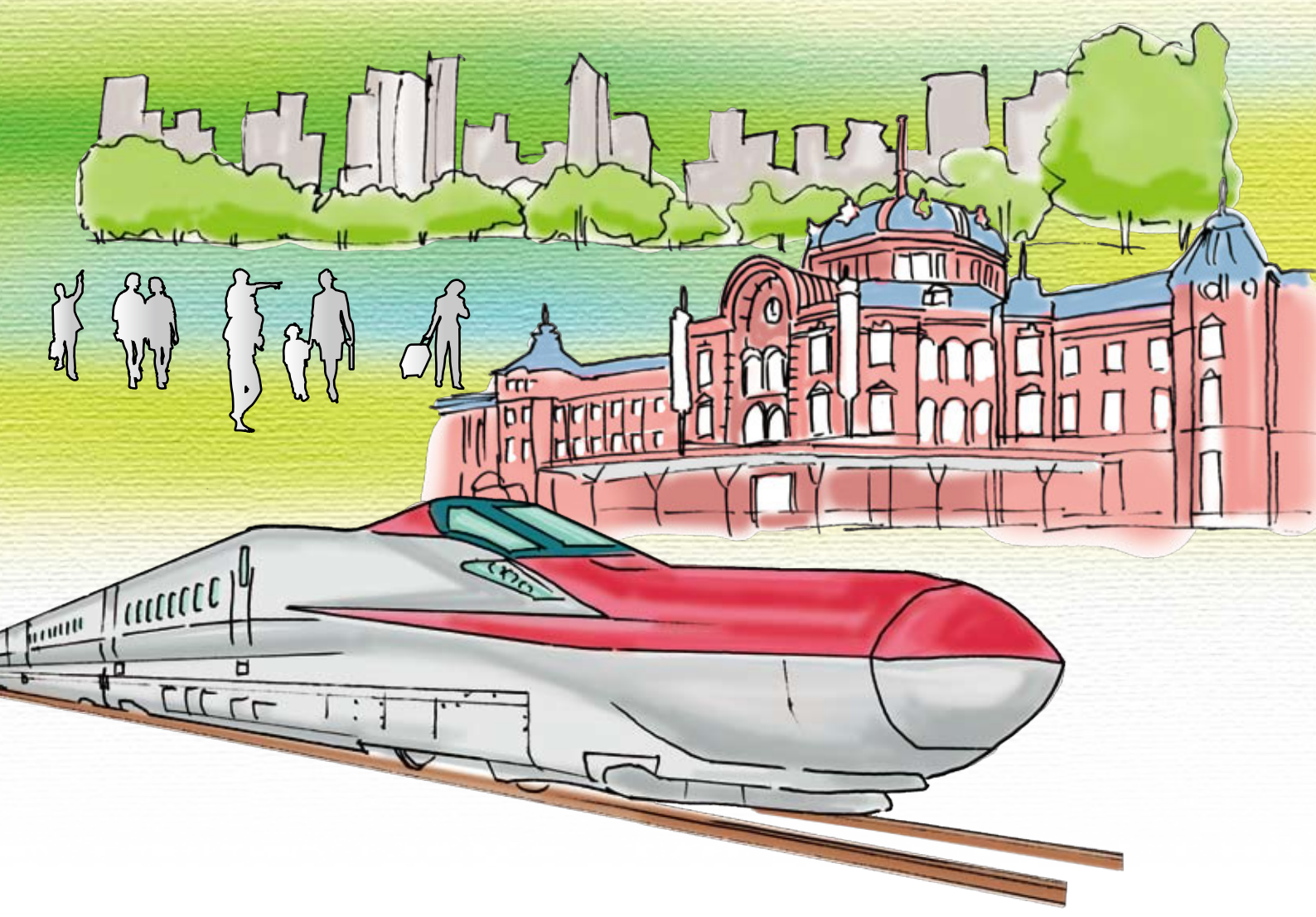
JR East Group CSR Report 2013

Aiming for a Sustainable Society



JR-EAST GROUP

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

Editorial Policy

Since 2002, we have annually published the JR East Group Sustainability Report with the aims of introducing various Group initiatives accurately and in an easy-to-understand format, and communicating with our diverse stakeholders. In light of recent social circumstances and having positioned our relationship with communities as the key to business operations in the "JR East Group Management Vision V-Ever Onward", announced last year, however, from this fiscal year, we have decided to publish the report as a CSR Report. The CSR Report 2013 features our activities over the past year in regard to recovery and restoration from the 2011 Great East Japan Earthquake, along with our initiatives for the development of world railways, energy and environmental strategy, our Station Renaissance project, and the preservation and restoration of the Tokyo Station Marunouchi Building and the surrounding area, under "Special Topics". We have also included interviews with employees and others as part of communication with our stakeholders.
While our desire remains to offer as much information as possible related to the environment, safety, and society, the report itself focuses in particular on areas where there have been notable changes. For more information on the overall activities of the JR East Group, please go to our website.

References
Environmental Reporting Guidelines 2012 [Japan Ministry of the Environment]
Environmental Accounting Guidelines 2005 [Japan Ministry of the Environment]

Reporting period
This report basically covers our activities in fiscal 2013(from April 1, 2012 to March 31, 2013), although some events presented here happened earlier or in the period between the end of March 2013 and the publication of this report in October 2013.

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.

Top message

Thriving with Communities, Growing Globally

Although the future of the Japanese economy has been uncertain in the recent years, with the current economic policies of the Government of Japan, corporate earnings and consumer spending have continued to show upward trends and indicate the economy's gradual recovery. With this positive growth as momentum, it is now vital for the country to implement specific strategies for growth through the concerted efforts of both the public and the private sector, and to take advantage of these positive trends for the expansion of the real economy. In order to help further the upward trend of the Japanese economy, JR East remains supportive of all measures contributing to the vitalization of regional economies and the creation of tourist flows.

It has been two and a half years since the Great East Japan Earthquake of March 2011, and there is still a great deal to be done in order to fully recover from the devastation. Since the disaster, JR East has worked in coalition with the Government of Japan and local municipalities to restore the railway sections along the Pacific Ocean which were devastated by tsunami. To date, JR East has reduced the initial 400 km length of unusable track to approximately 250 km through its ongoing efforts to restore the heavily damaged lines in stages while confirming safety in the process.

In addition, in order to revitalize the disaster hit areas through the power of tourism and the strength of the JR East Group, JR East launched Let's Go to Tohoku campaigns (“Ikuze, Tohoku”) and holds farm fresh markets featuring the local specialties of the Tohoku area at stations in the Tokyo metropolitan area.

Nevertheless, companies cannot thrive without the support of sound and vibrant communities. And, as a network industry, railways will not be able to realize their full potential without the support of such communities. Though it may still take some time, JR East will continue to offer whatever it can in support of its aim for the fastest possible recovery of the disaster hit areas and the revitalization of the regional economies.

Formulation of the JR East Group Management Vision V - Ever Onward

In October 2012, we formulated our fifth medium-term management plan, “JR East Group Management Vision V - Ever Onward”. This plan places the Great East Japan Earthquake as our second starting point, following the reform and privatization of JNR, and requires us to once again ask ourselves of the roles we are to assume, and in which direction we should steer our future evolution in light of the various challenges we currently face. In moving forward, JR East aims to uphold its slogan of “Thriving with Communities, Growing Globally”, and, as pillars of its business, continue to “fulfill our eternal missions” and challenge our “pursuit for unlimited potential.”

JR East greatly values the importance of responding to the willingness of its employees, and actively offers them opportunities to challenge themselves and play active roles in the company. In helping each one of them to grow, the JR East Group can achieve group growth as a whole, contributing to further avenues and opportunities for employees to develop and to succeed. By combining the personal growth of employees with the growth of the group, JR East can achieve positive cycles of development which we consider vital to the creation of a corporate culture comprised of challenge and growth. In harnessing the power of its employees, JR East aims to grow "Ever Onward" and break new ground for the future of railways, the JR East Group, and for each of our employees.

Continuing our “Eternal Mission”

Through the Great East Japan Earthquake, our employees were able to recognize anew their

bonds with the 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 responding to these expectations and for fulfilling our missions as a railway company. As such, the fundamental missions of the JR East Group, i.e., to adhere to customer demands for safe and high-quality services and to contribute to the development of local communities, will remain forever unchanged.

First, we remain committed to our efforts to achieve "ultimate safety levels". At the time of the Great East Japan Earthquake, no passengers on board any of our trains suffered any major injury. In addition to good fortune, we owe this in part to our endeavors to date to implement countermeasures against earthquakes. For this reason, we will never forget this experience, and remain both humble and fully prepared for the possibility of an earthquake occurring directly beneath the Tokyo metropolitan area. In order to solidify our standing as an increasingly disaster-resilient railway and to steadily implement all possible countermeasures, we are investing 300 billion yen for seismic reinforcement in this area. In addition, while necessity and urgency for measures concerning the aging of social infrastructure remain at the forefront, JR East is also taking measures against the aging of its railway facilities through planned repair and replacement in order to prolong the service life of these facilities. Furthermore, through the FY2016 completion of platform doors for stations on the Yamanote Line which are not scheduled for large-scale renovations, JR East endeavors to increase the safety of railway transport for the whole of the Tokyo metropolitan area.

Second, we aim to implement service quality reforms through the harnessing of teamwork from both beyond our business divisions and with groups from within our organization as part of our goal to become No. 1 in customer satisfaction in the railway industry. With this at heart, we aim to take all possible measures which will enable us to offer stable and comfortable customer transport while maintaining secure safety in our operations. We remain committed in our efforts to strategically implement our service quality improvement projects through the reinforcement of service management for each of our railway lines to respond to the potential needs of our customers. Furthermore, in addition to the FY2015 planned opening of the Tohoku Through Line and the Hokuriku and Hokkaido Shinkansen lines, JR East plans to further expand its railway network in the Tokyo metropolitan area and between other cities.

Another important issue for JR East is the strengthening of coalitions with local communities. In order to contribute to the restoration of the Tohoku Region, while continuing our efforts to restore the tsunami hit railway lines along the Pacific coast, we are working to improve customer convenience through operation of Bus Rapid Transit (BRT) for the Kesennuma and Ofunato lines, and the shortening of travel time between Sendai and Ishinomaki through construction of the Senseki-Tohoku Connecting Line. Also, in addition to the POKÉMON with YOU train which began service in December 2012, we plan to introduce other concept trains such as the all-seating dining car train Tohoku Emotion, and the steam locomotive galaxy express SL Ginga Tetsudo (provisional name). By thoroughly exploiting the combined power of trains, tourism, and innovative concepts, we seek to inspire people to board our trains for the "ride" itself, and hope that it will encourage as many people as possible to visit the Tohoku region. Through the expansion of agriculture, fisheries, and forestry into six industries with the production and processing of products, we aim to contribute to the revitalization of regional economies in coalition with local communities. Moreover, from the perspective of station-central city planning and in coalition with local communities, JR East aims to promote the three strategies of large-scale development of terminal railway stations such as Shinjuku and Shibuya stations; development of a line-side area brand chosen by consumers in the Tokyo metropolitan area; and, revitalization of core regional cities, such as the development of the Nagano Station Zenkoji Exit.

Pursuing the Unlimited Potential of the JR East Group

One of the important pillars in our management vision is that of "Pursuing Unlimited Potential". Some might consider that railways are an outdated mode of transport with limited room for technological advancement. However, I am confident that railways possess undiscovered and unlimited potential, and I believe that technological innovations hold the key to expand this potential and progress. Our current themes of focus for our research and development are the advancement of energy and environmental strategies; work evolution utilizing Information and Communication Technology (ICT); and, further increases in the operational speed of the Shinkansen. JR East asks its engineers to widely study technologies from outside the company, including that of other industries in order to help us achieve breakthroughs that exceed our traditional sense of values, without adhering too much to the technologies of JR East or railways.

Another key point for JR East is globalization. Currently, we are considering a wide range of overseas railway projects in a market that is said to be worth 22 trillion yen by 2020. In today's world, the railway industry is not an industry in decline but a promising one of growth. Utilizing the rolling stock manufacturing capacity and maintenance and train operations knowhow of the JR East Group, we aim to expand our business into the overseas railway market.

Above all, through the new challenges presented by technological innovation and globalization, we hope that each one of our employees will amass a great deal of knowledge from both outside of the company and the country, and continue their efforts to expand their potential. Each one of us must boldly step out into the world in order to unleash the full potential of the group and its employees. This is what we mean by "growing globally."

Aiming to achieve a sustainable society

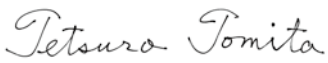
In JR East's endeavors to address global environmental issues, the JR East Group Management Vision V - Ever Onward has upheld our environmental targets to reduce energy usage in railway operations by 8% (compared to FY2011), and to improve the CO_2 emissions coefficient of JR East power plants by 30% (compared to FY1991) by FY2021. Following the Great East Japan Earthquake, with various energy-related issues such as the uncertain supply of electricity and increases in the cost of electricity becoming commonplace, JR East has been actively working to promote innovative efforts which stray from our traditional framework, achieve targets, and even try to exceed those targets along the way.

Our energy and environmental strategies are set on the pillars of energy creation, energy conservation, and the introduction of smart grid technologies. For the first of these three pillars, we promote the introduction of renewable energy through measures which include the construction of a mega-solar photovoltaic electricity plant for the Keiyo Rolling Stock Center scheduled to be completed by the end of this fiscal year. Also, in addition to the scheduled practical introduction of storage battery-driven electric car systems for the spring of 2014, we maintain our energy conservation efforts which include the addition of various green technologies to our ecological station “ecoste”, the introduction of energy-efficient railcars for the Saikyo Line and the Yokohama Line, and the introduction of LED lighting for our facilities. Furthermore, for future generations, we are directing our efforts to the development of new type rail cars with efficient automatic power-saving train operations through the utilization of Information and Communication Technology (ICT), and on research and development for the creation of railways free of overhead power lines which utilize high performance storage batteries. For the introduction of smart grid technologies, we aim to promote research surrounding automatic energy savings through the effective use of regenerative electricity and smart meters.

Since 2002, the JR East Group has been issuing its Sustainability Report as a means to disclose its CSR related information. From this year, we have changed the report's name to the CSR Report. In the JR East Group Management Vision V - Ever Onward, we have repositioned our relationships with local communities as the basis for our business operations, and therefore have decided to more suitably convey our group's efforts in this endeavor as the CSR Report.

Owing to the Great East Japan Earthquake, the JR East Group has pledged to return to its starting point at the time of JNR reform and the privatization and the foundation of the company with the slogan Thriving with Communities, Growing Globally. The JR East Group aims to refocus its collective capabilities and fulfill its eternal mission to contribute to the development of local communities through the provision of safe quality services, and to continue its ceaseless efforts to discover its unlimited potential in order to break new ground for the future, together with the people of local communities.

Tetsuro Tomita
President and CEO
East Japan Railway Company



JR East Group Management Vision V — Ever Onward— Ever Onward

JR East was established as a result of the reform and privatization of Japanese National Railways (JNR) 25 years ago, and the Group is now at a crossroads of moving on into the next quarter century. With this as an impetus, and in light of major changes in our operating environment, for instance as a consequence of the Great East Japan Earthquake, JR East in October 2012 formulated a new management vision entitled "JR East Group Management Vision V - Ever Onward." This fifth management vision since the Company was established aims to once again renew the courses of action for the Group going forward.
Having set the continual fulfillment of "Eternal Mission" and of growth through "Pursuing Unlimited Potential" as two important pillars, the vision was drawn up to set forth management's basic direction and the Group's specific priorities for execution.

1 Our Starting Points —Background for the formulation of the Vision

◆Awareness of Issues When Formulating the Management Vision

○Through experience derived from the Great East Japan Earthquake, JR East recognized the importance of ties with communities and of the high expectations that society has for the JR East Group. As a company responsible for railways, which are a crucial social infrastructure, we have reaffirmed the mission we must fulfill and its importance.
○Our operating environment has changed dramatically as a result of the Great East Japan Earthquake. There is still much more work that must be done to fully recover from the earthquake. Moreover, the earthquake has brought into sharp relief certain issues that Japan faced even before the earthquake, such as an aging and declining population, the hollowing-out of industry, and the dwindling strength of regional economies.
○Japan must also tackle urgent new issues, such as the accident at Fukushima Daiichi Nuclear Power Station and persistent power shortage problems.

Having positioned the Great East Japan Earthquake as our second starting point following the reform and privatization of JNR, we must once again ask ourselves what role we must play, and how we should direct our evolution in light of the various challenges we face.

JR East has formulated a new management vision entitled, "JR East Group Management Vision V — Ever Onward," with a view to achieving sustainable growth and responding to high expectations from society.

2 Our Calling —Basic Courses of Action for Management

The JR East Group's New Key Phrase

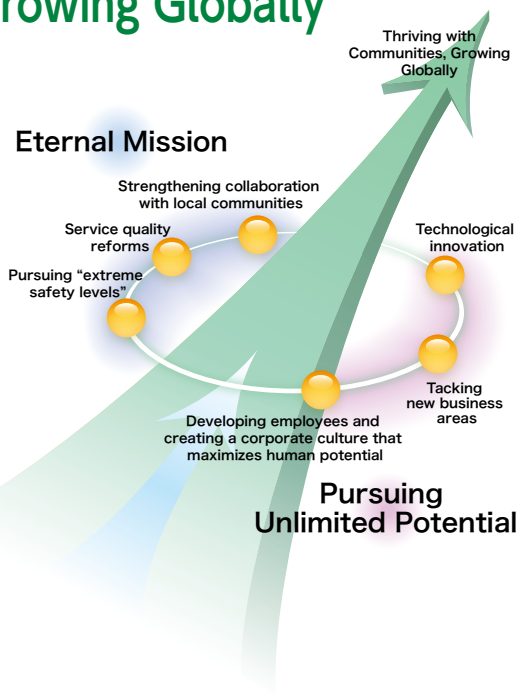
Thriving with Communities, Growing Globally

Thriving with communities

The Great East Japan Earthquake poignantly reminded us of the fact that companies cannot thrive without sound and vibrant communities. The East Japan area, our home ground, and Japan as a whole currently face a host of issues. As a corporate citizen, we are determined to fulfill our mission and execute businesses unique to the JR East Group in an effort to help solve those issues. The goal is to draw a blueprint for the future together with members of the community as we do our part to build vibrant communities.

Growing Globally

However, taking root in communities does not mean becoming complacent by turning inward. To continue to fulfill our mission, we must constantly transform ourselves and achieve growth. We must look outward and step out into the world, while actively seeking knowledge and technology externally. We believe that doing so will provide fertile ground for capturing new growth opportunities. To unlock our full potential, we must boldly step out into the world.



Eternal Mission and Pursuing Unlimited Potential

Under "JR East Group Management Vision V — Ever Onward," JR East has set "Eternal Mission" and "Pursuing Unlimited Potential" as two important pillars and has established six basic courses of action for the Group.

◆Eternal Mission

The JR East Group's fundamental mission is to provide safe and high-quality services that customers expect of the JR East Group and conduct railway and life-style businesses, with the aim of contributing to the growth and prosperity of communities. This fundamental mission will never change through the years. We have once again positioned this mission as a key tenet of management. At the same time, we will make relentless efforts to ensure that the content and quality of our services properly answer the expectations of society.

① Pursuing "extreme safety levels"—Building a railway capable of withstanding natural disasters
② Service quality reforms—Enhancing the rail transportation network and other measures
③ Strengthening collaboration with local communities —Supporting earthquake recovery, stimulating tourism and revitalizing communities

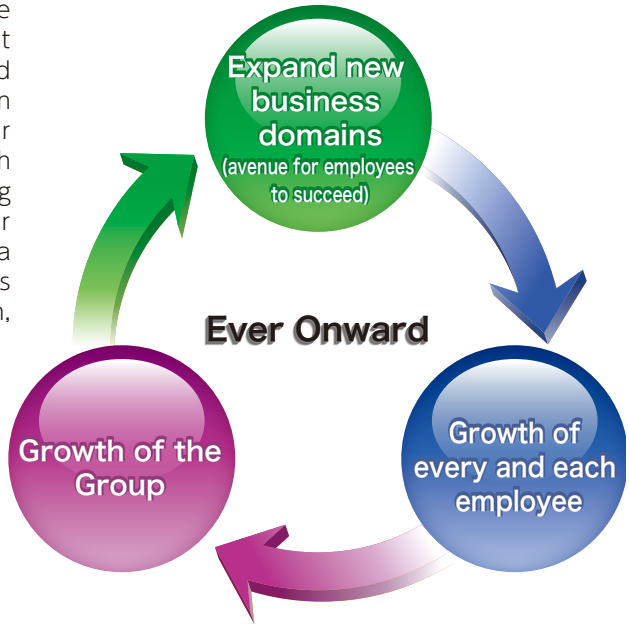
◆Pursuing Unlimited Potential

The JR East Group must achieve sustained growth in order to continue to fulfill its three-part eternal mission in the years ahead. In a fast-changing environment, maintaining the status quo will only mean falling behind. Unless we constantly take on the challenge of reaching new goals, we will be unable to achieve growth. The JR East Group and each and every Group employees will pursue the Group's unlimited potential.

