GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS

RAJYA SABHA
UNSTARRED QUESTION NO. 2195
ANSWERED ON 13.12.2024

ASSESSMENT OF ENVIRONMENTAL IMPACT OF RAILWAY EXPANSIONS

2195. SMT. RANJEET RANJAN**:**
SMT. PRIYANKA CHATURVEDI:

Will the Minister of RAILWAYS be pleased to state:

(a) the current protocol for assessing environmental impact of land use changes due to railway expansions;

(b) whether these environmental assessments are integrated into future project planning, if so, details thereof, and if not, the reasons therefor;

(c) the percentage by which railways has been able to cut down its greenhouse gas emissions to meet its net-zero emission target by 2030; and

(d) the measures taken by Government to support Research and Development (R&D) for making railway operations environment friendly and sustainable along with the details of budgetary allocations?

ANSWER

MINISTER OF RAILWAYS, INFORMATION & BROADCASTING AND ELECTRONICS & INFORMATION TECHNOLOGY

(SHRI ASHWINI VAISHNAW)

(a) to (d): Railways are environment friendly and energy-efficient mode of transportation, yielding substantially lower CO2 emissions. As per NITI Aayog report, the CO2 emissions from movement of freight by rail transport are about 90% less than the road transport. As per the extant policy guidelines, Railway projects are exempted from environmental clearance. However, forestry/wild life clearances are taken from Ministry of Environment, Forest and Climate Change (MoEF&CC), wherever the diversion of forest land is involved.

The alignment for new line projects is decided so as to have minimum impact on forest life and if it is still unavoidable, mitigation measures like afforestation, etc are undertaken. Also ‘Amrit Bharat Station Scheme’ envisages gradual shifting to sustainable and environmental friendly solution as per availability of funds and condition of existing assets which includes use of renewable energy.

Indian Railways (IR) has taken various initiatives to achieve Net Zero Carbon emissions. To achieve this goal, the Railways has implemented various measures to reduce its greenhouse gas emissions, including the use of electric traction, promotion of energy efficiency, promotion of renewable energy sources like solar and wind power and use of energy efficient technologies like completely switching over to production of three phase electric locomotives, EMU, MEMU, Vande Bharat etc. with regenerative features, use of head on generation (HOG) technology, use of LED lights in buildings & coaches, use of Star rated appliances and afforestation.

The quantum of reduction in Carbon emission is an ongoing process as efforts of Carbon emission reduction vis-à-vis the quantum of Carbon emission with traction & non-traction energy requirement and ongoing process.

Indian Railways has worked extensively towards developing environment friendly and sustainable solutions for pan India deployment on its network through Research & Development, either directly or in association with Industry and Academia which includes development of bio toilets, development of alternate fuels in traction, development of concrete sleeper, etc.

Funds to the tune of Rs. 72.01 Crore have been allotted for Railway Research and Development (R&D) in the financial year 2024-25.

*****