

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS**

**LOK SABHA
UNSTARRED QUESTION NO. 3275
TO BE ANSWERED ON 23.03.2022**

RAILWAY NETWORK UNDER KAVACH TECHNOLOGY

3275. DR. KALANIDHI VEERASWAMY:

SHRI SANJAY SADASHIVRAO MANDLIK:

SHRIMATI JASKAUR MEENA:

SHRI SUBRAT PATHAK:

SHRI RAVINDRA KUSHWAHA:

SHRI MANOJ TIWARI:

SHRI DHAIRYASHEEL SAMBHAJIRAO MANE:

SHRI SHRIRANG APPA BARNE:

SHRI BIDYUT BARAN MAHATO:

SHRI KRIPANATH MALLAH:

SHRI VISHNU DAYAL RAM:

SHRI SUDHEER GUPTA:

SHRI PRATAPRAO JADHAV:

Will the Minister of RAILWAYS be pleased to state:

- (a) whether the Railways has recently launched a 'Kavach' under the Atmanirbhar Bharat;**
- (b) if so, the details thereof along with the aims and objectives thereto;**
- (c) the salient features of the said Kavach System;**
- (d) whether the Government has conducted any trial of 'Kavach' working system;**
- (e) if so, the details thereof and the outcome thereto;**
- (f) the total railway network routes brought under the Kavach System in the country including Assam and Tamil Nadu;**
- (g) the total expenditure incurred by the Government on developing the above said system; and**

(h) the time by which it is likely to be installed?

ANSWER

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

(SHRI ASHWINI VAISHNAW)

(a) to (c) Yes, Sir. Indian Railway has developed its own Automatic Train Protection (ATP) System called Kavach for enhancing safety of running trains. KAVACH has been developed indigenously by RDSO in association with three Indian vendors and it has been adopted as our National Automatic Train Protection (ATP) System.

KAVACH will not only aid Loco Pilot to avoid Signal Passing At Danger (SPAD) and over speeding but also help in train running during inclement weather such as dense fog. Thus, Kavach will enhance safety and efficiency of train operations.

The salient features of the said Kavach system are as under-

- Kavach controls speed of the train by automatic application of brakes in case Loco Pilot fails to apply the brakes.**
- Repeats line-side signal in cab which is very useful for higher speeds and foggy weather.**
- Works on principle of continuous update of Movement authority.**
- Auto whistling at LC gates.**
- Collision avoidance by direct loco to loco communication.**
- Supports feature of SOS in case of any mishap to control train in vicinity.**

(d) to (f) Yes, Sir. Indian Railway has conducted trials of 'Kavach' on Absolute Block section of Lingamapalli – Vikarabad - Wadi, Vikarabad - Bidar (250 KM) section of South Central Railway. After successful completion of trials, three vendors were approved for developmental orders on Indian Railways.

On Successful trial a work of Kavach on 1199 Rkm is in progress in Manmad – Mudkhed – Dhone – Guntakal & Bidar – Parbhani section of South Central Railway.

Till now nearly 1098 Rkm of network route in South Central Railway has been brought under Kavach.

(g) and (h) Total expenditure incurred so far on development work of Kavach is ₹ 16.88 Crores.

At present Kavach roll out is planned on New Delhi-Howrah and New Delhi – Mumbai section which is targeted for completion by Mar'2024. Further roll out will be planned based on experience gained.