① Technological innovation—Forging strategies for conserving energy and the environment, utilizing ICT (information and communication technology) and operating the Shinkansen at faster speeds
② Tacking new business areas—Globalization
③ Developing employees and creating a corporate culture that maximizes human potential

3 Ever Onward

We have adopted "Ever Onward" as the subtheme of "JR East Group Management Vision V." This subtheme carries forward the spirit of *"Idomu"* championed in JR East 2020 Vision — *idomu* —, our management vision formulated in March 2008. "Ever Onward" embodies our strong determination to drive the growth of our employees and the JR East Group as a whole by embracing new challenges such as technological innovation and globalization, as we pursue our unlimited potential.



4 Eternal Mission

1 KIWAMERU (Excel): Pursuing "extreme safety levels"

—Building a railway capable of withstanding natural disasters

- Based on experience derived from the Great East Japan Earthquake, we have worked to implement earthquake countermeasures in preparation for events that are conceivable such as an earthquake directly beneath the Tokyo metropolitan area, focusing on both tangible and intangible aspects, in an effort to build a railway capable of withstanding natural disasters.
- We will strengthen countermeasures against train collision and derailment accidents and rail crossing accidents, along with installing automatic platform gates on station platforms. In these and other ways, we continue to promote the development of railways that passenger can utilize reliability.
- We will continue to tirelessly work to improve safety by pursuing a goal of "zero accidents involving passenger injuries or fatalities and zero accidents involving employee fatalities (including employees of Group companies and partner companies)."

[Our efforts]
① Responding to major earthquakes
② Responses to natural disasters and extreme weather events
③ Automatic platform gates
④ Promoting measures to prevent train collision and derailment accidents
⑤ Upgrading systems and structures to ensure safety

2 MIGAKU (Improve): Service quality reforms

– Enhancing the rail transportation network and other measures

- We aim to become No.1 in customer satisfaction in the railway industry by honing the quality of transportation services while rigorously pursuing passenger-friendly railway services.
- We will generate new sources of demand, such as tourism, by steadily promoting several major projects. These include the forthcoming start of service on the Tohoku Through Line, as well as new operations of the Hokuriku Shinkansen to Kanazawa and the Hokkaido Shinkansen to Shin-Hakodate (provisional name).
- Besides striving to create new demand by upgrading and enhancing services for seniors, we will promote measures to enhance the convenience of Suica. Through these sorts of measures, we aim to further popularize Suica in society as an essential social infrastructure in daily life.

[Our efforts]
① Improving transportation quality
② Pursuing customer-friendly railway services
③ Improving the quality of the Tokyo metropolitan area railway network
④ Expanding the intercity transportation network
—Growing Shinkansen, expanding tourism. Discovery of new travel routes—
⑤ Enhancing the convenience of Suica as social infrastructure
⑥ Enhancing services for seniors

3 TOMO NI IKIRU (Together): Strengthening collaboration with local communities

– Supporting earthquake recovery, stimulating tourism and revitalizing communities

- As a company responsible for railways, which are a crucial social infrastructure, and a member of communities, we will consider the future of communities together with local communities and take action accordingly.
- We have positioned the next five years (from FY2013 through FY2017) as an intensive period in which reconstruction from the earthquake will remain an urgent priority. Therefore, we will diligently execute measures to revitalize communities and promote tourism in ways unique to JR East.
- In the life-style business, we will promote three town development perspectives that will see us conduct development and business expansion initiatives integrated with towns surrounding stations. These measures will be centered on the development of large-scale terminal stations, the Tokyo metropolitan area railway network and core regional train stations.

[Our efforts]
① Restoration of segments along the Pacific coast damaged by the tsunami caused by the Great East Japan Earthquake
② Promoting Japan as a tourism-oriented nation
③ Driving further growth in the life-style business
— Three town development perspectives —
④ Measures to fulfill our role as provider of regional transportation
⑤ Revitalizing local industries
⑥ Contributing to communities and society as a whole through medical services

5 Pursuing Unlimited Potential

1 HIRAKU (Pioneer): Technological innovation – Forging strategies for conserving energy and the environment, utilizing ICT (information and communication technology) and operating the Shinkansen at faster speeds

- We will embrace the approach of open innovation where we utilize external development capabilities and intellectual property and will vigorously promote technological innovation.
- We will emphasize measures to establish energy and environmental strategies in light of power shortage issues, develop new railway systems utilizing ICT that are unfettered by conventional notions, and embrace the challenge of operating Shinkansen at a maximum speed of 360 km/h.

[Our efforts]
① Establishing energy and environmental strategies
② Utilizing ICT
③ Operating the Shinkansen at faster speeds
④ Promoting an intellectual property strategy

2 NOBIRU (Grow): Tackling new business areas – Globalization

- The overseas railway market is projected to grow, and we will cooperate with companies worldwide to actively participate in overseas railway projects so that we will grow as a group.
- While continuing its challenges to enter into new business domains, we will hone JR East Group's technologies and expertise and establish an open and transparent corporate culture.

[Our efforts]
① Participating in overseas railway projects
② Expanding railcar manufacturing operations
③ Fully leveraging external technologies and services
④ New business initiatives

3 HABATAKU (Empower): Developing employees and create a corporate culture that maximizes human potential

- To ensure that employees are able to experience personal growth and fulfillment through their work, we will strive to provide numerous opportunities where highly motivated employees can succeed and tackle new challenges. At the same time, we will create a culture of respect for embracing challenges, where people feel empowered to try new initiatives.
- Through technological innovation and participation in overseas railway projects, among other means, we aim to build an open and transparent corporate culture and nurture personnel with an expansive perspective, as we foster employees who are able to take a broad interest in other industries and the world at large.
- To address the tumultuous management environment and allocate business resources to growing sectors, we will create a lean, muscular and agile management structure that is able to continuously generate profit.

[Our efforts]
① Expanding opportunities for employees to succeed and tackle challenges
② Corporate culture reforms
— Work style reforms, raising the efficiency of organizational management —
③ Establishing a lean, muscular and agile management structure

Special Topic 1

Toward the Development of World Railways

Amid an increasing global awareness of environmental issues and the economic growth of emerging economies, interest in railways as environmentally friendly public transportation systems is on the increase, which has resulted in the current consideration of many railway projects around the world.
On November 1, 2011, JR East established Japan International Consultants for Transportation Co., Ltd. (JIC), a company that provides consulting services to overseas railway companies. The company was formed jointly with West Japan Railway Company, Tokyo Metro Co., Ltd., and other domestic railway operators which have good records of performance achievements and know-how regarding all kinds of rail transportation, including high-speed railways, urban railways, and freight railways. The aim of the company is to contribute to railway development throughout the world by supporting all aspects of railway systems, including surveying, design, construction supervision, operation, and maintenance.
With JIC at the head, we are currently conducting various overseas railway consulting projects including feasibility studies and design work. We will, furthermore, cooperate with both Japanese and foreign companies to participate in overseas railway projects, including both operational and maintenance aspects (planning, instructing, and supporting train operations and facility maintenance). In particular, we are prioritizing Asia, an area that is growing remarkably, as well as responding to railway projects in all regions and are contributing to global railway development.
With the task of railway project information gathering, in addition to the previously established New York and Paris offices, in November 2012, we established Brussels, Belgium office, followed by a Singapore office in March 2013.


Railway in Myanmar


Railway in Ghana

Overseas expansion of railcar manufacturing

We are aiming to establish railcar manufacturing operations as the fourth pillar of management by taking full advantage of the synergy of Japan Transport Engineering Company (J-TREC), which joined the JR East Group in April 2012, and the Niitsu Rolling Stock Plant.
We will, furthermore, continue to improve our Group's comprehensive technological capabilities, which range from manufacturing to operations and maintenance, with the aim of expanding the global market share of Japanese railcars. J-TREC in particular is pursuing a business strategy that demonstrates the advantages, such as high reliability and low lifecycle costs, of its stainless steel railcars, which are marketed under the brand name Sustina.
With the specific target of overseas growth, Group companies are currently enhancing their structures and nurturing overseas business expansion by combining tangible and intangible know-how. In December 2012, for example, J-TREC established the Overseas Business Promotion Office and East Japan Transport Technology Co., Ltd. launched its Overseas Business Department.

Exhibit in the International Trade Fair for Transport Technology

Global Human Resources Development Program —Ever Onward

Aiming for the nurturing of people who will be capable of increasing overseas development, JR East promotes the Global Human Resources Development Program—Ever Onward, which provides such options as overseas studies, overseas dispatch to public institutions and companies, and overseas railway consulting work on-the-job training (OJT). Overseas railway consulting work, OJT training, is a program conducted with the objective of developing human resources capable of serving as heart of the railway consulting business. In fiscal 2013, 22 people selected through open application were dispatched to Cairo (Egypt), Hanoi (Vietnam), and Ho Chi Minh City (Vietnam), and other trainees are actively working all around the world.


OJT in Cairo


OJT in Hanoi

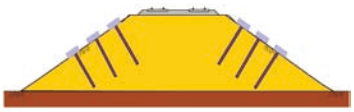
Special Topic 2

Toward Restoration from the Earthquake and Revival of Community

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 emergency train stop measures, seismic reinforcement measures to its elevated bridge columns, bridge piers, tunnels and station buildings, taken preventive measures against derailments, and increased the number of seismometer locations. Thanks to these and other measures, nobody on board our trains was killed or injured at the time of the Great East Japan Earthquake of March 11, 2011.
Since FY2010, JR East has expanded its countermeasures and initiated the 2nd phase of its seismic reinforcement measures, including further seismic reinforcement of elevated bridge columns. In addition, JR East has designated the five years from FY2013 as a priority improvement period and strives to provide disaster-resilient railways through the introduction of the following measures:

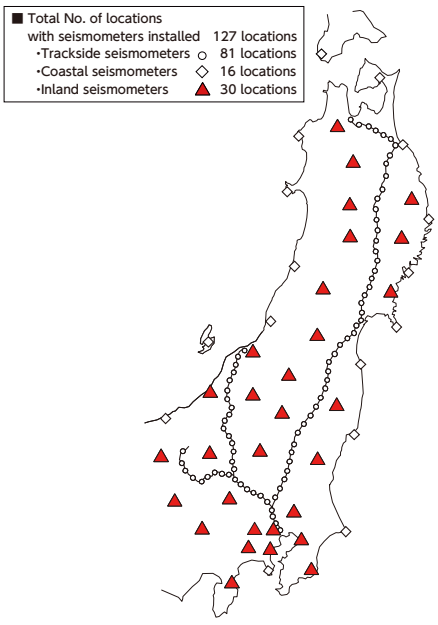
① Seismic reinforcement measures for embankments, earth cuttings, arched elevated brick bridges and power poles, and measures to prevent the collapse of station platform ceilings and walls if an earthquake directly strikes the Tokyo metropolitan area. JR East will also accelerate the implementation of its plans for continuing the seismic reinforcement of its elevated bridge columns and 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 during the Great East Japan Earthquake.
③ Strengthening of anti-disaster telecommunication functions, including an increase in the transmission speed of seismometer measurement data, and the reinforcement of emergency power sources for our communication network.



・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 protection against tsunami

Prior to the 2011 Great East Japan Earthquake, JR East had already designated tsunami hazard areas and set operational restrictions for each of its branch offices, formulated manuals and conducted drills in the guidance of passengers evacuating from trains. After the earthquake, JR East further reviewed all of its tsunami-related rules, manuals, and drills, and then, based on the reviewed rules and established policies, took the following actions in FY2013:

- Establishment of tsunami warning zones in each of our branch offices after reexamination based on hazard maps of municipalities and tsunami flooded areas resulting from the Great East Japan Earthquake.
- Systematic improvement of displays showing evacuation route maps and signage at and between stations.
- Installation, working jointly with local municipalities, of emergency stairs to evacuation shelters and of signs to indicate escape routes in places where evacuation is difficult.
- Establishment and review of tsunami response manuals in all workplaces that could be at risk.
- Implementation of regular education and training around March 11 in all workplaces that could suffer from tsunami, based on Tsunami Evacuation Principles, tsunami response manuals, and other sources.

A drill to guide passengers in getting off trains

Evacuation route map

Drills and support provision for people facing difficulties getting home

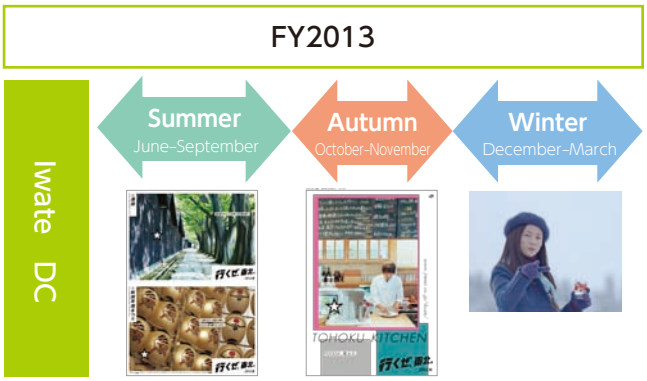
When train services were interrupted during and after the 2011 Great East Japan Earthquake, stations were crowded with passengers. In the future, after confirming the safety of our facilities, JR East will strive to keep passenger restrooms and public phones open and available at stations throughout the Tokyo metropolitan area, provide customers with as much information as possible, and offer temporary shelter in concourses and elsewhere at approximately 200 stations. These designated stations have been listed on the JR East website since March 5, 2013 and information on temporary shelter spaces and requests to customers has been widely publicized as station initiatives that would follow large-scale earthquakes.
At approximately 30 major terminal stations, including Tokyo and Shinjuku, JR East has been stockpiling supplies including drinking water, blankets, and first-aid kits for children and the elderly. In FY2014 this project will be expanded to approximately 170 stations within a 30-km radius of Tokyo.
JR East also has conducted joint drills with the local municipalities to increase our ability to support people who are having difficulty returning to their homes in the event of a disaster affecting major terminal stations. Together with local municipalities, JR East is working to improve evacuation guidance methods in the event of disasters, and to be generally better prepared.

A drill at Shibuya Station

Measures to support the Restoration of Disaster-damaged Areas in FY2013

The areas struck by the Great East Japan Earthquake are still in the process of restoration and JR East is striving to revitalize them through the power of tourism. In FY2013, the Iwate Destination Campaign (DC) was run from April to June and was followed by the GO! TOHOKU Campaign which introduces the seasonal attractions of Tohoku, thus enabling us to continuously promote Tohoku tourism. We also provided restoration support tours that assist the disaster-damaged areas through tourism, including the Minami-Sanrikucho Recovery Market Support Tour which visits markets and shopping malls that local residents worked on as part of the restoration of their communities, the Ishinomaki and Onagawa Recovery Support Tour led by guides who relate stories of the disaster, and the Kesennuma Restoration Support Tour which incorporates an observation of our Bus Rapid Transit (BRT) dedicated road.

■ Restoration measures for disaster-damaged areas
— Tourism Campaign —



During restoration support events in Sendai Station, Dila Nishifunabashi, and Dila Mitaka, JR East provided concrete assistance by offering sales channels for products from disaster-affected areas where production has been resumed and sales outlets for residents of disaster-affected areas. With the commencement of BRT operations along the Kesennuma and Ofunato lines, in cooperation with the local chamber of commerce and industry, we hosted events at Kesennuma and Sakari stations. The events proved very popular with residents living along the lines and also attracted many railway fans.
At Ueno and Akihabara stations in Tokyo, JR East continuously hosted events such as farmers' markets and "NOMONO" local produce shops, which focused on eastern Japan including disaster-struck areas such as Miyagi and Fukushima prefectures. During these activities, there were sales of seasonal flavor produce from agricultural producers, local sake from sake breweries, and traditional craft products and other local specialties, as well as performances of traditional culture events and the promotion of tourism through the provision of local information for each prefecture.

Farmers' market

Tsunami-damaged Railway Lines—Basic Policy and Restoration Status

JR East has been carrying out post-tsunami reconstruction with the goal of resuming train operations on line sections where safety can be guaranteed along the northeastern Pacific coast. Services have now resumed along the entire Hachinohe Line and along sections of the Joban, Senseki, and Ishinomaki lines.
We are advancing restoration along sections of the Sensaki Li ne between Takagimachi and Rikuzen-ono and the Joban Line between Soma and Hamayoshida by track replacement. We also have the goal of restoring service on the full length of the Senseki Line by the end of 2015. On the Joban Line section, we will commence reconstruction in spring 2014 and plan to resume service within three years from that date. For the Ishinomaki Line section between Urashuku and Onagawa, we have reached agreement with the town of Onagawa and are preparing for restoration plan together with a scheme for the further development of the town.
The Joban Line section between Hirono and Haranomachi passes through the exclusion zone within a 20-km radius of the Fukushima Daiichi Nuclear Power Station, and we have many matters to consider regarding restoration of operations. Before making any decisions, we will consider all aspects of reconstruction, including reviews of line sections, decontamination activities implemented by the Ministry of the Environment, the condition of infrastructural redevelopment, the situation regarding the return of former residents, and requests from local governments. Restoration is already proceeding between Hirono and Tatsuta, with the goal of service resumption in spring 2014 in line with Naraha Town's decision to allow the return of its residents.
From the perspective of providing safe and highly convenient transport services at the earliest possible date, we have now established BRT systems as interim methods of transport along the sections of the Kesennuma and Ofunato lines where train service has not been restored. BRT service began on December 22, 2012, on the Kesennuma line and on March 2, 2013, on the Ofunato line.
The suspension of train operations along line sections badly damaged by the earthquake and tsunami has now been reduced from the initial 400 km to approximately 250 km, as of August 1, 2013. JR East will, of course, continue to cooperate with both national and local government authorities to bring about restoration of damaged railway lines, as well as in plans to rebuild the area as a whole and further develop towns, while at the same time ensuring that customer safety has first priority.

Exclusive roadways and vehicles for BRT

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 entire 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 to reduce its generation, and to use more recycled and resource-saving products to minimize the burden we placed 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

INPUT

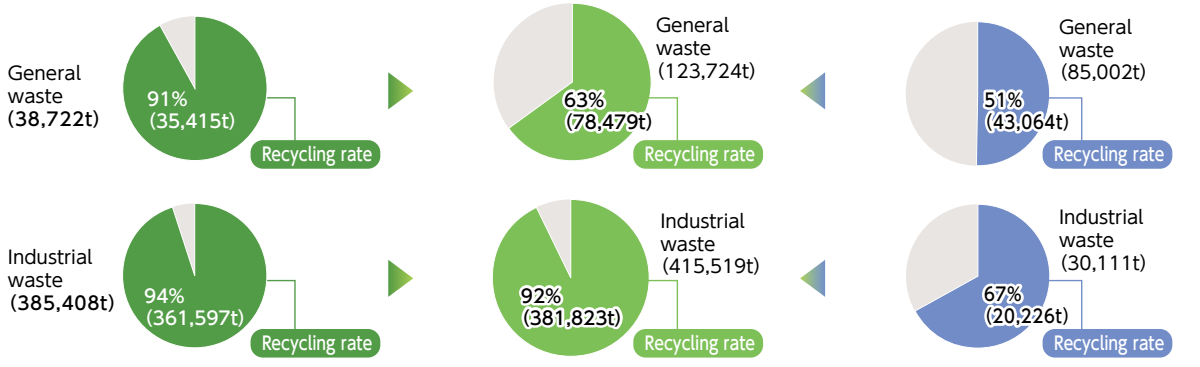
	JR East's business operations	JR East Group companies' business operations
Energy use☆	●Electricity 5.05 billion kWh*1 ●City gas 14.58 million m³*2 ●Other fuels 67 thousand kL (crude oil equivalent)*2	●Electricity 0.76 billion kWh ●City gas 32.39 million m³ ●Other fuels 31 thousand kL (crude oil equivalent)
Water use☆	11.70 million m³	9.57 million m³
Office paper use☆	1,797 t (of which 96% is recycled paper)	1,017 t (of which 83% is recycled paper)
	Operating revenue 1,910.8 billion yen	Operating revenue 761.0 billion yen

OUTPUT

	JR East's business operations	JR East Group companies' business operations
CO_2 emissions☆	2.33 million t-CO_2	0.50 million t-CO_2
General waste discharged☆	●Offices 2,738 t ●Stations and trains 33,820 t ●General Rolling Stock Centers etc. 708 t ●Tickets 357 t ●Other field office*3 934 t ●Power plants 165 t Total 38,772 t	85,002 t
Industrial waste discharged☆	●Construction projects*4 360,359 t ●General Rolling Stock Centers etc. 23,212 t ●Medical waste 156 t ●Other field office*3 679 t ●Power plants 1,002 t Total 385,408 t	30,111 t

*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 20 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, conductor's depots , engaged in the maintenance of equipment.
*4 Construction projects: Waste generated by our construction projects, but for which contractors legally become the waste-discharging entities, is included in industrial waste.

