

Stakeholder Consultation for Policy Advocacy in Road Safety: Issues, Challenges and Key Policy Recommendations and Next Steps in Karnataka

Background

The State of Karnataka accounts for 5.05% of India's population and 5.83% of its land area and contributes 8.21% (2021) to the GDP of India. The socio-developmental indicators of Karnataka are improving with time. Karnataka stands at 3rd position in the ranking of economy in India. It has around 69.5 years of life expectancy which is slightly higher than the national average of 69.4 years.

Karnataka has been able to improve its position to 72 from 66 last year and is ranked third in the SDG India Index 2020-2021. But the State is seriously lagging in the SDG Goal No. 11.2 related to access to safe transport, Goal No. 9.1 related to quality and reliable roads and SDG Goal No. 3.6 related to reducing the road accident deaths up to 50 percent by 2030.

Road Network, Road Accidents & deaths in Karnataka: An overview

Karnataka has a road network (Year 2021) of around 3,31,099 KMs and contributes 4.5 % to the national road network. It has 14 National highways and 114 State highways. It includes around 7,652 KMs of National Highways (2.3 % State share), 28,985 KMs of State Highways (8.7 % State share in road network) and remaining others is around 2,94,462 KMs (89% share in State roads network).

The total registered vehicles in the State are 3,05,28,518 with an annual increase of 5.62%. in which registered two wheelers are around 2,16,14,652 (71%) in the year 2023. At India level it is 73.5% with 10% annual growth (2019: MoRTH).

Karnataka has registered around 34,647 accidents (with a national rank at 4th and national share of 8.4%), 40,754 injuries (with a national rank at 3th and national share of 10.6%) and 10,038 deaths (with a national rank at 6th and national share of 6.5%) in 2021. In Karnataka 95 road accidents and 27.5 accident deaths happen every day and 4 accidents and 1 death in every one hour. The annual increase in the rate of accidents was 1.5%, in injuries; 3.1% and in deaths; 3.57%.

On national highways, the reported accidents were 11,462 (33%), deaths; 3487 (35%) and injuries were 13229 (32%). Whereas the accidents on State highways were 8,820 (25%), injuries were 11,507 (28%) and deaths were 2,777 (28%) of the total State deaths. Accidents on other roads were 41%, deaths were 37% and injuries were 39% of the State total. In Karnataka the accident severity is 9 in comparison to 37 at national level.

If one sees the number of road fatalities of two-wheeler users, it is very high. Around 4,938 (49% of State total) two-wheeler users died in 2021. Similarly, the number of youths (between 18 to 45 years) who died due to accidents was 7,147 (71% of State total).

Poor compliance of laws related to wearing helmets in Karnataka has also resulted in death of 2661 (27% of total State deaths) two-wheeler riders and resulting in around injuries to 8,540 (21% of total injuries) two-wheeler riders in the State. Therefore, strict compliance of helmet rules is need of the hour in the State.

Speeding is a major cause of road deaths in Karnataka. Out of total road deaths, 9,101 (91% of State total) deaths, accidents 31,485 (91%), Injuries 36, 516 (90%) happened only because of over speed. Therefore, there is a strong need of formation of speed management guidelines in Karnataka like West Bengal.

The objectives of the Consultation meeting were to:

- Notify the Speed Management Policy or Guidelines
- Enhance the overall Role of Traffic Police in the age of AI Cameras and other sophisticated & Realtime Traffic Management or Road Safety technologies
- Equip Karnataka Traffic police with AI cameras for smart policing
- Frame rules and framework for faulty road design under Section 210D of the MVAA Act, 2019.
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Welcome Address

The event began with a cordial welcome address by Dr. Annapoorna Ravichander, Executive Director, Public Affairs Foundation. Dr. Ravichander provided an overview of the organising bodies, their respective roles and outlined the event's objective. She emphasised the importance of effective communication collateral and collaborative efforts for impactful policy advocacy. Opening Remarks

Setting the Context

Shri. Madhu Sudan Sharma, Senior Program Officer, CUTS International Jaipur, emphasised the objectives of organising the Consultation Meeting based on effectiveness of Motor Vehicle Amendment Act 2019, which came after 35 years of passing the original Motor Vehicle Act. He mentioned that he was present at the discussion along with the then, transport Minister Shri Nitin Gadkari, and shared the powerful statement which was given by the Honourable Transport Minister *"If this Amendment passes and enforced properly, there will be 30% reduction in road accident death"*.

He laid down various reasons for the non-reduction in fatalities and injuries. He also mentioned the latest reports released by MoRTH in particular the data on crash accidents in Karnataka, where he highlighted increase in deaths, injuries and accidents. According to the report, 11,702 deaths were recorded last year in Karnataka, which is 11.5% higher compared to previous years-where 1665 more death were recorded in Karnataka in 2022. Despite several initiatives taken at the administration level and by various stakeholder which working on road policy front and its implementation and enforcements; there are still increase in death accidents.

He underscored the economic impact of road safety, noting its contribution to 5% of Karnataka's GDP. Over speeding emerged as a major cause of accidents, responsible for 10,722 deaths. He advocated for a focused approach, suggesting the revision of speed limits, community involvement, and NGO collaboration to address this pervasive issue.

