

UNDERSTANDING ROAD SAFETY PERCEPTIONS AND BEHAVIOURS:

INSIGHTS FROM DISTRICTS ACROSS TAMIL NADU

JANUARY 2025

Understanding Road Safety Perceptions and Behaviors: Insights from Districts Across Tamil Nadu

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Acknowledgements: Sincere thanks to S.Saroja for providing guidance and reviews of the report. The author also thanks the Civil Society Organisations and volunteers across the districts that deployed the survey and those that participated in it. The author is also thankful to our consultant Mohan for his support on the survey and for coordinating volunteers for the same.

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Suggested citation: Citizen consumer and civic Action Group, 2025. Understanding Road Safety Perceptions and Behaviours: A Survey Across 12 Districts in Tamil Nadu | CAG". *cag.org.in*.

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About CAG

Citizen consumer and civic Action Group (CAG) is a 39 year old non-profit, non-political and professional organisation that works towards protecting citizens' rights in consumer and environmental issues and promoting good governance processes including transparency, accountability and participatory decision-making.

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Executive Summary

Road Traffic Accidents: A Public Health Crisis

Road traffic injuries continue to pose a significant public health challenge globally, with their impact felt acutely in countries like India. In 2022, India recorded a staggering 4,61,312 road crashes, resulting in 1,68,491 fatalities and 4,43,366 injuries. Tamil Nadu consistently ranks highest in the number of road crashes nationwide, holding this position for five consecutive years from 2018 to 2022.

Public Perception Survey on Road Safety

CAG conducted a study in January 2025 across 12 districts in Tamil Nadu to assess the general public's understanding of road safety issues and rules . This study was conducted in observance of the National Road Safety Month, notified for January 2025 and aims to shed light on public perceptions of critical issues like speeding, road safety, pedestrian safety, and awareness of traffic rules. By analyzing survey findings, the report seeks to provide actionable recommendations to enhance road safety in the State and serve as a guiding framework for policymakers and stakeholders.

Key Findings

The public perception survey on road safety in Tamil Nadu revealed critical issues. While drunk driving (30%) was perceived as a leading cause of accidents, distracted driving (21%) and speeding (20%) were also significant concerns. Over 52% of respondents supported reducing speed limits to curb accidents, with poor enforcement (36%), overconfidence in driving skills (22%), and lack of awareness (21%) were identified as key contributors to speeding.

It was surprising that 46.7% of pedestrians report always feeling safe when walking on roads. The only exception were pedestrians from Cuddalore who expressed the highest level of apprehension about crossing roads. Speeding vehicles (42%) and the lack of pedestrian crossings (28%) were perceived as the biggest threats to pedestrian safety. In response, the most commonly suggested measures included developing continuous pedestrian pathways (34%).

Awareness of traffic laws was generally high, with schools and the licensing process being the primary sources of knowledge. Helmet mandate awareness was nearly universal (95%), but awareness regarding seat belt use (87%) and child restraint systems (86%) was comparatively lower.

Compliance and enforcement were also major themes of concern, with 42% of respondents supporting higher fines as a deterrent against traffic violations.

Furthermore, 84% believed that community service penalties would be more effective in improving compliance than traditional fines alone.

Recommendations

The insights derived from the survey emphasize the importance of evidence-based interventions, including setting consistent and appropriate evidence-based speed limits, combined with clear signage and automated enforcement mechanisms, such as speed cameras and increased on-road patrolling to reduce accidents related to speeding.

Infrastructure upgrades, including wider pedestrian walkways, more crossings, and speed-calming measures, are essential, along with restricting heavy vehicle movement during peak hours to reduce congestion and risks. Strengthening enforcement through Automated Number Plate Recognition (ANPR) cameras for helmet and seatbelt monitoring, along with community service penalties for repeat offenders, can enhance compliance.

Public awareness campaigns should address knowledge gaps in seatbelt use, child restraint systems, and overtaking rules while emphasizing the dangers of speeding. Lastly, fostering community engagement will ensure practical, sustainable interventions that effectively reduce accidents and fatalities.

By addressing these aspects, the report advocates for a safer urban road ecosystem that benefits all road users.

Background

Road traffic accidents are a significant global public health and safety issue, with around 1.19 million lives lost per year globally¹. They cause widespread health, economic, and social consequences, especially in developing countries as also indicated by statistics from the Global Status Report on Road Safety by the World Health Organization, where nine in 10 deaths occur in low- and middle income countries².

In 2022, India reported a total of 4,61,312 road crashes, resulting in 1,68,491 fatalities and injuries to 4,43,366 individuals³. Among those that lost their lives, 1,19,904 were overspeeding, accounting for 71.2% of road accident fatalities in the country. Similarly, overspeeding contributed to an overwhelming majority of 72.3% (3,33,323) of road accidents in 2022.



Figure 1: A comparison of road accidents by type of traffic violations in India in 2022. Source: MoRTH Road Accident Report, 2022

In 2022, two-wheeler riders accounted for the highest share of total fatalities among road-user categories, comprising 44.5%. This was followed by pedestrian road-users, who represented 19.5% of the total fatalities in road accidents, highlighting and reinforcing the need to protect the vulnerable road users in the country.