■JR East's recycling rate☆ ■Entire JR East Group's recycling rate☆ ■Group companies' recycling rate☆



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 to produce hot water.

Progress Report on Environmental Targets

Targets to be met in and after FY2014 and results in FY2013

Category of environmental conservation activities	Performance indicators	Targets to be met by FY2020	Results for FY2013
Measures to prevent gloval warming	Energy consumption from railway business activities	8% reduction (MJ: relative to FY2011 level) (52.7 billion MJ⇒48.5 billion MJ)	0.7% reduction (52.3 billion MJ)
	CO_2 emissions per unit of electricity generated at JR East's own power plants	30% improvement (kg-CO_2/kWh: relative to FY1991 level) (0.457 kg-CO_2/kWh⇒0.320 kg-CO_2/kWh)	25% improvement (0.341 kg-CO_2/kWh)*1

Category of environmental conservation activities	Performance indicators	Targets to be met by FY2014	Results for FY2013
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)	2.6% reduction (1.80 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 (0.0411 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%	94%
	Recycling rate for waste generated in construction projects	95%	94%
	Rate of green procurement*2	100%	100%
Environmental activities along railway lines	Measures to reduce noise to 75 dB or less along the Tohoku and Joetsu Shinkansen Lines*3 (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 The figure is calculated according to the Act on the Rational Use of Energy.

*2 The figure indicates the ratio of the group companies which purchase goods specified in the Basic Policy under Article 6 of the Law Concerning the Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities are used.

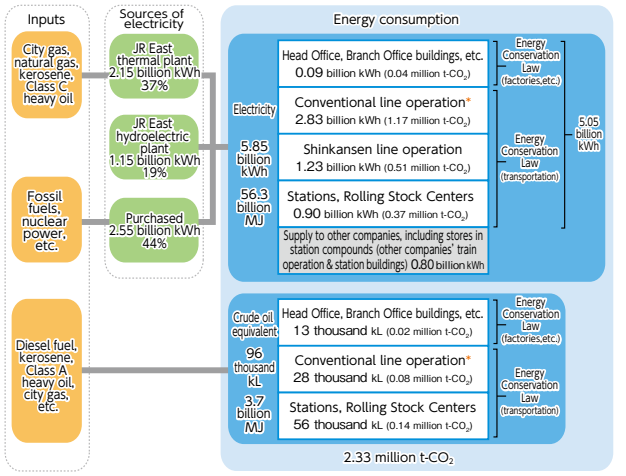
*3 Measures to reduce noise to 75 dB or less have been completed in the designated areas in accordance with government guidance. Currently, improvement work is being carried out step by step in other areas, to be completed by the fiscal year ending March 2016.

Measures to Prevent Global Warming

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 80% of our total energy consumption, and reduce CO_2 emissions in various ways.

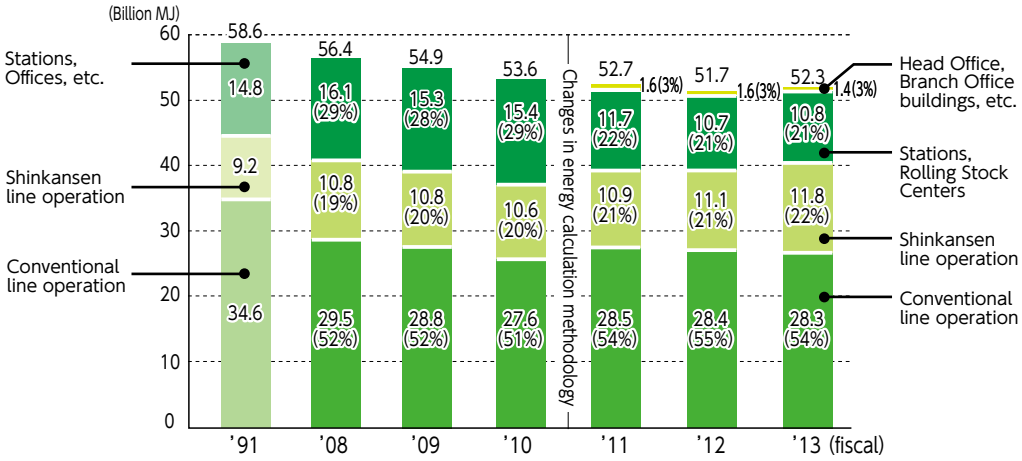
■ JR East Energy flow map



(CO_2 emissions are the amount calculated with 'adjusted' emission coefficients that reflect the credits purchased by electric power companies.)

* Including BRT (Bus Rapid Transit)

■ Composition of energy consumption by JR East



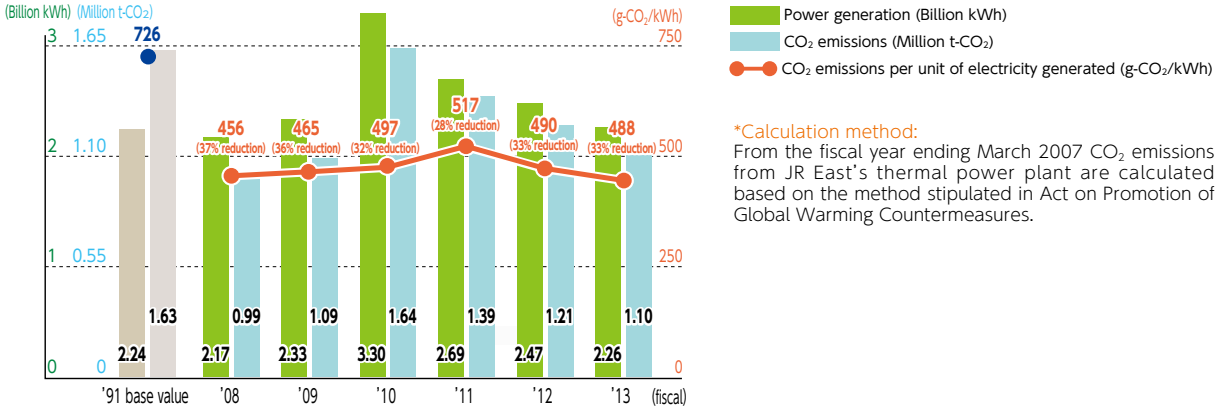
* The energy consumption is converted in Joules according to the Act on the Rational Use of Energy, except for the electricity generated by JR East's own hydroelectric plant, which is converted in Joules using 9.76 MJ/kWh as the conversion factor. JR East uses 0 MJ/kWh as the conversion factor for our own hydroelectric power in our report submitted to the government, as required by the Act.

JR East's own thermal power plant☆

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

* 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

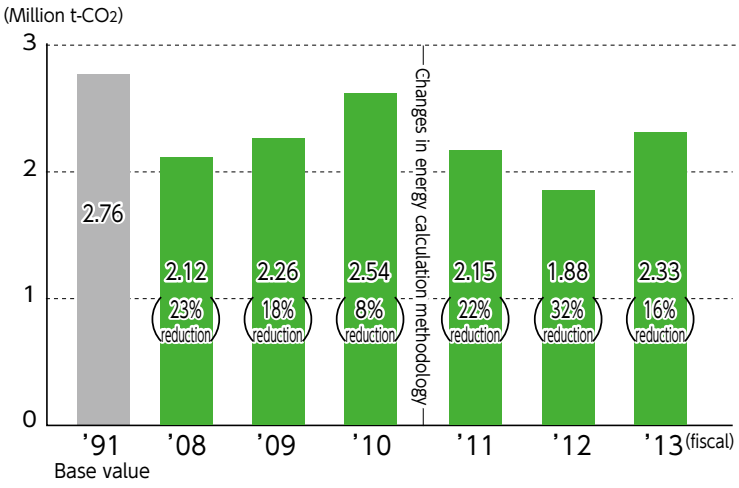


*Calculation method:
From the fiscal year ending March 2007 CO_2 emissions from JR East's thermal power plant are calculated based on the method stipulated in Act on Promotion of Global Warming Countermeasures.

Trends in JR East's total CO_2 emissions☆

Our CO_2 emissions in the fiscal year ending March 2013 totaled 2.33 million tons, an increase of 0.45 million tons over the previous fiscal year. This was due to an increase in the CO_2 emission coefficient (CO_2 emitted per unit of electric power generated by power companies). It was also attributable to the rebound effect of energy-saving and other measures taken after the Great East Japan Earthquake.

■ Trends in JR East's total CO_2 emissions



*Total CO_2 emissions in FY2013, when calculated with the same calculation methodology (category and boundary) as that used until FY2010, are 2.43 million tons of 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:
CO_2 emissions have been calculated based on the method specified in the Act on Promotion of Global Warming Countermeasures. However, the CO_2 emissions attributable to the purchased electricity are calculated, including those from the electricity used for rail transport, by using adjusted emission coefficients. The CO_2 emissions in the fiscal year ending March 2013 calculated by using actual emission coefficient is 2.34 million tons, an increase of 0.32 million tons over the previous fiscal year.

Reducing energy consumed for train operations☆

As of the end of March 2013, JR East had 11,607 energy-efficient railcars in operation. This accounts for 90.4% 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 the *Kiha* E200 type, in the Nagano, Aomori and Akita areas.

HB-E300 series: A hybrid resort train

Utilization of renewable energies

We also promote use of renewable energies, including solar and wind power. Solar panels have been 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 achieve "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 2013, we had "greened" a combined rooftop area of approximately 24,231 m^2 in 71 projects.

Rooftop greenery at Chiba branch building

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 provides education in farming and environment through people's experience in cultivating vegetables. These are popular among many customers and have also been built in Ebisu, Ogikubo, Takasaki and Hachioji.

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

Six buildings, including GranTokyo South Tower, GranTokyo North Tower, JR Shinagawa East Building, Sapia Tower, JR Tokyu Meguro Building and Tokyo Building, are recognized 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.

GranTokyo South Tower was certified to be upgraded to a top-level establishment from a quasi-top-level establishment in February 2013. As a result, all three buildings in Tokyo Station City (GranTokyo South Tower, GranTokyo North Tower and Sapia Tower) have been designated as Global Warming Countermeasures Establishments.

The JP Tower, the JR Minami-Shinjuku Building and the JR Kanda-Manseibashi Building, all of which were completed in the fiscal year ending March 31, 2013, are also environmentally and energy friendly. The JP Tower and the JR Kanda-Manseibashi Building were 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).

GranTokyo South Tower, recognized as a top-level establishment

JR Kanda-Manseibashi Building, ranked "S," in the CASBBE

■ List of top-level establishments

Top-level establishments
Sapia Tower (certified FY2011)
GranTokyo North Tower (certified FY2012)
GranTokyo South Tower (certified FY2012 as quasi-top-level establishment, upgraded FY2013)
JR Shinagawa East Building (certified FY2011 as quasi-top-level establishment, upgraded FY2012)

Quasi-top-level establishments
Tokyo Building (certified FY2011)
JR Tokyu Meguro Building (certified FY2011)

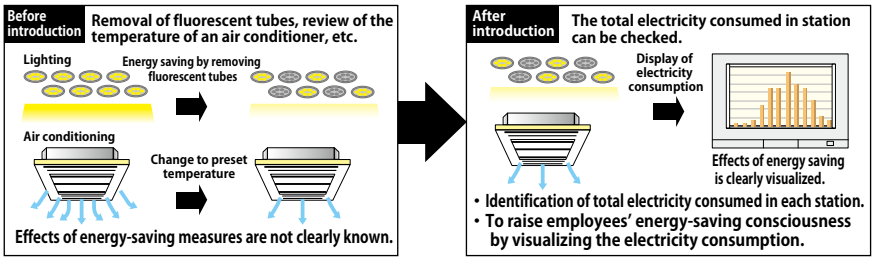
Saving energy used by information systems

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 128,000 kWh of power in FY2013. 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.

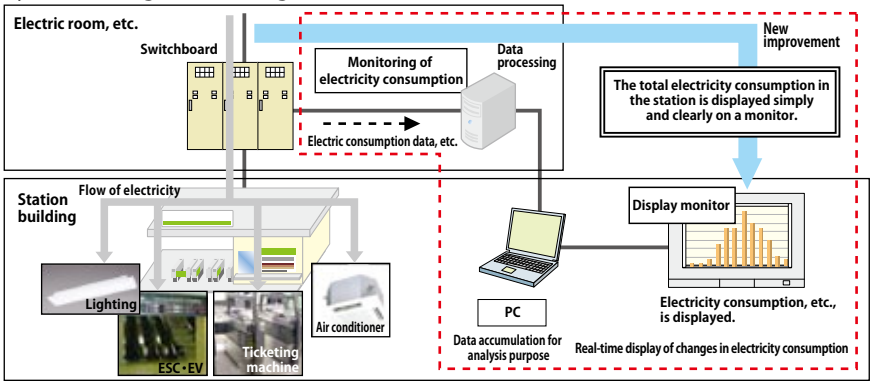
Visualizing the power consumption in stations

JR East is introducing monitors that display the energy consumed in stations to encourage the employees to have stronger consciousness of energy saving. The visualization system measures the total electricity consumed in station at the power-receiving location and displays it on a monitor every hour. It had been introduced in about 30 stations by the year ended March 2013, and will be introduced in 170 stations during the fiscal year ending March in 2014.

■ Mechanism of visualization



System configuration diagram



Case Report: Environmental Measures

LED lighting installed on all Yamanote Line trains

In December 2010, LED lighting was installed on the 11-car configuration Yamanote Line trains on an experimental basis. As the gathered data confirmed reductions in both energy usage and CO_2 emissions, in summer 2013, we began introducing LED car lighting to all Yamanote Line cars and will complete the changeover (572 cars in 52 configurations) by spring FY2015. By doing this, JR East will reduce Yamanote Line electricity consumption by approximately 40% compared to that of fluorescent lighting. We also expect to reduce CO_2 emissions by approximately 624 tons per year across all 52 Yamanote Line configurations. Stickers will be displayed on the windows of cars equipped with LED lighting.
From FY2014, we will also introduce LED lighting on the E233-series cars that will be introduced on the Saikyo, Yokohama and Nambu lines, on the E129-series cars that will be introduced in the Niigata area and on the HB-E210-series cars that will be introduced on the Senseki and Tohoku lines. Our intention, furthermore, is to adopt LED lighting for all new cars servicing the Tokyo metropolitan area.

LED railcar lighting

LED lighting in use sticker

Intermodal Transportation = Reduction of CO_2 emissions by the entire transportation system

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 railway network from there. By the end of March 2013, 81 JR East stations had parking spaces for eight 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 eight thousand cars at 81stations: Parking spaces include those developed by JR East and those managed by JR East Group companies or in cooperation with local municipalities.

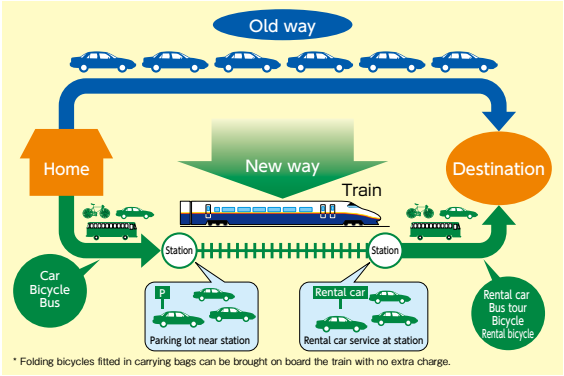
At 10 stations between Tomobe and Iwaki on the Joban Line, parking charges are free for express train customers going farther than a specified distance.

Enhanced rental car service at stations

Rental car service is available in major stations, and we suggest travel plans to our customers that use a combination of railways and automobiles to visit places distant from the station. Environment-friendly hybrid cars with car navigation systems and electronic toll collection as standard equipment were introduced last year. JR East also offers intermodal travel packages such as Rail-and-Car tickets with discounted rental charges.

* 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

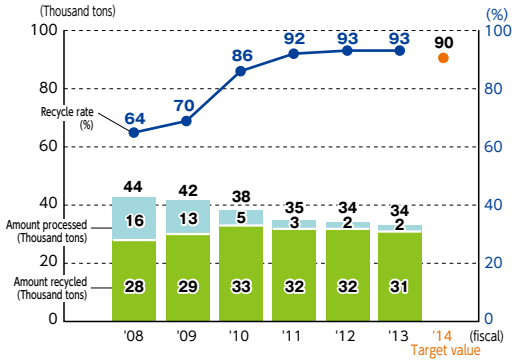
JR East generates many kinds of waste through its railway operations, including daily trash removed from trains and stations and industrial waste from our General Rolling Stock Centers. In addition, restaurants and retail stores in our life-style businesses produce garbage and general waste. In order 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 ended March 2013, 93% of the trash collected from stations and trains was recycled. 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

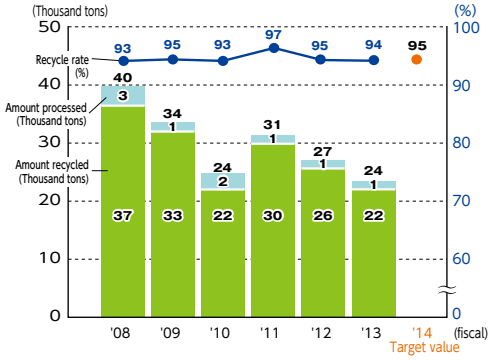
■ Waste from stations and trains



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 that ended in 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

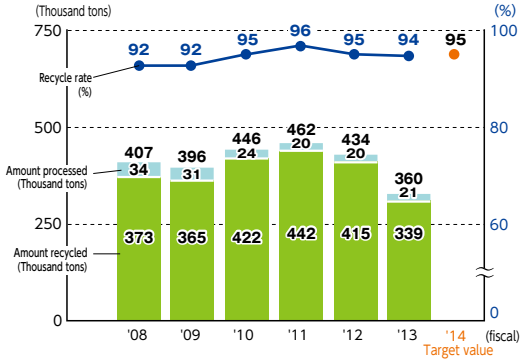


At Nagano General Rolling Stock Center, retired wheels are recycled into brake disk parts

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 2013, JR East generated 360 thousand tons of waste through construction and maintenance projects at our stations and other structures, including 39 thousand tons of waste through work entrusted to JR East.*

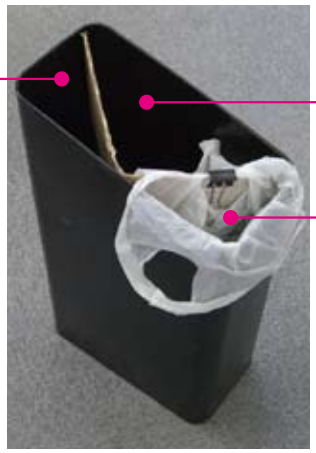
■ Waste from construction projects



* 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 2013, we recycled 2,340 tons out of a total of 2,738 tons of waste (86%).



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 11.70 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 m^3 out of 35 thousand m^3 of water was reused in the fiscal year ending March 2013.

* 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 2013, all of the 357 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 achieve a recycling-oriented society. (We met a target of "100% green procurement" in FY2013.)

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 tests were successful.

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 2012

Forest development along railway lines☆

Beginning in 1992 we have been engaged in tree planting activities along the JR East railway lines. By fiscal 2013 a total of 46 thousand people had participated in planting about 315 thousand trees. Today, we have gone beyond the wayside and do tree planting in cooperation with the communities.