He highlighted the importance of ISI-approved helmets for two-wheeler riders and cited the example of the 'roadsafety police' in Punjab for effective electronic enforcement. He also urged holding road-owning agencies accountable by increasing penalties for faulty roads under Section 198A of the Motor Vehicles (Amendment) Act, 2019.

Madhu Sudan Sharma shared that road safety is complex issues. The administration and politician weighing through the economic loss aspects, which means correlating road accidents with the Gross Domestic Products at the national and State levels, which was discuss at WHO workshop. In other way it can conclude that, if there wouldn't be any death, injuries and accident; that 3.1% would have added or growth faster for our nation.

He added "If you want to make this whole road sector profitable, we need to reduce the accident and death every year".

Madhu Sudan Sharma stressed on advocacy for sensitising, various stakeholders such as road users, people and policy makers on over speeding and vulnerable road user, i.e., correlating vulnerable and speeding that affecting each other's. According to him out of total 11,702, approx. 90 + percent is contributed to over speed death case which is 10,724 death cases.

Madhu Sudan Sharma underscored the uncontrollable increase in over speed at State and National Levels. Importance was given to over speed with respect to road safety along with enforcement mechanism on road safety centered policy discussion and policy implementation. Shri Madhu Sudan Sharma, suggested slowing down or speed curb measures for vehicles in urban municipal area and rural area of Karnataka State in a short-term which could be economical way to reduce road crisis, accepted at global level international expert, which is also require sensitizing and policy priority. Government of Kerala's transport minister has agreed on speed curbing measure.

Madhu Sudan Sharma suggesting for revision in the speed limits on a regular time interval based on purely scientific research, and the process should be active, vibrant, which should rely on local reality along with involving local communities and NGOs in a process which is participatory in nature and dynamic.

Kerala not only agreed on to speed curbing measures but also have several good practices of such as electronic enforcement. Madhu Sudan Sharma has advocated for implementation for electronic enforcement to Government of Karnataka, which requires focus towards over speeding and dedicated policy and guidelines.

Madhu Sudan Sharma referred to research conducted by John Hopkins University on over speed, research reveals that the body can tolerate road injuries up to 20 kmph, however, in a reality; the average speed is 50kmph- 80 kmph. Therefore, safest speed limit has set at 30 kmph for street as a globally recommended speed limit. However, the same research reveals that, if speed limit goes above 30 kmph by even 1 kmph, risk increase by 3 times more. The vulnerable road users are a person who is driving two wheelers without wearing a helmet which has a high risk of fatality increase by 8 times. Therefore, two-wheeler without helmet is highly risky on road.

Madhu Sudan Sharma listed out the good work done by Karnataka State for pedestrian, cyclist to include a dedicated footpath.

He also shared that people using two-wheelers in Karnataka died in range of 14-59 % due to low-standard helmets. Helmet standard is a major issue in Bengaluru cities. Road safety cannot successfully without making safety of two-wheeler on road, as almost 50% two-wheeler contributing in road accident deaths with low standard helmets.

Traffic Management is third aspects of road safety, i.e., efficiency of professional traffic management professionally by police, and the effective role of electronic enforcement, by equipping traffic polices with better management of traffic scenario. For instance, Punjab, has dedicated road safety police with a road safety angle.

The Motor Vehicle Amendment Act 2019 has a provision of fixing accountability on road-owning agencies. The earlier loopholes were that there was no legal procedure and action on road-owning agencies, because road are made in good health and public welfare. Ideally, the road-owning agencies should also have a fine, if in case of faulty design and poor maintenance. But in Karnataka, there is no such initiatives were found. In a current reality, one the one side, ₹1000 are being fined on consumer and, there is no accountability on road owning agency for its faulty design and poor maintenance.

Special Addresses

Shri. J. Gnanendra Kumar, Additional Commissioner of Transportation in Environment and E-governance, Transport department, Government of Karnataka emphasised on continuous efforts striving for better enforcement of motor vehicle amendment act 2019 through actively involving around awareness, training, capacity building. Referring to various parameters such as create safer roads, safer vehicles, safer speed, safer drive, safer road users and safer behavior, for reducing/eliminating road accidents.

In a broader perspective, road safety is a method and measure used to prevent road users from being killed or injured, as road safety effects everyone such as individuals, family, community as a whole. Therefore, road safety is not only health care but also social justice.

Pedestrians, cyclists and motorcyclists are the most vulnerable people on road. It is a shared responsibility among all, which requires a multi-faceted approach involving all stakeholders such as government authority which implements rules and regulations, at the same time they require the support of civil society, individuals and NGOs to share their concerns, provide support in different ways to achieve the desired goals to prevent accidents. Shri. J. Gnanendra Kumar's added that it is not only merely a prevention of accidents, protection and preservation of human life. Ways and method suggested by Shri.J. Gnanendra Kumar to prevent are road safety are (i) education, (ii) enforcement, (iii) engineering (road and vehicles), (iv) emergency care. These are the responsibility of concerned authorities, who are deal with MVAA 2019 rules and also all stakeholders involved in preventing the accident. Therefore, all stakeholders must come together to demand real and meaningful changes through comprehensive policies and interventions and enforce all laws as put forth in the MVAA 2019.

Shri.J. Gnanendra Kumar also emphasized on the existing situation as well as the limitation of Government Officers. Based on his experiences, for instance he referred to the alarming situation in the city of Bengaluru and other parts of the State for a stronger enforcement of laws and regulation. There is certain restriction for government officers and then authority, therefore an innovative idea is required for a better way to strengthen enforcement which requires inputs from all stakeholders.

