

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
RAJYA SABHA
UNSTARRED QUESTION NO. 2524
ANSWERED ON 13.03.2026

MILESTONES ACHIEVED IN EXPANDING VANDE BHARAT TRAIN SERVICES

2524 SHRI SANJAY SETH:

Will the Minister of RAILWAYS be pleased to state:

- (a) details of the latest milestones achieved in expanding Vande Bharat train services across major routes and its utility particularly in Uttar Pradesh;
- (b) whether the Kavach automatic protection system is being deployed to enhance railway safety, if so, the details thereof and if not, reasons for the same;
- (c) the upgrades that are being introduced to improve passenger comfort, hygiene and onboard facilities, the details thereof; and
- (d) By when Indian Railways will achieve 100 per cent electrification of the broad-gauge network, the details thereof?

ANSWER

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

(SHRI ASHWINI VAISHNAW)

(a) to (d) Indian Railways (IR) is focussed on providing affordable, good quality services to all sections of society. With a view to improve travel experience of the passengers, Indian Railways have introduced indigenously designed and manufactured Vande Bharat (Sleeper & Chair Car), Amrit Bharat, Namo Bharat Rapid Rail services with modern coaches, advanced safety features and passenger amenities.

Vande Bharat services (Chair Car):

Indian Railways, with a view to improve travel experience of the passengers, have introduced indigenously designed and manufactured Vande Bharat trains with modern coaches, advanced safety features and passenger amenities. These Vande Bharat Chair Car Trains have following features:

- Jerk Free Semi-Permanent couplers.
- Fitted with KAVACH
- Centrally controlled Automatic Plug Doors and Fully Sealed wider gangways.
- Emergency Alarm Push buttons and Talk Back Units on all Coaches.
- Improved fire safety – Aerosol based fire detection and suppression system in electrical cabinets and lavatories.
- Higher acceleration with design/operating speed of 180/160 KMPH.

- Driver-Guard communication with voice recording facility & Crash hardened memory.
- Air conditioning units provided with indigenously developed UV-C lamp based disinfection system for deactivating 99% harmful bacteria from conditioned air to improve the hygiene standards inside the passenger area.
- Better Ride Comfort.
- CCTVs in all Coaches.
- For Divyangjan passengers special lavatory in the driving coaches on each end.
- Coach condition monitoring System (CCMS) display with remote monitoring

As on 09.03.2026, the following 162 Vande Bharat train services (Chair Car) are being operated on the Indian Railways network, as under:-

SN	Train No. and Name
1	22435/22436 New Delhi - Varanasi Vande Bharat Express
2	22439/22440 Sri Mata Vaishno Devi Katra - New Delhi Vande Bharat Express
3	20901/20902 Gandhinagar Capital - Mumbai Central Vande Bharat Express
4	22447/22448 Amb Andura - New Delhi Vande Bharat Express
5	20607/20608 Mysuru - MGR Chennai Central Vande Bharat Express
6	20825/20826 Nagpur - Bilaspur Vande Bharat Express
7	22301/22302 New Jalpaiguri - Howrah Vande Bharat Express
8	20833/20834 Secunderabad - Visakhapatnam Vande Bharat Express
9	22223/22224 Sainagar Shirdi - Chhatrapati Shivaji Maharaj (T) Vande Bharat Express
10	22225/22226 Solapur - Chhatrapati Shivaji Maharaj (T) Vande Bharat Express
11	20171/20172 Nizamuddin - Rani Kamlapati Vande Bharat Express
12	20701/20702 Tirupati - Secunderabad Vande Bharat Express
13	20643/20644 Coimbatore - Chennai Vande Bharat Express
14	20977/20978 Chandigarh - Ajmer Vande Bharat Express
15	20633/20634 Thiruvananthapuram- Kasargod Vande Bharat Express
16	22895/22896 Puri - Howrah Vande Bharat Express
17	22457/22458 Dehradun - Anand Vihar Vande Bharat Express
18	22227/22228 Guwahati - New Jalpaiguri Vande Bharat Express

