

Global environmental capacity is limited as are global resources. It is now obvious to anyone that human activity must take place within these confines.

In the restructuring of the JR East Group in 1992, we seriously started to address environmental issues. As for our core business – the railway business, we are promoting various approaches, such as the use of railcars with half the energy consumption and of renewable energy, as well as the reduction and recycling of wastes in large variety and quantity, to offer transportation with lower environmental impact.

As for group companies, we are also assessing the impacts on the environment to grasp their extent, and to promote countermeasures. To this end, we will provide our employees with environmental education to maintain and reinforce the reduction of the environmental impact of the Group as a whole.

## Basic Vision Toward the Environment

### What Is the JR East Group's Basic Vision Toward the Environment?

Since 1992, the JR East Group has adopted the basic philosophy of balancing environmental protection with the pursuit of our business activities. We have established activity guidelines and numerical goals to more specifically measure environmental conservation activities.

#### Two Approaches to the Promotion of Ecological Activities

Taking advantage of the special traits of our business, JR East uses the following two approaches to address environmental issues.

##### Creating a railway with low environmental impact

On a voluntary basis, we are promoting efforts including adopting energy-saving railcars and recycling wastes to reduce the environmental burden of our business activities.

##### Electric consumption by series

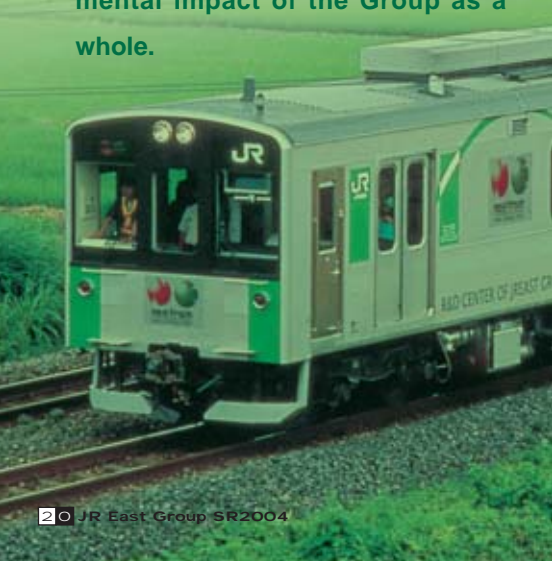
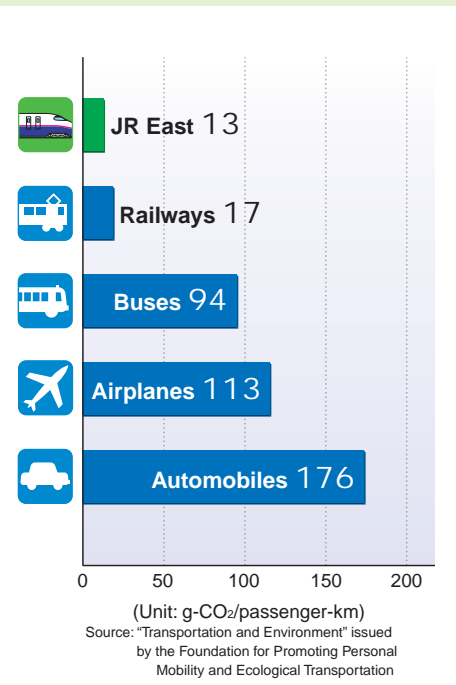
103 series = 100%



##### Creating a convenient railway system

To maximize the characteristics of the railways that its environmental impact per unit of transportation volume is lower than other transportation means, we are promoting the intermodal transportation, an integration of railways and cars, to reduce the overall impact of all means of transportation.

##### CO<sub>2</sub> emission levels by transportation type



## Basic Philosophy and Policy for Promoting Ecological Activities

Basic Philosophy (established in May 1992)	Basic Policies (established in May 1992)
<p>The entire JR East Group, working together, will diligently strive to balance environmental protection with our business activities.</p>	<p>To contribute to customers' lives and local communities by providing a comfortable environment.</p> <p>To develop and provide the technology needed to protect the global environment.</p> <p>To maintain an awareness of environmental protection and raise the environmental awareness of our employees.</p>

## Activity Guidelines and Goals for the Promotion of Ecological Activities

Activity Guidelines (established in March 1996)
<ol style="list-style-type: none"> <li>1. We work to prevent the waste of precious energy resources and to reduce CO<sub>2</sub> emissions – a known source of global warming – by enhancing our energy efficiency and introducing cleaner forms of energy.</li> <li>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 the usage and generation of such substances, and to adopt environmentally responsible substitutes when they are available.</li> <li>3. We ensure the appropriate processing of various types of waste generated at our offices, establishments, stations, trains, etc. We strive to recycle waste and reduce the generation thereof, and to use more recycled and resource-saving products to minimize our burden placed upon the environment.</li> <li>4. We respect the natural environment as a nurturer and source of life, and therefore we endeavor to reduce noise and vibration caused by train operations, thus achieving a harmonious relationship with the communities we serve.</li> <li>5. We work to make railways a more attractive and environmentally friendly form of transportation.</li> </ol>

Goals to be met by FY 2005 (Based on figures for FY 1990) (established in March 1996; revised in November 2000 and partially revised in September 2002)	
<p>A 20% reduction of CO<sub>2</sub> emissions in general business activities</p> <p>Realization of an energy-saving railcar ratio of 80%</p> <p>A 30% reduction of CO<sub>2</sub> emissions in proportion to unit electric power generation at dedicated thermal power plant</p> <p>A 15% reduction in energy consumption for train operations in proportion to unit transportation volume</p> <p>An 85% reduction in the number of large-size refrigerating machines using specific chlorofluorocarbons (CFCs)</p> <p>Realization of a 40% recycling rate for waste generated at stations and on trains</p> <p>Realization of a 75% recycling rate for waste generated in rolling stock workshops<sup>*1</sup></p> <p>Realization of an 85% recycling rate for waste generated in construction projects</p> <p>Realization of a 100% rate for usage of recycled paper as office stock</p> <p>Reduction of noise to less than 75dB in designated residential areas along the <i>Tohoku</i> and <i>Joetsu Shinkansen</i> Lines*</p> <p>A 60% reduction of NO<sub>x</sub> emissions at company-run thermal power plant</p> <p>Implementation of specific environmental conservation activities on an annual basis</p>	<p>* Goal achieved in FY 2002</p>

### \*1 Rolling stock workshops

The rolling stock workshops were renamed General Rolling Stock Centers in April 2004. However in this report, the term "rolling stock workshop" refers collectively to both General Rolling Stock Centers and the Niitsu Rolling Stock Manufacturing Factory.