JR East Group Sustainability Report 2012

Aiming for a Sustainable Society

JR-EAST GROUP

CONTENTS

More detailed information is available on our website:
http://www.jreast.co.jp/e/aboutus/

Editorial Policy

We publish the JR East Group Sustainability Report with the aim of introducing various initiatives by group companies accurately and in an easy-to-understand format, as well as communicating with our diverse stakeholders.
We are responsible for important infrastructure and life-style services in the East Japan region, and in Sustainability Report 2012 we feature our activities for the past year in recovery and restoration from the Great East Japan Earthquake and tsunami in 2011, along with, under "Special Topics," our initiatives in research and development, ecoste (ecologically friendly stations), and Suica. As part of communications with stakeholders, interviews with employees and others are included in the report.
While our desire is to offer as much information as possible related to the environment, safety and society, this report itself focuses in particular on areas where there have been notable changes. Please see our website for broader information on overall activities of our group companies.

References	Environmental Reporting Guidelines 2007 [Japan Ministry of the Environment] Environmental Accounting Guidelines 2005 [Japan Ministry of the Environment]
Reporting period	This report basically covers our activities in fiscal 2012 (from April 1, 2011 to March 31, 2012), although some events presented here happened earlier or in the period between the end of March 2012 and the publication of this report in October 2012.
Boundary of reporting	This report covers activities of East Japan Railway Company and its 72 Group companies. Except for those described individually, actual performance data cover JR East alone.
Figures in this report	Totals may not match the sum of individual figures due to rounding.

Note: External Assurance on environmental performance and environmental accounting data

KPMG AZSA Sustainability Co., Ltd. has been engaged to provide external assurance on a set of selected environmental performance and environmental accounting indicators so that the reliability of the data is ensured. The particular indicators that are assured are marked with ☆ for clarity.

Group Philosophy

The JR East Group aims to contribute to the growth and prosperity of the East Japan area by providing quality leading-edge services, with train station and railway businesses at its core, to customers and communities.

We will continue to embrace the challenge of pursuing "extreme safety levels" and service quality reforms. Through technological innovation and globalization, we will strive to attain goals such as nurturing personnel with an expansive perspective, spurring the advancement of railways, and making line-side areas more attractive and convenient. To this end, JR East will continue to rigorously pursue its unlimited potential.

We aim to grow continuously while meeting our social responsibilities as a *Trusted Life-Style Service Creating Group*.

Basic Principles

1. Together with customers and communities

We will put our hearts into providing good service and living up to customers' and communities' expectations.

2. Enhancing safety and quality

We will aim to enhance safe and reliable transportation services and service quality.

3. Pursuing unlimited potential

With an expansive perspective and based on our calling, we will pursue the JR East Group's unlimited potential.

Thriving with Communities, Growing Globally

The Great East Japan Earthquake on March 11, 2011 caused devastating damage in the JR East Group's service area and to its railway facilities. Owing to our comprehensive safety measures, there were no injuries to the passengers on board our trains. However, in some cases this was also due to good fortune, which helped us to appreciate that there is more to be done to be better prepared against future disasters. Following the earthquake, together with the great support of related parties and the ceaseless efforts of each and every JR East Group employee, JR East was able to overcome the many challenges and restore its railway facilities. Each time we reopened a section of railway, we were able to see the joy and appreciation on the faces of the people. In particular, when the Tohoku Shinkansen resumed full operation on the 50th day following the disaster, a great many people lined the tracks waving and cheering the return of the train. I am sure that I will never forget that scene for the rest of my life.
Through the disaster, each one of our employees was able to recognize anew their bonds with local communities and the great expectations that society holds for our railway company. As a company responsible for railways as social infrastructure, we have once again realized the importance of fulfilling our missions as a railway company, and in responding to the expectations of society.

Still, due to the Great East Japan Earthquake, our business environment has changed drastically and there is still much to be done in order to fully recover from the earthquake. In addition to nationwide shortages in electricity and the uncertain future of the Fukushima Daiichi Nuclear Power Station, the European financial crisis and the prolonged appreciation of the yen against the dollar have further obscured the future path of the Japanese economy and society. Prior to the earthquake, Japan was already facing several difficult challenges, including a declining birthrate, an aging population, and a hollowing-out of domestic industry. Following the disaster, the direction of these challenges became more severe than ever before, and it continues to become clearer as the momentum of change increases.
In such a time of rapid reform, JR East needs to remain constantly moving forward into the future in order to continue to respond to the great expectations of society. With this at heart, JR East considers March 11, 2011 to be the company's second starting point, with the first being the privatization of JNR. It is now necessary that we once again ask ourselves what the roles and goals of the JR East Group are, and what is needed for the company to evolve.
Based on this realization, in October 2012, JR East formulated its 5th management vision since the foundation of the company, "Management Vision V - Ever Onward". With the main pillars of this vision set in our firm commitment to fulfill our "Eternal Mission" and to achieve growth through "Pursuing Unlimited Potential," the JR East Group aims to make a fresh start in the revitalization of the East Japan area– the Group's home ground – and in Japan as a whole.

Our "Eternal Mission": Extreme safety levels, Service quality reforms, and strengthened coalitions with local communities

The basic missions of the JR East Group, to adhere to customer demands for safe and high-quality services and to contribute to the development of wayside areas through railway and life-style business services, will remain unchanged. In order to continue to respond to the expectations of society, the JR East Group will persist with its ceaseless efforts to improve the contents and

quality of these services.
First, for measures to achieve unsurpassed levels of safety, JR East has commenced seismic reinforcement measures totaling 300 billion yen in preparation for a possible earthquake occurring directly beneath the Tokyo metropolitan area. At the same time, JR East has also been taking other measures to increase its standing as an increasingly disaster-resilient railway, including measures to strengthen its resilience to natural disasters and abnormal weather. In addition, plans to install platform doors on the Yamanote Line were pushed forward. Some stations planning large-scale renovations are not yet included, but this project will be completed for 23 stations by FY2016. JR East will also work with the related organizations for stations on lines other than the Yamanote Line for the future installation of platform doors in those stations.
Second, to further thrive as a corporate group loved by both customers and communities, JR East is working to become No.1 in customer satisfaction in the railway industry through service quality reforms and teamwork. JR East aims to establish new discretionary travel flows and expand tourism to cover wider areas through further improvements to transport quality, enhancements to the Tokyo metropolitan area network through the opening of the Tohoku Through Line, improvements to services on the Tokyo Mega loop, and through the opening of the Hokuriku Shinkansen Kanazawa Station and the Hokkaido Shinkansen Shin-Hakodate Station (both names are tentative).
As a company responsible for local infrastructure, JR East desires to further strengthen its coalitions with local communities. Based on the pressing need for disaster restoration, JR East is focused on measures for the revitalization and promotion of local areas which can only be accomplished by the JR East Group. Specifically, we aim to continue tourism campaigns in coalition with local communities, and to support the manufacture of local products through the sales network and know-how of the JR East Group. In addition, in promoting urban development through the development of large-scale terminal stations, giving our line –side areas a reputation that is high among people in the Tokyo metropolitan area, and the revitalization of regional core cities, JR East aims to establish stations as places of exchange for local people and as entrances to cities and communities.

Pursuing the unlimited potential of the JR East Group

In order to achieve sustainable growth in this time of drastic change following the disaster, we need to avoid complacency and to continue to challenge ourselves with new goals. For this reason, JR East remains determined to challenge new fields in order to tap the unlimited potential of the JR East Group and each one of its employees. JR East aims to actively pursue new business fields through the promotion of strategies for energy and the environment, the utilization of information and communication technology (ICT), increases in the speed of its Shinkansen, technological innovations for the evolution of railways, participation in overseas railway projects, and the expansion of its railcar manufacturing operations. In support of these measures, JR East seeks to create numerous opportunities for its motivated employees to assume active roles and create their own challenges, to establish corporate cultures open to those outside of the Group, and to foster globally-minded individuals.

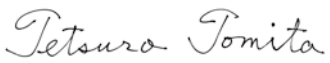
Toward the realization of a sustainable society : Our ceaseless efforts to address global environmental issues

The JR East Group considers global environmental issues to be one of its most important management concerns. Through various environmental conservation measures to date, including the introduction of energy-saving railcars and a shift to LED lighting, JR East has been able to achieve steady reductions in its total CO_2 emissions and in the environmental burden of its railway operations. However, owing to the 2011 disaster, we are currently facing a new business challenge, an electricity shortage which is forecast to continue into the foreseeable future. Additionally, though in the past railways have been viewed as an environmentally friendly mode of transportation and have been evaluated highly for their environmental superiority, with recent significant advancements in the environmental technologies of other fields such as the automobile industry, we have a strong sense that in the near future there might come a time when railways may not be seen as such.
In order to contribute to the realization of a sustainable society and to maintain the environmental superiority of railways, advancements in the field of environmental technology are inevitable. JR East must both strengthen its environmental measures and remain steadfast in its commitment to lead in the advancement of environmental technologies in Japan.

Specifically, JR East aims to promote measures from a number of viewpoints, including the commercialization of a storage battery-driven electric railcar system, the introduction of smart grid technologies to the JR East Group's railway power system, and the expanded introduction of renewable energies. Moreover, in promoting the development of "ecoste" to introduce various environmental preservation technologies to stations, JR East will create one model station for each of the 12 JR East Branch Offices in its service area. Two of these, Yotsuya Station on the Chuo Line and Hiraizumi Station on the Tohoku Main Line, have been completed. With the ultimate aim of realizing a sustainable society, JR East is committed to actively addressing global environmental issues over the long term.

As 25 years have passed since the JNR privatization reform and the foundation of JR East, the JR East Group now begins its next quarter century. JR East will enter this new era following its new policy, "Management Vision V - Ever Onward", a policy based on our shared theme of Thriving with Communities, Growing Globally.

Tetsuro Tomita
President and CEO
East Japan Railway Company



Special Topic 1

Railways as lifeline infrastructures in the Eastern Japan area

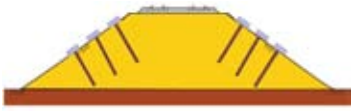
A year and a half of restoration and reconstruction following the Great East Japan Earthquake

Our future measures against earthquakes

Learning from the experiences of the Great Hanshin-Awaji Earthquake of January 1995, the Sanriku Minami Earthquake of May 2003, and the Mid Niigata Prefecture Earthquake of October 2004, JR East has introduced seismic reinforcement measures to its elevated bridge columns, bridge piers, tunnels, and station buildings, taken preventive measures against derailments, and increased the number of locations where seismometers are installed.
Owing to these measures, at the time of the Great East Japan Earthquake on March 11, 2011, no customers on board our trains were killed or injured.
Since FY2010, JR East has expanded its countermeasures and initiated the 2nd phase of its seismic reinforcement measures, including further seismic reinforcement of its elevated bridge columns. In addition, JR East plans to introduce the following as further measures against earthquakes.

① Seismic reinforcement measures for embankments, earth cuttings, arched elevated brick bridges, and power poles, and measures to prevent the collapse of station platform ceilings and walls in the event that an earthquake directly strikes the Tokyo metropolitan area. JR East will also accelerate the implementation of its plans for the on-going seismic reinforcement of its elevated bridge piers.
② Seismic reinforcement measures for station buildings where the number of boarding and alighting passengers exceeds 3,000 persons per day, and for Shinkansen power poles, many of which were damaged by the Great East Japan Earthquake.
③ Strengthened anti-disaster telecommunication functions, including an increase in the transmission speed of seismometer measurement data, and the reinforcement of its emergency power sources for its communication network.

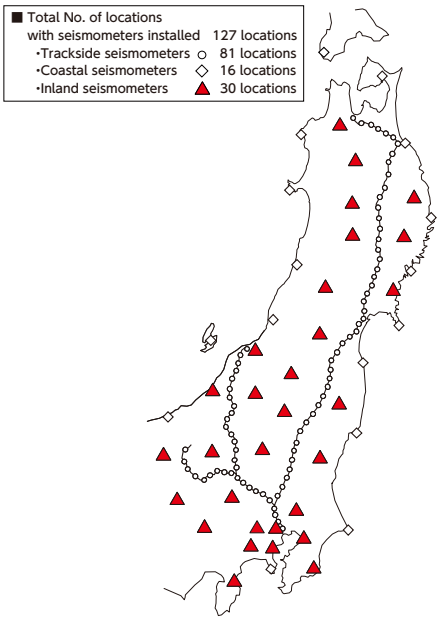
JR East is committed to the promotion of these seismic reinforcement measures for at least the next five years, and to continuation of its efforts to bring further improvements to the disaster resilience of its railways.



・Strengthened embankments with reinforced materials
・Installation of anti-derailment guards

Examples of damage to embankments and methods for reinforcement

Examples of seismic reinforcement



Installation status of seismometers

Measures for tsunami evacuation

Prior to the occurrence of the Great East Japan Earthquake, JR East had designated tsunami hazard areas and set rules for operational restrictions for each of its service areas, formulating manuals and conducting drills to guide the escape of passengers from trains. After the Great East Japan Earthquake, JR East reviewed all of its rules, manuals, and drill. In consideration of our findings, JR East decided upon the following measures.

① A reexamination of our tsunami warning zones based on hazard maps of municipalities and tsunami flooded areas resulting from the Great East Japan Earthquake.
② A reexamination of our rules for operational restrictions in the case of a tsunami warning.
③ The formulation of a set of guidelines as a fundamental method for guiding passengers in tsunami evacuation.
④ A plan to increase the number of locations of evacuation route maps and signage at and between stations.
⑤ A joint project with local municipalities to install emergency stairs to evacuation shelters and signage to indicate escape routes.
⑥ A review and revision of tsunami handling manuals for locations at risk.
⑦ A plan to conduct annual regular training and drills around the anniversary date of March 11.

A drill to guide passengers in getting off trains

Conducting drills and providing support to people with difficulties in returning home

When train service was interrupted at the time of the Great East Japan Earthquake, stations were crowded with a large number of customers. In future instances, after confirming the safety of our facilities, JR East will keep passenger restrooms and public phones open and available at stations in the Tokyo metropolitan area, provide customers with as much information as it can, and offer temporary shelter spaces at approximately 200 stations. Moreover, at approximately 30 major terminal stations, including Tokyo and Shinjuku Stations, JR East is now storing stockpiles of supplies including drinking water, blankets, and first-aid kits for children and the elderly.
Furthermore, at Shibuya and Chiba Stations on September 1, 2011, and at Tokyo, Shinjuku, and Ikebukuro Stations on February 3, 2012, JR East conducted joint drills with the local municipalities to increase our ability to support people experiencing difficulty in returning to their homes in the event of a disaster. Together with local municipalities, JR East is working to share pertinent issues with the public, and to be better prepared in the event of a disaster.

A drill at Tokyo Station

Measures to support the restoration of disaster-damaged areas in FY2012

JR East marketed the JR East Pass in 2011 to support travel to the disaster-damaged areas for restoration, personal visits, and homecoming, and to assist in the revitalization of sightseeing destinations in the disaster-damaged areas. In addition, in an effort to utilize the vitality generated from Aomori Prefecture to help revive the sightseeing destinations of the Tohoku region, and to lend spirit to the country as a whole, 6 JR companies, together with Aomori Prefecture, began the Aomori Destination Campaign on April 23, 2011. The 6 companies have since continued their joint campaigns, including Connecting Japan – Smiling faces of travelers to energize Tohoku – and GO! TOHOKU, in promoting measures to increase travel to the Tohoku area. Moreover, JR East has donated part of its revenue generated from the sales of Tohoku Shinkansen GranClass tickets and travel products to the Tohoku area as relief support.

JR East Pass


Aomori Destination Campaign poster

Also, in the immediate aftermath of the Great East Japan Earthquake, JR East began selling groceries at the shop fronts of S-PAL Sendai and EXCEL Mito in the disaster damaged areas. In the Tokyo metropolitan area, at Ueno and other stations, to further support the disaster damaged areas, JR East also held Support Tohoku fresh markets and Tohoku product and craftwork fairs. At these events, while presenting the attractiveness of each disaster-affected prefecture, JR East sold vegetables, processed products, and traditional craftwork from each of the Tohoku areas.
Group companies related to the Life-Style business continue to support the restoration of the disaster-affected areas through such volunteer activities as soup kitchens, donations of relief money through sales, and the creation of menus using food ingredients from the areas.

Support Tohoku fresh market

Restoration measures for disaster-affected areas

Currently, we are coordinating our efforts to restore conventional lines along the northeastern Pacific coast that were severely damaged by the tsunami, with additional plans to rebuild the area as a whole and develop towns, and have been engaged in discussions with the relevant national and local government authorities regarding these initiatives. To date, service has resumed along the entire Hachinohe Line and in sections of the Joban Line, Senseki Line and other lines, and we plan to replace the tsunami-destroyed track on the Senseki Line between Takagimachi and Rikuzen-ono, the Joban Line between Soma and Watari, and the Ishinomaki Line between Watanoha and Urashuku. As an interim method of restoring safe transportation services, on August 20, 2012 we established BRT (Bus Rapid Transit service) along the Kesennuma Line, and are considering BRT and various other proposals for the Yamada Line and Ofunato Line. Meanwhile we are serving local customers by operating bus routes to temporarily replace the lines that remain out of service.

As part of our work for restoration of the tsunami-damaged railway lines, JR East has been coordinating efforts between local municipalities and the related departments of its Head Office and Branch Offices. Having reviewed our support structure for a year, we established the Reconstruction Planning Department at Corporate Planning Headquarters on May 1, 2012 in order to further strengthen and promote more comprehensive measures for restoration.

Currently, the Reconstruction Planning Department is working in coalition with related organizations and local municipalities to restore the damaged coastal railway lines.

Special Topic 2

10 Years of Research and Development

10th Anniversary of the establishment of the Research & Development Center of JR East Group

The Research & Development Center of JR East Group celebrated the 10th anniversary of its foundation in December 2011. At the time of its foundation, the Center began with two new organizations: the Frontier Service Development Laboratory and the Advanced Railway System Development Center, and two previously established ones: the Safety Research Laboratory and the Technical Center. In 2006, the Center newly established the Disaster Prevention Research Laboratory, and in 2009, the Environmental Engineering Research Laboratory. In this section, we introduce the major achievements of the Research & Development Center of JR East Group to date.

1. Development of Environmental Technology

(1) Research and development aimed at the reduction of our environmental impact

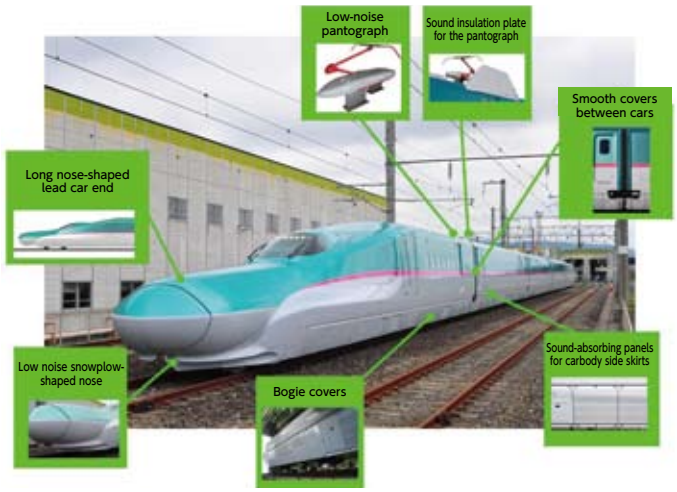
NE Train, JR East's test railcar, was the first to introduce a hybrid system to a railway. The next step in reducing the railcar's environmental impact was to replace the NE Train's engine and generator with fuel cells, remodeling the NE Train as a fuel cell hybrid railcar. In FY2008, JR East conducted test runs of this fuel cell hybrid railcar on the Shin-etsu Main Line.
In FY2010, JR East commenced test runs of its high-capacity storage battery-equipped NE Train, Smart Denchi-kun. Smart Denchi-kun which consumes less energy than diesel railcars has advantages as a reduction in CO_2 emissions and zero exhaust gas. In February and March 2012, in the final stage of its testing, JR East conducted test runs for the charge-discharge of its battery system on the non-electrified Karasuyama Line and confirmed that the system had no problems with practical performance.

Smart Denchi-kun

(2) Research and development aimed at increased speed for the Shinkansen

① Development of Rolling Stock

With the FASTECH360, a Shinkansen high-speed test train manufactured with the objective of increasing the operational speed of the Shinkansen, the Center has been working on technological developments to accommodate wayside environments, such as measures against noise and micro-pressure waves (air compression waves generated when trains enter tunnels at a high speed). The results obtained from this research are reflected in the E5 Series, which is used for Tohoku Shinkansen Hayabusa trains, and are planned to have an increased operational speed of 320km/h after the end of FY2014. In the future, the Center aims to continue its research and development in order to achieve further speed increases for its Shinkansen.



Research and development for speed increases in the Shinkansen, and reflections on the development of the E5 Series

② Development of ground facilities

In aiming for speed increases for the Shinkansen, JR East has pursued measures to reduce micro-pressure waves and noise at its ground facilities.
To reduce the micro-pressure waves, JR East developed and introduced reduced length tunnel hoods by installing the duct into the hood, tunnel hoods made of lightweight panels, and a Shinkansen noise reduction device (NIDES) which is installed in the upper part of soundproof walls as a countermeasure for noise.

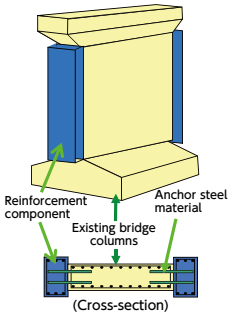
Tunnel hood with a duct

Shinkansen noise reduction device (NIDES)

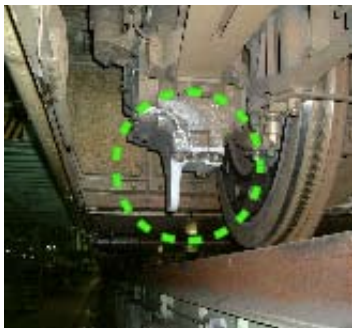
2. Research and development related to safety

(1) Measures against earthquakes

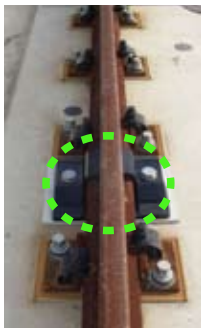
As countermeasures against earthquakes, JR East has pursued measures to heighten the quake-resistance of its structures, to stop trains as quickly as possible when an earthquake strikes, and to greatly reduce the amount of damage resulting from an earthquake.
In particular, JR East has developed and introduced a seismic reinforcement measures to help counter earthquakes through the introduction of reinforced concrete components to the side surfaces of bridge columns, L-shaped car guides to prevent Shinkansen trains from going to the side if they derail at the time of an earthquake, and countermeasures to prevent rails from overturning.



Seismic reinforcement of bridge columns



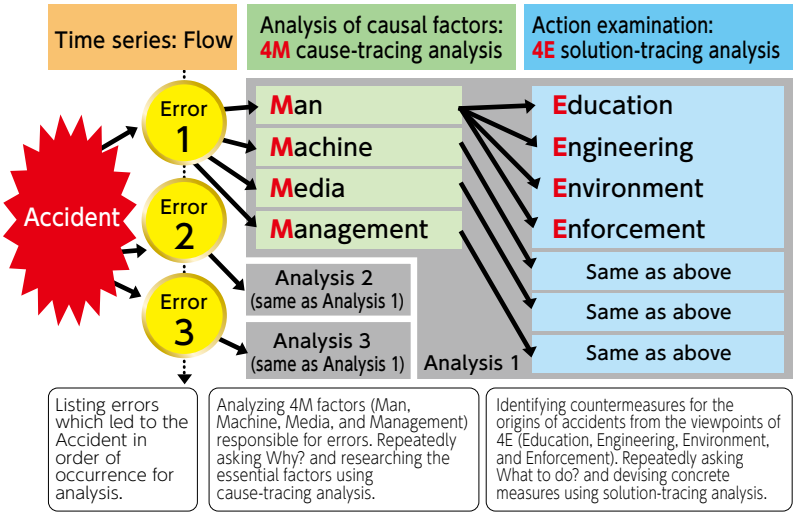
L-shaped car guide



Rail rollover prevention devices

(2) Human Error Analysis Method

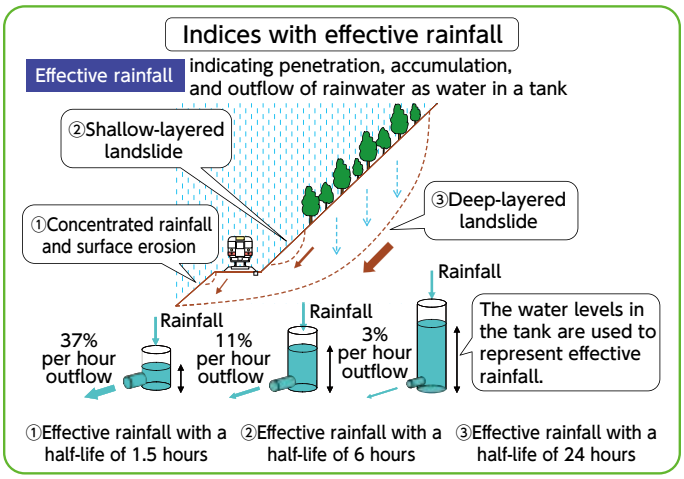
JR East developed the 4M4E analysis method in 2004 to analyze human error-related accidents. The 4M4E method includes a 4M (Man, Machine, Media, and Management) cause-tracing analysis to investigate the origins of accidents multilaterally and a 4E (Education, Engineering, Environment, and Enforcement) solution-tracing analysis to improve countermeasures. In further efforts, JR East developed the Naze Naze Kun (Mr. Why-and-Why) learning materials for personal computers, and the Horisage Kun (Mr. In-depth Study) Analysis Support Tool. Both were introduced in FY2006 for the analysis of events requiring attention, and utilized for the prevention of accidents and improvements to safety.



4M4E analysis method

(3) Operational restriction methods

For operational restrictions during heavy rainfall, JR East has traditionally utilized a calculation that combines the rainfall for the preceding hour and the total continuous rainfall since the start of the rain. However, to more effectively identify danger levels associated with disasters resulting from rainfall, JR East analyzed effective rainfall through changes in water levels, utilizing a tank which modeled how rainwater penetrated into the ground and rainwater outflow. Through the statistical analysis of past rainfall and disaster data, and by utilizing 3 kinds of effective rainfall with half-life periods of 1.5 hours, 6 hours, and 24 hours as indices, it became possible to evaluate the potential danger for various rainfall disasters. And, since June 2008, this system has been introduced to all conventional lines as part of their operational restriction procedures.



Effective rainfall indices

3. Research and development for improvements in customer service

In an effort to provide easy-to-understand operations-related information for customers in the event of transport disturbances, between 2002 and 2006, JR East developed passenger guidance emergency information displays for the visual display of route maps. The displays indicate routes with delayed train operations in orange, and those with suspended train operations in red. In this way, passengers can immediately and visually comprehend the status of train operations in the event of a disruption. Following field tests at Ueno Station and Tokyo Station, the system was installed at Akihabara Station in February of 2007, and is currently being introduced to other stations as well, mainly in the Tokyo metropolitan area.
In addition, JR East is currently developing an on-board personalized information provision system to provide customers real-time information of their actual location through smartphones. With this system, customers can obtain a variety of detailed information according to their needs and, at the same time, their activities after alighting can also be supported. In 2011, JR East field tested a commercial trainset on the Yamanote Line, and aims to commercialize the system after conducting user questionnaires to assess and to verify the services to be provided.

Emergency information display for passenger guidance

On-board personalized information provision system

Basic Concept for Environmental Protection and Targets

Basic philosophy and basic policies for promoting ecological activities (established May 1992, partially revised in September 2012)

The JR East Group formalized its basic philosophy and basic policies in 1992 and established activity guidelines in 1996, and our specific environmental protection measures are based on these.

【Basic philosophy】

・The JR East Group, as a member of society, will diligently strive to balance global environmental protection with our business activities.