² <u>Global status report on road safety 2023</u>. Geneva: World Health Organization; 2023. Licence: CC BY-NC-SA 3.0 IGO
 ³ Road Accidents in India 2022. Ministry of Road Transport and Highways.

https://morth.nic.in/sites/default/files/RA_2022_30_Oct.pdf

¹ <u>Global status report on road safety 2023</u>. Geneva: World Health Organization; 2023. Licence: CC BY-NC-SA 3.0 IGO

Road Safety Scenario in Tamil Nadu

Tamil Nadu, known for its rapid urbanisation and industrial growth, has seen a corresponding increase in vehicular traffic. This surge necessitates heightened awareness of road safety measures to mitigate accidents and ensure smooth traffic flow. Despite efforts to promote safe driving through awareness campaigns and educational initiatives, reckless driving behaviours such as speeding and improper lane discipline remain prevalent concerns.

Tamil Nadu recorded the highest number of road crashes in the country, contributing 13.9% of the total, and ranked second in terms of fatalities (17,884). Tamil Nadu has also consistently ranked first for the highest number of accidents among other states in the country for five consecutive years over the period 2018 - 2022, contributing to more than 13% of the total accidents in the country every year for the past five years⁴.



Figure 2: A comparison of the number of road accidents in India and Tamil Nadu, 2018 - 2023*. (*2023 data for India is yet to be released) Source: MoRTH 2022 & TNSTA, 2023⁵

While at the country level, overspeeding was the leading cause of accidents, Tamil Nadu also follows a similar trend, with statistics showing that 89.4% of road accidents and 87.5% of fatalities are caused due to overspeeding in 2022. The State leads the

⁴ Road Accidents in India 2022. Ministry of Road Transport and Highways. <u>https://morth.nic.in/sites/default/files/RA_2022_30_Oct.pdf</u>

⁵ "ROAD ACCIDENT ANALYSIS IN TAMILNADU DURING THE YEAR 2023 (Final Data)," 2023. https://tnsta.gov.in/pdfpage/pdfpage_en_6dJgNOW_2024_07_19.pdf country on overspeeding related accidents and fatalities in the country at 57,321 accidents and 15,653 fatalities, respectively.



Figure 3: Road Accidents in Tamil Nadu, split by traffic violations, 2022.

In 2023, among the districts, Coimbatore (3,657), Chennai (3,654) and Chengalpattu (3,402) recorded the highest number of accidents in the State. Similarly, Coimbatore (1,044), Chengalpattu (936) and Madurai (890) recorded the highest number of accident related fatalities in Tamil Nadu in 2023⁶.

Although district-level data on road accidents categorized by traffic rule violations or user groups is limited, it is reasonable to assume that the trends align with those observed in Tamil Nadu, where overspeeding constitutes the predominant cause of road accidents.

In observance of the National Road Safety Month, 2025, CAG conducted a district-level public perception survey across 12 districts in Tamil Nadu to understand public sentiment on speeding, road safety, pedestrian safety, and awareness of traffic laws, with a focus on highlighting regional variations. By gathering insights from diverse demographics, the study aims to identify common concerns, misconceptions, and knowledge gaps that influence road safety behaviors.

⁶ "ROAD ACCIDENT ANALYSIS IN TAMILNADU DURING THE YEAR 2023 (Final Data)," 2023. https://tnsta.gov.in/pdfpage/pdfpage_en_6dJgNOW_2024_07_19.pdf

Methodology

The primary objective of the road safety perception survey was to gather public insights and perceptions regarding key factors influencing road safety, including:

- 1. **Speeding**: Understanding its role as a significant contributor to road crashes and fatalities.
- 2. **Road Safety:** Assessing public views on vehicle safety measures and factors contributing to road accidents from a vehicle user perspective
- 3. **Pedestrian Safety**: Evaluating public concerns about pedestrian infrastructure and safety measures.
- 4. Awareness of Traffic Rules: Gauging the level of public awareness regarding road safety regulations and the effectiveness of penalties.
- 5. User Behaviour: To understand public perceptions of effective measures for improving traffic rule compliance

The study focused on analysing data based on the key factors of speeding, road safety, pedestrian safety and traffic rules awareness in 12 districts: Chennai, Kanchipuram, Chengalpattu, Thiruvallur, Trichy, Madurai, Tirunelveli, Tiruvannamalai, Tiruvarur, Coimbatore, Cuddalore, and Salem.

The perception surveys were conducted across districts during the month of January 2025. The study was targeted at four different road user groups: two-wheeler/bike user, car user, pedestrian/public transport user and others (such as autos, trucks, cabs, etc) to capture diverse perspectives and experiences related to road safety. By including different road user groups the study aimed to provide a comprehensive understanding of the unique challenges, behaviors, and needs of each group. This approach ensures that the insights gained are inclusive and representative, enabling more effective and targeted interventions to improve road safety across all user categories.

Volunteers conducted the survey throughout the week at different locations across the district. The number of people surveyed across districts had a sample size of approximately 200, split evenly across the four user groups, i.e., sample size of 50 for each user group in each district (*Refer Annexure for the consolidated data tables across districts*).

Study Findings

The survey revealed that a significant majority of road users (over 52%) across districts believe that reducing speed limits is a highly effective measure to significantly lower the number of road accidents. This sentiment underscores the critical role that speed management plays in enhancing road safety. Excessive speed not only increases the likelihood of crashes but also exacerbates their severity, making it a major factor in road traffic fatalities and injuries.



Figure 4: Percentage distribution of public respondents across districts regarding the impact of speed limit reduction on road accidents, n=200 per district.

