

Road Safety : Points Hitherto Seldom Noticed

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Road Accident Statistics

More than 1.2 million
people are killed
in Road Accidents,
worldwide , every year.

**3 to 4 % of Gross National Product
Is lost in Road Accidents.**

Road Accident Statistics

**1,14,590 people were killed
in INDIA in Road Accidents
during the year 2007.**

**Our small state of Kerala
accounted for
3802 deaths in 2007.**

(Source : National Crime Records Bureau of India)

Road Accident Statistics

One child is killed in
Road Accidents,
every three minutes
in the World.

Road Accident Statistics

Total worldwide death toll of
Tsunami of 2004 was about
2,30,000.

But, the **annual** death toll of
Road Accidents is 12,00,000 !!!
i.e. more than
five times the Tsunami toll.

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Road Accident Photographs

Road Accident Photos



Road Accident Photos



Road Accident Photos



Road Accident Photos



Road Accident Photos



Road Accident Photos



Road Accident Photos



Road Accident Photos



Road Accident Photos



**Worldwide toll of road accidents:
(Statistics by World Bank & WHO)**

**1.2 million people killed each year
i.e. around 3,000 deaths daily,
500 of them children .**

**50 million people are injured
in road crashes each year,
15 million seriously.**

Road Accidents and Indian Economy

**Total Annual economic loss of India
due to road accidents is more than
Rs. 3,00,000 CRORES !!!!**

**i.e. more than TWO times the
annual defense budget
(Rs. 1,41,703 Crores)
for FY 2009-10**

Uncontrolled Traffic



Unsafe Condition



Road Safety Suggestions

- Technological
- Infrastructural
- Educational
- Enforcement
- Environmental
- Political
- **Easily Implementable**



Technological Road Safety Suggestions

Road Safety Suggestions

Tamper proof speed controllers should be made mandatory for all heavy vehicles.

Road Safety Suggestions

Two wheeler manufacturers should be asked to design two wheelers with a designed maximum possible speed of 50 / 60 kmph.

Road Safety Suggestions

Low cost gadgets are to be developed for collision prevention and should be fitted on all vehicles.

Research organizations like **DRDO** or **ISRO** should be asked to develop such gadgets on a war footing.

Road Safety Suggestions

Low cost Anti drowsy gadgets can be developed to alert the driver, when the driver begins to sleep.



Road Safety Suggestions

Low cost tamper proof electronic devices should be developed to continuously record the speed of the vehicle and should be fitted on all heavy vehicles.

The devices can be examined in case of accidents.

Road Safety Suggestions



Video cameras should be installed at regular intervals on highways and should be centrally monitored.

Speed detectors also should be used.

Traffic Fences





**A minor thing
for the masses
is greater than a
massive
mission !!!**

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Infrastructural Road Safety Suggestions

Road Safety Suggestions

Means of mass transportation like Metro Rail should be implemented in all major cities.

Savings in lives should also be considered while calculating ROI.

Loss of earnings for family

Loss of earnings for family due to road
accident death of an individual
with annual earning of
Rs. 2,00,000 is nearly

Rs. ONE CRORE !!!

(Assuming average age at death as 40,
i.e. around 20 more years of earning life,
8 % annual growth in earnings)

Road Safety Suggestions

If **Kochi Metro Rail** can save **200** road accident deaths per year, at least **Rs. 200 Crores** should be taken as annual savings on the lives saved.

Savings in fuel, time etc. should also be considered while calculating ROI.

What do we want ?