Inputs from stakeholders for law enforcing agency, i.e., Artificial Intelligence-based enforcement, which is called as smart intelligence is the need of the hour. The Traffic Department in Karnataka is taking lot of initiatives, particularly they have installed several cameras, i.e., for over speed camera. Putting speed limit board and camera installation, as a result drastically reduces accidents to 20-25%. Referring to a research conducted on 45 km length between Belagavi to Yaragatti, for road safety initiatives, they collected inputs from stakeholder such as road users, villager, law enforcing agency. The results revealed that there was a drastic reduction in accidents, from 45 accidents in a particular year to 8 accidents. The comprehensive road safety data, helped to find accident patterns, risk factors and injuries based on details problem assessment, finding solution through an in-depth policy intervention.

Regarding the importance of wearing helmets, Shri. J. Gnanendra Kumar referred to a NIMHANS study report. The report mentions, several reasons for not wearing helmet, such as health issues, however, helmet should be used as protective head gears. Over speeding is another major reason for accidents. The major reasons are (i) over speeding and negligent driving, (ii) without helmet particular for two wheelers

Implementation of evidence-based intervention and best practices effectively reduced the accidental fatality, also recognising the importance of collaboration. Therefore, with collaboration the authorities can successfully implement the legal aspects related to road safety.

Question: How youth can participate in road safety movement?

Shri J. Gnanendra Kumar responded the "Transport department has a separate executive agency called road safety agency, where we have started multimedia mass campaign that is education program using social media platform, we are doing through theatre, through print media and from local level RTO side, taking all type of education program which usually happen in the month of January, which is consider road safety months by MoRTH. During the period, RTO's are going to colleges to concentrated on intergeneration giving all kind of related input with regards to safety aspects in the field of road safety".

Dr. Pradeep B.S, Professor and HOD, Department of Epidemiology, NIMHANS

started by emphasising on accidents, fatalities and personal injuries in the State of where data indicates 421 deaths every day and 17 deaths every hour. However, in 2020, the data showed very less number on accidents, fatality and personal injuries due to COVID-19 and lockdown, which resulted in less vehicles on road as a result reduction in road traffic accidents. He added that data suggest that Karnataka and Chhattisgarh have the highest number of deaths occurring per lakh population. In the case of Karnataka, there is a high efficiency of data reporting, therefore it cannot be seen from the negative lens of road safety.

52% of all road traffic injuries is of people aged between 15-35 years. Within the given data, predominantly male youth are affected the most, because male are the predominant road users.

Around 30-40% pedestrian were affected in include two-wheeler riders and pillion riders 30-40%. Therefore, focus should be on preventing road traffic accident amongst pedestrians and two-wheelers.

He added that the Indian highways account for 24% of road length, however it accounts for 54% of road crash and 71% of road accident. Bangalore and Tumakuru last year had 471 and 472 deaths respectively. The reasons discussed was the inverse relation between no. of highways and no. of vehicles on road. For instance, Tumakuru had 4 highways, but less number of vehicles, on the other hand, there were lots of vehicles in Bengaluru's congested road, therefore fatality was lesser in terms of proportion, because of slow moving traffic.

Dr. Pradeep added that nearly 20% people die on crash site, another 30% when they are taken from crash site to hospital and the remaining 50% in the hospital. As a result, 50% die before reaching to the hospital.

Dr. Pradeep discussed the Haddon Matrix, applied in public health and management study. Haddon Matrix is a framework developed by NIMHANS which looks at the intervention point such as where to work, whom to work on and how to work. Under the Haddon Matrix, before injury, during injury and post injury, these are the three phases we look at in terms of what traffic injuries, factor that are three such as human, vehicles and environment.

Dr. Pradeep B.S. discussed the most important issues in post injuries, spinal ruptures and hemorrhage are human factors. He explained that when there is brain injury, typical thing is there is called subdual hemorrhage. Whenever road traffic accident occurs, injury occurs and that person falls down, consequently the person will be unconscious for a minute or two or may be for 30 second. Then he/she gets up and is completely normal. However, within the next three months, there may be chances of subdual hemorrhage, where the person becomes unconscious. However, there are other signs such as, vomiting, severe headache.

Dr. Pradeep B.S. discussed road related risk factor, vehicle related risk factor, environment related risk factor, human behaviour related risk factor. There are four behavior risk factors, covering the 90% of safety aspects, which are helmet, seat belt, speedy and drunk-drive.

Dr. Pradeep B.S. added that 3 out of 4 people who have head injury die. On the other hand, non-fatal head injury can only occur, only if other aspects are taken into consideration such as alcoholism, drunken driving, speeding and not wearing seat belt. Among the helmet users, only 44 % user used full faced helmet. Half helmet usage is 21% and cap-helmet is 27. Only 1 out of 10 cap-helmets are standard helmet including male and female, and the usage rate of cap helmet is very less on highways.

Chetan Sodaye, Senior Program Associate-Transport, World Resources International-India, discussed on safe system approach, vision zero which is the part of safe system approach and other aspects such as human factor, perception (human behavior), individual road users.

The vision zero covers accident, fatality and serious injuries. Zero vision is centered around human, where it discusses equal responsibility for, road users and systems for system fault. Currently, safety perception is not built into the system, therefore, people don't understand the perception of safety, however, individual do wants safety, eliminating all possible fatality and injuries on road.