On average, 36% of respondents across districts identified poor enforcement as a major reason for speeding, followed by 22% and 21% who cited overconfidence in driving skills and lack of awareness as the second and third most significant factor. Although district-wise responses and reasons for speeding may vary (for example, in Thiruvannamalai, street racing/peer pressure was indicated as the leading reason for speeding at 47%), poor enforcement emerged as the predominant factor identified by the public, particularly in Madurai and Tirunelveli, where it accounted for around 50% of the responses.



Figure 5: Percentage distribution of respondents on the different reasons for speeding across districts in Tamil Nadu, n=200 per district.

Road Safety

The public perception survey revealed that many respondents (averaging 30% across all districts) consider drunk driving a major factor in road accidents. However, this contrasts with official reports from MoRTH⁷ and the Tamil Nadu State Transport Authority⁸, which do not identify drunk driving as a leading cause for road accidents. This may also be due to blood alcohol levels being checked only during specific times, such as weekends, rather than as a routine practice.

The official drunk driving data collected so far (up until 2023) may have significant limitations, as it relies on FIRs, which may not always include alcohol testing for accident victims and perpetrators. While the government mandates an FIR for road accidents, law enforcement may or may not conduct blood alcohol tests, leading to potential underreporting of drunk driving incidents. This gap in data collection limits the accuracy of official statistics and may obscure the true extent of alcohol-related accidents on Indian roads. It highlights the need for better communication of data-driven insights while also considering public concerns when shaping road safety policies.

⁷ Road Accidents in India 2022. Ministry of Road Transport and Highways. <u>https://morth.nic.in/sites/default/files/RA_2022_30_Oct.pdf</u>

⁸ "ROAD ACCIDENT ANALYSIS IN TAMILNADU DURING THE YEAR 2023 (Final Data)," 2023. https://tnsta.gov.in/pdfpage/pdfpage_en_6dJgNOW_2024_07_19.pdf

However, this has changed from 2024, based on a Madras High Court order, where every road accident case that is brought to a hospital is mandated to have their blood alcohol level tested⁹. This data is required to be entered into the Tamil Nadu Accident and Emergency Care Initiative (TAEI) portal which is already integrated with Integrated Road Accident Database application.

Distracted driving was the second most cited cause of road accidents by the public, averaging 21% across all districts, followed closely by speeding at 20%. However, perceptions varied significantly across districts. In Cuddalore, 34% of respondents highlighted distracted driving as the primary reason for road accidents, the highest among all districts. In contrast, Tirunelveli reported speeding as the top contributing factor, with 43% of respondents attributing accidents to it.



Figure 6: Percentage distribution of public respondents on the different factors contributing to road accidents across districts in Tamil Nadu, n=150 per district.

Averaging across the districts, 38% of respondents consider that reduced speed limits is an important measure in improving vehicle users' safety. This was followed by restricting heavy vehicles (21%) and implementing separate lanes for different vehicle types (18%). Thiruvanamalai (56%), Kancheepuram (49%) and Tirunelveli(47%) were the top three districts that indicated reduced speed limits as the most cited

⁹ "Blood of all accident victims in Tamil Nadu to be tested for alcohol", DT Next, Article published June 2024, <u>https://www.dtnext.in/news/tamilnadu/blood-of-all-accident-victims-in-tamil-nadu-to-be-tested-for-alcohol-791</u> <u>608</u>

reason. However, opinions varied among districts, with Cuddalore indicating separate lanes for different vehicle types as the most needed road safety measure with 43%, the highest among all other districts. Conversely, respondents in Madurai ranked restricting heavy vehicles as the primary means of improving vehicle user safety, at 36%.



Figure 7: Percentage distribution of public respondents on the different measures that can be taken to improve vehicle user safety, n=150 per district.

Pedestrian Safety

When looking at pedestrian safety, most of the respondents across districts reported feeling safe while walking or crossing roads. Notably Trichy (82%), Tirunelveli (74%), Madurai (70%), Chengalpattu (66%) and Kancheepuram (54%) indicated that 1 in 2 people always feel safe while walking or crossing roads. Cuddalore was the exception, where the majority of respondents (around 64%) indicated that they rarely and/or never felt safe.

Interestingly, the official numbers from MoRTH present a contrasting perspective. In 2022, pedestrian fatalities in road accidents reached 32,825, accounting for 19.5% of total road accident deaths, second only to two-wheeler fatalities. This figure highlights a concerning trend, as pedestrian deaths increased by 12.7% compared to 2021,

signaling a growing risk for pedestrians on Indian roads¹⁰. Tamil Nadu in particular had 4,427 pedestrian deaths in 2022, the highest among other states, while in 2021 the number was 3,647, an increase of 21.4%¹¹.



Figure 8: Public perception of safety while walking or crossing streets, n=50 per district.

The contrast between public perception and official data suggests a potential false sense of security among pedestrians. While most respondents reported feeling safe while walking or crossing roads, the rising number of pedestrian fatalities indicates a significant and growing risk. The increase in pedestrian deaths by 21.4% from 2021 to 2022 in Tamil Nadu highlights that road conditions may be more dangerous than perceived. This discrepancy could stem from a lack of awareness about actual accident risks or infrequent personal encounters with road incidents, leading pedestrians to underestimate potential dangers.

