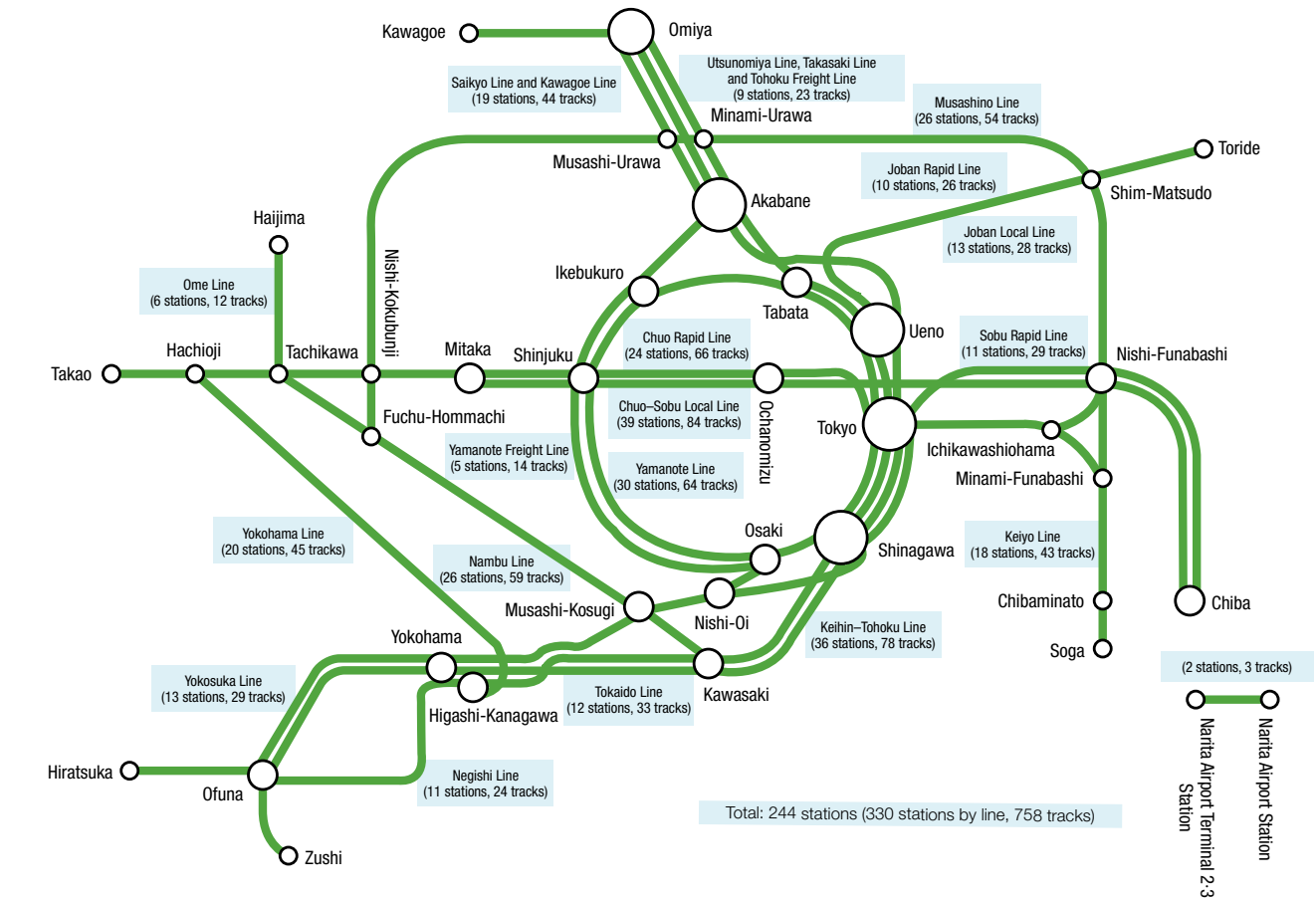
To prevent accidents involving customers falling from platforms or coming into contact with trains, we are installing platform doors. By the end of fiscal 2023, we had completed the installation of platform doors at 86 stations (a total of 99 stations* by line) on 197 tracks, mainly on the Yamanote, Keihin-Tohoku, and Negishi lines.

Thus far, we have given priority to platform door construction work on about 660 major tracks, with the goal of installing platform doors at 243 stations (330 stations by line) on major conventional lines in the Tokyo metropolitan area by the end of fiscal 2033. To achieve even faster construction, we will expand the scope of construction to 244 stations (330 stations by line) on 758 tracks of conventional lines in the Tokyo metropolitan area, including passing sidings. We aim to complete construction by the end of fiscal 2032, one year earlier than previously planned, by introducing lightweight Smart Platform Doors® and reducing the construction period through a review of design loads.

* The number of stations is counted by line, e.g., Yurakucho Station is counted as two stations, one on the Yamanote Line and one on the Keihin-Tohoku Line.

Providing Society with Safe, Reliable Infrastructure

Railway Lines Where Platform Doors are Scheduled for Installation by the End of Fiscal 2032 (Announced in April 2022)



Campaigns and Other Activities for Customers Using Our Railways

In addition to customer care and assistance carried out by station staff and guidance provided through station broadcasts, we conduct the year-round Assistance and Support campaign, which solicits the cooperation of not only JR East employees and JR East Group employees but also general customers using our rail services to assist customers in need, including those with visual impairments.

In addition, we are jointly implementing campaigns such as Zero Platform Accidents, and Stop Using Smartphones While Walking.



Accident prevention posters

Preventing Transportation Disruptions

We are working to prevent transportation disruptions by focusing on and analyzing the causes of such occurrences, identifying priority issues that need to be addressed, and taking action to prevent disruptions.

Rolling Stock

- Introduction of new rolling stock, such as the Series E235, with enhanced reliability through backup systems for major equipment
- Upgrading of rolling stock equipment

Equipment

- Promotion of condition-based maintenance (CBM) using monitoring data
- Simplification and integration of electrical facilities (simple overhead wire configuration)

Other

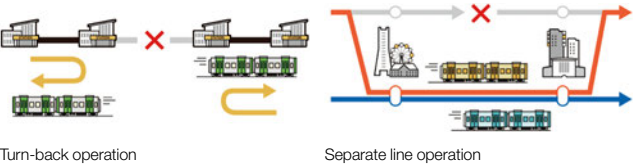
- To deal with the problem of fallen trees during typhoon season and before snow season, we use orderly logging to help prevent transportation disruptions due to fallen trees and long-term stoppages between stations.
- As part of our suicide prevention efforts, our station employees call out to people at stations. We have also been using former employees to patrol stations as well as station displays and social media to publicize counseling services.
- To prevent collisions between animals and trains, we have been spraying animal repellents around railways and introducing repellent devices that use laser light and sound.

Minimizing the Effects of Disruptions on Customers

We make our customers our top priority and seek to minimize the impact of any incident on them by considering the best way to resume operations as quickly as possible.

Prompt Resumption of Train Operations After Transportation Disruptions and Efforts to Minimize Impact on Passengers

With our customers our top priority, we work to come up with optimal measures to resume operations as soon as possible after any disruption, to minimize the extent of impact, and to provide assistance to our passengers. We strive to minimize the extent of any suspension of operations by implementing turn-back operations at stations along operable line segments, where possible. In addition, in certain sections where lines run parallel to each other, we make arrangements to minimize the impact of transportation disruptions by switching to separate lines with no interference to operation.



Customer Rescue Initiatives

We make ongoing efforts to improve our ability to provide customer relief after transportation disruptions through training that simulates equipment failures and other large-scale disruptions. In addition, we conduct drills using rescue ladders to help passengers off trains, simulating passengers who require consideration, including persons with disabilities, pregnant women, and small children. Furthermore, when trains are forced to stop between stations, we work to rescue and transport customers using all options available, including not only buses and cabs but also commercial and maintenance vehicles.



Announcement of Train Service Resumption Times During Disruptions

We aim to announce the anticipated time at which operations should resume within about 30 minutes of the occurrence of a transportation disruption, and within 15 minutes in the case of accidents resulting in casualties. The rate of announcements meeting this criteria was 96% in fiscal 2023. We will continue to provide information promptly to help customers make decisions on their next moves at times of unexpected disruption.

Planned Suspension of Operations

Planned suspensions are implemented to minimize damage and transportation disruptions by adjusting the number of trains in operation in advance, when weather conditions and other factors are expected to have a significant impact on passengers due to prolonged suspensions or major delays. In the case of typhoons, we make comprehensive assessments of a typhoon's path and magnitude, and we provide information to customers and employees from an early stage using a variety of media (JR-East website, social media, etc.) to help them decide what to do. Once inspections and restoration work are completed, we review the specific operation resumption plan and announce the operation schedule to customers.



Gono Line operation suspended due to heavy rain

Providing Information During Unusual Situations

Seeing things from our customers' point of view, we provide information to help people make quick and appropriate decisions about transportation.

Information Enhancement

We share details about train operation and other useful information with our customers through various media.

Guidance Displays in Emergency Situations, LCDs in Trains

In addition to providing information on services in the event of transportation disruptions, such as suspended operations, we also provide passengers with details of other lines to which they can transfer (available in Japanese, English, Chinese, and Korean).



Detail of an LCD guidance display for emergency situations

DOKOTORE website

DOKOTORE Website

This website provides information on train delays and the location of trains (available in Japanese and English), especially in regional areas.

JR-East Website

We provide information on the operation and suspension of Shinkansen trains and limited express trains on conventional lines in the event of transportation disruptions and other problems on our website (available in Japanese, English, Chinese, and Korean).

JR East App

Our JR East App allows customers to check the operation status of each line in the event of a transportation disruption (available in Japanese only).

Social Media

We use social media platforms X (formerly Twitter) (Japanese and English) and Weibo to provide real-time information on the status of damage caused by natural disasters as well as information on operations and operation plans.

Notice of Special Arrangements and Initiatives Concerning Train Operations

In order to provide customers with easy-to-understand information on how to respond to natural disasters and other emergencies that have a large impact on train operations, such as strong winds, typhoons, and heavy snow, as well as questions about train operations, we have assembled and made available on our website the JR East *Naruhodo* Q&A Guide and related videos. The guide includes the following information.

Passenger Safety and Comfort

- Emergencies (items prohibited on board, how to evacuate safely from trains)
- Consideration for others (priority seating and free space for wheelchair users and stroller users, assisting and supporting others, walking while using a smartphone)



Naruhodo Q&A Guide: Emergencies

Efforts to Address Natural Disasters

- Our approach to addressing wind, rain, typhoons, snow, earthquakes, and volcanic eruptions

Initiatives for Safe and Stable Transportation

- Addressing transportation disruptions (turn-back operation, separate line operation, transfer operation, etc.)
- Providing information (various information provision tools such as the JR East App)

Providing Society with Safe, Reliable Infrastructure

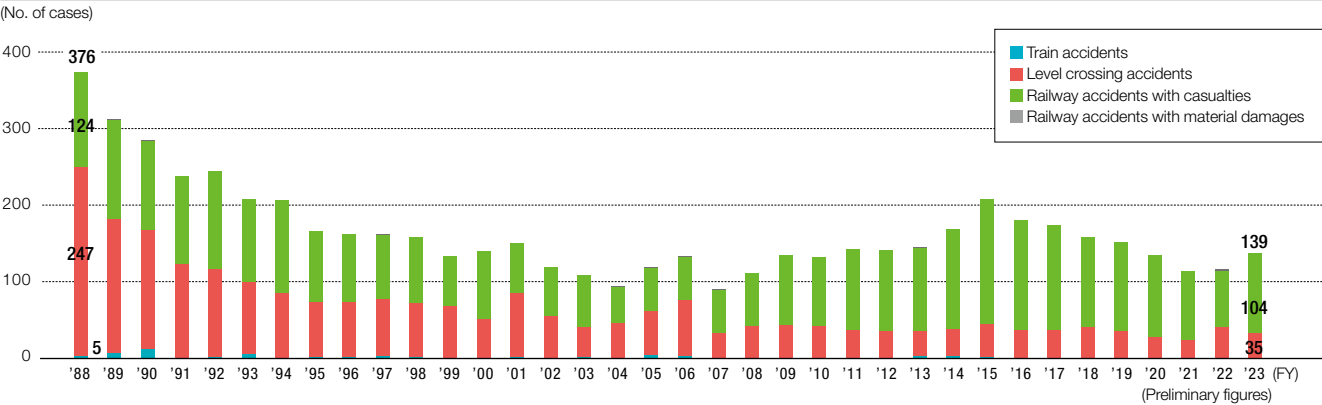
Safety and Security On Board Trains

In collaboration with police, Group companies, and other organizations, we regularly conduct training on how to respond to abnormal situations such as dangerous behavior in train carriages. With growing social interest in train security in recent years, we are enhancing our ability to respond by continuing our efforts to ensure that our customers can rest assured when using our rail services.



Suspicious activity response training on Shinkansen train carriages

Occurrences of Railway Accidents * From the third quarter of FY2014, incidents which cannot be determined as suicides are classified as level crossing accidents or railway accidents with casualties.



Incidents

In fiscal 2023, there was one incident recorded.

- A barrier failed to close while a train running between Ayaori Station and Tono Station on the Kamaishi Line passed through. The incident was due to the relay being fused by a lightning strike and the circuit improperly configured.

Incidents	A situation that could lead to a railway accident. The definitions of incidents are stipulated by the rules and regulations for railway accidents that require reporting.
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Transportation Disruptions

JR East recorded 1,582 cases of transportation disruption in fiscal 2023. Compared with fiscal 2022, there was a noticeable increase in natural disasters and collisions with animals.

Transportation disruption	Excepting railway accidents, transportation disruptions encompass train service cancellations due to failures of trains or facilities, mishandling by employees, or disasters, and delays to passenger trains by over 30 minutes or other trains by over an hour.
Disaster	Natural phenomena such as powerful storms, heavy rainfall, heavy snowfall, flooding, high tides, earthquakes, tsunamis, etc.
External causes	External causes such as trespassing or suicide
Internal causes	Internal causes such as those related to staff, trains, or facilities

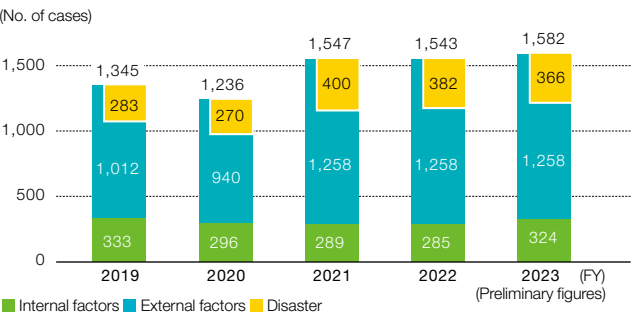
Current Safety Record of JR East

Railway Accidents

In fiscal 2023, JR East recorded 139 railway accidents, down significantly from the level at the Company's foundation. Railway accidents with casualties accounted for approximately 70% of the total number of railway accidents. There were zero train accidents and railway accidents with material damages in the year under review.

Train accidents	Train collisions, derailments, and train fires
Level crossing accidents	People or vehicles being hit by trains
Railway accidents with casualties	People killed or injured by train operation excluding suicide
Railway accidents with material damages	Railway accidents with material damages

Number of Transportation Disruptions



	FY2019 Results	Targets for FY2023	FY2023 Results
Transportation disruptions due to internal causes on conventional lines within 100 km of Tokyo	99 incidents	(from FY2019 level) 70% reduction No more than 31 incidents	9.1% reduction 90 incidents
Transportation disruptions due to internal factors on JR East Shinkansen	13 incidents	(from FY2019 level) 75% reduction No more than 3 incidents	38% reduction 8 incidents
Total delay time due to internal causes, conventional lines within 100 km of Tokyo	50.3 thousand minutes	(from FY2019 level) 70% reduction No more than 18.0 thousand minutes	20% reduction 40.0 thousand minutes

Creating a Vibrant Society

We will provide quality services that are inclusive and convenient.
We will work in partnership with local communities to develop vibrant towns.



① Regional Revitalization

- Goals**
- Growth in the number of people engaging with eastern Japan
 - Promotion of regional economic revitalization

② Comfortable Cities

- Goals**
- One-stop provision of various high-value-added services
 - Realization of seamless, stress-free travel
 - Creation of diversely appealing towns with consideration for the environment, disaster prevention, and communities

③ Inclusive Society

- Goals**
- Development of hospitality-minded employees
 - Improvement in service quality through dialogues with people with disabilities
 - Promotion of understanding of an inclusive society through parasports experience and support activities

① Regional Revitalization

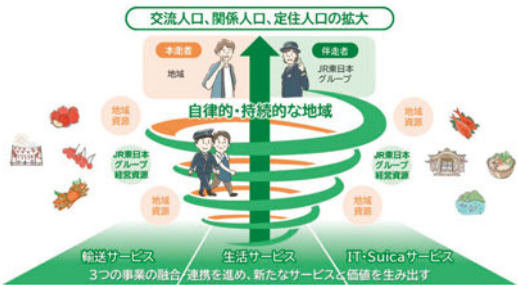
One of the pillars of “Move Up” 2027 is “Making regional areas more prosperous,” and the entire JR East Group will contribute to regional revitalization in the way that only the Group can.

Until now, we have worked on regional revitalization in the fields of mobility and tourism with an emphasis primarily on railways. Going forward, though, we will aim to revitalize and enhance the attractiveness of local communities in a wide range of fields such as lifestyle services, and IT & Suica services. To that end, we will collaborate with external networks and local governments to uncover attractive local resources, as well as fuse digital with real-world strengths unique to our Group to provide value that focuses on each customer in line with changes in lifestyles and workstyles.

