

**GOVERNMENT OF INDIA
MINISTRY OF ROAD TRANSPORT AND HIGHWAYS**

**LOK SABHA
UNSTARRED QUESTION NO. 4538
ANSWERED ON 19TH MARCH, 2026**

SUBSTANDARD CONSTRUCTION OF ROADS

†4538. SHRI NARAYAN TATU RANE:

Will the Minister of ROAD TRANSPORT AND HIGHWAYS

सड़क परिवहन और राजमार्ग मंत्री

be pleased to state:

- (a) the appropriate steps taken by the Government for proper upkeep and maintenance of roads;**
- (b) whether the roads in various States, including Maharashtra, frequently suffer damage due to substandard construction practices, heavy rainfall and inadequate drainage systems, if so, the details thereof;**
- (c) the number of such cases which have come to the notice of the Government during the last three years, State-wise;**
- (d) whether any scientific study or technical evaluation has been conducted to identify the root causes of recurring road damage and poor durability of road surfaces; and**
- (e) if so, the agencies involved in such study/evaluation and the major findings and recommendations thereof?**

ANSWER

THE MINISTER OF ROAD TRANSPORT AND HIGHWAYS

(SHRI NITIN JAIRAM GADKARI)

(a) Government in Ministry of Road Transport and Highways is primarily responsible for development and maintenance of National Highways (NHs). The Government has prioritized the maintenance of existing NH network and inter-alia evolved a mechanism to ensure Maintenance and Repair (M&R) of all NHs sections through accountable maintenance agency.

The M&R of stretches of NHs, where development works have commenced or Operation, Maintenance and Transfer (OMT) Concessions/ Operation and Maintenance (O&M) Contracts have been awarded, are the responsibility of the concerned Concessionaires/ Contractors till the end of the Defect Liability Period (DLP)/ the Concession Period. Similarly, for NHs stretches undertaken under TOT (Toll Operate and Transfer) and InvIT (Infrastructure Investment Trust), M&R responsibility lies with concerned Concessionaire till the end of the Concession Period.

For all remaining sections of NHs stretches, Government has taken a policy decision to undertake maintenance works through Performance based Maintenance Contract (PBMC) or Short Term Maintenance Contract (STMC).

(b) to (e) Damages sustained on NHs, including structures thereon, are caused due to various reasons like design flaws, non-compliance to Standards / Specifications, improper construction practices / techniques etc. apart from Force Majeure events like heavy rains, landslides, floods etc.

State / Union Territory (UT) – wise details of Incidents of collapses / major deficiencies in NHs stretches (including in structures like Bridges, culverts etc.) reported during maintenance period in the last three years, including for the State of Maharashtra, along with action taken are at Annexure.

Government has conducted the study of failures of Reinforced Earth (RE) structures through Indian Institute of Technology, Delhi. Another Research scheme has been taken up through IIT Roorkee for development of guidelines for the Assessment of Hillslope Instability Instrumentation & Real Time Monitoring. Further, Expert

Committee is also engaged on case-to-case basis for assessment of damages / failure on important NHs stretches and finalization of restoration works based on such reports.

Based upon the findings of the above study, some of the major recommendations made are as under: -

- i. Detailed guidelines for provision of RE wall alongwith mandatory study of soil condition at the location.**
- ii. Penal action for Contractors / Concessionaires responsible for catastrophic failures apart from contractual action.**
- iii. Implementation of standardized parameters for investigating hill slope stability & selecting cost-effective long-term stabilization measures for landslide-prone areas in hilly regions**
- iv. Hill construction methodology refined which mandates initial construction only for hill cutting & slope protection and subsequent highway construction only post stabilized cutting formation and protection work.**
- v. Sensor instruments based monitoring of internal slope disturbances has also been taken up on pilot basis for real-time landslide monitoring systems.**

