## GOVERNMENT OF INDIA MINISTRY OF RAILWAYS

# LOK SABHA UNSTARRED QUESTION NO. 2296 TO BE ANSWERED ON 03.08.2015

## TRAIN ACCIDENTS

2296. SHRI ASHWINI KUMAR: SHRI RAYAPATI SAMBASIVA RAO: SHRI YOGI ADITYA NATH: SHRI D.K. SURESH: SHRI R.P. MARUTHARAJAA: SHRIMATI JAYSHREEBEN PATEL: SHRI NIMMALA KIRSTAPPA: SHRI B.N. CHANDRAPPA: SHRI ABHISHEK BANERJEE:

Will the Minister of RAILWAYS be pleased to state:

(a) the details of major and minor train accidents and derailment including goods trains during the last three years, year-wise and Zonewise along with the reasons thereof;

(b) the details of casualties and loss suffered by the Railways in terms of revenue and property along with the compensation paid to the victims;

(c) whether the Railways have conducted any inquiry into these train accidents and if so, the details of the outcome of the report;

(d) whether the shortage of operational staff is also one of the reasons for such accidents and if so, the details thereof along with the other remedial measures taken/ being taken by the Railways to check the recurrence of the accidents; and (e) whether the Anti-Collision Devices (ACD) and Train Actuated Warning Devices (TAWD) have been operationalized in all the zones to prevent such accidents and if so, the details thereof and the success rate of the Railways in ensuring safety and security of the trains and averting accidents in the last one year?

#### ANSWER

### MINISTER OF STATE IN THE MINISTRY OF RAILWAYS

#### (SHRI MANOJ SINHA)

(a) to (e): A Statement is laid on the Table of the House.

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STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF UNSTARRED QUESTION NO. 2296 BY SHRI ASHWINI KUMAR, SHRI RAYAPATI SAMBASIVA RAO, SHRI YOGI ADITYA NATH, SHRI D.K. SURESH, SHRI R.P. MARUTHARAJAA, SHRIMATI JAYSHREEBEN PATEL, SHRI NIMMALA KIRSTAPPA, SHRI B.N. CHANDRAPPA, AND SHRI ABHISHEK BANERJEE TO BE ANSWERED IN LOK SABHA ON 03.08.2015 REGARDING TRAIN ACCIDENTS.

(a): Zone-wise, year-wise and type-wise number of consequential train

accidents (excluding incidents at unmanned level crossings caused

due to negligence of road vehicle users) during the last three years i.e.

2012-13, 2013-14, 2014-15 and the current year (from 1<sup>st</sup> April to 15<sup>th</sup>

July, 2015) is given below:

Railway	Year	Туре о	f Accide				
		Collision	Derailment	Fire in	Manned	Misc.	Total
				Train	Level		
					crossings		
	2012-13	-	5	2	-	-	7
	2013-14	-	6	1	-	-	7
Central	2014-15	-	9	-	1	-	10
	2015-16	-	2	-	-	-	2
	(Upto 15 <sup>th</sup>						
	July, 2015)						
	2012-13	-	4	-	-	-	4
	2013-14	1	4	-	-	-	5
Eastern	2014-15	-	3	1	-	-	4
	2015-16	-	-	-	-	-	-
	(Upto 15 <sup>th</sup>						
	July, 2015)						
	2012-13	-	6	-	1	-	7
East	2013-14	1	5	1	-	-	7
Central	2014-15	3	6	-	2	3	14
	2015-16	-	3	-	-	-	3
	(Upto 15 <sup>th</sup>						
	July, 2015)						

	2012-13	-	8	-	-	-	8
	2013-14	1	3	-	-	-	4
East	2014-15	-	5	-	1	-	6
Coast	2015-16	-	-	-	-	-	-
	(Upto 15 <sup>th</sup>						
	July, 2015)						
	2012-13	-	2	4	-	-	6
North	2013-14	-	-	1	1	-	2
Central	2014-15	-	3	3	-	-	6
	2015-16	-	1	-	-	-	1
	(Upto 15 <sup>th</sup>						
	July, 2015)						
	2012-13	-	1	-	1	-	2
North	2013-14	-	1	-	-	-	1
Eastern	2014-15	1	7	-	-	-	8
	2015-16	-	1	-	-	-	1
	(Upto 15 <sup>th</sup>						
	July, 2015)						
	2012-13	1	2	-	-	-	3
Northeast	2013-14	-	2	1	-	-	3
Frontier	2014-15	1	2	1	-	-	4
	2015-16	-	1	-	-	-	1
	(Upto 15 <sup>th</sup>						
	July, 2015)						
	2012-13	1	-	-	-	-	1
North	2013-14	-	2	-	2	-	4
Western	2014-15	-	3	-	-	-	3
	2015-16	-	1	-	-	-	1
	(Upto 15 <sup>th</sup>						
	July, 2015)						
	2012-13	-	5	-	2	-	7
	2013-14	-	8	1	1	-	10
Northern	2014-15	-	8	1	2	-	11
	2015-16	-	1	-	1	-	2
	(Upto 15 <sup>th</sup>						
	July, 2015)						
	2012-13	-	3	1	-	-	4
South	2013-14	-	3	-	-	1	4
Central	2014-15	-	1	-	-	1	2
	2015-16	-	-	-	-	-	-
	(Upto 15 <sup>th</sup>						
	July, 2015)						