Companiable Community Development

By combining the assets of the JR East Group to create new value that addresses the various issues regional communities face, we will pursue “companiable community development” with the aim of working with communities to increase human interaction, visitor numbers, and the size of their resident populations.

We will contribute to the development of sustainable local communities by prompting our employees at our stations or general management centers to take the lead in collaborating with enthusiastic local residents to ascertain regional issues and steadily implement proposals and initiatives that leverage the comprehensive strengths of the JR East Group.



Rendering of collaborative community building

Efforts for Sustained Community Building



Mai Matsuzaki
Kisarazu General Management Center
Chiba Branch Office

Working in partnership with Chiba University, tourism complex The Fish, and a winery based at an abandoned mine cave in Mount Nokogiri, we have created the



Mt. Nokogiri Wine brand as a tourism asset. Up through fiscal 2023, I was in charge of planning a tour using Shinjuku Sazanami trains and rolling out thank you gifts from Futtsu City for *JRE MALL Furusato Nozei* (hometown tax donations). Before that, I had only been involved in typical station work so everything was a continuous learning process, but seeing the smiles of the customers and local residents who participated in the tour that day gave me a great sense of accomplishment.

In the months and years ahead, we will continue to work with the local community to further refine the Mt. Nokogiri Wine brand and concept, revitalize the region by making the most of its attractive tourism resources, and work for sustainable town development.

In fiscal 2023, we collaborated with the region on 10 initiatives for tourism promotion and regional revitalization as a means of increasing visitor numbers and revitalizing local economies in eastern Japan. We aim to implement a total of 150 such initiatives by the end of fiscal 2028.

Value Creation by the JR East Group	Business Strategies		Strategies That Support Growth		Sustainability	Data
Sustainability Strategies, Promotion Structure, and Our Sustainability Goals	Providing Society with Safe, Reliable Infrastructure	Creating a Vibrant Society	Enriching the Global Environment	Providing Society with Innovative Technologies and Services	Increasing the Engagement of All Group Employee	Improving Confidence in Management

Creating a Vibrant Society

Our MaaS Solution, Tabi-CONNECT

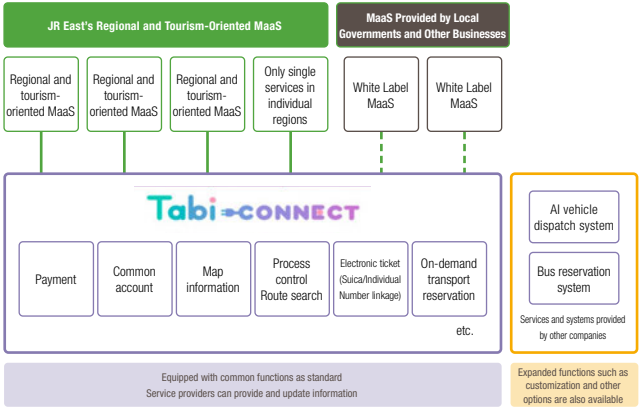
Since 2017, we have been assembling Mobility Linkage Platform (MLP), which provides customers with all-in-one information, purchasing, and payment for mobility, to offer them seamless mobility and support stress-free travel.

Since 2021, we have been offering Tabi-CONNECT, which brings together common functions of regional and tourism-oriented Mobility as a Service (MaaS) from MLP in a single package and can be provided to external organizations.

Regional and Tourism-Oriented MaaS

Utilizing Tabi-CONNECT, we deploy regional and tourism-oriented MaaS that allows local residents and tourists to enjoy more convenient and comfortable transportation.

We provide services that allow users to make reservations and payments for on-demand transportation smoothly using just a smartphone, with a function that allows customers to use Suica for services for specific areas and specific age groups by linking their Individual Number Card to their Suica ID number.



Service Name	Deployment Area	
TOHOKU MaaS	6 prefectures and 8 areas in Japan's Tohoku northeast region	<ul style="list-style-type: none"> Provided by JR East Launched April 2022
Tabisuru Kitashinano	Northern Shinano area, Nagano Prefecture	<ul style="list-style-type: none"> Provided by JR East Launched April 2023
Hitachinokuni Kiko	Ibaraki Prefecture, central area	<ul style="list-style-type: none"> Provided by JR East Trial run commenced in October 2022
Kaiyu Karuizawa	Nagano Prefecture, Karuizawa area	<ul style="list-style-type: none"> Provided in collaboration with other businesses Trial run commenced in January 2022
Izu navi	Shizuoka Prefecture, Izu area	<ul style="list-style-type: none"> Provided in collaboration with other businesses Launched in November 2022
MaeMaaS→ GunMaas	Gunma Prefecture, Maebashi and other areas	<ul style="list-style-type: none"> Provided by local government Launched in November 2022 and expanded to Gunma Prefecture MaaS (GunMaaS)

Digital Yorozu Consultation Desks

JR East cooperates with the government's efforts to realize their mission of "Human-friendly digitalization: No one left behind," and is operating temporary digital consultation desks at its train stations lead by employees registered as "Digital Supporters." At the desk, we provide information not only about our own services such as *eki-net* and JRE POINT, but also how to apply for an Individual Number Card and how to use the Mynportal.

We introduced Digital *Yorozu* Consultation Desks in various places, including in conjunction with the G7 Digital and Tech Ministers' Meeting in Takasaki, Gunma, and we are planning to continue to introduce them.



Digital Yorozu Consultation Desks at Hachioji Station

Regional and Tourism-Oriented MaaS Tabisuru Kitashinano



Shumpei Koizumi

Mitsuki Shimizu

Nagano General Management Center
Nagano Branch Office

Tabisuru Kitashinano started as an idea from employees at Nagano Station. In order to increase the number of stores handling electronic tickets, worksite employees seek out facilities on their own and visit them to negotiate contracts. Taking the initiative with such proposals is challenging, but we find it highly rewarding. Another notable feature is that the local government covers the cost of publicity and collaborates with developing it.

We launched the initiative in April 2023, and are promoting it with the local community through efforts such as supporting inbound business.

Town Development in Regional Hub Cities

Aiming for sustained town development even as Japan's population declines, we are pursuing regional revitalization together with local governments and communities.

At Iwaki Station, Hotel B4T Iwaki and shopping center S-PAL Iwaki opened in January 2023 as integral parts of the station, and we are working in partnership with Iwaki City and other entities to revitalize the station vicinity. In addition, at Niigata Station, we are proceeding with development beneath the elevated railway tracks at the station and working to create vibrant communities in collaboration with local residents from areas including Furumachi and Bandai. At Aomori Station as well, we are developing station buildings that will include hotels and administrative facilities, and we are working with local governments to develop attractive towns.

JRE Local Hub Regional Revitalization Workplaces

Based on the key concepts of "connecting regions" and "connecting generations," our JRE Local Hubs provide regional revitalization workplaces that connect technologies and people across areas and generations. We opened one at Tsubamesanjo Station in February 2023 and one at Hotel Familio Tateyama in March 2023.

We aim to achieve new regional revitalization by connecting people and services outside the area by positioning local stations as hubs and developing local industries and human resources. In addition, through community-based training programs, we aim to develop a new generation of problem-solvers.



JRE Local Hub, Tsubamesanjo Station

* The Tsubamesanjo and Tateyama projects have both been selected as eligible projects for the "Digital Garden City National Plan Promotion Grant (Regional Revitalization Telework Type)" promoted by Japan's Cabinet Office.



Development beneath elevated railway tracks at Niigata Station

Co-creation with Local Startup Businesses

JR East Start UP Co., Ltd., which promotes investment and collaboration with start-up businesses, established JR East Local Startup LLC in April 2023 to carry out regionally specialized investment and collaboration to accelerate co-creation activities with local start-up companies that conduct locally rooted business.

Thus far, through open innovation activities such as the JR East Startup Program and Future Innovation Partnership Program, we have provided growth support for solving social issues and expanding the businesses of start-up companies. Using this knowledge and expertise, JR East Local Start-up will contribute to the further revitalization of local communities and the achievement of enriched lives by specializing in individual regions, solving local issues, and supporting the sustained growth of local start-up companies.



Rendering of second business founding by a local manager

Relocation of Kesenuma Line BRT Shizugawa Station to Roadside Station Sansan Minamisanriku

After restoring sections of the line that were severely damaged by the Great East Japan Earthquake, not only to reestablish transportation services but also to contribute to the revitalization of the region in various ways, we have continued to maintain ties with the local community.We have resuscitated the Kesenuma and Ofunato lines as BRT lines, which we are working to make more convenient by establishing new stations, relocating existing stations, and developing dedicated roads in response to requests from residents along those lines. We are also working to revitalize the area through tourism in collaboration with local communities.

To facilitate customer patronage, we relocated the functions of Kesenuma Line BRT Shizugawa Station to Roadside Station *Sansan* Minamisanriku in Shizugawa, Minamisanriku Town when it opened in October 2022 and updated the services routes as well. We also installed a sales counter and a BRT location system in the roadside station.

The roadside station features the Minamisanriku 311 Memorial earthquake history center, and a public transportation terminal on the north side of it. The entire roadside station including the rotary section was designed by Kengo Kuma and Associates, an architectural practice commissioned by Minamisanriku Town.

We will continue to work with local governments to make BRT operations more accessible to local residents.



Sansan Minamisanriku Roadside Station opening ceremony

Operation Resumed on the Tadami Line (between Aizu-Kawaguchi and Tadami Stations) Damaged by the Niigata-Fukushima Torrential Rains in July 2011

In response to requests from Fukushima Prefecture and local governments along the railway line, we reached an agreement with Fukushima Prefecture in June 2017 to restore the railway by separating infrastructure and operation. We have now completed the restoration work, and operations were resumed on all lines on October 1, 2022.

A commemorative ceremony was held on the day operations were resumed, and many customers used the train service to see the autumn leaves in the fall. In addition, the local government has formulated a Tadami Line Utilization Plan, and efforts to promote the use of the Tadami Line are being spearheaded by the local community.



All Tadami Line operations resumed (No. 8 Tadami River Bridge)

Building a Sustainable Public Transportation System for Local Lines

Since the establishment of the Company, local line use has decreased significantly, and it is expected that usage will decrease further in the future due to population decline. Going forward, we will continue to streamline operations by slimming down our facilities and simplifying train operations, while also contributing to the revitalization of areas along our railway lines by leveraging our group's strengths in tourism and Lifestyle services.

On the other hand, for lines with low usage, where the average number of passengers is less than 2,000 people per day, we reported the revenues and expenditures by line in July and November 2022 so that local residents can understand the actual state of the business. We will continue to seek the understanding and cooperation of people along our lines, and partner with local governments to work out what is the most suitable transportation system for the region and build a sustainable transportation system.

Promoting Recovery Tourism in Tohoku

Twelve years on from the Great East Japan Earthquake, we will promote "recovery tourism" in the Tohoku region in cooperation with local residents, taking advantage of the preparation of facilities to tell the story of the earthquake disaster around the Tohoku region.

In addition to promoting these earthquake history centers that raise awareness about disaster prevention and mitigation, we will communicate the appeal of the diverse charms of the Tohoku region to young people in particular, by creating opportunities for repeat visits, cultivating a non-resident population, accelerating the recovery of disaster hit areas, and helping revitalize the region.

With the establishment of the Tohoku Reconstruction Tourism Promotion Network and participation from local governments, companies, and others, we will refine the Tohoku tour model itinerary, promote the creation of travel products by matching travel agencies with the region, and roll out activities to attract educational tours.



Taro district earthquake study session

Value Creation by the JR East Group	Business Strategies	Strategies That Support Growth	Sustainability	Data
Sustainability Strategies, Promotion Structure, and Our Sustainability Goals	Providing Society with Safe, Reliable Infrastructure	Creating a Vibrant Society	Enriching the Global Environment Providing Society with Innovative Technologies and Services Increasing the Engagement of All Group Employee	Improving Confidence in Management

Creating a Vibrant Society

② Comfortable Cities

To enable customers to seamlessly use services such as transportation, purchases, and payments by combining the most suitable means in a full range of lifestyle settings, we will deliver a variety of high-value-added services in a one-stop manner and provide seamless and stress-free transportation. We will also promote diverse and attractive town development that takes into consideration the environment, disaster prevention, and communities.

Beyond Stations Concept

We are looking to redefine railway stations as sources of richness in people’s lives. Going beyond the role of stations as transportation hubs, we will transform them into lifestyle platforms that connect people, products, and services.

Specifically, we have opened the JRE Station College, a learning center for developing leaders who can identify issues and create sustainable businesses, that uses stations, which are regional hubs, as a “campus”. We have promoted the full-scale development of JRE Passport, a subscription service for all Suica customers to use mainly at *ekinaka* outlets and other stores, and opened a Smart Healthcare Station. Through such initiatives, we aim to provide enriched lives for every customer, by leveraging the strengths of train stations as physical hubs for interaction to link together transportation, communities, digital technologies, and safe and reliable services.

Smart Healthcare Station

In April 2022, we opened a hybrid clinic on the platform of Nishi-Kokubunji Station that combines in-person and online services. Operating from a train station, an everyday physical point of contact, as well as online, our accessible services enable customers to receive their usual medical care whenever they have time.

Going forward, we will address the issue of healthcare disparity between urban and other areas by using the JR East Group's network to expand smart healthcare stations to include rural areas where there are few treatment options, thus providing advanced urban medical care throughout Japan.



Smart Healthcare Station
(Nishi-Kokubunji Station)



Online healthcare consultation

Miki Ogata
Lifestyle Creation & Community Vitalization Department
Marketing Headquarters

In November 2021, we opened JRE Station College, a learning center for developing leaders who can identify issues and create sustainable businesses, that uses stations, which are regional hubs, as its “campus”. Opportunities for input consist of lectures on sustainable business and lectures by guest speakers, where working people from different industries and fields gather at train stations. Opportunities for output take the form of seminar activities for individual teams. In this way, JRE Station College has become a forum for earnest efforts toward business creation. We are currently accepting students for the fourth semester.

In addition, starting fiscal 2024, we began collaborating on programs aimed at business creation on the theme of regional issues in three locations: Sanjo City, Niigata Prefecture, Koumi Town, Nagano Prefecture, and Kumamoto Prefecture, in the area around Kumamoto Airport. We consider these efforts to be local versions of JRE Station College.

Town Development That Considers the Environment, Disaster Prevention, and Communities

We will remake Tokyo into a world-class, cutting-edge, and attractive city and establish a profit base for the JR East Group. In our approach to urban redevelopment, we will pursue sustainable town development by addressing various social issues, using electricity from renewable energy sources, introducing energy sources with high environmental performance, constructing facilities for people who are unable to return home due to a disaster, and promoting town management.

Development of Comfortable and Attractive Towns through the Building of Station-Front Squares and Seismic Reinforcement of Surrounding Roads

At Ochanomizu Station, we are constructing an artificial ground above the tracks, installing elevators, and working with Chiyoda Ward to develop the station-front square at the Hijiri-bashi Exit. In addition, in response to a request from the Tokyo Metropolitan Government and Chiyoda Ward, we are making effective use of the construction yard on the Kanda River, which is necessary for the above construction, and are also partnering on upgrades and seismic reinforcement work on the east-west road bridges that access the station.

In 2019, we installed new elevators connecting to the Ochanomizu Exit side, and going forward, we will proceed with the development of a more user-friendly station and surrounding neighborhood by implementing functional improvement work on the Hijiri-bashi Exit station building and the station-front square.



Rendering of new Ochanomizu station frontage

Providing Two MaaS Apps Using Mobility Linkage Platform (MLP)*

JR East App

The JR East App provides optimal transportation options to our customers, including buses, airplanes, taxis, shared bicycles, and walking, such as by providing train location and operation information in cooperation with other railway companies, featuring a real-time route search function that takes into account train delays. In addition, in February 2023, we built a real-time data linkage platform that aggregates and manages real-time data, with which we aim to improve traffic guidance services.

Ringo Pass

Ringo Pass is a service that provides one-stop secondary modes of transportation based on the concept of “from current location to station” and “from station to destination”. By registering their Suica and credit card in advance, users can arrange and pay for multiple mobility services with a single app.

In cycle sharing, users can make use of the two major services of DOCOMO BIKESHARE and HELLO CYCLING in one app, and we are expanding partners for secondary modes of transportation services such as taxis and buses.

In fiscal 2023, MLP services were used approximately 38 million times a month. With the aim of increasing this figure to 100 million times a month by fiscal 2028, we will continue to expand the functions and services offered and increase the number of users.



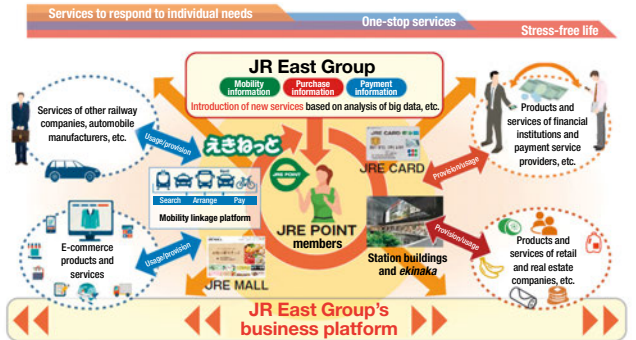
Real-time route search on the JR East App
(Search results are displayed with delays taken into account.)

* For more details about Mobility Linkage Platform, please see page 80.