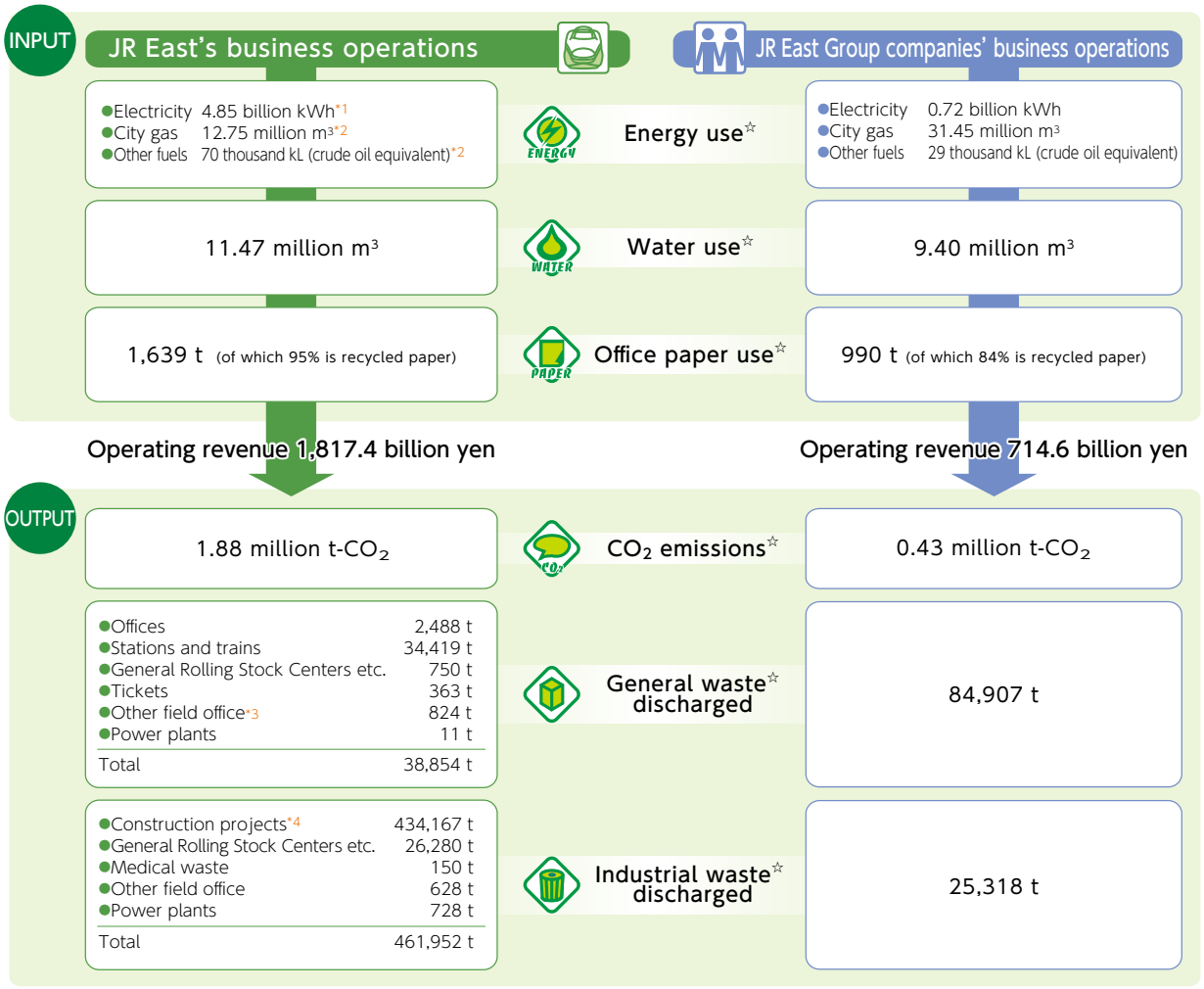
【Basic policies】

・To contribute to creating a global environment for the future through our business activities for our customers and local communities.
・To develop and provide the technology needed to protect the global environment.
・To maintain our concern for the global environment and raise the global environmental awareness of our employees.

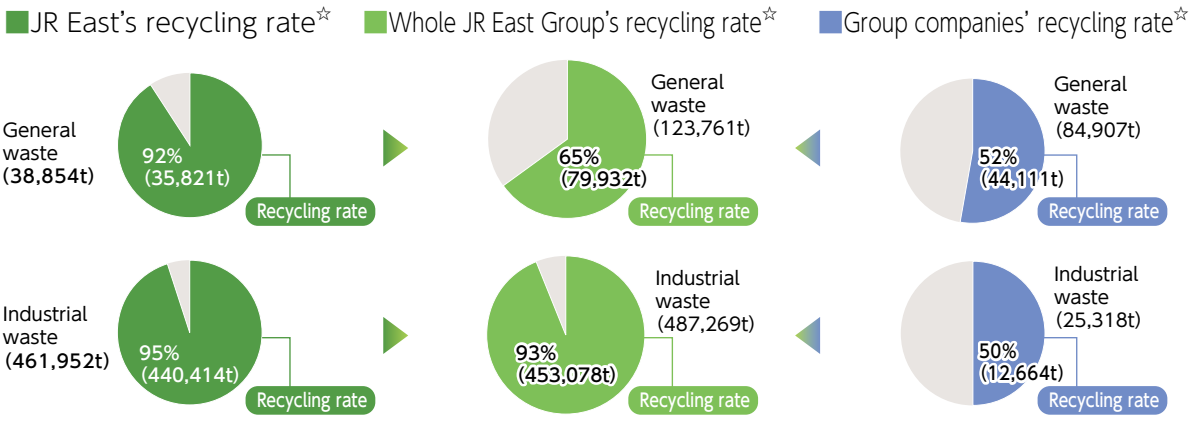
Activity guidelines for the promotion of ecological activities (established March 1996 and partially revised in February 1998 and September 2012)

1. While working to reduce total energy consumption by enhancing our energy efficiency and introducing cleaner forms of energy, we endeavor to reduce CO_2 emissions, a cause of global warming.
2. We ensure the proper management and processing of environmental pollutants and ozone-depleting substances, in compliance with laws and regulations. Moreover, we do our best to reduce generation of such substances and adopt environmentally responsible substitutes when they are available.
3. We ensure the appropriate processing of various types of waste generated at our offices, establishments, stations, trains, and other locations. We strive to recycle waste and reduce its generation, and to use more recycled and resource-saving products to minimize the burden we place on the environment.
4. We respect the natural environment, which nurtures diversified life, and endeavor to reduce noise and vibrations caused by train operations, thus achieving harmony with the environment along railway lines.
5. We are looking carefully at the impact of railways on the environment once again, in order to enhance the environmental superiority of railways and to spread that awareness throughout the world.

JR East Group's environmental impact



*1 Electricity: Both electricity generated in JR East's power plants and used internally and electricity purchased from electric companies are included. Please refer to the "JR East Energy flow map" on page 21 for details about electricity generation and use.
*2 City gas and other fuels: Fuel used for generating electricity in JR East's thermal power plants is not included.
*3 Other field office: Technical center and conductor's depots, etc., engaged in the maintenance of equipment.
*4 Construction projects: Waste generated by our construction projects, but for which contractors legally become the waste-discharging entity, are included in industrial waste.



Waste disposal
・Waste includes salable waste.
・Recycling includes thermal recycling* where general and industrial wastes are incinerated with heat recovery.
*Thermal recycling: A recycling method in which the heat arising from the incineration of waste is used to create steam and warm water, which in turn are used to generate electricity and hot-water

New environmental targets

At JR East, as part of steadily carrying out our environmental activities, we set not only medium- and long-term targets, but also numerical targets for each category of environmental preservation effort. With the completion of the last target period, we have now established new targets and will strive continuously to meet them.

Category of environmental conservation activities	Targets expiring in FY2012	Targets starting in FY2013
Measures to prevent global warming	Total CO_2 emissions from railway business activities 32% reduction by fiscal 2018 (relative to fiscal 1991 level) 2.76 million t-CO_2 ⇒1.88 million t-CO_2 (reduction of 0.88 million t-CO_2)	[Targets to be met by FY2021] 8% reduction in energy consumption from railway business activities (MJ: relative to FY2011 level) [Targets to be met by FY2021] 30% improvement in CO_2 emissions per unit of electricity generated at JR East's own power plants (kg-CO_2/kWh: relative to FY1991 level)
	Total CO_2 emissions from railway business activities 50% reduction by fiscal 2031 (relative to fiscal 1991 level) 2.76 million t-CO_2 ⇒1.38 million t-CO_2 (reduction of 1.38 million t-CO_2)	—*1

Category of environmental conservation activities	Performance indicators	Targets to be met by FY2011	New targets (to be met by FY2014)
Measures to prevent global warming	Energy-efficient railcar utilization rate	86%	6.8% reduction in electricity used for railway operations per unit of transport volume (kWh/car-km : relative to FY2007 level)
	Electricity used for train operation	2% reduction (relative to fiscal 2007 level) 4.17 billion kWh ⇒ 4.09 billion kWh	
	Train electricity used per unit transport volume	2% reduction (relative to fiscal 2007 level) 1.85 kWh/car-km ⇒1.81 kWh/car-km	
	Energy saving at stations and offices	4.5% reduction (relative to fiscal 2007 level) 15.3 billion MJ ⇒14.6 billion MJ	3% reduction in energy consumption per unit of floor area at branch offices, etc. (kL-crude oil equivalent/m²: relative to FY2011 level)
Measures for resource circulation	Recycling rate for waste generated at stations and on trains	70%	90%
	Recycling rate for waste generated at General Rolling Stock Centers, etc.	95%	95%
	Recycling rate for waste generated in construction projects	92%	95%
	Recycled office paper utilization rate	100%	100% green procurement
Environmental activities along railway lines	Measures to reduce noise to 75 dB or less along the Tohoku and Joetsu Shinkansen Lines (for areas subject to noise limitation measures)	100% (Fiscal 2010 targets have been achieved)	[Targets to be met by FY2016] Noise Measures for the Tohoku and Joetsu Shinkansen Lines 100% achievement of 75 dB or less*2 (for areas subject to noise limitation measures)
Environmental communication	Participation in specific environmental protection activities every year	Participation in tree planting, etc.	—
Environmental management	Setting of numeric targets by all group companies	All group companies set their own numerical targets	Targets to be revised continually

Targets for the JR East Group

*1 Targets for FY2031 will be addressed while ascertaining the direction of Japan's energy policy and others.

*2 Measures to reduce noise to 75 dB or less have been completed in the designated areas in accordance with government guidance. Currently, improvement work is being implemented step by step in other areas, to be completed by March 2016.

Concepts in setting new targets

● **[Targets to be met by FY2021] 8% reduction in energy consumption from railway business activities (MJ : relative to the FY2011 level)**

JR East has striven to improve efficiency in energy use with energy-efficient railcars, etc. Targets for total CO_2 emissions, however, have been affected by fluctuations in the coefficients of CO_2 emissions of the electric power companies from which JR East purchased electricity, and it had been difficult to measure the results of our own efforts. JR East then set targets whereby its efforts to reduce energy consumption could be reflected better and be less affected by changing external environments.

● **[Targets to be met by FY2021] 30% improvement in CO_2 emissions per unit of electricity generated at JR East's own power plants (kg-CO_2/kWh : relative to FY1991 level)**

At JR East's thermal power plants, efforts have been made to reduce CO_2 emissions by transforming facilities into "combined cycle generating systems," fuel conversions and other actions. JR East is propping up such efforts with this new target.

* The two targets above replace the existing target for FY2018. Target for FY2031 will be addressed while ascertaining the direction of Japan's energy policy and others.

● **[Target for FY2014] 6.8% reduction in electricity used for railway operations per unit of transport volume (kWh/car-km : relative to FY2007 level)**

JR East used to set targets for "energy-efficient railcar utilization rates" and "electricity used for train operations" in addition to "electricity used for railway operations per unit of transport volume." As a result of increased use of energy-efficient railcars, total power consumption is being decreased and, accordingly, so is energy consumption per car-km. These two targets have now been integrated into "electricity used for railway operations per unit of transport volume."

● **[Target for FY2014] 3% reduction in energy consumption per unit of floor area at branch offices, etc. (kL-crude oil equivalent/m^2 : relative to FY2011 level)**

The target of "energy saving at stations and offices" was set to understand and reduce total energy used at stations, branch office buildings, etc. The target set this time is for energy consumption at "factories, etc.," as used in the Law on Rational Use of Energy (the Energy Saving Law), and JR East will promote reduction of energy consumed at its head office and branch offices accordingly.

● **[Target for FY2014] Recycling rates for various kinds of waste**

For recycling of waste, although a rate of over 90% has already been achieved, JR East will promote the 3Rs – reduce, reuse and recycle – toward realization of a recycling-oriented society without lowering numerical targets.

● **[Target for FY2014] 100% green procurement (group target)**

In the past, numerical targets for goods, etc., were limited to office paper and thus the "recycled office paper utilization rate" was established in 1996. Currently, however, "green procurement" is the favored approach within society. The JR East Group thus sets this green procurement target for environmentally friendly goods and materials used within the group. Specifically, whether or not group companies purchased goods, materials or services according to the basic policy provided in Article 6 of the "Law on Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities (Green Purchasing Law)"is used as an indicator. In parallel with this, each group company establishes guidelines for goods, materials and services, how to deal with them, etc.

● **[Target for fiscal 2016] Noise Measures targeting 75 dB or less along the Tohoku and Joetsu Shinkansen Lines (for areas subject to noise measures)**

As for noise measures along Shinkansen lines, measures to reduce noise to 75 dB or less have been completed in the designated areas in accordance with government guidance. Currently, improvement work is being implemented step by step in other areas to be completed by the end of March 2016.

● **Implementation of specific environmental protection activities every year (group target)**

Targets have not been set for FY2014. This is because individual companies in the JR East Group are regularly involved in various environmental protection activities in response to society's increasing awareness of global environmental issues.

Progress on New Environmental Targets

Category of environmental conservation activities	Performance indicators	Targets to be met by FY2021	Results for FY2012
Measures to prevent gloval warming	Energy consumption from railway business activities※1	8% reduction (MJ: relative to FY2011 level) (52.7 billion MJ⇒48.5 billion MJ)	1.9% reduction (51.7 billion MJ)
	CO_2 emissions per unit of electricity generated at JR East's own power plants※2	30% improvement (kg-CO_2/kWh: relative to FY1991 level) (0.457 kg-CO_2/kWh⇒0.320 kg-CO_2/kWh)	26% improvement (0.337 kg-CO_2/kWh)※3

Category of environmental conservation activities	Performance indicators	Targets to be met by FY2014	Results for FY2012
Measures to prevent gloval warming	Electricity used for railway operations per unit of transport volume	6.8% reduction (kWh/car-km: relative to FY2007 level) (1.85 kWh/car-km ⇒1.72 kWh/car-km)	4.7% reduction (1.76 kWh/car-km)
	Energy consumption per unit of floor area at branch offices, etc.	3% reduction (kL-crude oil equivalent/m^2: relative to FY2011 level) (0.0467 kL-crude oil equivalent/m^2 ⇒0.0453 kL-crude oil equivalent/m^2)	12% reduction (0.0409 kL-crude oil equivalent/m^2)
Measures for resource circulation	Recycling rate for waste generated at stations and on trains	90%	93%
	Recycling rate for waste generated at General Rolling Stock Centers, etc.	95%	95%
	Recycling rate for waste generated in construction projects	95%	95%
	Rate of green procurement	100%	94%
Environmental activities along railway lines	Measures to reduce noise to 75 dB or less along the Tohoku and Joetsu Shinkansen Lines※4 (for areas subject to noise limitation measures)	[Targets to be met by FY2016] 100%	Being implemented
Environmental management	Setting of numeric targets by all group companies	Targets to be revised continually	Established

Targets for the JR East Group

※1 Energy consumption from railway business activities is the target in and after FY2013; result in FY2012 is a reference value.

※2 CO_2 emissions per unit of electricity generated at JR East's own power plants is the target in and after FY2013 ; result in FY2012 is a reference value.

※3 Numerical values are those reported according to the "Law on Rational Use of Energy (the Energy Saving Law)."

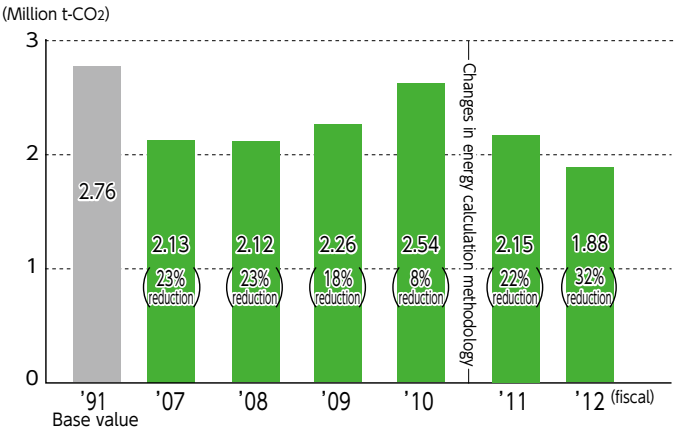
※4 Measures to reduce noise to 75 dB or less have been completed in the designated areas in accordance with government guidance. Currently, improvement work is being carried out step by step in other areas, to be completed by the fiscal year ending March 2016.

Measures to Prevent Global Warming

Trends in CO_2 emissions☆

Our CO_2 emissions in the fiscal year ending March 2012 totaled 1.88 million tons, a decrease of 0.27 million tons over the previous fiscal year. This was due to the restart of our own hydroelectric power plant, which resulted in the reduction of the operating rate of our own thermal power plant and eventually in the reduction of CO_2 emissions from it. It was also attributable to energy-saving efforts throughout the company.

■ Trends in JR East's total CO_2 emissions



*Total CO_2 emissions in FY 2012, when calculated with the same calculation methodology (category and boundary) as that used until FY 2010, are 1.96 million t-CO_2.

*Boundary:

Energy consumption and CO_2 emissions have been calculated for JR East alone, in principle. Beginning with FY 2011, however, the energy consumption by, and its associated CO_2 emissions from, companies to whom JR East outsources its station operations and other services are calculated as JR East's own energy consumption and CO_2 emissions. Meanwhile, the energy consumption by, and its associated CO_2 emissions from, stores in station compounds operated by group companies are excluded from those of JR East. These changes have been made to calculate the energy consumption and CO_2 emissions associated with JR East's business as a whole more accurately in line with the idea of setting organizational boundaries for transportation and factories in the Act on Rational Use of Energy (Energy Conservation Law). No revision was made to the past data of energy consumptions and CO_2 emissions.

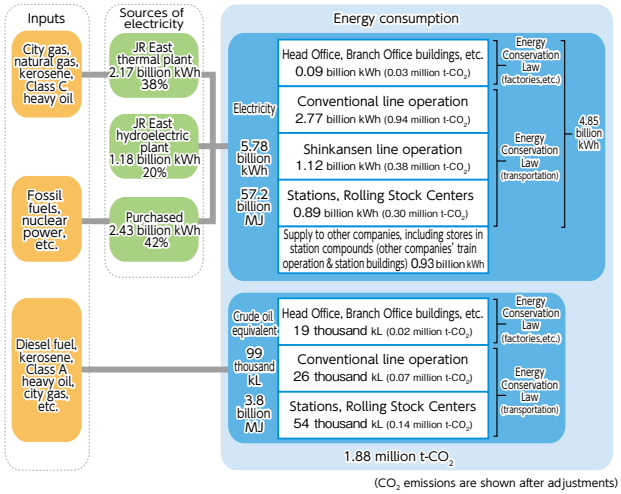
*Calculation Method:

Energy consumption is calculated based on the Energy Conservation Law. As a unit calorific value for the electricity generated at our own hydraulic power plant, 9.76 MJ/kWh is used. The total amount of CO_2 emissions is calculated based on the Act on Promotion of Global Warming Countermeasures (Global Warming Measures Law). However, the emissions attributable to the consumption of electric power purchased outside the company, including that is used for railway transport, are calculated on the basis of post-adjustment emissions coefficient. When the actual emissions coefficient is used, the CO_2 emissions for fiscal year ending March 2012 is 2.02 million t-CO_2 (a decrease of 0.39 million t-CO_2).

Energy conservation and CO_2 reduction☆

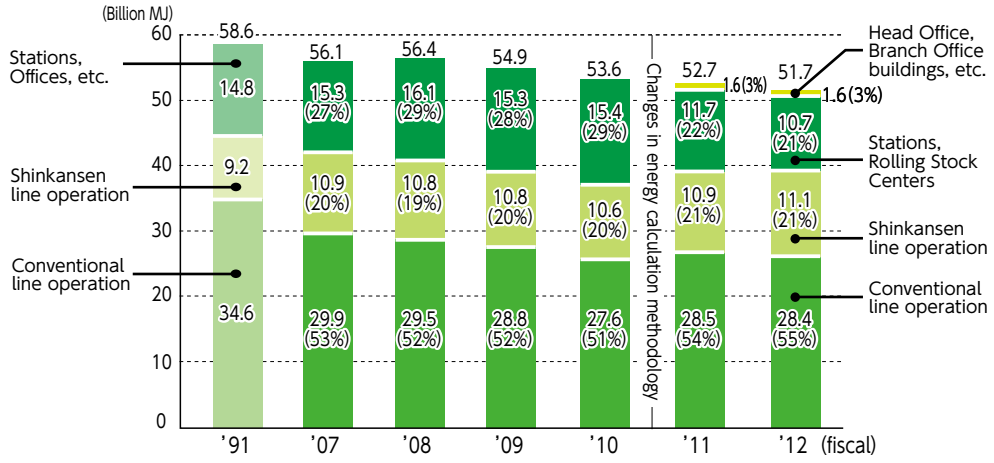
The electricity consumed by JR East for train operations as well as for lighting and air conditioning at stations and in offices is supplied by JR East's own power plants and by electric power companies. Besides electricity, we also use diesel fuel and kerosene for diesel train operation and for air conditioning at stations and in offices. We will strive to save energy for train operation, which accounts for about 70% of our total energy consumption, and reduce CO_2 emissions in various ways.

■ JR East Energy flow map



(CO_2 emissions are shown after adjustments)

■ Composition of energy consumption by JR East



* Total energy consumption calculated with the same methodology (category and boundary) as that used in FY 2010 is 54.1 billion MJ.

Reducing energy consumed for train operations☆

As of the end of March 2012, JR East had 11,205 energy-efficient railcars in operation. This accounts for 89.5% of our railcar fleet. We are putting into service more new-generation energy efficient railcars, with features such as regenerative brakes, which can convert kinetic energy during deceleration into electric energy, and variable voltage variable frequency (VVVF) inverters, which control motors without wasting electricity.

E233 series: State-of-the-art cars introduced on the Chuo Line in December 2006

E5 series: new high-speed Shinkansen railcars that incorporate the highest level of customer service and cutting-edge technology

E231 series: VVVF inverter cars for commuter and suburban transportation

Diesel-powered, electric-motor-driven hybrid railcars and new resort trains

The *Kiha* E200 type cars, which entered service on the Koumi Line in July 2007, are the world's first diesel-powered, electric-motor-driven hybrid railcars. Compared with the current trains, fuel consumption rate has been reduced by about 10% and the noise level of the trains idling at stations and accelerating on departure has been lowered by 20–30 dB. Also, in October to December 2010 we began operating the HB-E300 Series, a new type of resort train equipped with a hybrid system similar to *Kiha* E200 type, in the Nagano, Aomori and Akita areas.

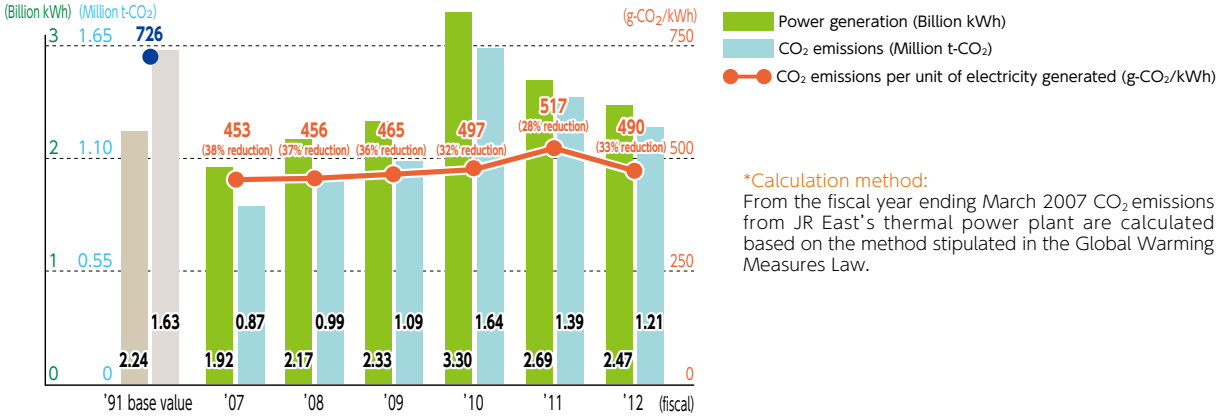
HB-E300 series: A hybrid resort train

JR East's own power plants☆

JR East operates a thermal power plant in Kawasaki City, Kanagawa Prefecture, with a total capacity of 655 MW. The plant will reduce CO_2 emissions by replacing three units (out of four) with combined-cycle power generation units* with improved efficiency and by switching fuel from oil to natural gas when the plant is renovated.

* A combined-cycle power generation unit is a power generation unit that combines gas turbines propelled by combustion of gas with steam turbines driven by steam from the exhaust heat.

■ Power generation and CO_2 emissions at JR East's thermal power plant



*Calculation method:
From the fiscal year ending March 2007 CO_2 emissions from JR East's thermal power plant are calculated based on the method stipulated in the Global Warming Measures Law.

Utilization of renewable energies

We also promote use of renewable energies, including solar and wind power. Solar panels were installed at Tokyo Station, Takasaki Station, the General Education Center and R&D Center. In March 2004, the number of panels at Takasaki Station was doubled. Panels on the largest scale in JR East were installed at Tokyo Station in February 2011 above the platform for tracks 9 and 10, which serve Tokaido Line trains.
Starting full operations as the first ecoste – "eco-station" – Yotsuya Station on the JR Chuo Line began use of solar panels in March 2012. Hiraizumi Station on the JR East Tohoku Main Line, the second ecoste, began to use solar panels in June 2012, to "generate and use energy locally" and to realize "zero emissions," i.e., no CO_2 emissions on fine-weather days. We will continue to endeavor to introduce technology using renewable energies efficiently.

Solar panels on the main building at the Akasaka Exit of Yotsuya Station

Solar panels at Hiraizumi Station

Greening rooftops

We have been promoting the planting of greenery on JR East-owned station and office building rooftops with the aim of reducing the heat island effect and decreasing the need for air-conditioning. As of the end of March 2012, we had "greened" a combined rooftop area of approximately 20,074 m^2 in 62 projects.

Rooftop greenery at LUMINE Kitasenju

Rooftop greening by JR Group companies

We have been promoting rooftop greening to make station buildings in the metropolitan area a place of relaxation for the residents of the community as well as for office workers. The "Soradofarm," which is a vegetable farm rented to subscribers and built alongside the gardens, serves to create a local community, and provide education in farming and environment through people's experience in cultivating vegetables. It is popular among many customers and these are now also in Ebisu, Ogikubo and Takasaki.

atre Kawasaki

Soradofarm Ebisu

Saving energy in office buildings

In response to revisions to laws and regulations, saving energy in office buildings has become increasingly important. We work hard on reducing energy consumption through physical measures, including the introduction of highly efficient equipment and facilities, and operational measures, including temperature management of air conditioning and diligently turning off lights.
In addition, given the concerns about energy supply and demand since the Great East Japan Earthquake, we have been actively introducing LED lighting apparatus, which is particularly effective as a physical measure.

Recognition as Global Warming Countermeasures Establishments

Gran Tokyo South Tower, Gran Tokyo North Tower and the JR Shinagawa East Building were newly recognized on February 17, 2012, as Global Warming Countermeasures Establishments (commonly referred to as top-level establishments or quasi-top-level establishments) under the Tokyo Metropolitan Environmental Preservation Ordinance in recognition of their highly efficient facilities, active management efforts for energy conservation, and commendable CO_2 reduction results. JR Shinagawa East Building was raised to a top-level establishment from a quasi-top-level establishment. Together with Sapia Tower, JR Tokyu Meguro Building and Tokyo Building, all recognized last year, six of our buildings have been recognized as Global Warming Countermeasures Establishments.
The JR Minami-Shinjuku Building and JR Kanda-Manseibashi Building, office buildings to be completed this fiscal year (which ends on March 31, 2013), are also environmentally and energy friendly. On March 2, 2012, the JR Kanda-Manseibashi Building was ranked "S," the top rank in the Comprehensive Assessment System for Built Environment Efficiency (CASBEE), a system put forward at the initiative of the Ministry of Land, Infrastructure and Transport (MLIT).


Sapia Tower, recognized as a top-level establishment


JR Shinagawa East Building, elevated to a top-level establishment


Gran Tokyo North Tower, recognized as a top-level establishment


Gran Tokyo South Tower, recognized as a quasi-top-level establishement

Saving energy used by information systems

As part of our effort to save energy in office buildings since FY2010, we have been turning off power for certain information systems equipment during non-use hours. The resulting savings were about 140,000 kWh of power in FY2012, which is especially important with the tight energy supply-and-demand situation since the earthquake in 2011. We also reduced the number of servers by combining equipment, worked to introduce energy-saving products and set our business-use PC terminals to power saving mode. We will continue our efforts to reduce energy consumption further.

