

The International Level Crossing Awareness Day is celebrated every June to raise public awareness on the dangers of taking risks at level crossings.



Dangers wrought at level

Accidents at level crossings occur primarily due to inadequate precautions by the road users and failing in observing mandatory signboards, signals and basic traffic safety rules. This year, the focus is on educational measures and safe behaviour at and around level crossings.

On 15th June 2012, people in a packed private bus had a miraculous escape when the bus rammed into the gate of a railway level crossing at Chittumala near Karunagapally as it was being lowered to enable a train to pass. The driver of the bus was in a hurry to get the bus across. The gate escaped from coming into contact with the high-tension railway electric line by a few inches.

Eyewitnesses said that had the gate come in contact with the supply line, it would have resulted in a major disaster. The gatekeeper lowered the gate following the green signal given to the Thiruvananthapuram – Kottayam passenger to pass that way. The bus was packed with students, office-goers, and

other workers. Hearing the passengers wail out, people from the area rushed to the scene and pulled out the gate, which got entangled in the bus. Then they managed to push it across to the other side and also removed the collapsed gate from the track. Soon the train passed by. By the time, the crew of the bus fled from the scene fearing the wrath of the passengers and the local people. This is not a solitary incident. Accidents at level crossings are becoming an order of the day..

Statistics indicate that “open or improperly closed or secured gates” caused half of all accidents at manned level crossings. Negligence, irresponsibility or incapacity on the part



crossings

of motor vehicle drivers also contributes to these accidents. There is a lack of data on accidents involving pedestrians, at level crossings. It is estimated that in the Northern Railway alone, there are about 5-10 pedestrian accidents every day. Poor maintenance by the railways of the road approaches to level crossings is another important issue. Due to this, there is a greater risk of vehicles being grounded on crossings and subsequently being struck by trains. Manually operated swing gates on double track lines takes too long a time to close these gates. Further, road users can enter the crossing from the "open side" and thus get caught in the middle. Poor training and lack of professional competence among level

crossing staff is also an important safety issue pertaining to level crossings. Increasing motorisation in rural India, leading to an increasing evidence of level crossing accidents in rural areas where general levels of education and safety awareness are poor and lengthy delays to road traffic at level crossings adding to the possibility of an increasing incidence of barrier breakthroughs at manned level crossings.

Accidents at level crossings occur primarily due to inadequate precautions by the road users and failing in observing mandatory signboards, signals and basic traffic safety rules. The International Level Crossing Awareness Day (ILCAD) focuses on educational measures and the problem of safe behaviour at and around level crossings.

Kerala is bestowed with a railway

route length of 1257 kms. These railway lines are mostly situated near to coastline, running in North-South direction. Thiruvananthapuram division has 407 level crossings, of which 296 are manned and 111 are unmanned. Unmanned level crossings are main cause of concern with regard to safety of users. The number of deaths in railway level crossings in Kerala that had been declining has of late started increasing, clearly stating the negligence of the people.

It is seen that 91 percent of level crossing accidents take place during daytime. It is mainly due to the fact that during night, track volume on roads is quite low. The propensity of accidents at level crossing is measured by multiplying daily traffic volume and train volume passing through a level crossing. It is termed as TVU. A value of TVU of more

- Use of cell phones while driving, attempting to suddenly cross unmanned level crossings and attempting to cross over the tracks in haste, unmindful of the approaching trains, are a few major causes of railway trespassing deaths.



Level crossing accidents

Level crossing accidents constitute 16% of total accidents in our country, but accounts for 46% of the fatalities. These fatalities comprise of road users on which Railways have little control. There has not been much decline in level crossing accidents in the last decade. To enforce the safety at level crossing following measures are being planned by the railways:

- a) Social awareness programme
- b) Construction of Road Over Bridges/ Road Under Bridges at level crossing with TVU's of more than one lakh per day
- c) Manning of unmanned level crossings
- d) Provision of phones and interlocking of level crossing gates
- e) Use of Train Actuated Warning Device (TAWD) and Anti-Collision Device (ACD)

Further to curb accidents at Manned Level Crossing gates, IR has formulated following multi-pronged strategy:-

- 1) Items to be resolved between the Ministry of Railways and Ministry of



Road Transport and Highways:

- Speed breakers at level crossings, their standards and maintenance.
- Testing of driving licence applicants with regard to thorough knowledge pertaining to level crossings.
- Widening of roads at selected high density locations to ease movement.
- Training and counselling of road users.
- Lifting barriers with retro-reflective marker in lieu of gate leaves shall be provided on double and multiple lines.
- On manned level crossings, with more than 500 road vehicles per day

than 100,000 units generally requires a ROB/RUB (Rail Over Bridge / Rail Under Bridge).

There will be no liability in the case of collisions between trains and road vehicles at unmanned level crossings in which railway passengers are not involved and cases of persons run over by trains. However, the victims or their dependents can claim compensation under Law of Torts by moving Motor Vehicle Accidents Tribunals and the compensation is paid if any contributory negligence is proved on the part of railway administration. The Tribunal decides the quantum of compensation on merits of each case. The amount of ex-gratia paid is counted towards amount of compensation awarded by a Court of Law. However, Supreme Court of India in a judgement arising out of Civil Appeal No. 3033 of 1990 (Union of India Vs United Insurance Co. Ltd and Others) ruled that the driver and owner of the bus and the railways can all be joint tortfeasors, if proved.

As regards accidents occurring at manned level crossings, prima facie due to the negligence of railway staff, ex-gratia payment is made to the victims by the railway.