JRE POINT

JRE POINT, the Group’s shared reward program, connects customers with various services of the JR East Group. It has over 13.79 million members and represents an important customer base for the JR East Group.

Through Groupwide campaigns, such as those promoting the use of accumulated points within the Group, we are implementing various measures to encourage a virtuous cycle of point accumulation and use, thereby promoting customer usage of the products and services of the entire Group and enhancing the attractiveness of JRE POINT.



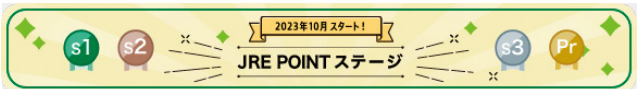
JRE POINT connects and provides one-stop access to a wide range of services across the JR East Group

JRE POINT STAGE

To further enhance the attractiveness of JRE POINT, we are launching JRE POINT STAGE, a membership tiered program in October, 2023. Members will be offered rewards and benefits corresponding to their tiers, which are determined by numbers of points earned and used in a certain term.

Through this service, we will offer a wide range of rewards and benefits from JR East Group, such as the following:

- “Premium” members who have achieved the highest tier will be offered a preferential rate for *Dokokani Byun!*, and limited-time campaigns for getting extra points.
- Members who achieve the “Premium” tier for two consecutive terms will be offered priority in application for the cruise train TRAINSUITE SHIKI-SHIMA.



TRAINSUITE SHIKI-SHIMA



Dokokani Byun!

③ Inclusive Society

To achieve our Group Philosophy of “helping our customers and people in communities to realize enriched lives,” we aim to create an ideal, inclusive society where people of all backgrounds can live without discrimination, and we will pursue barrier-free services in both tangible and intangible aspects. In addition to systematically developing facilities that are accessible to as many people as possible, we endeavor to transcend the boundaries of companies and regions to interact with people with disabilities. Acknowledging that people have a wide range of different needs, we will promote mutual understanding to solve as many problems for as many of our customers as possible. In addition, by supporting paraspports, we will collaborate with local residents to foster barrier-free attitudes as well.

Cultivation of a Hospitality-Oriented Mindset Among Employees

We encourage our staff to acquire service care-fitter qualifications aligned with the “spirit of hospitality and assistance skills” to enhance customer care and ensure that people can use our services with peace of mind. As of the end of March 2023, more than 27,082 employees (60.5% of JR East employees) had acquired the certification, using the skills and mindsets they have cultivated as a foundation to guide our customers.

In addition, at each workplace, we hold study sessions on how to assist customers with physical disabilities as well as simulated elderly experience sessions. Through such efforts, we are working to maintain and improve the guidance skills acquired by our employees through their qualifications and foster a mindset for achieving an inclusive society.



Simulated elderly experience sessions

Creating a Vibrant Society

Train Crew Assistance for Wheelchair Passengers Boarding and Disembarking from Our Trains

In an example of frontline initiatives, at train stations where station staff are absent either all or some of the time, train crew members use portable ramps to help wheelchair passengers board and disembark from our trains. This service was introduced in parts of the Miyagi, Fukushima, Yamagata and Nagano areas and expanded to include parts of the Tokyo metropolitan area.

We will continue to contribute to the achievement of an inclusive society to provide all our customers with more convenient and comfortable transportation and living.



Demonstration of assistance provided (Ome Line)

Improving Service Quality through Dialogue with Customers with Disabilities

In cooperation with customers with disabilities and related organizations, we hold events on an ongoing basis to promote dialogue and foster understanding of how customers with disabilities experience the use of railway facilities. Through interaction, we are working to create an environment in which all customers can use railways safely, comfortably, and with peace of mind, so that they can participate more fully in society. We will continue to drive participation in society for as many people as possible and achieve an inclusive society by increasing opportunities for “participation-type interaction through dialogue with persons with disabilities” so that we can learn in collaboration with customers with disabilities how to address the problems they face.



Railway facility experience sessions for visually impaired customers

Making Takasaki Station Safe for Visually Impaired Customers as Well



Yuusuke Takeuchi
Takasaki General Management Center
Takasaki Branch Office

Since I myself have a visual impairment, I have a particularly strong desire to make it possible for visually impaired passengers to use stations and trains more safely and with greater peace of mind. We partnered with the Gunma Prefecture Welfare Association for the Visually Impaired to plan and hold a safety workshop using actual railcars.

Based on what participating customers had to say, we discovered that we needed to improve awareness of braille blocks and review passenger information broadcasts. We will continue to hold safety seminars and work to improve the quality of our services so that all customers can use our stations with peace of mind.



Development of Ekimatopeia to Visualize Train Station Sounds

By providing a comfortable experience for hearing-impaired passengers and other passengers using our stations, we aim to achieve safer and more secure railway use and promote mutual understanding of diversity, equity, and inclusion. To that end, we have been collaborating with Fujitsu Co., Ltd., and Dai Nippon Printing Co., Ltd., to develop *Ekimatopeia*, a device that visually expresses environmental sounds such as station broadcasts and train arrivals and departures using text and sign language. We conducted demonstration trials at Sugamo Station in September 2021 and at Ueno Station in June 2022.

The *Ekimatopeia* initiative won the semi-grand prix at the Digital Signage Award 2023, which was held by the Digital Signage Consortium.



Demonstration trials at Ueno Station



Display screen rendering

Support for Parasports

We promote and support parasports such as boccia to realize an inclusive society in which everyone can play an active role regardless of whether they have disabilities. In August 2020, we established a Gold Partner agreement with the Japan Boccia Association to support athletes by providing training facilities to promote the sport. In addition, we continue to hold the JR East Group Boccia Championship and promote efforts through parasports to deepen understanding for an inclusive society throughout the Group. We are also working toward regional revitalization through parasports in cooperation with individual local governments.



The Morioka Rolling Stock Center Team that participated in the 2023 Boccia Tokyo Cup as representatives of a sponsor company



National Team at training camp at JR East General Education Center



Collaboration with the Sendai City Boccia Championship (Tohoku Area Headquarters)

Enriching the Global Environment

We will realize carbon neutrality and secure stable energy supplies, taking into account the effect of climate change on our businesses. We will lead efforts to realize a recycling-based society.



① Carbon Neutrality

- Goals
- Zero Carbon Challenge 2050
- Utilization of diverse energy

② Circular Economy

- Goal
- Promotion of 3Rs

Basic Concept

For the JR East Group, given its strong relationships with so many customers and communities, environmental problems are social issues that cannot be avoided. As such, by tackling environmental issues from various different angles, we will gain further trust from our customers and local communities, which will lead to sustained growth for the entire Group. Looking ahead, through our environmental efforts, we aim to realize a decarbonized, recycling-based society.

① Carbon Neutrality

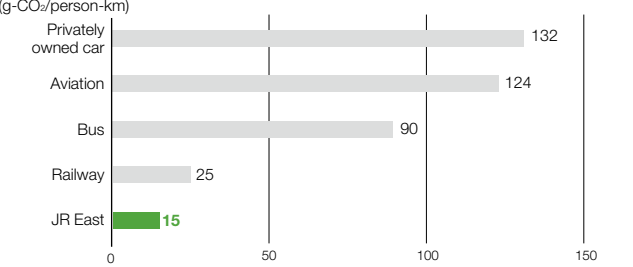
In 2020, we formulated Zero Carbon Challenge 2050 and declared our goal to achieve Groupwide net zero CO₂ emissions by fiscal 2051. In 2022, we formulated Energy Vision 2027 — Connect, which presents our energy strategy to realize a sustainable society and contribute to local communities and society. The JR East Group possesses an energy network that integrates generation, transmission and storage, and consumption, and it will steadily carry out initiatives toward realizing decarbonization across all phases of that network. In January 2020, we announced our support for the recommendations of the Task Force on



Energy Vision 2027 — Connect

Climate-related Financial Disclosures (TCFD), and we will continue to disclose results of our quantitative evaluation of the financial impact of future climate change on our Transportation services business.

CO₂ Emissions per Transportation Volume (Passenger Transportation) (Fiscal 2022)



Source: Adapted from the website of the Ministry of Land, Infrastructure, Transport and Tourism

Targets for Reducing CO₂ Emissions and Energy Consumption by Fiscal 2031

Performance Indicators		Base Value (Baseline Fiscal Year)	FY2031 Target	FY2023 Result
Total reduction	JR East Group CO ₂ emissions (10 thousand t-CO ₂)	265 (FY2014)	133 (50% reduction)	226* (14.7% reduction)
	Railway business CO ₂ emissions (10 thousand t-CO ₂)	215 (FY2014)	108 (50% reduction)	184* (14.4% reduction)
Reduction in energy consumption intensity	Electricity consumption for train operation (Shinkansen) (kWh/car-km)	2.31 (FY2021)	2.09 (9.6% reduction)	2.42* (4.4% increase)
	Electricity consumption for train operation (conventional lines) (kWh/car-km)	1.47 (FY2021)	1.33 (9.6% reduction)	1.49* (1.2% increase)
	Energy consumption at branch offices, etc. (kL/m ²)	0.0354 (FY2021)	0.032 (9.6% reduction)	0.0359* (1.4% increase)

Performance Indicators		Numerical Targets	FY2023 Result
Reduction in energy consumption intensity	Reduction rate of energy consumption intensity of each JR East subsidiary	1% annual reduction (5-year average)	1.7% reduction (5-year average)

■ Indicates targets for JR East Group companies

Other Targets for Reducing Energy Consumption by Fiscal 2031

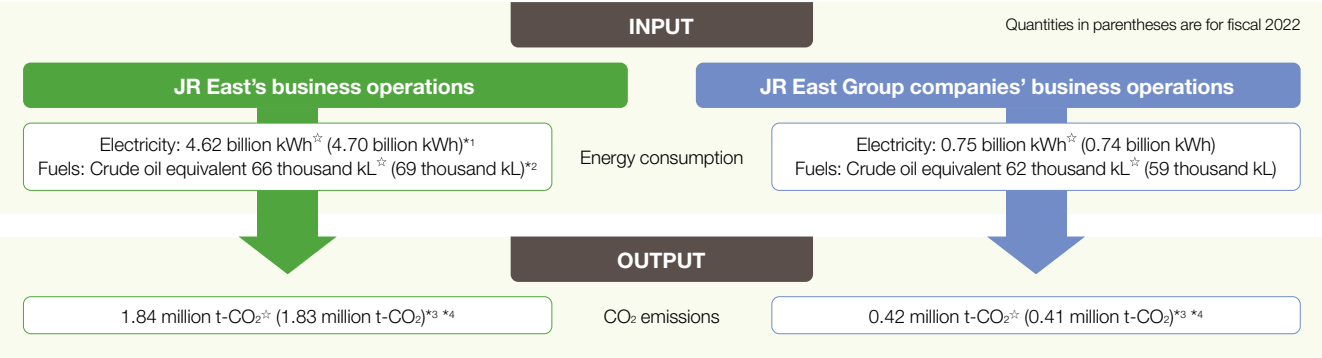
Performance Indicators		FY2031 Target	FY2023 Result
Details of initiative	Switching platform and concourse lighting to LEDs	Total of 415,000 units	Total of 127,000 units
	Improving efficiency of large-scale air-conditioning systems	Total of 38 locations	Total of 23 locations
	Improving efficiency of small-scale air-conditioning systems	3,300 units	984 units
	Developing renewable energy-based power sources	700 MW	136MW

Note: External Assurance on Environmental Performance

KPMG AZSA Sustainability Co., Ltd., has been engaged in providing external assurance on a set of selected environmental performance indicators (see pages 85–95) so that the reliability of the data in this report is ensured. The particular indicators that have been assured are marked with a star (☆) for clarity.

Enriching the Global Environment

Energy Consumption and CO₂ Emissions of the Entire JR East Group: Fiscal 2023 Results



^{☆1} Electricity: Both electricity generated in JR East's power plants for internal use and electricity purchased from electric companies are included. For details regarding electricity generation and use please refer to the JR East Energy Flow Map below.

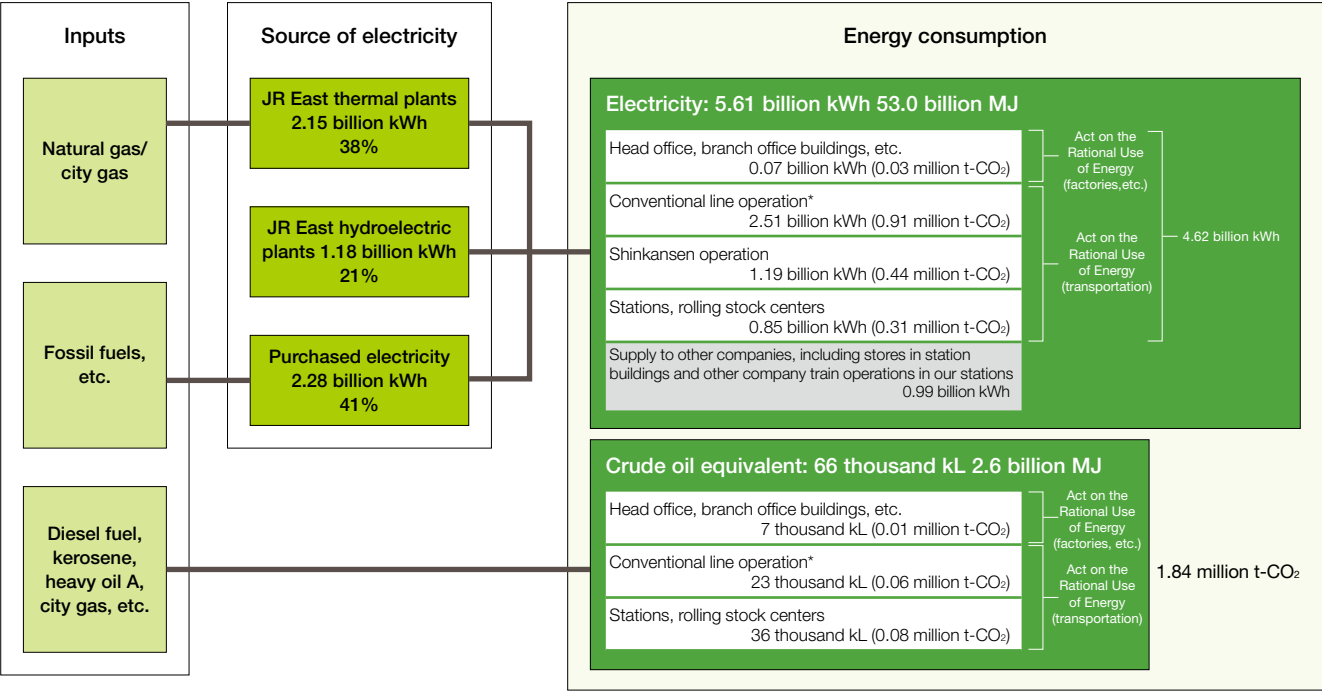
^{☆2} Fuels: Natural gas and other fuels used for generating electricity in JR East's thermal power plants are not included.

^{☆3} CO₂ emissions by Scope: Scope 1 emissions of the entire Group are 1.52 million t-CO₂^{☆3} and Scope 2 emissions are 1.27 million t-CO₂^{☆3}.

^{☆4} CO₂ emissions attributable to electricity purchased from external suppliers are calculated based on adjusted emission factors.

JR East Energy Flow Map[☆]

This shows the flow of energy at the company from input to consumption. Power supplied by our own power plants and electric companies is used for train operation, station, office lighting, and air-conditioning. Diesel fuel and kerosene, etc. are also used to operate diesel trains, stations, and office air-conditioning.



* Including BRT (Bus Rapid Transit)

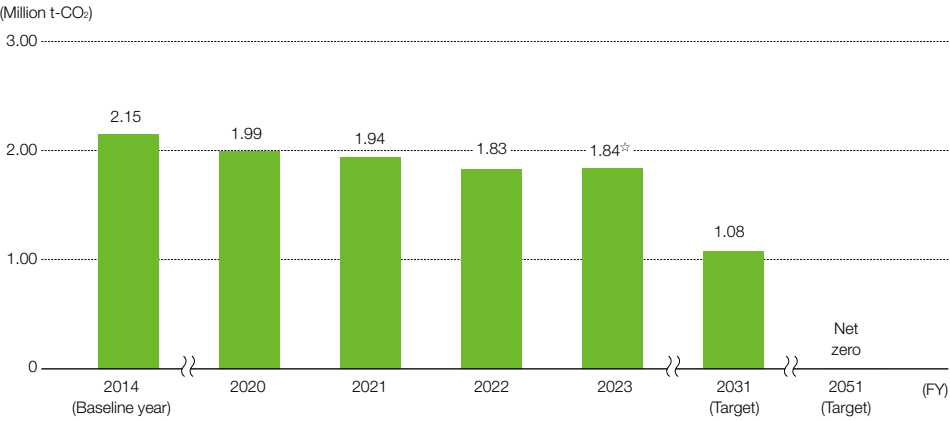
Boundary of Data

Although in principle the boundary for energy consumption is only JR East, it includes energy consumption for the applicable operations of the companies to which we entrust station operations. On the other hand, the energy consumption of shops on station premises which are operated by JR East Group companies is not included in the boundary. We match the boundary for the energy consumption for the entire JR East business with that of transportation, plants, and others defined by the Act on the Rational Use of Energy (the Energy Saving Act)

Calculation Method

Energy consumption was calculated by the method defined by the Energy Saving Act. Also, CO₂ emissions attributable to electricity purchased from external suppliers are calculated based on adjusted emission factors.