ANNEXURE**ANNEXURE REFERRED TO IN REPLY TO PARTS (b) TO (e) OF LOK SABHA UNSTARRED QUESTION NO. 4538 ANSWERED ON 19.03.2026 ASKED BY SHRI NARAYAN TATU RANE REGARDING SUBSTANDARD CONSTRUCTION OF ROADS**

State / UT – wise details of Incidents of collapses / major deficiencies in NHs stretches (including in structures like Bridges, culverts etc.) reported during maintenance period in the last three years, including for the State of Maharashtra, along with action taken: -

State	S. No.	Name of the Project	Year of incident	Details of Major damages / defects	Action Taken
Arunachal Pradesh	1	Permanent solution to Slip Zones on Papu – Yupia – Hoj – Potin section of NH-713A & NH-13 at Km 31.000 (Hoj Market), Km 38.300 (Yabi Village), Km 39.000 (Waterfall), Km 39.700 (Appa Crusher) and Km 40.300 (Crusher Point) in the state of Arunachal Pradesh for the year 2021-22	2024	RE wall Collapsed	Rectification of defective work initiated by the Contractor. Penalty of 5% of contract value imposed on Contractor.
Andhra Pradesh	2	Six-laning of Vijayawada bypass from Chinna Autupalli (Design Ch.0+000) to Gollapudi (Design Ch. 30+000) in Vijayawada – Gundugolanu Section of NH-16 in the State of Andhra Pradesh under Bharatmala Pariyojana on Hybrid Annuity Mode	2024	Defects in the construction of RE wall.	Concessionaire commenced the rectification work based on recommendation /suggestion of RE wall Expert. Rs.10,99,235/- was recovered as damages from Concessionaire.
Bihar	3	Four Laning of Simaria-Khagaria Section of NH-31 from Km. 206.050 to Km. 266.282 (Design Chainage) and (Existing Chainage Km. 209.945 to Km. 270.000 of NH-31) in the State of Bihar on EPC Mode	2023	Issues reported by CRRI in quality of Concrete of superstructure in bridge at Km 264.946	Repair works taken up by Contractor as recommended in CRRI report
	4	Varanasi - Mohania (GTRIP/5; Package - IV A): 4L of existing 2L section from km. 65 to km. 317 of NH-2 in UP and Bihar on NH-2	2023	Major deficiencies in structural elements	Damages of INR 25 Cr imposed on Contractor

State	S. No.	Name of the Project	Year of incident	Details of Major damages / defects	Action Taken
Chhattisgarh	5	Rehabilitation & Upgradation 2-lane with paved shoulders configuration of Bilaspur Urdawal section in km 241.553 to 312.60 = 71.0476 km (Masanielala to Rengapali) on NH 200 (New NH 49) (Package-III)(Borai river MNB at km 217.358)	2025	Damage in slab of Minor bridge	The work is in Defect Liability Period and taken up by Contractor at his own cost.
Haryana	6	Delhi-Vadodara Expressway Pkg. 2	2024	Rutting	Authority has imposed damages amounting to Rs.48,61,243/- on the contractor for delayed maintenance. Rectification of rutting has been taken up by Contractor and majority of the rutted portion has been rectified.
	7	Delhi-Vadodara Expressway Pkg. 3	2024	Rutting	Authority has imposed damages amounting to Rs. 42,95,049/- on the contractor for delayed maintenance. Rectification of rutting has been taken up by Contractor and majority of the rutted portion has been rectified.
Gujarat	8	Sanchore-Santalpur Package-4	2025	Ruts, cracks and surface deformation/ Distress was observed recently after rains in June month 2025, severe rutting at some locations.	Penalty of ₹2.8 crore had been imposed on the Contractor along with a recommendation for debarment up to one year or until successful rectification, whichever is later. Contractor has taken up repair/ restoration works. The Project Director of NHA was suspended.
Karnataka	9	Two/Four Lining of BRT Tiger Reserve Boundary to Bengaluru Section of NH-948	2025	Km 337+670 to Km337+680 RE Block of length 10 mts collapsed	Concessionaire has taken up repair/ restoration works as per recommendation of report submitted by IISC Bangalore.
Maharashtra	10	Mehkar-Ajispur Road	2024	Cracked panels	The Performance BG of Contractor is forfeited. Process initiated for rectification of damages.
	11	Bhokar-Sarsam	2024	Cracked panels	Contractor has initiated actions for rectification of damages.
	12	Sillod-Fardapur	2024	Cracked panels	Contractor has initiated actions for rectification of damages.
	13	Rehabilitation and up-gradation of NH-66 (Old NH-17) from km 332/200 to km 367/200 (Watul to Talgaon Section) to four lanes in the State of Maharashtra under NHDP-	2024	Full depth Cracks in PQC	Contractor has initiated actions for rectification of damages.