Environmental Measures : A case report

LED lighting installed on Yamanote Line

Beginning in December 2010, LED lighting – jointly developed by JR East Group companies – was installed in eleven E231-series cars on the Yamanote Line on an experimental basis, for tests of in-car brightness and LED durability. We will use LED lighting for all E233-series cars to be introduced on the Saikyo and Yokohama Lines in and after fiscal 2014. In this way, energy consumption is expected to be reduced by about 40% compared with conventional fluorescent lights. JR East will continue its train operations using cars even more advanced in their friendliness to the environment.


Inside a car of the Yamanote Line

Intermodal Transportation = Reduction of total CO_2 emissions for transport

Promoting Park-and-Ride

JR East promotes "Park-and-Ride" services. Customers with tickets for the Shinkansen or limited express trains can drive their cars from home to nearby stations and use the train network from there. By the end of March 2012, 90 JR East stations had parking spaces for ten thousand cars*. This not only spares customers the delays of traffic congestion, but conveys them reliably to their destination through a more environmentally friendly form of travel.

* Parking spaces for ten thousand cars at 90 stations: Parking spaces include those developed by JR East, and those managed by JR East Group companies or in cooperation with local municipalities.

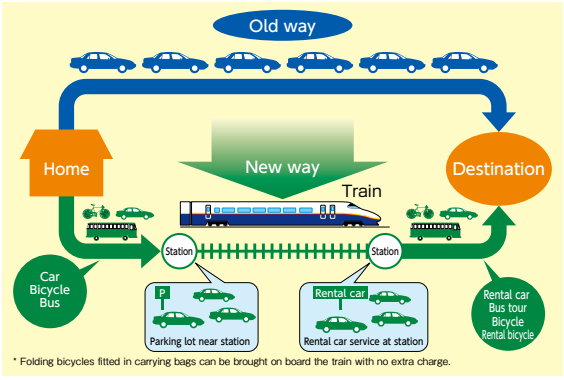
At 10 stations between Tomobe and Iwaki on the Joban Line, parking charges are free for express train customers going farther than a specified distance.

Promoting Rail-and-Car

To suggest to our customers travel plans that use a combination of railways and automobiles, JR East has been offering a car rental service called "Train-ta-kun" since 1995, with discounted rental charges. We are facilitating intermodal transportation* by introducing new classes of automobiles, such as light cars, offering attractive rates, and installing car navigation systems and electronic toll collection as standard equipment on rental cars.

* Intermodal transportation: Intermodal transportation refers to a transportation system which allows a person to get from an origin point to a final destination by connecting between different modes of transportation.

■ Intermodal transportation



Measures to create a sound material cycle

Waste reduction and recycling

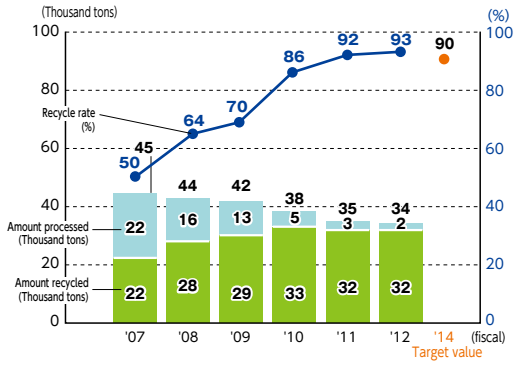
JR East generates many kinds of waste through its railway operations, including daily trash removed from trains and stations and industrial waste from our General Rolling Stock Centers. In addition, restaurants and retail stores in our life-style businesses produce garbage and general waste. In order to reduce all these various forms of waste, JR East actively supports the approach known as “reduce, reuse, recycle.” For recycling in particular, goals are set for each type of waste.

Recycling waste collected from stations and trains☆

In the fiscal year ending March 2012 the ratio of trash from stations and trains that were recycled was 93%. (Beginning in the fiscal year ending March 2008 thermal recycling was considered. Also, definitions were partly changed in the fiscal year ending March 2010.) Since trash from stations and trains contains recyclable materials, we first placed separation bins in stations. We then established recycling centers in Ueno, Omiya and Shinkiba for more rigorous separation. In October 2010, to further improve recycling rates, we consolidated the recycling centers in Ueno and Shinkiba and built the JR East Tokyo Materials Recycling Center (operated by East Japan Eco Access Co., Ltd.).

JR East Tokyo Materials Recycling Center

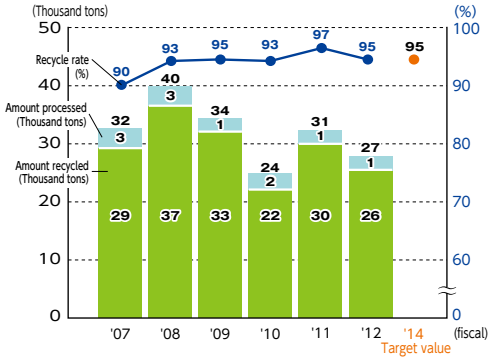
■ Waste from stations and trains



Recycling initiatives at General Rolling Stock Centers, etc.☆

JR East Group is recycling waste generated during the manufacture and maintenance of rolling stock. At the Niitsu Rolling Stock Manufacturing Factory, we promote waste reduction and recycling, taking into account the railcars' entire life cycle starting at the time of designing. At our regional General Rolling Stock Centers, waste is sorted into 20 to 30 categories to reduce waste generation and promote recycling.
Starting in the fiscal year ending March 2006, we have been collecting data on the volume of retired railcars that are sold as scrap to be recycled so as to monitor the progress.

■ Waste from General Rolling Stock Centers

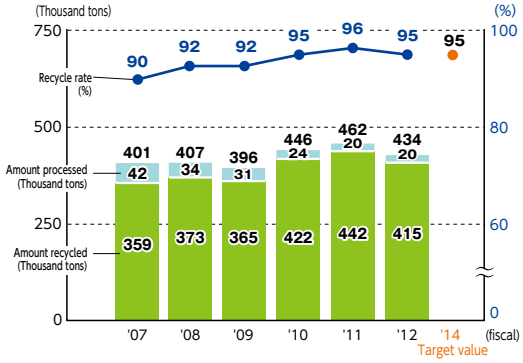


At Nagano General Rolling Stock Center, retired wheels are recycled into brake disk parts.

Reducing construction waste☆

JR East endeavors to reduce waste from construction by requiring subcontractors to use design and construction methods that allow them to properly dispose of construction byproducts and to minimize waste. In the fiscal year ending March 2012, JR East generated 430 thousand tons of waste through construction and maintenance projects at our stations and other structures, including 60 thousand tons of waste through work entrusted to JR East.*

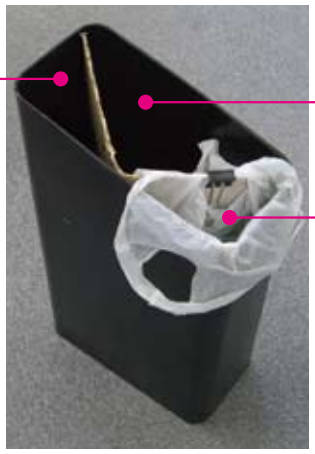
■ Waste from construction projects



* Work entrusted to JR East: Construction work contracted to JR East by local governments etc., to be done at non-JR East facilities, for such purposes as to ensure safe train operations.

Reducing waste at offices☆

In departments at the Head Office and Branch Offices, we strive to reduce waste by promoting elimination of paper and by recycling, including the use of creative, employee-designed trashcans. In the fiscal year ending March 2012, we recycled 2,213 out of a total of 2,488 tons of waste (89%).



A creative trashcan designed by our employees is seen at a worksite office in Tokyo (an empty copy-paper box is used to make partitions in the trashcan, facilitating sorting).

Efficient use of water resources☆

As a consumer of 11.47 million m^3 of water annually, JR East actively promotes the use of recycled waste water*, using, for example, rainwater and water already used for washing hands to flush toilets. At the Head Office building, 24 thousand out of 41 thousand m^3 of water was reused in the fiscal year ending March 2012.

* Recycled waste water: Defined as water of a quality level between clean water and sewage water. It is used for limited purposes as a recycled resource.

Reducing and recycling tickets.☆

Collected used tickets are sent to a paper mill. After the iron powder has been separated from the backs of the tickets, the paper is recycled to make toilet paper and corrugated cardboard. In the fiscal year ended March 2012, all of the 363 tons of collected tickets was recycled.
Collected magnetic season tickets were recycled into solid fuel.

Used tickets collected at stations are recycled into toilet paper that is used at major stations in the Greater Tokyo metropolitan area.

Promoting green procurement

As part of ecological activities balancing environmental protection and business requirements, JR East promotes the procurement of products with lower environmental impact, and in 1999 formulated its "JR East Green Procurement Guidelines." When we choose a supplier of materials, we investigate its environmental and CSR activities, and use what we find as a factor in our decision.
To further promote green procurement for our office supplies, we have set a target of "100% green procurement" for the JR East Group as a whole. Through this green procurement, the JR East Group promotes activities to realize a recycling-oriented society.

Recycling trash within the company

JR East promotes in-company recycling of trash generated at stations.
Magazines, newspapers and similar paper items collected from our segregated trash boxes at stations and trains are being recycled into coated paper and stationery and used in our offices.

Newspapers and other papers collected in stations and elsewhere are recycled into office paper used by our company.

Recycling waste PET bottles into civil engineering materials

JR East has constructed a recycling system that produces resin weed-barrier sheets (product name: Nakusa R-PET) by recycling the PET (polyethylene terephthalate) bottles discarded in stations and trains. The main ingredient for resin weed-barrier sheets used to be polyethylene, but JR East has developed and commercialized a weed-barrier sheet composed mainly of waste PET bottles after testing has succeeded.

Biodiversity

Hometown Forestation Program

In 2004, in order to protect Biodiversity and contribute to a sustainable society, while cherishing our sense of gratitude to nature, we began the Hometown Forestation Programs to plant trees native to each region and revitalize the forests.
We undertook these programs with the cooperation of Fukushima Prefecture from 2004 to 2009 and with the cooperation of Niigata Prefecture and the town of Tsunanmachi in 2010. In addition, in other areas served by JR East, we are planting trees that are native to the areas and we shall continue to do the same in the future.

Shinanogawa River Hometown Forestation Program in September 2011

Forest development along railway lines☆

Beginning in 1992 we have been engaged in tree planting activities along the JR East wayside. By fiscal 2012 a total of 44 thousand people participated in planting about 310 thousand trees. Today, we have gone beyond the wayside and do tree planting in cooperation with the communities.

Development of railway trees

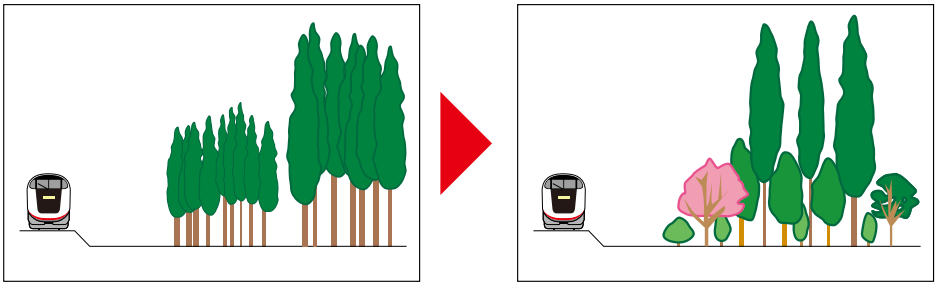
Along some JR East railway lines, we have railway trees planted to shield the tracks from blowing snow and wind. The first railway forest was created in 1893 for disaster prevention. As living disaster prevention facilities, railway forests are playing their roles.
JR East now owns approximately 5.8 million railway trees on a total of about 4,000 hectares along our lines at approximately 1,200 locations. The trees absorb 16 thousand tons of CO_2, equivalent to 0.6% of the CO_2 that JR East emits. In this way, they also contribute to preserving the environment.
In 2008, after fundamentally reviewing the role of railway trees from the viewpoints both of disaster prevention and environmental preservation, we launched a new project to plant trees to replace those that will require replacement over the coming 20 years.

Jinguji No. 2 railway forest on the Ou Main Line (forest to protect against blizzards)

Tenoko No. 6 railway forest on the Yonesaka Line (forest to protect against snow slides)

Railway trees-From single to multi-variety trees

Traditionally, railway trees were of a single variety, primarily cedar trees, because another function, in addition to protecting against natural disasters, was to generate profits through the production of timber. This has recently been less successful, however, in the face of declining demand for domestic timber. In future tree replacement, we will plant several varieties suitable for the local climate and develop them to be more sustainable and ecologically resilient.



Conventional railway trees
(single variety such as cedar trees)

New railway trees
(mixture of different varieties of trees)

Planting new railway trees

Ceremonies for the planting of new railway trees were held in the Kakizaki No. 1 railway forest between Kakizaki and Yoneyama on the Shin-etsu Main Line on September 27, 2008, in the Oitama No. 2 forest on the Ou Main Line between Oitama and Takahata on July 26, 2009, and in the Jinguji No. 2 railway forest on the Ou Main Line between Jinguji and Kariwano on May 22nd, 2010. With kind advice and guidance from ecologist and Professor Emeritus Akira Miyawaki of Yokohama National University, several varieties of native trees (potential natural vegetation) were selected and planted. Many local residents and participants from organized tours participated in the ceremonies, and discovered how the trees they planted would grow to become useful as living railway disaster prevention facilities

Basic thoughts on noise reduction

Improvement of the environment along railways: Basic thoughts on noise reduction

In the operation of trains, noise is created by the train cars moving through the air, by the wheels travelling on the rails, by the motors, and by other sources. In order to reduce noise, we are working in various ways to improve both the trains and our ground equipment.
JR East also endeavors to reduce noise during maintenance work on track and structures to further improve the environment along the lines.

Measures for the Shinkansen

In accordance with the Japanese government's Environmental Quality Standards for Shinkansen Superexpress Railway Noise, JR East has taken many steps to reduce this noise, such as the installation of soundproof walls and sound-absorbent materials, rail grinding*1 and the modification of our railcars to operate more quietly. We have already completed the implementation of measures to reduce noise levels to 75 dB or lower in densely populated residential areas along our railway lines, and we plan to take further steps by expanding the scope of areas where noise levels need to be reduced to 75 dB or lower. Also, with the introduction of E5 Series railcars, which were developed based on the results of running tests using the Shinkansen "FASTECH" test train, JR East is working to improve the environment even as we increase train speed, including further reduction of noise and micro-pressure waves in tunnels*2.

*1 Rail grinding: A measure to smooth out uneven places in rails caused by wheels traveling over them. This reduces noise by controlling car vibration.
*2 Micro-pressure waves in tunnels: An explosive sound caused by compressed air being forced.

The E5 Series employs low-noise pantographs.

Measures for conventional lines

We have implemented voluntary measures for conventional lines to minimize noise, installing long rails*1 and performing rail-grinding and wheel-truing*2. We also comply with the Japanese government's Policy on Noise Measures for Construction of New Conventional Railways or Large-Scale Remodeling when we engage in this kind of construction or modification of our conventional lines.

*1 Installing long rails: Rail joints are welded such that the length of a single rail becomes more than 200 meters. With fewer rail joints, these rails reduce noise produced at joints when trains pass.
*2 Wheel truing: A measure to grind the unevenness of wheels caused by wear, to restore their circular shape.

Measures for maintenance work

As the maintenance work is usually done during night, we give advance notice about the schedule and details of the work to residents in surrounding areas. We also make utmost efforts to minimize noise by using modified equipment that produces lower noise. Furthermore, by using track that is designed to resist deformation, JR East is reducing the volume of required maintenance work.

Improvement of the Environment along Railway Lines

Restricting use of herbicides☆

Safe train operations require regular removal of weeds along railway lines. While we generally remove them manually, we also use a certain amount of herbicide. We keep the usage of herbicides to a minimum in both volume and range of use. When selecting herbicides for use, we select those from the safest of the three levels of toxicity to humans and animals, and from Category A, the safest of the five levels of toxicity to fish.
We continue to observe the rules in place in order to keep our impact on the surrounding environment to a minimum, as with our initiative to postpone the spraying of herbicides when conditions on the scheduled day are not satisfactory for spraying. In FY 2012, 203 tons of herbicides were used.

Harmony with the landscape

Given that construction of a large-scale railway facility or its remodeling greatly affects the local area and surrounding environment, JR East endeavors to harmonize its completed facilities with surrounding landscapes and natural environments. In the fiscal year ended in March 2012, the Agatsumagawa Bridge No. 3 received the Tanaka Award (for excellent bridge work or bridge engineering) from the Japan Society of Civil Engineers, in recognition of a landscape in harmony with the surrounding environment and the national road parallel to the bridge. Our efforts are indeed well recognized outside of the company.

Agatsumagawa Bridge No. 3

Chemical substance management

Compliance with laws and setting goals for reduction of chemical substances

When using chemical substances, the effects on human health and ecological systems must be fully considered. The JR East Group not only rigidly adheres to established standard values, but sets its own ambitious targets as well. As much as possible, we restrict the use of such substances and adopt substitutes that have less impact on the environment.

Reducing and replacing ozone depleting substances☆

We endeavor to reduce the use of substances specified as controlled substances under the Ozone Layer Protection Law and adopt substitutes that have less impact on the environment.

- **Large heat exchangers (large cooling units)**—Having steadily replaced air conditioning units using specified chlorofluorocarbons (CFCs) with systems that do not use them, we completed the removal of such units from buildings by the end of March 2008.
- **Rolling stock**—Except for some diesel railcars, all of our cars use CFC substitutes. As of March 2012, we were using 0.5 tons of CFCs and 86 tons of CFC substitutes. We routinely check for gas leaks, and collect the refrigerants when scrapping retired railcars in accordance with applicable laws and regulations.
- **Fire-extinguishing agent**—Although 74 tons of halon gas was still in use as a fire-extinguishing agent as of March 2012, we have it under proper control and are replacing it with non-halon agents (such as powder agents and CO_2) when building new facilities or renovating existing ones.

Chemical substance management☆

As JR East uses chemical substances primarily for painting and repairing our railcars, we take rigorous steps for their use and management in order to prevent spills. We are a company that handles a certain amount of specified chemical substances, and 13 JR East facilities submitted the data regarding the release and transfer of these substances to relevant authorities in the fiscal year ended March 2012, pursuant to the PRTR System.*

We have also been introducing stainless steel railcars that do not require painting. At the end of March 2012, as many as 83% of the 10,754 cars operated on our conventional lines were stainless steel railcars. Beside their use for railcars, we used 44.8 tons of organic solvents for painting railway facilities and stabilizing track beds in the fiscal year ended March 2012.

* PRTR system: A system where companies notify their releases and transfers of chemical substances as required by the PRTR Law. It encourages the monitoring and control of toxic chemical substances emitted into the environment and measures to prevent negative impact on the environment.

■ Amount released and transferred from 13 reporting-required facilities

(kg)

Chemical substance	Handled	Released into air	Released into sewerage	Transferred to other facilities
1,2,4-Trimethylbenzene	92,083.6	2,733.1	0.0	10.0
2-Aminoethanol	1,172.3	0.0	0.0	210.0
4,4'-methylenedianiline	4,910.7	0.0	0.0	880.0
Ethylbenzene	5,387.6	3,400.0	0.0	1,900.0
Xylene	113,230.5	22,888.6	0.0	3,875.0
Chromium and Chromium(III) compound	2,358.4	0.0	0.0	47.0
Dichloromethane (Methylene chloride)	4,865.1	4,000.0	0.0	900.0
Toluene	30,444.5	8,370.0	0.0	10,720.0
Nickel	4,481.7	0.0	0.0	0.0
n-Hexane	2,387.8	156.0	0.0	0.0
Methylnaphthalene	44,752.6	5.4	0.0	0.0
Methylenebis(4,1-phenylene) diisocyanate	2,224.8	1,800.0	0.0	400.0
Molybdenum and its compounds	1,402.4	0.0	0.0	0.0
Total	**309,702.0**	**43,353.1**	**0.0**	**18,942.0**

Management of PCBs☆

Equipment containing PCBs is securely stored at 149 locations and reports on it are filed as required by laws and regulations. We render this equipment harmless to the extent that can be done by PCB waste treatment facilities. In the fiscal year ended March 2012, we had 274 units of equipment such as transformers and capacitors treated at PCB waste treatment facilities.

Environmental Communication

Development of environmental education by delivering lectures on request

In the fiscal year ending March 2010, to contribute to the development of a sustainable society, JR East initiated environmental education programs for children. They will lead the next generation, and they need to understand environmental issues and their relationships with the society.
The program aims to help children understand the environment and life through materials related to railways. In fiscal year 2012, the program was implemented at seven schools, primarily elementary schools, in Tokyo and Saitama Prefecture. We will continue it.

Delivering an environmental education program at an elementary school in Hachioji (Tokyo)

Railway Museum Environment Seminar

We staged the second "Seminar on Environmentally Friendly Railways" for elementary school children at the Railway Museum. Together with learning about global environmental problems, they were shown the importance of recycling by separating trash at a station and on the train.

Seminar on Environmentally Friendly Railways at the Railway Museum

Environmental Events in Cooperation with Other Companies

To explain JR East's environmental preservation activities and directly communicate with customers, we joined Tokyo Gas Co., Ltd., in staging "The Ninth Gas and Railway Environmental Activities Exhibition for Parents and Children" at the Gas Science Center. In addition to introducing environmental aspects of gas and railways and our energy-saving activities, the event featured hands-on opportunities to learn and have fun at the same time.

VOICE

Collaborating on environmental education with JR East employees

I call the joint effort with JR East employees "teaching collaboration," rather than "lecturing on request." Lecturing by companies usually means the content is determined in advance by them and employees visit schools to give lectures in their technical areas as one-day teachers. Often, moreover, they spend an hour or so on something that might deserve six hours, including opportunities for the students to see and try things for themselves.
"Teaching collaboration" with JR East employees is different in that class teachers in elementary schools and JR employees work together in the teaching program. All fifth graders participate for a total of three hours. The employee remains at the school for almost a week – very unlike being a guest lecturer. The person is with the class as long as possible, including eating lunch with students in his uniform, which serves well to stimulate their interest.

There were two basic themes: the railway information network and mechanisms of conveyance of information in emergencies such as the Great East Japan Earthquake, and the benefit to the global environment of changing from paper railway tickets to the "Suica" IC card.

Having been part of the program twice since 2010, I found one problem to be that the company is apt to focus on efficiency – "How can we convey more within the allotted period?" – while the school is less concerned with how much is "taught" than with the children having enough time to think, absorb and be stimulated. Generally speaking, proposals by companies tend to be overloaded with content.

With JR East, however, this is no longer the case. Adjustments have been made one by one on both sides. The reason we chose JR East as our partner was its attitude and desire to "work together for something better." The program provided students with a valuable learning opportunity and I am sure they had a good time. At the same time, JR East was able to make use at other schools of the know-how on "teaching collaboration" it acquired with us, making the program beneficial to them as well.

The effort has also been valuable for teachers, not least as an impetus to look again at the nature of teaching itself. Ideally, children become familiar with subjects, interested in them, and solve problems on their own. Only in this way do they truly learn. Thus, we mostly endeavored to find hands-on subjects that the children could experience directly. I am confident that we were successful – that "teaching collaboration" produced the desired result.

Takashi Kondo
Vice Principal
Saitama Johoku Elementary School

Public Relations on Environmental and Societal Activities

To present JR East's activities for the environment and society in an accurate, easy-to-understand manner, we began publishing Annual Environmental Reports in 1996, and have titled them Sustainability Reports since 2002.
We also communicate about our environmental activities through magazines, TV commercials and other media, as well as JR East's websites, posters and pamphlets.

Campaign poster on energy conservation

Poster advertising the company: "Railways Co-Existing with Local Communities" (also TV commercial)

Ecoste pamphlet

Picture book on the environment

Eco-tourism

Eco-tourism develops deeper understanding and affection for Japan's natural environment and culture. This year, to convey the appeal of the Shirakami mountain area, a World Heritage Site, we held a lecture in the Tokyo metropolitan area which attracted more than 500 people. At our lecture in Shirakami, 40 people joined the program. We continue to promote Hiking from Stations in each region, and in the year ending March 2012, we held 626 hiking trips from stations with approximately 200,000 people in total participating in the events. Among these trips, we organized Ecohiking courses which included visits to facilities where energy resources were efficiently utilized and to seashores to pick up trash there. A total of about 250 people participated.

Blue Pond, with its distinctly blue water, in a beech forest

Planting trees at Futatsumori

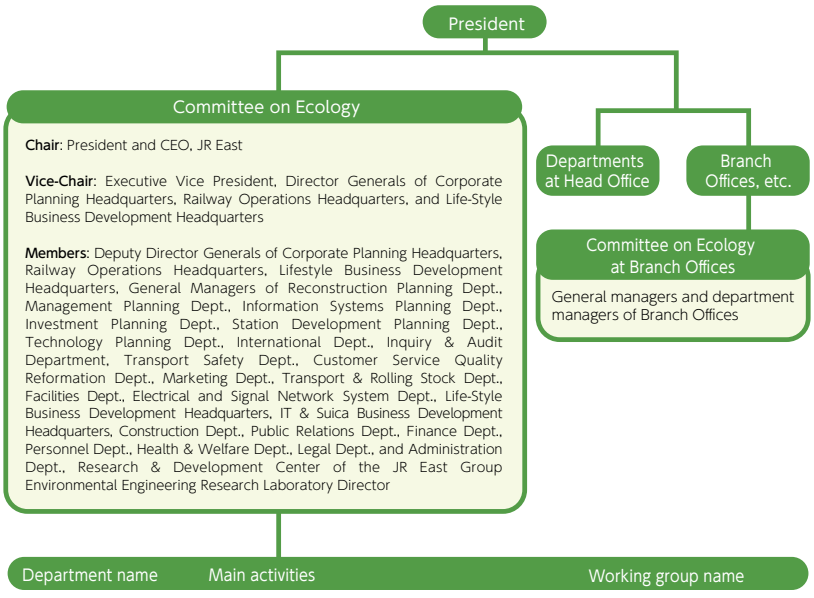
Visiting a natural beech forest

Environmental Management Structure

Environmental Management Structure

Established in 1992 as a top management organization to promote environmental activities and chaired by the president and CEO of JR East, the Committee on Ecology Promotion surveys the environmental impact of business activities, sets environment-related targets, implements environmental conservation activities and monitors progress toward target achievement, which is also examined by top management. In July 2010, the "Environmental Management Promotion Office" was established, overseeing environmental management for the entire JR East Group.

■ **Organizational structure to promote environmental management (as of August 1, 2012)**



Department name	Main activities	Working group name
Environmental management	Promotion of environment conservation activities at each work place, promotion of environment management as a whole group, management of environmental targets and publication of environmental activities, etc.	* JR East Eco Activities WG * JR East Group environment management promotion WG
Measures to prevent global warming	Reduction of CO_2 emissions through reduced electricity use and new energy technologies, reduction of CO_2 emission volume throughout the entire transport system, etc.	* Eco station WG * Eco railcar WG * Railway usage promotion WG * Illuminance optimization WG
Measures for resource circulation	Recycling of wastes from stations and trains, reduction and recycling of industrial waste, eco-friendly procurement, etc.	* Station & train waste WG
Chemical substance management	Management of ozone depleting substances, chemical substances, PCB, etc.	* PCB waste WG
Environmental activities along railway lines	Measures against noise, utilization of spring water in tunnels, conservation and utilization of railway trees, proper use of herbicide, etc.	* Railway trees conservation & utilization WG * Proper herbicide usage WG

Creating an environment-conscious climate

JR East believes that it is important to promote environmental activities with clear goals established for the entire JR East Group, and to have every employee actively involved. To build a climate in which all employees participate voluntarily, we are expanding the scale of our environmental activities by promoting "JR East Eco Activities" at each work place, developing leaders through environmental education, and sharing recognition of exceptional environmental efforts through the presentation of awards.

In-house environmental education

For effective environmental management, it is essential that all employees have appropriate knowledge on environmental issues. We provide environmental education lectures to our employees in training in order to develop environmental activities in JR East and group companies. Through these lectures, we aim to expand the scale of our environmental activities. In the fiscal year ending March 2007, to enhance environmental activities at each group company, we began an "Environmental management training" program for people in charge of environmental matters in those companies.

■ Environmental education & training system

Education of environmental-activity promoters at organizations of JR East and group companies
Environment management practical training
● Persons trained: those responsible for environment at local organizations, etc. ● Objective: improvement of ability in environment-related matters as trainers to field offices, etc. ● Number of participants: 18
Training for personnel responsible for environmental measures
● Persons trained: those responsible for environment at each Branch Office ● Objective: acquisition of basic knowledge such as environment-related laws ● Number of participants: 21
Implementation of training and lectures in Branch Offices

Internal environmental audits

At our General Rolling Stock Centers, in-house auditors are trained through external training programs, and conduct routine audits at the centers in order to evaluate environmental activities.