CO₂ Emissions from Railway Business



Boundary of Data

The boundary of CO₂ emissions is the same as the boundary of energy consumption described on page 86.

Calculation Methods

Our calculation of CO₂ emissions is based on the methods set forth in the Act on Promotion of Global Warming Counter-measures. However, for CO₂ emissions for energy provided from external sources and used as electric power in railway transportation, our calculations use adjusted emission factors for each electric power company. Using basic emission factors, CO₂ emissions for fiscal 2023 were 1.87 million t-CO₂[☆] (increase of 0.01 million t-CO₂ year on year).

CO₂ Emissions by Scope (Non-Consolidated)

Item	Scope 1 [☆]	Scope 2 [☆]	Scope 3
CO ₂ emissions in FY2023 (non-consolidated)	1.41 million t-CO ₂	1.07 million t-CO ₂	3.73 million t-CO ₂

Scope 1: All CO₂ emissions directly attributable to fuel consumed in the operation of diesel railcars, operation of JR East thermal electric power plant, etc.

Scope 2: CO₂ emissions indirectly emitted from the use of electricity purchased from electric companies

Scope 3: CO₂ emitted by other companies which are related to our business activities

Note 1: The sum of Scope 1 and Scope 2 emissions and the total CO₂ emissions do not match, since the former includes emissions associated with the production of electricity supplied to other companies.

Note 2: Scope 3 emissions include 0.91 million t-CO₂[☆] (0.82 million t-CO₂) for Category 1, 2.07 million t-CO₂[☆] (1.94 million t-CO₂) for Category 2, 0.47 million t-CO₂[☆] (0.48 million t-CO₂) for Category 3, and 0.27 million t-CO₂[☆] (0.29 million t-CO₂) for Category 13. Figures in parentheses are values for fiscal 2022.

Calculation Standards

Calculation standards for each category are as follows.

Category 1: Calculated by multiplying the amount spent on the purchase of products and services (JR East only) in relation to repairs or for system use by the emission factor^{☆1} for each product and service

Category 2: Calculated by multiplying the amount of capital expenditure (JR East only) by the emission factor^{☆2} per unit price of capital goods in the railway transport department. For items that have been constructed and manufactured over multiple years, only capital expenditure for the fiscal year in question is recorded

Category 3: Calculated by multiplying purchased fuel, electricity, and heat used (JR East only) by the emission factor^{☆3} for each type of energy by amount used

Category 13: Calculated by multiplying the total floor area of buildings owned by JR East by the emission factor^{☆2} per unit area for each type of building

^{☆1} Uses emission factor data from the Embodied Energy and Emission Intensity Data for Japan Using Input-Output Tables (3EID) (2005 edition) and multiplies by 1.05 to take sales tax into account.

^{☆2} (Fiscal 2023): Uses emission factor data from the Emission Intensity Database for the Calculation of an Organization's Greenhouse Gas Emissions Generated by the Supply Chain, Ministry of the Environment. Uses the basic unit data of Database (Ver. 3.3) (March 2023) (Emission Intensity Database V3.3). For calculations of Category 13 for multipurpose facilities, the emission factor of the application with the largest percentage is used as a representative value.

(Fiscal 2022): Uses emission factor data from the Emission Intensity Database for the Calculation of an Organization's Greenhouse Gas Emissions Generated by the Supply Chain, Ministry of the Environment. Uses the basic unit data of Database (Ver. 3.2) (March 2022) (Emission Intensity Database V3.2). For calculations of Category 13 for multipurpose facilities, the emission factor data per unit area by restaurant building use is uniformly applied.

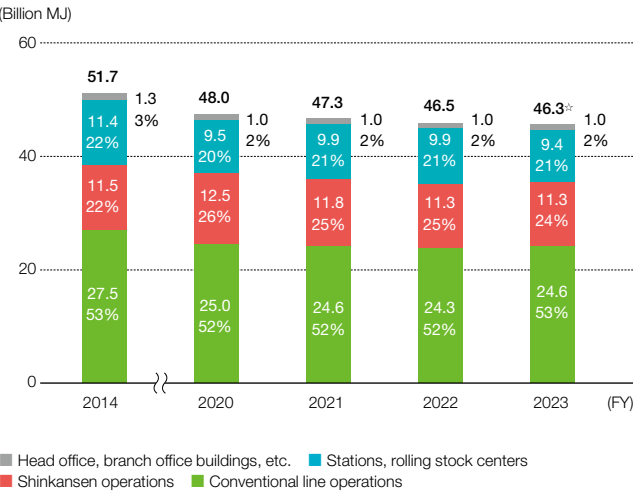
^{☆3} (Fiscal 2023): For fuel, uses IDEA (Inventory Database for Environmental Analysis). Emission Intensity Database for the Calculation of an Organization's Greenhouse Gas Emissions Generated by the Supply Chain (Ver. 2.3) (December 27, 2019); for electricity and heat, uses emission factor data from Emission Intensity Database (V3.3).

(Fiscal 2022): For fuel, uses IDEA (Inventory Database for Environmental Analysis). Emission Intensity Database for the Calculation of an Organization's Greenhouse Gas Emissions Generated by the Supply Chain (Ver2.3) (December 27, 2019); for electricity and heat, uses emission factor data from Emission Intensity Database (V3.2)

Energy Consumption

This chart shows the energy consumption of the railway business and its breakdown. Train operation accounts for approximately 80% of the total energy consumption, and the remaining 20% is used at stations, rolling stock centers, and head office and branch office buildings. The amount of energy consumed in fiscal 2023 was 46.3 billion MJ, a reduction of 5.4 billion MJ compared to fiscal 2014.

Energy Consumption in Railway Business Activities



Hydraulic power generated by JR East

The energy consumption outlined above is calculated based on the Energy Saving Act, but hydraulic power generated by JR East is calculated by multiplying JR East hydraulic power generation by 9.76MJ/kWh. In the reports required by the Energy Saving Act, we report hydraulic power as OMJ.

Enriching the Global Environment

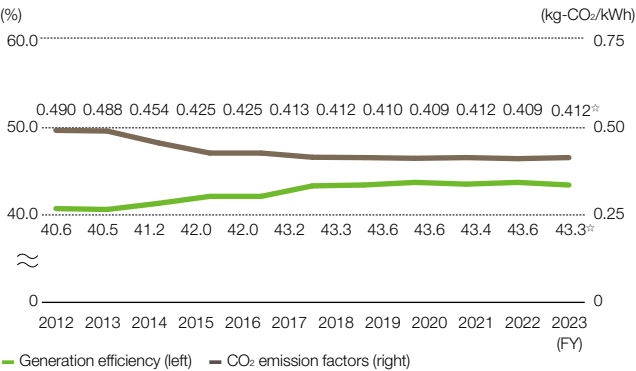
Create

Electricity Generated by JR East's Power Plants

JR East operates a thermal power plant in Kawasaki City, Kanagawa Prefecture, with a total output of 809,000 kW, fueled by city gas and natural gas. We will continue to promote higher efficiency in our power generation facilities and consider the use of hydrogen power generation and carbon capture, usage, and storage (CCUS) technology in order to reduce CO₂ emissions.

Our hydroelectric power plants (in Tokamachi City and Ojiya City, Niigata Prefecture) have a total output of 449,000 kW and support our rail transportation as a clean energy source that does not emit CO₂. We also aim to coexist with the local community and harmonize with the river environment through the development of fishways and the release of salmon fry.

CO₂ Emission Factors and Power Generation Efficiency at JR East's Thermal Power Plant



Calculation Method
CO₂ emission factors for JR East's thermal power plant are based on the Act on Promotion of Global Warming Countermeasures, and power generation efficiency is based on the method stipulated in the Energy Saving Act.

CO₂ Emission Factor of Electricity Generated by JR East (Thermal Power and Hydroelectric Power)
The adjusted emission factor in Fiscal 2023 was 0.288 (kg-CO₂/kWh).

Deliver / Store

Superconducting Flywheel Energy Storage System

In order to effectively utilize the regenerative electric energy generated during train braking, we are adopting various storage media, including a flywheel energy storage system that utilizes superconducting technology, which we are working to develop. We have completed a test facility at the Anayama Substation on the Chuo Main Line, and in June 2022 we commenced the world's first demonstration test of a superconducting flywheel power storage system for railways.

We are improving maintenance by making the bearings non-contact through the use of superconductivity technology. Furthermore, the system's performance does not deteriorate with repeated charging and discharging and the structure contains no harmful substances, making it environment-friendly as well.

By running further demonstration tests, we will verify the charging and discharging characteristics of the system as well as its effectiveness, and we aim to put it into service in the near future.



Superconducting flywheel energy storage system

Use

Utilization of Hydrogen Energy

In March 2022, we started trials of hybrid fuel cell test trains (hydrogen-hybrid advanced rail vehicles for innovation, nicknamed HYBARI) on the Tsurumi and the Nambu lines, and will promote their adoption in the future based on the outcome of the trials.

In May 2022, we signed a partnership agreement with ENEOS Co., Ltd. to conduct joint studies on expanding the use of CO₂-free hydrogen as a means of railway decarbonization. On that note, we are studying the feasibility of comprehensive hydrogen stations to supply CO₂-free hydrogen to HYBARI and various other kinds of fuel cell (FC) mobility as well as to facilities within the train station vicinities. We will continue to diversify our energy sources and promote a variety of initiatives based on the resources we have at our stations as well as our rail lines to realize a hydrogen society and prepare for increased



Hydrogen-hybrid train FV-E991 (HYBARI)

Converting to Effectively Renewable Energy to Power Offices at Buildings Owned by JR East

In response to the growing needs of office tenants promoting efforts to realize a decarbonized society, from fiscal 2024 we are switching over to effectively renewable energy sources of electricity for use by office tenants in buildings owned by JR East. Total CO₂ reduction at the 14 converted properties is expected to be approximately 18,000 tons annually.

Introduction of Fuel Cell Buses in Fukushima City

Tomoki Sato
JR Bus Tohoku Co., Ltd.

In April 2023, JR Bus Tohoku Co., Ltd., began operating a hydrogen fuel cell bus service connecting Fukushima City and the town of Kawamata. Although the fuel cell buses are the same as those already seen all over Japan, there are few examples of their use on routes with continuous inclines and declines or in cold regions. In preparing to put the buses into service, we had to clear issue after issue, and these efforts involved conducting local test runs in collaboration with the manufacturers and having discussions with other companies already using them. The buses are quite an eye-catching sight along the route and are attracting more and more attention to our bus services among customers. I hope this introduction of fuel cell buses will help us widely publicize the environmental efforts of the JR East Group.

TCFD Recommendation-Related Initiatives

Since the adoption of the Paris Agreement, countries and governments around the world have made major shifts toward decarbonization. Companies must now ascertain the financial impact of climate change-related risks and disclose relevant information to their stakeholders. In January 2020, JR East announced its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Using objective data, JR East undertakes a quantitative evaluation of the financial impact of future climate change on its Transportation services business. This business is vulnerable to weather and other natural disasters, which have been worsening as climate change progresses.

Overview of TCFD Recommendation-Based Information Disclosure^{*1}

Recommendations	JR East's Initiatives
Governance	The Sustainability Strategy Committee, chaired by the president and CEO, oversees and makes decisions mainly regarding the establishment and progress of climate change targets and the management of risks and opportunities. The committee includes the Company's vice presidents and executive directors as well as full-time Audit and Supervisory Committee members and outside directors also attend its meetings. The Sustainability Strategy Committee meets twice a year, and the Zero Carbon Working Group and the Hydrogen Working Group report and discuss the progress of CO ₂ emissions reductions and hydrogen utilization. A schematic of our promotion structure is presented on page 62.
Strategy	In JR East Group Management Vision "Move Up" 2027, we have committed to practicing ESG management, with the prevention of global warming and energy diversification as our guiding principles. To achieve these goals, we identify and assess the key risks and opportunities that climate change poses to our business activities and verify the appropriateness of our business strategies. In this disclosure, we identify physical risks related to natural disasters as important risks and conduct scenario analysis using elaborate methods based on hazard information and other information published by the government.
Risk management	Within the framework of risk management, each department identifies risks influenced by climate change and specific measures are taken to avoid or reduce these risks. With regard to climate change mitigation, at least once every six months we compile and conduct a detailed analysis of energy consumption, CO ₂ emissions, chlorofluorocarbon (CFC) leakage, and financial status for each business. We also identify, specify, and assess risks based on revisions to laws and regulations and other important changes in the external environment. With regard to adaptation to climate change, we are strengthening and promoting efforts to reduce physical risks in the Transportation services business due to acute and chronic weather-related disasters.
Metrics and targets	We have set Zero Carbon Challenge 2050 as a goal for the entire JR East Group, aiming to reduce CO ₂ emissions by 50% by fiscal 2031 (compared to fiscal 2014) and to achieve net zero CO ₂ emissions in fiscal 2051. In addition to regularly monitoring progress towards these targets, we are promoting Groupwide initiatives to further ensure our contribution to the realization of a decarbonized society. Please refer to pages 85–87 for the scope of our targets and progress toward achieving them.

^{*1} Please visit the following URL for details of the JR East Group's information disclosure based on the TCFD recommendations (Japanese only): <https://www.jreast.co.jp/eco/pdf/taskforce.pdf>

Details of Strategies

(1) Awareness of Risks and Opportunities

We recognize that there are two kinds of risk and opportunity associated with climate change. One is physical, for example, the intensification of weather-related disasters caused by global warming. The other is a transition in the social environment, for example, the strengthening of regulations and technological progress aimed at mitigating climate change. The main risks and opportunities that we have identified are as follows.

Main Risks and Opportunities		Business Impact ^{*2}	Timing of Manifestation ^{*3}
Physical risks	Damage to railway facilities and equipment, and suspension of operations due to windstorms, floods, etc.	Large	Short term
	Decrease in passenger volume due to extreme weather (heavy rain, heat)	Small	Long term
Transition risks	Increased costs due to the introduction and strengthening of the carbon pricing system	Not rated	Medium term
	Decrease in passenger volume due to competition from other modes of transportation, such as electric vehicles	Large	Long term
	Decrease in passenger volume due to damage or change in tourism resources	Not rated	Long term

^{*2} Scale of business impact: Large: Events with a financial impact of ¥500 million or more in revenues and expenses

^{*3} Timing of manifestation—scale of time: Short term: Within one year; Medium term: More than one year but within five years; Long term: more than five years

Value Creation by the JR East Group	Business Strategies		Strategies That Support Growth	Sustainability	Data	
Sustainability Strategies, Promotion Structure, and Our Sustainability Goals	Providing Society with Safe, Reliable Infrastructure	Creating a Vibrant Society	Enriching the Global Environment	Providing Society with Innovative Technologies and Services	Increasing the Engagement of All Group Employee	Improving Confidence in Management

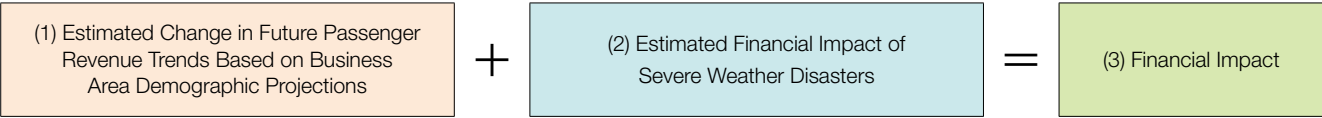
Enriching the Global Environment

(2) Details of Scenario Analysis (Physical Risks)

As a baseline for the analysis, passenger revenue is estimated based on future demographics, and a scenario analysis is conducted for the Transportation services business.

In the Transportation services business, future passenger volume is expected to decrease due to Japan’s declining birthrate and aging population, and the impact is expected to be particularly significant in rural areas. In order to ascertain the financial impact of these factors and to verify the appropriateness of our business and environmental strategies, we conducted the following scenario analysis for fiscal 2051.

Scenario Analysis Methodology (Overview)



(1) Estimated Change in Future Passenger Revenue Trends Based on Business Area Demographic Projections

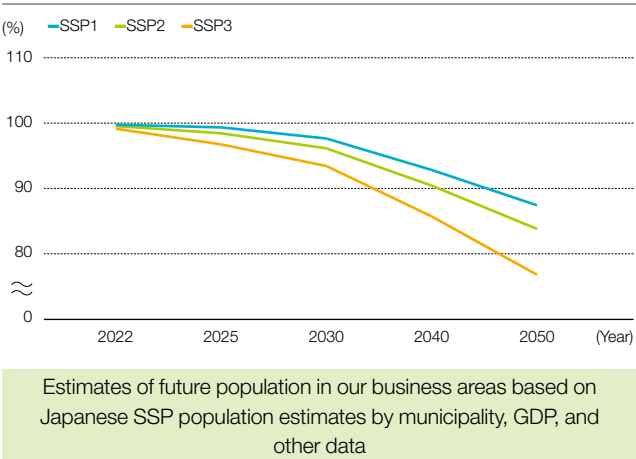
We estimated changes in passenger revenue up to fiscal 2051 based on data such as the Japan Shared Socioeconomic Pathways (SSPs)*4 data on population and gross domestic product (GDP)**5, which are used across a range of fields in climate change research (Graph 1). As for changes introduced in fiscal 2023, we now use the second version of the Japanese SSP population scenario (published in July 2021), and we have updated the outlook for the level of recovery in railway transportation revenue following the end of the COVID-19 pandemic.

There was approximately an 11% difference in the population estimate for fiscal 2051 between the scenario of Sustainability (SSP1), which is our goal, and the opposing scenario of Regional Rivalry (SSP3), and a ¥380.0 billion difference in estimated passenger revenue (Graph 2).

