

## Year of the Environment at a glance

Russian Railways designated 2021 as a Year of the Environment, with eco-friendliness across the board being the central theme

In today's world, safe and energy efficient transport is increasingly important. The high degree of electrification makes railways one of the most eco-friendly transport modes.

As a national railway company and owner of railway infrastructure, Russian Railways is committed to maintaining a high level of environmental safety and responsibility in its operations.

### Year of the Environment in figures

**RUB 7.25 BN**  
invested by Russian Railways in environmental protection in 2021

**BY 1.6 PP**  
waste sent to landfills shrank<sup>1</sup>

**42%**  
of electricity consumed by Russian Railways obtained from low-carbon sources and sources with zero GHG emissions:

**25.8%**  
generated by hydropower plants

**16%**  
generated by nuclear power plants

**0.2%**  
generated by wind turbines

**86%**  
of freight transportation electric-driven

**14.8%**  
of waste sent to landfills

**0%**  
of untreated wastewater discharged into surface water bodies

**200**  
environmental awareness raising campaigns completed involving over 41 thousand children

<sup>1</sup> Compared to 2021.



**720** THOUSAND  
fingerlings released into water bodies

BY **8%**  
pollutant emissions from  
stationary sources fell<sup>1</sup>

BY **3.45%**  
water use reduced<sup>1</sup>

**632** THOUSAND  
trees planted across an area  
equivalent to 160 football pitches

BY **14%**  
wastewater discharges on land  
and into surface water bodies  
went down<sup>1</sup>

BY **21%**  
paper, cardboard, glass, plastic  
and household aluminium sent for  
disposal grew<sup>1</sup>



## Eco-friendliness across the board

Russian Railways is on track to build a full-fledged green economy where environmental actions are integrated into all processes.



### Green financing

Russian Railways is the leader of Russia's sustainable finance market. The Company places green and social bonds in accordance with international best practices in sustainable financing. These include perpetual bonds, a unique instrument which has a distinctive feature of being classified as equity.

[For more details see p. 31-33](#)



### Innovation for eco-friendly solutions

Leveraging innovations to reduce energy consumption.

[For more details see p. 55-56](#)

Leveraging innovations to generate affordable and clean energy.

[For more details see p. 54](#)



### Environmental campaigns and volunteering

Jointly with administrations of specially protected territories, forestry farms, and non-governmental organisations, Russian Railways conducted more than 200 environmental protection events with large-scale involvement of employees and volunteers.

[For more details see p. 86](#)



### Eco-friendly rolling stock

In partnership with the machine building industry, Russian Railways is actively engaged in a number of projects to create eco-friendly traction stock running on alternative energy sources.

[For more details see p. 20-21](#)



### Russian Railways' eco calculator

Aware of just how important environmental matters are, we calculate the Company's GHG emissions and help our shippers do the same.

[For more details see p. 105](#)

## Russian Railways' environmental performance in 2021

### Reliable Partner – Environment, a national contest of regional environmental practices.

Russian Railways ranked first in five categories:

- Digitalisation of production and consumption waste management – special nomination
- Best project in efficient industrial waste management

### Project to process rubber product waste generated during the disassembly of dual gauge track.

Recyclables are used to make rubber granules for the production of rubber flooring.

- Best project in mitigating the adverse impact of industrial facilities, housing and utilities on water bodies
- Best environmental awareness raising project

### Raising environmental awareness among passengers:

lectures on selective collection of paper, passenger surveys, young artists' exhibitions, and more

- Best project in energy savings and energy efficiency

### Vernadsky National Environmental Award, Sustainable Energy category

Moscow High-Speed Transportation Directorate was awarded for its project titled Regenerative Braking on Lastochka Electric Trains.

### Regeneration is a vivid example of leveraging innovations to reduce energy consumption,

with Moscow Central Circle's Lastochka trains regenerating about 50% of the energy consumed and sending it back as input power. Since 2017, GHG emissions have dropped by more than 40 kt of CO<sub>2</sub> equivalent.

### BRICS Solutions for Sustainable Development Goals Awards 2021, Affordable and Clean Energy category

Winner for its project titled Implementing of a Cogeneration Plant Using Old Year Wooden Sleepers as Fuel.

 For more details on the project see the Waste Management Section.

Russian Railways won the following contests:

- All-Russia Environmental Leader Award
- Environmental Culture. Peace and Reconciliation International Project
- Leaders of Russian Business: Dynamics, Responsibility, Sustainability, a contest organised by the Russian Union of Industrialists and Entrepreneurs (RSPP)