■ ISO14001-certified facilities

Certified facilities	Year and month of certification
〈JR East〉	
Niitsu Rolling Stock Manufacturing Factory	Feb-99
Kawasaki Thermal Power Plant	Mar-01
Tokyo General Rolling Stock Center	Mar-01
Omiya General Rolling Stock Center	Feb-02
Shinkansen General Rolling Stock Center	Nov-02
Koriyama General Rolling Stock Center	Dec-03
Nagano General Rolling Stock Center	Feb-05
Akita General Rolling Stock Center	Jul-05

Certified facilities	Year and month of certification
〈Group companies〉	
East Japan Eco Access Co., Ltd.	Nov-99
LUMINE Co., Ltd.	Dec-00
East Japan Transport Technology Co., Ltd. (Omiya Branch)	Feb-02
Nippon Restaurant Enterprise Co., Ltd. (manufacturing section)	Sep-02
Nagano Railway Servicing Co., Ltd.	Apr-06
JR East Mechatronics Co., Ltd.	Mar-08
East Japan Marketing & Communications, Inc.	Aug-08
Tohoku Rolling Stock Machinery Co., Ltd.	Dec-11

Thorough management of chemical substances

JR East is working to establish a system to prevent environmental accidents by more rigidly managing chemical substances. We prepared emergency response manuals for on-site locations such as our thermal power plants and General Rolling Stock Centers that handle chemical and hazardous substances. We are also preparing ourselves to properly respond to any contingencies by holding workshops and training sessions on how to handle these substances, and ensuring that related information reaches all concerned personnel.

Compliance with environmental laws and regulations

There were no major violations of environment-related laws and regulations resulting in penalties in the fiscal year ending March 2012.

Actions by Niigata Branch Office

The Niigata Branch Office carried out various environmental preservation activities led by the Committee on Ecology. In order to build environmental consciousness in the workplace and improve employees' awareness and commitment to environmental activities, the "three E's" (Ecology by Everyone for the Earth) campaign was also launched.
Specifically, numerical environmental targets (including reductions in power consumption, paper use and gasoline and diesel oil use) were set for each workplace to build a climate in which all employees participate voluntarily. Such activities are evaluated and converted into points in order to encourage workplaces and employees to commit themselves to better performance, and to recognize good workplaces with awards.


Niitsu Station


Niigata Machinery Technology Center


Yoshida Station

JR East also participates in the *Aga Yukyu-no-Mori Project* (Aga Forever Forest Project) of Aga Town, along the railway line of the "SL Banetsu Monogatari." This is a new activity launched to help prevent global warming and to preserve forests. It functions as a "carbon offset" system that, with the cooperation of passengers, offsets part of the CO_2 emissions from the train with Aga Yukyu-no-Mori credits.


Ceremony approving use of symbol mark

新潟県カーボン・オフセット
Symbol mark

Comments by employee in charge

At the Niigata Branch Office, all employees including managers are well aware of the importance of environmental activities and are active in promoting ecological activities, with a leader at each workplace taking the initiative and promoting them. We also planed visits to companies implementing eco-cap recycling activity, and planed environmental seminars and other activities to gather and provide as much information as possible to managers and promotion leaders in workplaces, invigorate eco-activities and help workplaces at the same level to work together.
In unity with the efforts at working sites, the Niigata Branch Office will continue its ecological activities.

Yuji Nishino
Planning Office,
General Affairs Division
Niigata Branch Office

Actions by JR East Group Companies

East Japan Marketing & Communications, Inc., has its basic philosophy on the environment: "We endeavor through business activities, including advertising and media management, to preserve the global environment and prevent pollution, and to contribute to establishing richer, more sustainable lives."
In August 2008, we obtained ISO14001 certification at the head office and all branches, bolstering our environmental management system.
As an advertising company, our environmental target is "proposing environmentally friendly plans," to our clients, toward which we make company-wide efforts.
In the year ending in March 2012, we made numerous proposals, especially for saving electricity and energy and on the use of stations, helping many people increase their awareness of environment around them.
The pictures below show some of our efforts.
Bringing together the knowledge, experience and sensibilities of its employees, East Japan Marketing & Communications, Inc., will carry out a wide range of ecological activities, for regional communities and society as a whole.

Energy-saving signboards at "ecoste" Yotsuya Station

At atre Kawasaki's Camellia Square, a display using flowers which were thinned out.

FSC certified paper is used for an information magazine published by Sado City

Visualizing energy savings by installing an artificial intelligence panel, increasing energy management efficiency

Electrically efficient illuminations at LIGHTOPIA 2011

Illumination powered by electric vehicles

Comments by employee in charge

Our company's efforts to propose environmentally friendly plans are a good opportunity to exert our abilities and we set them our environmental target we will concentrate on accomplishing. We share information among employees and try to make as many proposals as we can, thus contributing to realizing a sustainable society.

Yoshimasa Koizumi
Manager, Corporate Social Responsibility Section, General Affairs Division, East Japan Marketing & Communications, Inc.

Environmental accounting and management indicators

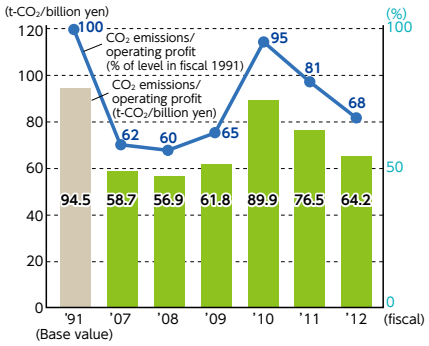
Using Environmental Management Indicators in business activities☆

In the year ended March 2012, our environmental conservation costs amounted to approximately 57.7 billion yen in investments and 22.4 billion yen in expenses. Of these investments, costs for global environmental conservation, which accounted for a large portion, were at the same level as the previous year because we continued acquiring new railcars.
By introducing these new cars, we estimate we will reduce CO_2 emissions by 235 thousand tons during their service lives.
JR East has its own Environmental Management Indicator to assess the relation between our business activities and environmental impacts. These are calculated by dividing CO_2 emissions, which are a major factor in our environmental impacts, by operating profits, which represent our economic value added.
A smaller value of the indicator means that we are making a smaller impact on the environment to create the same economic value added. For the year ended March 2012 the value of the indicator was 64.2 t-CO_2/billion yen, compared with 94.5 t-CO_2/billion yen for the year ending March 1991.

Environmental Management Indicator

$$\frac{\text{Environmental Impacts}}{\text{Economic Value Added (EVA)}} = \frac{\text{CO}_2\text{ emissions (t-CO}_2\text{)}}{\text{Operating profit (billion yen)}}$$

■ JR East's Environmental Management Indicator



■ Environmental accounting for the fiscal year that ended March 2012☆

Category	Environmental conservation costs (billion yen)		Environmental conservation benefits in relation to environmental targets		Economic benefit of environmental conservation activities (billion yen)
	Investments	Expenses			
Environmental conservation (pollution prevention) activities along railway lines	6.55	16.23	Measures for noise reduction (Noise barrier, installing long rails etc.) etc.	Being implemented	–
Global environmental conservation activities	51.14	—	Energy consumption from railway business activities CO_2 emissions per unit of electricity generated at JR East's own power plants Electricity used for railway operations per unit of transport volume Energy consumption per unit of floor area at branch offices, etc.	51.7billion MJ 0.337kg-CO_2/kWh 1.76kWh/car-km 0.0409kL-crude oil equivalent/㎡	17.7
Resource circulation activities	—	4.6	Recycling rate for waste generated at stations and on trains Recycling rate for waste generated at General Rolling Stock Centers, etc. Recycling rate for waste generated in construction projects	93% 95% 95%	2.32
Environmental management	0.03	0.37	–		–
Environmental research & development	—	1.17	–		–
Social activities	—	0.02	–		–
Total	57.72	22.38			20.02

Notes
Capital investment for the period:
307.4 billion yen
Total R&D costs for the period:
15.6 billion yen*

* Total R&D costs :
Total R&D costs include 0.59 billion yen of costs for basic research and development commissioned to the Railway Technical Research Institute under a research agreement.

The above table's relations with the table for Targets and Results are as follows:
"Environmental conservation activities along railway lines" = "Environmental activities along railway lines" and "Chemical substance management"
"Global environmental conservation activities" = "Measures to prevent global warming" and "Chemical substance management"
"Resource circulation activities" = "Measures for resource circulation"
"Environmental management" = "Environmental management" and "Environmental communication"
"Environmental research & development" = "Research & development"
"Social activities" = "Environmental communication"

〈Notes on calculation of environmental conservation costs and benefits〉
Environmental conservation costs
○Data are for East Japan Railway Company only (i.e., non-consolidated data).
○Environmental conservation costs are mainly based on data available in the current management system.
○The total costs are treated here as environmental costs where the costs have multiple objectives and result in large environmental benefits.
(e.g., global environmental conservation costs include the total amount invested in energy-efficient trains)
○Expenses do not include depreciation charges.
○In the costs for resource circulation activities, expenses for treating waste generated at stations and trains are calculated by multiplying the allocations by the expenses for cleaning stations and train cars, based on a model for cleaning stations and trains.
○In the costs for resource circulation activities, the expenses for treating waste generated through construction projects are calculated by multiplying waste volume for fiscal 2008 by standard unit prices for the type of waste in that region.
Environmental conservation benefit
○Environmental conservation benefits are calculated based on figures set as our environmental targets.
Economic benefit of environmental conservation activities
○Economic benefit of global environmental conservation activities is calculated by multiplying annual savings (estimates are used in some cases) in electricity and repair costs resulting from the introduction of energy-efficient trains by the expected useful life, to determine useful-life economic benefit.
○Income from the sales of waste generated at General Rolling Stock Centers and through construction projects is included in economic benefit of resource circulation activities.

Special Topic 3 Ecoste

JR East employs various environmental preservation technologies and is working to create energy-saving stations known as "ecoste."

"Ecoste" stations introduce various technologies for environmental preservation, including energy conservation and use of renewable energies. We will create "ecoste" in different areas making use of regional characteristics.

■ Yotsuya Station on JR Chuo Line ～ First ecological station, Yotsuya Station ～

At the first "ecoste" model, JR Yotsuya Station, under the four key concepts given below, various environmental preservation measures are being implemented and 17 eco-menus are employed.

1. Saving energy

LED lighting is used at platforms and concourses and LED lights are used for illuminated ads and ITV for conductors. In addition, the station endeavors to save water in restrooms, increase the efficiency of air-conditioning equipment, and install skylights so that lighting can be turned off in the daytime. As a result, CO_2 emissions can be reduced by about 176 tons annually.

2. Creating energy

Solar panels with a total capacity of 50kW were installed on the roof of the station near the Akasaka Exit, reducing CO_2 emissions by about 13 tons annually. Atre Co., Ltd., a JR East Group company, also installed solar power panels on the roof of atre Yotsuya, next to Yotsuya Station.

3. Feeling the ecology

"Eco-information display boards" are installed in the station and customers can see at any time how much energy is being generated and used, helping them to more fully appreciate our eco-activities. We are also improving the thermal environment for pedestrians by paving areas near station exits with water-retentive material.

4.Harmonized environment

There is a garden on the roof top of the station building, and there is greenery on the roofs above platforms and on retaining walls.

In addition to the above, station staff at Yotsuya work diligently to further conserve energy, toward the total result of cutting CO_2 emissions by 189 tons a year (40% reduction from FY2009). That reduction is equivalent to the CO_2 amount absorbed by about 13,500 Japanese cedars in a year.

■ Hiraizumi Station on Tohoku Main Line ～ Realizing zero-emissions ～

Hiraizumi Station on the JR Tohoku Main Line is striving, through the use of solar panels and storage batteries, to become a "zero-emissions station," which generates more electricity than it consumes on fine weather days *.

* According to the Meteorological Agency, a "fine weather day" is one on which 40% of the day is sunny – typically about 170 days annually in the vicinity of Hiraizumi Station.

1. Saving energy

LED lighting has been introduced on platforms and in offices. Insulation of the station building is improved by using insulating paint.

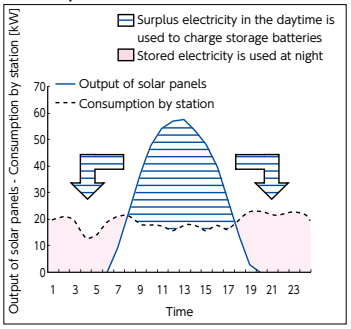
2. Creating energy

Solar power generation panels and storage batteries are installed on the east side of the station.

3. Feeling the ecology

"Eco-information display boards" are installed at the station enabling our customers to check the state of our activities at any time.

Concept of zero-emissions station



VOICE

Yotsuya Station, transformed to an "ecoste," is a facility where you can learn about ecology

The JR Yotsuya Station on the Chuo Line in Tokyo has been reborn as an "ecoste," embracing the four concepts of energy conservation, energy generation, Feeling the ecology and environmental harmonization. Working at Yotsuya Station, where we have introduced 17 eco-menus including solar panels, greenery and LED lighting, we can feel and enjoy the natural breezes and light. This is largely attributable to two specific eco-menus – skylights and natural ventilation systems. Blessed with greenery in an area near an ancient outer moat of Edo Castle, Yotsuya Station has become even more pleasant, comfortable and bright, filled with natural light and fresh air. It is especially satisfying to hear so many customers say so. With LED lighting, energy consumption is reduced and platforms are as bright at night as they are in the daytime. Train crews, too, often comment on this. Train drivers in particular say they can see customers on the platform better. Every JR station's top priority is of course customer safety. Being "bright and easy to see" is about more than being ecological.

"Rooftop garden," symbol of "ecoste"

Since becoming an "ecoste," we have had more visitors – educational visits and school trips by elementary- and junior-high school students – and we are working on ideas that will allow more students in the community to make "ecoste" Yotsuya Station a practical resource in their environmental education. Currently, we plan to create guidebooks for our 17 eco-menus, primarily by our eco-promotion members.

It will be a unique accomplishment of the station if people in Yotsuya consider Yotsuya Stadion to be a symbol of environmental education. Ekinaka (in-station business) is becoming increasingly popular and the utility value of stations has grown as shopping and entertainment spaces. Yotsuya Station is opening up the new possibility of transformation into a educational facility where you can learn about ecology.

With "ecoste" projects to be carried out in various locations, and as the stationmaster of the first, I hope those involved will look at us, gather information, and apply it usefully elsewhere. Of course the picture of a successful "ecoste" will be very different depending on local needs and characteristics.

Hiroko Shirayama
Stationmaster, Yotsuya Station, Tokyo Branch Office
(currently, Manager, Customer Service Quality Reformation Office, General Affairs Division, Tokyo Branch Office)

Quality of "ecoste" boosts eco-awareness of station staff

Awareness of the staff at an "ecoste" is crucial. Hardware has been developed according to 17 eco-menus and it is now up to us, the station staff, to promote eco-activities with greater awareness than before. Surrounded by exciting equipment and facilities, we must make sure we meet the challenge; otherwise we waste an excellent environment. At present, eco-promotion members are taking the initiative in trial activities to improve awareness of the entire station staff.

Electric energy meter facilitating employee's activities

Nagisa Tanaka
Chief Passenger Station Clerk, Yotsuya Station, Tokyo Branch Office

Pursuing “extreme safety levels”

Our concept of safety

Since the establishment of the JR East, safety has been the top management priority at JR East, and we have worked relentlessly to heighten our levels of safety. Our earnest efforts to learn from unfortunate accidents in the past have enabled JR East to further the prevention of accidents in the future with our continued developments both in software and in hardware.

Safety initiatives in our medium term management plan

In the JR East 2020 Vision - *i do mu* -, we have set two goals to represent our unflagging commitment to “extreme safety levels”. We will continue implementing our priority improvement plan for safety equipment, reinforce safety weak points, and reduce risks, and we will expand and improve education and training on safety and prevent accidents by correctly analyzing and understanding previous accidents and incidents.

Launch of our 5th 5-year Safety Plan, 2013 Safety Vision

Since our establishment, JR East has continued to create and implement medium term safety plans. With the installation and further development of our safety equipment, along with companywide advancements in safety awareness and skill, we have succeeded in reducing the frequency of railway accidents drastically from levels at the time of the company’s establishment.
In the fiscal year ended March 2010, JR East formulated a new 5-year safety plan, 2013 Safety Vision. With this plan, we are undertaking a variety of measures. New to the 2013 Safety Vision are two approaches: safety related human resource development and system improvements; and, the prevention of accidents before they occur through risk assessment.
In addition, as with our previous Safety Plan, we will continue to target zero accidents involving passenger injuries or fatalities, and zero accidents involving employee fatalities (including employees of Group companies and Partner companies). JR East will continue to remain steadfast in its efforts to achieve “extreme safety levels” through the concerted efforts of all of its employees.

2013 Safety Vision Brochure

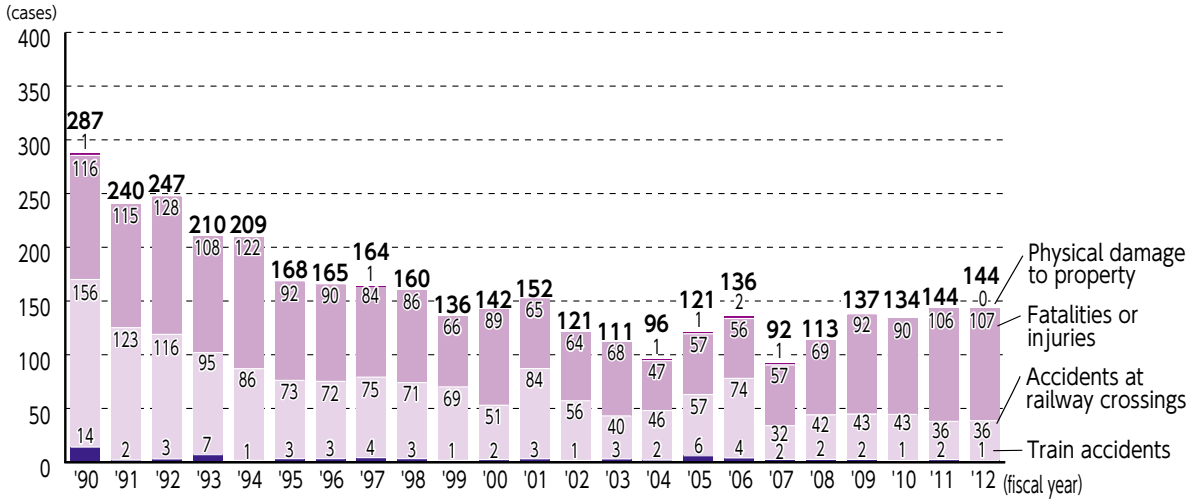
■ Overall view of the 2013 Safety Vision

※ JR East aims to reduce accidents resulting in employee injury, which amount to approximately 200 accidents per year.

Trends in railway accidents

In the fiscal year ending March 2012, JR East recorded 144 railway accidents, including 36 accidents at level crossings involving people or automobiles being hit by trains, accounting for approximately 30 percent of the total accidents. Additionally, JR East recorded 107 accidents involving injury or fatality, including customers on platforms or trespassers on tracks coming into contact with trains, and customers falling onto the tracks from platforms, totaling approximately 70 percent of the total number of accidents. Approximately 70 percent of these injuries or fatalities occurred on platforms, and half of these involved intoxicated customers.

■ Trends in railway accidents

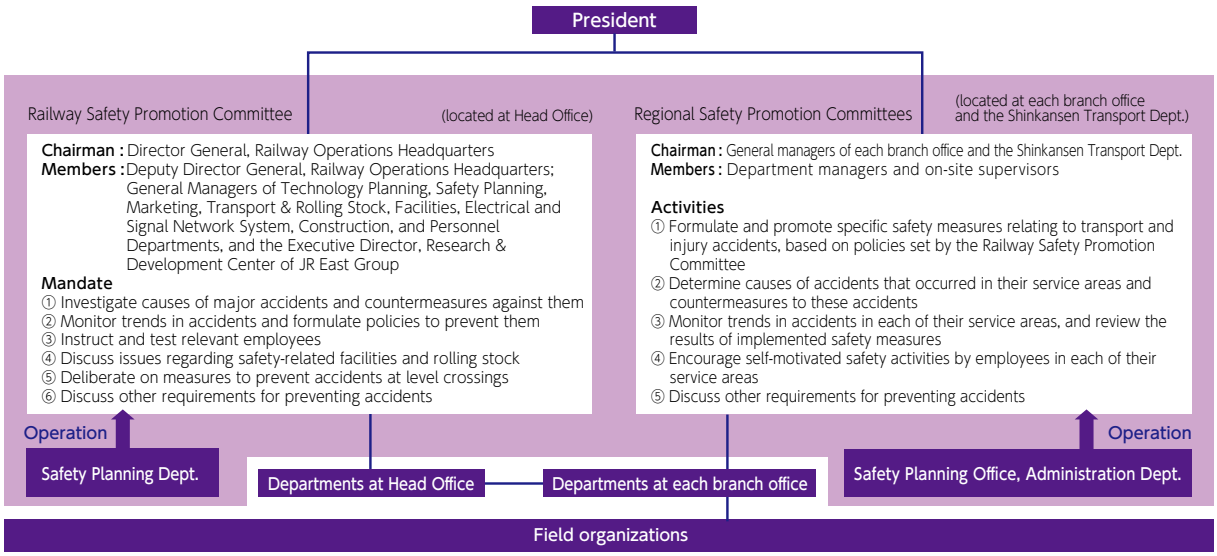


■Physical damage to property: accidents causing more than 5 million yen damage to property by train operation
■Fatalities or injuries: people killed or injured by train operation
■Accidents at railway crossings: people or automobiles being hit by trains
■Train accidents: train collisions, derailments, and train fires

Railway Safety Promotion Committee

JR East has established the Railway Safety Promotion Committee at its Head Office, chaired by the Director General from Railway Operations Headquarters. The committee reviews the organization's basic policies to respond to and prevent accidents, and promotes safety measures within the railway business. There are also Regional Safety Promotion Committees at each branch office and the Shinkansen Transport Dept., chaired by the general managers of the branch offices and the department. These committees implement specific measures in cooperation with the Railway Safety Promotion Committee, and investigate the causes of accidents, implement concrete preventive measures, and promote activities to enhance safety in their service areas.

■ Safety promotion network (as of June 22, 2012)



Creation of a culture of safety

Our 5 cultures of safety

To heighten levels of railway safety, it is necessary to establish and support unwavering cultures of safety. The cultures of safety we seek are based upon accident information from the past and we learn and act upon it in mutual trust.

① **A culture of proper reporting**
Preventing the occurrence and recurrence of accidents through prompt and proper reporting of all accidents and incidents.

② **A culture of noticing**
The prevention of accidents through an awareness of the causes of accidents and the sharing of information that would prevent these causes from leading to actual accidents.

③ **A culture of direct meeting and discussion**
Allowing for the open and honest exchange of opinions and discussions enables us to identify the causes of accidents and to take appropriate countermeasures against recurrence.

④ **A culture of learning**
Continuously learning about accidents and learning from accidents and incidents, which occur in all places of work, not just in one's own workplace.

⑤ **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.

"Sangen Principle: Three Actualities Principle" as a standard for action

Accidents and incidents always occur at the Genba.* This means that the sources of accident prevention can also be found at the Genba. In order to suitably understand and rectify each accident or incident, JR East approaches safety issues with the "Three Actualities Principle" as its standard for action: actual locations, actual objects, and actual people.

* Genba: "Genba" means a field or workplace, where employees actually do their physical work in construction, production, maintenance, operation, etc., as distinguished from management or office work, in industrial sectors, such as construction and manufacturing.

Changes with safety mission statements

JR East provides safety mission statements for the code of conduct for its safety-related employees. In learning from past disasters including the Great East Japan Earthquake, JR East has added a 5th safety mission statement. Based on its basic safety promotion concepts, "Think and act by ourselves" and "Remain calm," JR East added the wording "think by ourselves" for the prevention of human error in the event of an emergency, and to encourage employees to take a deep breath before taking action.

■General principles of Safety

① Safety is the most important mission in transportation.

② Ensuring safety is based on exact observance of rules and procedures, and is achieved through constant practice.

③ Enforcement of confirmation and complete contact is most important for ensuring safety.

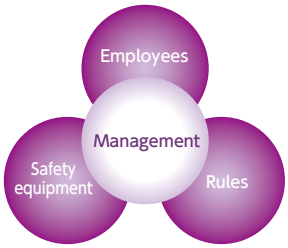
④ For ensuring safety we should cooperate together and go beyond our official responsibility.

⑤ 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.

Restructuring safety management

Safety management: Eliminating the causes of accidents

We believe that safety is ensured through management systems that synergistically link the three major factors, Employees, Rules, and Safety Equipment. JR East, together with our front-line employees, Head Office, and Group and Partner companies as a whole, is working to improve operational safety through the Railway Safety Promotion Committee, Head Office Safety Campaign, and JES-Net. The Railway Safety Promotion Committee is responsible for thorough cause investigation and taking prompt countermeasures at the occurrence of an accident. In our Head Office Safety Campaign, front-line employees and executive officers from the Head Office participate in direct discussion about safety matters. JES-Net functions to enhance our safety promotion network among Group and other related companies.



Developing safety-related human resources

In the rapid transition as one generation retires and the next generation takes over, it is necessary for JR East to steadily pass down its safety knowledge to subsequent generations. To this end, since it is vital to develop employees as the core of our safety, JR East has assigned Key Safety Leaders for its field organizations and Safety Professionals for its branch offices to heighten levels of safety.

Key Safety Leaders are mainly concerned with the following three areas:

① **【Full knowledge】:** A comprehensive understanding of weak points, safety rules, facilities, work content, and accident information (accident case examples).
② **【Teaching】:** Regular training for employees on information they should know and weakness to be conquered.
③ **【Foster successors】:** Development of successors to maturity.

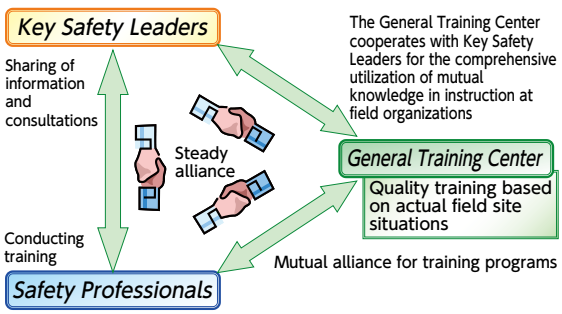
Safety Professionals are mainly concerned with the following three areas:

① An understanding of safety rules, mechanisms of safety protection, past accident history and the comprehensive utilization of this knowledge in instruction.
② Leadership and guidance in the formulation of safety measures and accident countermeasures, advice for emergency situations, and the Challenge Safety Campaign.
③ Safety-related knowledge, technology, and sensitivity.


A general meeting for "Key Safety Leaders"

An accreditation ceremony for "Safety Professionals"

■ Relationships between Key Safety Leaders and Safety Professionals



Chroniclers of Safety (Narrators of oral history)

In FY2010, we organized a group of ex-employees of JR who possessed an abundance of knowledge and applied skills in railway safety to act as our "Chroniclers of Safety (narrators of oral history)." Currently, Chronicler of Safety Seminars are being conducted by a group of eight of these Chroniclers at Head Office and Branch Offices, in the hope that they will pass their accumulated experiences and skills down to future generations.

The Chronicler of Safety Seminar: Commemorating the 1st anniversary of the organization


JR East's Eight Chroniclers of Safety

The Challenge Safety Campaign

In 1988, we started the Challenge Safety Campaign with the aim of encouraging our employees to actively take on the challenge of further improving safety levels, rather than just passively maintaining safety. The Challenge Safety Campaign aims to increase our employee awareness and sense of safety. We intend to guide all employees to more safety-oriented behavior by having them think about and discuss safety, act upon it, and feel a sense of achievement through doing so.

Railway Safety Symposium

Under the theme, "Prepare for disaster in times of peace: how to acquire abilities to think and act by ourselves to respond flexibly in the event of an emergency" JR East held its 20th symposium. With approximately 500 persons in attendance, the symposium called for the importance of employees to acknowledge areas of possible risk at their individual work places in the event of a disaster and major accident, to individually contemplate what should be done in the immediate aftermath of such an occurrence, to hold discussions and to repeat drills at each of their workplaces.


The 20th Railway Safety Symposium

Safety education and training

To improve the skills of train crews, accident prevention simulator training is conducted regularly in the General Training Centers in each of our branches. At the JR East General Education Center in Shirakawa City, Fukushima Prefecture, we train both drivers and conductors, and provide human resource development in the form of knowledge and technical proficiency. The Accident History Exhibition Hall was established in the Center to emphasize the importance of learning from past accidents.