19	20911/20912 Nagpur - Indore Vande Bharat Express
20	22229/22230 Madgaon - Chhatrapati Shivaji Maharaj (T) Vande Bharat Express
21	22349/22350 Ranchi - Patna Vande Bharat Express
22	20661/20662 Dharwar - Bengaluru Vande Bharat Express
23	20173/20174 Rewa - Rani Kamlapati Vande Bharat Express
24	22549/22550 Gorakhpur - Prayagraj Vande Bharat Express
25	12461/12462 Sabarmati - Jodhpur Vande Bharat Express
26	22925/22926 Okha - Ahmedabad Vande Bharat Express
27	20665/20666 Tirunelveli - Chennai Egmore Vande Bharat Express
28	20677/20678 Narsapur - Chennai Vande Bharat Express
29	20703/20704 Yesvantpur - Kacheguda Vande Bharat Express
30	20631/20632 Thiruvananthapuram- Mangaluru Vande Bharat Express
31	26963/26964 Udaipur - Asarva Vande Bharat Express
32	22347/22348 Patna - Howrah Vande Bharat Express
33	20835/20836 Puri - Rourkela Vande Bharat Express
34	20897/20898 Ranchi - Howrah Vande Bharat Express
35	22415/22416 New Delhi - Varanasi Vande Bharat Express
36	20641/20642 Coimbatore - Bengaluru Cant Vande Bharat Express
37	20645/20646 Mangaluru - Madgaon Vande Bharat Express
38	20705/20706 Chhatrapati Shivaji Maharaj (T) - Nanded Vande Bharat Express
39	22477/22478 Sri Mata Vaishno Devi Katra - New Delhi Vande Bharat Express
40	22425/22426 Anand Vihar - Ayodhya Cantt. Vande Bharat Express
41	22487/22488 Amritsar - Delhi Vande Bharat Express
42	22962/22961 Mumbai Central - Ahmedabad Vande Bharat Express
43	20707/20708 Visakhapatnam - Secunderabad Vande Bharat Express
44	20663/20664 Chennai - Mysuru Vande Bharat Express
45	22233/22234 Patna - New Jalpaiguri Vande Bharat Express

46	22470/22469 Khajuraho - Nizamuddin Vande Bharat Express
47	22231/22232 Bengaluru - Kalburagi Vande Bharat Express
48	20841/20842 Visakhapatnam - Bhubaneswar Vande Bharat Express
49	22345/22346 Gomti Nagar - Patna Vande Bharat Express
50	20887/20888 Varanasi - Ranchi Vande Bharat Express
51	22545/22546 Dehradun - Lucknow Jn Vande Bharat Express
52	22490/22489 Varanasi - Meerut City Vande Bharat Express
53	20627/20628 Nagercoil - Chennai Egmore Vande Bharat Express
54	20671/20672 Bengaluru Cantt - Madurai Vande Bharat Express
55	22500/22499 Deoghar - Varanasi Vande Bharat Express
56	22309/22310 Jamalpur - Howrah Vande Bharat Express
57	20871/20872 Rourkela - Howrah Vande Bharat Express
58	20893/20894 Patna - Tatanagar Vande Bharat Express
59	20892/20891 Tatanagar - Brahmapur Vande Bharat Express
60	22303/22304 Gaya - Howrah Vande Bharat Express
61	20669/20670 Pune - Hubballi Vande Bharat Express
62	20673/20674 Pune - Chhatrapati Shahu Maharaj (T) Vande Bharat Express
63	20101/20102 Secunderabad - Nagpur Vande Bharat Express
64	20829/20830 Visakhapatnam - Durg Vande Bharat Express
65	21893/21894 Patna - Tatanagar Vande Bharat Express
66	21895/21896 Patna - Tatanagar Vande Bharat Express
67	20176/20175 Banaras - Agra Cantt. Vande Bharat Express
68	26901/26902 Veraval - Sabarmati Vande Bharat Express
69	26401/26402 Srinagar - Shri Mata Vaishno Devi Katra Vande Bharat Express
70	26403/26404 Srinagar -Shri Mata Vaishno Devi Katra Vande Bharat Express
71	26502/26501 Patliputra - Gorakhpur Vande Bharat Express
72	26751/26752 KSR Bengaluru - Belagavi Vande Bharat Express

73	26406/26405 Amritsar - Shri Mata Vaishno Devi Katra Vande Bharat Express
74	26101/26102 Pune - Ajni Vande Bharat Express
75	26302/26301 Jogbani - Danapur Vande Bharat Express
76	26481/26482 Delhi Cantt - Jodhpur Vande Bharat Express
77	26471/26472 Delhi Cantt - Bikaner Vande Bharat Express
78	26462/26461 Delhi - Firozpur Cantt. Vande Bharat Express
79	26651/26652 Ernakulam - KSR Bengaluru Vande Bharat Express
80	26506/26505 Khajuraho - Banaras Vande Bharat Express
81	26504/26503 Saharanpur - Gontinagar Vande Bharat Express

Vande Bharat Sleeper Train services:

For long distance travel the Sleeper variant of Vande Bharat Express has been indigenously designed and developed. Two such trains have already been manufactured. After extensive trials, these trains have been introduced on Indian Railways. The First Vande Bharat Sleeper service viz. 27575/27576 Howrah- Kamakhya Vande Bharat Sleeper Express has commenced regular operation w.e.f. 22.01.2026.