Shared Socioeconomic Pathways (SSPs)

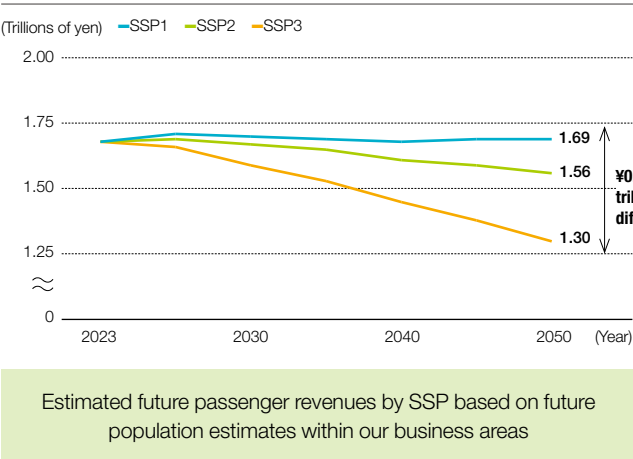
Scenario	State of Japanese Society	Birth Rate	Mortality Rate
SSP1 (2°C)	Sustainability: Development of renewable energy and environmental technology, urban concentration, compact development with robust networks	High	Moderate
SSP2 (Middle)	Middle of the Road: Maintain the status quo, current trends progress relatively unchanged	Moderate	Moderate
SSP3 (4°C)	Regional Rivalry: Uniform population decline, depopulation of regional areas	Low	Moderate

Graph 1: Estimated Population of Our Business Areas by Scenario



*4 Socioeconomic scenarios
*5 Population data source: Japanese SSP Population Estimates by City, Town, and Village, National Institute for Environmental Studies (NIES)
GDP data source: International Institute for Applied Systems Analysis (IIASA)

Graph 2: Trends in Passenger Revenue by Scenario



(2) Estimated Financial Impact of Severe Weather Disasters

Since most of our major railway assets and lines with large passenger revenues are concentrated in and around the Tokyo metropolitan area, a widespread disaster in this area would have a significant financial impact. We therefore selected flooding caused by the overflow of Class A rivers flowing through the Kanto region (due to projected rainfall) as a specific disaster event for scenario analysis.

We conducted a quantitative assessment of the financial impact of this scenario using the inundation assumptions published by the government, the asset value of major lines, and passenger revenue trends.

The procedure for quantitative evaluation is as follows.

Step 1: Baseline Assessment

For each of the rivers selected for evaluation, the financial impact is quantitatively evaluated in terms of the loss of passenger revenue due to planned service suspensions and the time required for restoration, as well as the cost of restoring railway assets such as stations and tracks, in the event of flooding due to projected rainfall.

Step 2: Assessment of Climate Change Impact

Based on the results of the baseline assessment, the financial impact of climate change up to fiscal 2051 is estimated by taking into account future changes in the probability of flooding under multiple climate change scenarios.*6

Step 3: Verification of Effectiveness of Flood Control Measures

Based on planned rainfall, JR East is taking disaster countermeasures, both in terms of physical facilities and human responses, such as raising the height of electrical equipment considered of critical importance to operations and installing water stop plates at building openings, in accordance with the degree of importance of the facilities. In addition, we developed a decision support system on railcar evacuation and prepared a vehicle evacuation manual (see “Initiatives to Address Flooding” on page 72). We intend to verify the effectiveness of these measures by estimating the financial impact of climate change in each case with and without the measures, thereby assessing the loss reduction effect of the implementation of the measures.

To begin with, regarding the estimated financial impact for flooding of the Arakawa, Tonegawa, Edogawa, and Tamagawa rivers, the assessments of which were presented in our Integrated Report 2022, we reviewed and refined the asset data used for quantitative evaluation. There was no major change in trends of the evaluation results, and the financial impact of climate change was found to be slightly smaller in the RCP*7 2.6 (2°C increase) scenario than in the RCP8.5 (4°C increase) scenario, which was common to all rivers in the time of fiscal 2051. Further, we found that flooding of the Arakawa River, which has the greatest financial impact, is expected to cause a total loss of approximately ¥33.8 billion from 2021 to 2050 without inundation measures. On the other hand, we found inundation measures yielded an approximately ¥19.9 billion loss reduction effect, and that loss reductions due to vehicle evacuation are significant.

*6 Yukiko Hirabayashi et al. (2013). Global flood risk under climate change. Nature
*7 RCP: Representative Concentration Pathways scenario

Estimated Financial Impact for Flooding of the Arakawa, Tonegawa, Edogawa, and Tamagawa Rivers*8
(Updated Values for the Calculation Results in Our Integrated Report 2022)

		Arakawa River		Tonegawa River		Edogawa River		Tamagawa River	
Climate Change Scenarios	Flood Control Measures (Physical Facilities and Human Responses)	Increase in Financial Impact (Loss) (Billions of Yen)		Increase in Financial Impact (Loss) (Billions of Yen)		Increase in Financial Impact (Loss) (Billions of Yen)		Increase in Financial Impact (Loss) (Billions of Yen)	
		FY2051	FY2022-FY2051 Cumulative Total	FY2051	FY2022-FY2051 Cumulative Total	FY2051	FY2022-FY2051 Cumulative Total	FY2051	FY2022-FY2051 Cumulative Total
RCP2.6 (2°C increase)	No countermeasures	2.3	33.8	0.2	3.1	0.4	6.1	0.3	5.1
	With countermeasures	0.9	13.9	0.2	2.9	0.1	2.1	0.2	3.7
	Loss reduction effects of countermeasures	(1.3)	(19.9)	0.0	(0.2)	(0.3)	(4.0)	(0.1)	(1.4)
RCP8.5 (4°C increase)	No countermeasures	2.3	34.4	0.2	3.3	0.5	7.0	0.4	6.1
	With countermeasures	1.0	14.8	0.2	3.1	0.2	2.4	0.3	4.4
	Loss reduction effects of countermeasures	(1.3)	(19.5)	0.0	(0.2)	(0.3)	(4.6)	(0.1)	(1.7)

* "0.0" in the table indicates that the amount of the increase in loss is insignificant (less than ¥50.0 million).

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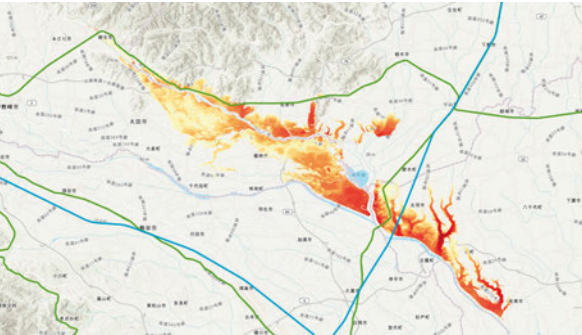
Next, we conducted similar new financial impact assessments for five Kanto region first-class rivers: the Watarasegawa, Kinugawa, Nakagawa, Tsurumigawa, and Sagamigawa rivers. The results indicated that the financial impact of climate change was found to be slightly smaller in the RCP 2.6 (2°C increase) scenario than in the RCP8.5 (4°C increase) scenario, which was common to all rivers in the time of fiscal 2051. On the other hand, in the case of flooding of these five rivers, we found that the amount of financial impact was generally small compared with that of the four rivers mentioned earlier, largely because rail yards were not assumed to be flooded.

Based on the results of these assessments of the financial impact of climate change, we will continue to implement natural disaster countermeasures from both tangible and intangible perspectives as mentioned above in accordance with the degree of importance of facilities, mainly in flood-ing areas that are susceptible to heavy impacts.

Estimated Financial Impact of Flooding of the Watarasegawa, Kinugawa, Nakagawa, Tsurumigawa, and Sagamigawa Rivers (New Assessment)

	Watarasegawa River		Kinugawa River		Nakagawa River		Tsurumigawa River		Sagamigawa River	
Climate Change Scenarios	Increase in Financial Impact (Loss) (Billions of Yen)		Increase in Financial Impact (Loss) (Billions of Yen)		Increase in Financial Impact (Loss) (Billions of Yen)		Increase in Financial Impact (Loss) (Billions of Yen)		Increase in Financial Impact (Loss) (Billions of Yen)	
	FY2051	FY2022-FY2051 Cumulative Total	FY2051	FY2022-FY2051 Cumulative Total	FY2051	FY2022-FY2051 Cumulative Total	FY2051	FY2022-FY2051 Cumulative Total	FY2051	FY2022-FY2051 Cumulative Total
	RCP2.6 (2°C increase)	0.030.47	0.000.00	0.000.00	0.000.02	0.030.46	0.010.09			
RCP8.5 (4°C increase)	0.040.53	0.000.01	0.000.03	0.050.76	0.010.10					

*"0.00" in the table indicates that the amount of the increase in loss is insignificant (less than ¥5 million).



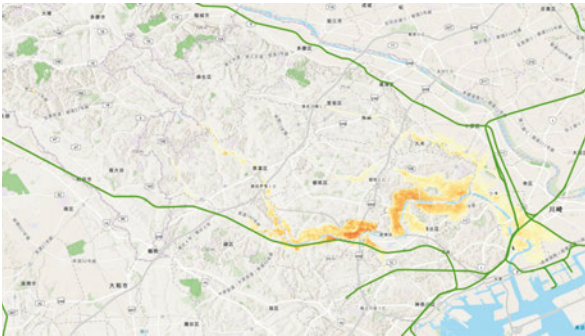
Watarasegawa River^{*8}



Kinugawa River^{*8}

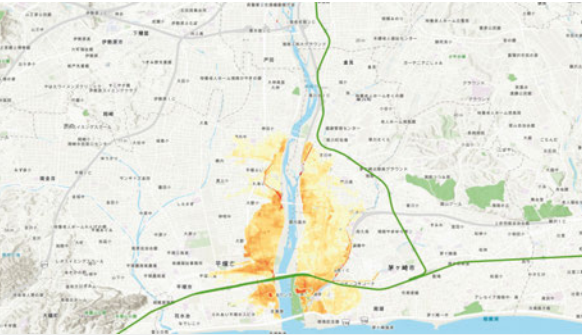


Nakagawa River^{*8}



Tsurumigawa River^{*8}

^{*8} Map of flooded areas (yellow to red) caused by projected rainfall on rivers expected to flood and our operating lines (blue: Shinkansen, green: conventional lines)



Sagamigawa River^{*8}

SBT Certification Efforts

The JR East Group has committed to acquiring science-based targets (SBTs), greenhouse gas emission reduction targets that are scientifically consistent with the goals of the Paris Agreement. Going forward, we will review our Group greenhouse gas reduction targets based on scientific evidence and work to acquire certification from the Science Based Targets initiative.

2 Circular Economy

The business activities of the JR East Group have wide-ranging impacts on the environment, such as the discharge of general waste from daily station and train operations, industrial waste from general rolling stock centers, wastewater from vehicle washing, kitchen waste from restaurant operations, and general waste from retail sales in the Lifestyle services business.

We will implement initiatives aimed at transitioning to a circular economy for the entire Group, such as 3R (Reduce, Reuse, Recycle) initiatives for reducing waste and boosting recycling, as well as forestation for the purpose of biodiversity and the effective utilization of lumber generated from the maintenance of railway protection forests.



Resource Recycling Targets by Fiscal 2031

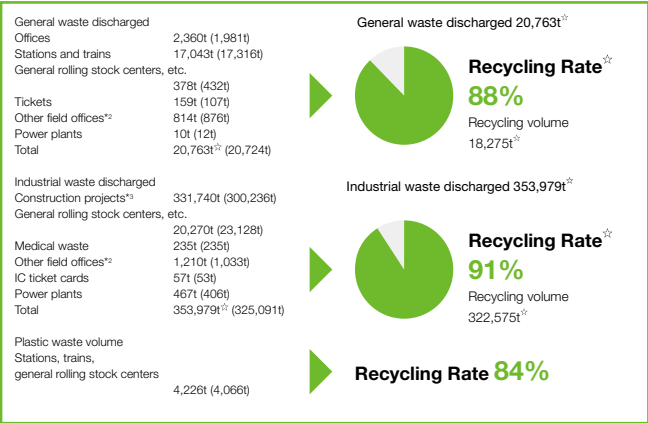
Performance Indicators			FY2031 Target (%)	FY2023 Result (%)
Raise recycling ratios (per fiscal year)	Recycling rate for waste generated at stations and on trains		94	91
	Recycling rate for PET bottles in waste generated at stations and on trains		100	97
	Recycling rate for waste generated at general rolling stock centers, etc.		96	93
	Recycling rate for waste generated in facility construction projects		96	91
Reduce emission intensity (FY2021 standard)	Provided by B2C (Business to consumer)	Reduction in single use plastics	25	80
		Switching from single use plastic containers and packaging to renewable materials	60	3
		Reduction rate of final disposal amount of food waste	50	45
Reduce emission intensity (FY2014 standard)	Waste (general/industrial) reduction rate and recycling rate ^{*1}	Reduction ratio ^{*2}	32	47
		Recycling rate ^{*2}	73	79

■ Indicates targets for JR East Group companies
^{*1} Excludes overseas JR East Group companies
^{*2} Excludes companies that do not generate waste

Groupwide Waste Generation, Amount Recycled, Recycling Rate: Fiscal 2023 Results

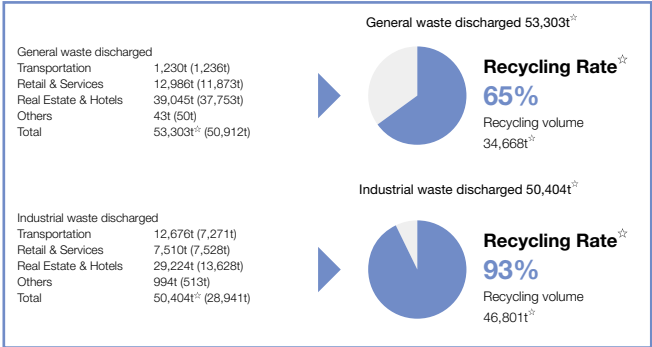
Data in parentheses is for fiscal 2022

JR East Waste Generation, Amount Recycled, Recycling Rate^{*1}



^{*1} Waste includes salable waste
^{*2} Other field offices: Technical centers, equipment maintenance centers, and other locations such as train crew offices
^{*3} Construction projects: Waste generated by our construction projects, but for which contractors legally become the waste-discharging entities, is included in industrial waste.

JR East Group Companies' Waste Generation, Amount Recycled, Recycling Rate^{*1}

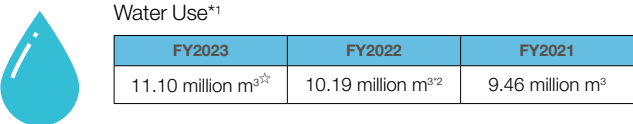


Recycling includes thermal recycling* where general waste is treated at incineration plants, etc. and industrial waste is incinerated as intermediate treatment for heat recovery.
* Thermal recycling: A recycling method that recovers waste heat from burning waste to produce steam and hot water to be used for power generation, hot water supply, etc.

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Water and Office Paper Usage by the Entire Group

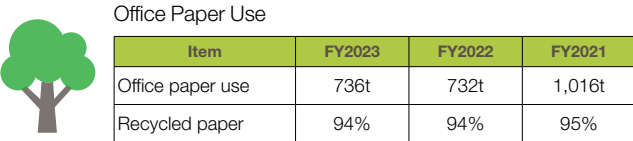
JR East Usage Volume



In addition to tap water, industrial water, and groundwater, we actively promote the use of gray water^{☆3} in our business activities, and we reuse rainwater and hand-washing water for toilet flushing. Specifically, our rolling stock centers use industrial water for vehicle-body washing and our station offices and toilets use and discharge tap water, rainwater, groundwater, and gray water. JR East appropriately manages water quality based on laws, ordinances, and agreements with local governments and works to conserve water resources.

^{☆1} Water use comprises the total of tap water, industrial water, and groundwater consumption
^{☆2} FY2022 water use figures corrected from 9.63 million m³ to 10.19 million m³ due to an oversight in recording 560 thousand m³ of water use
^{☆3} Use of water defined as between tap water and sewage. Such water is recycled and used for limited purposes.

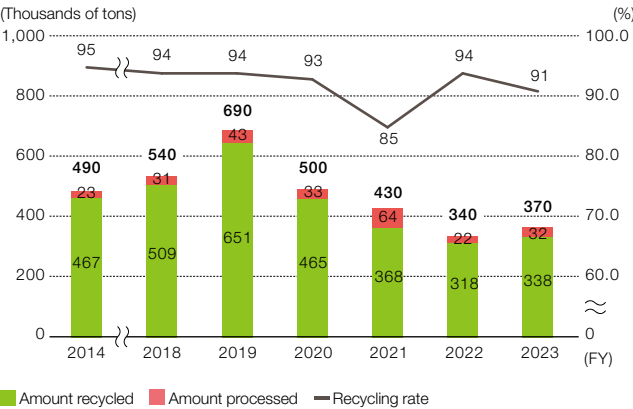
JR East Usage Volume



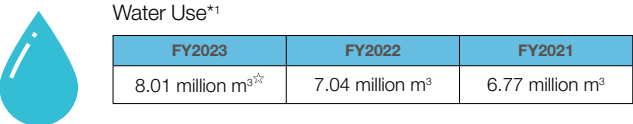
Collecting and Reusing Waste from Stations and Trains

The recycling rate of waste generated from stations and trains is being improved through thorough sorting of waste by people and machines at the JR East Tokyo Resource Recycling Center (operated by JR East Environmental Access Co., Ltd.) and other facilities. Magazines and newspapers are recycled into office paper, etc., all used tickets are recycled into toilet paper, etc., and all used Suica cards are recycled into RPF solid fuel.