	2012-13	-	1	-	1	-	2
South	2013-14	-	5	-	-	1	6
Eastern	2014-15	-	4	-	-	-	4
	2015-16	-	-	-	1	-	1
	(Upto 15 <sup>th</sup>						
	July, 2015)						
	2012-13	1	2	-	-	-	3
Southeast	2013-14	1	5	-	-	-	6
Central	2014-15	-	-	-	-	-	-
	2015-16	-	1	-	-	-	1
	(Upto 15 <sup>th</sup>						
	July, 2015)						
	2012-13	2	4	-	-	-	6
South	2013-14	-	1	1	-	1	3
Western	2014-15	-	6	-	-	-	6
	2015-16	-	1	-	-	-	1
	(Upto 15 <sup>th</sup>						
	July, 2015)						
	2012-13	-	1	-	-	-	1
	2013-14	-	3	-	-	-	3
Southern	2014-15	-	-	-	-	-	-
	2015-16	-	2	-	-	1	3
	(Upto 15 <sup>th</sup>						
	July, 2015)						
	2012-13	-	2	1	-	-	3
	2013-14	-	1	-	-	-	1
West	2014-15	-	2	-	-	-	2
Central	2015-16	-	-	-	-	-	-
	(Upto 15 <sup>th</sup>						
	July, 2015)						
	2012-13	1	2	1	-	-	4
	2013-14	-	3	1	-	-	4
Western	2014-15	-	1	-	-	-	1
	2015-16	-	-	-	-	1	1
	(Upto 15 <sup>th</sup>						
	July, 2015)						
	2012-13	-	1	-	-	-	1
	2013-14	-	1	-	-	-	1
Konkan	2014-15	•	3	-	-	1	4
	2015-16	-	1	-	-	-	1
	(Upto 15 <sup>th</sup>						
	July, 2015)						

Based on the inquiry reports including prima-facie, cause analysis of the consequential train accidents (excluding incidents at unmanned level crossings caused due to negligence of road vehicle users) which took place during the last three years i.e. 2012-13, 2013-14, 2014-15 and the current year (upto 15<sup>th</sup> July, 2015), is given below:

Cause	2012-	2013-	2014-	2015-16	Total
	13	14	15	(upto 15 <sup>th</sup>	
				July, 2015)	
Failure of Railway	46	50	61	10	167
Staff					
Failure of other than	6	10	8	3	27
Railway staff					
Failure of equipment	6	3	3	1	13
Sabotage	3	3	3	1	10
Combination of	0	0	0	0	0
factors					
Incidental	7	4	8	4	23
Could not be	1	0	2	0	3
established					
Under Investigation	0	0	1	0	1
Total	69	70	86	19	244

(b): The number of casualties, loss suffered by Indian Railways in terms of revenue and railway property and compensation paid to the next of kin of the victims and the injured persons due to train accidents during the last three years i.e. 2012-13, 2013-14 and 2014-15 are as under:

Year	Number of Accidents	Casualties	Loss suffered in terms of property by Indian Railways (₹ in crore)	Compensation paid by Indian Railways (in ₹ )
2012-13	69	81	54.24 (Approx)	3,19,63,013/-
2013-14	71	55	27.98 (Approx)	1,49,21,759/-
2014-15	85	161	40.99 (Approx)	1,27,48,008/-
Total	225	297	123.21 (Approx)	5,96,32,780/-

Note: Compensation paid in a year does not necessarily relate to the accidents in that year. The amount of compensation depends upon the number of cases finalized by Railway Claims Tribunal in a particular year irrespective of the year(s) in which the accidents have occurred.