The process of development of new rolling stocks like Vande Sleeper necessitates a holistic approach, combining technological innovation, strategic planning and manufacturing to ensure a safe, reliable and comfortable travel. This involves development of prototype, extensive testing and trials followed by series production.

To improve travel experience of the passengers and set new benchmarks in terms of safe and comfortable journey, these train sets have been provided with modern coaches having advanced safety features and passenger amenities like:

- Jerk-Free Semi permanent couplers and Anti Climbers.
- Fitted with KAVACH.
- Higher acceleration with design/operating speed of 180/160 KMPH.
- Crashworthy Design of Car body complying with EN standards.
- Fire barrier doors at the end of each coach for compliance of Fire Safety standards.
- Aerosol based fire detection and suppression system in electrical cabinets and lavatories.
- Regenerative braking system for energy efficiency.

- Air conditioning units provided with indigenously developed UV-C lamp based disinfection system for deactivating 99% harmful bacteria from conditioned air to improve the hygiene standards inside the passenger area.
- Centrally controlled Automatic Plug Doors and Fully Sealed wider gangways.
- CCTVs in all coaches.
- Emergency talk-back unit for communication between Passenger and Train Manager/Loco Pilot in case of emergency.
- For Divyangjan passengers special lavatory in the driving coaches on each end.
- Centralized Coach Monitoring System for better condition monitoring of passenger amenities such as Air conditioning, Saloon Lighting etc.
- Ergonomically designed ladder for ease of climbing on to upper berths.

As on 09.03.2026, the following 02 Vande Bharat train services (Sleeper Car) are being operated on the Indian Railways network:

SN	Train No. and Name
1	27575/27576 Howrah - Kamakhya Vande Bharat Sleeper Express

Amrit Bharat services:

To provide affordable means of transportation to the low and middle income families, Indian Railways have introduced Amrit Bharat services that are fully non-AC modern trains. The present composition of Amrit Bharat consists of 11 General Class coaches, 8 Sleeper Class coaches, 01 Pantry car and 02 Luggage cum Divyangjan coaches.

High Speed and enhanced Safety standards are the hallmarks of these trains with following enhanced features and amenities:

- Better aesthetics of seat and berths with enhanced look & feel on the lines of Vande Bharat Sleeper.
- Jerk Free Semi-Automatic Couplers.
- Improved Crashworthiness in coaches by provision of crash tube.
- Provision of CCTV system in all coaches.
- Improved designs of toilets.
- Improved design of Ladder for ease of climbing on to the berth.
- Improved LED Light fitting & Charging Sockets.
- Provision of EP assisted braking system.
- Aerosol based fire suppression system in toilets and electrical cubicles.

- x. USB Type-A and Type-C mobile charging sockets.
- xi. Emergency Talk Back system for two-way communication between Passenger and Guard/Train Manager.
- xii. Non-AC pantry with enhanced heating capacity.
- xiii. Fully sealed gangways with quick release mechanism for easy attachment and detachment.

As on 09.03.2026, the following 54 Amrit Bharat Express services are being operated on the Indian Railways network:

SN	Train No. and Name
1	11015/11016 Lokmanya Tilak (T) - Saharsa Amrit Bharat Express
2	13697/13698 Gaya - Delhi Amrit Bharat Express
3	15293/15294 Muzaffarpur - Charlapalli Amrit Bharat Express
4	15557/15558 Darbhanga - Anand Vihar (T) Amrit Bharat Express
5	15561/15562 Darbhanga - Gomtinagar Amrit Bharat Express
6	15567/15568 Bapudham Motihari - Anand Vihar (T) Amrit Bharat Express
7	22361/22362 Rajendranagar (T) - New Delhi Amrit Bharat Express
8	13433/13434 SMVT Bengaluru - Malda Town Amrit Bharat Express
9	13435/13436 Malda Town - Gomtinagar Amrit Bharat Express
10	15133/15134 Chhapra - Anand Vihar (T) Amrit Bharat Express
11	14047/14048 Sitamarhi - Delhi Amrit Bharat Express
12	14627/14628 Saharsa - Chheharta Amrit Bharat Express
13	19623/19624 Madar - Darbhanga Amrit Bharat Express
14	16601/16602 Erode - Jogbani Amrit Bharat Express
15	19021/19022 Udhna - Brahmapur Amrit Bharat Express
16	15671/15672 Kamakhya - Rohtak Amrit Bharat Express
17	20609/20610 New Jalpaiguri - Tiruchchirappalli Amrit Bharat Express
18	16597/16598 SMVT Bengaluru - Alipurduar Amrit Bharat Express
19	11031/11032 Panvel - Alipurduar Amrit Bharat Express