Waste from Stations, Trains, General Rolling Stock Centers, and Construction Projects



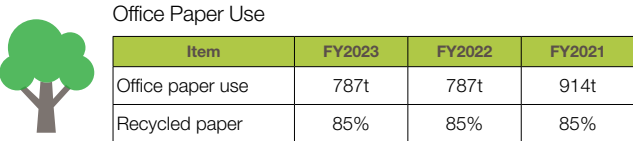
JR East Group Companies Usage Volumes



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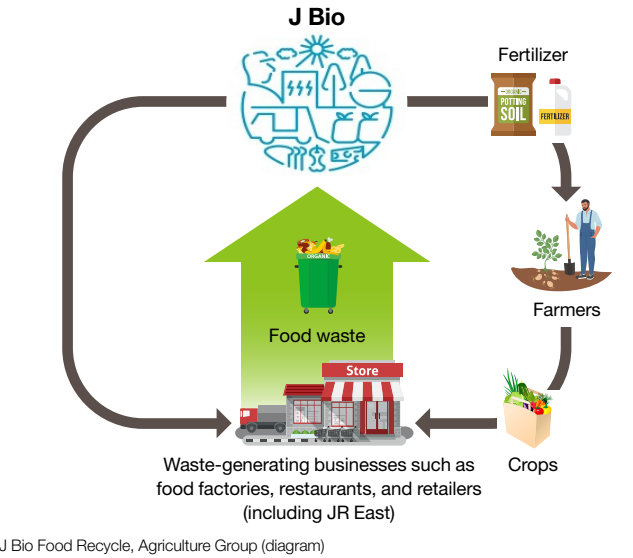
^{☆1} Water use comprises the total of tap water, industrial water, and groundwater consumption
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^{☆3} Use of water defined as between tap water and sewage. Such water is recycled and used for limited purposes.

JR East Group Companies' Usage Volumes



Utilization of J Bio Food Recycle's Power Generation Residue as Fertilizer

At J Bio Food Recycle's Yokohama plant, food waste brought in from the JR East Group and the city of Yokohama is fermented with microorganisms, and the methane gas generated is used as fuel for power generation. In September 2022, we took the fermentation residue, which we had conventionally incinerated, and registered it as a fertilizer, which then went into use in agriculture. Specifically, this enables the full-circle recycling of resources by encouraging agricultural business operators to use fermentation residue fertilizer to produce crops. Those crops are then used other businesses and any food waste they generate is then recycled again. Going forward, we will aim for resource recycling at the JR East Group.



Installation of Recycling Stations and New Trash Boxes

We have commenced demonstration experiments on new collection methods for recyclables at train stations. Up till now, waste disposed of at stations included magazines, newspapers, cans, bottles, and PET bottles that could be collected as resources if they were sorted. Now, with our attention focused on waste plastic, we have set up dedicated recycling stations for the collection of such waste at three train stations—Tokyo, Osaki, and Kawasaki—and we are currently verifying waste sorting results. At Osaki Station, we have also adopted a new design for trash boxes next to vending machines to improve recycling rates. We will continue to work on demonstration experiments and pursue further resource recycling.



Newly installed recycling station (Tokyo Station)

Installation of Recycling Stations



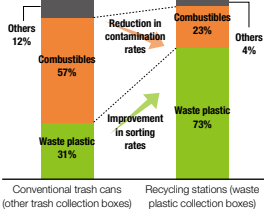
Morihiko Yoneyama
JR East Environmental Access Co., Ltd.

We take a portion of the waste plastic collected and sorted from trains and sort it to 80% purity for hydrogenation via chemical recycling. However, there were problems with separation rates since waste plastic collected in conventional trash cans at stations had just 31% purity. In response, we have begun installing recycling stations that focus on meeting three criteria: achieving more advanced recycling, including waste plastic; reducing costs by shortening the flow of waste collection; and clamping down on the disposal of household waste. As a result, the average sorting rate at the three stations with the newly installed waste plastic collection boxes rose to 73%, and waste plastic collected at Kawasaki Station was hydrogenated and partially used in the HYBARI hydrogen-hybrid train. In addition, the newly installed PET bottle collection boxes enable us to expand bottle-to-bottle horizontal recycling.

We owe the realization of this initiative to the cooperation of everyone involved, including the understanding of the station personnel and their coordination of collection work as well as the understanding and cooperation of customers using the stations.

That said, there are still issues to resolve. By analyzing the layout and usage of train station premises, we aim to further improve sorting rates and build a recycling loop that goes from waste to the energy that drives our railways.

Recycling Stations Sorting Rates



Biodiversity Initiatives

We have been running the Hometown Forest Planting program, an activity to plant native trees and regenerate forests to protect the richness of the land, since fiscal 2005. In October 2022, we held the *Shima Furusato no Mori-Zukuri* forestation event, in which 300 attendees took part and 2,500 trees were planted. To date, we have planted a total of approximately 170,000 trees in four locations in our tree planting areas.



Fiscal 2023 forestation



Adatara Hometown Forestation growth (19 years after tree planting)

In addition, in an effort to protect ocean diversity, we are working at Takeshiba tideland, which is adjacent to the WATERS takeshiba development, to revitalize the environment of Tokyo Bay Edomae and create a place for learning.

In fiscal 2023, we held monthly Tidal Flats Open Days, where participants were able to experience making sea urchin lamps and Christmas shell wreaths at marine-life workshops, try goby fishing, and take outdoor disaster prevention courses using tidal flats. These events enable many people to experience the role of tidal flats in biodiversity. We hosted a total of 24 such event days with approximately 840 participants.



Tidal Flats Open Day

Others

Chemical Substance Management

Reduction and Substitution of Ozone-Depleting Substances

We endeavor to reduce the use of substances specified as controlled in compliance with the Act on the Protection of the Ozone Layer Through the Control of Specified Substances and Other Measures and to adopt substitutes that have less impact on the environment. Under the Act on Rational Use and Appropriate Management of Fluorocarbons, we reported a leakage amount of four thousand t-CO₂[☆] for fiscal 2023.

Chemical Substance Management and Reduction

The Company is classified as a business operator handling over a certain amount of specified chemical substances under Japan's pollutant release and transfer register (PRTR) system.* Accordingly, 11 of our sites reported emissions and transfer amounts to the relevant local government bodies in fiscal 2023.

Also, considering the impact on ecosystems, we are working to reduce and substitute chemical substances, for example, by introducing stainless steel railcars that do not require painting.

* This is a system whereby companies notify their releases and transfers of chemical substances as required by the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof. It encourages the monitoring and control of toxic chemical substances emitted into the environment and measures to prevent negative impacts on the environment.

Providing Society with Innovative Technologies and Services

We will create new services and expedite their introduction to society by actively advancing new technologies and digital transformation in all of our businesses and by taking on ambitious initiatives that go beyond the boundaries of existing businesses.

① Technology Innovation

- Goals
- Provision of operational management solutions and realization of social innovation through continuous technology innovation based on utilizing external technologies and digital transformation
 - Development and empowerment of employees with digital technology skills

② New Fields

- Goal
- Provision of new services and proposal of new lifestyles

Basic Concept

We will offer new services and new lifestyle ideas to our customers by actively utilizing external technologies via open innovation and the pursuit of digital transformation. Using the knowledge and expertise we obtain through these activities, we will contribute to social innovation by providing business management solutions outside the Company.

In addition, we will utilize the technologies and expertise we have cultivated in the fields of Mobility and Lifestyle Solutions and summon the collective strength of the Group to provide enriched lives at a global level.

* For details on our Digital Transformation Strategy and Intellectual Property Strategy, please see pages 60–61.

① Technology Innovation

In the four fields of safety and security, service and marketing, operation and maintenance, and energy and the environment set forth in our Mid-to-Long-Term Vision for Technical Innovation, we will leverage such tools as IoT, big data, and AI to aim for pioneering technological innovation and thereby create new value.

WaaS Co-Creation Consortium and the Pursuit of Open Innovation

We formed the Mobility Innovations Consortium in 2017 as a forum for fostering mobility through open innovation. Over the past five years, we have conducted various demonstration experiments and implementations with the participation of more than 160 companies and organizations. Leveraging this knowledge and expertise, in April 2023, we formed a new Well-being as a Service (WaaS) Co-Creation Consortium as a forum for enhancing the value of mobility and space. Through open innovation, we will work to solve social issues in a wider range of areas than we could address on our own, and achieve well-being in society.



Development of Next-Generation Shinkansen Trains

We launched the ALFA-X train as a testing platform in May 2019. The train runs mainly on the Tohoku Shinkansen between Sendai and Shin-Aomori, and we have used it to confirm the performance of each prototype item to improve safety, stability, comfort, environmental performance, and maintainability. In fiscal 2023, we conducted test runs mainly during the operating hours of commercial trains to confirm the durability of various prototype products.



ALFA-X

Use of Digital Transformation by On-Site Employees for Work Improvement



Akira Kawai
Ryota Amano
 (Current position:
 Oniya Conductors Depot)
 Urawa Higashi General
 Management Center
 Oniya Branch Office

JR East leverages the latest IT technology to improve the efficiency of station operations. At Urawa Station, we use in-house deployed low-code tools to create an app that supports station poster display and management work. In creating the app, we emphasized ease of operation and maintenance, and, through a continual process of trial and error, we completed the app about a month after the work-related issues were first brought to light. To date, the app has been horizontally deployed at more than 50 stations within our jurisdiction, contributing greatly to the efficiency of station operations. We will continue to create various apps that solve workplace issues and lead to further operational reforms such as streamlining station work and improving service quality.



Example of an app created on-site

Achievement of BRT Automated Driving Level 4 and Extension of Automated Driving Sections

Amid the shortage of local bus drivers due to Japan's declining birth-rate and aging population, we have been working on proving trials for automated driving since fiscal 2018, as a way to sustain public transportation services.

In December 2022, we commenced practical application of Level 2 driving automation on the Kesennuma Line BRT between Yanaizu and Rikuzen-Yokoyama. We will further improve the safety and reliability of automated driving buses, aiming to raise them to Level 4, and extend the automated driving section of the bus route from Rikuzen Yokoyama to the dedicated road leading to Shizugawa (Mizushirigawa approach).



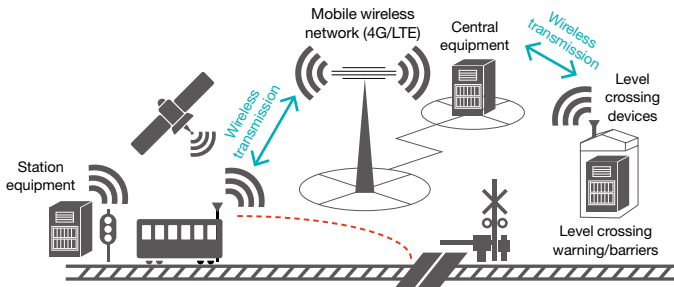
Automated driving bus for BRT

GNSS Wireless Railway Crossing Control System

With the aim of deploying it on local lines, we are developing a new global navigation satellite system (GNSS) wireless level crossing control system that uses satellite positioning technology to determine the location of a train and utilizes mobile communication networks to provide level crossing warnings and control train speed.

We have developed and tested level-crossing warning control functions and will continue to develop and test wireless automatic train protection (ATP) function to further simplify the wayside equipment.

This system is expected to improve safety and streamline level crossing equipment, including cables for information transmission, thereby reducing equipment maintenance costs.



Systems Human Resource Development Program (JEIS University)



Takako Ishii
 JEIS University first-year class
 Innovation Strategy Headquarters
 (seconded to JEIS, previous post: Tabata Station)

In fiscal 2023, JR East established a systems human resource development program, through which we are working to develop human resources who will play a central role in the development and operation of core systems.

I applied for this program and am currently involved in the development and operation of *eki-net*. Up until now, I had been just an individual user of the service. I learned that when it comes to actual development, *eki-net* is a solid, process-based system that has been carefully created and maintained based on lessons learned from previous challenges. As a person with an understanding of both business and systems, I aim to contribute from the systems side of things to enable our customers to use optimal services in every aspect of their lives.

② New Fields

By actively engaging in new technologies and digital transformation and taking on challenges beyond the framework of existing domestic businesses, we aim to create new services and fast track our implementation. We will offer new services and new lifestyle ideas by actively utilizing external technologies via open innovation, and we will use the knowledge and expertise we gain through these activities to provide business management solutions outside the Company.

Objectives of Virtual AKIBA World: “Fusion of Real and Virtual”



Ryo Murakami
 JR East Cross Station Co., Ltd.

Virtual AKIBA World, opened in March 2022, is JR East's own original Metaverse space, a virtual reproduction of the Akihabara train station and town. Under the Beyond Stations concept, which aims to transform stations into hubs of business creation as platforms for “connected lifestyles”, we aim to develop new businesses through the “fusion of real and virtual” by including links in virtual spaces to real stations and trains.

To date, we have developed new services in both real and virtual environments through collaboration with our existing businesses and co-creation with external companies, including a virtual reproduction of the first locomotive in commemoration of the 150th anniversary of the launch of railway services in Japan.

Going forward, we will continue to combine real assets and services with extended reality (XR) technology to create synergies with existing businesses and create new value.



Business Co-creation with Start-Up Companies

Through collaboration with start-up companies launched by JR East Start UP Co., Ltd., we are working to accelerate open innovation and enhance the value of the JR East Group. When it comes to collaboration, after conducting proving trials with start-up companies, we then form capital and business alliances based on comprehensive assessment of business synergies, social value creation, and future business potential. Furthermore, where there is potential for business acceleration, we establish joint ventures and take other such measures to help new businesses establish themselves and take root.



Taking the International Business to the Next Phase through Cross-Border M&As

We have acquired shares in GATES PCM CONSTRUCTION LTD., which is engaged in track construction and maintenance business mainly in Singapore, making it a JR East Group company. We will combine the technical capabilities of JR East and Gates to develop business in railway-related projects in Singapore and its surrounding areas.

Increasing the Engagement of All Group Employees



We will make our Group companies places where each of the Group's diverse employees can demonstrate their abilities in a challenging and rewarding environment.

① Promotion of Diversity, Equity, and Inclusion (DE&I)

Goals

- Empowerment of diverse personnel
- Realization of flexible workstyles

③ Health and Productivity Management

Goal

- Promotion of employee health

② Human Resource Development

Goals

- Cultivation of innovation-oriented thinking and diverse career development
- Expansion of fields of activity

④ Occupational Safety

Goal

- Accident-free, safe workplaces

Basic Concept

Recognizing that our strength lies in the diversity of perspectives and differences in values that reflect the attributes, knowledge, and skills of our Group employees, such as work experience, age, and gender, we aim to be a corporate group where diverse human resources can exercise their abilities to the fullest extent by expanding the fields in which our employees can play an active role. In order for employees to make maximum use of their abilities, it is essential that they are physically and mentally healthy. We will promote the health of our employees and create safe, comfortable, and accident-free workplaces.

* For details on Human Resources Strategies, please see pages 58–59.

① Promotion of Diversity, Equity, and Inclusion (DE&I)

A diverse range of customers uses the Group's services, so it is essential for us to constantly consider diversity in the provision of our services. In addition, since the Group brings together employees across a wide range of roles, such as station, crew, maintenance, Lifestyle Solutions, and IT & Suica, the Group truly embodies diversity.

We recognize that the JR East Group's strength lies in the various perspectives and differences in values that reflect the diversity of employees working in the Group. We secure human resources with diverse personalities and skills so that we can understand the diverse needs of our customers and create new value. In addition, we will continue to promote the creation of an environment in which diverse human resources can exercise their abilities to the fullest extent.

Empowering Women and the General Business Owner Action Plan

In the railway business, there have been legal restrictions such as those on late-night work, and opportunities for women to play an active role have been limited, but since our inception we have been doing all we can to promote the activities of female employees by creating an environment in which women can work comfortably. As a result, women are employed in every area of the Company and the average length of their employment is increasing. Under our Second General Business Owner Action Plan, covering the five years starting in 2019, we continue to implement initiatives to promote the employment of women, lengthen their average years of service, strengthen our cultivation of female human resources, and encourage their promotion to more senior positions. Furthermore, by fiscal 2028, we will increase the ratio of women in managerial positions to 10%, from approximately 7% currently.

Second General Business Owner Action Plan (Fiscal 2020–Fiscal 2024)

- (1) Aim for at least 30% of new graduate employees to be women.
- (2) Promote the establishment of women's facilities in workplaces and create an environment in which women can actively participate at all workplaces.
- (3) Improve the convenience of on-site daycare centers at workplaces and give ample support to employees who are working while engaged in childcare or nursing care.
- (4) Accommodate a range of workstyles and create an environment in which all employees can happily continue to work for the Company.
- (5) Have women fill at least 10% of management positions.*

* In the General Business Owner Action Plan, "management positions" include supervisors in charge of management of field organizations.

Initiatives to Promote Understanding of LGBTQ+ Employees

The JR East Group recognizes the acceptance of members of the LGBTQ+ community as an important part of its diversity efforts and considers it the Group's duty to create comfortable, discrimination-free workplaces for LGBTQ+ employees. Thus far, we have expanded the scope of our human resources and benefits systems to include same-sex partners. As well as creating an accepting environment for LGBTQ+ employees to work in, we are building awareness and understanding among all of our employees through universal compliance training. In 2021, we formulated a policy for improving in-house facilities that takes into consideration the needs of diverse human resources, including LGBTQ+ employees. In accordance with this policy, we have installed multi-functional toilets and other such facilities during new construction and large-scale renovations of JR East facilities. Further, for six consecutive years the Company has received a Gold rating (the highest) on the PRIDE Index, which evaluates companies' LGBTQ+ initiatives.



