

TRAFFIC SIGNALS: A PATHWAY TO ROAD SAFETY

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Abstract:

Technological advancement has reasonably increased traffics on roads, which has challenged the safety of road users and has resulted in losses of human lives. Road signs play a vital role in the regulation of traffic which is placed along, besides or above the roadway. Present paper is an attempt to discuss different road signals and road. Traffic signals give advance information about road conditions ahead. Each road user should know the marking and signs on the road. The road signs and markings help the road user to follow the rules and should be mastered before venturing the road. As control devices for traffic, signs need full attention, respect and the driver's appropriate response.

Keywords: Traffic signals, Regulation, Marking, Control Devices

Introduction

India is one of the fastest growing automobile markets in the world, along with a rapidly expanding road and highway networks. However, with more automobiles in all classes being introduced each month, the corresponding rate of accidents is also very high. Traffic signs are the silent speakers on the road. Be it the person behind the wheel or a pedestrian, having a sound knowledge about road safety is necessary for all before hitting the streets. Traffic signs give information about the road conditions ahead, provide instructions to be followed at the major crossroads or junctions, warn or guide drivers, and ensure proper functioning of road traffic. Being unaware of road signs is similar to throwing caution to the wind. It can lead to loss of

life and property. A person is supposed to be familiar (get through a written or oral test) with the traffic signs and symbols before acquiring a driving license in India. Therefore, knowing the meaning of traffics signs is one of the essential criteria for a driver to gain a license. In earlier time traffic is controlled by traffic police manually by showing sign to the traffic in each direction but as the traffic volume is growing large and large it is not possible to handle the traffic by one traffic police so as to under come this problem traffic signals has been designed to control the traffic with accuracy and timely. The traffic signals have three lights orderly red, yellow, green, by which the can guide the traffic whether to move or stop. The first traffic signal was fixed in London in 1868, which was a semaphore- arm type signal. Traffic Signal must be required which will reduce the chance of an accident, time of travel for the passengers, congestion, conflict, and bottleneck. These problems can be solved by providing an efficient traffic control at intersections and that can be achieved by a provision of automated volume based traffic signal system at intersections for continuous and efficient movement of vehicles.

Types of traffic Signs in India

The traffic signs in India are categorized into three major groups, which are Regulatory signs, Warning signs and Informative signs.

Regulatory signs

Most signs under this category come with a round shape. Some of them feature a red border with a black symbol and white background inside while some others can be depicted with a blue circle and white symbol within. These regulatory or mandatory signs indicate rules that should be followed strictly. Otherwise, the driver will be punished and receive a challan for their violation. Not following these signs might affect the traffic flow and caused a serious accident.

Cautionary sign

The signs of this category usually are depicted with the red triangle border with a smaller black graphic inside. These signs give warnings to the road users about the potential danger ahead, for example, turn and curves, lane transition, and pedestrian crossing. Even though there is hardly any regulation or penalty attached to these signs, these signs are very important

to your safety. When seeing these warning signs, a driver should pay closer attention and prepare for the situation.

Informatory sign

While the other two types of signs have a particularly important meaning for the safety of the road-users, the third category includes signs that will give you information regarding the destinations, distance, fuel stations and other locations. Observing these signs will help you navigate through the complex traffic system.





















 STOP	 GIVE WAY	 STRAIGHT PROHIBITOR NO ENTRY	 PEDESTRIAN PROHIBITED	 HORN PROHIBITED
 NO PARKING	 NO STOPPING OR STANDING	 SPEED LIMITED	 RIGHT HAND CURVE	 LEFT HAND CURVE
 RIGHT HAIR PIN BEND	 LEFT HAIR PIN BEND	 NARROW ROAD AHEAD	 NARROW BRIDGE	 PEDESTRIAN CROSSING
 SCHOOL AHEAD	 ROUND ABOUT	 DANGEROUS DIP	 HUMP OR ROUGH	 BARRIER AHEAD

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Functions of traffic signals

Traffic signs exist to perform certain functions for drivers on the road. Mainly, their core function is road safety. Additionally, traffic signs are helpful in the following ways:

1. For those without a map or knowledge of the area, they show the distance remaining to reach a particular destination.
2. If people take a wrong turn or want to reach somewhere faster, traffic signs also show alternate routes to a certain destination, in case there are any.

3. Informative traffic signs help people find facilities, people may be seeking out like hospitals, public toilets, or parking spaces. Traffic signs can also denote colleges, schools, clubs, public places, workspaces, and restaurants

Importance of Traffic Signs in Daily Life

The value of road rules and traffic signs must not be ignored. By law, any driver on the road must be knowledgeable about all the traffic rules and traffic signs. The Indian government has made it mandatory to learn what all the traffic signs mean before one can obtain a driving licence to drive.

According to the Indian government, approximately 415 deaths per day are witnessed on Indian roads due to accidents. And the losses due to road accidents amount to 3.14% of our GDP. Hence, the importance of following road rules and traffic signs in India cannot be understated. By virtue of organising traffic, road signs prevent these fatal risks posed to drivers and passengers in India. Following traffic signs is bound to minimise your chance of incurring an accident. Additionally, they can aid in easy navigation.