20	16107/16108 Tambaram - Santragachi Amrit Bharat Express
21	13065/13066 Howrah - Anand Vihar (T) Amrit Bharat Express
22	22587/22588 Sealdah - Banaras Amrit Bharat Express
23	20603/20604 New Jalpaiguri - Nagercoil Amrit Bharat Express
24	15949/15950 Dibrugarh - Gomti Nagar Amrit Bharat Express
25	16121/16122 Tambaram - Thiruvananthapuram Central Amrit Bharat Express
26	16329/16330 Nagercoil - Mangaluru Amrit Bharat Express
27	17041/17042 Charlapalli - Thiruvananthapuram North Amrit Bharat Express

Namo Bharat Rapid Rail service

Indian Railways have introduced Nammo Bharat Rapid Rail services. These services are aimed to enhance the travel experience to the suburban and regional commuters for short distance travel. The prominent features of Nammo Bharat Rapid Rail are as follows:

1. Centrally controlled Double Leaf Automatic Sliding Doors.
2. CCTVs for safety and passenger surveillance.
3. Modular interior with Cushioned Seats and Sealed Flexible Gangway.
4. Emergency Talk System.
5. Continuous LED lighting with Energy Efficient Lighting system.
6. FRP Modular Toilets with vacuum evacuation.
7. Fully Air-Conditioned trains with Driver cab AC.

As on 09.03.2026, the following 4 Nammo Bharat Rapid Rail services are in operation:

SN	Train Number and Name
1	94801/94802 Ahmedabad-Bhuj Nammo Bharat Rapid Rail
2	94803/94804 Jaynagar-Patna Nammo Bharat Rapid Rail

As the Railway network straddles across State/district boundaries, trains are operated, as per network requirement, across such boundaries Further, out of 162 Vande Bharat Chair Car services, 26 services (on originating/terminating basis) are catering to the stations located in the State of Uttar Pradesh, as under:

Vande Bharat services catering the stations located in Uttar Pradesh

SN	Train No. and Name
1	20175/20176 Banaras - Agra Cantt Vande Bharat Express
2	20887/20888 Ranchi - Varanasi Vande Bharat Express
3	22345/22346 Patna Junction - Gomti Nagar Vande Bharat Express
4	22415/22416 Varanasi - New Delhi Vande Bharat Express
5	22425/22426 Ayodhya Cantt - Anand Vihar Terminal Vande Bharat Express
6	22435/22436 Varanasi - New Delhi Vande Bharat Express
7	22489/22490 Varanasi - Meerut City Vande Bharat Express
8	22499/22500 Deoghar - Varanasi Vande Bharat Express
9	22545/22546 Lucknow Junction - Dehradun Vande Bharat Express
10	22549/22550 Gorakhpur Junction - Prayagraj Junction Vande Bharat Express
11	26501/26502 Patliputra Junction - Gorakhpur Junction Vande Bharat Express
12	26503/26504 Saharanpur - Gomti Nagar Vande Bharat Express
13	26505/26506 Khajuraho - Banaras Vande Bharat Express

Besides, introduction of new train services, including Vande Bharat sleeper services, replacement/discontinuation of existing services is an on-going process, depends on various factors which include-

- Capacity of that section
- Availability of path
- Availability of required rolling stock
- Availability of matching infrastructure for rolling stock
- Maintenance requirement of railway tracks and other assets.
- Occupancy and the traffic requirement of the section.

KAVACH

1. Kavach is an indigenously developed Automatic Train Protection (ATP) system. Kavach is a highly technology intensive system, which requires safety certification of highest order (SIL-4).