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Till recently, if somebody fell off an overcrowded train and were killed, Indian Railway would not record this incident. The law was modified in 1994 to make the organization liable for these and other accidental fatalities like explosions, shootouts, arson or similar acts of violence on the rails.

acts of violence on the rails. But Indian Railways is still permitted to avoid responsibility for a variety of accidents on its gargantuan network. For instance, if a villager is run over by a speeding train as he crosses the railway line separating his home from his fields, he is designated a trespasser and promptly forgotten. The new evidence indicates that far more people die on the country's rail network each year than the railway record shows. According to Indian Railways, 209 persons were killed and 444 persons were injured in 177 train accidents during 2008-09. In fact, number of accidents recorded by Indian Railways has remained more or less constant in recent years. However National Crime Record Bureau reported that 14,975 people were killed on the railway network way back in 1996. A majority of them were presumably termed as 'trespassers'. Trespassing across railway tracks is a punishable offence under Section 147 of the Indian Railways Act with imprisonment up to six months and/ or a fine up to Rs. 1,000.

At least two persons on an average come under the wheels of a speeding train everyday while attempting to cross the railway tracks in and around

and where possible, the road width shall be widened in Railway land.

2) Signalling systems like interlocking arrangements and provision of telephones at LC gates enhance safety considerably. Extended field of Train Actuated Warning Devices are under way. These are likely to enhance safety at manned and unmanned LC gates significantly. It is proposed to extend it further on other level crossings.

- Of 16500 manned level crossings, 6600 are already interlocked and provided with signals. It is envisaged that another 2000 gates would get interlocked in next 10 years.
- Inclusion of do's and don'ts near level crossings in primary school curriculum.
- Reclassification of level crossing gates into "Special Class", 'A' class, 'B' class and 'C' class as per revised criteria based on TVU (Train Vehicle Units) and density of road vehicles.
- Telephones to facilitate communication between gatemen and station staff and illumination at the level crossing gates.
- Distance of lifting barriers may be increased to 5 meters from centre of track instead of 3 meters, where

feasible.

3) To reduce accidents at unmanned level crossings, it is considered necessary to adopt following measures:-

- All unmanned level crossing shall be provided with modified design of Stop Boards in retro-reflective sheets.
- Basic Infrastructure on all unmanned level crossing will be ensured and it includes provision of adequate width, normal gradient, level surface for 5m from centre of the nearest track. Whistle Boards in retro-reflective sheets, specified Road Boards, road surface in good condition and speed breakers/ rumble strips etc.



- All level crossings, as per revised criteria for manning, falling in the three specified categories, are proposed to be manned in next 5 years.
 - Multi-disciplinary teams will carry out periodic census of level crossings.
 - Compulsory whistling by train drivers by linking loco whistle to the Vigilance Control Device (VCD).
 - On sections where there are a number of unmanned level crossings, at close proximity, rail under bridges may be constructed at a convenient location and the remaining level crossings closed.
 - Checking visibility levels at all unmanned level crossings, and taking corrective action for their improvement.
 - Appropriate approach road gradients within railway boundary to be ensured.
 - Intensive social awareness campaigns to counter misadventure in front of approaching trains.
- 4) It has been decided to provide Road Over/Under Bridges in replacement of all level crossings on cost sharing basis where the TVUs (number of trains X number of road vehicles in 24 hrs) exceed one lakh.

The Table below gives the number of accidents that occurred at unmanned level crossings in different states of India. Thus it can be seen that during the past five years from 2006 to 2011, only seven accidents took place on unmanned level crossings in Kerala.

State wise analysis of Unmanned Level Crossing Accidents during the last 5 years in India

STATE	2006-07	2007-08	2008-09	2009-10	2010-11	Total
Andhra Pradesh	5	4	3	5	2	19
Assam	2	0	1	3	0	6
Bihar	2	3	5	4	6	20
Chhattisgarh	4	1	2	1	0	8
Delhi	1					1
Gujarat	9	5	9	4	6	33
Haryana	6	1	3	4	2	16
Jammu and Kashmir	1					1
Jharkhand		3	0	2	1	6
Karnataka	4	7	1	3	1	16
Kerala	3	2	1	0	1	7
Madhya Pradesh			3	2	1	6
Maharashtra		3	3	1	5	12
Orissa	2	4	5	2	1	14
Punjab	7	2	6	6	29	
Rajasthan	8	7	9	7	2	33
Tamil Nadu	8	4	4	1	2	19
Uttar Pradesh	8	9	10	17	7	51
Uttarakhand		2			1	3
West Bengal	1	3	1	3	4	12
Total	72	65	62	65	48	312

Chennai. According to statistics released by the Government Railway Police, 826 people were killed in 2011 after being hit by moving trains in suburban Chennai. Compared to 2010, which saw 759 deaths due to railway trespassing, the number of deaths in 2011 reported an increase of about 10 percent. The findings are a matter of concern, as the deaths have been reported despite the presence of foot over-bridges at all stations. Of the whooping 2,330 railway trespassing accidents reported in 2011 across Tamil Nadu, about 36 percent have taken place in Chennai and its fringe areas.

Poor awareness about dangers involved in trespassing railway tracks could be one of the reasons why people cross tracks rather than use foot over bridges. What is also evident from statistics is that a large number of deaths occurred when people used cell phones while crossing the tracks. This, perhaps, necessitates a campaign on dangers of use of cell phones while driving. Besides, attempting to suddenly cross unmanned level crossings and attempting to cross over the tracks in haste, unmindful of the approaching trains, are a few major causes of railway trespassing deaths. ■