Principles of Safe System Approach

Human commit errors and are vulnerable to injuries, responsibility shared between road users and system designer, policy designer and everyone who is in system of designing along with proactive.

A system needs to be designed and needs to be in place, referring to architecture design. For instance, if a balcony did not have railing and if an individual falls down, then it can be considered as a fault in the designing of the system. Therefore, system need to be designed and system needs to be in place. Chetan referred to the lack of system in road infrastructure there should be safe system approach causing drastic decrease in road accident. Safe system and efficient system design approach motivates individuals to use vehicles on roads.

He shared the following:

Suraksha 75: - The Suraksha 75 is about the improvement of 75 critical intersection junction in Bengaluru.

Suraksha Cell: - The Suraksha Cell housed in BBMP, which is collaboration of BBMP, BTP is about junction design, capacity building. Under the Suraksha Cell, training is provided to design intersection for BBMP and BTP monitoring intersection.

Interviews were conducted on footfalls and the results revealed that more than 48% of individual use buses and almost 90% walk to catch the bus/metro. Walking condition, 69% individual felts unsafe while crossing roads and 56% unsafe while walking on footpath.

As an efficient system approach, Chetan suggested that lights, wider footpath, seating spaces for elderly/kids, laying green spaces will be of great value.

Srinivas Alavalli, Fellow, World Resource Institute- India and Co-founder of Citizens for Bengaluru, discussed the design perspective for road safety which is called safer by design. Aspect of design (safer by design) is actually a root cause for all road safety issues. He suggested for solving problems, emphasise should be on a deep dive approach into the root cause of problems, along with preventing death instead of compensation. He shared a research conducted by IIT Delhi which states that if 100 people died, the actually died data is 200 people. Currently, Bengaluru has highest death due to over speed.

He added that ways to fix a problem should include:

- Identify the problem
- Be self-responsible/take ownership
- Human space should be given importance than automotive space on road/space.

He persuaded that there should be:

- Refuse Island
- Safe parking space
- Left turn to be given in certain way.
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H.D. Manjunath, RTO Officer, Bengaluru, focused on causes of accident and mentioned that 99.9% are due to negligence of driver and the mechanical defect of vehicles is 0.1%. Speed is major cause of negligence of drivers. Major accidents occur on Mysuru Road.

At the administration level, speed is also restricted even if maximum speed can go up to 210 kmph. When driving a car, there should be sense of responsibility and control on the vehicle. He further explained that, if road is empty restricted speed can be allowed, however, people need to follow sign boards- right/left curve, red signal and decrease speed.

He added that the Grana Bharti RTO is the first one to have India's first driving track test.

He emphasised that knowledge on rules and regulations should be imparted and people should avail of the online issue of learners' license system. Pedestrians should walk on the right side of road, because pedestrian should know the approach of the vehicle from the opposite side.

H.D. Manjunath explained the difference between good driver and an expert driver, where a good driver follows rules and regulation based on practicality along with not creating problem for other road users and experts break traffic rules, hence he emphasised that one should be a good driver. He stressed on the adage- *"Start early reach safely"*

He concluded by saying that Artificial Intelligence is used to track location of vehicles and can also be used to locate accident sights, analyse information on speed of vehicles.

Pratiksha Surpuriya is Program Associate, Global Designing Cities Initiative (GDCI), shared her experience on designing street for all road users to avoid speed and make streets safe for all.

She focused on road safety from the lens of design and system approach. It means how designing and embedding practice into the designing of street plays a key factor in developing safer street and public spaces for all.

Street are the largest of network of contiguous public space in a city.

- Street occupies 10% of entire city space.
- Street are the biggest assets, that can leverage into walk, play, eat, socialize, celebrate.

Data suggest that 1.35 million traffic fatalities, translates into 1% dies in every 23 second. Traffic death is first among the youth killer among age 5-29 age group.

Based on vision zero and sustainable safety approach, onus of safer street and safety should be on system and the road users.

Reducing speed through policy, consulting and design, because speed kills. If individual has hit by a vehicle at a speed of 60 km/h the chances of death is almost 90%. Therefore, as speed increases, harder to recognize risk and respond; reaction time become longer.

Design Playing in safer such as:

- Adding speed sign and camera
- Encouraging changes in behavior of people
- Redesigning streets

To have safer streets, one needs to stop focus from perspectives of car owners, i.e., pro-mobility mindset. Rather one needs to focus on safer, affordable, convenient and comfort for all users and make it easy to not drive by providing more options.

Sustainable Transport Option are (i) safer (ii) more efficient, which translates to

- Considering all modes of transport.
- Moving system is key agenda, aiming for moving car to moving people
- Focusing people first in design, rather than car space, car owner, roads for car.

Importance of new street design in the new development is to look at all streets from different lens. Street redesign in different categories leads to a safer street for all

1. Pedestrians-factors for designing street
 - a. Designing street for PWD/Senior citizens
 - b. Gender
 - c. Include moving speed

Creating pedestrian crosses requires network, need to provide facilities integrate multiple elements, such as sidewalks, ramps, pedestrian crossings, which promotes pleasant walking experience like seating, lighting that should focus overall well-being.