Development of railway trees

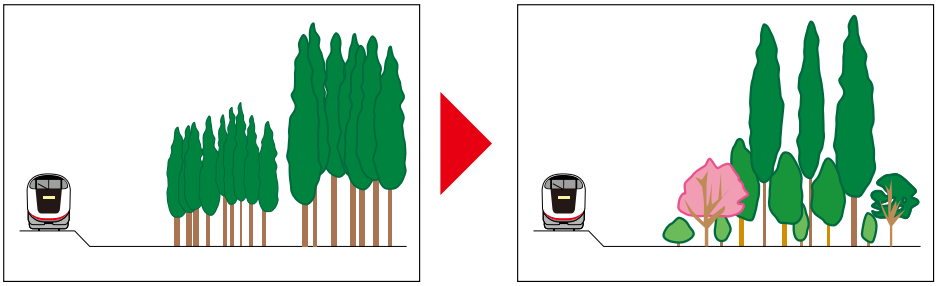
Along some JR East railway lines, we have railway trees planted to shield the tracks from blowing snow and wind. The first railway trees were created in 1893 for disaster prevention. As living disaster prevention facilities, railway forests are playing their roles.
JR East now owns approximately 5.8 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 of both 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 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, as the demand for domestic timber has declined. 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, in the Jinguji No. 2 railway forest on the Ou Main Line between Jinguji and Kariwano on May 22nd, 2010, and in the Okama No.1 railway forest on the Tazawako Line on September 29th, 2012. 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.

Ceremony for planting Okama No.1 railway trees on the Tazawako Line (September 29, 2012)

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 FY2013, 240 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 2013, we were using 1.3 tons of CFCs and 89 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 67 tons of halon gas was still in use as a fire-extinguishing agent as of March 2013, 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 2013, pursuant to the PRTR System.*

We have also been introducing stainless steel railcars that do not require painting. At the end of March 2013, as many as 83% of the 11,052 cars operated on our conventional lines were stainless steel railcars. Beside their use for railcars, we used 448 tons of organic solvents for painting railway facilities and stabilizing track beds in the fiscal year ended March 2013.

* 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	68,024.3	2,575.0	0.0	8.5
2-Aminoethanol	1,407.3	0.0	0.0	260.0
4,4'-methylenedianiline	4,921.8	0.0	0.0	3,691.4
Ethylbenzene	6,817.2	2,424.1	0.0	4,072.7
Xylene	109,916.3	15,067.0	0.0	10,024.0
Chromium and Chromium(III) compound	2,415.4	0.0	0.0	0.0

Chemical substance	Handled	Released into air	Released into sewerage	Transferred to other facilities
Dichloromethane (Methylene chloride)	4,726.1	1,182.7	0.0	3,543.0
Toluene	26,226.5	5,341.0	0.0	9,862.0
Nickel	4,709.4	0.0	0.0	0.0
n-Hexane	2,507.7	227.0	0.0	0.0
Methylnaphthalene	55,796.6	2,041.4	0.0	0.0
Molybdenum and its compounds	1,483.6	10.0	0.0	0.0
Total	**288,952.2**	**28,868.2**	**0.0**	**31,461.6**

Management of PCBs (polychlorinated biphenyls)☆

Equipment containing PCBs is securely stored in exclusive storage 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 2013, we had 638 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 2013, the program was implemented at six schools, primarily elementary schools, in Tokyo and Saitama Prefecture. We will continue it.

Delivering an environmental education program at an elementary school in Saitama (Saitama)

Railway Museum Environment Seminar

We staged the "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

For the purpose of explaining JR East's environmental preservation activities and directly communicating with customers, we staged, jointly with Tokyo Gas Co., Ltd., The Tenth Gas and Railway Environmental Activities Exhibition for the Future of Our Life viewed with Smart Grid and Eco-Service Station at the Chuo Line Yotsuya Station.
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.

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 published the first Annual Environmental Reports in 1996. Its title was changed to "Sustainability Reports" in 2002, and to "CSR Reports" with the publication of this report.
We also communicate about our environmental activities through magazines, TV commercials and other media, as well as JR East's websites, posters and pamphlets.

Corporate ad – Ecoste
(also TV commercial)

Corporate ad – Smart Grid
(also TV commercial)

Model Ecoste station pamphlet

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 some 350 people. Our lecture in Shirakami had 40 participants, while the trekking in the Shirakami Mountains program had about 450 participants. In 2013, we plan to conduct a large-scale Shirakami Mountain lecture program to commemorate the 20th anniversary of Shirakami Mountain's registration as a World Natural Heritage site.
We continue to offer "Hiking from Stations" with a station as a starting point. In the fiscal year ending March 2013, we held 674 hiking trips from stations with approximately 230,000 people in total participating in the walking tour to visit attractive tourist spots in the area.

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

Planting trees at Futatsumori

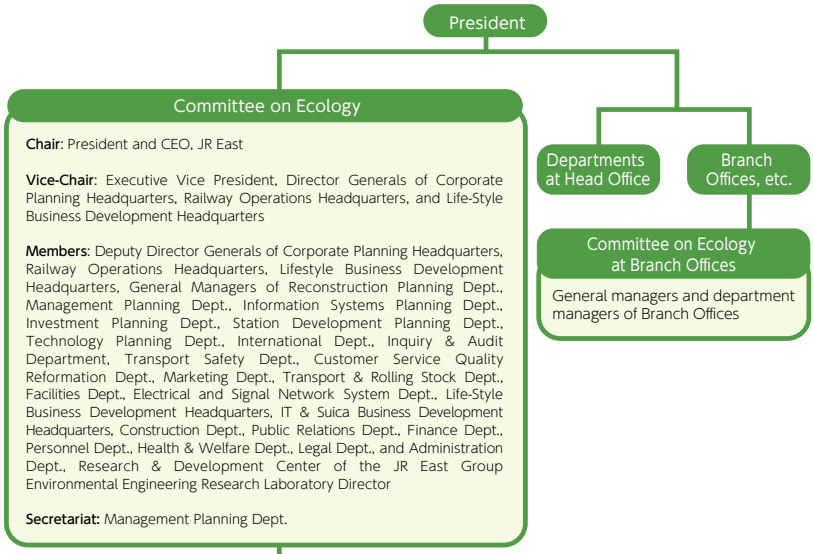
"Hiking from Stations", walking tour to visit attractive local tourist spots

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 in its Management Planning Dept., overseeing environmental management for the entire JR East Group.

■ Organizational structure to promote environmental management (as of August 1, 2013)



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: 13

Environment countermeasures (noise & vibration) expert training

- Persons trained: those responsible for environment at each Branch Office
- Objectives: learning of basic knowledge about relevant rules and regulations for noise and vibration
- Number of participants: 24

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
East Japan Transport Technology Co., Ltd. (Omiya Branch)	Feb-02
Nippon Restaurant Enterprise Co., Ltd. (manufacturing section)	Sep-02
Nagano Railway Servicing Co., Ltd. (Current : JR Nagano Railway Services 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 2013.

Actions by Tohoku Construction Office

In starting the operation of BRT on the Kesennuma and Ofunato lines, Tohoku Construction Office has successfully reduced waste and saved resources by utilizing existing facilities to decrease the use of various construction materials.
Specifically, the quantities of construction materials and steel were reduced by utilizing existing track ballast as roadbed material and by using rails that had been damaged by the earthquake to strengthen earth-retaining walls. We are using existing bridges instead of building new ones, with the aims of reducing costs and of maximizing the use of existing resources. Moreover, by installing white boards inside tunnels, we can reduce the number of new lights required, and thus save energy.

Removal of track materials (rails, ballast, sleepers) in the earthquake-affected area

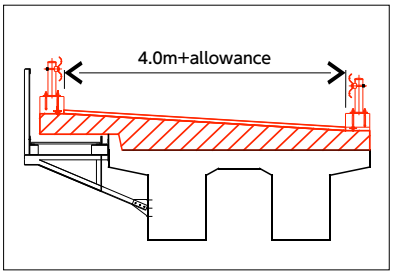
Use of improved ballast as the BRT road bed

Asphalt paving of BRT road

Use of damaged rails as earth retaining piles (driving-in of rails)

Earth retaining RC plates and damaged rails used at the road edge

Completed BRT road and a bus running on it



Used as supports for concrete placement for ensuring the road width.

A bus running on a widened railway bridge

Comments by employee in charge

The Tohoku Construction Office has engaged in the planning and implementation of such projects as the continuous grade separation of crossings, the renovation and improvement of stations, the upgrading of electrical equipment and the enhancement of facilities. Within these activities, we have provided for temporary restoration by BRT and achieved 100% recycling of materials in all work projects. Other work undertaken includes the protection of landscapes by designing structures that harmonize with their surroundings in scenic locations, as well as a range of eco-conscious activities such as the reduction of noise and vibration caused during construction work.
All employees are well aware of the importance of environmentally-sound activities and are committed to driving company cars efficiently, as well as to saving energy in the office.
The Tohoku Construction Office, together with all our construction sites, will make a concerted effort to continue ecologically-sound activities, and will constantly bear in mind the importance of the Three Rs: Reduce, Reuse and Recycle.

Yutaka Sato
Construction management division
Tohoku Construction Office

Reports on Ecological Activities at JR East Group Companies

LUMINE Co., Ltd. has been planning and implementing a variety of unique environmental activities, including, since FY2012, holding "Choroko Meetings", in which those in charge of environmental issues from all shops within the group have participated. The format of the Choroko Meeting was changed significantly from one consisting mainly of reports by each shop on environmental objectives to one in which, primarily, each shop reports on these objectives to the work group, in which every employee can participate actively.
In particular, during the fiscal year ended March 2013, LUMINE conducted outdoor activities designed to increase experience of environmental issues by reflecting employees' desire to be actively involved in external activities through experience and visits. In order to raise employees' environmental awareness, various programs were implemented jointly with other group companies, including the experiencing of the tree-thinning technique known as "thinning by debarking" and of beach-cleaning activities along the seashore of Tateyama, in Chiba Prefecture.


Thinning by debarking


Beach-cleaning activity

LUMINE works aggressively to communicate its environmental activities both internally and externally; issuing "choroko", an ecological newsletter, enabling all employees to share the content of the meeting, as well as "ecoshare", a free paper providing customers with environmental information. Particular attention is also devoted to the report on environmental activities that is published on its homepage.
In cooperation with customers and shop staff, LUMINE will continue to pursue its various activities designed to protect the global environment.

a free paper providing customers with environmental information

Comments by employee in charge

LUMINE Co., Ltd. considers that CSR and sales activities are inseparable. Therefore, people participating in the Choroko Meeting take the lead in engaging in an increasingly wider range of environmental conservation activities. As they carry on their business and everyday lives, they will continue to be aware of the challenges discussed during the meeting. In order to help ourselves to continue our environmental campaign, we develop realistic activities in which all employees can enjoy participating.

Norifumi Hashimoto
Environment Management Dept.
LUMINE Co., Ltd.

Environmental accounting and management indicators

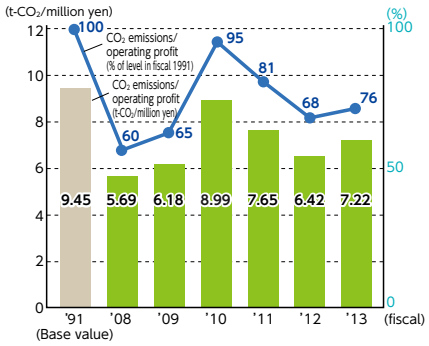
Using Environmental Management Indicators in business activities☆

In the year ended March 2013, our environmental conservation costs amounted to approximately 126.2billion yen in investments and 9.9 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 84 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 2013 the value of the indicator was 7.22t-CO_2/million yen, compared with 9.45t-CO_2/million yen for the year ending March 1991.

Environmental Management Indicator

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

■ JR East's Environmental Management Indicator



■ Environmental accounting for fiscal year ended March 2013☆

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	6.02	3.52	Measures for noise reduction (Noise barrier, installing long rails etc.) etc.	Being implemented	–
Global environmental conservation activities	120.20	–	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.	52.3billion MJ 0.341kg-CO_2/kWh 1.80kWh/car-km 0.0411kL-crude oil equivalent/㎡	6.20
Resource circulation activities	–	4.71	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% 94% 94%	1.70
Environmental management	–	0.54	–		–
Environmental research & development	–	1.11	–		–
Social activities	–	0.03	–		–
Total	126.21	9.90			7.90

Notes
Capital investment for the period:
404.4 billion yen
Total R&D costs for the period:
16.1 billion yen
(Consolidated)

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

Energy & Environment Strategy

Because the Energy & Environment Strategy is one of the fundamental objectives of Group Management Visions V, JR East will continue to address this issue.

Ecoste (eco-station) model station

Ecoste is an initiative to equip railway stations with a variety of environmental conservation technologies, such as energy conservation and renewable energy. With "Energy Conservation", "Energy Creation", "Eco-Awareness" and "Environmental Harmonization" as its four pillars, the Ecoste initiative was introduced at Yotsuya Station (Chuo Line) in March 2011 and at Hiraizumi Station (Tohoku Line) in June 2012, followed by the third model station, Kaihinmakuhari (Keiyo Line) in September 2013. JR East will continue to construct Ecoste model stations that will harmonize with their surrounding geographic characteristics.

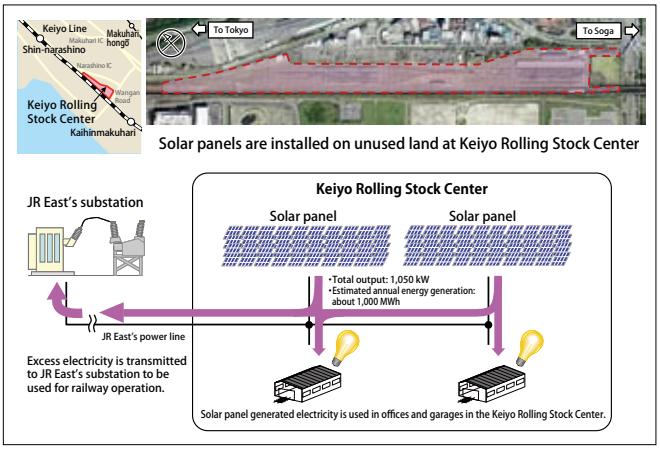
- Promotion of one-step advanced energy saving (energy conservation)
- Active introduction of renewable energy (energy creation)
- Installation of facilities in which customers can be aware of "eco" initiative (eco-awareness)
- Provision of a lively atmosphere in stations by creating harmony between people and environment (environmental harmonization)

Kaihinmakuhari station, Keiyo Line

Large-scale solar power generation facility

JR East plans to commence the operation of its first large-scale solar power plant, the Mega-Solar plant (with an output of 1,050 kW), which has been installed on the grounds of the Keiyo Rolling Stock Center. The electricity generated will be used in the Center, and will also help to operate trains by sending power to our overhead catenary, with the aim of reducing our CO_2 emissions. The Mega-Solar system will generate 1,000MWh per year, and is expected to reduce CO_2 emissions by about 500 tons annually.
With the aim of using solar-generated electricity to maximum effect, JR East will make use of the system to investigate the technology needed to transmit electricity to distant places by this means.

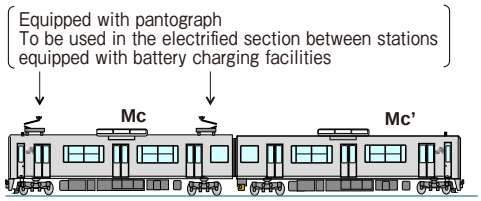
■ Outline of Solar Power Generation Facility at Keiyo Rolling Stock Center



Storage battery train system

JR East, which has been developing a "storage-battery-driven electric car system" as a new means of reducing the burden on the environment in non-electrified sections, has confirmed its commercial viability by running tests with its NE Train (new energy train), the Smart Dentchi-kun. These trains are equipped with large-capacity storage batteries. Electrical power is taken from overhead lines, as with ordinary trains, and is stored in the batteries, which provide the power needed when the train is travelling through non-electrified regions. The batteries are charged at special charging facilities located at turnback stations. This train system eliminates emissions from diesel engines and also reduces CO_2 emissions and noise. Commercial operation will begin in spring 2014, with the introduction on the Karasuyama Line of 2-car trains in the new EV-E301 series equipped with this system.

■ Outline of storage battery-driven electric car system



(image)

	Operating trains Mc	Operating trains Mc	For comparison, Hybrid car	Remarks
Vehicle type	EV-E301	EV-E300	*Kiha E200*	
Seating capacity (No. of passengers)	134(51)	131(48)	117(46)	Maximum capacity
Vehicle weight	40	40	39.6	
Maximum speed	100km/h		100km/h	*Kiha* 40 : 95km/h
Doors	3 double doors on each side. Width: 1300mm Floor elevation:1130mm		2 double doors on each side. Width: 1010mm Floor elevation:1130mm	No-step
Seat configuration	Longitudinal seats		Semi-cross seats	
WC	Yes		No	No WC in *Kiha* 40
Ratio of CO_2 emissions to diesel railcar emissions	Approx. 40 percent		Approx. 90 percent	Ratio when assuming the emissions from diesel as 100%
Storage battery	Lithium ion battery	Lithium ion battery	Lithium ion battery	

*These figures are planned values and are subject to change.

Pursuing “extreme safety levels”

Our concept of safety

Since the establishment of JR East, safety has been our top management priority, 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 future accidents with our continued developments both in physical and operational terms.
Pursuit of safety measures can never end. We will continue to work tirelessly to improve safety by pursuing a goal of “zero accidents involving passenger injuries or fatalities and zero accidents involving employee fatalities (including employees of Group companies and partner companies).”

Safety initiatives in our medium term management plan

In the JR East Group Management Vision V - Ever Onward, JR East sets its eternal mission to pursue “extreme safety levels”, and build a railway capable of withstanding natural disasters. In order to achieve this, we will continue our ceaseless efforts to increase the safety of our railways.
When the Great East Japan Earthquake occurred, the earthquake countermeasures that JR East had already been steadily implementing proved effective to a great extent. However, the earthquake also revealed issues that we must address to ensure a higher level of safety. Based on this experience, we have worked to implement earthquake countermeasures in preparation for events that are conceivable such as an earthquake directly beneath the Tokyo metropolitan area, focusing on both tangible and intangible aspects. In these ways, we are working to build a railway capable of withstanding natural disasters.
We are also further promoting initiatives to prevent train collisions, derailments and road crossing accidents. At the same time, we are installing automatic platform gates for the Yamanote Line and exploring the possibility of installation for other lines. In these and other ways, we continue to promote the development of railways that passenger can utilize reliably. We will also bolster activities aimed at achieving “extreme safety levels.” For example, we will steadily make progress on initiatives based on 2013 Safety Vision, while formulating our next medium-term safety plan.

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 2013 Safety Vision, our 5th 5-year safety plan from FY2010, in addition to continuing to promote the measures we have implemented to date, we will take on the challenge of pursuing extreme safety levels, supported by four pillars: creating a culture of safety, rebuilding the safety management system, taking sure steps to reduce risks, and promoting priority improvement plans for safety equipment. We will approach this challenge from the twin perspectives of safety-related human resource development and system improvement, and not just working to prevent the recurrence of accidents after an accident has already happened, but also evaluating possible risks to prevent accidents before they occur.

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.

General principles of Safety

JR East provides safety mission statements for the code of conduct for its safety-related employees.