When explored further, to understand the reasons for pedestrian accidents, the most cited answer was speeding vehicles, averaging at 42% across all districts. Thiruvarur (60%), Coimbatore (51%) and Chengalpattu(50%) stood out as the top three districts where speeding vehicles were a menace to pedestrian safety as indicated by the public. Across districts, the lack of pedestrian crossings was the second most cited concern,

¹⁰ Road Accidents in India 2022. Ministry of Road Transport and Highways. <u>https://morth.nic.in/sites/default/files/RA_2022_30_Oct.pdf</u>

¹¹ Road Accidents in India 2021. Ministry of Road Transport and Highways. https://morth.nic.in/sites/default/files/RA_2021_Compressed.pdf

with an average of 28%. Tirunelveli (68%), Chennai (52%), and Salem (40%) reported the highest percentages. In contrast, Madurai reported poor visibility and Thiruvannamalai reported distracted walking as the topmost reason for pedestrian accidents at 40% each, respectively.



Figure 9: Percentage distribution of public respondents on the main reasons for pedestrian accidents n=50 per district.

When the public were asked about their opinion on ways to improve pedestrian safety, the most commonly mentioned measure was to provide continuous pedestrian pathways with adequate width, averaging at around 34%, with Trichy (60%), Thiruvallur (56%) and Kancheepuram (50%) reporting the highest percentages. Across districts, speed reduction ranked as the second most preferred measure to improve pedestrian safety, with an average of 31%. Increasing the number of pedestrian crossings was the third most cited solution, averaging 19%. However, in Tirunelveli (58%), Chennai (40%), and Salem (40%), it was identified as the top priority for enhancing pedestrian safety.



Figure 10: Percentage distribution of public respondents on the different ways to improve pedestrian safety, n=50 per district.

Awareness of Traffic Laws

It is vital to understand the public's awareness of road safety and traffic laws as it helps in enhancing road safety, reducing accidents, and improving compliance with regulations. It also helps identify knowledge gaps, allowing targeted educational campaigns and better enforcement strategies.

The survey found that schools and colleges are the primary sources of learning about road traffic rules, averaging 32% across districts, followed closely by the licensing process at 30%. While there were some variations, such as in Trichy, where over 50% learned from friends and family, most respondents identified these two sources as their main avenues for understanding traffic regulations.



Figure 11: Percentage distribution of respondents by the source where they learned about traffic rules, n=200 per district.

Vehicle User

With respect to the usage of safety gear, most of the respondents were aware of the relevant rules and regulations. On average, around 95% of respondents across districts were aware of the helmet mandate for drivers, pillion riders, and children on two-wheelers. However, awareness of the seatbelt mandate for drivers and all passengers was slightly lower, averaging 87%. Notably, Salem (72%), Cuddalore (79%), Thiruvallur (80%), Thiruvarur (82%), and Kancheepuram (82%) reported below-average awareness levels. Similarly, awareness of the child restraint system (CRS) mandate for children below 14 years of age in cars was also comparatively lower, averaging 86%. Cuddalore was the only exception with 55% of respondents indicating that CRS was not compulsory.







Figure 13: Public awareness on the seatbelt mandate for drivers, front and backseat passengers traveling by car across districts, n=150 per district.



Figure 14: Public awareness on the child restraint system mandate for children below 14 years traveling by car, n=150 per district.

The Motor Vehicle Act and its amendment prohibit the use of mobile phones while driving and classify it as a punishable offense. However, there remains a lack of clarity regarding the legality of using hands-free devices while driving. This is also reflected in the responses of the public, where a large majority (averaging 68%) believe that using a hands-free device while driving is acceptable with only Salem, Coimbatore, Cuddalore and Thiruvarur indicating otherwise (Figure 15).

The survey revealed that while the majority of the respondents indicated correctly that vehicles should be overtaken from the right at around 57%, the results varied widely across districts (Figure 16). Notably, in Trichy (89%), Madurai (84%), Kancheepuram (75%), Tiruvallur (67%), Chengalpattu (66%), and Salem (51%), a large proportion of respondents answered incorrectly, highlighting a widespread misunderstanding of the traffic rule.







Figure 16: Public awareness on overtaking a vehicle while driving across districts in Tamil Nadu, n=150 per district.

Pedestrian / Public Transport User

When considering pedestrians and/or public transport users, interestingly, close to 88% (Figure 9) of respondents considered jaywalking to be a serious issue contributing to pedestrian safety. While jaywalking is not illegal, it is important to keep note of it while considering pedestrian safety.



Figure 17: Percentage distribution of public respondents on whether they considered jaywalking a serious issue, n=50 per district.

The survey also revealed that a significant portion of the respondents, around 37.6% rightly identified pedestrian crossings or zebra crossings as the safest place to cross a busy road. Thiruvallur (62%), Coimbatore (62%), Trichy (60%), and Chennai (52%) reported the highest awareness of this safety measure. While this is an encouraging response, the reality is that zebra crossings are insufficient, and even where they exist, motorists often fail to yield to pedestrians.

A considerable portion of respondents (24%) believed that crossing wherever convenient was acceptable, with Tirunelveli (60%) and Salem (48%) ranking highest in this misconception. Additionally, Madurai (58%) considered crossing between parked vehicles as the safest option, while Thiruvarur (50%) identified traffic signal junctions as the safest place to cross. These findings highlight the need for targeted awareness campaigns to correct misconceptions and promote safe pedestrian behavior.



Figure 18: Percentage distribution of public respondents on the safest place to cross a busy road across districts, n=50 per district.