Promoting Foreign Employees

We strive to employ the best candidates regardless of nationality. As of April 2023, we employ approximately 90 foreign nationals in a wide range of areas including at stations and as train crew members, as well as in the planning department and other areas. We are working to create an environment where employees can use their abilities regardless of their nationality. We regularly set up opportunities for dialogue with foreign employees, such as foreign employee networking meetings.

Employing Older Employees

In fiscal 2009, we introduced a reemployment system—the Elder Employees System—for people between the ages of 60 and 65, so that employees nearing retirement age can count on a stable income before they become eligible to draw their national pension. The system, which has been extended to include JR East and its Group companies, is also designed to ensure personnel training and the passing on of technical knowledge throughout the Group as large numbers of the employees of Japan's national railways retire at once. As of April 2023, approximately 9,150 employees are enrolled and active as Elder Employees at JR East and Group companies.

Employing People with Disabilities

We will continue to create an environment in which employees with disabilities can work actively in various positions, and we will maintain an active recruitment policy. As of June 2023, we have approximately 800 employees with disabilities and an employment rate of 2.69%, which is above the statutory rate of 2.3%. We will continue our efforts to create a comfortable work environment for all employees.

Active Participation by Group Employees with Disabilities



Ayano Kojima

JR East Green Partners Co., Ltd.

Established in April 2009 as a special subsidiary of JR East, JR East Green Partners Co., Ltd., aims to promote employment for people with disabilities and provide them with stable, long-term employment at the JR East Group. It is mainly responsible for managing JR East uniforms.



Recently, the subsidiary has been managing amenities for TRAIN SUITE SHIKI-SHIMA and producing wooden straws made from thinned wood and business cards made from a new material, LIMEX.

Supporting Employees with Childcare or Nursing Care Responsibilities

JR East has in place a system that surpasses the support required by law, and includes options for employees to take time off, work shorter hours, and work fewer days in order to balance work with childcare or nursing care. In addition, in April 2022, we established a new "career design leave" system, which allows employees to take leave for fertility treatment. We have also established on-site nurseries in all areas, which provide 24-hour childcare and other support for employees who work irregular hours.

In addition, in April 2022, we implemented systemic changes to encourage male employees to take childcare leave, such as establishing a postnatal fathers' leave system and relaxing the procedures for taking childcare leave. Our male employees are taking childcare and other such leave at a steadily increasing rate, rising from 12.2% in fiscal 2020 to 43.7% in fiscal 2023. We implement training and seminars to promote understanding when it comes to employees balancing work with childcare or nursing care. We also sponsor programs to provide information about juggling work with childcare or nursing care responsibilities.



Poppo Land daycare service within JR East offices

Further Expanding Support for Child-Rearing and Related Needs

To further promote support for balancing work and childcare, and to empower diverse contributions from every employee, we will implement a new maternity gift system and increase the dependent allowance for children.

We will also implement a system that allows employees who are raising children with intractable diseases and disabilities to work more flexibly, by extending the period for which they can work shorter hours and shorter days, allowing them to take childcare leave throughout the child's compulsory education period, and increasing the amount of dependent allowance.

Launching Welcome Back Recruitment and Year-Round Recruiting and Hiring for Experienced Personnel

In 2023, we redefined and enhanced our re-employment support system and launched Welcome Back recruitment. With Welcome Back recruitment, in order to make it easier for those who have left the Company to advance their careers to come back and rejoin us, we have adopted a new method for calculating starting salaries, based on the compensation employees were receiving when they left, plus additional portions to reflect their additional work history, skills, and other such criteria.

In fiscal 2024, we introduced the year-round recruiting and hiring of experienced personnel to attract people with a wide range of work histories and skills to play an active role in the Company. In addition, we are steadily appointing experienced employees to managerial positions so that they can make the most of the skills they have cultivated, and we aim to increase the percentage of managers with external experience to 20% by fiscal 2028, up from approximately 18% currently.

Introducing Remote Working and Expanding Flextime

Since 2019, JR East has offered certain employees a flexible workstyle, allowing them to work remotely from anywhere. In 1997, we introduced a flextime system for departments such as Corporate Planning, and we subsequently upgraded it to a flextime system without a core time alongside the rollout of remote work. We have since expanded our flextime system to on-site workplaces including construction offices, general rolling stock centers, power plants, and other worksites, and in 2022 we began applying it to all field offices, including workplaces with night shifts. We have since shortened core time at certain on-site workplaces. In addition, we have named remote working at travel destinations using our own travel products Workation@JRE, which we have been promoting since 2021.



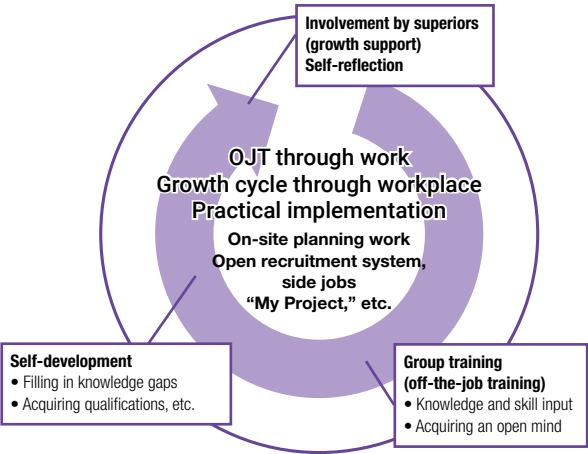
Remort working at travel destinations via Workation@JRE

Increasing the Engagement of All Group Employees

② Human Resource Development

The happiness of our employees and their families is a focus point of JR East Group Management Vision “Move Up” 2027. As we pursue three major reforms—work reform, workstyle reform, and workplace reform—we are working to expand the range of fields for our employees’ career development and taking other such measures to improve job satisfaction so that all our employees can play leading roles in their own right. Furthermore, in addition to the operational duties necessary to run our railway business, we are undertaking reskilling for the acquisition of the knowledge and skills to create new value, and we will cultivate employees who are active not only in existing businesses but also in priority and growth fields.

Basic Approach to Human Resource Development



On-the-Job Human Resource Development

We position on-the-job-training (OJT) as the foundation of human resource development. The workplace is not only a place to acquire knowledge and skills for railway operation work but also a place to acquire and practice knowledge to create new value. It is also a place for employee development through work, such as by plotting out a career vision and taking on challenges to live up to one’s potential.

Group Training (Off-the-Job Training)

The Company conducts group training using facilities such as the JR East General Education Center. In addition to courses for acquiring and improving the knowledge and skills necessary for railway operations, we conduct courses such as leadership training to vigorously promote structural reforms. We will provide more efficient and effective training by using online courses and providing on-demand teaching materials.

Self-Development

We provide support for self-development to encourage employees to learn and grow on their own initiative. In addition to providing several in-house correspondence training sessions focused on our business and external correspondence courses for improving business skills, we are enhancing self-development courses to foster an innovative mindset that creates new value, and we aim to have a cumulative total of 10,000 or more participants by fiscal 2028.

Expanding the Range of Fields for Employee Career Development

Internal Open Recruitment System

We offer an open recruitment system, giving employees the opportunity to challenge themselves and consider their own career paths. In fiscal 2023, we recruited people for positions in Lifestyle Solutions, International business, Mobility as a Service (MaaS), start-ups, and real estate, and approximately 200 of our existing employees have started new career paths with us. We will continue to actively use this internal open recruitment system to allocate human resources to priority and growth areas.



Secondments to Group companies in the Lifestyle Solutions business

Planning Work at Frontline Offices

We are reviewing our organizational structure and the delegation of authority to give employees at frontline offices the freedom to use their originality and ingenuity in places with closer customer contact. As a result, employees at our frontline offices now carry out a variety of planning work in addition to conventional operations.

Through such work experience, our employees are developing the ability to come up with ideas for new value creation and acquiring new business skills.

Expanding Opportunities for Work Experience (Side Jobs)

JR East has adopted a system that allows our employees to have side jobs to provide them with opportunities for growth through diverse work experiences outside the Company and to create new services and added value through the insights gained from these experiences. We also host meetings for employees who have worked in side jobs and distribute the content of these discussions online as part of our efforts to disseminate such information widely throughout the Company. Since April 2023, we have expanded the range of side work destinations to organizations outside the Group to facilitate the growth and experience of our diverse employees through contributions to local communities.

As of April 2023, approximately 140 employees were engaged in side jobs at Group companies.

Operation of NewDays KIOSK by Management Center Staff



Chiharu Shiroto

Higashi-Noshiro General Management Center
Akita Branch Office

In February 2022, in a first for directly managed locations, we were entrusted with NewDays KIOSK store operations from JR East Cross Station Co., Ltd. We handle opening and closing stores, confirming product delivery, and stocking products. Because the job entails the handling of food, we faced various challenges, such as obtaining food sanitation supervisor qualifications and taking time to check product availability and expiry dates, but we have made improvements throughout the process.

After the Higashi-Noshiro Regional Center was established in March 2022 (Higashi-Noshiro Station and Higashi-Noshiro Transportation District were merged), store development has become a group effort, as we found ourselves liberated from our previous job descriptions, and employees engaged in crew and signal work have also gotten involved.

Supporting Independent Career Development

Domestic University Enrollment Program

Our Domestic University Enrollment Program enables employees to study for a four-year bachelor’s degree at a Japanese university while continuing to work, allowing them to acquire the necessary knowledge for their future careers. Approximately 500 graduates have used this system so far and they are active in various workplaces. Participants may enroll at Tokyo Denki University, Tokai University, or Chuo University.



Domestic university enrollment system graduation reporting session

Domestic & Overseas Graduate School Study Abroad Program

Our Domestic & Overseas Graduate School Study Abroad Program enables employees to attend graduate schools in Japan or overseas at Company expense to obtain a master’s or doctoral degree. Participants have attended universities including Stanford University (United States), National University of Singapore, and Keio University (Japan).

Career Development Support Program

We have introduced a Career Design Leave system to expand the range of career options for each of our employees and support self-advancement and career development. We also provide institutional support, allowing students to use the system to study at universities in Japan or overseas at their own expense or to undertake practical training in order to gain qualifications.

Creating Opportunities for Communication with Employees

Enhancing communication between supervisors and their teams is essential for the independent career development of our employees. Priorities are set at the beginning of the fiscal year through dialogue between employees and their supervisors, who then provide employees with feedback both during and at the end of the fiscal year to confirm their future career goals and assess their growth.

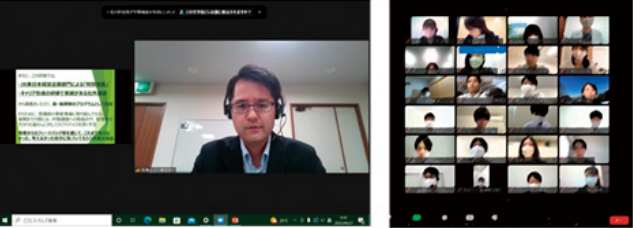
In addition, at our head office and other locations, we hold one-on-one meetings to further enhance dialogue with employees. Through these one-on-one meetings, we aim to help establish career visions, promote employee growth through self-reflection, ensure psychological safety in the workplace, and improve engagement.

Evolution of Learning Forums

Expanding the Use of Online Training

JR East provides an environment where employees can study anywhere and anytime. We aim to enable diverse and flexible workstyles using digital tools to expand online training.

We are expanding learning opportunities by providing hybrid training that combines group and online courses and is available online to employees who would find it difficult to participate in long-term training courses due to their domestic circumstances.



Online training sessions

Expanding the Use of On-Demand Learning Materials

In addition to conventional group training, we are working to create programs that allow learning anytime, anywhere, by expanding on-demand learning materials and utilizing tablets and other digital devices. We offer an environment where employees can use learning materials on various topics, including content on basic technologies in the field of mobility, and business and management skills improvement, which can be used for self-development and for education in the workplace.

Supporting Employee-Initiated Growth

JR East’s My Project program encourages employees to work on improving operations, solving problems, and creating new value on their own initiative. My Project activities provide opportunities for human resource development and form part of our efforts to develop employees who can use their discretion to take action.

In addition, we also focus on training for individual workplaces, to enhance the performance of our frontline offices. By encouraging our employees to plan and manage their own training programs, we are enhancing their motivation to pursue personal growth as well as their capacity for self-directed learning in addition to conventional training.

JR East Group “Move Up” Forum

The JR East Group “Move up” Forum is a program for sharing My Project endeavors at JR East and other improvement activities at Group companies. Through discussions about various activities and employee growth, we aim to further promote integration and collaboration across our organization and operations and come together as a Group to accomplish the goals of our “Move Up” 2027 vision.

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Improving Confidence in Management

We will build a solid governance system that is resilient to changes to facilitate new challenges, while respecting human rights and conducting trustworthy corporate management.

1 Internal Control That Promotes the Undertaking of Bold Challenges

- Goals
- Risk management that supports ambitious new initiatives
 - Ensuring stable, appropriate operational management
 - Business management in compliance with laws and regulations and corporate ethics, and ensuring information security

2 Respect for Human Rights

- Goals
- Instilling of respect for human rights
 - Sustainable procurement

Basic Concept

To accelerate our transformation and steadily achieve the JR East Group Management Vision “Move Up” 2027 amid a drastically changing business environment, it is essential to put effective governance frameworks in place to take on new challenges.

In addition, as a “network company,” we are committed to providing the JR East Group’s services to as many customers and residents as possible in different ways, and to earning the trust of all our stakeholders. We will establish a corporate culture that includes respect for human rights.

1 Internal Control That Promotes the Undertaking of Bold Challenges

The JR East Group views internal control as a broad concept that includes systems to ensure the appropriateness of business operations based on the Companies Act and systems to ensure the appropriateness of financial information, based on the Financial Instruments and Exchange Act. We consider internal control to be the combination of efforts by all Group employees to realize the Group’s philosophy and the Group’s management vision in an appropriate and efficient way.

Specifically, we are working on risk management from the perspective of expanding into new business fields, etc., in addition to the perspective of compliance, ensuring safety and security, preventing financial losses, and ensuring the soundness of financial statements.

Internal control is also a mechanism that supports growth and structural reforms for the Group by promoting initiative and motivation on the part of our employees to take on new challenges. The Group aims to develop itself and increase its value by supporting and promoting the bold undertakings of Group employees.

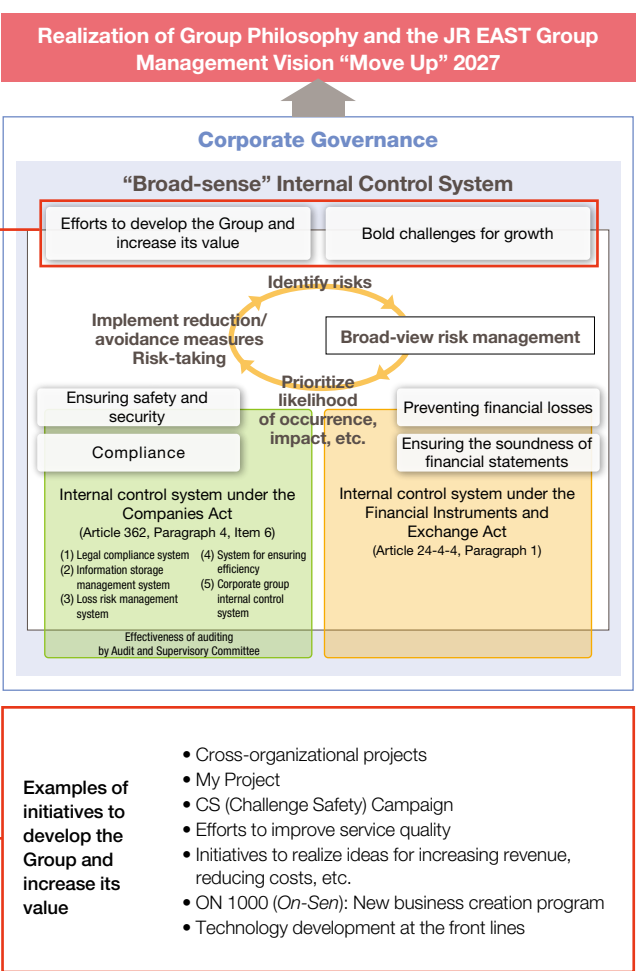
A System That Encourages Group Employees to Boldly Take on New Challenges

We are using communication tools, such as a portal site where Group employees can view and post information and in-house social networks, to encourage the sharing of ideas and the deployment of best practice across workplaces.

In addition, to promote “Move Up” 2027, we hold “Move Up” Chat Forums where directors share opinions and hold discussions with employees in individual locations (implemented in 52 locations within JR East and 41 group/partner companies in fiscal 2023). Such on-site visits stimulate active communication between directors and planning department staff and front-line employees and provide an opportunity to improve operations and take on new challenges.

We have created various opportunities to bring these endeavors to fruition, including the promotion of activities that improve and revitalize the workplace, the establishment of a system to support the generation and horizontal deployment of ideas, and the timely presentation of awards. Through these initiatives, we support and encourage Group employees to undertake bold challenges for the sake of growth.