Driving cab simulator

Accident History Exhibition Hall

Head Office Safety Campaign

JR East operates a Head Office Safety Campaign once a year. The campaign provides President and executive officers from the Head Office with a chance to visit field offices and hold direct discussions with front-line employees, including those at partner and cooperating companies. In March 2012, executive officers from the Head Office inspected nighttime maintenance work as observers, and participated in impassioned discussions with front-line employees on the theme, "The strengthening of risk sensing capabilities of each individual employee and the promotion of collective preventive safety measures as a whole work force: The Three Actuality Principles, an understanding of weaknesses in safety, and the specific actions necessary for resolution." Through these activities, JR East was able to reconfirm issues and areas of concern and, based on the outcomes obtained from the activities, JR East decided to implement specific measures regarding crisis prevention capabilities in order to further heighten the company's sensitivity toward safety, so that all employees will be able to think by themselves and take flexible actions at the time of a disaster or major accident.

Collaboration with group companies

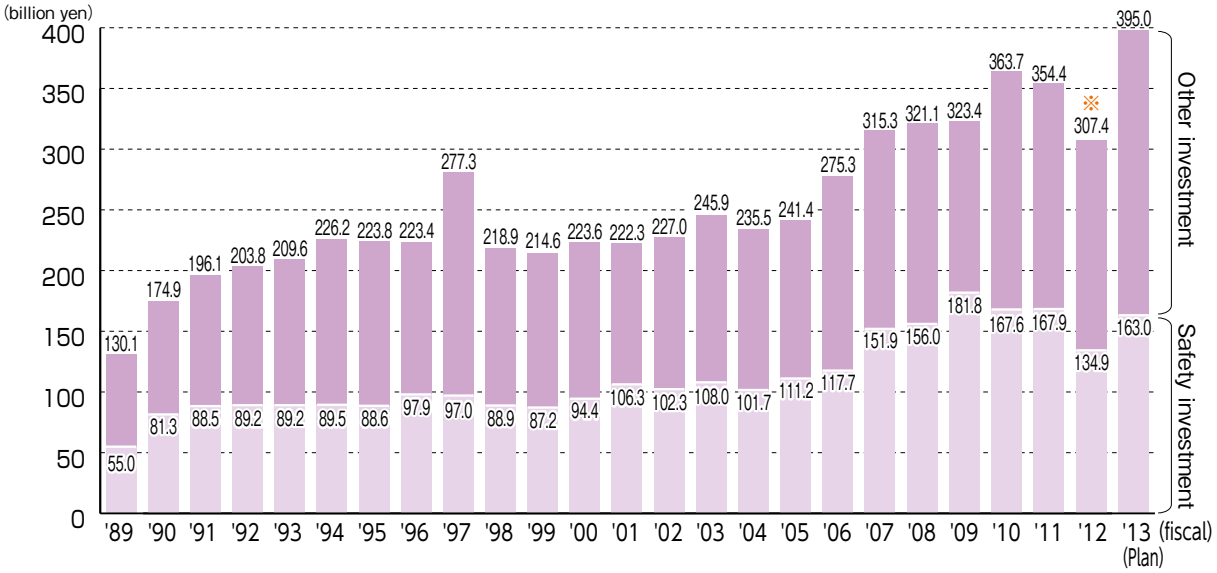
The JR East Safety Network (JES-Net) was established in the fiscal year ending March 2005 as a safety promotion network among JR East Group and partner companies that are engaged in work directly influencing train operations.
As of April 1st, 2012, the number of companies in this network had expanded to 34. Each year, through observation and inspection, JR East holds a Safety Review for the exchange of opinions and a confirmation of the safety measures at JES-Net member companies. In the Safety Reviews, JR East recognizes the positive measures of each of the companies, and introduces these successful measures to other companies so that they can also benefit from the success. JR East is committed to improving the levels of safety throughout the JR East Group.

Improvement of safety equipment

Investment in safety equipment for "extreme safety levels"

To achieve a more assured level of safety in railway operations, weak points in the current systems must be identified and reviewed from a safety standpoint. Furthermore, safety equipment must undergo intensive and effective assessments in order to prevent the occurrence of accidents in the future. JR East analyses and evaluates all potential areas of risk and takes appropriate measures to ensure that these risks do not become reality, placing priority on facility investments in order to avert any major damage in the case of a major earthquake in the Tokyo metropolitan area.
Regarding our improvements to safety equipment, and based on our four previous 5-year Safety Plans leading up to FY2009, JR East has invested more than 2.2 trillion yen for the 20 years since the company's establishment. In our 2013 Safety Vision, JR East's 5th 5-year Safety Plan which began in FY2010, JR East plans to invest approximately 750 billion yen on safety measures during the five years from April 2009 to March 2014, and our cumulative safety investment amounted to approximately 2.7 trillion yen by the end of FY2012.

■ Trends in safety investment

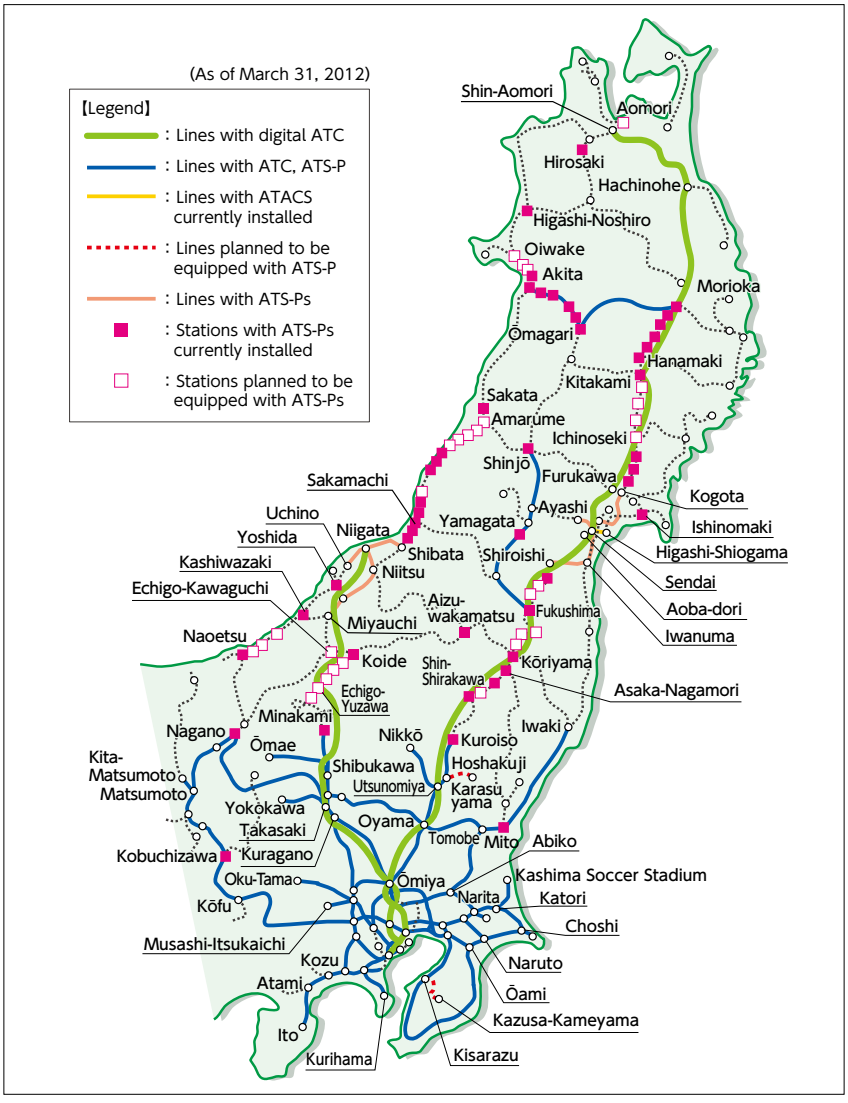


※ Due to the effects of the Great East Japan Earthquake, there was a decrease in the FY2012 safety investment.

Installing safety equipment

To prevent collisions between trains, JR East has installed ATS (automatic train stop) and ATC (automatic train control) systems on all of its railway lines.
To heighten the current safety level of train operations even further, we are installing ATS-P and ATS-Ps systems, which employ continuous speed monitoring functions. The number of installations is steadily increasing; most are in the Tokyo metropolitan area. By the end of March 2012, the ATS-P system had been installed on 2,353.5km of railway line. The ATS-Ps system is currently installed on 210.5km of line in the Sendai and Niigata regions and at 47 stations. Additionally, JR East replaced the ATS-Ps for the section of the Senseki Line between Aoba-dori and Higashi-Shiogama with its Advanced Train Administration and Communications System (ATACS), a radio-controlled train operation control system, in October of 2011.
In response to revisions to the Ministry Ordinance for technological standards for railways in July 2006, we are working on measures to prevent excessive train speeds at curves, turnouts, and terminals, and on descending grades. Planned improvements at all curves that had been targeted for action were completed by the end of March 2010.

■ Railway lines and stations with ATC, ATS-P and ATS-Ps systems



■ Measures to prevent excessive train speeds

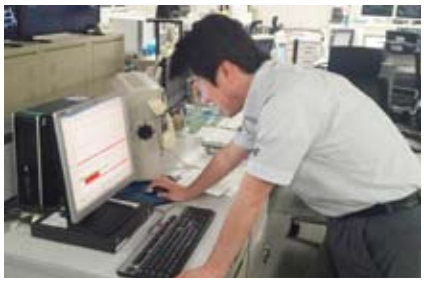
	Target locations	Installations as of the end of March 2012	Planned completion
Curves	1,468 locations	1,468 locations	March 2010 (completed)
Turnouts	816 stations	721 stations	March 2016
Line terminals	63 stations	61 stations	March 2016
Descending grades	1,528 locations	872 locations	March 2016

* Including locations where improvements were made prior to July 2006

Systemization of maintenance work

When starting maintenance work on railway tracks, JR East works to ensure the safety of its trains and maintenance workers by following procedures to set signals to stop, so that trains do not enter sections of railway where maintenance work is being conducted. In the past, this was done mainly via telephone from maintenance workers to stations. However, in order to prevent any occurrence of error, including human error, JR East adopted a method for maintenance workers to operate handheld devices to change signals to red, and the devices have since been introduced to major railway sections in the Tokyo metropolitan area. In the future, JR East aims to continue its efforts to improve the safety of its operations through the systemization of its maintenance work in other railway sections as well.

Track closure procedure by a handheld device for maintenance work



The operation center terminal for the confirmation of maintenance work

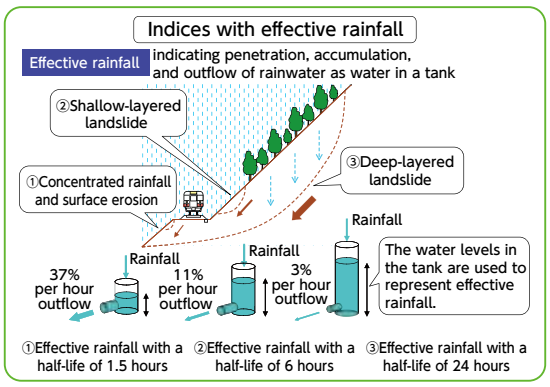
Introduction of the Advanced Train Administration and Communications System (ATACS): train control system with radio transmission

ATACS is a train control system utilizing radio transmissions. By using radio communications for the transmission of information between ground and on-board facilities, the system enables the trains to be mainly controlled by on-board equipment, permitting reductions in traditionally required facilities such as signals, connecting cables, and track circuits, which are currently used for the detection of trains.
Eliminating these facilities is expected to reduce the number of facility failures and the number of subsequent transport disruptions.
JR East began using the ATACS system in October 2011 on the Senseki Line between Aoba-dori and Higashi-Shiogama.

Introduction of effective rainfall as a new indicator

When there is heavy rainfall, we ensure train safety through operational restrictions such as limits to train speed and, when necessary, by suspension of operations. For operational restrictions on conventional lines, we have been using hourly rainfall*1 and continuous precipitation*2 as our indices. Since June 2008, we have been using "effective rainfall" as a new indicator that is effective in prevention of landslide disasters due to rainfall. Effective rainfall is the amount of underground water remaining after changes over time in ground penetration and outflow. Using this indicator, we can more precisely predict the occurrence of landslide disasters, improving the safety and reliability of our train operations.

*1: Hourly rainfall: the total rainfall over a one-hour period
*2: Continuous precipitation: the total continuous rainfall over a 12-hour period



Effective rainfall indices

Measures to prevent railway crossing accidents

When the company was established in 1987, there were 247 accidents during the year at level crossings. In the fiscal year ending March 2012, the number had been drastically reduced to 36. Approximately 60% of all level-crossing accidents involve automobiles. We have installed devices such as obstacle detectors, which are capable of detecting an obstacle such as an automobile stalled on a crossing and stopping trains, and we have increased the number of crossing warning devices in a higher position for better visibility. More large red and white crossing gates have been installed; the barrier arms are thicker than usual and have red and white reflective plates that cover the whole bar. These are expected to provide better visibility day and night. Studies are currently being carried out on the effectiveness of these bars. In addition, we are presently promoting a wide range of public relations activities for the prevention of level crossing accidents, appealing to drivers for their cooperation and understanding.
In addition, for countermeasures against secondary accidents resulting from derailments at level crossings, derailment prevention guards have been installed at level crossings. Furthermore, in order to decrease the number of level crossings, we are cooperating with local governments, neighboring residents, and the police to increase the number of overhead crossings.
As examples of our most recent efforts, in 2005 JR East began working to improve safety at the Sojiji Temple level crossing on the Tokaido Line near Tsurumi Station, where there had been more troubles than at other level crossings in the Tokyo area, because it is on a curve with restricted visibility. The overhead pedestrian crossing was rebuilt to be barrier-free and in FY2011 the level crossing was closed during rush hours. Closed hours were extended to between 6:00 and 21:00 in FY2012, and, as a result of our agreements with concerned parties, from April 1, 2012, this level crossing has been closed to road traffic at all times.
Learning lessons from an accident at a level crossing on the Iiyama Line between Morimiyanohara and Ashidaki on February 1, 2011, JR East has introduced a rule to stop trains at stations when the warning signals at a the level crossing are being activated due to causes such as equipment failures, and when pedestrians and automobiles are allowed to cross at the level crossing, to ensure that train operations do not endanger pedestrians or automobiles. JR East also formulated a procedure for field staff to prevent failures in safety confirmation.


Now-closed Sojiji Temple level crossing on the Tokaido Line

Station platform safety

In the fiscal year ending March 2012, there were 75 accidents in which customers fell from platforms onto tracks or came into contact with trains. JR East is installing protection-related devices, including emergency train-stop systems, on our platforms to ensure customer safety. Customer awareness and cooperation are also vital to safety on our platforms, and we are implementing our “Zero Platform Accident Campaign” through posters, as a measure to heighten this awareness.
As a major measure to prevent accidents to customers on platforms, JR East is introducing automatic platform gates on the Yamanote Line. In FY2012, JR East completed its replacement of all Yamanote Line railcars by E231 Series 4-door railcars. All locations at Ebisu and Meguro Stations, where the platform gates were initially introduced, are now equipped with these gates. And, based on experience at these initial two stations, JR East has been working on platform gate installation at other Yamanote Line stations since FY2011. In FY2013, we plan to install these gates at Osaki and Ikebukuro Stations, and, in FY2014, at Otsuka, Sugamo, Komagome, Shin-Okubo, Mejiro, Takadanobaba, and Tamachi Stations. With the exception of four stations, Shimbashi, Shibuya, Shinjuku and Tokyo, which require large-scale improvement work, we plan to complete installations at all stations on the line by FY2018.
For stations with a daily number of passengers exceeding 100,000, JR East is currently working to install an increased number of dot-Braille blocks that indicate which direction is away from the edge of the platform.

Automatic platform gates on the Yamanote Line

Measures against earthquakes

Lessons learned from the past earthquakes

Learning from earthquakes in the past, JR East has employed the following three anti-earthquake measures:

① Stopping trains immediately (emergency train stop measures)
② Preventing structural damage (seismic reinforcement measures)
③ Minimizing secondary accidents following derailment (preventive measures against trains deviating from tracks)

① Early Earthquake Alert System

JR East has installed seismographs along coastal and Shinkansen railway lines for the detection of primary tremors (P-waves). Our present system allows us to stop trains as soon as primary tremors are detected. For conventional lines, our Early Earthquake Alert System was introduced for the Tokyo metropolitan area in December 2007 and in all other areas in April 2009. The system enables trains in any section of track to be stopped in the case of a major earthquake, utilizing information obtained from our Shinkansen seismographs and from any advance announcements given by the Japan Meteorological Agency. Furthermore, early detection of earthquake occurrence by seismographs and of interruptions of electric transmission have enabled us to more promptly detect earthquakes and start emergency braking about one second earlier. JR East strengthened its observations for possible occurrences of earthquakes, by additionally installing its seismometers at 30 locations for earthquakes with epicenters potentially situated directly beneath the Tokyo metropolitan area and those in inland areas of its service area.

② Seismic reinforcement of elevated bridges

In response to the 1995 Great Hanshin-Awaji Earthquake, JR East has been taking a number of seismic reinforcement measures. By the end of March 2008, we had reinforced all of our elevated Shinkansen viaduct support columns and Shinkansen bridge columns. On our conventional lines, by the end of March 2009 we had reinforced all other columns in the Southern Kanto and Sendai areas except in places that required additional construction work. Currently, we are reinforcing elevated bridge columns susceptible to failure due to bending by strong earthquake motion, aiming to further improve our safety levels against earthquakes. Based on the effects of the Great East Japan Earthquake, and to be prepared for the possible occurrence of an earthquake with an epicenter directly beneath the Tokyo metropolitan area, JR East is also employing additional measures, including greater reinforcement of its embankments, advanced plans for the seismic reinforcement of its elevated bridge columns, and the increased expansion of its ranges for these measures.

③ Prevention of secondary accidents after derailment

During the Niigata Chuetsu Earthquake in 2004, one of our Joetsu Shinkansen trains was derailed while running. Fortunately, this derailment did not lead to any injury to either our passengers or our train crews. Learning from the events surrounding this earthquake, JR East has taken numerous measures aimed to improve our Shinkansen trains and tracks. For our railcars, we have installed an L-shaped car guide on the bogies to restrict lateral movement of the car body. For ground facilities, we are improving the shape of joint bars to lessen the impact of wheels on rail joints in the case of a derailment and implementing countermeasures to prevent the overturning of railcars and the lateral movement of rails if metal rail fasteners are damaged by a derailment.
Nevertheless, at the time of the Great East Japan Earthquake in March 2011, one of our trains in test operation derailed after its regular inspection. This showed that further investigations are needed in order to improve our safety measures.

Measures taken since the accident on the Uetsu Line

On December 25, 2005, the limited express train Inaho No.14 derailed between Sagoshi and Kita-Amarume Stations near the No. 2 Mogami-gawa Bridge. We would like to report on the measures we have taken since this accident.

Increased number of anemometers (wind meters)

JR East has increased the number of anemometers at the accident site between Sagoshi and Kita-Amarume Stations. In addition, for sections with operational restrictions due to strong winds, we established multiple anemometers as our new standard and increased the number of anemometers in locations where windbreak fences were installed. By reconfirming the requirements for wind restrictions on sections of railway lines, using information from front-line employees, topography, and wind conditions of the areas, and adding new operation restriction sections, we are working to improve our safety observation network to counter the effects of these strong winds. We completed our planned increase and installation of anemometers by the end of March 2010. With this reinforcement, since the accident, JR East had installed a total of 574 anemometers for its conventional and Shinkansen lines, and the total number of anemometers installed as of March 31, 2012 was 891: 733 on conventional lines and 158 on Shinkansen lines.

	As of Dec. 25th, 2005: A	As of Mar. 31st, 2012: B	Increase (B-A)
Conventional lines	228 units	733 units	+505 units
Shinkansen lines	89 units	158 units	+69 units
Total	317 units	891 units	+574 units

Installation of windbreak fences

In order to reduce wind force on trains, we have installed windbreak fences at the following locations:

<As of Mar. 31, 2012>

	Line Name	Section	Location of Installation	Time Completed
1	Tokaido Line	Adjoining Nebukawa Station	Both sides of the line	Jul. 1991
2	Joban Line	Between Yonomori and Ono	West side only	Feb. 1996
3	Kawagoe Line	Between Sashiogi and Minami-Furuya	North side only	Apr. 1998 Jun. 2009 Extension
4	Uetsu Main Line	Between Sagoshi and Kita-Amarume	West side only	Nov. 2006
5	Tohoku Main Line	Between Fujita and Kaida	West side only	Nov. 2006
6	Tohoku Main Line	Between Kurihashi and Koga	Both sides of the line	North side: Mar. 2007 South side: Jun. 2007
7	Joban Line	Between Fujishiro and Sanuki	Both sides of the line	Mar. 2007
8	Keiyo Line	Between Kasai Rinkai Koen and Maihama	South side only	Mar. 2007
9	Keiyo Line	Between Ichikawa Shiohama and Futamata Shinmachi	South side only	Mar. 2007
10	Keiyo Line	Between Kaihin Makuhari and Kemigawa-hama	South side only	Mar. 2007
11	Musashino Line	Between Misato and Minami-Nagareyama	Both sides of the line	South side: Mar. 2007 North side: Jun. 2009
12	Keiyo Line	Between Shiomi and Shin-Kiba	South side only	Jun. 2007
13	Keiyo Line	Between Shin-Kiba and Kasai Rinkai Koen	South side only	Aug. 2007
14	Keiyo Line	Between Futamata Shinmachi and Minami-Funabashi	South side only	Aug. 2007
15	Musashino Line	Between Minami-Koshigaya and Yoshikawa	Both sides on bridge sections North side	Both sides on bridge sections: Mar. 2009 North side: Feb. 2010
16	Musashino Line	Between Kita-Asaka and Nishi-Urawa	Both sides of the line	South side: Dec. 2009 North side: Aug. 2010
17	Uetsu Main Line	Between Atsumi-Onsen and Kobato	West side only	Dec. 2011
18	Uchibo Line	Between Sanukimachi and Kazusa-Minato	West side only	Mar. 2012

Expanded introduction of a gale warning system

We have been adding to our gale warning system to raise the level of safety by restricting operations not only when the actual wind speed measured by anemometers exceeds restriction thresholds, but also when the projected maximum wind speed exceeds these limits. JR East has installed gale warning systems in all of the 297 locations on its conventional lines with gale operational restrictions.

Introduction of a method to properly assess and utilize the effect of wind force on railcars for operational restrictions

The effect of wind force on railcars is constantly changing. For this reason, JR East has been studying methods to properly assess the effects of wind on railcars and utilize the results to more accurately assess operational restrictions for increased safety in train operations. Together with consideration for the opinions of experts in the field, JR East has been studying the following:

① More accurate methods of wind observation using anemometers.
② Calculation methods for the yield strength of railcars against wind through considerations for track conditions and carbody shape.

JR East plans to introduce these new methods for the following operations: for the Uetsu Main Line between Kobato and Uzen-Mizusawa from December 9, 2011, and between Uzen-Mizusawa and Uzen-Oyama from March 22, 2012; and for the Keiyo Line between Shin-Narashino and Kaihin Makuhari and from March 23, between Chibaminato and Soga.

Utilizing meteorological information to test methods for operational restrictions

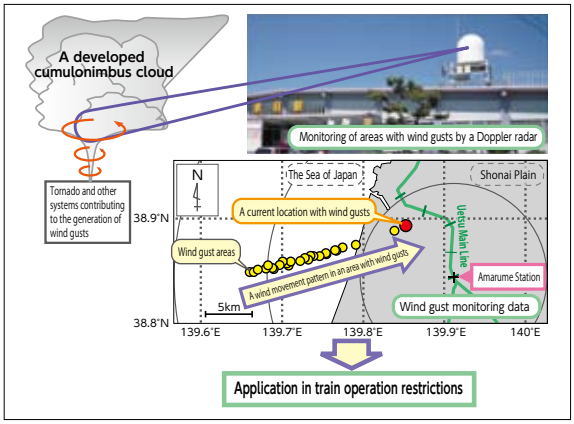
Local gusts are meteorological phenomena, and are difficult to observe with conventional observation equipment such as anemometers. Through meteorological information obtained from the Japan Meteorological Agency radar, and by detecting the passing of cold weather fronts and the accompanying development of cumulonimbus clouds, we have been investigating how to forecast the occurrence of local gusts and to apply that information to our operational restrictions. From fiscal 2008, the system was tested during the winter on the Uetsu Main Line between Niitsu and Sakata and on the Hakushin Line between Niigata and Shibata. On February 17th, 2009, we added the system to sections of the Uetsu Main Line, Shin-etsu Main Line, Echigo Line, Yahiko Line, and Riku-u West Line for additional testing.
During this five year period of testing, though we initiated train operational restrictions for a total of eight days, we did not observe any actual occurrence of local gusts.

Research of a Doppler radar observation method

We are currently investigating the possible utilization of a Doppler radar observation method to help identify local gusts, as information to be used for operational restrictions. Doppler radars can determine wind conditions by detecting the movements of raindrops and rain clouds and are used at some airports for detecting local gusts.
Since 2007, we have conducted local gust observations using a Doppler radar. With the system constructed in 2010 as a basis for a local gust detection system, we started real-time local gust detection experiments at Amarume Station on the Uetsu Main Line. While conducting ongoing validations and improvements through experimental monitoring of the local gust detection system, we will advance our research on the application potentiality of the system for train operation restrictions.

Doppler radar installed on the roof of Amarume Station on the Uetsu Line

Doppler radar main body



Relationship with Customers

■Service quality reforms

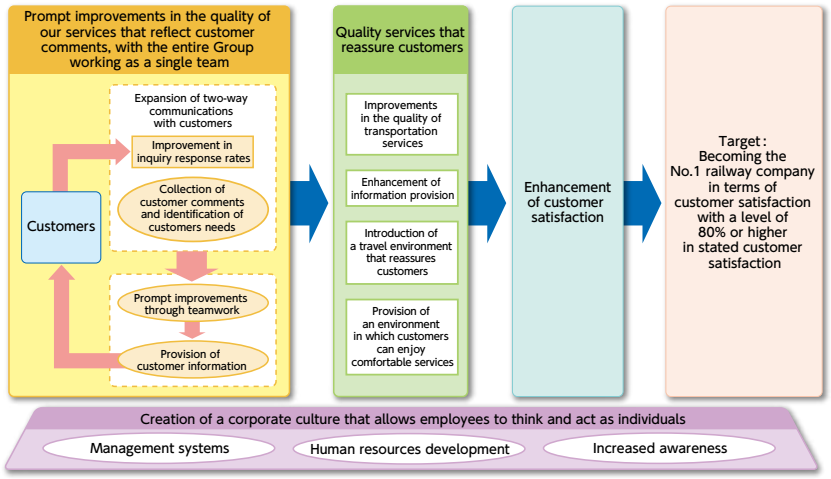
Service quality

Since its establishment, JR East has continuously striven to improve its service to the level that all customers can enjoy travel free of care. Customer requirements, however, continue to become ever more sophisticated, so we need to respond with even better services.
With this in mind and with the objective of further enhancing our service quality, in July 2010 we clarified our basic customer service quality policy and established the Customer Service Quality Reformation Department at Head Office as well as Customer Service Quality Reformation Offices at various branches. We also formulated a five year plan, "Medium-term Vision for Service Quality Reforms" beginning in FY 2012.
Medium-term Vision for Service Quality Reforms is supported by the following three pillars:

- Quality services that reassure customers
- Prompt improvements in the quality of our services that reflect customer comments, with the entire Group working as a single team
- Creation of a corporate culture that allows employees to think and act as individuals

We worked diligently to establish these three pillars during the past year, making FY2012 a key year in our service quality reforms efforts. We will continue to make steadfast efforts to carry out our service quality reforms and attain the highest customer satisfaction unequaled in the railway industry.

■Overall Goals of the Medium-term Vision for Service Quality Reforms



Service Quality Coordinator

For overall improvement of railway service quality focused on team efforts for service improvement and for providing reliable railway transport, we stationed Service Quality Coordinators in districts and branch offices beginning in October 2011. The coordinator's job is to supervise the area-wide improvement of service quality, as well as to support and promote solution of cross-organizational problems. In this way efforts will be made to improve service quality rapidly from the front-line field operations.

Service Quality Meetings

To improve our service quality further with field operations, branch offices and the head office working as a team, we instituted Service Quality Meetings, in which senior executives from our head office visit field operations and exchange views with field supervisors. Up to now these meetings have dealt with such themes as how to deal with transport disruptions when they occur, and how to resume service after the occurrence of large-scale disasters in the Tokyo metropolitan area. These meetings take up problems affecting particular railway districts or areas, and the team works together to improve service quality without being constrained by organizational considerations.