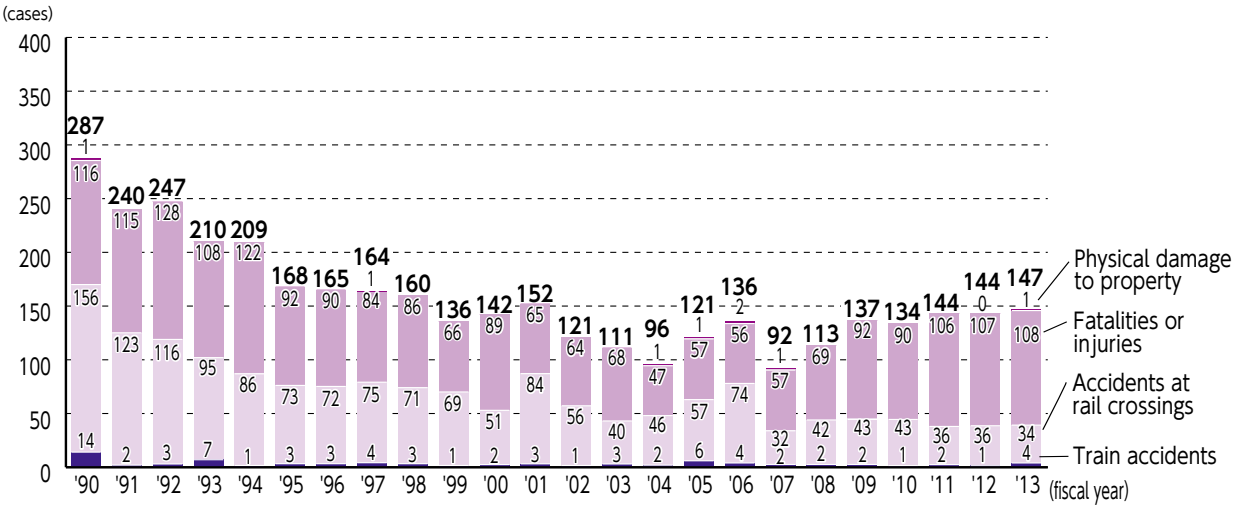
■ General principles of Safety

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.

Trends in railway accidents

In the fiscal year ending March 2013, JR East recorded 147 railway accidents, including 34 accidents at level crossings involving people or automobiles being hit by trains, accounting for approximately 20 percent of the total accidents. Additionally, JR East recorded 108 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 80 percent of these injuries or fatalities occurred on platforms, and approximately 60 percent 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 rail crossings: people or automobiles being hit by trains
■Train accidents: train collisions, derailments, and train fires

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.

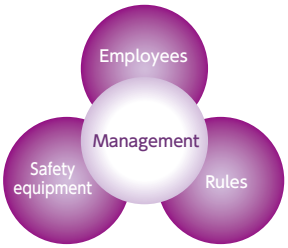
The Challenge Safety Campaign

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.

Restructuring safety management

Safety management: Eliminating the causes of accidents

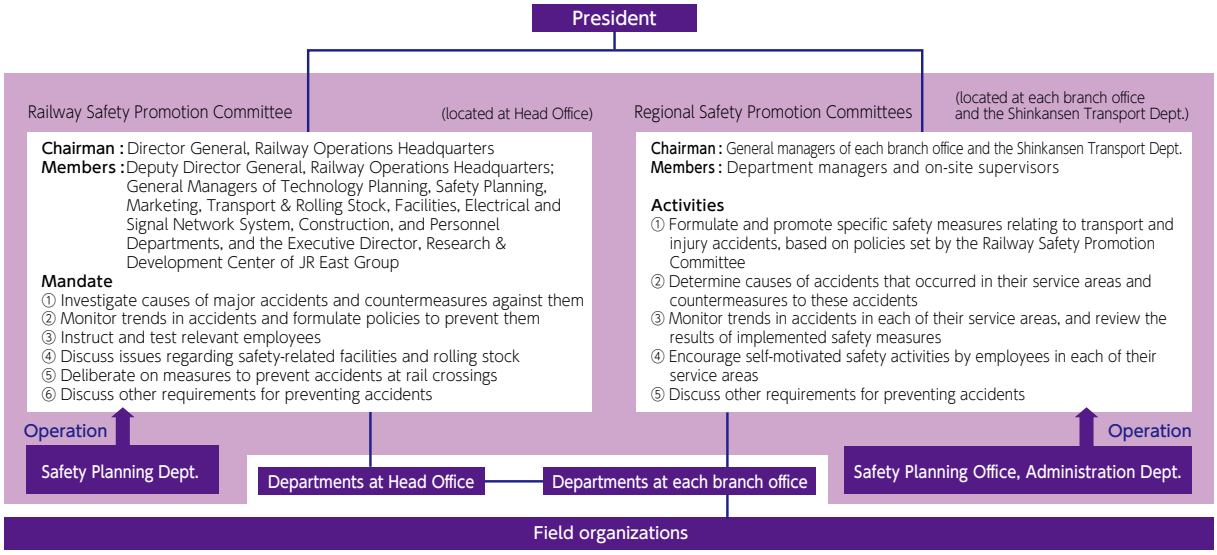
We believe that safety is ensured through management systems that synergistically link the three major factors, Employees, Rules, and Safety Equipment. JR East, together with our front-line employees, Head Office, and Group and Partner companies as a whole, is working to improve operational safety through the Railway Safety Promotion Committee, Head Office Safety Campaign, and JES-Net. The Railway Safety Promotion Committee is responsible for thorough investigation of causes and for taking prompt countermeasures when an accident occurs. 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.



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 April 1, 2013)**



Head Office Safety Campaign

Every year, JR East operates a Head Office Safety Campaign. The campaign provides the 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 FY2013, executive officers from the Head Office inspected nighttime maintenance work as observers. They participated with front-line employees in impassioned discussions on the theme, "why it is so difficult to place oneself in someone else's position in taking concrete actions so that we can learn from others' mistakes, in order to prevent fatal accidents which could lead to fatalities or injuries of customers: clarifying issues, working on solutions, and completely eliminating possible causes of accidents."

Through these activities, JR East was able to reconfirm issues and areas of concern with field staff in utilizing past cases for improvement at each one of their workplaces. Additionally, based on the outcomes obtained from these activities, JR East decided to implement specific measures regarding crisis prevention capabilities in order to further heighten the company's awareness of safety, so that all employees would be able to think by themselves, and act flexibly in the event 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, 2013, the number of companies in this network had expanded to 35. 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.

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 branch offices. 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.

Accident History Exhibition Hall

Chroniclers of Safety (Narrators of oral history)

In FY2010, we appointed 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.

JR East's Eight Chroniclers of Safety

Railway Safety Symposium

JR East held its 21st symposium with the theme “passing on lessons learned from past accidents and incidences in order to prevent possible fatal accidents involving fatalities or injuries of customers: having individual employees think for themselves and act flexibly.” With approximately 510 persons in attendance, the symposium stressed the importance of having employees acknowledge areas of possible risk at their individual workplaces in the event of disasters and major accidents. Furthermore, it discussed placing themselves in others’ positions and individually contemplating what should be done in the immediate aftermath of such an occurrence, while simultaneously learning from others’ mistakes with the aim of preventing accidents at their workplaces.

The 21st Railway Safety Symposium

VOICE

Dialogue: encouraging young personnel to bear the responsibility for safety

Safety instructor
Yoshisada Yoshikawa
Assistant Depot Chief, Matsumoto Transportation Depot, Nagano Branch Office (Current: Assistant Depot Chief, Nagano Shinkansen Transportation Depot)

×

Safety Professional
Ikuo Sawada
Deputy Manager, Safety Planning Office, Administration Dept, Nagano Branch Office

×

Center Chief
Takamichi Habata
General Training Center, Nagano Branch Office (Current: Stationmaster, Shiojiri Station)

Habata: Experienced employees from the time of Japanese National Railways (JNR) will be retiring in the next 10 years. Human resource development is truly an urgent issue, and this includes passing on safety-related knowledge and skills.

Ikuo Sawada
Deputy Manager, Safety Planning Office, Administration Dept, Nagano Branch Office

Sawada: By allocating "Key Safety Leaders" like Mr. Yoshikawa to field organizations, I think that safety-related information will be gradually shared among employees and personnel, and their training improved.

Habata: For instance, when young employees are to receive training at the General Training Center, they receive prior guidance from "Key Safety Leaders" so that they become aware that they will bear the responsibility for safety from now on.

Takamichi Habata
Center Chief,
General Training Center, Nagano Branch Office
(Current: Stationmaster, Shiojiri Station)

Sawada: On the other hand, we offer Challenge Safety Campaign meetings as opportunities for key safety leaders and safety professionals to have direct contact. During the campaign, field staff share personal anecdotes and other information on possible causes for accidents, and discuss countermeasures to prevent these.

Yoshikawa: Since CS campaign meetings aim to spur each and every employee to think and act by themselves, in order to offer encouragement in these activities, key safety leaders and safety professionals participate in these meetings as support.

Habata: With this system, I think that experienced staff have come to realize that they need to pass on their experiences to their subordinates, and in return young people have come to realize that they need to learn.

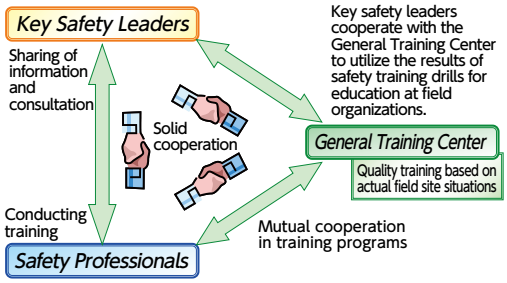
Yoshisada Yoshikawa
Assistant Depot Chief, Matsumoto Transportation Depot, Nagano Branch Office (Current: Assistant Depot Chief, Nagano Shinkansen Transportation Depot)

Yoshikawa: I agree. At the Matsumoto Transportation Depot, we hold original safety forums. At these, safety professionals offer presentations on major accidents that have occurred in the past, and I believe that the rest of our staff at the depot have a lot to learn from these.

Habata: What is important in human development is to properly understand each and every employee. Understanding the characteristics and skills of each individual makes a great difference with the effectiveness of the training.

Sawada: I agree. On the other hand, there still are some young employees without sufficient experience. Experienced staff can share with young personnel their tacit knowledge, such as possible causes of accidents or incidents, or the know-how obtained from their experiences which can be utilized by these young employees in ensuring safety in operations. As an organization, I would like to pass this knowledge onto subsequent generations.

■ **Relationships between Key Safety Leaders and Safety Professionals**



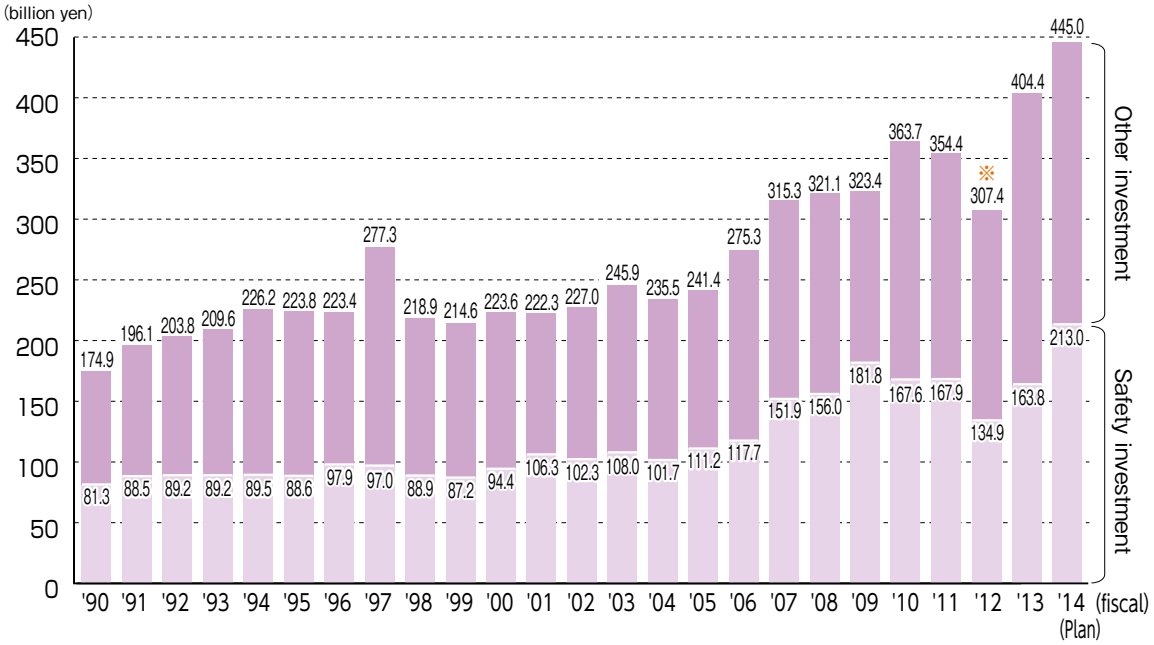
Yoshikawa: I think that it is important to heighten the awareness of safety for every employee. However, knowledge and experience differ between young and experienced staff. The most important thing in safety education is to learn from other people's experiences by placing oneself in their shoes, so that we can learn lessons from past accidents or incidences that they have experienced.

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.
For improvements to safety equipment, under our four previous 5-year Safety Plans leading up to FY2009, JR East invested more than 2.2 trillion yen during those 20 years following the company's establishment. In our 2013 Safety Vision, JR East's 5th 5-year Safety Plan which began in FY2010, JR East has planned to invest approximately 750 billion yen on safety measures during the five years from April 2009 to March 2014, and our cumulative safety investment had grown to approximately 2.8 trillion yen by the end of FY2013.

■ Trends in safety investment

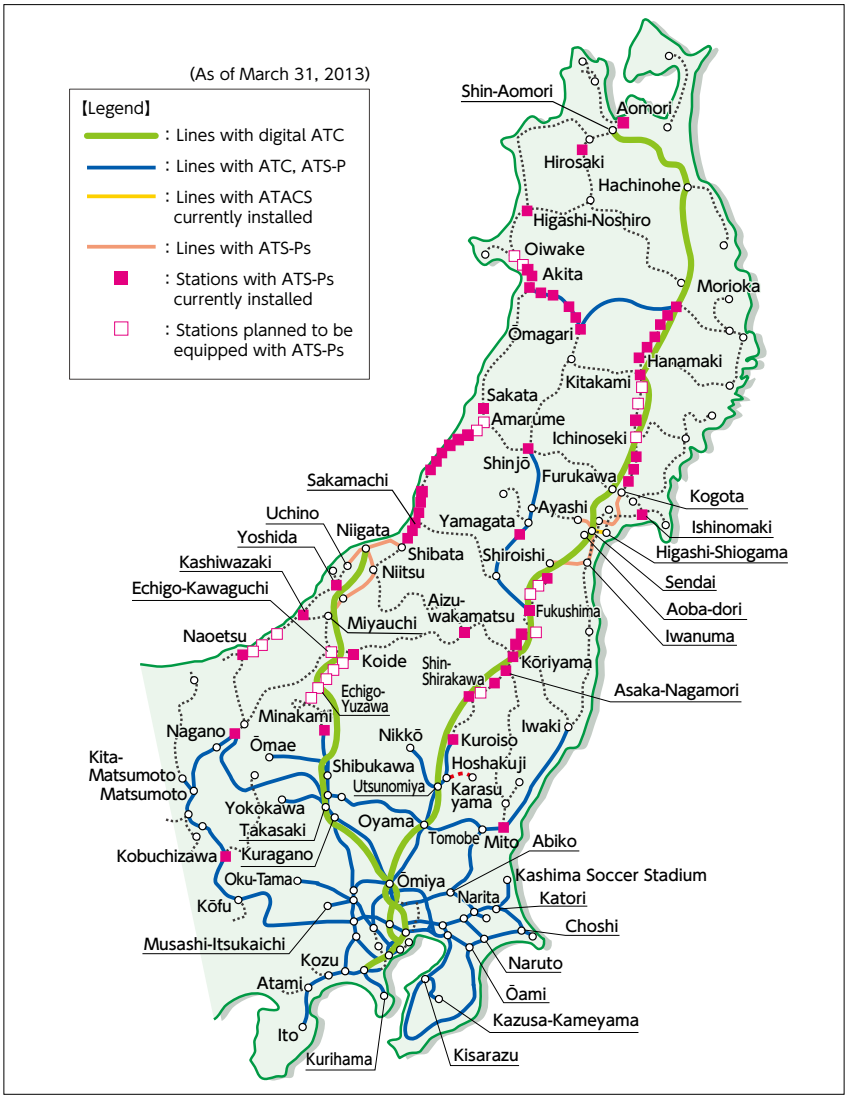


※ Due to the effects of the Great East Japan Earthquake, there was a decrease in the FY2012 safety investment.

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 2013, the ATS-P system had been installed on 2,406.1km of railway line. The ATS-Ps system is currently installed on 210.5km of line in the Sendai and Niigata regions and at 56 stations. Additionally, JR East replaced the ATS-Ps on 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

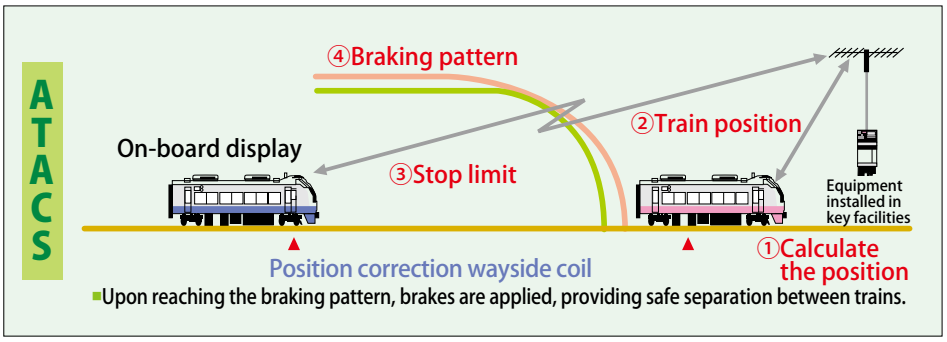
	Target locations	Installations as of the end of March 2013	Planned completion
Curves	1,468 locations	1,468 locations	March 2010 (completed)
Turnouts	816 stations	735 stations	March 2016
Line terminals	63 stations	62 stations	March 2016
Descending grades	1,528 locations	878 locations	March 2016

* Including locations where improvements were made prior to July 2006

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. In December 2012, as one of our 2nd stage functions, JR East released a new function for setting provisional speed limits. From 2014 onwards, we plan to release another new function for controlling road traffic at level crossings.

■ ATACS (image)



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.

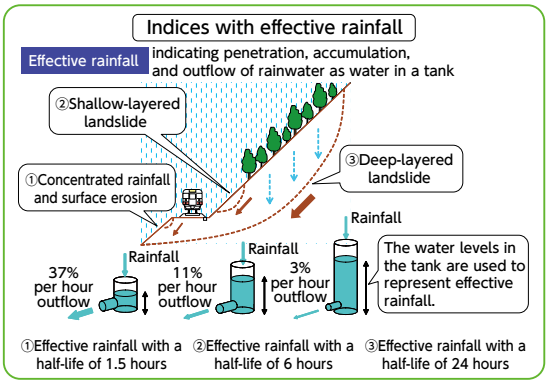
Track closure procedure by a handheld device for maintenance work

The operation center terminal for the confirmation of maintenance work

Introduction of "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 accidents at rail crossings

When the company was established in 1987, there were 247 accidents during the year at level crossings. In the fiscal year ending March 2013, the number had been drastically reduced to 34. 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 crossing gates have been installed; the barrier arms are thicker than usual. These are expected to provide better visibility day and night. 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 with roads, derailment prevention guards have been installed at these crossings. The long-term solution is to decrease the number of level crossings, and 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 rail crossing on the Tokaido Line near Tsurumi Station, where there had been more trouble 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 rail 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 crossing are being activated due to causes such as equipment failures, and when pedestrians and automobiles are allowed to cross at the rail 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 rail crossing on the Tokaido Line

Station platform safety

In the fiscal year ending March 2013, there were 84 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 FY2013, we started the use of these gates at Osaki and Ikebukuro Stations, and, in FY2014, at Otsuka, Sugamo, Komagome, Shin-Okubo, Mejiro, Takadanobaba, and Tamachi Stations. In FY2015, we plan to install these gates at Okachimachi, Uguisudani, Tabata, Yurakucho, Harajuku, Gotanda, and Nishi Nippori stations. With the exception of six stations, Shinagawa, Hamamatsucho, Shimbashi, Shibuya, Shinjuku, and Tokyo stations, which require large-scale improvement work, we plan to complete installations at all stations on the line by FY2016. For routes other than the Yamanote Line, we plan to install automatic platform gates mainly at stations used frequently by visually challenged customers, while discussing these matters with the relevant organizations.

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

Measures 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 Stopping trains immediately (emergency train stop measures)

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. From August 2012, to be prepared for possible occurrences of earthquakes, JR East additionally installed and started using its seismometers at 30 locations for earthquakes with epicenters potentially situated directly beneath the Tokyo metropolitan area and those in inland sections of its service area. In October 2012, JR East began using Earthquake Early Warning from the Japan Meteorological Agency. 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.

