

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS**

**LOK SABHA
UNSTARRED QUESTION NO. 3807
TO BE ANSWERED ON 18.12.2024**

INSTALLATION OF AI ENABLED SENSORS ON THE RAILWAY TRACKS

†3807. SHRI GYANESHWAR PATIL:

Will the Minister of RAILWAYS be pleased to state:

- (a) whether the Government has taken cognizance of the deaths of wild animals on railway track due to which passenger trains services are disrupted for a long time;**
- (b) if so, the details thereof including the steps taken by the Government to prevent the death of wild animals and humans beings while crossing railway tracks;**
- (c) whether the Government proposes to install AI enabled sensors to alert loco pilots about obstructions on the track at least two km in advance;**
- (d) if so, the details of the initiatives taken by the Government in this regard; and**
- (e) the details of the timeline set and the budget allocation made for this purpose?**

ANSWER

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

(SHRI ASHWINI VAISHNAW)

- (a) to (e) Indian Railways has taken up various measures in close coordination with Forest department, so that no harm is caused to wild**

animals during train operation. These measures include imposition of suitable speed restrictions in identified locations of animal corridors, regular meetings with concerned forest officials to update and sensitize the train crew and station master for alertness and awareness, clearance of vegetation and edible items surrounding the track within railway land etc. Elephant trackers are also installed/ engaged by Forest department which give timely alert to station master for further communication to loco pilots.

Other measures like construction of underpasses and ramps for the movement of elephants at identified locations, provision of fencing along the track etc. have been taken up. Installation of innovative Honey bee buzzer device at crossing locations in elephant corridor areas to prevent the movement of wild animals/ Elephants near Railway tracks have been done. This device acts as a repellent to move away elephants from track and 96 such Honey bee buzzers are operational in various locations of Northeast Frontier Railway. Thermal vision camera has also been developed for detecting presence of wild animals on straight track during night/poor visibility which alerts loco pilots for presence of wild animals. LED lights with solar system are also provided in forest area near track to prevent entry of elephants.

Indian Railways has taken up the work for installation of Optical Fiber Cable based Distributed Acoustic Sensors (DAS) also known as AI enabled Intrusion Detection System (IDS) for detecting presence of Elephants/ wild animals on track or nearby track at identified corridor locations. This system helps to get advance intimation regarding movement of Elephants/ wild animals for taking timely action and transmitting alerts to loco pilots, station master and control room.

For this purpose, works have been sanctioned for identified corridors of Indian Railways with total 1158 Rkm at total cost of Rs. 208 Crore covering NFR, ECoR, SR, NR, SER, NER and WR.

So far, works of total 582.25 Rkm have been awarded covering -NFR (141 Rkm), ECoR (349.4 Rkm), SR (55.85 Rkm) and NER (36 Rkm) respectively out of which the work has already been commissioned over 141 Rkm in Northeast Frontier Railway.