User Behaviour

A significant portion of the public, averaging 42% across districts, highlighted higher penalties and fines as an effective way to encourage compliance with traffic rules. Chengalpattu (73%) and Kancheepuram (73%) had the highest support for this measure, followed by Tiruvallur (62%). Automatic enforcement was the second most cited approach, averaging 22% across districts. In contrast, Thiruvanamalai stood out, with 40% of respondents emphasizing the need for more awareness campaigns, the highest among all districts.



Figure 18: Public opinion on the different ways to encourage people to follow rules across districts in Tamil Nadu, n=200 per district.

Interestingly, when the public were asked about whether community service would deter them from breaking traffic rules, the majority of respondents, around 84% across districts, answered yes. While Thiruvarur, Coimbatore, Cuddalore, and Tirunelveli reported below-average figures, the numbers still remained above 55%.



Figure 19: Public responses on the impact of community service on traffic rule compliance across districts in Tamil Nadu, n=200 per district.

Recommendations

The survey findings highlight key areas of concern, including excessive speeding, inadequate pedestrian infrastructure, gaps in awareness of traffic regulations, and the need for stricter enforcement.

Based on these insights, the following recommendations focus on improving speed management, strengthening road infrastructure, enhancing automated enforcement, and increasing public awareness. By implementing these measures, authorities can create a safer and more efficient road environment, ultimately reducing accidents and promoting compliance with traffic laws.

Taming Speed: Smarter Limits, Safer Roads

- The majority of respondents (over 50%) across districts identified speeding as a major concern and supported reduced speed limits to prevent accidents. To address this, evidence-based speed limits should be adopted for different road types to ensure consistency and simplify compliance.
- Reduced speed limits should first be implemented in high-risk areas as a pilot project to assess their impact on road safety and accident rates. Based on the findings, this initiative could be expanded to cover a larger region.

- Clear road signage displaying speed limits should be installed to enhance public awareness and compliance.
- Stricter enforcement measures, such as speed cameras and automated enforcement systems, should be deployed in high-risk areas and increase on-road patrolling by traffic personnel, particularly during peak hours and in speeding hotspots. Additionally, imposing heavier fines for speeding and repeat offenses could act as a deterrent.

Building Roads For People, Not Just Vehicles

- Road infrastructure should be enhanced by installing speed-calming measures such as speed bumps, rumble strips, and clear signage, particularly in residential areas, near schools, and in accident-prone zones.
- Although pedestrians in this survey generally reported feeling safe on the road, accident statistics from Tamil Nadu tell a different story, with pedestrian fatalities rising each year. Given these numbers, prioritizing pedestrian safety is essential by developing continuous pedestrian pathways and other pedestrian infrastructure that reduce direct interaction with vehicular traffic.
- Comprehensive studies should be conducted to analyze pedestrian movement patterns, ensuring that pedestrian crossings are strategically placed based on actual foot traffic and safety needs.
- A time-based restriction for heavy vehicular movement within city limits (similar to that implemented in Chennai) can be considered to improve traffic flow and enhance safety.

Enforcement: Smarter Monitoring, Better Compliance

- Automated Number Plate Recognition (ANPR) cameras can be used to efficiently identify helmet violations and impose penalties, ensuring greater compliance with helmet mandates.
- Alternative penalties, such as community service, could be introduced as a deterrent for traffic violations. As indicated by 91% of respondents, such measures may encourage better rule adherence while promoting public responsibility.

Educating For Safety: Targeted Awareness That Saves Lives

• The survey findings highlight a gap in awareness regarding safety regulations, particularly the use of seatbelts and child restraint systems (CRS). While helmet mandates are widely recognized, CRS requirements remain less understood, especially in districts like Cuddalore. Similarly, overtaking rules are also widely misunderstood, especially in districts like in Trichy (89%),

Madurai (84%), Kancheepuram (75%), Tiruvallur (67%), Chengalpattu (66%), and Salem (51%) where more respondents chose the incorrect option. Targeted awareness campaigns should be implemented across districts to address this issue.

- To improve road safety education, a standardized and comprehensive road safety curriculum should be integrated into schools and colleges. Given that a significant portion of individuals report learning traffic rules through educational institutions, structured programs covering key aspects like pedestrian safety, responsible driving, and traffic law compliance should be introduced from an early age. Partnering with traffic authorities for workshops and interactive sessions can further reinforce responsible road behavior among young learners.
- Additionally, incorporate a comprehensive road rules manual into the licensing process to ensure that all drivers have a thorough understanding of traffic laws before they take to the roads. This will help reinforce safe driving practices, reduce violations, and minimize the risk of accidents caused by ignorance or misinterpretation of road regulations. By making the manual a mandatory component of driver education at the time of issuance of a licence, new motorists can develop a strong foundation in road safety.
- Sustained public education campaigns should be conducted over extended periods, featuring consistent messaging. These campaigns should emphasize the dangers of speeding and riding without helmets while highlighting their life-saving benefits.

Collaborative Approach to Road Safety

- Engage the community in decision-making by actively involving residents, road users, and local stakeholders to ensure that safety measures align with community needs and concerns. Public consultations, surveys, and feedback mechanisms can help incorporate valuable local insights into road safety plans.
- Establish a systematic, localized approach to gathering and assessing accident data to identify high-risk areas or "black spots." This data-driven strategy allows for localized targeted interventions, improving the effectiveness of road safety initiatives.
- Strengthen partnerships with civic bodies, law enforcement agencies, and non-governmental organizations to enhance enforcement, public awareness, and infrastructure improvements. Multi-sectoral cooperation ensures a comprehensive and sustainable approach to road safety.

