Measures for Biodiversity

Development of railway trees

Rich natural environments extend along JR East's 7,500 kilometers of railway lines, including railway trees planted to shield the tracks from blowing snow and wind. Thankful for the blessings of the trees and other living things, we continue our work to protect and nurture the natural environment around us.

Railway trees are planted to protect tracks from natural disasters, including snowdrifts and landslides, and to ensure safe, stable train operations. In Japan, railway trees were first planted in 1893 to combat drifting snow. Since then, they have been established for various purposes, including to protect against strong winds, landslides in the rain, snow slides in winter and drifting sands in coastal areas. JR East now owns approximately six million railway trees on a total of about 4,200 hectares along our lines. The trees absorb 17 thousand tons of CO_2, equivalent to 0.8% of the CO_2 that JR East emits. In this way, they also contribute to preserving the environment.

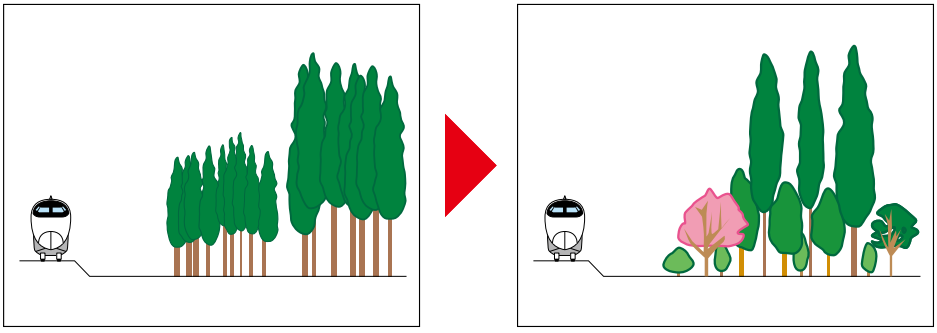
In 2008, after fundamentally reviewing the role of railway trees from the viewpoints both of disaster prevention and environmental preservation, we launched a new project to plant trees to replace those that will require replacement over the coming 20 years.

Sekine No.1 railway forest on the Ou Line (forest to protect against blizzards)

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

Railway trees – From single to multi-variety trees

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



Conventional railway trees (single variety such as cedar trees)

New railway trees (mixture of different varieties of trees)

—Measures for Biodiversity—

Planting new railway trees

On September 27, 2008, a ceremony of planting new railway trees was held at Kakizaki No. 1 railway forest between Kakizaki and Yoneyama on the Shinetsu Main Line. The railway trees had been red pine trees to protect railway tracks from drifting sands blown by strong winds from the Sea of Japan, but were damaged by salt in winter winds and by pine weevils.
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. At the ceremony, about 260 people, including local residents and participants in the organized tour, planted two thousand trees, a part of the 12 thousand trees in 40 varieties which will be replaced.

Tree-planting ceremony for new railway trees (Kakizaki No. 1 railway forest)

Forest development along railway lines

Since 1992, we have implemented tree plantings along railway lines to create railway forests. By March 2009, we had planted some 280 thousand trees with the involvement of about 40 thousand people. We are now working together with people in local communities on planting trees in other places as well as along railway lines.

Adatara Hometown Forestation Program

The entire JR East Group has taken part in the Adatara Hometown Forestation Program on national woodland in the Adatara district, Fukushima Prefecture, since 2004.
Our plan is to plant various kinds of trees close together in a state similar to what would naturally exist, and have a "hometown forest" develop through natural selection. In May 2009, about 1.8 thousand people joined in our tree planting and planted 17 thousand saplings.

Adatara hometown forestation program

Akita Shimohama Coast Forestation Program

At our railway forests along the Uetsu Main Line on the Shimohama Coast, in Akita City, JR East's Akita Branch and the AEON Environmental Foundation jointly staged an event to replant pine trees, replacing those lost to pine weevils. About 880 people joined in, planting about 10 thousand saplings.

Akita Shimohama Coast Forestation Program co-sponsored with AEON Environmental Foundation