Road Traffic **Vs.** Metro Rail traffic



Road Safety Suggestions

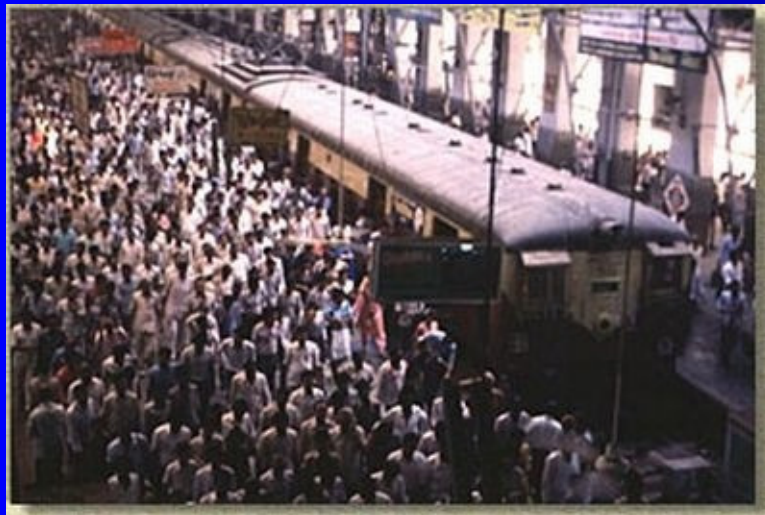
Promote water transport also.



Road Safety Suggestions

Strengthen Railway to meet growing demand.

Extend concessions to promote goods transport by rail / barges



Road Safety Suggestions

Junctions and narrow areas of roads which cause traffic blocks should be renovated on a war footing.

This will help to save time and avoid over speed.

Road Safety Suggestions

Flyovers should be constructed at busy junctions, on fast track.

**Cost for this will be paid off easily,
by savings in time, fuel and
saving of lives.**

Road Safety Suggestions

Day light like lighting should be provided in main roads, so that head light or high beam can be avoided.

Road Safety Suggestions

Refreshment parlors should be made available at every 50 / 100 k.m. on highways.

Truck, Heavy vehicle drivers should get refreshed during night travel.

Road Safety Suggestions

Permanent arrangements should be made for maintaining all roads in good condition, 24 hours a day, 365 days an year.

If a gutter is repaired in time it can save a life !!!

Road Safety Suggestions

One way traffic should be implemented as far as possible.

Medians should be constructed in roads with two way traffic.

Road Safety Suggestions

Footpaths and medians should be made mandatory for all important roads and for all new roads.

Zebra crossings should be provided at appropriate places for crossing the road safely.

Road Safety Suggestions

Signals for road crossings should be provided at important and busy places where a large number of people have to cross the road every day.

Road Safety Suggestions



Direction boards should be installed at appropriate places.

This will help to avoid accidents caused by the confusion of the driver.

Road Safety Suggestions

Humps should be made mandatory for all sub roads where it enters a main road.

Humps should be clearly marked.

Provide small **pilot humps** to alert the riders.

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Educational Road Safety Suggestions

Road Safety Suggestions

Safety awareness should begin from childhood, as it is difficult to impart awareness to a grown up human.

If safety awareness is imparted in childhood itself, safety will become a habit.

Road Safety Suggestions

Video and Computer games involving Motor Racing should be controlled / banned by Government or discouraged by parents as it will develop racing habit in children.

Road Safety Suggestions

Children playing video games



Road Safety Suggestions

All sorts of Motor sports, especially racing should be controlled by government.

Telecast of Motor Sports and Racing also should be controlled.

Road Safety Suggestions

Children below a certain age should not be permitted to do cycling in busy roads and in roads where heavy vehicles are plying.

Road Safety Suggestions

'Road Safety' should be a topic for School Projects.

Road Safety Week should be observed in all Schools.

Competitions on Road Safety Tips, Slogans, Essays, Paintings etc. should be conducted.

Road Safety Suggestions

A safety person should be posted in all schools to take care of the safety aspects of the students.

The safety person can help the students to cross the road, get in the bus etc.

One Safety person in each School

Additional cost for this will be just

Rs. 5 ONLY / month for parents.

(in an school with 1000 students)

With more than 10 lakh schools in
INDIA, it can generate

employment for 1 LAKH people,
if implemented in at least 10 % of schools.

Unsafe Action



Road Safety Suggestions

Newspaper, Television and other media should be effectively used for Public Safety Awareness.

Road Safety Leaflets should be distributed among public by the Government.

Road Safety Suggestions

Life, Health and vehicle Insurance companies should take up massive public awareness projects.

It will pay off !!!

**Enforcement
Related
Road Safety
Suggestions**

Road Safety Suggestions

Majority of accidents can be avoided by strict enforcement of speed limits.