By integrating these strategies, road safety efforts can be more effective, ensuring safer roads and helping in reducing accident-related fatalities. Additionally, beyond

regulatory compliance, it is also imperative to encourage a culture of responsibility among drivers, pedestrians, and cyclists alike, fostering an environment where everyone shares the road responsibly.

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Annexure

Consolidated Data Tables

 Table 1: Responses across districts regarding the impact of speed limit reduction on road accidents

Do you agree that reducing speed limits can significantly reduce road accidents?										
	Maybe	No	Yes	Total						
Chennai	27	40	133	200						
Tiruvallur	16	51	133	200						
Salem	10	9	181	200						
Cuddalore	79	17	104	200						
Coimbatore	44	7	149	200						
Thiruvanamalai	81	1	118	200						
Thiruvarur	79	14	107	200						
Madurai	4	42	154	200						
Trichy	0	23	177	200						
Kancheepuram	10	42	148	200						
Chengalpattu	9	27	164	200						
Tirunelveli	17	1	182	200						
	376	274	1750	2400						

What do you think is the main reason for speeding?											
	Lack of awarenes s	Overconfi dence in driving skills	Peer pressure/ Street racing	Poor enforceme nt of rules	Wider roads / better infrastructu re	Rushing to reach on time	Other s	Total			
Chennai	53	37	22	61	27			200			
Tiruvallur	33	56	4	81	26			200			
Salem	59	44	11	65	21			200			
Cuddalore	39	44	34	57	17	7	2	200			
Coimbatore	62	26	28	58	25		1	200			
Thiruvanamalai	33	29	94	34	10			200			
Thiruvarur	57	32	14	90	7			200			
Madurai	15	57	5	100	23			200			
Trichy	23	60	11	80	26			200			
Kancheepuram	28	65	10	80	17			200			
Chengalpattu	39	63	8	59	31			200			

Tirunelveli	66	11		107	16			200
	507	524	241	872	246	7	3	2400

Which of the following do you think contributes most to road accidents?										
	Distracted driving	Drunk driving	Poor road condition	Poor vehicle condition	Red light jumping	Speeding	Riding on wrong side	All of the above	Other	Total
Chennai	44	40	20	7	26	13				150
Tiruvallur	16	51	22	2	41	18				150
Salem	24	48	14	6	18	40				150
Cuddalore	51	31	20		11	35			2	150
Coimbatore	23	52	28	7	10	30	1			151
Thiruvanamalai	43	50	4	3	6	44				150
Thiruvarur	44	50	19	2	1	33		1		150
Madurai	44	51	12	4	21	18				150
Trichy	24	40	26	18	23	19				150
Kancheepuram	14	47	15	5	34	35				150
Chengalpattu	18	37	27	17	33	18				150
Tirunelveli	26	50	7		3	64				150
	371	547	214	71	227	367	1	1	2	1801

Table 3: Survey responses on the different factors contributing to road accidents across districts

Table 4: Survey responses on the different measures to improve vehicle safety across districts

What do you think can be done to improve vehicle user safety ?										
	Enhanced driver education and training programs	Reduced speed limits	Restricting heavy vehicles	Separate lanes for different vehicle types	Stricter licensing system	Others	Total			
Chennai	23	54	36	24	13		150			
Tiruvallur	40	54	38	13	5		150			
Salem	13	64	24	36	12	1	150			
Cuddalore	13	48	9	64	15	1	150			
Coimbatore	29	30	32	49	9	2	151			
Thiruvanamalai	10	84	24	9	23		150			
Thiruvarur	14	73	18	23	22		150			
Madurai	24	39	54	24	9		150			
Trichy	33	49	33	23	12		150			

Kancheepuram	24	73	38	11	4		150
Chengalpattu	28	43	49	22	8		150
Tirunelveli	8	71	26	34	11		150
	259	682	381	332	143	4	1801

 Table 5: Public perception of safety while walking or crossing streets across districts

How often do you feel safe while walking on roads or crossing streets?									
	Always	Never	Rarely	Sometimes	Total				
Chennai	16	3	5	26	50				
Tiruvallur	17	3	6	24	50				
Salem	19	2	4	25	50				
Cuddalore	8	18	14	10	50				
Coimbatore	15	2	6	26	49				
Thiruvanamalai	19		3	28	50				
Thiruvarur	13	11	1	25	50				
Madurai	35	1	3	11	50				
Trichy	41		1	8	50				
Kancheepuram	27		4	19	50				
Chengalpattu	33		4	13	50				
Tirunelveli	37	3	4	6	50				
	280	43	55	221	599				

Table 6:	Public	response	on the	different	reasons	contributing	to j	pedestrian	accidents

What do you think is the main reason for pedestrian accidents?										
	Crossing roads	Distracted walking (e.g., phone use)	Lack of pedestrian crossings	Poor visibility	Speeding vehicles	Total				
Chennai			26	5	19	50				
Tiruvallur			18	9	23	50				
Salem		5	20	8	17	50				
Cuddalore	1	15	8	4	22	50				
Coimbatore		8	10	7	24	49				
Thiruvanamalai		20	9	5	16	50				
Thiruvarur		8	7	5	30	50				
Madurai		8	3	20	19	50				
Trichy		2	17	11	20	50				
Kancheepuram		1	8	17	24	50				
Chengalpattu		5	8	12	25	50				