(c): All consequential train accidents on Indian Railways are inquired into either by Commissioner of Railway Safety (CRS) under the Ministry of Civil Aviation or Departmental Inquiry Committee of the Railway. During the last three years i.e. 2012-13, 2013-14, 2014-15 and the current year upto 15<sup>th</sup> July, 2015, altogether 244 consequential train accidents (excluding incidents at unmanned level crossings caused due to negligence of road vehicle users) occurred on Indian Railways. Based on the inquiry reports (including prima-facie), 167 accidents were caused due to Failure of Railway Staff, 27 due to Failure of other than Railway staff, 13 due to failure of equipments, 10 due to Sabotage, 23 due to Incidental factors, cause of 3 train accidents could not be established and the rest 1 train accident is inquired into by Commissioner of Railway Safety (CRS) under the Ministry of Civil Aviation.

(d): Arising and filling up of vacancies is a continuous process and at any point, there would be some vacancies in an organization. Vacancies occur due to normal retirements, voluntary retirements, deaths, promotions and creation of posts etc. There is sometimes a lag between occurrence of vacancies and processing the same for up which involves notification of vacancies, filling holding examinations, finalization of select panels and issue of appointment letters. The Railways are committed to filling up vacant posts, promptly as per the laid down procedure. The efficiency parameters for train operations have shown continuous improvement over the years and there is no compromise on safety on this account. As far as other remedial measures to prevent accidents are concerned, safety is accorded the highest priority by Indian Railways and all possible steps are undertaken on a continual basis to prevent accidents and to enhance safety. These include timely replacement of over-aged assets, adoption of suitable technologies for upgradation and maintenance of track, rolling stock, signalling and interlocking systems, safety drives, greater emphasis on training of officials and inspections at regular intervals to monitor and educate staff for

observance of safe practices. Safety devices/systems being used to prevent accidents include complete track circuiting, provision of Block Proving Axle Counters (BPAC), Colour Light, LED Signals, Vigilance Control Device (VCD), usage of 60kg rails and Pre-stressed Concrete Sleepers, long rail panels, better welding technology, progressive use of Linke Hofmann Busch (LHB) coaches, Centre Buffer Couplers in Integral Coach Factory (ICF) design coaches, etc.

Anti-Collision Device (ACD) developed by Konkan Railway (e): Corporation Limited (KRCL) has been provided as a pilot project on 1736 Route kilometers on Katihar-Kumedpur-New Jalpaiguri-Guwahati-Lumding-Tinsukia-Dibrugarh-Ledo and Kumedpur-Malda sections of Technical Northeast Frontier Railway (NFR). and operational problems have been experienced in the functioning of ACD on NFR. Major problem is of unwarranted brakings which has adverse impact on train running. Research & Design and Engineering efforts in resolving these technical and operational problems have been undertaken since its deployment on NFR. KRCL developed improved version 1.1.2 of ACD which was validated by Electronic Test & Development Centre (ETDC), Chennai and the same has been implemented on all Divisions of NFR. However, unwarranted brakings still continue to exist.

Also, a large number of complex operational and technical problems were experienced during the trials on Southern Railway which could not be fully resolved by KRCL due to design limitations of ACD and further development of ACD version 2.0 has been put on hold by KRCL and therefore, further proliferation of ACD on other Zonal Railways is not contemplated. In view of this, a pilot project for indigenous development of Train Collision Avoidance System (TCAS) has been taken up by Research Design and Standards Organization (RDSO).

Trials of Train Actuated Warning Device (TAWD) which gives audio-visual warning to road users about an approaching train at Level Crossing Gate were undertaken. However, the system was found unworkable/unsuitable due to various reasons such as law and order, theft, inaccessibility of site, poor power supply and public vandalism which resulted in non-availability of system. Further to this, a Memorandum of Understanding (MoU) has been signed between Research Design and Standards Organization (RDSO) and Indian Institute of Technology (IIT), Kanpur for development of suitable and viable vandal proof Advance Warning System to warn road users against approaching trains at unmanned level crossing gates. Every year, new passenger trains are being introduced and additional freight trains are being run to carry incremental traffic consistent with growing needs of the economy. In spite of growing rail traffic, the train accidents have shown a decreasing trend which indicates improved safety performance of Indian Railways year after year. Accidents Per Million Train Kilometres is an important index of safety used by most of the Railways in the world. By adopting various safety measures on Indian Railways, it has come down from 0.55 Accident Per Million Train Kilometers during 2001-2002 to 0.14 in 2010-11 and further to 0.11 (Provisional) in 2014-15 despite quantum increase in the volume of traffic carried by Indian Railways over the years.

As far as security on Indian Railways is concerned, concerted efforts made by Railway Protection Force (RPF) with Government Railway Police (GRP) and other departments of Railways have resulted in improved security environment over Indian Railways.

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