■Customer Comments at the Core of Policy

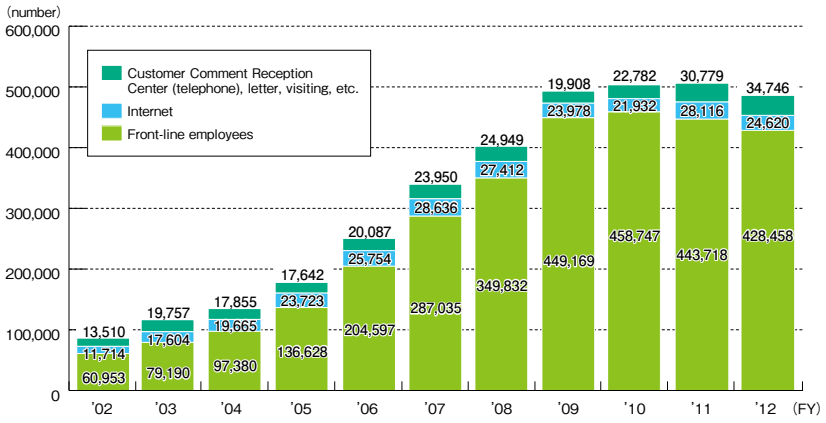
Customer comments

The core of improved quality of service in JR East has been our constant attention to customer comments, and we will continue to monitor customer desires and quickly introduce service quality reforms in line with their expectations. To constantly improve our services it is vital for us to listen carefully to customer comments — both positive and negative — and then promptly respond to their requests through service improvements.
JR East has various methods of collecting large numbers of customer comments on a daily basis, including those passed directly to front-line employees, those posted on the Internet, and those given over the telephone. All of these comments are quickly shared and analyzed on a companywide basis, and form the core of our improvements. We believe that each and every individual customer comment contributes to the core of improved customer satisfaction.

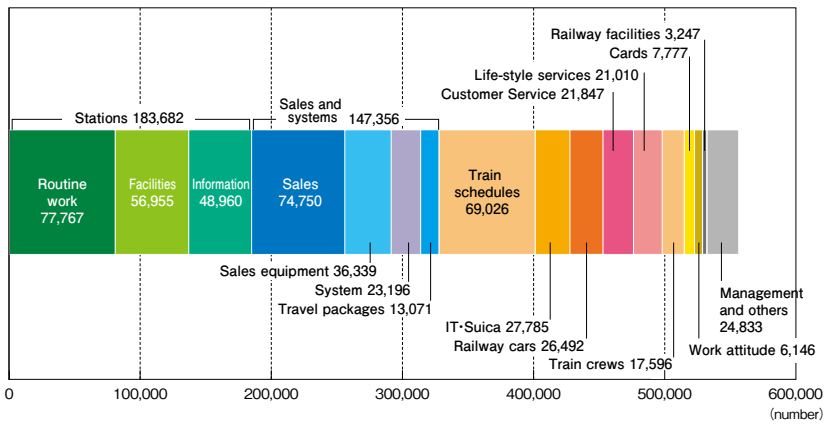
Two-way Communication

As the times and environment change, customers' demands change constantly. To address such changing needs, we learn and understand customers' demands from their comments and respond with specific improvements. This two-way communication with our customers is a key to our endeavor to upgrade our service quality.

■Trends in the number of customer comments by channel(FY2002～)



■Customer opinions (Total 556,797)

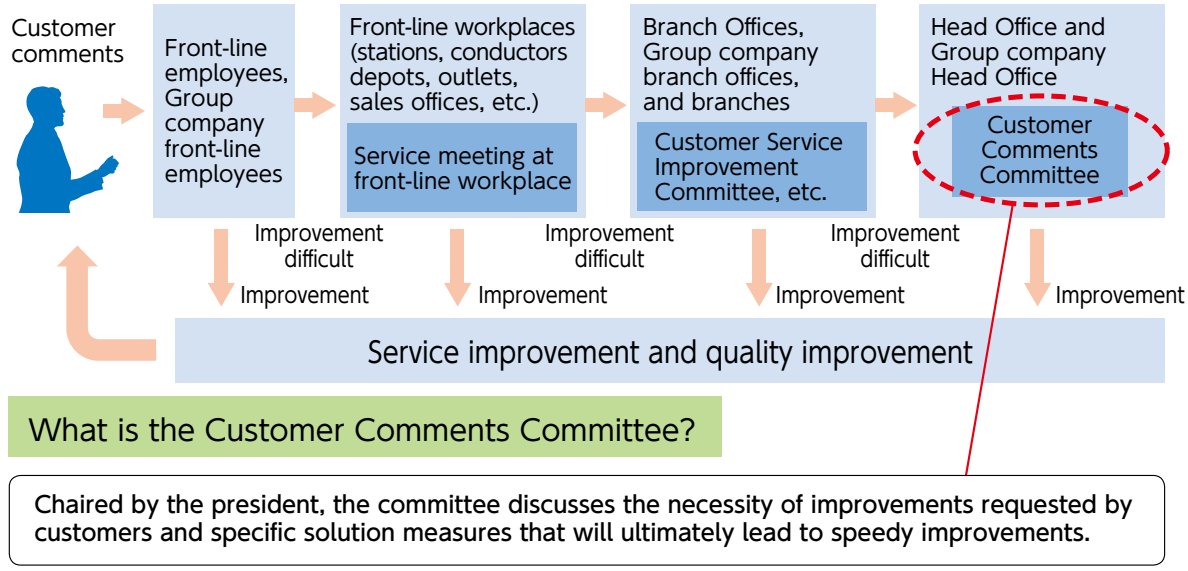


* The chart shows the number of comments on each subject. Some customers commented on more than one subject.

Prompt service quality improvements with customer comments at the core

Customer comments are considered at various levels within the company. Initially, a decision as to whether or not some action of improvement is necessary is made at the level that initially received the original customer comments. The action will reflect this decision. If action is difficult to take at that level, then the comments are passed on to higher levels, where potential improvements can be discussed. Improvements in the quality of service can be achieved by implementing suitable methods of responding to customers' needs.
At the very top level, we have also established the Customer Comments Committee, chaired by the president, which considers the possible implementation of improvement measures based on collected customer comments. Through this system, we are constantly striving for the attainment of improved customer services.

■ Systematic improvements based on customer comments



SQ Network

Based on one of the three pillars of the Medium-term Vision for Service Quality Reforms, "Prompt improvements in the quality of our services that reflect customer comments, with the entire Group working as a single team," our Company and group companies closely involved in transport service together established the "SQ (Service Quality) Network in October, 2011. The SQ Network holds meetings of representatives of JR East and group companies at stations, branch offices and the head office, to share customers' comments and devise solutions and improvements, through teamwork that goes beyond individual departments or group companies. In this way the JR East Group as a whole can dedicate itself to enhancing customers' satisfaction.

Customer Satisfaction Surveys

We conduct customer satisfaction surveys via our JR East Customer Questionnaires to enable us to gain an understanding of how customers evaluate our services that we cannot get simply through customer feedback and to quantitatively check levels of customer satisfaction. The survey results are used to decide which issues JR East should most urgently address as well as to confirm the efficacy of previous measures.

Wayside Monitors

We instituted a Wayside Monitors System beginning in FY2012 to gain a more specific understanding of the needs of our customers and of the way they use our services on each of our railway lines. This is in addition to customers' comments we receive daily and our JR East Customer Questionnaires. We have recruited the monitors from among our customers who live along our railway lines, and sought their views through questionnaires on the Internet and interviews to understand their needs from different perspectives, so that we can increase the attractiveness of living alongside or near our railway lines.

■Quality services that reassure customers

Creation of a safe environment

The provision of safe and reliable transport is the basis of service quality. To achieve this, JR East works constantly to increase service reliability and creating an environment in which passengers can travel free of worry.

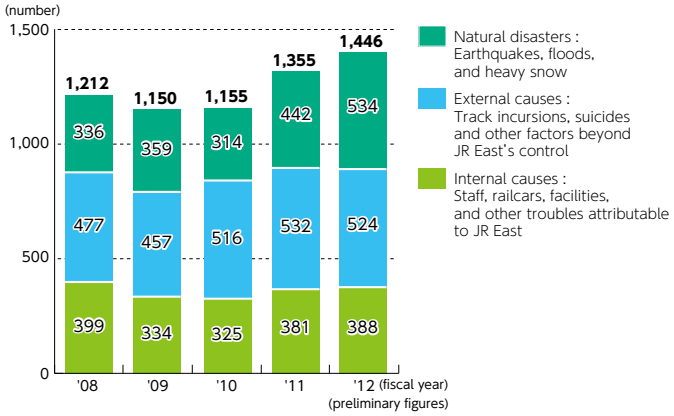
Improvement in transport quality

JR East constantly works to prevent transport disruption, to improve our post-disruption response abilities, and to provide passengers with better information.

Transport disruptions

Transport disruptions are defined as suspension of operations or delays of 30 minutes or more due to railcar or facility problems or natural disasters. In the fiscal year ending March 2012, both internal and external causes increased and there were 1,446 cases (a year-on-year increase of 91).

■ Trends in transport disruptions



Prevention of transport disruptions

To increase service reliability, we are implementing hardware measures designed to prevent transport disruptions, including railcars with dual systems*, track switches of next-generation design, equipment to reduce lightning strike damage to electric facilities, and windbreak fences.

* Railcars with dual systems: Railcars with increased reliability through duplication of major equipment.

Early resumption of operations after transport disruptions and prevention of disruption on connecting lines

To ensure early resumption of operations after a transport disruption, we maintain our preparedness for quick responses at all times. We regularly train our employees on how to deal with personal injury accidents and how to rescue our customers. We review transport disruptions that have occurred and work to prevent their recurrence. We also develop and maintain support tools, including the introduction of a "Live Field Video Distribution System." To prevent transport disruption impacts on other sections, we are adding facilities for turning trains back so that normal schedules can be maintained where there is no direct effect from the cause of the disruption.

Turnback Operation

When a transport disruption has occurred, we try to turn trains back before they enter the disrupted section, so that the impact of the disruption will not extend to other sections.
In FY2012 we installed turnback facilities at Yoshikawa Minami Station, a new station on the Musashino Line, and made corresponding changes to our ATOS system. It is now possible to run turnback operations on the Musashino Line quickly and flexibly. We will continue to work on reducing the impact of transport disruptions by readying necessary equipment and reviewing rules to enable turnbacks at the new station, resolving any remaining issues in turnback operations.

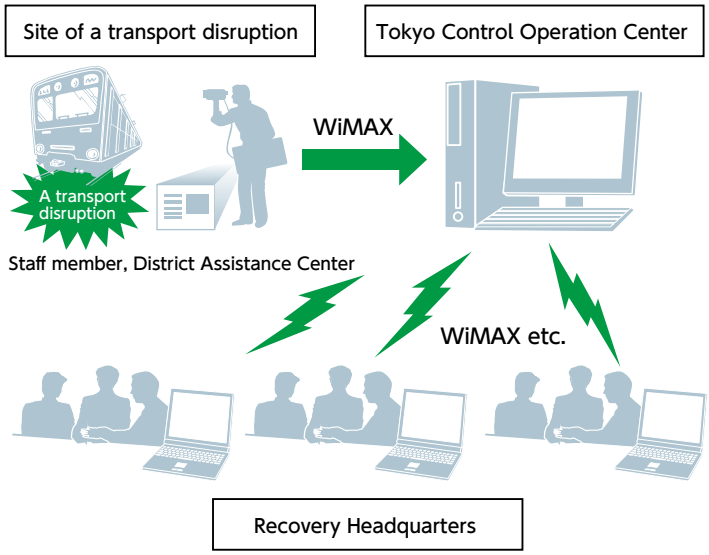
Introduction of "Live Field Video Distribution System"

When a transport disruption has occurred, the field and the task force used to share information by verbal communication by telephone and photographing with cell phones. For faster and more secure communication between the two parties, we have introduced the "Live Field Video Distribution System" connecting District Supervision Centers, Facilities Offices, and Rolling Stock Technology Center.

■"Live Field Video Distribution System"

A rucksack for storing equipment

Taking on-site videos



Learn lessons from transport disruptions and use the lessons at the worksite level

We accumulate our lessons from past transport disruptions to help us better deal with such problems and restore regular service quickly.
When a disruption has occurred, each work site involved reflects on how it was dealt with, learns the lessons from this, and uses the knowledge to study and implement measures to prevent recurrences. These measures at different work sites are widely disseminated to other work sites so that each individual employee may build up his or her knowledge.

Information Enhancement

We are developing methods so that if there is a transport disruption, we can provide our customers with prompt and accurate information at frequent intervals, while we work to restore normal service. When train operation is suspended due to an accident resulting in casualty, we are making efforts to announce the expected time of resumption of train service within 10 minutes of the occurrence of the accident.
In the meantime, we will continue to install emergency information displays (as of the end of FY2012, such displays were installed in 118 stations) as tools for providing our customers with transport information. In addition, we provide information through varied media, such as through onboard LED and liquid crystal displays, the JR East home page on the Internet, and cell phone service.

Information display during transport disruptions


Information on the website

Problem prevention measures taken by the facilities section

We are working to lessen the impact of transport disruptions with priorities on a reduction in the actual number of incidents, rapid restoration of services when incidents do occur, and the provision of accurate customer information. In the facilities section in particular, in order to reduce the severity of problems and failures, we are strengthening or duplicating facilities to make them less likely to cause problems, established a restoration base, and increased our supply of replacement parts for essential equipment. These initiatives have resulted in a downward trend of transport disruptions in the Tokyo metropolitan area.
In our efforts to provide accurate customer information, we are working to enhance and improve our information displays. We will continue to strive for a reduction in transport disruptions by analyzing past occurrences and by facility strengthening measures, including both software and hardware.

Transport Services Improvements

We are continuously striving to enhance the convenience of both Shinkansen and conventional lines and to reduce rush-hour congestion through introduction of wider-bodied cars. In March 2012, the new E-5 series railcars were added to the Tohoku Shinkansen and new E-657 cars were added to the Joban Line. In the Tokyo metropolitan area, customers' convenience in the Tokyo Mega Loop* was enhanced by the opening of a new station, Yoshikawa Minami Station, on the Musashino Line and reducing congestion on the Yokohama Line and Nambu Line with increased runs during the evening.
In the fiscal year ended March 2012 the average level of in-train congestion during morning commuting hours was 178%, 60 percentage points below the rate in the fiscal year ended March 1988. We will continue our efforts for reliable transport by reducing transport disruptions and by other means, to meet customer needs.

* Tokyo Mega Loop: Musashino, Keiyo, Nambu and Yokohama loop lines in the Tokyo metropolitan area that connect with other JR lines and lines of other railway companies.

Personal greetings campaign

We are carrying out a campaign in which our employees personally greet those customers with disabilities, elderly customers, and others who require particular attention, to make sure that they can use our stations and other facilities safely and with a sense of security. The purpose of this campaign is to inspire society as a whole to watch out for and support such people with special needs. Our employees are instructed to greet and support, to the extent possible, when they spot customers who may need special care. This campaign is being expanded to include employees of other JR East group companies as well as our own employees.

Service Managers

JR East is increasing the number of service managers who make rounds of stations and are in position to assist elderly customers and those not used to traveling. These service managers provide relevant and timely information and guidance and other fine-tuned services in times of emergency as well as during regular operations. As of April 1, 2012, service managers are located at 50 stations.

Barrier-free Stations

JR East has been working with local governments and other entities to install elevators at stations in accordance with the Barrier-Free Transportation Law. As of the end of March 2012, we had completed installations in 489 stations.


Chuo Line (Rapid) platform in Shinjuku Station


Jujo Station up-direction train platform

Barrier-free Railcars

To improve accessibility for persons with vision impairments, in the fiscal year ended March 2006 we installed Braille maps and stickers indicating the passenger's current location and the locations of various facilities on all Shinkansen trains. On conventional lines we also are placing Braille stickers identifying car numbers and door locations.
In December 2006, the new universal design E233 series railcars started being introduced sequentially to the Chuo Rapid, Keihin Tohoku, Keiyo, and Tokaido Lines.
Spacious toilets capable of accommodating advanced electric wheelchairs with handles were introduced on new Narita Express E259 series cars in October 2009; on the new high-speed Shinkansen E5 series "Hayabusa" in March, 2011; and on the new limited-express E657 series trains, on the Joban Line in March 2012.

Increased Escalator Safety

To prevent injuries to customers when they use escalators, we are carrying out safety enhancements including measures that will prevent sandals from getting caught, prevent falls during emergency stops, and prevent steps from descending when escalators stop.
JR East, together with other railway companies, is carrying out a campaign with posters and stickers to alert customers to the safe use of escalators.

Baby Stroller Safety Measures

In order to guarantee the safety of passengers with baby strollers, we have been working to improve the detection ability of railcar doors if baby stroller frames get caught. We are also carrying out a joint campaign with other railway companies, baby stroller manufacturers, local governments, and nonprofit organizations (NPOs), under the slogan "Let's Protect Babies," that urges passengers with baby strollers to be extra careful, as well as asking other passengers to pay attention to potential accidents.

"Let's Protect Babies" campaign

Placement of Automated External Defibrillators (AEDs)

AEDs are medical electroshock devices for the treatment of ventricular fibrillation caused by cardiac arrest. The devices have been widely used in the United States and Europe since around 2000. JR East has been placing AEDs near ticket gates at stations that have many customers, and, as of the end of May 2012, 325 stations have been equipped with one or more AEDs (477 AEDs in total). In addition, we started placing AEDs on Shinkansen trains in February, 2009; on new Narita Express trains in October, 2009; on Nikko Kinugawa trains in June, 2011; and on new limited express trains of series E657, on the Joban Line in March 2012, resulting in a total installation of 172 units as of the end of March 31, 2012.

Total Smoking Ban in Tokyo Metropolitan Area Stations and Trains

For several years in line with customer requests and an increasing general public aversion to smoking, JR East has worked to eliminate passive smoke. In April and October 2009 we removed all smoking areas from platforms at major Tokyo metropolitan area stations, and went one step further by initiating a limited smoke-free station interior policy, which was widened in June 1, 2011, again in line with customer requests. All smoking was banned on JR East's Shinkansen and limited express trains from March 2007 and on some trains providing through services with other companies from June 2009. Also, with the revision of the timetable effective March 2012,smoking was banned in the dining cars on Cassiopeia and Hokutosei limited express trains, which are through services that operate on JR East and JR Hokkaido.

Total smoking ban covering most of the Tokyo metropolitan area

All-times smoking ban in limited express dining cars

Improvements in Station Toilets

In order to dispel the image of station toilets as dark, dirty, and malodorous and to enable customers to be able to use them comfortably, since its establishment JR East has been steadily upgrading its toilet facilities. Measures taken include a change to western-style toilets, improved ventilation and the use of larger floor tiles.
The upgrading also includes water-saving type toilets and automatic faucets in the washbasins, to reduce water consumption.
During this fiscal year ending March 2013, we will renovate the toilets in approximately 10 more stations and thereby increase customer comfort and satisfaction.

Tokyo Station (Keiyo Line B-1F)

Installation and Usage of WiMAX Base Stations

Since February 2009, UQ Communications Inc. has been offering an Internet connection service using UQ WiMax. In conjunction with this service, we have been setting up WiMAX base stations that enable Internet connection in station concourses where connection had previously been difficult or impossible. As of March 31, 2012, easy connections are now available at 153 stations.
Furthermore, taking full advantage of the system's broadband capabilities, WiMAX is now being used to provide transport disruption information to some station displays.

More Comfortable On-board Air Conditioning

JR East is working on improvements to railcar air conditioning (cooling and heating) to make railway travel more comfortable. On new railcars (E231, E233, and E5 series) fully-automatic air-conditioners are installed. On other cars, continuous efforts are being made to provide the most comfortable environments possible by having conductors carry out frequent temperature checks, thermostat changes and other adjustments, and by other actions appropriate for the different conditions on individual railway lines.

Women-only Cars

In order to enhance the safety of female passengers we introduced women-only cars on the Saikyo Line during late night operations (July 2001), and then extended the operations of them to morning rush hours (April 2005). Currently women-only cars are also operating during morning rush hours on the Chuo Rapid Line (September 2005), the Joban Local Line (May 2006), the Sobu Local Line (November 2006), and the Keihin Tohoku and Negishi Lines (April 2010).

Measures against Female Molestation

In addition to adding women-only cars during certain hours, and with the aim of enabling female passengers to travel stress-free, we have been installing SOS buttons on major Tokyo metropolitan area lines that women can use to alert train crews if they are improperly touched or otherwise molested. Furthermore, in cooperation with police and other railway operators we are actively conducting a campaign to eliminate on-train molestation and have significantly increased security surveillance on trains and in stations. As a further step in the discouragement of female molestation, we have installed on-board security cameras in the leading cars on all Saikyo Line trains.

Improvement of onboard service in the new limited express trains, E657 series, on the Joban Line and crime prevention measures

As part of improvement of onboard service, we are providing up-to-date information via WiMAX. Inside the new E657 series limited express trains that started commercial operation in March 2012, we have installed 2-tier LED displays in full color showing newscasts through WiMAX as well as destinations and other transport information. Customers can also avail themselves of Internet connections on these trains through WiMAX and WiFi.
In addition, as part of our crime prevention measures, we have installed surveillance cameras in Car No. 1 of each of the trains on the Saikyo Line, where molestation has been a particular problem. Onboard surveillance cameras are also installed in Series E259 and E657 limited express trains on the conventional lines and in Shinkansen Hayabusa Series E5 trains.

Suicide Prevention Measures

JR East has constantly supported NPOs in their efforts to prevent suicides and has, for example, installed blue lights (believed to discourage suicide attempts) at the edges of platforms. In March 2012, in conjunction with the government's "Suicide Prevention Enhancement Month" we carried out a campaign named "JR East ♥ Life Assisting Month" to aim at reducing the number of suicides by strengthening our efforts to provide life support. These measures included the provision of information regarding consultation services through posters and other media, the operation of Support Life Trains, and the introduction of telephone counseling in collaboration with the Federation of Inochi no Denwa Inc.
We have conducted a "Personal Greeting" campaign, in which former JR East employees and consultants of the Japanese Mental Health Services, a non-profit organization, jointly patrol the stations and talked to customers.

■Creation of a Think and Act by Yourself Culture

Human resources development to enhance service quality

With the goal of achieving even more service improvements, we hold regular service quality training sessions and symposiums, and are working to create a workplace environment in which employees think and act by themselves.


Service quality symposium


Service quality training sessions

Hospitality

We have also encouraged our employees to qualify for Service Assistance certification, with the aim of instilling in them a spirit of hospitality. As of the end of March 2012, approximately 7,100 employees had received level two certification.

■JR East's Life-style Business

JR East's Life-style Business

JR East operates a broad range of life-style businesses and provides services to support the everyday lives of our customers in their various lifestyles and life stages. These services include retail stores within station buildings, hotels, office buildings and fitness clubs that benefit from their locations near stations, advertising in stations and on trains, childcare support in areas adjoining railway lines, and housing.

■Appeal to Overseas Visitors

Products that appeal to overseas visitors

In addition to the Japan Rail Pass, which allows unlimited travel on all JR lines, we now offer the JR East Pass which allows unlimited usage within the JR East service area. Other passes that make it easy to travel to and in Tokyo include the Suica & N'EX package, and Suica & Monorail package. In the spring of 2011 we offered a "JR East Pass Special" (flexible 3 days at ¥13,000 per adult), which helped send customers to the Aomori area in conjunction with the Aomori Destination Campaign.
Also beginning in December 2011 we are selling our "JR Kanto Area Pass" to customers from foreign countries who are staying in the Tokyo metropolitan area or who live in Japan to suggest to them that they take trips by train to the outskirts in the Kanto area.

JR East Travel Service Center

JR East Travel Service Centers at Narita and Haneda airports sell, or redeem exchange orders for, Japan Rail Passes and JR East Passes for foreigners visiting Japan, and provide tourism information to help them make pleasant trips in Japan.

Special Topic 4 Tenth Anniversary of the Suica Card and its Future

The Suica IC card, which was introduced in 2001, celebrated its 10th anniversary on November 18, 2011. The total number of Suica cards issued now exceeds 40 million, and its popularity has increased widely throughout the country, thanks to its use as electronic money and to its interchangeability with other IC cards to pay for travel by public transport.

■ Suica's current status

The Suica card service was launched on November 18th, 2001 as an IC-based railway farecard, usable at 424 stations on our lines in the Tokyo Metropolitan area. The scope of the service was expanded with the aim of catering for customers' needs by enlarging the area of service, increasing the card's interchangeability and extending its use as e-money. Mobile Suica was also introduced for use with mobile telephones, along with the View Suica Card, which can also function as a credit card. Suica business is thus developing as a third pillar of our business operation, joining our railway and life-style businesses.

■Service Area

VIEW Suica card
July 2003 –

Suica electronic money
March 2004 –

Mobile Suica
January 2006 –

Suica Point service
June 2007 –

Suica Internet service
July 2009 –

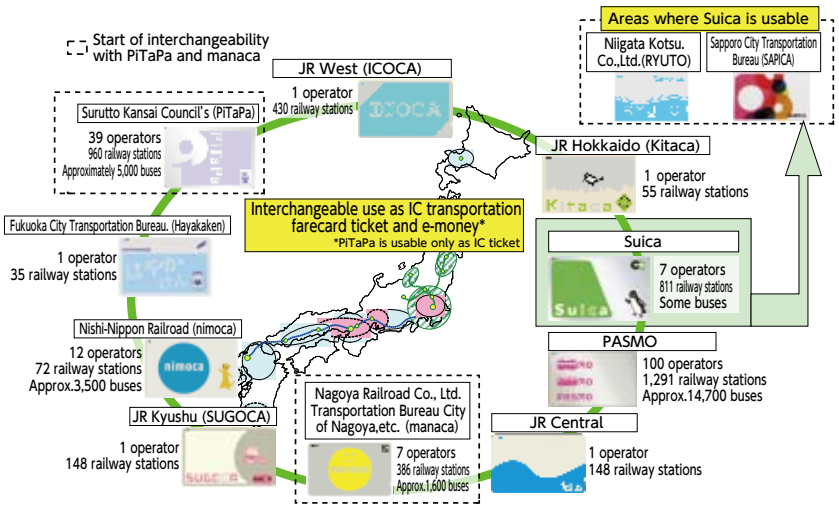
□Status of Suica As of the end of July 2012

- Number of Suica cards issued: 40.20 million, of which 37.90 million have e-money capability Mobile Suica members: about 2.92 million
- Number of stations at which Suica can be used: 759 railway stations in the JR East network, and also on 38 other railways and 89 bus operators throughout Japan.
- Number of shops and establishments with Suica terminals: approximately 183,180 shops and 337,790 establishments.
- Maximum number of uses per day: approximately 3.4 million (July 27, 2012)
- Number of uses per month: approximately 87.03 million

■ Suica in the Future

In order to develop Suica's potential as the third pillar of our business operation, JR East will strive to expand still further the areas in which Suica services are available, to enlarge its range and to promote and develop the use of Suica e-money. More specifically, ten IC cards used in public transport throughout the country will be made interchangeable during the Spring of 2013, which will add to the convenience of Suica use. (This will make Suica interchangeable with manaca (Nagoya Railroad and Nagoya City Transport Bureau) and PiTaPa (Surutto Kansai Council)). Suica will also become usable in the service area of RYUTO (Niigata Kotsu Co., Ltd.) during the Spring of 2013, and in the service area of SAPICA (Sapporo City Transportation Bureau) by the end of fiscal 2014.
The convenience of Suica e-money will be increased by adding locations and areas where Suica can be used for payments. We are also committed to meeting new challenges by making Suica information available as marketing data.

■Prospect of Nationwide Interchangeable Use of IC Cards (FY2014 and after)



Relationship with Society

■With communities

JR East is continuing its commitment to regional communities through its "Station Renaissance" program, which revitalizes stations that serve as the cores of their communities and thereby contribute to the increased attraction of entire areas. One such initiative was the transformation of Tachikawa Station into a more user-friendly environment by increasing its barrier-free facilities, creating the *ecute* Tachikawa commercial space, and opening Hotel Mets Tachikawa.
On the Yaesu side of Tokyo Station, GranTokyo North Tower, South Tower and GranRoof are currently under construction. North Tower Phase II was competed in August 2012 and GranRoof will be finished during the Autumn of 2013. The work to restore the station building to its original form on the Marunouchi side of the Station was completed in October 2012. An in-station commercial zone, GranSta, is also being developed. Together, these developments are called Tokyo Station City and form part of the concept of developing Tokyo Station into a complete city. Our goal is to create a station that will serve as a center to disseminate information on new cultures, while also serving as a spectacular gateway to Metropolitan Tokyo.
We are also co-operating with local governments in the creation of new stations, in line with their city planning, and are continuing with the improvement of existing station buildings in order to create free passages, based on requests from local authorities. In the fiscal year ended March 2012, together with the new construction of Yoshikawa-Minami Station on the Musashino Line, and the establishment of a tourist information office (local government facility) in Hitachi-Ota Station on the Suigun Line, station buildings were renewed in co-ordination with development projects in surrounding area. Since our establishment in 1987 we have introduced local government facilities into a total of 83 stations (as of March 31, 2012). The free passage was constructed in Yokote Station on the Ou Line.