Road Safety Suggestions

Helmet should be made compulsory for two wheeler riders, **including back seat riders.**

Helmets should be distributed mandatorily with the sale of each two wheeler.

Road Safety Suggestions

Ensure that all Helmet users are fixing the **Chinstrap** of Helmet. Otherwise, it will not help during an accident.

Ensure that only BIS approved Helmets are available in the market.

Road Safety Suggestions

International & BIS standards for Helmets should be modified so that only bright colors are allowed for Helmets.

Black and dark colors should not be permitted.

Road Safety Suggestions

The practice of keeping the traffic signals in standby mode during nights and on holidays is to be reviewed.

Road Safety Suggestions

Advertisement boards and other items that may obstruct visibility at junctions, turnings and other parts of the roads should be removed immediately.

Road Safety Suggestions

Obstructions on road side, caused by unauthorised construction and road side sales should be eliminated completely.

Visibility should be increased near turnings. Sometimes, even cutting of grass to increase visibility can help save many lives.

Road Safety Suggestions

**Increase the minimum age
for Bus and Truck drivers.**

Road Safety Suggestions

School Buses should be painted with bright yellow color, in all states.

Stipulate minimum experience and maximum age limit for the drivers of school buses.

Road Safety Suggestions

License should be made mandatory for Electric two wheelers also.

Noiseless electric two wheelers can cause accidents. Artificial sound should be induced while running.

Loud speakers should not be permitted near road side for festivals and meetings.

Road Safety Suggestions

An international Safety Rating Number is to be introduced for all vehicles.

Automobile manufacturers will compete to improve the safety to get better rating.

Road Safety Suggestions

Safety rating Number will ultimately result in saving of many lives.

Customers can easily select the safest vehicle based on safety number.

Road Accident at Dubai (Mar 2008)

Accident involving 200+ cars occurs
on Abu Dhabi-Dubai highway



Road Accident at Dubai (Mar 2008)

In the series of collisions of 200 plus vehicles at Dubai in March 2008, only few people were killed.

One reason for this is high safety standards.

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Environmental Road Safety Suggestions

Road Safety Suggestions

A small pool of water or a hanging branch of tree or a hanging cable on roadside can cause accidents.

Such obstructions should be rectified immediately.

Road Safety Suggestions



**Street dogs
should be
eliminated
completely.**

Road Safety Suggestions



Waste should not be deposited on Road side.

It will attract dogs!!

Road Safety Suggestions

Attention distracting
Hoardings, banners,
posters,
advertisements etc.
should be banned near
roads and highways.

Attention distracting posters



Road Safety Suggestions



**Eyes of old
aged driving
license holders
should be
checked at
regular
intervals.**

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Political Road Safety Suggestions

Road Safety Suggestions

Union government should play an active role on state governments to control road accidents.

Union government should not remain silent saying that road safety is the subject matter of state governments.

Road Safety Suggestions

Road accidents are to be recognized as the worst problem of the country.

While only few hundreds are killed in terrorist attacks, more than One lakh persons are killed in road accidents every year, in India.

Road Safety Suggestions

Threat due to terrorism is not being underestimated. Road accidents are to be firmly dealt with due importance.

Task forces with participation of all concerned should be set up to control road accidents as was done after 26/11 incident.

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**Easily
Implementable
Road Safety
Suggestions**

Simple Suggestion # 1

**Promote
yellow color
for containers,
internationally.**

Simple Suggestion # 1

Explanation :

Dull colored container carriers are likely to cause crash when parked near road side, especially under low light conditions.

Simple Suggestion # 1

This point has more relevance in non-developed countries where law enforcement, parking and lighting conditions are very poor.

Simple Suggestion # 1.

Commonly seen,
non-bright containers



Bright colored, easily
visible containers



Simple Suggestion # 1.

Governments all over the world and Worldwide Container manufacturers should decide to manufacture the containers with yellow / orange color, in future.

Simple Suggestion # 2

Black cycles should be discouraged or future production of black and dark cycles should be banned.

Simple Suggestion # 2

Explanation :

Black colored cycles are more likely to be involved in accidents, when used under low light conditions or when used by immature children.