- Cyclist
- Transit rider
- Motorists: - factor for designing motors

Design can make speed management tools, design should be

- Self-enforcing
- Signaling the driver, the type of street that they are in and guide them to adapt its behavior
- Imbedding safe speed strategy in the design stage itself, by taking more pro-active approach
- Freight Operator and service providers
- Street vendors.

Ms. Anitha Haddannavar, IPS, DCP Traffic (West) shared that the police are very important stakeholders in road traffic management. She focused on self-awareness on traffic rules and added that the public is an important stakeholder who use the roads to commute. Road infrastructure is not able to hold current traffic due to number of vehicles on road, which is constantly adding up and the road infrastructure is very limited.

Role of Bengaluru traffic police is

- Enforcement: Currently, enforcement is bare minimum
- Regulations

She explained the activities related to enforcing activities handled by the Bengaluru Traffic Police and they included:

- Restricting heavy vehicle and allocating times of entry into city. Giving more preferences to incoming vehicles light and medium vehicles during morning time in central business district area of Bengaluru city. In evening giving more preferences to outgoing light and medium vehicle from central business districts.
- Setting time limits for schools

During rainy season, police face lot of obstruction such as

- Water logging
- Blockage of pipes on the roads
- Congestion of traffic

At the time of traffic congestion, vehicle diversion arrangements, establishing advisory through FM radio, social media is focused on. To manage the traffic in water blockage, water logging, etc. traffic police is linked with the BBMP, where GPS tag pictures are uploaded on social media platforms and the concerned officials are contacted by control room to take immediate actions.

She shared the initiatives through Special drives from the Bengaluru Traffic Police elicited the following:

- 19 cases were booked for wheeling in the age group of 16-17 years
- 994 cases were booked on school buses for not following traffic rules
- 145 cases were booked for using fake or defective number plates on vehicles. (Till November 2023, 22,098 case were booked for defective number plates).

She concluded by stating that behavioural aspects correlate to the number of accidents. On analyzing the behavioral pattern, it was found that 85.1% accident happen because of drunken driving and speed driving. In addition, environmental factors such as bad road conditions are only 5%. Accident sometime occurs with passive and active pedestrian. A passive pedestrian is victim of accident without their fault and vice versa.

Recommendations

The following recommendations were identified:

1. Identify a quicker way to transport accident victims to hospitals
2. Know the type of injury- did the accident victim become unconscious (for a brief time)?
3. Check if there is subdual hemorrhage
4. Talk to physicians and surgeons and inform them about the accident and was it on head
5. Emphasise on emergency medical responses in medical systems
6. Ensure that helmets have ISI certificates (head injury is very common injury that cause death) and should also include
 - a. Outer Shell- Protects the head during the impact and prevents entry of outside objects.
 - b. Impact Absorbing Layer-absorbs shock and displaces energy during an impact.

- c. Retention System/Chin Strap-fastened with two rings to ensure retention of helmet
 - d. Additional Face Protection-safety feature for protecting the jaw
 - e. Padded Comfort Layer- to provide comfort
 - f. Face-shield/Visor-to keep bugs and debris out of helmets.
 - g. Cheek Pads- to provide extra protection to the face and keep helmet in place.
7. Speed Management (State government can learn and adapt the policy pack developed by IIT Kharagpur which is working with West Bengal)
 8. Two-wheeler safety (innovation in two-wheeler, IIT Mumbai, visited various countries and documented best practices on how two-wheeler sections can be constructed on road, since two-wheelers are more in numbers and can be given priority despite red traffic light).
 9. Learn new reforms and initiatives from on traffic management from Govt. of Punjab and Kerala, Kerala has 726 high powered cameras installed.
 10. Organise High Level consultation meeting by State Road Department, Interdepartmental and separate Departmental on road safety
 11. Introduce dedicated lane discipline for vehicles/buses/two-wheelers/3-wheelers/Auto rickshaws.

The Consultation Meeting also had students from Law College and Public Policy departments. The students interacted and shared the following key learnings with the Public Affairs Foundation

MS Ramaiah University of Applied Sciences (MSRUAS)

The Stakeholder Consultation for Policy Advocacy in Road Safety, jointly conducted by Public Affairs Foundation and Consumer Unity and Trust Society International, convened on the 23rd of November at the IAS Officer's Association in Bengaluru. The event aimed to address critical issues and challenges related to road safety in Karnataka and formulate policy recommendations with the active participation of various stakeholders.

The event began with a cordial welcome address by Dr. Annapoorna Ravichander, Executive Director of Public Affairs Foundation. Dr. Ravichander provided an overview of the organising bodies, their respective roles, and outlined the event's objective. She emphasised the importance of effective communication collateral and collaborative efforts for impactful policy advocacy.

We then had the Inaugural Address Dr. N. V. Prasad, I.A.S, Secretary to Government, Transport Department. Sir formally inaugurated the meeting by talking about the 2019 amendment to the motor vehicles act, the importance of shared responsibility and multifaceted approach in tackling road safety issues. He emphasised the role of the civil society under 4 E's:

1. Education
2. Enforcement
3. Engineering
4. Emergency Care

Manipal Academy of Higher Education (MAHE)

1. Madhusudhan Sharma, CUTS International

- Transport Minister Nitin Gadkari said when MVAA 2019 came into effect that it will reduce accidents by 30% - but it has not.
- Death from traffic leads to 3% GDP loss
- In Karnataka, the transport sector contributes to 5% of GDP. To make this sector profitable, accidents/injury/deaths need to decrease.
- Around 90% of accidents due to speeding - West Bengal is a good example for speed management.
- Good electronic enforcement - Kerala and Punjab (Punjab Road Safety Police replaced the Traffic Management Police)
- Revise speed limits regularly based on latest scientific data using PPPs, partnerships with NGOs, CSOs. Latest update was a decade ago.
- Human body can only withstand 30km/hr crash - recommended by WHO. By increasing just 1km/hr, risk increases by 3-4 times or even higher for vulnerable riders.
- 50% of death in Karnataka, not wearing helmets.
- IIT Kharagpur working on speed management with West Bengal.
- IIT Mumbai working on two-wheeler safety.