2. Kavach aids the Loco Pilot in running of trains within specified speed limits by automatic application of brakes in case Loco Pilot fails to do so and also helps the trains to run safely during inclement weather.
3. The first field trials on the passenger trains were started in February 2016. Based on the experience gained and Independent Safety Assessment of the system by Independent Safety Assessor (ISA), three firms were approved in 2018-19, for supply of Kavach Ver 3.2.
4. Kavach was adopted as National ATP system in July, 2020.
5. Implementation of Kavach System involves following Key Activities:
 - a. Installation of Station Kavach at each and every station, block section.
 - b. Installation of RFID Tags throughout the track length.
 - c. Installation of telecom Towers throughout the section.
 - d. Laying of Optical Fibre Cable along the track.
 - e. Provision of Loco Kavach on each and every Locomotive running on Indian Railways.
6. Based on deployment of Kavach version 3.2 on 1465 Rkm on South Central Railway and experience gained, further improvements were made. Finally, Kavach specification version 4.0 was approved by RDSO on 16.07.2024.
7. Kavach version 4.0 covers all the major features required for the diverse railway network. This is a significant milestone in safety for Indian Railways. Within a short period, IR has developed, tested and started deploying Automatic Train Protection System.
8. Major improvement in Version 4.0 includes increased Location Accuracy, Improved Information of Signal Aspects in bigger yards, Station to Station Kavach interface on OFC and Direct Interface to existing Electronic Interlocking System. With these improvements, Kavach Ver.4.0. is planned for large scale deployment over Indian Railways.
9. After extensive and elaborate trials, Kavach Version 4.0 has been successfully commissioned on 1452 Route Kilometres, covering the high density Delhi- Mumbai and Delhi-Howrah routes as below:

SN	Section	Progress (Route Km)
(1)	Delhi-Mumbai route:	
i	Junction cabin – Palwal – Mathura –Nagda section	667
ii	Vadodara - Ahmedabad section	96
iii	Vadodara - Virar section	336
(2)	Delhi – Howrah route:	
i	Gaya Sarmatanr section	93

ii	Chota Ambana - Bardhaman – Howrah section	260
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10. Further, track side Kavach implementation work has been taken up on 24,427 RKM covering all GQ, GD, HDN and identified sections of Indian Railways.
11. Progress of key items of Kavach on High density routes including Delhi– Mumbai & Delhi– Howrah corridors as on 28.02.26 are as under:

SN	Item	Progress
i	Laying of Optical Fibre Cable	8570 Km
ii	Installation of Telecom Towers	1100 nos
iii	Station Data Centre	767 station
iv	Installation of Track side equipment	6776 RKm
v	Provision of Kavach in Loco	4154 nos

12. The sections mentioned above also pass through state of Uttar Pradesh.
13. In addition, work for installation of Kavach in 8979 Locomotives and 1200 EMU/MEMU has been taken up.
14. Specialized training programmes on Kavach are being conducted at centralized training institutes of Indian Railways to impart training to all concerned officials. By now more than 55,000 technicians, operators and engineers have been trained on Kavach technology. This includes about 47,500 Loco Pilots & Assistant Loco Pilots. Courses have been designed in collaboration with IRISSET.

Hygiene and Onboard facilities

Cleanliness is a continuous process and Indian Railway (IR) makes every endeavour to keep the trains in properly maintained and clean condition.

Some of the major steps taken to ensure cleanliness and hygiene in the running trains, are as under:-

- Mechanized Coach Cleaning is being ensured during primary maintenance for better cleaning of the coach including interior, exterior and toilets.
- On-Board Housekeeping Staff Service is provided in identified long distance Mail/Express trains for cleaning of coach toilets, doorways, aisles and passenger compartments during the run of the trains and to attend any passenger grievance.
- Clean Train Station service has been introduced for mechanized cleaning in identified trains during their scheduled stoppage enroute.
- Dedicated team of staff equipped with high pressure jet machines and cleaning equipment carries out cleaning followed by drying of coach toilets.
- Regular pest and rodent control of coaches and station areas.
- Awareness drives are conducted to sensitize passengers regarding maintaining cleanliness.
- Provision of dustbins in AC and non-AC coaches.

- Installation of bio-toilets in all passenger coaches.

Electrification of Railway Network:

Electrification of railway network on Indian Railways has been taken up in mission mode. So far, about 99.45% of Broad Gauge (BG) network has been electrified. The electrification in remaining network has been taken up. Electrification carried out during 2014-2025 and before 2014 is as under:-

Period	Route Kilometer
Before 2014 (about 60 years)	21,801
2014-2025	46,900