State	S. No.	Name of the Project	Year of incident	Details of Major damages / defects	Action Taken
		IV on EPC Mode.			
	14	Rehabilitatyion & up gradation for Talere Gaganbawada Kolhapur Road (NH-166G) stretches start from Ch. 6/00 Km. to Ch. 11/00 Km. and Ch. 19/300 Km. (Start of Karul Ghat) to 35/300 Km. (End of Gaganbawada) of NH-166G to 2 lane paved shoulder/2 lane configuration lane, length 21.00 Km. in the state of Maharashtra on EPC Mode.	2025	Cracks in PQC	Contractor has initiated actions for rectification of damages.
	15	Rehabilitation and Up-gradation to Two lanes with paved shoulder from Karad to Tasgaon NH 266 from Km. 0/00 to 58/830 in the State of Maharashtra on EPC mode	2024	Cracked panels	Rectification of damages taken up at risk and cost of Contractor.
	16	Upgradation to two lane with paved shoulder from Salaikhurd to Tiroda Km 120/100 to 163/200 (Design Km 44/00 to 87/00) of NH 753 on EPC Mode in the state of Maharashtra	2024	Post construction defects are observed in the Rigid Pavement i.e. formation of Longitudinal & Lateral cracks, Opening of Central Joints, Settlement of Panels etc.	IIT Bombay has been appointed for Technical Investigation of defects and suggestion of remedial measures.
Rajasthan	17	Delhi Vadodara Expressway NE-4 Pkg.06	2024	Rutting, Raincuts, potholes & settlement	Penalty imposed on each contractor amounting to Rs. 50 Lakhs for non-rectification of defects in the stipulated time frame as per provision of contract agreement.
	18	Delhi Vadodara Expressway NE-4 Pkg.07	2024		
	19	Delhi Vadodara Expressway NE-4 Pkg.08	2024		
	20	Delhi Vadodara Expressway NE-4 Pkg.09	2024		
	21	Construction of 6-lane access controlled Greenfield highway from km 53+000 to Km. 88+000 of Sangariya (near Chautala)-Rasisar (near Bikaner) section of NH-754K as a part of Amritsar-Jamnagar Economic Corridor in the State of Rajasthan under Bharatmala Pariyojana-Phase-I (AJ/SR-Package-3)	2024	Failure of the nose structure while launching of 83 mtr single span truss bridge	Penalty of Rs. 1.00 Cr. imposed and warning for debarment action for any future instances upon the Contractor was issued. Debarment of fabrication team and Designer team issued for the period of 02 years in NHAI works. Penalty of Rs. 20 Lakhs and warning for debarment action for any future instances upon the Authority Engineer.