Simple Suggestion # 2

Drunkard / careless / unaware cyclists who enter the main road suddenly can cause accidents.

Some of these accidents could be averted, if the color of the cycle were yellow or other easily visible shade.

Simple Suggestion # 2

An Idea can save your child !



Buy only Yellow Cycles for children

Never buy black / dark Cycles

Simple Suggestion # 3

Black vehicles, especially cars and motor cycles should be discouraged or future production of black vehicles should be banned.

Simple Suggestion # 3

Explanation No. 1:

Black vehicles are more likely to be involved in accidents because of it's low visibility.

Simple Suggestion # 3

According to the Vehicle Colour Study by Monash University Accident Research Centre of Melbourne, **white cars are most visible** and least likely to be involved in an accident.

(Source: <http://www.drive.com.au/Editorial/ArticleDetail.aspx?ArticleID=40783>)

Simple Suggestion # 3

As per the study,
Black cars have a **12 %**
higher crash risk
than white cars.

Grey cars are **11 %** more risky.

Silver cars are **10 %** more risky.

Simple Suggestion # 3

Explanation No. 2:

Black vehicles consume more fuel to maintain the air conditioner cooling, as black color absorb more heat from atmosphere.

Simple Suggestion # 3

Just imagine the amount of fuel that can be saved, globally or in India alone by discouraging black vehicles.

The total annual savings for the country is going to be enormous.

Simple Suggestion # 3

Say “NO” to Black Cars.



Simple Suggestion # 3

An idea can save your family !



Prefer bright color for Cars
Never buy black / dark Cars

Simple Suggestion # 4

**Dangerous TV visual
advertisements by
motor vehicle
companies should be
banned.**

Simple Suggestion # 4



**Dangerous advertisements by
motor vehicles companies**

Simple Suggestion # 4

Explanation:

Youngsters are likely to imitate the dangerous riding / driving performed by experts.

Statutory warnings will not help.

Unsafe Stunt



Simple Suggestion # 4

Such advertisements will result in **irreparable character formation** regarding riding and driving in kids and children.

Such children may cause accidents in future.

Simple Suggestion # 5

**Promote bright colored
dress for Children.**

**Dark / dull colors should
not be the prominent
shade of school
uniforms.**

Simple Suggestion # 5

Avoid dark dresses



Prefer bright dresses



Simple Suggestion # 5

Dark School Uniform



Bright School Uniform



Simple Suggestion # 5

Explanation: Bright color of dress can help to avert many accidents under low light conditions, when trying to cross the road, while cycling, while walking on the roads without footpath etc.

Some Unpopular Suggestions

Law should be modified such that the individual who causes the accident has to bear a part of the insurance claims, depending on severity of negligence.

Also, the compensations should be increased, making accidents unaffordable so that everyone will be very vigilant.

Some Unpopular Suggestions

Drunkard driving should be firmly dealt with.

Heavy Penalty should be imposed on all those who cross speed limits. If this is strictly implemented, nobody will dare to go at high speed.

Some Unpopular Suggestions

Existing speed limits should be brought down further, if required.

All those who do not maintain the safe distance commensurate with the vehicle in front should be penalised.

Some Local Suggestions

Just like we have Fast Service , we should have Slow service also.

Old aged people, pregnant ladies, children etc. can make use of it.

Re.1 may be charged additional for the special service, if required.

Some Local Suggestions

A Red blinking bulb should be fitted in front of the Bus Driver's seat.

It can be operated by the Door Checker to alert the driver when **old aged people / pregnant ladies / people carrying babies / children** get in or get out of the bus.

Some Local Suggestions

Top of medians should be cemented to prevent growth of grass. Otherwise, accidents may happen due to lack of visibility while taking U-Turn.

(In Edappally-Aroor By-pass, Medians look like forest, in some areas.)

Some Local Suggestions

At all junctions, STOP mark should be clearly painted, few meters away from the junction, in all directions.

Police should ensure that vehicles do not cross the mark when STOP signal is given.

