

GOVERNMENT OF INDIA
MINISTRY OF ROAD TRANSPORT AND HIGHWAYS
RAJYA SABHA
UNSTARRED QUESTION NO - 2987
ANSWERED ON - 18/03/2026

PROMOTION OF GREEN HIGHWAY INITIATIVES

2987. SHRI SANJAY SETH:

Will the Minister of ROAD TRANSPORT AND HIGHWAYS be pleased to state:

- (a) how green highway initiatives have promoted environmentally sustainable road construction, the details thereof;
- (b) whether use of recycled materials has increased due to Government policy reforms, if so, the details thereof and if not, reasons therefor;
- (c) to what extent tree plantation and carbon-offsetting measures have been integrated into highway projects, the details thereof; and
- (d) how far technological innovations have improved environmental compliance in road building, the details thereof?

ANSWER

THE MINISTER OF ROAD TRANSPORT AND HIGHWAYS

(SHRI NITIN JAIRAM GADKARI)

- (a) Green Highway initiatives have promoted environmentally sustainable road construction by encouraging plantation along National Highways, use of environmentally friendly construction materials, proper management of water resources, and measures to reduce carbon emissions during construction and maintenance activities. These initiatives aim to improve the ecological balance and enhance the environmental sustainability of highway development.
- (b) The use of recycled materials in infrastructure development is increasing day by day because of various policy reforms and initiatives taken by the Government. The policy framework encourages sustainable construction practices and promotes the potential use of recycled and waste-derived materials in projects wherever technically feasible. Continuous efforts through guidelines, advisories and technological advancements have created an enabling environment for wider adoption, thereby enhancing the potential and acceptance of recycled materials in construction activities.

(c) Tree plantation and carbon offsetting measures have been integrated into National Highway projects as part of environmentally sustainable development under the Green Highways (Plantation, Transplantation, Beautification and Maintenance) Policy, 2015 and Indian Roads Congress (IRC): SP:21 guidelines.

Under the framework, plantation is undertaken along the median, avenue and other available Right of Way (RoW) of National Highways. Additionally, wherever tree felling is necessary for highway development, compensatory afforestation and tree transplantation are undertaken.

(d) Technological innovations are increasingly adopted in road construction to ensure environmental compliance and promote sustainable development. The use of recycled and waste materials such as fly ash, plastic waste, reclaimed asphalt pavement (RAP), and construction /demolition waste in highway projects are encouraged.

Further, the adoption of green initiative practices, energy efficient construction technologies, digital monitoring systems, and improved environmental management practices has helped reduce emissions, conserve natural resources and minimize environmental impact during road construction. These innovations are implemented in accordance with relevant specifications and IRC guidelines to ensure compliance with environmental standards in highway development.