② Preventing structural damage (seismic reinforcement measures)

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.
From FY2013, to prepare for a possible earthquake directly beneath the Tokyo metropolitan area, we will conduct seismic reinforcement of embankments, cuttings, brick arch viaducts, electrical poles and other infrastructure. In addition, we will implement station/platform ceiling and wall collapse prevention countermeasures, among other initiatives, including advanced plans for the seismic reinforcement of viaduct support columns and bridge columns. Based on experience derived from the Great East Japan Earthquake, we will proceed with the seismic reinforcement of railway station buildings serving more than 3,000 passengers per day, along with the seismic reinforcement of Shinkansen electrical poles.

③ Minimizing secondary accidents following derailment (preventive measures against trains deviating from tracks)

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 several measures for 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, during the Great East Japan Earthquake in March 2011, one of our trains in test operation derailed after its regular inspection. Based on the results of the investigations conducted with our Shinkansen railcars and tracks, we will continue to seek further improvement of 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 when there are 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. With this reinforcement, since the accident, JR East has installed a total of 599 anemometers for its conventional and Shinkansen lines, and the total number of anemometers installed as of March 31, 2013 was 916: 758 on conventional lines and 158 on Shinkansen lines.

	As of Dec. 25th, 2005: A	As of Mar. 31st, 2013: B	Increase (B-A)
Conventional lines	228units	758units	+530units
Shinkansen lines	89units	158units	+69units
Total	317units	916units	+599units

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, 2013>

	Line Name	Section	Location of Installation	Time Completed
1	Tokaido Main 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, extended in Jun. 2009
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	Both sides of the line	South side: Jun. 2007 North side:Oct. 2012 South side:Oct. 2012 Extension
13	Keiyo Line	Between Shin-Kiba and Kasai Rinkai Koen	Both sides of the line	South side: Aug. 2007 North side:Oct. 2012 South side extended Oct. 2012
14	Keiyo Line	Between Futamata Shinmachi and Minami-Funabashi	South side only	Aug. 2007, extended Oct. 2012
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 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 impose 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 car body shape.

JR East introduced these new methods for some sections of the Uetsu Main Line, the Keiyo Line, and the Echigo Line.

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 FY2008, 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. Additionally from FY2013, we have added the Japan Meteorological Agency's Nowcast that supports detection of tornados as a condition for issuing alarms for our train operations.

During this six year period of testing, though we initiated train operational restrictions for a total of twelve days, we did not observe any actual occurrence of local gusts.

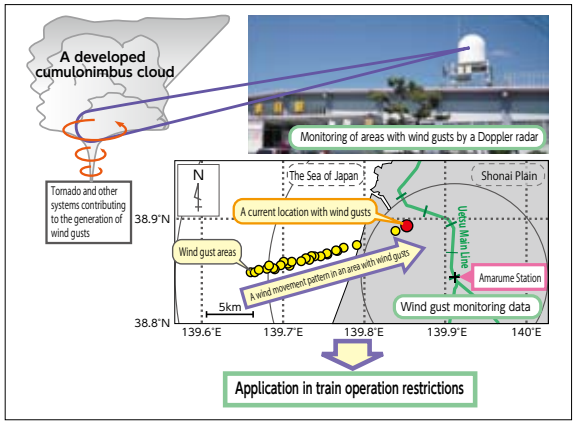
Research of a Doppler radar observation method

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 reform

Service quality

JR East sets "Service Quality Reform" as one of the eternal missions in its "JR East Group Management Vision V", and views the reform as an important pillar in business management. In order to become a group that is chosen by customers and the local communities, JR East will strive to reform service quality with a cross-divisional and cross-sectional teamwork to attain the highest customer satisfaction unequaled in the railway industry. Specifically, we will further improve our "Transport Quality" by preventing transport disruptions, resuming train operation quickly after disruptions, minimizing the effects of disruptions and enhancing information communication. We will also improve the economic situation of every lineside area, will offer services which elderly customers can use comfortably, and ensure that we have a customer-friendly railway service through various measures to prevent injuries and crimes.

Projects for improving service quality

The "Service Quality Improvement Project", designed to identify potential needs by expanding two-way communication with customers, to improve service quality promptly, and to transmit information, was begun on the Musashino and Saikyo lines in March 2013 and on the Yokohama Line in June. We will implement the "Service Quality Improvement Project" in many lineside areas, and provide information about our service quality reforms via various media.

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 district 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

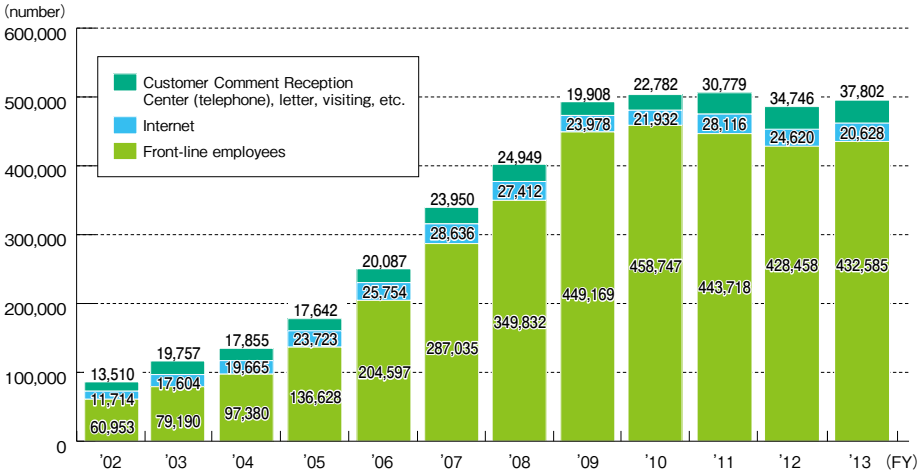
To improve our service quality further with field operations, branch offices and the head office working as a team, we instituted Service Quality Meetings, in which senior executives from our head office visit field operations and exchange views with field supervisors. In the fiscal year ended March 2013, the subjects of these meetings were implementing turnback operations on longer railway lines in the Tokyo Metropolitan area and communications in an emergency outside that area. JR East identifies the problems faced by each railway section and area and strives to improve quality of service by means of teamwork, without being constrained by the organizational framework of the company.

■Customer Comments at the Core of Policy

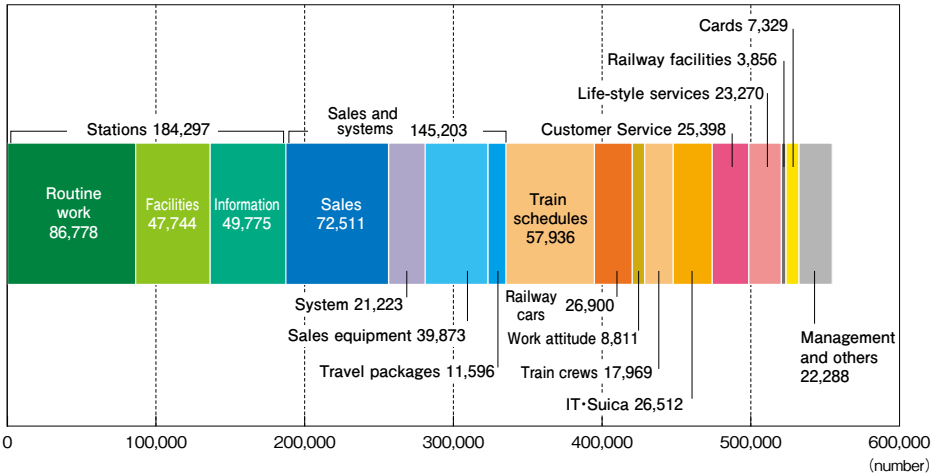
Customer comments

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, including their interest and complaints, 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.

■ Trends in the number of customer comments by channel(FY 2002～)



■ Customer opinions (Total 549,769)



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

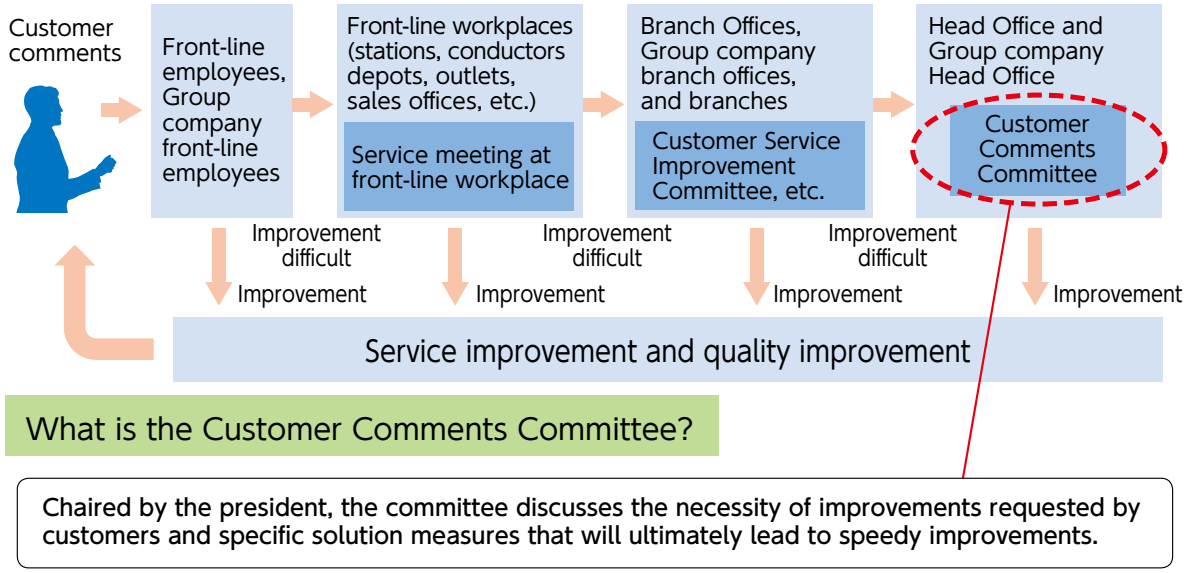
Two-way Communications

JR East considers it necessary not simply to await information from customers, but also to be active in ascertaining what they really need. We therefore strive to discover their potential opinions by making use of social media. The "JR East Official Facebook", launched in May 2012, will provide information about our various campaigns and proposals.
As the times and environment change, customers' demands change constantly. To address such changing needs, we learn about customers' demands from their comments and use this information to develop specific improvements. It is through such two-way communications with our customers that we endeavor to upgrade our service quality.

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.
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 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. (Surveyed sections: Yokohama, Saikyo and Keiyo lines in the fiscal year ended March 2012 and the Musashino Line in the fiscal year ended March 2013.)

■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.

Prevention of transport disruptions

To increase service reliability, we are implementing physical 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

For early resumption of operations, we maintain our preparedness for quick responses at all times, including drills to deal with fatal accidents and rescue passengers.

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.

We will work also to reduce the impact of disruption on transport by readying necessary equipment, utilizing existing equipment and reviewing rules to enable turnbacks.

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

When a disruption has occurred, each worksite 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 worksites so that individual employees may improve their 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. We are taking steps to provide our customers with faster and better information about service when there are accidents resulting in casualties. The anticipated time at which the service should be resumed will be announced within ten minutes of the suspension having occurred, with subsequent updates depending on the situation. In the meantime, we will continue to install emergency information displays (as of the end of FY2013, such displays were installed in 151 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. Our homepage now provides details of service suspensions of Express trains on conventional lines, as well as supplying other operation-related information. We are endeavoring to provide a wider range of information and extend the time in which delay certificates can be issued on major lines in the Tokyo Metropolitan area. These services will form part of the more comprehensive information system that we are developing with the aid of ICT (Information and Communication Technology).

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. We will continue to strive for a reduction in transport disruptions by analyzing past occurrences and by facility strengthening measures, including both tangible and intangible aspects.

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 September 2012, journey times were shortened by increasing the maximum speed of Yamagata Shinkasen Tsubasa trains to 275 km/h. In March 2013, Tohoku Shinkansen Hayabusa trains began operating at the country's highest speed of 320 km/h, while the Akita Shinkansen Super-Komachi, utilizing the new E6 Series, now travels at 300 km/h. Improvements made to our services on conventional lines have included the replacement of all Joban Line Limited express trains with the new E657 Series, increases to the frequency of operations and the number of trains stopping at Urawa on the Shonan-Shinjuku Line, increased train frequency during the day on the Musashino Line and in morning commuting hours on the Keiyo Line, and increasing the number of Yokohama Line trains that run through onto the Negishi Line in the Tokyo Mega Loop*. In the fiscal year ended March 2013 the average level of in-train congestion during morning commuting hours was 177%, 61 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: the loop formed by the Musashino, Keiyo, Nambu and Yokohama lines in the Tokyo metropolitan area that have many connections 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 allocating service managers who make rounds of stations and are in position to assist elderly customers and those not used to traveling. They provide relevant and timely information and guidance and other fine-tuned services, using tablet computer terminals, in times of emergency as well as during regular operations. (As of April 1, 2013, 183 service managers are allocated 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 2013 we had completed the installation of elevators in 489 stations.

Chuo Line (Rapid Service) 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, Tokaido and Saikyo Lines.
Spacious toilet rooms 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; on the new limited-express E657 series trains on the Joban Line in March 2012; and on the new Akita Shinkansen E6 series railcars in March 2013.

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 draw the attention of customers to the safe use of escalators.
A vigorous campaign beginning in July 2013 concentrated people's attention upon the safe use of escalators and upon caring those who, for various reasons, are able to stand only on the right side of the escalator steps, which are normally used by people who are walking while on the escalator. Office buildings, shopping centers and the JR East Group are collaborating in the production and use of these campaign posters.

"Escalator Safety" campaign

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. In the campaign launched in March 2013, about 400 visitors participated in a "Safe Use of Baby Stroller Class in Teppaku" (the Railway Museum) and enjoyed learning how to use baby strollers safely on trains.


"Let's Protect Babies" campaign


Safe Use of Baby Strollers Class in Teppaku

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 2013, 354 stations have been equipped with one or more AEDs (500 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. There were 190 AED units installed on trains as of March 31, 2013.

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 2014, we will renovate the toilets in approximately 10 more stations, as a way to 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 June 30, 2013, easy connections are now available at 156 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 their use 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 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.
As part of our crime prevention measures, in addition to Car No.1 of each of the trains on the Saikyo Line, surveillance cameras are installed in Series E259 and E657 limited express trains on the conventional lines and in the two-level green cars on the Tokaido, Tohoku, Takasaki and Joban lines, and in new railcars of E3 series in the 2000s and E5 and E6 series Shinkansen railcars.

Suicide Prevention Measures

JR East has constantly supported NPOs in their efforts to prevent suicides. For example, in March 2013, 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 Japanese Mental Health Services, a non-profit organization, jointly patrolled 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 2013, approximately 8,200 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

We now offer the "JR East Pass" which allows unlimited travel within the JR East service area, and the "JR KANTO Area Pass" which allows unlimited travel within the KANTO area. Other passes that make it easy to travel to and in Tokyo include the Suica & N'EX package and the Suica & Monorail package. In the summer of 2012 we offered a "Mt. Fuji Round Trip Ticket" to promote demand for trips to Mt. Fuji, and the "GALA Optional Ticket" which was used in addition to the "JR Kanto Area Pass" for the visitors to enjoy snow in Japan. With these highly convenient seasonal travel products, we propose different train trips in our service area.

Free Public Wireless LAN Service for Overseas Visitors

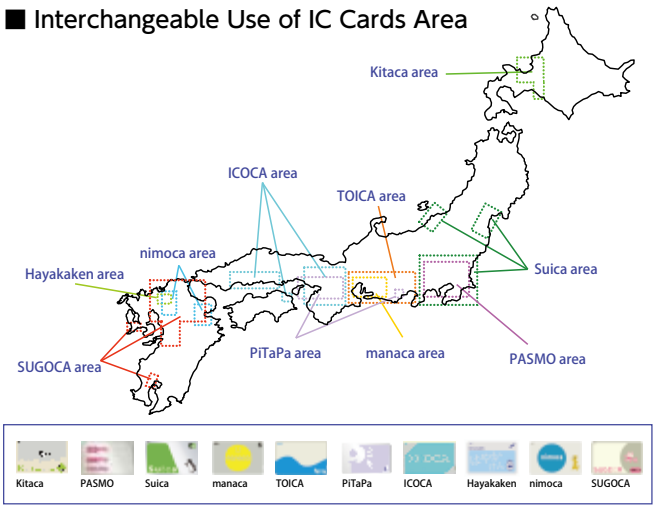
As free public wireless LAN services are currently installed only in major airports such as Narita and Haneda, overseas visitors can feel at a disadvantage. We have installed LAN services at 13 stations, mainly on the Yamanote Line, as well as in the JR East Travel Service Center, and these are used by many visitors from abroad. The service is operated in four languages: English, Chinese, Hangul and Japanese.

■Suica Business

As an IC Ticket

Ten IC cards used in public transport throughout the country were made interchangeable in March 2013. This has made Suica interchangeable with "manaca" (Nagoya City Transportation Bureau) and "PiTaPa" (Surutto Kansai Council). Suica has also become usable in the service area of RYUTO (Niigata Kotsu Co., Ltd.) in March and in the service area of SAPICA (Sapporo City Transportation Bureau) in June 2013. The number of Suica cards issued reached approximately 43.55 million at the end of June 2013.

■ Interchangeable Use of IC Cards Area



A symbol of nationwide interchangeable use

As Electronic Money

The number of places where Suica can be used as electronic money has been increased, to include shops not inside but outside stations such as Family Mart, Lawson, Seven Eleven and other convenience stores, AEON, Ito Yokado and other supermarkets, Coca-Cola vending machines and taxi companies such as Daiwa Motor Transportation Co., Limited. On-line shopping sites such as Rakuten Market and Amazon have begun to offer Suica internet payment services.
As of the end of June 2013, Suica cards are usable in about 220,160 shops and the maximum number of uses per day reached approximately 3.62 million.

Responding to Diverse Needs

In December 2012, there were more than 3 million users of Mobile Suica, which combines the functions of a Suica card and a smartphone. As a result of our efforts to increase the membership shops and companies with which points can be exchanged, the membership of "Suica Point Club" reached around 1.69 million as of June 2013. "View Suica", combining the functions of Suica and View cards, was issued to meet the broader needs of our customers. It is also used as a new tool in our business to obtain information about card holders, which will be used to provide marketing data, such as consumption patterns by customer attribute.
JR East will continue to develop Suica as an easy-to-use and convenient IC card.


Mobile Suica


Suica Point

View Suica Card

Special Topic 4 Station Renaissance: Present and Future

Station Renaissance: History and Development

"New Frontier 21", formulated in November 2000 as JR East Group's medium-term management plan, defined "thorough customer orientation" as an important objective. "Station Renaissance", one of its strategies, is a program which regards the stations used by around 16 million customers per day as important management assets, and conducts zero-based reviews and reallocation in a thoroughly customer-oriented manner.
The refurbishment of Ueno Station in 2002 was the first project in the "Station Renaissance" program, and began with the improvement of the station's exteriors and restrooms, followed by the renovation of its Grand Concourse and commercial facilities (atré Ueno). This has completely transformed the previously gloomy image of the station. Improved facilities using IT technology such as Suica, the development of station buildings such as "atré" and "ecute" and the evolution of Ekinaka business have completely transformed stations from places that people visited solely to take or change trains to one where they can meet, enjoy shopping or do many other things.

Omiya Station (ecute Omiya)


Ueno Station
(atré Ueno & Grand Concourse)

From Station Renaissance to Machi-Zukuri (City Planning)

Since 2000, Station Renaissance has focused for about a decade upon maximizing the value of its stations by implementing zero-based reviews of the layout of their existing facilities while in the process of transforming them into barrier-free and earthquake-proof station buildings. Following the completion of this task, and in view of changes in social environment (such as a decreasing, ageing population and falling birth rate), accompanied by the increasingly high standards expected of railway networks and stations by local communities, it is important for us to concentrate our attention upon "Machi-Zukuri"–City Planning–cooperating with local communities and utilizing our joint resources.
At Tokyo Station, currently under development into a complete city, the Yaesu side is now under redevelopment, following the completion of the Marunouchi station building preservation and restoration work in October of last year. Combined with Ekinaka business, hotels, offices, commercial facilities and educational/research functions, all of which have long tradition and innovativeness, Tokyo Station will play a prime role as a core facility in the city plan. At Manseibashi, between Kanda and Ochanomizu stations on the Chuo Line, an environmentally-friendly office building was constructed on the site of the old Transport Museum, and a new walking route was constructed by building a river-front deck, while the remains of the Manseibashi Station building and the red-brick viaduct have been conserved. Using valuable community resources, this project was designed to revitalize communities by providing a place where people from the Akihabara, Kanda Sudacho and Awajicho areas can meet, and by reminding them of the old Manseibashi Station. In close cooperation with local communities, other development projects using local resources are also under way, such as the conversion of a lightly-used station building into a hotel. Hotel R-Mets Utsunomiya guides customers to surrounding tourist spots by utilizing local resources, such as interior décor using local Oya stone and displays of prefectural traditional handicrafts.
City Planning around a station, including the construction of station forecourt and service

roads, requires co-operation with local governments and communities. In view of the increasing needs of families with small children and of elderly people using the station, such as the needs for conveniently close medical, nursery, sports and community facilities , we shall continue to upgrade the value of lineside areas by cooperating with local communities and by using local resources.