Hitachi-Ota Station


Yokote Station

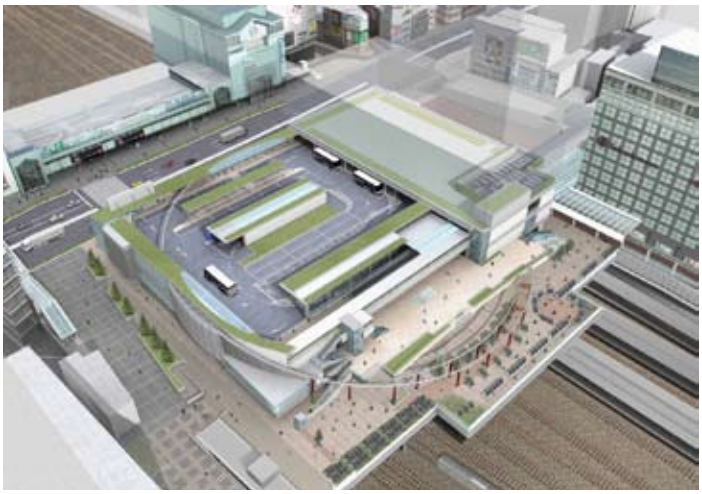
Contribution of Railway Overpasses to Unifying Towns and Eliminating Traffic Congestion

JR East continues to cooperate with local government-planned and -implemented schemes for railway overpasses. These projects aim to both unify towns that are split by railway tracks and eliminate traffic congestion, which improves the safety levels of both road and rail transportation.
With the combined objectives of reducing traffic congestion in the areas around Inagi-Naganuma Station on the Nambu Line and Niigata Station on the Shin-etsu Line, unifying towns, and eliminating congestion by reducing the number of level crossings, we are promoting railway overpass construction projects in cooperation with local governments.


Railway overpass construction project in the areas around Inagi-Naganuma Station on the Nambu Line

Upgrading the Entire Transport System by Improving and Developing Transfer Node Functions at Stations

Large numbers of people pass through stations where different transport services meet. To reduce urban area congestion and to make travel more convenient, we have been increasing the number of through services and improving our connections with other means of transport, in cooperation with national and local governments. We are also improving transfer nodes to other transport, such as bus terminals and taxi ranks, in ways such as constructing a terminal above the railway tracks at Shinjuku Station, in collaboration with the Ministry of Land, Infrastructure, Transport and Tourism, which contributes to the convenience of the entire multi-mode transportation system.



Upgrading of the Transfer Node in Shinjuku

■Rediscover Local Areas Project

Development of the Rediscover Local Areas Project

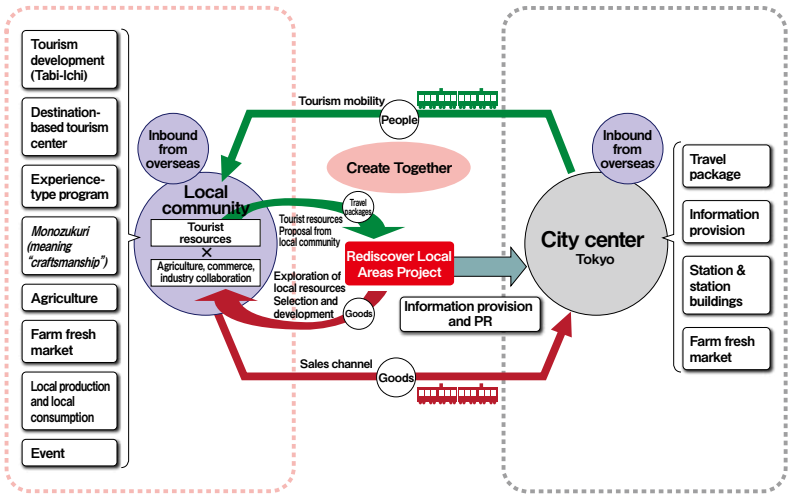
Under the "Create Together" strategy, which specifies the division of roles between JR East and regional communities, we are promoting the Rediscover Local Areas Project. The aim is to create new markets that also take into account overseas visitors to Japan and thereby bring about increased flows of both visitors and goods among the Tokyo metropolitan area and other regions.

The JR East Group has railway networks that link Japan's various regions, stations that serve as centers of local communities, business know-how, sales channels and advertising power that all radiate out from the Tokyo metropolitan area, along with human resources that continuously make social contributions as members of local communities. The Rediscover Local Areas Project utilizes JR's unique abilities to make full use of traditional cultures, festivals, techniques, local produce, and other tangible and intangible tourist resources, expand sales channels, and promote the interactive exchange of information among the Tokyo metropolitan area and regional communities.

During the fiscal year ended March 2010, JR East carried out development and renewal of its long-stay hotels and stations in the Iwate, Tateyama, and Echigo-Yuzawa areas utilizing features unique to each area. We have thus pursued regional revitalization through our policy of cooperation with local residents. In the fiscal year ended March 2011, after the extension of the Tohoku Shinkansen to Aomori, in collaboration with urban planning organizations in the city of Aomori, we opened A-Factory, a complex that consists of a craft center and market in the heart of the Aomori waterfront district. In the craft center apples grown in Aomori Prefecture, Japan's largest producer, are processed into cider while in the market, agricultural and other local products are sold. We are also proposing to increase the tourist appeal of Aomori in a tie-up with the Tabi-Ichi travel package through which local residents both propose and guide tours of as yet little-known tourism resources.

To stimulate increased interest throughout the Tokyo metropolitan area, in collaboration with our destination and other marketing campaigns, we are hosting a number of farm fresh markets at central locations such as Ueno Station. All of these efforts are aimed to increase tourism through wider publicity of the attractions of Japan's various regions. With these farm fresh markets, we at JR East are working to provide information in cooperation with local communities. In January 2012, "NOMONO", a shop selling typical regional produce (mainly food) was opened at Ueno Station in co-operation with local producers and local governments. Nomono sells attractive local products, including vegetables, fruit, confectionery and sake, all of which typify local produce, seasonality and traditions, by focusing on different regions for certain periods of time. We are promoting the flow and movement of people and goods by further increasing sales outlets in the Tokyo Metropolitan area, with the aim of revitalizing the production of local foods.

■Rediscover Local Areas Project



NOMONO, the local produce shop

Tabi-Ichi

■Childcare Support Services HAPPY CHILD PROJECT

JR East Group is striving to develop communities along its railway lines in which people can live in comfort and can benefit from adequate childcare support, as envisaged by the HAPPY CHILD PROJECT. More specifically, these communities will benefit from elements of social infrastructure such as nursery schools near stations for supporting childcare and community cafés for parents and children. It is hoped that these may contribute to the development of local communities and be used as venues for various events that both parents and children can enjoy.
We will respond actively to various needs associated with childcare, contribute to the local community and upgrade the value of areas adjacent to the railway lines.

Childcare Support Facilities - Support for working parents

JR East has opened childcare support facilities such as "nursery schools near stations" located mainly in the easily accessible area within some 5 minutes walk from station to support coexistence of work and the childcare. With the total of 59 childcare support facilities which have opened since 1996 (as of April 2012), JR East is striving to further increase the number of the facilities. These nursery schools near stations have such advantage that parents can drop and pick up their children on the way to and from work. As evidenced by the scene that children come to the nursery with fathers, our childcare support encourages fathers' participation in childcare as well.


Shinkansen train and nursery school near station


Children playing in station rooftop

Parent-Child Community Cafés - Facility to encourage parents to go out

JR East is working to open parent-child community cafés that provide space where families can enjoy spending time together. The Parent-Child Community Cafés incorporate functions and services to help meet this goal, and are not only for families with children, but also for all members of the community and all generations.
The Parent-Child Community Café operated by JR East, is called "Kizuna$_{937}$" and is located on the second floor of E'site Kagohara, in front of Kagohara Station on the Takasaki Line.


Nakama Room, play space inside Kizuna$_{937}$

Events for supporting Childcare

Children's Train Craftwork Exhibition

This exhibition, displaying craftworks produced by children attending our nursery schools adjacent to stations, is held on a regular basis in the Railway Museum (Saitama City, Saitama Prefecture).
With "trains" as its theme, original, creative and fantasy works created by children are enjoyed by many visitors. It also provides a space for displaying the activities of nursery schools and looking the development of children.



The Second Children's Train Craftwork Exhibition

Paper-craft Class

Various events which parents and children can enjoy together, such as a Paper-craft Class showing how to make a 3-D Shinkansen mockup from special paper, take place in a variety of locations.

Image of completed paper-craft

■Culture

East Japan Railway Culture Foundation

In order to continuously utilize its management resources for social contributions, in 1992 JR East established the East Japan Railway Culture Foundation, an organization that has successfully promoted local culture, studied and researched railways, and taken part in international cultural exchanges through our railway business.
The Foundation's major activities include operating the Railway Museum, Tokyo Station Gallery (which re-opened in October, 2012 upon the completion of the preservation and restoration project of the Marunouchi Station Building of Tokyo Station) and the Old Shimbashi Station building, sponsoring local cultural activities and accepting trainees from railway operators in Asian countries.
The Foundation provides information on its website (http://www.ejrcf.or.jp/english/index.html). It became a public interest incorporated foundation in April 2010.

Railway Museum

In 2007, the Railway Museum was opened in Saitama City, and it is based on three major concepts. It was designed to be a museum that systematically conducts surveys and research using railway-related heritage and reference materials, a history museum that depicts the history of railways focusing on exhibits of locomotives and cars, and an educational museum where visitors can learn about railway principles, systems and technologies through hands-on experience. Since its opening, the Railway Museum has proved to be a great success, attracting 790,000 visitors in the fiscal year ended March 2012. The Museum opened the Teppaku Plaza in April 2011 and it continues to enhance its exhibitions and facilities.


The Railway Museum opened on October 14, 2007. (Railway Day) (Omiya Ward, Saitama City)

■With the Next Generation

Children's Railway Association

The Children's Railway Association is managed by the Traffic Manners Association, with the aim of raising children's awareness of proper manners on public transportation. In our service area, there are approximately 500 active members in 12 branches. JR East has established related facilities in each of our branch offices and actively supports the association so as to contribute to an improvement of manners on public transportation by the next generation, and provides opportunities for such activities as clean-up work in railway stations and field trips to railway facilities and branch offices.

■International

International Cooperation

In response to requests from such agencies as the Ministry of Land, Infrastructure, Transport and Tourism, JR East has for several years been actively involved in international cooperation through the dispatch of railway experts to Asian countries in order to explain our technologies and to provide the expertise we have nurtured over the years. We also, in response to the request from the Japan International Cooperation Agency (JICA), now regularly offer residential courses for trainees from developing countries during which we provide tuition in professional fields.
JR East also receives inspection visits by overseas visitors involved in railway operations. During fiscal 2011, for example, we had 518 visitors from 48 countries. These visitors have included government officials from each country, people engaged in railway operation and researchers from universities and research institutes. These visits help to promote mutual understanding.

Inspection of Shinkansen railcar maintenance (Shinkansen General Rolling Stock Center)

Inspection of the Koumi hybrid railcar (Koumi Line Operations Office)

Global Contribution through International Institutions

JR East is a member of the International Union of Railways (UIC), the International Association of Public Transport (UITP), the Association of American Railroads (AAR), the American Public Transportation Association (APTA), and other international railway organizations. In addition to collecting and providing information through international conferences and publications organized by these institutions, we strive to constantly work toward the resolution of railway-related issues around the world.
We are working hard to host conferences of these international organizations, during which we can show overseas railway operators the features of Japanese railway systems. In October 2011, the 88th general meeting of the UITP Urban Rail Transport Committee was held for the first time in Japan (Tokyo) jointly with Tokyo Metro Co., Ltd.
Since April 2009 top JR East executives have chaired the UIC and as a Group we shall continue to contribute to the development both of Japanese and of global railways through our activities within such international railway organizations.

Chairman Satoshi Seino making an address at the International Transport Forum (Leipzig, 2012)

General Meeting of UITP Urban Rail Transport Committee (Tokyo, 2011)

Relationship with Employees

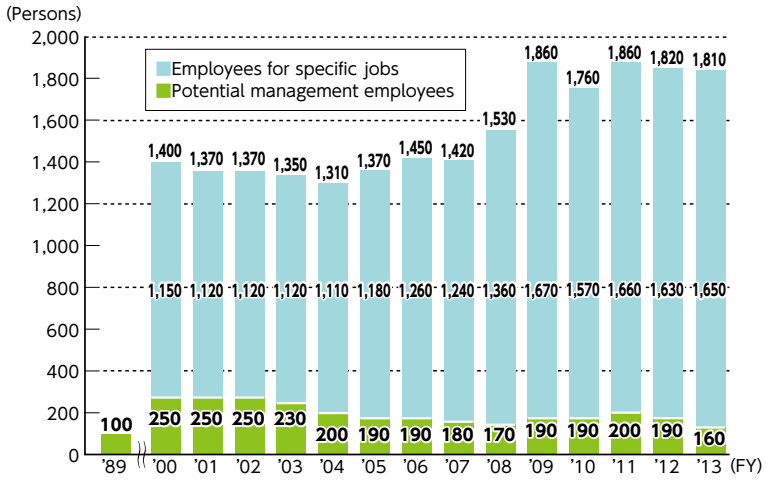
■Demonstrating the power of human resources

In order to provide services that will satisfy customers, it is vitally important for us to create an environment where JR East's personnel can fully exercise their abilities. Our success in enabling our people to be able to personally decide what they need to achieve and then act on their decisions will determine the future of our entire organization.
We also have to face the fact that society is in a continual state of change, and this includes both the awareness of working people and their working environments. As a result of this, we believe that JR East, as a part of the nation's infrastructure and as an organization that aims for extreme levels of safety, must constantly respond to the motivation of all our employees as they work to meet their responsibilities, and thereby bring about improved safety and increased customer satisfaction.
JR East continues to work to provide an environment in which all employees can enjoy their jobs while constantly striving to attain even higher goals. To that end, we are determined to face the challenge of creating a company where people grow through their work from the perspectives of how to respond to the motivation of each employee to meet challenges, how to ensure a suitable work-life balance, and how to make full use of the diversity of our human resources.
In "JR East Vision 2020", the company advocated a strategic reform of our human resources system, aimed at the fostering of motivated young employees, the upgrading of the skills of management-level employees, the encouraging of veteran employees to pass on their technical knowledge and their skills to the next generation of employees who will shoulder the burdens of the 21st century, and the utilization and fostering of diverse human resources.

Recruiting

JR East's main supports are the capabilities of each and every employee. Our basic philosophy is to employ people based chiefly on their personalities and abilities and then to steadily nurture them until they reach the full flowering of their abilities. Because of the large number of employees reaching retirement age in March 2013 and the constant necessity of human resources development and the transfer of knowledge and technologies to the next generation, we have recruited 1,810 new employees.

■ Number of new employees by fiscal year



Employing Persons with Disabilities

As of June 2012, 2.27% of our workforce consisted of employees with disabilities. These members of staff work alongside other employees in a broad range of positions. We further increased our ability to employ people with disabilities in April 2008, when we established JR East Green Partners Co., Ltd. which was charged with the task of promoting their employment and helping us meet our social responsibility to improve the work environment for such employees. The company was certified as a special subsidiary in May 2009.

JR East Technical Academy

In order to motivate our young employees and encourage them develop into professionals capable of playing leading roles in all fields of railway technology, in March 2009 we established the JR East Technical Academy. The 4th year class that started in March 2012 consists of 48 employees from 11 technological fields who will spend the year on leave from their regular positions in order to concentrate on technological studies at the Head Office. The program has been designed to enable participants to thoroughly learn the theory and structure of their individual professional fields as well as to provide them with a comprehensive overview of railway technologies and systems in general. Through research at universities and from practical training sessions at manufacturers, furthermore, we hope to enable all participants to acquire a broad range of knowledge.

Skills Development

The development of human resources and the steady but continuous introduction of new technologies and skills are vital to the sustainable growth of the JR East Group. Based on a perspective of nurturing quality through work, we are striving to enhance the organizational power of the Group and to develop human resources capable of shouldering the burdens of the future.
With this in mind we constantly conduct training programs at our General Education Center and in branch offices, and many kinds of seminars at our Head Office. And as part of our support for all employees to set their own challenges in regard to self-education and to thereby heighten their abilities, we offer both internal and external correspondence courses. The internal courses are aimed at the acquisition of knowledge and skills directly connected to our employees' duties, while the external courses target the acquisition of knowledge indispensable for businesspeople in terms of management know-how, qualifications acquirement, languages, and office automation.

My Project

In order to encourage our employees to face the challenges of taking the next steps in their careers, in January 2011 we upgraded our small groups and proposal activities and initiated the My Project program. This program is comprised of three aspects: self-starting, freedom of method and importance of process, with the fruit being the employee's personal growth. The project is based on the belief that the tackling of improvements in itself is an opportunity for the fostering of human resources, and, thereby, aims to nurture employees capable of thinking and acting independently.

Skills Training Centers-Develop engineers for future railways

Integral to our efforts to ensure that veteran employees pass on their technologies and skills to the next generation of technical staff, who will carry the responsibilities for railways in the future, is our establishment of skills training centers designed to support the continuity of railway-specific knowledge in individual workplaces. In our rolling stock maintenance center, for example, railway car component mockups, such as power collection equipment, door opening-closing devices, and braking equipment, have been set up, while at our facilities maintenance center, railway facilities including tracks, turnouts, platforms, overhead line equipment and signals have been installed, so training sessions can take place in virtually real environments.
By the fiscal year ending 2014, we plan to establish a total of no less than 104 skills training centers, including those that make use of existing facilities.

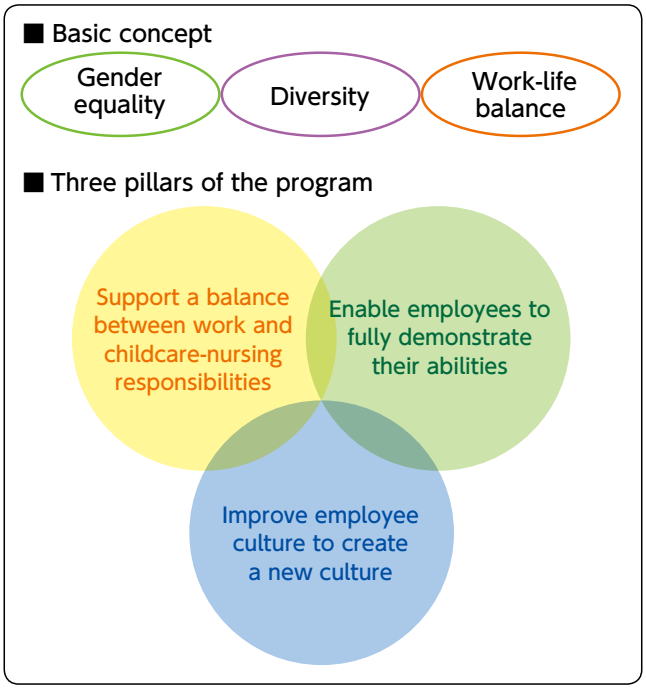
Skills Training Center Nanakamado

■Promotion of Diversity

JR East believes that employees who derive satisfaction from doing challenging work and who can maximize their skills are able to enhance the company's competitiveness.
As an extension to the *"F Program of Positive Actions"*, launched in 2004, we have initiated a "Work-Life Program" whose aim is to encourage all employees, both male and female, to participate independently. JR East will continue the promotion of diversity by encouraging and establishing Work-Life Program among employees.

We are encouraging employees to be well aware of Work-Life Program, by using program's nickname "Wara-Pro" and logo.

■Concept of Work-Life Program



Specifically, individual organizations hold seminars and forums and operate Male-Female Joint Participation Portal (Gender Equality Portal). They also participate in the various activities of a Work-Life network, upon which the Work-Life program in the workplace is based, with the aims of encouraging employees to revise their way of thinking and of creating a new corporate culture.

First Family Day organized by Work-Life Network at Head Office

VOICE

I want to show my younger colleagues who want to become drivers how I balance work with childcare.

I joined JR East in 2001 and became a driver in 2005 after working as a member of station staff and as a conductor. After the birth of my first and second sons in 2008 and 2010, I returned to work in October 2011. I had been on leave of absence for about three years. The mothers of some of my elder son's friends were surprised to know my situation, saying that, usually, childcare leave could be taken until the child was one year old.

I had dreamed of becoming a driver ever since I joined the company, so for me there was no question of leaving my job because of the birth of my children. My family's understanding of my feelings and its support for me, together with a workplace environment that enabled me to work as well as to care for my children, were the main reasons why I was able to continue my career. Now, I am working to a reduced schedule and can take my children to and from nursery school myself.

While on leave, I was kept informed by telephone or e-mail of the situation in the workplace, and I went there from time to time. Also, the company organized an opportunity for female workers on childcare leave to talk about anxiety and concerns about childcare and return to work and to share various information. I had two concerns associated with returning to work. One was whether I could find a nursery school near my home, and the other was the irregular work schedules for me and my husband, as he was also a driver. As members of the train crew, we have night shifts and sometimes have to work from 5 o'clock in the morning. By comparison with couples with fixed working hours, it is more difficult for us to share housework and to take the children to and from nursery. For this reason, I was somewhat worried before I returned to work. However, I was able to overcome these concerns after returning to work. It was great. My husband and I have said many times that we shall do as much as we can, but that we shall ask our parents to help us by taking the children to and from the nursery should this become necessary. Earlier on, we had asked the company for advice on how to deal with certain problems.

The number of female drivers will continue to increase. This is why I wanted to explain to other female workers in the company how I have been able to achieve a good balance between work and childcare. I hope that this will contribute to the creation of a workplace environment in which they will be able to return to work after maternity leave more easily than now. I shall be pleased if this explanation of how I dealt with the situation will encourage those who have similar concerns.

When I come back home from work, my sons sing a song that they have learned while playing with their friends and they read a book to me. Listening to them is really a relief for me when I am so tired. At first, I felt guilty about going to work and leaving them in a nursery. But now I feel really happy to see how my children are growing up while I am at work.

When I was told by one of the nursery teachers that my son pointed to a picture of a train in a picture book, saying, "This is Mom's train!", I felt really happy that I was able to continue doing this job. My sons are proud that their mother is a train driver.... it makes me feel that my job is rewarding.

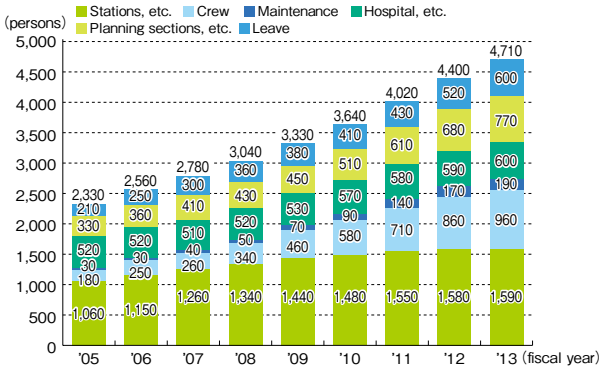
Megumi Takemoto
Chief Driver
Miyagino Transportation Depot, Sendai Branch Office

Measures taken to support the achievement of balanced work and childcare/nursing

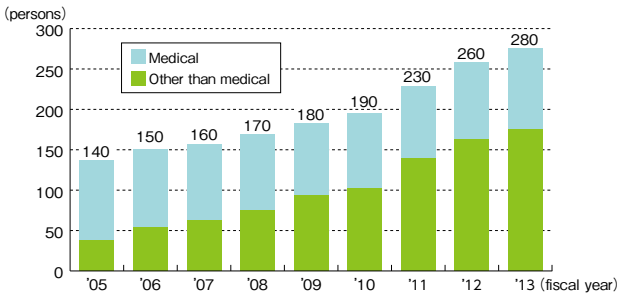
- Extended the availability of childcare leave for one year until the child reaches three years of age (April 2010)
- Introduced a system of reduced daily working hours and increased holiday entitlement (April 2010)
- Established workplace nursery schools (two in Tokyo and one in Sendai) and a hospital nursery school (JR Tokyo General Hospital)
- Held a seminar to support the achievement of a balance between work and home life (childcare/nursing)

A seminar to support the achievement of a balance between work and home life (childcare)

■ Expansion of workplace opportunities for female employees



■ Changes in the number of female managers



Gender equality Forum (Female managers)

Nikkei Child-Raising Support Award

In recognition of our efforts to support the achievement of a balance of work and childcare, JR East was awarded the 5th Nikkei Child-Raising Support Award 2010, sponsored by the Nihon Keizai Shimbun. This was the first time that a transport-related business won the award.

General Business Operator Action Plan

JR East has formulated a 3rd phase action plan in line with the Law for Measures to Support the Development of the Next Generation.
Duration : April 1 , 2012– March 31, 2017
In November 2008 we were certified by the Minister of Health, Labour and Welfare as a company supporting the raising of the next generation of children.

Next-generation certified logo
(colloquially named: Kurumin)

■Improved Work Environment

Mental Health Care

In order to maintain and improve the mental health of our employees, we believe it is vitally important for all our employees to recognize stress in their everyday lives and deal with it promptly. As a result, we are taking various support measures, such as the distribution to all employees of a pamphlet about selfcare with the aim of increasing their awareness of this issue. We have also set up a counseling service in conjunction with a JR East medical facility and, through this, respond individually to our employees' needs. In order to promote front-line care in the workplace, beginning in the fiscal year ended March 2008, we also organized training programs for on-site supervisors.

Elder Employee System

During the fiscal year ended March 2009, JR East introduced the Elderly Employee System that encourages employees who have reached retirement age to continue working for Group companies that can benefit from their individual capabilities and skills. Through this plan we hope to enable retired employees to stabilize their lives until they reach their fully pensionable ages, as well as to encourage them to continue to contribute to our Group-wide accumulation of know-how.

Human Rights Enlightenment

In order to educate our employees in the necessity of enhanced human rights, we have established human rights enlightenment promotion committees at Head Office and in regional offices.
Specifically, the activities of these committees include human right seminars for officers and employees of JR East Group and for those in charge of human rights enlightenment in organizations and Group companies. To propagate human rights awareness, they also conduct lectures on human rights enlightenment in training sessions attended by new recruits, new train crews, work-implementation managers, and new managers. Furthermore, human rights education both for our employees and for their families has been instigated through articles, spotlighting human rights problems that could occur in our environment, that appear in our newsletter JR Higashi.
We have also joined the Industrial Federation for Human Rights, Tokyo, and are conducting human rights enlightenment activities externally by sending lecturers to seminars on human rights enlightenment organized by local government, along with information exchanges and mutual enlightenment discussions with member companies of the Federation.

Human Rights Seminar

Sending Lecturers to Human Rights Seminars organized by local government, etc.

Employment of People with Disabilities

■JR East Green Partners Co., Ltd.

JR East Green Partners, a special JR East subsidiary, was launched in April 2009 and charged with the task of overall management of uniforms used in JR East. Afterwards, the new subsidiary has taken up such additional business as printing and maintenance and management of tree planting in continued efforts to expand work opportunities for people with disabilities. In addition to organizing the employment of people with disabilities, JR East Green Partners now cooperates with support organizations and special support schools and provides work training opportunities for disabled persons wishing to secure corporate positions. By carrying out a broad range of activities, the company supports the entire Group in the fulfillment of its social responsibilities.

JR East Green Partners Co., Ltd. headquarters

Typical work scene

CSR Management

Basic concept of CSR

The JR East Group is based on railway businesses that are involved in a broad range of our customers' lives and that are vital to society and local communities. With such a public responsibility, we are committed to meeting our social responsibilities by carrying out our business activities in a way that will ensure railway safety and reliable transportation services.
In terms of our social mission, our Group Philosophy states: "We will grow continuously and advance in harmony with our customers by generating earnings while meeting our social responsibilities as a Trusted Life-style Service Creating Group." We are determined to remain a corporate group capable of meeting social expectations and maintaining stakeholders' trust by pursuing our business activities in line with that philosophy.