2. J. Gnanendra Kumar, Joint Commissioner of Transport
 - WHO - Road safety is a major public health concern
 - Road safety is not just a health concern but also a social justice since most vulnerable are cyclists, motorcyclists
 - 5E's - education, enforcement, vehicle engineering, road engineering and emergency response
3. Dr. Pradeep B. S., NIMHANS
 - Dictum that road death is preventable
 - 421 deaths/day, 17 deaths/hour - Karnataka
 - Nearly 52% of all injury are 0-35 years, especially males
 - Pedestrians 30-40% deaths, 2 wheeler and pillion 30-40% deaths
 - Indian Highways 4.84% of road length but 54% of crashes and 71% deaths.
 - Over 50% are dead before they reach hospital
 - Human Behavior Related Risk Factor - helmet, seat belt, speeding, drink driving
 - Should wear an ISI Certified Helmet
 - 77% of road accidents where a head injury took place result in death
 - 66% of drivers and 16.4% of front passengers wear seat belt
 - At 30km/hr crash - 9/10 pedestrian survive. 40km/hr - 6/10 survive. 50km/hr - 2/10. 60km/hr - 0/10
 - 33.6% vehicles over speeding.
 - 50% LMV over speeding.
 - Drinking driving - risk increases by 40x when alcohol level beyond 0.05mg/dl in motorcyclists
 - DUI increases risk by 2.2x
 - WHO - Safe Systems Approach
 - ATS - Automated Testing Station - uses technology to assess transport fitness check

4. Divya -Student Question

"How do we involve the college students to make an increase in the awareness since the age is 15 to 35 (this was for the stake holders and the government)?

Reply - Road Safety Authority has created multimedia platform and information in the theatre, print and social media platforms on the RTO rules and regulation measures.

5. Traffic Training Road Safety Institute (TTRSI)

- number of long term and short term courses designed specifically for Police officers, college students, learners license seekers.
- Simulator room, digital classrooms.
- They are given intensive training about investigation of accidents and laws pertaining to enforcement through audio visual mode.
- It's our safety as well as peoples' safety we need to learn well.

6. Safer By design- the presentation was given by Mr. Srinivasan.

- What is the problem? -Accident
- What is the result? -Serious injury.
- What was the cause? -Human factors, mistakes made, error.
- System shares with policy makers
- We need to be proactive than reactive
- Safe system principle: humans make an error in the infrastructure system median signal curve footpath marking signs.
- Need to create sustainable cities.

7. H D Manjunath regional transport Gnana Bharati maximum speed should be 140,160,180 km/ hour

- Major accident zones are Mysore Bangalore highway because of the risk why due to over speeding and which we need to have control
- 3:00 a.m. to 5:00 a.m. we need a park the vehicle when you feel drowsy
- We need to be educated and practice road safety should have a rule

- Left side slow moment of vehicle over taking at the right pedestrian walk towards the right and honking during over speeding is to ask not to create a competition

8. Pratiksha Surpuriya from Global Designing Cities Initiative

- Global designing cities initiative by streets are important because they are largest continuous public space is the biggest asset
- Premises visibility dimension and reaction time is longer speed crashes ads speed signs have a camera at the street walk with bad design step stop the lens of a driver making options for this more mobility's safe reliable
- Need to keep in mind of all the types of user cyclist, pedestrians, two wheelers and four wheelers
- Pyramid should be prioritised invert it people should come first not the metal machines.
- Burden of safety must be on the system and not the user.
- Sustainable mobility choices
 - Make it harder to not to speed (create narrower lanes)
 - Make it easier to drive (create safer spaces so that people can opt for public transport)

9. Anitha Haddannavar,IPS

- Enforcement Vs Regulation -Police has reduced enforcement(Implementation of Indian Motor Vehicles Act) and has shifted focus to regulation.
- For example, during peak business hours, vehicles moving into the Central Business District are prioritized and given way. Others are diverted to the Outer Ring Road. In the evenings however, vehicles moving out of CBD are prioritized.
- Freight vehicles are permitted to enter the city only during non-business hours.
- The Good Samaritan Act- If you see someone hurt in an accident and you take them to the hospital, you will not be asked any questions regarding your identity, location, etc, i.e. you will not get into any legal trouble. Therefore, do not hesitate to help someone who has been in an accident.
- Helmets need to be worn. Suggested the idea of gifting people helmets even for birthdays and other special occasions.