GranRoof at Tokyo Station
(Creating a space under this dynamic membrane roof)

Hotel R-Mets Utsunomiya
(Guest room corridor with an image of the underground Oya Stone Quarry)

Kanda Manseibashi Building
Exterior using red-brick arches of World Heritage

mAAch ecute Kanda Manseibashi
River-front deck using old Manseibashi Bridge)

Relationship with Society

■With communities

As a member of the local community, JR East continues to take an interest in its future and works to enhance its reputation through the medium of its lineside areas, which have evolved through the "Station Renaissance" program.
At Tokyo Station, GranTokyo North Tower, South Tower and GranRoof have been constructed on the Yaesu side. The work to restore the station building to its original form on the Marunouchi side of the Station was completed in October 2012. Together with the in-station commercial zone, GranSta, 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 cooperating with local governments in the creation of new stations, in line with their city planning, and the improvement of existing station buildings with free passages and other facilities, based on requests from local authorities. In the fiscal year ended March 2012 we opened a new station, Yoshikawa-Minami, on the Musashino Line, and we improved Gosannen Station on the Ou Line by building a community space (local government facility) in the fiscal year ended in 2013. Since our establishment in 1987 we have introduced local government facilities into a total of 84 stations (as of March 31, 2013). In the fiscal year ended March 2013, Oyama Station on the Tohoku Line and Iwama Station on the Joban Line also were improved by construction of free passages.


Gosannen Station on the Ou Line


Free passage at Oyama Station on the Tohoku Line

Participating in the program to support migration to local cities

In the "JR East Group Management Vision V", we shall support local community programs encouraging people to move to such cities from the Tokyo Metropolitan area, with the aims of contributing to the revitalization of the local communities and of encouraging such migration. In the first of these projects, we shall cooperate with Nagano Prefecture and with Saku City.

Seminar on migration & trial migration tour

This Tour gives people interested in moving away from the Tokyo area an opportunity to take part in seminars and visits in order to dispel their misgivings about migration. By combining local community activities (seminars on living conditions, agricultural experience) with information about Shinkansen trains, we can support local government migration policies through our sales channels and media activities (membership, homepage, and others).

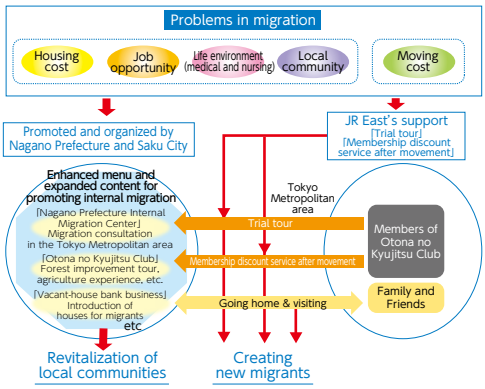
Post-migration support

We are examining the possibility of offering support for relocation to Sakudaira from the Tokyo Metropolitan area by making it easier for them to travel to Tokyo.

List of support utilizing Group resources

The list of support, particularly in mobility, where there might be problems after a short stay or migration, we are examining the support that JR East group can offer for short-stay and post-migration, such as long-term car rental service.

■ Trilateral cooperation scheme




Migration trial tour

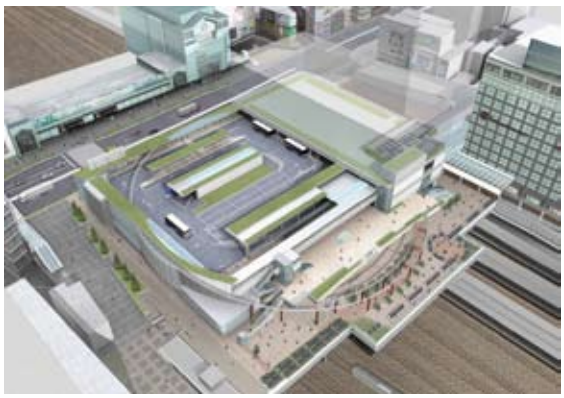
Contribution of Railway Overpasses to Unifying Towns and Eliminating Traffic Congestion

JR East continues to cooperate with local governments in projects for railway overpasses near Inagi-Naganuma Station on the Nambu Line and Niigata Station on the Shin-etsu Line. These projects aim to unify towns that are split by railway tracks, eliminate traffic congestion, and improve the safety of both road and rail transportation.
The project near Inagi-Naganuma Station on the Nambu Line, in which all level crossings will be removed by placing the railway on a viaduct by the end of this fiscal year, will unify towns and eliminate congestion by reducing the number of level crossings.


Railway overpass construction project near Inagi-Naganuma Station on the Nambu Line

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 to bus terminals and taxi loading areas. One example is constructing a bus 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 Transfer Node in Shinjuku

■Rediscover Local Areas Project

Development of the Rediscover Local Areas Project

Under the "Create Together" strategy, which specifies enhanced cooperation between JR East and local communities, we are promoting the Rediscover Local Areas Project. The aim is to create new potential markets that also take into account overseas visitors to Japan and thereby bring about increased circulation between 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 employees who continuously make social contributions as members of local communities. The strategy utilizes JR's unique abilities to make full use of traditional cultures, festivals, local produce, and other tangible and intangible tourist resources, expand sales channels, and promote the interactive exchange of information between the Tokyo metropolitan area and local communities.
During the fiscal year ended March 2010, JR East carried out renewal of its long-stay hotels and stations near Towa, Iwate, Tateyama, Chiba, and Echigo-Yuzawa, Niigata, utilizing features unique to each area. In the fiscal year ended March 2011, we opened A-Factory, a complex that consists of a craft center and market in the heart of the Aomori city. In ways like these we have had closer cooperation and pursued regional revitalization through various events.
In the Tokyo metropolitan area, in collaboration with Tabi-Ichi travel packages through which local residents both propose and guide tours of recommended tourist spots, destination campaigns, and other marketing tools, we are hosting a number of farm fresh markets for selling local produce and giving information on local tourism. In January 2012, "NOMONO", a shop selling typical regional produce (mainly food) was opened at Ueno Station. NOMONO sells 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. Through these, we will continue to communicate local information in cooperation with local people.
We are working to revitalize the local food industry by holding farm fresh markets and through encouraging the expansion of agriculture, forestry and fishery to include food processing, logistics and marketing.

Rediscover Local Areas Project "Farm fresh market"

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 in easily accessible areas that are usually within a five-minute walk from the station, to support the combination of childcare and commuting to work. A total of 71 childcare support facilities were opened from 1996 through April 2013, and JR East is continuing to increase the number of these facilities. These nursery schools near stations have the 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 on 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 "Kizuna 937" Parent-Child Community Café operated by JR East is on the second floor of E'site Kagohara, in front of Kagohara Station on the Takasaki Line.

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 observing child development.



Third Children's Train Craftwork Exhibition

Paper-crafting Class

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

Image of completed paper-crafting works

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 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 800,000 visitors in the fiscal year ended March 2013. The Museum opened the Teppaku Plaza in April 2011 and it continues to enhance its exhibitions and facilities.

The Railway Museum

■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 Japan, there are approximately 1,000 active members. In our service area, there are approximately 400 active members. JR East has established related facilities in each of our branch offices and actively supports the association so as to contribute to the 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 2013, for example, we had 620 visitors from 46 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)


Visiting Nobiru Station, which was affected by the Great East Japan Earthquake

Global Contribution through International Institutions

JR East is a member of the International Union of Railways (UIC), the International Association of Public Transport (UITP), Community of European Railway and Infrastructure Companies (CER), 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 international conferences, during which we can illustrate to overseas railway operators the features of Japanese railway systems. In April 2013 JR East co-hosted the Training Programme for Public Transport Managers in Tokyo.
JR East executives have also served as chairman of the Asia-Pacific regional assembly (APRA) since January 2013 and Vice President and Director of the UITP Policy Board since May 2013. Through the activities in such international organizations, we will contribute to the development of railways throughout the world.


UIC Asia Pacific Regional Assembly (Astana, Kazakhstan, 2013)


UITP Training Programme (Tokyo, 2013)

Special Topic 5 Preservation and Restoration of the Tokyo Station Marunouchi Building and the surrounding area

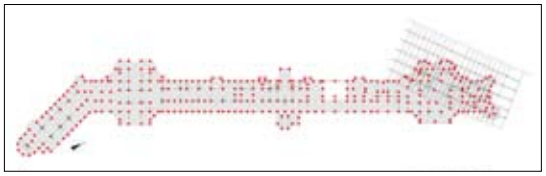
Tokyo Station was first established in 1914, in year three of Japan's Taisho era. So that its history could be passed on to future generations, in October 2012 the station was opened anew, bearing both the spirit of tradition and of innovation.

Seismic technologies employed in the restoration of the Tokyo Station Marunouchi Building

The permanent preservation and utilization of the Tokyo Station Marunouchi Station building after its restoration meant that improvements in its seismic capabilities were essential. For this reason, JR East conducted seismic isolation retrofit work of a scale unprecedented in the history of Japan. (*1)

In the restoration work, we used temporary supports to support the existing station building above the ground, while removing the original foundation of 11,000 pine piles which have supported the station building since it was built. In doing so, we succeeded in creating a new underground space that could be used for the seismic isolation layer between the above-ground part of the building and the newly-created underground part. The vibration control system employs approximately 350 isolators (*2) and approximately 160 oil dampers (*3) to lessen the amount of deformation of the station building in the event of an earthquake. Utilization of seismic isolation retrofitting meant we were able to restore and preserve the Tokyo Marunouchi Station Building, while providing it with greatly improved seismic resistance.

*1 seismic isolation retrofit method: a construction method for providing the building with seismic isolation in which vibration control systems are installed in the foundations of an existing building or at the mezzanine, without affecting its exterior appearance, interior decorations, or facilities.
*2 isolators: these support the weight of the building under ordinary conditions. During an earthquake, these can transform a short-period seismic wave into a long-period seismic wave.
*3 oil dampers: the viscosity resistance of a viscous material (oil) means the system is able to absorb seismic energy by suppressing the degree of building sway.



Layout drawing with locations of isolators and oil dampers
Isolators approximately350 Oil dampers approximately160

Installed vibration control system

The Tokyo Station Hotel

On October 3rd, 2012, the Tokyo Station Hotel reopened after being renewed with a cozy classic European-style interior that matches the exterior design of the Tokyo Marunouchi Station Building. The hotel has 150 rooms, and customers can choose from six different types of guest rooms. With 10 restaurants, 3 banquet rooms, as well as a fitness club and spa, since reopening the hotel has served many customers from within Japan and overseas.

The Tokyo Marunouchi Station Building is an important national cultural property with a long history of nearly a century. Through taking advantage of its use as a hotel to pass on its long history and tradition as a cultural property, JR East's Tokyo Station Hotel will strive to provide its guests with memorable stays.

Exterior appearance of the Tokyo Station

Guest room of the Tokyo Station Hotel

JR EAST Travel Service Center

JR EAST Travel Service Center offers 4 comprehensive types of service for foreign visitors to Japan: Tourist Information Counter, Travel Counter, Baggage Service Counter, and Foreign Exchange/ATM. The center is equipped with free personal computers and free public Wi-Fi, and can be used as a base for people traveling in Japan.

VOICE

JR EAST Travel Service Center

Offering "omotenashi," a Japanese type of thoughtful hospitality, eases the anxiety of customers who are unfamiliar with Japan.

The JR East Travel Service Center opened upon the completion of the Tokyo Station Marunouchi Building restoration work in October 2012. The center accommodates the Travel Counter and Tourist Information Counter where customers can exchange their vouchers for rail passes such as the JR EAST PASS, as well as purchase a variety of railway tickets. Located inside the Tokyo Station premises, the Tourist Information Counter pays particular attention to departure times and times required for transferring between trains — a service not normally provided by ordinary tourist information counters. Given the size of Tokyo Station, customers from overseas who do not speak Japanese might feel anxious about transferring between trains, or where to go to board their trains. To ease the concerns of customers as much as possible, we try to propose flexible time schedules for their travel, and offer easy-to-understand guidance.

Since our opening, we have hosted numerous visitors to Japan. What surprises us the most is that people repeatedly visit us during their stays in Japan. For instance, some people come back to us to tell us that they liked tourist spots and hotels we suggested. Other people come back to us with their friends saying that they liked the service provided during their last stay, and others approach us saying their friends recommended they visit us. On one occasion, visitors could not transfer in time to reach their destination because of a delay with their Shinkansen train. The customers came back to us to complain, but when they left to head home, our staff saw them off at the platform. This made an impression on them, and in the end we were complimented for our services.

At the center, we might only spend a short period of time with our customers. However, as our customers may be anxious about traveling in Japan when they do not speak the language, we cherish every single moment with them in order to ease their concerns. At the same time, we pay the utmost attention to offering our best "omotenashi" hospitality in a relaxed atmosphere.

Suimi Fujiwara
JR EAST VIEW Travel Service Co., ltd.
JR EAST Travel Service Center:
JR EAST Tokyo Station
General Manager

Relationship with Employees

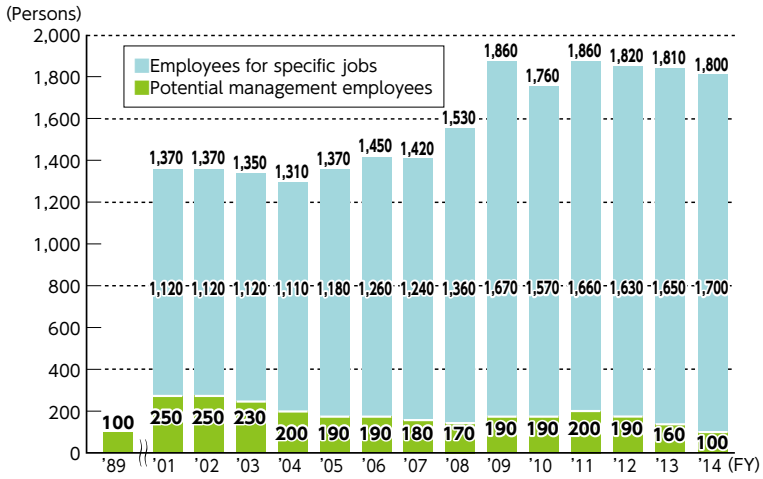
■Demonstrating the power of human resources

In order to ensure safe and reliable rail transport and 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 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 Group Management Vision V-Ever Onward", the company advocated reforms to its culture, including opening up our organization to young employees and giving to motivated people increased opportunities to apply for inclusion in training and other new projects, to exchange with people in other companies, passing on technical knowledge and skills to the next generation, and participating in technological innovation and overseas railway projects.

Recruitment

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 2014 and the constant necessity for human resources development and the transfer of knowledge and technologies to the next generation, we have recruited 1,800 new employees.

■ Number of new employees by fiscal year



Employing Persons with Disabilities

As of June 2013, 2.35 % 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 5th year class that started in March 2013 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. From the 5th year of the Academy, young employees who are sent by group companies can attend the lecture as listeners, so that the whole Group will cooperate to improve our technical capability and strength. 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.

VOICE

JR East Technical Academy gave me a clue as to how I should think about all aspects of the railway

I applied to attend the Technical Academy more than five years after I joined JR East, when I wanted to identify what I had, what I didn't have and how I could improve my weak points. I joined the company after working with a general contractor for seven years. The company has a policy of fostering new non-graduates and developing them. I had a strong desire to learn, to gain more and more knowledge and to get to know the whole railway system, so that I could become a professional in track maintenance.

My twelve months in the Technical Academy were really fulfilling. The study program is based on 3 courses: "expert knowledge of the area of the job in which the individual member is in charge," "the concept and theory of the entire system" and "skills necessary for problem solving." In respect of the expert knowledge of the assigned job, we first learned the concept and the basics in class, and then progressed to on-site learning. So we were really satisfied with the on-site learning and training.

Students in the Academy have similar intentions, are highly motivated, respond quickly and never give up. Though their jobs are different, all students of the Academy are on the same wavelength. I wanted to be a professional track maintenance engineer, but encounters with highly-motivated students doing different jobs made me decide that I wanted to be an engineer who can take care of the whole railway rather than merely of my own "track maintenance" work. The methods of thinking and of organizing documents that I learned in "Necessary skills for problem solving" are very useful in my current job. If I say that I can organize my plan theoretically – locating the problem; defining it, deciding how it may be solved and knowing what to do – I owe all that to the Academy. Now I am always conscious that my thoughts are accurately understood by others. And so I can speak with confidence. It is very useful for me.

This Academy, which gives us time to concentrate on research and to improve our skills, proves how seriously JR East tries to foster human resources internally and externally. I had many chances to hear lectures by leading authorities in various fields, and now one of my dreams is to give a lecture at the Academy some day. It will be nice if I can become an authority capable of giving a special lecture to the students of the 20th class. I will do my best to make this dream come true.

Tsugutada Kobayashi
Deputy manager, Track Maintenance Group
Maintenance Div., Facilities Dept.
Takasaki Branch Office

Skills Development

The development of human resources and the steady and 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 experienced 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.

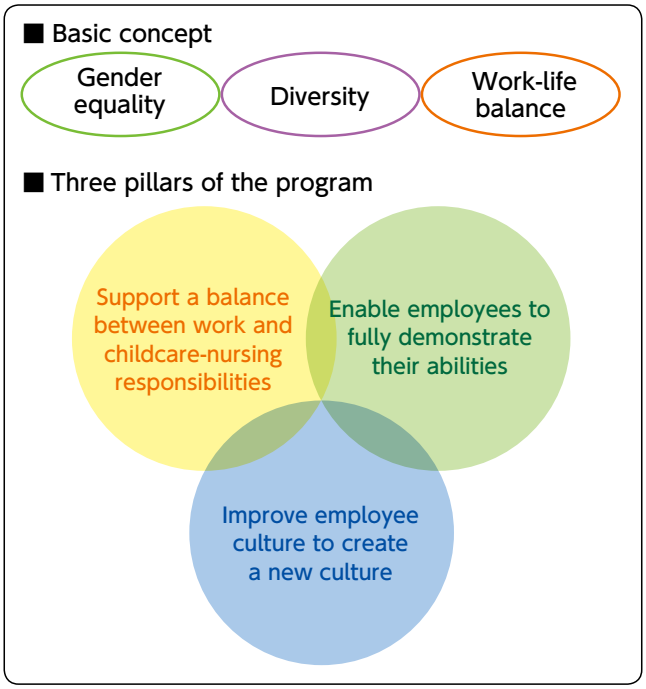
Training for installing and removing shunt accessory devices

■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.
We have initiated a "Work-Life Program" whose aim is to encourage all employees, both male and female, to participate independently.

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 a 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.
For enhancing the employees' awareness of Work-Life balance, the company invites its employees' families to come to its Family Day event.