State	S. No.	Name of the Project	Year of incident	Details of Major damages / defects	Action Taken
					Debarment of Senior bridge Engineer deployed by the Authority Engineer issued for a period of 2 years in NHAI works.
	22	Delhi-Vadodara Expressway Pkg. 4	2024	Rutting & settlement of approach	Damages amounting to Rs. 1.06 Cr. imposed for delayed maintenance. Also, IIT Kharagpur has been engaged for detailed study for permanent rectification of defects.
	23	Delhi-Vadodara Expressway Pkg. 5	2024	Rutting, settlement of approach & bulging of RE wall	Damages amounting to Rs. 88.32 lakhs imposed for delayed maintenance. Bulging of RE wall has been rectified as per suggestions of CRRI. Majority of the rutting has been rectified. Further, in addition to above, IIT Kharagpur has been engaged for detailed study for permanent rectification of defects.
	24	Delhi-Vadodara Greenfield Alignment (NH-148N) (Pkg-16) (Ch. 427.300 to Ch.452.420) [Major bridge over Takli river near Nayagaon Jageer village to Rajasthan/MP Border]	2024	Stretch is operational w.e.f. 30.11.2023 and at some locations the settlements observed in approaches of structure	EPC Contractor has rectified damages. R
	25	Construction of proposed 2-lane ROB and its approaches in lieu of existing level crossing no. C-64 at km. 172.990 on Jodhpur-Ajmer Road on NH-65 in District Nagaur Rajasthan	2024	Post-completion, structural defects have been observed in the deck slab of the ROB due to honeycombing caused by poor workmanship.	Contract has been terminated. Debarment of contractor taken up. Bid for rectification works invited.
Tamil Nadu	26	4-laning of Thanjavur - Trichy section from Km 80.000 to Km 136.490	2023	The RE wall panel portion of the A1 (Thanjavur) side approach (LHS side) have been disconnected from the geo grid and fallen down.	Based on report of Expert Committee, restoration work using soil nailing completed by Contractor.
Uttar Pradesh	27	Lucknow Ring Road Pkg-3A	2024	Cracks in PQC Panel in length of 2.886 Km.	Contractor has initiated process for rectification of damages.
Uttarakhand	28	Construction, Operation and Maintenance of 2-Lane Bi-Directional Silkyara Bend Barkot Tunnel with escape passage including approaches on Dharasu-Yamunotri section between Ch. 25.400 Km and Ch. 51.000 Km	2023	Collapse at cavity in under construction Silkyara Tunnel.	Rectification measures taken up by the EPC contractors at its own cost. Actions as per the Investigation Committee Report initiated.

State	S. No.	Name of the Project	Year of incident	Details of Major damages / defects	Action Taken
		falling along NH-134 (OLD NH-94) in the state of Uttarakhand			
West Bengal	29	Construction of 4-Laning of Puruliya Bypass Section from Km. 84.030 to Km. 94.345 of NH-32 (length 10.315 Km) in the State of West Bengal on EPC Mode	2025	Cracks have developed in the newly constructed PQC.	i) Rectification works initiated by Contractor. Amount of Rs. 20.00 Lakh withheld from Contractor's bill. ii) Key personal of AE has been debarred for a period of one year.
	30	Four laning with paved shoulders of NH-6 from Chichra to Kharagpur Km 185.150 to Km 134.400 including rehabilitation of existing four lane from Km 134.400 to Km 129.600 in the state of West Bengal	2023	Cracks in PQC panels	Repaired at the Risk and Cost of EPC Contractor.
Odisha	31	Chandikhole-Bhadrak Section of NH-16	2023	1. Faulty Design in Bridge at km. 96+326: 2. Bridge at km. 79+614: The span A1-P1 had dislodged from the pier P2 due to breaking of the cantilever Portion of the pier cap and had fallen on the ground. Appearance of wide cracks (up to 3-4mm) in the pier cap on grid "P2". Damages of deck slab and girders of the dislodged span.	1. For Faulty Design at Km 96+326, penalty imposed of Rs.30 Lakhs on the Concessionaire and Rs.5 Lakhs on the Independent Engineer. Team Leader of IE and Key Personnel of Concessionaire suspended. 2. For Bridge at km. 79+614: Penalty of Rs.5 crore imposed on the Contractor and Penalty of Rs.20 lakh imposed on the Supervision Consultant. Debarment of DPR Consultant for 1 year. The cost of entire remedial measures / reconstruction recovered from the Concessionaire.