Tirunelveli		4	34	1	11	50
	1	76	168	104	250	599

	What is the safest place to cross a busy road ?											
	Anywhere convenient	At a pedestrian crossing or zebra crossing	At traffic signal junctions only	Between parked vehicles	Total							
Chennai	16	26	3	5	50							
Tiruvallur	11	31	3	5	50							
Salem	24	14	3	9	50							
Cuddalore	8	15	24	3	50							
Coimbatore	3	29	14	3	49							
Thiruvanamalai	14	5	15	16	50							
Thiruvarur	18	4	25	3	50							
Madurai	2	15	4	29	50							
Trichy	9	30	5	6	50							
Kancheepuram	4	20	1	25	50							
Chengalpattu	6	22	7	15	50							
Tirunelveli	30	14	6		50							
	145	225	110	119	599							

Table 7: Public response on the different ways to improve pedestri	an safety
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Table 8: Public respon	se on the sources	from which they	learned about traffic	rules and regulations

	*	Where did you l	earn about	road traffic	rules?		
	Friends and family	Media/Televisi on/Advertisem ents	Newspap ers	School or college	Social media	While applying for a license	Total
Chennai	16	50	9	23	16	86	200
Tiruvallur	30	25	5	39	27	74	200
Salem	5	39	16	47	5	88	200
Cuddalore	35	29	1	106	8	21	200
Coimbatore	32	18	15	62	21	52	200
Thiruvanamalai	16	11	14	144	10	5	200
Thiruvarur	25	16	3	30	7	119	200
Madurai	43	33	1	64	5	54	200
Trichy	104	15		19	2	60	200
Kancheepuram	55	13	3	75	8	46	200
Chengalpattu	40	19	4	37	24	76	200
Tirunelveli		7	6	130	9	48	200

401 275	77 776	142 729	2400
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Table	9:	Public	awareness	on	the	helmet	mandate	for	drivers,	pillion	riders	and	children	on
two-w	heel	ers acro	ss districts											

Is wearing a helmet compulsory for drivers, pillion riders, and children on two-wheelers ?										
	No	Yes	Total							
Chennai	5	145	150							
Tiruvallur	17	133	150							
Salem	5	145	150							
Cuddalore	8	142	150							
Coimbatore	3	148	151							
Thiruvanamalai	0	150	150							
Thiruvarur	5	145	150							
Madurai	10	140	150							
Trichy	6	144	150							
Kancheepuram	9	141	150							
Chengalpattu	7	143	150							
Tirunelveli	1	149	150							
	76	1725	1801							

Table	10:	Public	awareness	on	the	seat	belt	mandate	for	driver,	front	and	back	seat	passengers
travelli	ing b	y car ac	cross distric	ts											

Should everyone in a car be wearing a seatbelt?									
	No	Yes	Total						
Chennai	11	139	150						
Tiruvallur	30	120	150						
Salem	42	108	150						
Cuddalore	32	118	150						
Coimbatore	3	148	151						
Thiruvanamalai		150	150						
Thiruvarur	27	123	150						
Madurai	21	129	150						
Trichy	10	140	150						
Kancheepuram	27	123	150						
Chengalpattu	9	141	150						
Tirunelveli	12	138	150						
	224	1577	1801						

Is using a child restraint system for children below 14 years in a car compulsory?									
	No	Yes	Total						
Chennai	13	137	150						
Tiruvallur	29	121	150						
Salem	7	143	150						
Cuddalore	82	68	150						
Coimbatore	6	145	151						
Thiruvanamalai	2	148	150						
Thiruvarur	33	117	150						
Madurai	17	133	150						
Trichy	6	144	150						
Kancheepuram	28	122	150						
Chengalpattu	7	143	150						
Tirunelveli	16	134	150						
	246	1555	1801						

Table 11: Public awareness on child restraint system mandate for children up to 14 years of age travelling by car across districts

Table	12:	Public	awareness	on	using a	hands	free	device	while	driving a	a vehicle
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Can you use a hands free device while driving a vehicle?									
	No	Yes	Total						
Chennai	20	130	150						
Tiruvallur	46	104	150						
Salem	83	67	150						
Cuddalore	120	30	150						
Coimbatore	97	54	151						
Thiruvanamalai	10	140	150						
Thiruvarur	82	68	150						
Madurai	25	125	150						
Trichy	19	131	150						
Kancheepuram	36	114	150						
Chengalpattu	25	125	150						
Tirunelveli	13	137	150						
	576	1225	1801						

Table 13: Public awareness on the rules related to overtaking a vehicle

Which side should you overtake a vehicle?				
	Left	Right	Total	

Chennai	56	94	150
Tiruvallur	101	49	150
Salem	77	73	150
Cuddalore	1	149	150
Coimbatore	31	120	151
Thiruvanamalai	8	142	150
Thiruvarur	16	134	150
Madurai	126	24	150
Trichy	133	17	150
Kancheepuram	113	37	150
Chengalpattu	99	51	150
Tirunelveli	2	148	150
	763	1038	1801

Table 14: Pedestrians response to whether they consider jaywalking to be a serious issue to road safety

Do you think jaywalking (crossing roads without using designated crossings) is a serious issue?				
	No	Yes	Total	
Chennai	4	46	50	
Tiruvallur	3	47	50	
Salem	13	37	50	
Cuddalore	17	33	50	
Coimbatore	6	43	49	
Thiruvanamalai	3	47	50	
Thiruvarur	8	42	50	
Madurai	4	46	50	
Trichy	2	48	50	
Kancheepuram	8	42	50	
Chengalpattu	2	48	50	
Tirunelveli	3	47	50	
	73	526	599	