JR East Group’s Basic Approach to Its Internal Control System



Let’s Complete Makuharitoyosuna Station Together! Roman Letter Station Sign Installation Experience Project



Tokyo Metropolitan Area Construction Project Management Office
Keiyo Bayside Line Project Secretariat
Chiba Branch Office

We planned and managed an event in which employees in charge of station construction and frontline employees working to revitalize the areas along the Keiyo Line collaborated to give customers the opportunity to install the roman letters on the sign for Makuharitoyosuna Station in Chiba (opening in March 2023).

Participating customers were able to experience the installation under the instruction of our employees, and also enjoyed features such as an overview of the work and a tour of the station building currently under construction. They were also given a replica of the installed roman letters as a souvenir to take home.

The project offered customers the unforgettable premium experience of working together to build a railway station, and in collaboration with Chiba City, it was treated as an original *JRE MALL Furusato Nozei* (hometown tax donation) gift.

Group Collaboration to Reduce Ticket Vending Machine Breakdowns



JR East Mechatronics Co., Ltd.
Hachioji Mechatronics Technology Center
Hachioji Branch Office

When it comes to the maintenance of ticket vending machines and other such equipment, we have traditionally adopted measures focused on stations with a high frequency of breakdowns. Taking the opposite approach, however, we switched to focusing on equipment maintenance methods at stations with the fewest breakdowns.

After analyzing the data on breakdowns, we got together to exchange views with employees at these stations (general management centers), and found that cleaning regimens and careful handling lead to fewer equipment breakdowns.

Using this knowledge, we have devised user-friendly cleaning kits and distributed them to each station. We have also made educational videos about how to clean ticket vending machines, which we are deploying horizontally through our portal site and in-house social networks. We will work to further reduce breakdowns through engagement with the station employees who use the equipment.

Risk Management

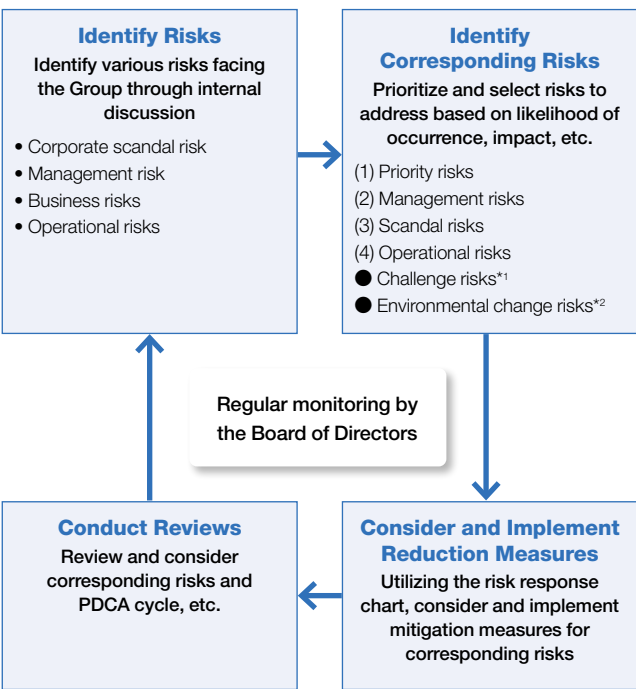
Basic Approach to Risk Management

In addition to the development and operation of the Company’s System for Ensuring the Appropriateness of Business Operations, based on the Companies Act, and the System for Ensuring the Appropriateness of Financial Information, based on the Financial Instruments and Exchange Act, we have been working to improve our risk management system. Specifically, we strive to identify various risks* faced by the Group, prioritizing them by likelihood of occurrence and level of impact. We implement a plan-do-check-act (PDCA) cycle to consider and implement measures to avoid or reduce risks and minimize their impact should they occur.

Nevertheless, for the Group to improve profitability and undertake structural reforms to speed up “Move Up” 2027, we recognize the importance of broad-based risk management that considers risk not only from the perspective of reducing negative factors such as avoiding losses but also from the perspective of proactively increasing the value of the Group. In addition to ensuring stable and appropriate business operations, the Group’s risk management is designed to support and encourage all Group employees to undertake bold challenges for the sake of growth.

* These include not only risks related to daily business operation such as compliance, safety assurance, and natural disasters, but also those related to market changes, competitor trends, social and economic conditions in Japan and overseas, and management decisions related to new businesses.

Risk Management Initiatives



¹ Challenge risks are risks that should be considered when implementing new measures or entering new businesses.

² Environmental change risks are risks that increase in importance with changes in the business environment.

Improving Confidence in Management

Compliance

Basic Concept of Compliance

JR East positions compliance as a basic policy of corporate management to build a better relationship of trust with regional communities and society.

We adopted the Policy on Legal and Regulatory Compliance and Corporate Ethics as the Group's corporate activity guidelines, and we comply with all related laws, including the Railway Business Act, in our various business fields, such as Mobility services and Lifestyle Solutions services, and we conduct business in accordance with our corporate ethics.

Overview of Compliance at the JR East Group



Policy on Legal and Regulatory Compliance and Corporate Ethics

We uphold regulatory compliance and corporate ethics in accordance with the Group's philosophy and principles. To improve the efficacy of this policy, we have distributed the Compliance Action Plan Handbook to all members of the Group. This handbook outlines the actions expected of every employee. It is updated periodically to reflect changes in laws and the social environment and was revised to its fifth edition in April 2022. Furthermore, in conjunction with the development of our international business, we formulated and announced the Basic Policy for the Prevention of Bribery Relating to Foreign Public Officials.

Promoting Compliance

We conduct training for all staff each year, to help every Group employee better understand the importance of compliance. In fiscal 2023, we discussed the importance of adhering to rules and regulations by systematically highlighting inappropriate events that have occurred within the Company in the past, in an effort to raise awareness.

We are also working to further strengthen compliance awareness through video messages from directors and training for managers.

In addition, we hold annual compliance seminars to consider compliance from a broad perspective, and talks are given by outside lecturers to provide alternative perspectives for future business operations.

The head of each workplace continuously checks operational appropriateness. We use the Basic Items Confirmation Support Sheet, which summarizes fundamental compliance-related matters, for continual checking and confirmation.

“All Employee Compliance Training Concept”



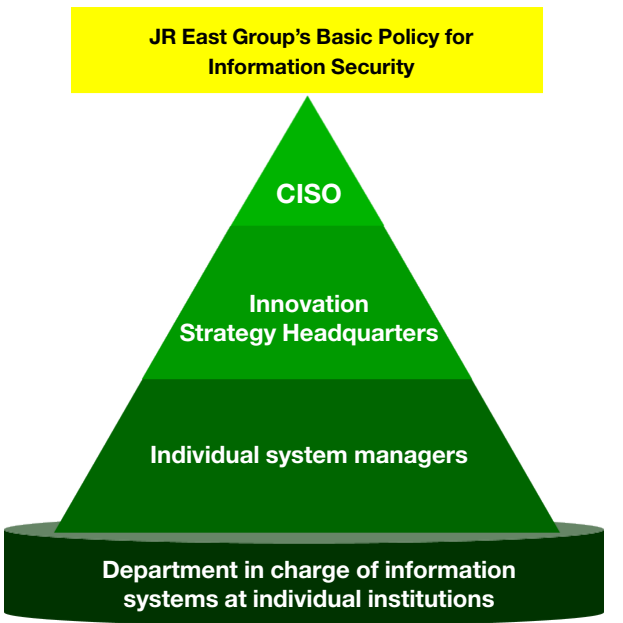
Compliance Hotline

We have established consultation desks both internally and outside the Group to facilitate compliance-related consultation and reporting. We accept consultations and reports from business partners and retirees and publish our responses to them on our website. To enhance the effectiveness of our internal reporting system, we registered for certification with Japan's Whistleblowing Compliance Management System (WCMS) in May 2021, through the program's self-declaration of conformity, in response to the revisions to Japan's Whistleblower Protection Act.

In fiscal 2023, we received about 250 consultations and messages on a wide range of issues, from the handling of laws and regulations to problems in human relations including harassment, and we responded to them appropriately and respectfully.

Framework and Basic Policy for Information Security

JR East has designed and introduced an information security management system outlined in the JR East Group's Basic Policy for Information Security and led by the general manager of the Innovation Strategy Headquarters as the chief information security officer (CISO). We strive to minimize information security risks by promoting security measures based on the following basic concepts: in-depth defense with multiple security measures, development of a system to promptly detect and respond to cyberattacks, timely software upgrades to address vulnerabilities, and Groupwide deployment of security measures.



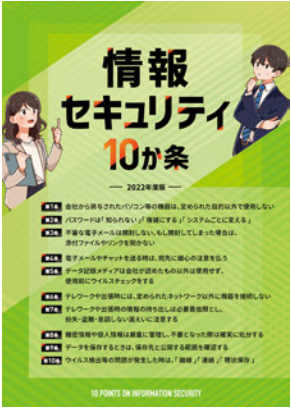
Information Security Initiatives

We continuously conduct information security education to raise employee awareness of cybersecurity and conduct drills to confirm initial responses in the event of a security incident.

In addition, in fiscal 2012, we introduced The 10 Principles of Information Security, a set of rules that every employee must observe. In fiscal 2023, we completely revised the content to respond to current circumstances both within and outside the company, such as the spread of remote working and the expanded use of cloud services, and we implemented training and other programs to ensure that our employees are thoroughly informed.

Specific Initiatives

- Detecting of fraudulent communications by the Security Operations Center (SOC)
- Implementing vulnerability assessments and countermeasures for business personal computers and systems
- Providing Computer Security Incident Response Team (CSIRT) training on the assumption of cyberattacks
- Providing annual security training for all employees and periodic targeted email training



The 10 Principles of Information Security

Personal Data Protection

Pursuant to applicable laws and regulations including the Act on the Protection of Personal Information, JR East Group has published its Basic Policy for Personal Information Handling and formulated the Regulations for the Management of Personal Information, as well as improving our handling of personal information in tandem with legal revisions. In addition, we are revising our rules to reinforce our personal information management system and reduce the risk of data breaches. Furthermore, regarding overseas personal information protection laws, as one of several measures responding to the EU General Data Protection Regulation (EU GDPR), the UK General Data Protection Regulation (UK GDPR), and the California Consumer Privacy Act, we have published an English-language version of our privacy policy and other relevant materials on our website.

Through leaflets for raising employee awareness, articles in our internal magazines, and compliance education, we are also working to ensure that all employees remain fully aware of the need for the strict handling and management of personal data. Furthermore, the Group conducts periodic internal workplace audits to ensure proper management of personal data.

CSIRT training



Naofumi Sugaya
Innovation Strategy Headquarters

We have established JRE-CSIRT as a response system in the event of information security problems caused by a cyberattack. When an information security problem occurs, the entire organization must promptly take appropriate measures, such as identifying and containing the damage, continuing business operations, and sharing information with relevant departments and external organizations. For this reason, since 2016, JRE-CSIRT has been conducting training sessions, including for management, in anticipation of a cyber-attack. The sessions cover a series of topics, from the initial response to recovery.



Improving Confidence in Management

② Respect for Human Rights

A key element of the JR East Group Philosophy is to help our customers and community members live enriched lives. To that end, as a corporate group responsible for social infrastructure and as a member of the local community, we will strive to achieve a sustainable society, not only by complying with domestic and international laws and regulations but also by conducting our business activities in a way that respects human rights while giving due consideration to the various local cultures and the global environment.



Norio Kimura
Senior Executive Officer (in charge of Corporate & Legal Strategies Department)

Promoting Respect for Human Rights

In recent years, there has been a growing interest in promoting respect for human rights in our corporate activities. Recognizing that the human rights of all people related to our business even beyond the Group should be respected, we have formulated a new JR East Group Policy on Human Rights. We aim to disseminate this basic policy and spread understanding of human

rights through various educational activities, including human rights due diligence by the Human Rights Awareness Promotion Committee, human rights seminars, and human rights awareness slogans, as well as promoting other initiatives for the respect of human rights.

Policy on Human Rights

In March 2023, the JR East Group formulated the JR East Group Basic Policy on Human Rights to promote respect for the human rights of all people, including customers, local residents, business partners, and employees, based on international human rights norms. The policy has been widely disseminated both within and outside the Group.

JR East Group Policy on Human Rights

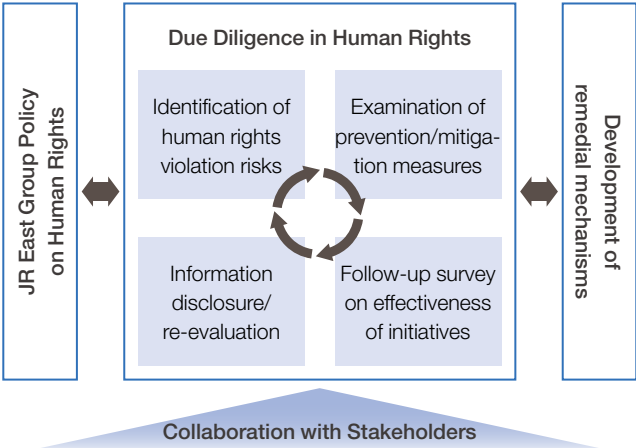
<https://www.jreast.co.jp/e/human-rights/>

Putting Human Rights Due Diligence into Practice

In order to promote respect for human rights, our Human Rights Awareness Promotion Committee adopts a risk management approach to identifying human rights violation risks that require priority management. The committee then looks into the implementation of prevention and mitigation measures and prepares for future monitoring.

Human Rights Awareness Promotion Committee

Chairperson	Director or executive officer in charge
Committee member	Head of department at headquarters
Frequency of meetings	Twice annually in principle and as needed
Agenda items	Sharing awareness of changes in the circumstances related to respect for and awareness of human rights, the status of initiatives and issues at individual Group companies, consideration of countermeasures, etc.



The human rights due diligence process at the JR East Group

Spreading Respect for Human Rights

In order to respect human rights and prevent infringements of rights or unjust discrimination, we aim to improve awareness of respect for human rights among our employees through various educational activities to spread understanding of human rights. We also strive to create an open and comfortable workplace and environment.

Concrete measures

- Implementing human rights seminars and study conferences
- Implementing rank-based training
- Implementing measures to increase consideration of respect for human rights (company reports, creation of a human rights awareness slogan)
- Exchanging information with other corporate members of the Industrial Federation for Human Rights, Tokyo, to increase mutual awareness



Lectures on compliance and human rights



Fiscal 2023 Human Rights Awareness Slogan Awards Ceremony

Sustainable Procurement

The JR East Group has established a procurement policy as a standard of conduct for procurement that takes into account human rights and the environment throughout the supply chain.

JR East Group Procurement Policy

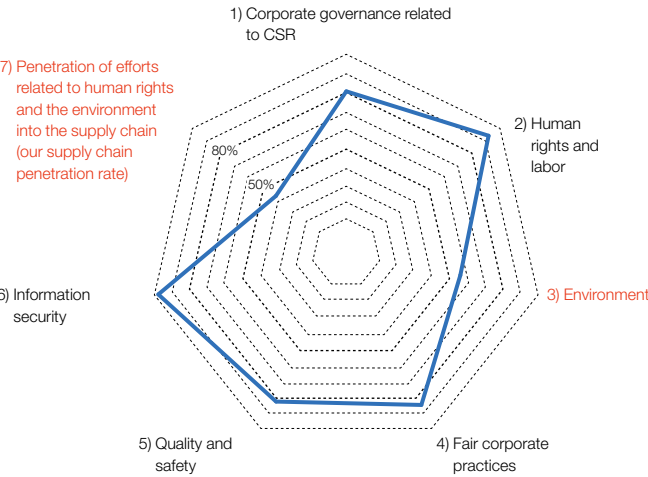
https://www.jreast.co.jp/e/order/procurement/procurement_policy.html

Sustainable Procurement

From fiscal 2022 to fiscal 2023, we revamped our corporate social responsibility (CSR) survey, which we send to our business partners, and asked them to respond to a total of 57 questions under the seven sections set out in the diagram below.

The results for five of the seven sections of the survey indicated that over 80% of our business partners have an internal framework for managing sustainability initiatives. At the same time, however, results for item 7, “Penetration of efforts related to human rights and the environment into the supply chain (our supply chain penetration rate),” was 45.3%.

Going forward, we will continue to engage in dialogue with our business partners on the challenges they face, work together to resolve them, and improve our supply chain penetration rate.



Communicating with Business Partners

Communicating on Management Challenges

In fiscal 2023, we visited 30 business partners and engaged in dialogue on sustainability-related initiatives such as human rights and the environment, as well as supply chains. We will continue to communicate with them on management challenges, with the aim of achieving a sustainable society.

Communicating about Quality Control

Every year, we visit between 10 and 20 manufacturing sites to check quality control and share ideas. We will continue to engage with our suppliers on quality control to ensure that our customers can use our trains safely and securely.

Declaration of Partnership Building

As a supporter of the Declaration of Partnership Building promoted by the government and the business community, JR East aims to build new partnerships and promote cooperation, coexistence, and co-prosperity with our supply chain partners and other value-creating businesses.



Business Continuity Planning (BCP)

To ensure that we can immediately procure necessary supplies in the event of an emergency, we communicate with our suppliers on a regular basis and we have an emergency communication system in place that allows us to assess damage in the event of a disaster.



Communication on management issues

JR East Group Procurement Representatives' Conference

We hold liaison meetings among procurement managers from each Group company to share information related to procurement. The meeting is designed to share information on quality control, BCP, human rights, the environment, and other issues, as well as to promote Group-wide socially responsible procurement.



JR East Group Procurement Representatives' Conference