

**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS**

**LOK SABHA  
UNSTARRED QUESTION NO. 4263  
TO BE ANSWERED ON 26.03.2025**

**ELECTRIFICATION PROJECT IN RAILWAYS**

**4263. DR. KALANIDHI VEERASWAMY:  
SHRI BENNY BEHANAN:**

**Will the Minister of RAILWAYS be pleased to state:**

- (a) the details of the status of the 100 per cent electrification of railway tracks under the National Electrification Project including the percentage of tracks already electrified, State-wise particularly in 2024-25;**
- (b) the details of the funds sanctioned, allocated and utilised for this project particularly for Tamil Nadu;**
- (c) the details of the environmental benefits expected from the full electrification of railways, particularly in terms of reducing carbon emissions and reliance on fossil fuels;**
- (d) the details of the impact of full electrification on operational efficiency, including reduction in fuel costs, travel time and improvement in train speeds;**
- (e) the challenges faced during the implementation of the electrification project, particularly in remote or difficult terrains and the steps being taken to overcome them; and**
- (f) the timeline for the completion of the 100 per cent electrification project across the Indian Railways network?**

**ANSWER**

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

**(SHRI ASHWINI VAISHNAW)**

**(a) to (f) Currently, about 98% of the Indian Railways' (IR) Broad Gauge (BG) network has been electrified and balance sections have been taken up. Significant progress has been made in railway electrification**

in recent years, a comparison of electrification before and after 2014 is as follows:

Period	Route Kilometer
Before 2014 (about 60 years)	21,801
2014-25 (upto Feb, 25)	45,922

State wise percentage of tracks already electrified till date are as under:

SN	STATE	% Electrified
1	Andhra Pradesh	100%
2	Arunachal Pradesh	100%
3	Bihar	100%
4	Chandigarh	100%
5	Chhattisgarh	100%
6	Delhi	100%
7	Haryana	100%
8	Himachal Pradesh	100%
9	J&K	100%
10	Jharkhand	100%
11	Kerala	100%
12	Madhya Pradesh	100%
13	Maharashtra	100%
14	Meghalaya	100%
15	Nagaland	100%

SN	STATE	% Electrified
16	Odisha	100%
17	Puducherry	100%
18	Punjab	100%
19	Telangana	100%
20	Uttar Pradesh	100%
21	Uttarakhand	100%
22	Tripura	100%
23	West Bengal	100%
24	Rajasthan	98%
25	Gujarat	97%
26	Karnataka	96%
27	Tamil Nadu	96%
28	Goa	88%
29	Assam	79%

About 96% electrification work of the railway lines situated in Tamil Nadu has been completed. The electrification work in the balance sections situated in Tamil Nadu has been taken up at a cost of Rs. 444 crore.

**CO<sub>2</sub> emissions in transportation by railways as compared to transportation by road is as under:**

<b>Mode of Transportation</b>	<b>CO<sub>2</sub> emission for transportation of 1 tonne for 1 km</b>
<b>Road</b>	<b>101 gm</b>
<b>Rail</b>	<b>11.5 gm (about 89% less)</b>

**Further, electrification of railway tracks reduces dependency on fossil fuels, decreased diesel consumption resulting in lower carbon emission. Electrification enables better haulage capacity and higher train speeds, leading to reduced travel time and enhanced efficiency. IR has witnessed reduction in fuel consumption for traction purpose by 136 crore liters during 2023-24 as compared to 2018-19.**

**Mission 100% Electrification is a highly challenging project, as it involves electrifying railway lines that are already in operation and encountering unforeseen various challenges during execution. To expedite railway electrification work, various steps have been taken by Indian Railways which include among others; formation of Project Monitoring Group (PMG) portal to resolve the constraints being faced during commissioning, ensuring effective project monitoring mechanism, assured funding and enhanced financial powers to field units.**

**The completion of Electrification project(s) depends on various factors like forest clearances by officials of forest department, shifting of infringing utilities, statutory clearances from various authorities, geological and topographical conditions of area, law & order situation in the area of project(s) site, number of working months in a year for particular project site due to climatic conditions etc. All these factors affect the completion time of the project(s)**