Family Day at Head Office

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

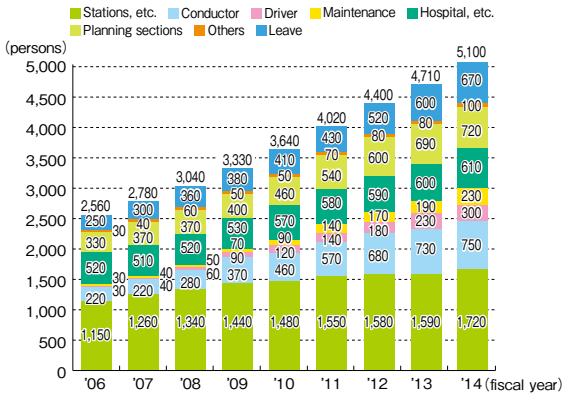
- Extended the availability of childcare leave for one year until the child reaches three years of age (April 2010)
- Introduced a system of reduced daily working hours and increased holiday entitlement (April 2010)
- Established workplace nursery schools (two in Tokyo and one in Sendai) and a hospital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

A seminar for supporting the achievement of balanced work and life (childcare)

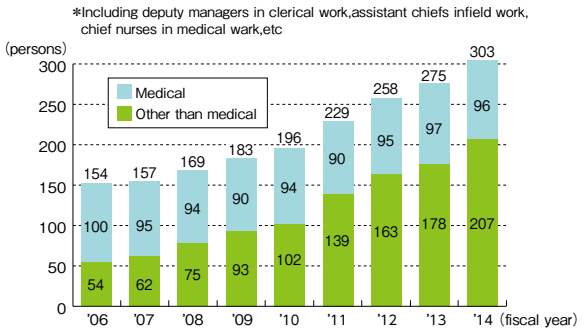
Expansion of workplace opportunities for female employees

The workplaces, both field and office, in which female employees can work are growing in numbers every year. For example, about 40% of the train crew members on the Yamanote Line are female employees. The number of female managers is also increasing every year, with female employees taking important positions such as Head Office and Branch Office managers, chiefs of field office (station masters) and Board members of group companies.

■ Expansion of workplace opportunities for female employees



■ Changes in the number of female managers



Health, Labor and Welfare (HLW) Minister's Excellent Performance Award, Family Friendly Company Section of "2012 Equality & Work-Childcare Balance Promotion Company Commendation"

In recognition of our support in the achievement of work-childcare/nursing balance, JR East was given the HLW Minister's Excellent Performance Award in the Family Friendly Company Section of "2012 Equality & Work-Childcare Balance Promotion Company Commendation".
For our efforts in encouraging the employment of female employees' capabilities, we were also given the Tokyo Labor Department Award in the Equality Promotion Company section of the said commendation. We are the first company in the transport industry to receive the HLW Minister's awards in both Sections.

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 and in August 2012 we were certified by the Minister of Health, Labor and Welfare as a company supporting the raising of the next-generation of children.

Next-generation certified logo ("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 self-care 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. This percentage corresponds to 90% of the total. 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 for enhanced human rights, we have established human rights enlightenment promotion committee at Head Office. Specifically, the activities of this committee include human rights 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, it 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 promoted 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

Employment of People with Disabilities

JR East Green Partners Co., Ltd.

JR East Green Partners, a special JR East subsidiary, was started in April 2009 and charged with the task of overall management of uniforms used in JR East. Since then, the new subsidiary has begun additional business such as printing and maintenance and management of tree planting, in our 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.

Uniform sorting

Plant maintenance

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 aim to grow continuously 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.

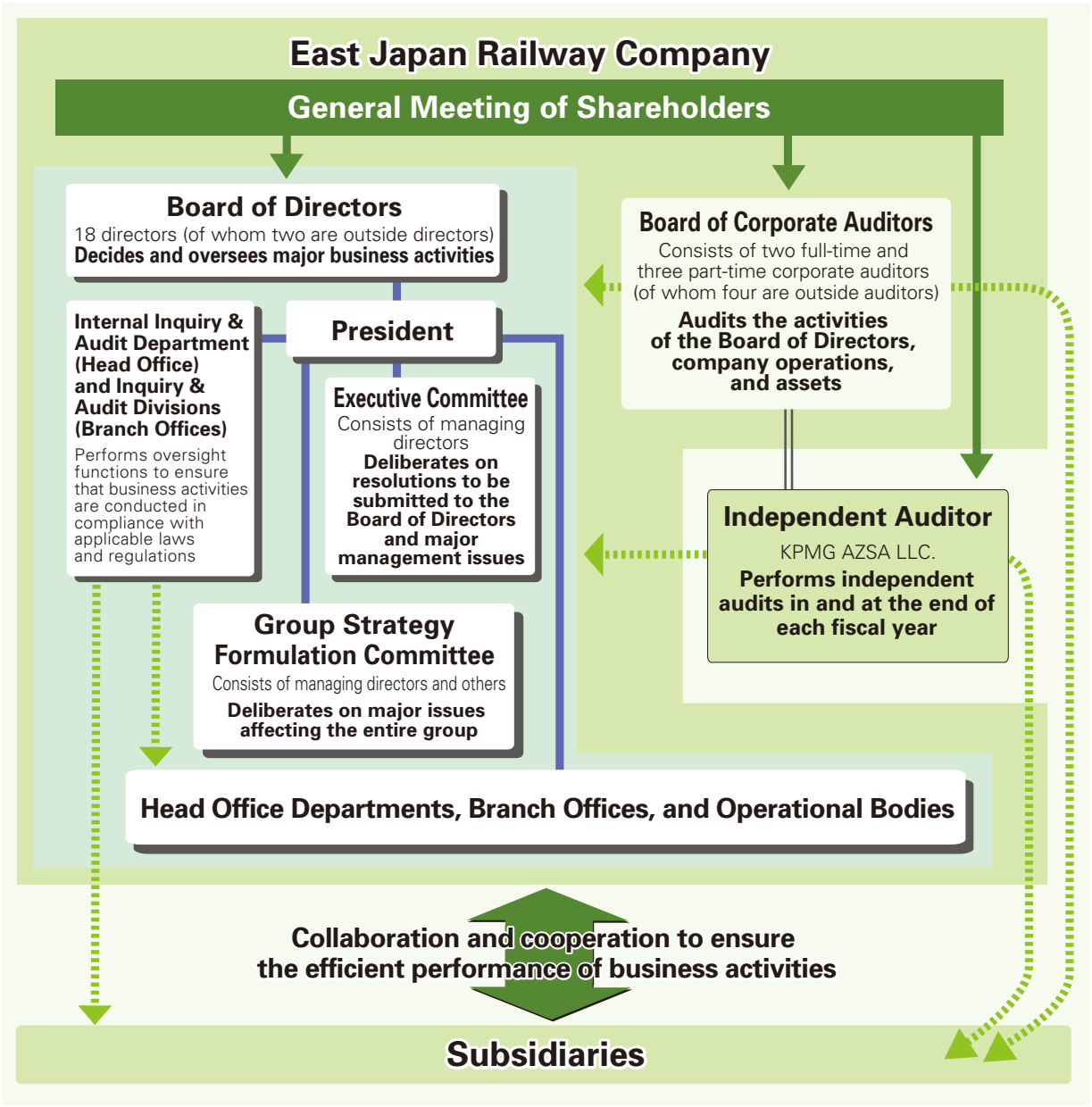
JR East's Basic Corporate Governance Philosophy

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 18-member Board of Directors, including two external directors (as of June 30, 2013), 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, their financial situation, and other items.
JR East financial statements are audited under contract by an independent auditor (accounting auditor), KPMG AZSA LLC., during and at the end of each fiscal year.

■ Corporate Governance System (as of June 30, 2013)



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. All employees of JR East Group companies have been given education to increase their awareness of compliance.
Since 2009, 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, the Group developed and distributed the first version of the Compliance Action Plan document that summarized desirable levels of conduct for all Group employees. Following the Shinanogawa Power Station incidents, we revised the plan based on a full awareness of laws and regulations, reports on the incidents and other factors, and distributed it to all employees.
In 2013, with the formulation of JR East Group Management Vision V, we revised the 2005 policy together with the Compliance Action Plan, taking into consideration the social changes surrounding the Company. We will continue to ensure that all employees of the JR East Group completely understand and follow the Compliance Action Plan and will review it according to ongoing environmental and societal changes.

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.

Ensuring Information Security

With the advancement of the information society, ensuring the security of our information systems has become an important issue.
JR East has designed and introduced an information security management system and carries out necessary measures to ensure safe and secure information system operations. We have also established a contact system to be used if there is a problem and we conduct problem response drills.
All employees are kept aware of the importance of information security and the strict handling of information through our Group rule book and internal magazine. All employees also receive information security education to raise their awareness about how they should guarantee workplace information security.

Education of all employees

Since 2009, all employees of the Group have received compliance education which has been specifically designed to further increase their awareness by focusing on case studies and topics matching the realities of each and every workplace. In fiscal 2013 JR East also implemented an educational program that focuses on social media and information security, areas in which a number of issues have recently surfaced. In fiscal 2014, following the revision of the Policy on Legal and Regulatory Compliance and Corporate Ethics, which aims to ensure that all employee act with compliance awareness, we will once again make sure that all Group employees are thoroughly aware of the levels of conduct we desire. In the future, we will continue to improve the content of our education programs based on societal and environmental changes.
Since 2010, JR East has annually distributed a compliance questionnaire to all employees, and the results from this show that compliance awareness is steadily increasing among the workforce.

Compliance Training

■ Compliance Training

Title	Number of sessions	Participants	Contents and objectives	Number of participants
Management School (Compliance Course)	1	Administrative managers in charge of compliance of Group companies	Compliance	67
Legal Skills Training	1	Head Office and Branch office legal affairs Personnel	Enhancement of practical legal knowledge, legal reasoning, and decision-making/problem-solving skills	13
Basic Legal Training	1	Group company legal affairs personnel	Acquisition of basic legal knowledge	36
Regular Legal Seminar	4	JR East and Group company employees	Explanation of new and revised laws, and awareness-raising about compliance	800
Social Media Seminar	4	・Head Office executives, general managers, etc. ・Branch office staff members ・Group company executives	Explanations and exercises on problems, corporate risks, etc., involving use of social media	330
New Recruit Training	1	JR East new recruits	Compliance awareness	All new recruits
All Employee Training	1	JR East and Group company employees	Compliance awareness	All Employees

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, the JR East Group published its Regulations for the Management of Personal Information and appointed Chief Privacy Officers who have the responsibility of strictly protecting personal data. Through pamphlets covering the subject exclusively, articles in our internal magazines and compliance education, we are also working to ensure that all employees remain fully aware of the necessity of the strict handling and management of personal data. In order to ensure proper usage and strict control of personal data, the Group conducts regular internal workplace audits.

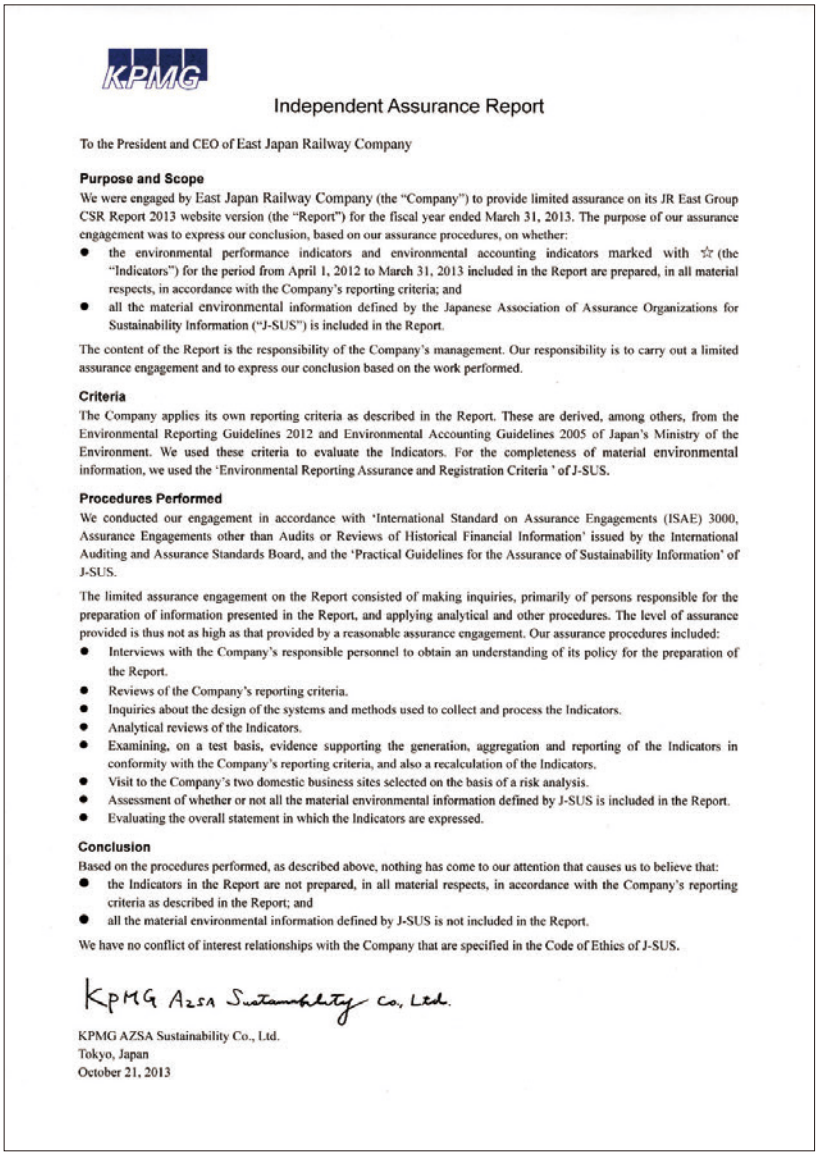
Risk Management

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, and 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 16.8 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. JR East also 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)



KPMG

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 CSR Report 2013 website version (the "Report") for the fiscal year ended March 31, 2013. 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, 2012 to March 31, 2013 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 2012 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 'Environmental Reporting Assurance and Registration Criteria ' 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 for the Assurance of Sustainability Information' 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 21, 2013

For most of the environmental data, station and sales office data are aggregated by units of branch offices and Group companies, and finally calculated at Head Office and reported. Because data on all stations and Group company outlets and sales offices are subject to calculation with no exemptions for size, it is assumed that the amount of labor for calculation and that for internal checks to ensure accurate data collection are enormous. To further improve data accuracy and data collection efficiency, I would suggest that the definitions of data to be collected should be made clearer and communicated, and the introduction of an environmental data collection system should also be considered.

In terms of information disclosure, the use of the GHG protocol has grown over the past several years in regard to the disclosure of greenhouse gas emissions, and it is becoming a common practice to classify CO_2 emissions as Scopes 1, 2 and 3 when they are presented. Taking these trends into account, we believe it is worth considering presenting CO_2 emissions using Scopes 1, 2 and 3, although the company may find it complicated to classify emissions into Scopes since part of the electricity used is generated at its own power plants.

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

During FY2013 the Japanese economy continued to suffer harsh conditions due to the slowdown of the global economy and other factors. With the introduction of domestic economic measures and significant monetary easing, however, there was a gradual recovery including a rise in stock prices and an improvement in consumer attitudes. Even so, although it is now two and a half years since the Great East Japan Earthquake, we are only halfway to reaching the goals of complete recovery and restoration, including finding a satisfactory answer to the nuclear power issue.

On the domestic front, the second cabinet of Prime Minister Shinzo Abe's administration has been inaugurated and has announced the implementation of a zero-based energy and environmental strategy review, and global warming measures. While the government is actively promoting a new energy policy, including the establishment of a renewable energy feed-in-tariff scheme, the outlook for Japanese energy and environmental strategies remains uncertain regarding the issue of nuclear power generation. Against this chaotic backdrop, we, as a business operator, believe that while paying close attention to future possibilities, it remains vital for us to develop appropriate and necessary market responses such as the promotion of eco-stations, the pursuit of renewable energy, and the development of a new railcar drive system.

On the international scene, at the 18th Conference of the Parties (COP18) to the United Nations Framework Convention on Climate Change (UNFCCC), held in Doha in November 2012, it was decided that Japan, which is not participating in the second commitment period of the Kyoto Protocol, will be advancing measures based on the Cancun Agreement. From this aspect also, domestic energy and environmental strategies are coming to significant crossroads.

JR East Group is very aware of its role in society and societal expectations, so we designated the Great East Japan Earthquake as a second starting point and in October last year formulated "Management Vision V-Ever Onward." Under the slogan "Thriving with Communities, Growing Globally," we intend to contribute environmentally to both communities and the world by fully utilizing the environmental advantages and technologies of railways.

As a result of taking social movements into account, we decided to change the title of this year's report from JR East Group Sustainability Report to Corporate Social Responsibility (CSR) Report.

We will continue to address global environmental issues by making active and long-term group-wide efforts and, thereby, contribute to the creation of a sustainable society. Only in this way 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
	Oct.	JR East Group Management Vision V - Ever Onward announced

Former names are used for some facilities

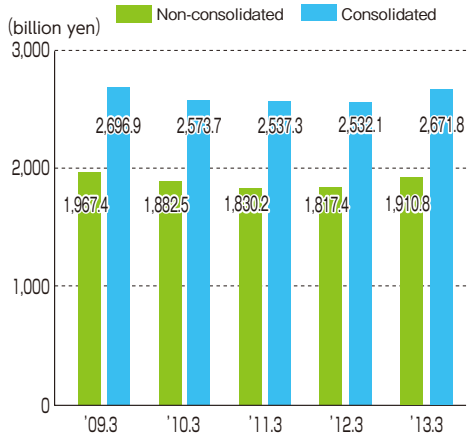
History of Awards

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)

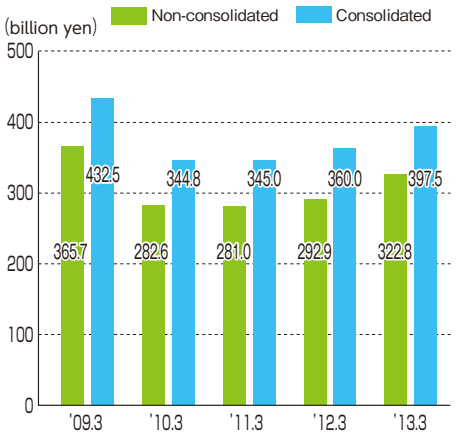
Corporate profile

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	59,370 (as of April 1, 2013)
Passenger line network	Shinkansen lines: 1,134.7km Conventional lines: 6,377.9 km
Number of stations	1,688
Total number of trains in operation per day	12,784 (Timetable revised in March 2013)
Total number of passengers per day	16.80 million
Business areas	Transportation, station space operation, shopping center and office building operation, and other services

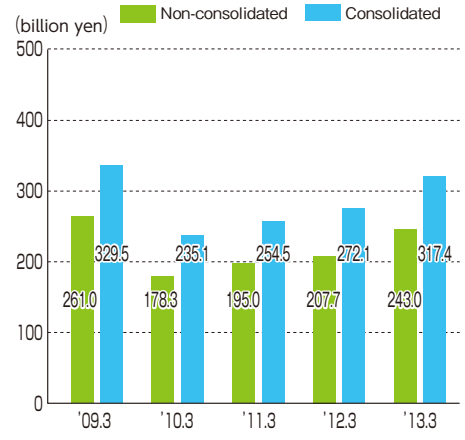
〈Operating revenue〉



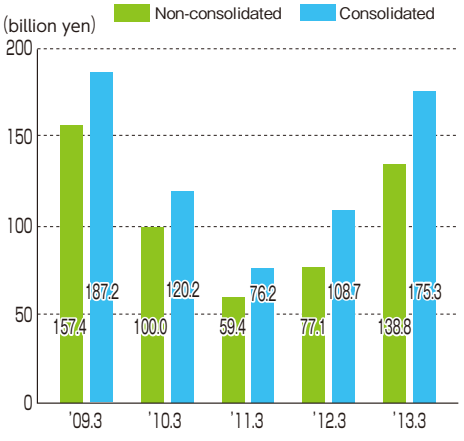
〈Operating income〉



〈Current profit〉



〈Net income〉



Businesses of the JR East Group (as of June 30, 2013)

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 Logistics Co., Ltd.

Travel agent and car rental services

JR East View Travel Service Co., Ltd. / JR East Retal & 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

JR East TESSEI Co., Ltd. / JR East Transportation Services Co., Ltd. / East Japan Eco Access Co., Ltd. / JR East Station Service 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. / Morioka Railway Servicing Co., Ltd. / JR Akita Railway Services Co., Ltd. / JR Niigata Railway Services Co., Ltd. / JR Nagano Railway Services 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

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

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The J-SUS mark indicates that the reliability of the environmental information contained in the JR East Group CSR Report 2013 meets the standard for environmental report screening and logo use defined by the Japanese Association of Assurance Organizations for Sustainability Information.
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East Japan Railway Company
Committee on Ecology
2-2 Yoyogi 2-chome,
Shibuya-ku, Tokyo
151-8578, Japan
Phone: +81-3-5334-1122
E-mail: eco@jreast.co.jp
http://www.jreast.co.jp/e/environment/

eco

ecotrain