The 'Stakeholder Consultation for Policy Advocacy on Road Safety' provided me with rich insights across diverse sessions, each contributing unique perspectives on enhancing road safety. The collaborative efforts between the Transport Ministry and Police departments underscored the importance of a coordinated approach to enforcing road safety measures and implementing effective policies. The session led by the NIMHANS professor was an eye-opener and offered a significant paradigm shift by framing road crashes as a public health issue, expanding the scope of interventions to preventive measures. The discussion on safer mobility and the role of design under the theme "Design for all," underscored how thoughtful road design can cater to the diverse needs of pedestrians, bikers, cyclists and motorists and the importance of Lane Discipline in modern times. Insights into government initiatives showcased a commitment to creating safer roads, offering a crucial understanding for those involved in policy advocacy or outreach programs. The session on enforcement and awareness by a police officer highlighted the importance of a dual approach, combining strict enforcement with public awareness campaigns. The multidisciplinary nature of the conference, bringing together professionals from fields like medicine, law, civil service, and architecture, illuminated the holistic involvement of various disciplines in ensuring road safety. I'm grateful to B.M.S. College Of Law and Dr. Annapoorna Ravichander for providing me with this wonderful opportunity to be a part of this event. As a law student, this comprehensive perspective acquired from the conference will undoubtedly enhance the effectiveness of my upcoming outreach program on the Motor Vehicles Act, enabling me to approach the subject with a more informed and nuanced outlook.

This event that we attended about policy advocacy on road safety was very helpful to create more awareness about issues that every pedestrians face in their daily life while commuting to work, several speakers spoke on this topic and discussed the ratios as to control the accidents and bring in more safety laws and also said that more safety laws should be focused towards the two wheelers and they later went on to talk about the Motor vehicles amendment acts of 1988 and 2019. Implementation of road safety measures is recommended and to be implemented the people of society should cooperate. This event was organized by the public affairs foundation. By 2023 the United Nations general assembly has set an target to reduce the accidents caused by half the numbers. This event addressed the main problems and provided ideas to overcome the issues.

Stakeholder consultation for policy advocacy on road safety organized by the public affairs foundation was a very educational event organized to create more awareness on laws related to road safety and the problems that we face everyday. We learnt about how to make the whole sector more profitable as to grow our economy as well as ensure that there is safety provided for civilians who commute on a daily basis. Various speakers addressed the stake holders on several issues on road safety and they also discussed about the Motor Vehicles amendment act 2019 and that policy priority should be of utmost importance, they also talked about other countries innovations on road safety policy such as Vision Zero which is initiated in Sweden and India's Suraksha Cell and Namma Raste. A new design system for the road is also necessary to increase the safety of the pedestrians and pro-mobility is also needed, so we can make sure that the transportation is made easier. Overall the event was very informational and helped to create more awareness about road safety.

The students of BMSCL had the opportunity to attend 'Stakeholder consultations for policy advocacy on road safety'. The event was held at the IAS Officer's Association, Infantry Road Bangalore, on 23rd November 2023. The main subject of the conference was road safety, measures to prevent accidents, especially on highways. The speakers of the event were extremely knowledgeable, they educated us on the Motor Vehicles Act 2019 and provided us with a lot of statistics regarding accidents on the Bangalore-Mysore highway, the data showed that pedestrians were the most affected ones. Each speaker highlighted different areas of concern such as pedestrians being more prone to accidents, road accidents as a public health issue, and the importance of helmets and seat belts. Presentations by the Architects were the most interesting part of the event, their plans are commendable. Dr. Annapoorna Ravichander ma'am, constantly insisted on students' involvement in the conference and there was active participation by the audience which made the event more intellectual. The key takeaways of the event for us students were the statistics provided by the speakers and the idea of 'Vision Zero' was personally very compelling. Therefore, the conference was very informative and we learnt about various aspects of road safety and that it is important to spread awareness regarding the same.

This session was organised and hosted Public Affairs Foundation and CUTS India International. Dr. Annapoorna Ravichander hosted the session. There were key speakers from various departments relating to transport and police. The session had key takeaways of protecting ourselves while Driving two wheelers and four wheelers. The speaker from NIMAHANS Threw light upon why road safety is really important and why it was Really important to follow it. We also understood why our roads Needed restructuring. The police department enlightened us on Why traffic congestion is a serious concern and how we resolve it. The session was very informative and thought provoking.

First and foremost, I extend my sincere gratitude to the college and Annapoorna Mam for affording us the invaluable opportunity to partake in such an enlightening session. The discourse not only bestowed upon us numerous insightful and thought-provoking perspectives on road safety but also shed light on the myriad factors contributing to accidents. It has unequivocally imparted a fresh and nuanced understanding of road safety that had eluded us hitherto. On a personal note, I find this experience exceptionally informative and pragmatic. I express my heartfelt gratitude once again.

The Stakeholders Consultation for Policy Advocacy on Road Safety organised by the Public Affairs Foundation was both significant and commendable. I appreciate the opportunity to have participated in this diverse forum, where valuable insights were shared on various public and legal aspects of Road Safety and Transportation. The presence of key figures such as the Traffic Commissioner, authorities from NIMHANS hospital, the police, and other organizations like WRI India added substantial value with their insightful presentations on crucial issues related to road safety awareness, traffic regulations, and the initiatives undertaken to enhance policies under the Motor Vehicles Act. In conclusion, as a legal student, this Policy Advocacy program afforded me an invaluable exposure to government authorities and highlighted the pivotal role of the youth in contributing to such reforms.

With these key points put forward by him, Dr. Pradeep led the way for a conducive meeting on this important contemporary issue.