Traffic Rules in India

Traffic rules are officially listed in the 1989 'Rules of Road Regulations.' They are as follows:

- Keep to your left if driving on a two-way street or road so that vehicles coming in the opposite direction can pass using the right lane smoothly.
- If you want to turn right ahead, you must be at the centre of the road and then gradually take a broad right turn.
- When you are coming towards a road intersection, road junction, or pedestrian crossing, you must slow down your vehicle.
- If being overtaken by a vehicle, you must not increase the speed of your vehicle or, in any way, prevent the vehicle that is attempting to overtake from passing.
- Overtaking is prohibited in the following cases:

- If passing would, in any way, be dangerous for other travellers on the road.
- If passing is near a bend, hill, corner, or point, as it may lead to a critical accident without clear sight of the road in front.
- If the driver upfront has not signalled the driver behind that the former may be overtaken.
- When trying to overtake a vehicle that's already being passed by the third vehicle, due to lack of space.
- For those driving two-wheelers, you and your passenger seating must wear a helmet.
- Parking is not permitted on the top of a hill, footpath, near traffic lights, near a crossing on the road, on the road for pedestrians, near the entrance of a building, or if it covers a fire hydrant.
- Your temporary or permanent Vehicle Registration Number (VRN) must always be displayed on the front and back of your vehicle.
- If you want to turn left ahead, you must stay on the left side before taking a turn.
- Only a single pillion is permitted per two-wheeler.
- Drivers must make way for any cyclists on the road.
- The head or tail-lights of your vehicle should never be obstructed.
- On a one-way road, driving in the reverse direction is punishable by law.
- When overtaking another vehicle, one must not go beyond the yellow line.
- One must respect the STOP sign on roads and not stop beyond the sign.
- Honking should only be carried out if necessary.

- When driving on a mountain, or hill, your vehicle must be towards the right side of the road.
- One cannot load the vehicle with certain goods, like Inflammable and explosive goods.
- Overtaking must only be carried out from the right side.

Road Safety Education

Education about road safety is often provided in schools, colleges, workplaces, clubs and public places. However, there could be other ways to create mass awareness:

- Distribute booklets and pamphlets in schools.
- Show presentations on road safety, traffic signs and negative aspects of road accidents in the classrooms.
- Share online content with peers.
- Encourage parents to help children learn preventive measures in real-time.
- Educate teachers with the basic laws and regulations on the road.

Steps the government can take to improve road safety

- The first thing the government needs to do is to completely digitize issuance of driver's licence procedure and ensure driving licence is only given to those undertaking the mandatory simulator test that records every response of the driver to different driving conditions and his understanding of road signage. The present system is open to misuse, manipulation and corruption.
- The government has to improve the quality of roads during road building and ensure investment in subsequent maintenance. The present system of 'contractor' driven road building with very little accountability or penalties must go. What is needed is full accountability backed with severe penal action in cases of corruption or inefficiency.

- The government must invest in road lighting, especially at junctions, along with clear and reflective signage system in English, Hindi and the local state language.
- Government must significantly improve its highway patrolling, especially at night, to check incidence of drunken driving, over speeding, rash driving, over loading of vehicles, etc. Unless the checks are frequent and regular, drivers will continue to misuse the roads.
- The government must ensure 'road use culture' is introduced as part of regular curriculum at the school level, where all students are made aware of their responsibility as future drivers. Similar programs must also be extended to adults and truck & bus drivers, on a regular basis.
- Pedestrian etiquette' will go a long way to curb cases of pedestrian deaths and right from school onwards, everyone must be taught this. In 2015, 9.5% of accidents recorded involved pedestrians.
- Scientific traffic management and monitoring is essential to ensure road safety and efficient use of road space. Modern road signalling systems can improve traffic flow in real time, and when backed with adequate camera surveillance, can help in monitoring, penalizing, and if needed, arresting road abusers.
- Increase in traffic policing in towns and cities will go a long way in disciplining road users. The best example of this can be seen in the use of car safety belts. There was resistance to usage of car safety belts when it was first introduced in India. However, with regular checks and penalizing, using safety belts has now become a habit and requires very little monitoring.
- The same impact can be achieved in cases of red light jumping, frequent lane changing, high speed driving and drunken driving, all of which together can significantly bring down the number of road accidents.

- The government must increase fines for traffic violations. Singapore is a good example of how high fines hurt economically and acts as the best deterrence.
- Another step is to grade violators by first time, second time offence and habitual offenders. A third time offence must automatically invite suspension or cancellation of license, depending on the level of offence.
- All offences must be digitally recorded and visible online to law enforcement agencies across states. Maintaining an online database with information on violators available in real time will ensure quick action on part of Police and the message will run across all potential traffic violators.
- Lastly, trauma care units must be established along National Highways and could serve both highways accidents victims as also local people.

References:

1. Indian Road Congress “IRC 93- 1985 guidelines on installation of road Traffic Signal”.
2. https://morth.nic.in/sites/default/files/road_safety_books.pdf
3. <https://in.pinterest.com/pin/587367976388451078/>
4. <https://www.bajajfinservmarkets.in/insurance/motor-insurance/traffic-rules-signs-and-violations.html>
5. <https://www.importantpdfdownload.in/traffic-rules-in-india-pdf/>