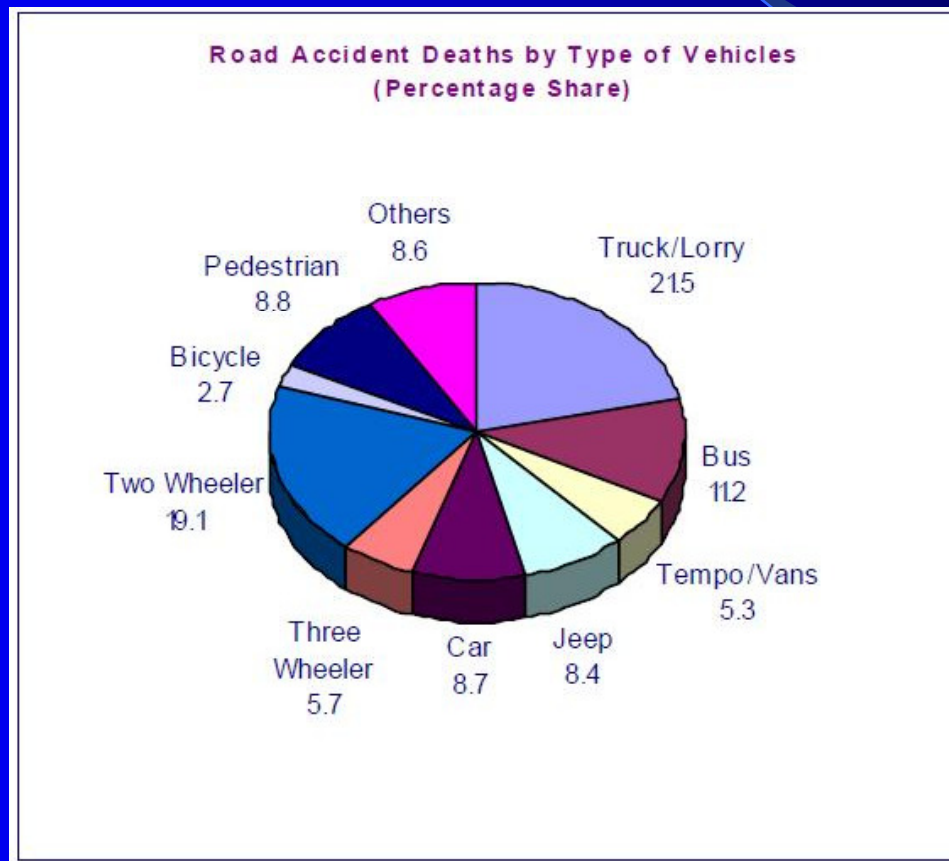
Some Local Suggestions

At junctions, vehicles towards the left only should move in the left track.

Follow Lane traffic.

Black color should not be used for three wheelers.

Road accident deaths by type of vehicle



Daily / Hourly Road Accident Statistics

Road Accident Statistics	Daily Statistics		Hourly Statistics	
	World	India	World	India
Deaths	3,288	314	137	13
Injuries	136,986	1,275	5,708	53

More Road Accident facts

**Total number of annual
road accidents deaths
is more than the
total population
of Mauritius.**

More Road Accident facts

Five Tsunamis are wiping out lives from the world every year, in the form of Road Accidents.

Nobody is noticing it !!!

More Road Accident facts

Few hundreds are killed
by terrorism every year.

Countries are spending
millions of dollars
to fight terrorism.

More Road Accident facts

We had a war against terrorism.

**Thousands of soldiers
sacrificed their lives.**

**Millions of innocents were killed
in the war against terrorism.**

**Now, it is time for
war against
Road accidents.**

Are we ready ?

What we can do ?

1. We can submit some of the suggestions to State / Union Government, other countries.
2. Share some of the points with NGOs like Rotary club, Lions club, Road Safety Organisations etc.

What we can do ?

- 3 Share the points pertaining to students with school authorities.
- 4 Share relevant points with parents.

What we can do ?

- 5 Seek the help of Visual and print media to spread the message.
- 6 IEI can take up some Road Safety Projects.

Road Safety Presentations

More Road Safety presentations
can be found at

<http://www.slideshare.net/safeindianroads/presentations>

<http://www.slideshare.net/safeindianroads/documents>

Feedback

Send your valuable
suggestions and feedbacks to
safeindianroads@gmail.com

Thanks !!!