The first speaker, Shri Madhu Sudan Sharma, Senior Program Officer at CUTS International, Jaipur, Rajasthan, presented important data on road safety in Karnataka. He revealed a concerning 11.5% increase in road-related deaths in 2022, totaling 11,702 fatalities. He underscored the economic impact of road safety, noting its contribution to 5% of Karnataka's GDP. Over speeding emerged as a major cause of accidents, responsible for 10,722 deaths. He advocated for a focused approach, suggesting the revision of speed limits, community involvement, and NGO collaboration to address this pervasive issue. He highlighted the importance of ISI-approved helmets for two-wheeler riders and cited the example of the 'roadsafety police' in Punjab for effective electronic enforcement. He also urged holding road-owning agencies accountable by increasing penalties for faulty roads under Section 198A of the Motor Vehicles (Amendment) Act, 2019.

Following this, Dr. Pradeep from the Centre for Public Health presented on traumatic brain injuries and behavioural factors contributing to road accidents. He emphasised that most accidents occur in the 0-35 age group, especially among men. National highways, despite constituting only 4% of roads, witness a significant number of accidents. Dr. Pradeep introduced the Haddon Matrix, a conceptual model for injury prevention, and stressed the importance of addressing head injuries promptly. In addition, Dr. Pradeep took a hands-on approach to emphasise the importance of safety measures. He showed the audience images illustrating how the use of ISI-approved helmets significantly minimises the impact of crashes. Dr. Pradeep also highlighted the importance of seatbelt usage in cars, presenting an image that vividly demonstrated how seatbelts hold individuals intact during an accident, offering crucial protection.

Moreover, Dr. Pradeep shared personal experiences related to road safety issues, providing real-life insights that resonated with the audience. These anecdotes not only reinforced the significance of road safety measures but also added a human touch to the presentation, further enlightening and engaging the attendees.

The subsequent speakers, Srinivas Alavalli, Fellow at WRI, and Mr. Chetan from the World Resources Institute, introduced the concepts of 'safer by design' (importance of designing safer roads so accidents may be prevented) and 'vision zero' (vision for zero lives lost in road accidents). They elucidated five key principles:

- Humans make errors: Acknowledging the inherent fallibility of human behavior
- Humans are vulnerable to injury: Recognizing the susceptibility of individuals to harm in road accidents.
- Responsibility is shared: Emphasizing the collective effort required from various stakeholders to enhance road safety.
- No death or serious injury is acceptable: Setting a zero-tolerance approach to fatalities and severe injuries.
- Proactive vs. reactive approach: Advocating a preventative strategy rather than responding to accidents retroactively.

Mr. Srinivas and Mr. Chetan discussed the 'Suraksha 75' mission in Bangalore, a collaboration between BBMP and Bangalore Traffic Police, aimed at improving key junctions, by establishing traffic engineering cells, and Suraksha cells. They also introduced the concept of 'Namma Raste' to prioritize human lives over vehicles, enhance pedestrian spaces, and improve accessibility for senior citizens and wheelchair users.

The following speaker, Mr. Manjunath, an RTO Officer, contributed valuable insights into the behavioral factors contributing to accidents. He emphasised that driver negligence remains the primary cause of accidents, particularly underlining the dangers of driving under the influence. Mr. Manjunath stressed that accidents could be easily avoided if drivers took necessary precautions. He underscored the importance of education and awareness, suggesting that drivers must be familiar with basic traffic signs and adhere to them diligently to ensure safety. Simple rules such as following signal lights, driving on the left-hand side, and respecting one-way road directions were also highlighted. Mr. Manjunath emphasised the significance of the 'Golden Hour' following an accident and discussed the need for introducing vehicle tracking devices in public transport, referencing the Nirbhaya Case. He proposed that such vehicles should be surveilled and equipped with a panic button for emergencies. The address concluded with Mr. Manjunath leading the audience in an oath to strictly follow traffic rules.

Next in line was Miss Pratiksha Surpuriya, Program Associate from the Global Designing Cities Initiative (GDCI). She introduced the GDCI's transformative approach to streets, focusing on policy and design. Miss Pratiksha advocated for policies that prioritize pedestrians over vehicles, making roads safer for walking. She emphasized the importance of enhancing road safety for children and the elderly through thoughtful policies and designs. She also drew attention to the Vision Zero concept from Sweden, promoting sustainable safety. She concluded by asserting that the responsibility for road safety ultimately falls on the system.

The final speaker for the day was Ms. Anita, DCP, who provided the perspective of the traffic police. She highlighted legal aspects, specifically Sections 279 and 304-A of the IPC, which

pertain to driving or riding negligently and causing death by negligence, respectively. Ms. Anita briefly discussed the Bengaluru Police's role in preventing road accidents and reiterated the importance of addressing over-speeding concerns, questioning whether Bangalore roads are designed for high speeds. She introduced the Good Samaritan laws, encouraging individuals to provide immediate assistance or emergency care to accident victims without hesitation. Ms. Anita also discussed the 'Public Eye' app, designed for citizens to notify the police of any traffic rule violations by uploading pictures, promoting engagement from civil society.

The event concluded with a vibrant Q&A session, allowing participants to further engage with the speakers and delve into specific aspects of road safety. The Stakeholder Consultation successfully brought together diverse perspectives, fostering collaboration and laying the groundwork for impactful policy advocacy in the field of road safety in Karnataka.