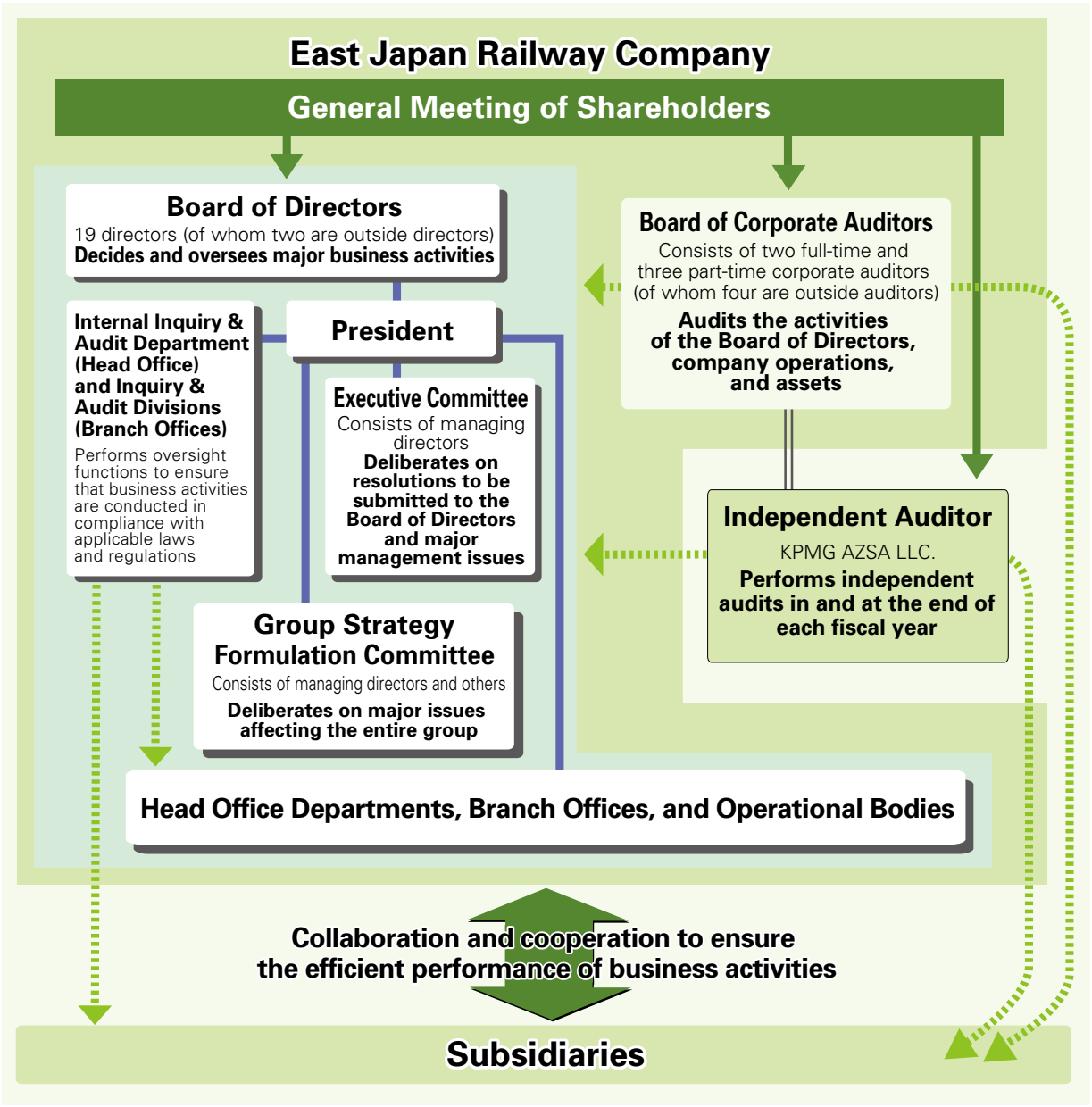
JR East's Basic Corporate Governance Philosophy

To continue to be a company trusted by all of our stakeholders, JR East has made the strengthening of its corporate governance a top-priority management task. Specifically, for improving management soundness and transparency, JR East is augmenting its systems for management decision-making, operational execution and overseeing, Group management, information disclosure, and other important matters.

Execution of duties, Supervision and Audit System

Our 19-member Board of Directors, including two external directors (as of July 31, 2012), normally meets monthly to decide key operational matters relating to statutory requirements and other matters, and supervise overall operations. Under the Board of Directors is the Executive Committee, which includes all directors with executive functions. Usually meeting every week, this committee deliberates on matters to be decided by the Board of Directors and other important management issues. In addition, meetings of the Group Strategy Formulation Committee, which consists of managing directors and others, are held as required to discuss major issues affecting the Group as a whole, including management strategy for each business field.
JR East has established an internal auditing system involving approximately 100 full-time employees in the Inquiry & Audit Department at the Head Office and inquiry & audit divisions in branch offices, and these units work to ensure that corporate operations are executed appropriately and efficiently. The Inquiry & Audit Department also undertakes the auditing of Group companies.
Our Board of Corporate Auditors usually meets every month and the audit by corporate auditors is supported by approximately 10 specialized staff. They oversee executive actions carried out by directors, with a focus on full-time directors, in accordance with the rules established by the Board of Corporate Auditors by investigating their attendance at the Board of Directors, the Executive Committee and other important in-house meetings and their financial situations and other items.
JR East financial statements are audited under contract by an independent auditor (accounting auditor), KPMG AZSA LLC., in and at the end of each fiscal year.

■ Corporate Governance system (as of July 31, 2012)



Compliance

Basic Concept of Compliance

In 2005, JR East adopted our Policy on Legal and Regulatory Compliance and Corporate Ethics as the Group's corporate activity guidelines. Concomitantly, we established Compliance Hotlines, both inside and outside the Company, for internal reporting, and have promoted efforts on compliance.
Since 2009, all employees of JR East Group companies have been given education to increase their awareness of compliance.
JR East Group has been making concerted efforts to further promote compliance. In 2009 we started reviewing legal aspects throughout our business activities, and in 2011 we established a "Basic Matter Confirmation Support Sheet," designed for the regular checking of important matters by individual departments to ensure proper business conduct.

Formulation and Revision of the Compliance Action Plan

In order to enhance the effectiveness of the 2005 policy, we developed and distributed the first version of our Compliance Action Plan document that summarized what we consider to be desirable levels of conduct for all Group employees.
After the Shinanogawa Power Station incidents, we revised the plan based on full awareness of laws and regulations, reports on the incidents and other factors, and distributed to the revised plan to all employees. As society and the environment change, we will continue to review it and make sure all employees remain aware and observe the plan.

Strengthening mechanism for proper business conduct

We conducted full inspections of our compliance for all our operations, including group companies. Starting with the inspections, JR East Group is promoting continuous reviews of all its operations based on laws and regulations, internal rules, and social norms.
In 2011, JR East created the"Basic Matter Confirmation Support Sheet" listing matters subject to regular checking and requiring heads of departments to personally ensure that business is carried out properly. We endeavor to achieve thorough implementation at each workplace.

Education of all employees

We have been carrying out compliance education for all employees since 2009 in order to further increase awareness, focusing on cases and topics matching the realities of each workplace. In fiscal 2013, JR East is implementing a new educational program focused on social media and information security, where a number of issues have been surfacing lately. We will endeavor to improve educational content that will be based on societal and environmental changes.
JR East has also carried out surveys of all employees using "compliance questionnaires" since 2010. Results show knowledge and awareness among employees to be steadily increasing.

Compliance Training

■ Compliance Training

Title	Number of sessions	Participants	Contents and objectives	Number of participants
Management School (Compliance Course)	1	Administrative managers of Group companies	Compliance	74
Legal Skills Training	1	Legal affairs managers of branch offices	Enhancement of practical legal knowledge, legal reasoning, and decision-making/ problem-solving skills	16
Basic Legal Training	1	Legal affairs personnel of Group companies	Acquisition of basic legal knowledge	34
Regular Legal Seminar	4	Employees of JR East and Group companies	Explanation of new and revised laws, and awareness-raising about compliance	650
Lecture on Social Media	4	・Executives, general managers, etc., of the head office ・Staff Member of Branch Office ・Executives of Group companies	Explanations and exercises on problems, corporate risks, etc., involving use of social media	330

Shinanogawa Power Station Incident

In March 2009 JR East received an administrative sanction because the company's water intake had exceeded the maximum allowed quantity at our hydroelectric plant, Shinanogawa Power Station (the collective name for the Senju, Ojiya and Ojiya Daini power plants in Ojiya and Tokamachi cities, Niigata prefecture). The sanction was issued in accordance with the River Act and included the revocation of a permit to draw water from the Shinano River. Subsequent to receipt of this sanction, we have taken corrective actions in accordance with the directions in the sanction and have endeavored to implement measures to prevent recurrence and to cultivate close cooperation with the local communities.
In June 2010, having obtained a permit from the Director of the Hokuriku Regional Development Bureau of the Ministry of Land, Infrastructure, Transport and Tourism to again take water from the Shinano River, we resumed operation of the Shinanogawa Power Station.
We are redoubling our efforts at compliance management to prevent occurrence of similar incidents and we are sincerely committed to fostering harmony with the river environment and enhancing co-prosperity with communities.

Personal Data Protection

In 2005, we published our Regulations for the Management of Personal Information, and appointed Chief Privacy Officers who bear the responsibility of strictly protecting personal data. We are also working to ensure that every employee is aware of the necessity of the strict handling and management of personal data through pamphlets covering the subject exclusively and articles in our internal magazines. In order to even further enhance our levels of information security we regularly conduct internal workplace audits.

Risk Management

The Crisis Management Headquarters was established in 2002 to centrally collect and manage information, and to make prompt initial responses in the event of major crises affecting the business operations of JR East Group. In 2004, we added the Crisis Management Office, a full-time section that has taken responsibility for Headquarters' secretarial work. We are striving to be prepared for any potential risks JR East Group may face. We have recently established a system enabling us to respond to various emergencies – terrorist threats, pandemics such as influenza, and other possibilities.

Information Disclosure

JR East has a wide range of relationships with many stakeholders, including the 16.5 million customers using our railway services each day, as well as our shareholders and investors, business partners, employees and their families, and local communities.
We actively disseminate information about Group initiatives through public and investor relations activities to these stakeholders. We also strive to disclose key corporate information on our website in a swift and appropriate manner. Furthermore, JR East is working to create wide-ranging opportunities to listen to and learn from the views and requests of our stakeholders.

Independent Assurance Report (website version)

Independent Assurance Report

To the President and CEO of East Japan Railway Company

Purpose and Scope

We were engaged by East Japan Railway Company (the "Company") to provide limited assurance on its JR East Group Sustainability Report 2012 web version (the "Report") for the fiscal year ended March 31, 2012. The purpose of our assurance engagement was to express our conclusion, based on our assurance procedures, on whether:

- the environmental performance indicators and environmental accounting indicators marked with ☆ (the "Indicators") for the period from April 1, 2011 to March 31, 2012 included in the Report are prepared, in all material respects, in accordance with the Company's reporting criteria; and
- all the material environmental information defined by the Japanese Association of Assurance Organizations for Sustainability Information ("J-SUS") is included in the Report.

The content of the Report is the responsibility of the Company's management. Our responsibility is to carry out a limited assurance engagement and to express our conclusion based on the work performed.

Criteria

The Company applies its own reporting criteria as described in the Report. These are derived, among others, from the Environmental Reporting Guidelines 2007 and Environmental Accounting Guidelines 2005 of Japan's Ministry of the Environment. We used these criteria to evaluate the Indicators. For the completeness of material environmental information, we used the 'Criteria for Granting an Environmental Report Assurance and Registration Symbol' of J-SUS.

Procedures Performed

We conducted our engagement in accordance with 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Assurance Standards Board, and the 'Practical Guidelines of Sustainability Information Assurance' of J-SUS.

The limited assurance engagement on the Report consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviews with the Company's responsible personnel to obtain an understanding of its policy for the preparation of the Report.
- Reviews of the Company's reporting criteria.
- Inquiries about the design of the systems and methods used to collect and process the Indicators.
- Analytical reviews of the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and also a recalculation of the Indicators.
- Visit to the Company's two domestic business sites selected on the basis of a risk analysis.
- Assessment of whether or not all the material environmental information defined by J-SUS is included in the Report.
- Evaluating the overall statement in which the Indicators are expressed.

Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that:

- the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report; and
- all the material environmental information defined by J-SUS is not included in the Report.

We have no conflict of interest relationships with the Company that are specified in the Code of Ethics of J-SUS.

KPMG AZSA Sustainability Co., Ltd.

KPMG AZSA Sustainability Co., Ltd.
Tokyo, Japan
October 18, 2012

The setting of medium-term targets for total CO_2 emissions from railway business activities has been changed with the new environmental targets. Targets are now set for two indicators – "energy consumption from railway business activities" and "CO_2 emissions per unit of electricity generated at JR East's own power plants" – rather than the previous single target of "total CO_2 emissions." In light of the review of national energy policy underway since the earthquake in March 2011, JR East considered it better to set its targets based on indicators that would be more under our own control. New environmental targets are mostly short-term targets to be met by fiscal 2014, but the above two new targets are medium-term targets to be met by fiscal 2021. In this report, values in base fiscal years, results in absolute values in fiscal 2012, and reduction or improvement rates are given. We believe that JR East could make the results of its activities more transparent to the reader by showing changes in performance over time.
Quantitative environmental data for group companies is only shown in the "JR East Group's environmental impact" section. We think it would be worthy of consideration to present more detailed results of group companies' activities.

Naomi Sugo
KPMG
AZSA Sustainability Co., Ltd.

Summary from the General Manager of the Management Planning Department

Makoto Takahashi
Director and General Manager
Management Planning Department
Corporate Planning Headquarters

A year and a half has passed since the Great East Japan Earthquake and the entire country is deeply involved in recovery and restoration. In the wake of the nuclear accident at the Fukushima Daiichi Nuclear Power Station, there has been much attention directed toward Japan's energy policy, reflecting various points of view.

Domestically, on July 1, 2011, an order to restrict the use of electricity under the Electricity Enterprises Law was issued to large-scale consumers in the service areas of the Tokyo Electric Power Co., Inc. (TEPCO) and the Tohoku Electric Power Co., Inc. - only the second such order in 37 years. The JR East Group has implemented various saving-electricity measures. We regretted the inconvenience to our customers as we adopted electricity-conserving train schedules and made other changes, but we were able to do so smoothly with their understanding and cooperation. On July 1, 2012, the Act on Special Measures for the Promotion of New Energy Use, Etc., by Operators of Electric Utilities approved in August 2011, went into force, setting a new direction for the nation's energy policy as the government presented scenarios and options. We, as operators, will be watching the discussions carefully and will offer responses as appropriate.

Internationally, participants at COP17 (the 17th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC)) in Durban in November 2011 "agreed to agree" on a new legally binding instrument, with implementation from 2020. At the Rio+20 meeting (the United Nations Conference on Sustainable Development) in June 2012 in Rio de Janeiro, global environmental issues and sustainable development were similarly discussed.

In these circumstances, being aware of our role in society and its expectations of us, the JR East Group has issued “Management Vision V - Ever Onward”. We will endeavor actively, on a long-term basis, to address global environmental issues while promoting wider use of railways, an environmentally friendly transportation means, and contributing to realization of a sustainable society.

Only in this way, and by making environmental issues a key managerial responsibility, will the JR East Group continue to enjoy the favor of its customers.

History of JR East Group's environmental and social activities

Year	Month	Environmental and social activities
1987	Apr.	Japanese National Railways divided, and East Japan Railway Company established. First Railway Safety Promotion Committee meeting held.
	Jun.	Green Campaign began. Green Counter (now renamed customer help desks) opened for receiving customer feedback.
1988	Sep.	Company-wide "Challenge Safety Campaign" launched.
	Dec.	ATS-P, an improved safety train-control system, installed on the Keiyo Line.
1989	Apr.	Safety Research Laboratory and General Training Center established.
1990	Sep.	"First Railway Safety Symposium" held.
	Oct.	"Future 21," a management plan for the twenty-first century, announced. "Ladies' Cars," cars exclusively reserved for female passengers, introduced on sleeping-car limited express trains.
1992	Mar.	East Japan Railway Culture Foundation established.
	Apr.	Committee on Ecology established.
	May	Trees planted to commemorate the 5th anniversary of JR East's founding (later, an annual event called "Railway Lines Forestation Program" began).
	Aug.	Waste collection sorted into three categories began on a trial basis at Sugamo Station on the Yamanote Line.
1993	Mar.	All-day smoking ban extended to major stations in the Tokyo suburban areas.
1994	Feb.	Ueno Station Recycling Center started operation (with automatic system for separating used cans from bottles).Waste collection sorted into three categories started at 36 stations on the Yamanote and other lines.
	Mar.	"Basic Safety Plan" announced.
1995	Feb.	Recycling of used train tickets began in the Tokyo metropolitan area.
	Mar.	First measure to reduce Shinkansen noise completed.
	Apr.	Ecology education for all new recruits initiated. "Train-ta-kun," a discount car rental service for train passengers, launched.
1996	Mar.	JR East website set up. Quantitative environmental targets set for CO_2 emissions and others. First annual Environmental Report published.
	Dec.	Autonomous Decentralized Transport Operation Control System (ATOS) became operational.
1997	Mar.	Recycling facility at Minami-Akita Operations Center started operation. Separate smoking zones established at all stations.Smoking banned on all local trains.
	Oct.	Recycling facilities at Nagano Shinkansen Rolling Stock Center and Tokyo Station started operation.
1998	Mar.	Second set of measures to reduce Shinkansen noise completed.
	Nov.	Shinkiba Recycling Center started operation (for separating used newspapers from magazines). JR East ranked as 27th on the list of world's most respected enterprises by Financial Times.
1999	Feb.	Safety Plan 21 announced. Niitsu Rolling Stock Plant acquired ISO14001 certification.
	Mar.	Omiya Recycling Center started operation (with automatic system for separating used cans from bottles).
	Apr.	Service managers deployed at some stations.
	May	Started utilizing copier paper recycled from newspapers collected at stations.
	Sep.	Information service on train operations made available by cell-phone.
2000	Apr.	JR East General Education Center established. Uniforms made from recycled PET bottles introduced.
	Nov.	Environmental targets revised with the announcement of New Frontier 21,the Group's medium-term management plan.
2001	Mar.	Oi Workshop, Kawasaki Thermal Power Plant, and Niigata Mechanical Technology Center acquired ISO14001 certification.
	Jul.	"Women-Only" cars for female passengers introduced on the Saikyo Line on a trial basis.
	Dec.	JR East Research & Development Center established.
2002	Feb.	Test runs of the AC Train, a next-generation commuter train, began. Omiya Workshop acquired ISO14001 certification.
	Sep.	Sustainability Report including social and economic aspects published.
	Nov.	Sendai General Rolling Stock Workshop acquired ISO14001 certification.
2003	Mar.	Third set of measures to reduce Shinkansen noise completed. "Guide to Barrier-Free Station Facilities" pamphlet distributed.
	May	Test runs of the NE Train, world's first hybrid railcar, began.
	Sep.	First JR East Group Environmental Management Promotion Conference held.
	Dec.	Koriyama Workshop acquired ISO14001 certification.
2004	Mar.	"Safety Plan 2008" announced.
	Apr.	"F Program" launched, with the aim of creating a better working environment for female employees.
	May	Adatara Hometown Forestation Program held.
2005	Jan.	Environmental targets revised with the announcement of "New Frontier 2008",the Group's medium-term management plan.
	Feb.	Nagano General Rolling Stock Center acquired ISO14001 certification.
	Jul.	Akita General Rolling Stock Center acquired ISO14001 certification. Customer Service Department established.
	Dec.	Office-wide JR East Eco Activities started at JR Hachioji Branch Office.
2006	Feb.	Disaster Prevention Research Laboratory established.
2007	Mar.	Smoking banned in all cars of Shinkansen and limited express trains.
	Jul.	World's first diesel hybrid railcars in commercial service, the Kiha E200 type, commenced operation.
	Oct.	Railway Museum opened.
2008	Mar.	"JR East Vision 2020 - *i do mu* -" announced.
	Jun.	Environmental targets revised.
2009	Mar.	2013 Safety Vision Announced.
	Apr.	Environmental Engineering Research Laboratory Established. Total ban on smoking in specified locations in the Tokyo metropolitan area.
2010	Jun.	Water intake restarted in Shinanogawa Power Station based on the "Permission of the use of river water". Platform doors installed at Ebisu Station on the Yamanote Line.
	Jul.	Environmental Management Promotion HQS established in the Corporate Planning Headquarters.
2011	Mar.	Operation of Tohoku Shinkansen, Hayabusa, started.
2012	Mar.	"Ecoste" Yotsuya Station become operational
	May	Reconstruction Planning Dept. established in the Corporate Planning Headquarters.
	Jun.	"Ecoste" Hiraizumi Station become operational

Former names are used for some facilities

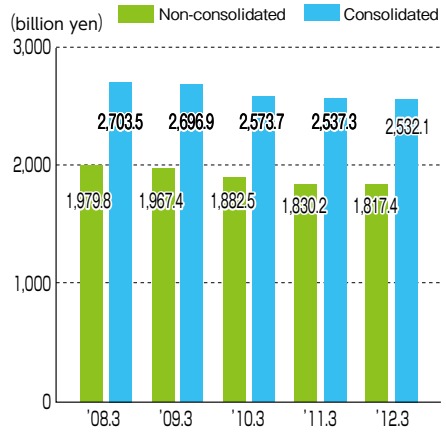
History of Awards

Year	Month	JR East Group: History of Awards
1995	Oct.	Poster category at the 5th Awards for Environmental Advertisements and the Director of Environmental Agency's Awards (Organized by Japan Eco-Life Center)
1997	Apr.	6th Global Environment Award (Organized by Nihon Kogyo Shimbun in special cooperation with WWF Japan)
	Jun.	1st Environmental Action Plan Award and the Director of Environmental Agency's Awards (Organized by the National Association of Environmental Conservation and sponsored by the Environmental Agency)
	Nov.	Poster category at the 7th Awards for Environmental Advertisements and the Director of Environmental Agency's Awards (Organized by Japan Eco-Life Center)
1998	Apr.	1st Green Reporting Award Third Prize (Co-organized by Toyo Keizai Inc. and Green Reporting Forum)
2001	May	4th Green Reporting Award Third Prize (Co-organized by Toyo Keizai Inc. and Green Reporting Forum)
2005	Jan.	Grand Prize for Environmental Report in Environmental Report Category at Environmental Communication Awards 2004 (Organized by the Global Environmental Forum and sponsored by the Ministry of the Environment)
2006	Dec.	2006 Environment Minister's Award for Global Warming Prevention Activity in two categories: countermeasure technology introduction and dissemination, and implementation of countermeasures (organized by the Ministry of the Environment)
2007	Apr.	16th Global Environment Award Education, Culture, Sports, Science and Technology Minister's Award (Organized by Fuji Sankei Group in special cooperation with WWF Japan)
	Dec.	Environment Minister's Award for Global Warming Prevention Activities in the category of technological development and commercialization (organized by the Ministry of the Environment) Eco Products Category Minister of Environment Prize in the 4th Eco Products Award (organized by the Eco-Products Awards Promotion Council; sponsored by the Ministry of Finance, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, Ministry of Economy, Trade and Industry, Ministry of Land, Infrastructure, Transport and Tourism, Ministry of the Environment)
2010	Mar.	Environmental Management Award, Japan Creation Award 2009 (Japan Fashion Association)

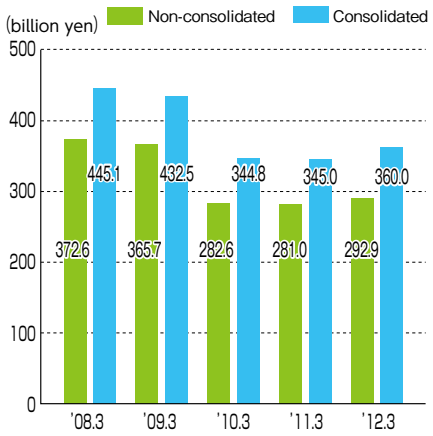
Corporate profile

Corporate name	East Japan Railway Company
Address	2-2, Yoyogi 2-chome, Shibuya-ku, Tokyo, Japan
Established	April 1, 1987
Capital	200 billion yen
Number of employees	59,130 (as of April 1, 2012)
Passenger line network	Shinkansen Lines : 1,134.7 km Conventional lines : 6,377.9 km
Number of stations	1,689
Total number of trains in operation per day	12,757 (timetable revised in March 2012)
Total number of passengers per day	16.50 million
Business areas	Transportation, station space operation, shopping center and office building operation, and other services

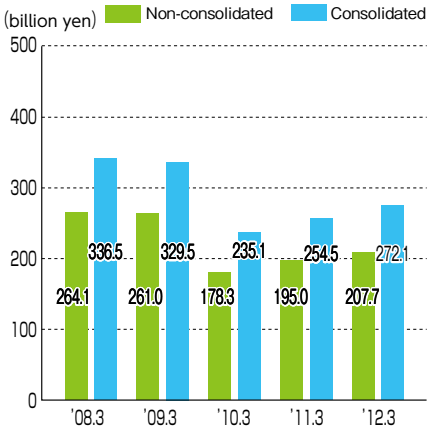
〈Operating revenue〉



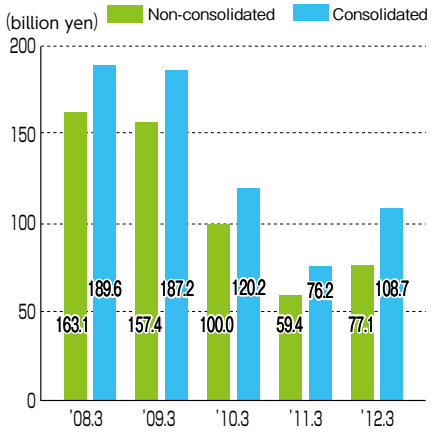
〈Operating income〉



〈Current profit〉



〈Net income〉



Businesses of the JR East Group (as of June 30, 2012)

Transportation services

JR Bus Kanto Co., Ltd. / JR Bus Tohoku Co., Ltd. / Tokyo Monorail Co., Ltd.

Shopping center operations

Tetsudo Kaikan Co., Ltd. / atre Co., Ltd. / LUMINE Co., Ltd. / Yokohama Station Building Co., Ltd. / Shonan Station Building Co., Ltd. / JR Chuo Line Mall Co., Ltd. / JR East Department Store Co., Ltd. / JR Tokyo West Development Co., Ltd. / Utsunomiya Station Development Co., Ltd. / Takasaki Terminal Building Co., Ltd. / Mito Station Development Co., Ltd. / Kinshicho Station Building Co., Ltd. / Chiba Station Building Co., Ltd. / JR East Aomori Business-Development Company Co., Ltd. / Station Building MIDORI Co., Ltd.

Office operations

JR East Building Co., Ltd.

Hotel operations

Nippon Hotel Co., Ltd. / Sendai Terminal Building Co., Ltd. / Morioka Terminal Building Co., Ltd. / Akita Station Building Co., Ltd. / Hotel Metropolitan Nagano Co., Ltd.

Retail shop and restaurant businesses

JR East Retail Net Co., Ltd. / Nippon Restaurant Enterprise Co., Ltd. / JR East Food Business Co., Ltd. / JR East Station Retailing Co., Ltd. / JR East Water Business Co., Ltd. / Kinokuniya Co., Ltd

Trading and logistics businesses

East Japan Railway Trading Co., Ltd. / JR East Japan Logistics Co., Ltd.

Travel agent and car rental services

JR EAST VIEW Travel Service Co., Ltd. / JR East Rental & Lease Co., Ltd.

Sports and leisure businesses

JR East Sports Co., Ltd. / GALA YUZAWA Co., Ltd.

Real estate management

JR East Urban Development Corporation

Information, financial, and personnel services

JR East Japan Information Systems Company / JR East Net Station Co., Ltd. / JR East Management Service Co., Ltd. / JR East Personnel Service Co., Ltd. / JR East Green Partners Co.,Ltd.

Credit card business

Viewcard Co., Ltd.

Advertising and publishing

East Japan Marketing & Communications, Inc. / Tokyo Media Service Co., Ltd. / THE ORANGEPAGE, Inc.

Cleaning and linen supply services

SHINKANSEN CLEANING SERVICE COMPANY / JR EAST TRANSPORTATION SERVICE / East Japan Eco Access Co., Ltd. / JR Takasaki Railway Services Co., Ltd. / JR Mito Railway Services Co., Ltd. / JR Chiba Railway Services Co., Ltd. / JR Technoservice Sendai Co., Ltd. / East Japan Amenitec Co., Ltd. / Akita Clean Servicing Co., Ltd. / Niigata Railway Servicing Co., Ltd. / Nagano Railway Servicing Co., Ltd. / Shinnihon Linen Co., Ltd.

Construction consulting and maintenance services

JR East Consultants Company / JR East Design Corporation / JR East Facility Management Co., Ltd. / JR East Mechatronics Co., Ltd. / Union Construction Co., Ltd.

Rolling stock manufacturing and maintenance

Japan Transport Engineering Company / East Japan Transport Technology Co., Ltd. / Tohoku Rolling Stock Machinery Co., Ltd.

Overseas railway consulting

Japan International Consultants for Transportation Co., Ltd.

District Heating and Cooling

Shinjuku South Energy Service Co., Ltd.

Group companies of our branch offices

Tohoku Sogo Service Co., Ltd. / Juster Co., Ltd. / JR Atlis Co., Ltd. / Tokky Co., Ltd.

J-SUS Assurance
www.j-sus.org

The J-SUS mark indicates that the reliability of the environmental information contained in the JR East Group Sustainability Report 2012 meets the standard for environmental report screening and logo use defined by the Japanese Association of Assurance Organizations for Sustainability Information.
www.j-sus.org

FTSE4Good

Sustainability Report 2012

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