What is the safest place to cross a busy road ?						
	Anywhere convenientAt a pedestrian crossing or zebra crossingAt traffic signal junctions onlyBetween parked vehiclesTotal					
Chennai	16 26 3 5 50					

Tiruvallur	11	31	3	5	50
Salem	24	14	3	9	50
Cuddalore	8	15	24	3	50
Coimbatore	3	29	14	3	49
Thiruvanamalai	14	5	15	16	50
Thiruvarur	18	4	25	3	50
Madurai	2	15	4	29	50
Trichy	9	30	5	6	50
Kancheepuram	4	20	1	25	50
Chengalpattu	6	22	7	15	50
Tirunelveli	30	14	6		50
	145	225	110	119	599

 Table 16: Public response to the different ways to encourage people to follow rules across districts

7

Which of the following would encourage the public to follow traffic rules?						
	Automatic enforcement (e.g., ANPR cameras)	Higher Penalties/ fines	Increased presence of traffic personnel	More awareness campaigns	Randomized checkposts	Total
Chennai	26	94	48	19	13	200
Tiruvallur	17	123	47	5	8	200
Salem	64	77	34	14	11	200
Cuddalore	68	23	56	31	22	200
Coimbatore	41	71	36	31	21	200
Thiruvanamalai	61	28	15	79	17	200
Thiruvarur	37	91	25	37	10	200
Madurai	68	75	44	2	11	200
Trichy	35	96	28	11	30	200
Kancheepuram	12	146	32	3	7	200
Chengalpattu	35	87	48	12	18	200
Tirunelveli	52	96	11	22	19	200
	516	1007	424	266	187	2400

Table 17: Public response on the impact of community service on traffic rule compliance

Would community service as a penalty, instead of fines, stop you from breaking traffic rules?					
No Yes Total					
Chennai	22	178	200		
Tiruvallur	20	180	200		
Salem	4	196	200		

Cuddalore	77	123	200
Coimbatore	81	119	200
Thiruvanamalai	4	196	200
Thiruvarur	51	149	200
Madurai	21.0	179.0	200.0
Trichy	10	190	200
Kancheepuram	19.0	181.0	200.0
Chengalpattu	18	182	200
Tirunelveli	52	148	200
	379	2021	2400

Survey Questionnaire

Perception Survey Questionnaire on Awareness of Road Traffic Rules Among the Public in Tamil Nadu

- 1. Name: _____
- 2. Gender:
 - Male
 - Female
 - Other
- 3. Age:
 - \circ Below 18
 - o 18–25
 - 26–40
 - 41–60
 - Above 60
- 4. Education Level:
 - Primary school
 - High school
 - \circ Undergraduate
 - \circ Postgraduate
 - Other: _____

5. Monthly Income:

- Below ₹10,000
- ₹10,000 ₹20,000
- ₹20,001 ₹50,000
- Above ₹50,000

6. What do you consider yourself as?

- Pedestrian/Public transport user
- Car user
- Two-wheeler/Bike user
- Others (e.g., Auto, Trucks, Cabs):
- 7. Is wearing a helmet compulsory for drivers, pillion riders, and children on two-wheelers ?
 - Yes
 - o No
- 8. Should everyone in a car be wearing a seatbelt?
 - Yes
 - No
- 9. Is using a child restraint system for children below 14 years in a car compulsory?
 - Yes
 - No
- 10. Can you use a hands free device while driving a vehicle?
 - Yes
 - o No

11. Which side should you overtake a vehicle?

- Left
- Right

12. Which of the following do you think contributes most to road accidents?

- Speeding
- Distracted driving
- Drunk driving
- Red light jumping
- Poor road conditions
- Poor vehicle condition
- Other:

13. What do you think can be done to improve vehicle user safety ?

- Separate lanes for different vehicle types
- Reduced speed limits
- Restricting heavy vehicles
- Enhanced driver education and training programs
- Stricter licensing system
- Others -

14. Do you agree that reducing speed limits can significantly reduce road accidents?

• Yes

- o No
- Maybe

15. What do you think is the main reason for speeding?

- Lack of awareness
- Poor enforcement of rules
- Overconfidence in driving skills
- Wider roads / better infrastructure
- Peer pressure/Street racing
- Other:

16. Which of the following would encourage the public to follow traffic rules?

- Automatic enforcement (e.g., ANPR cameras)
- Higher Penalties/fines
- Increased presence of traffic personnel
- Randomized checkposts
- More awareness campaigns

17. Would community service or a road safety course as a penalty, instead of fines, stop you from breaking traffic rules?

- Yes
- o No

18. Where did you learn about road traffic rules?

- While applying for a license
- School or college
- Media/Television/Advertisements
- Newspapers
- Social media
- \circ $\,$ Friends and family $\,$

Pedestrians / Public transport users

1. Name: _____

2. Gender:

- Male
- Female
- Other
- 3. Age:
 - Below 18
 - 18–25
 - 26–40

- 41–60
- Above 60

4. Education Level:

- Primary school
- High school
- Undergraduate
- \circ Postgraduate
- Other: _____

5. Monthly Income:

- Below ₹10,000
- ₹10,000 ₹20,000
- ₹20,001 ₹50,000
- Above ₹50,000

6. What do you consider yourself as?

- Pedestrian/Public transport user
- Car user
- Two-wheeler/Bike user
- Others (e.g., Auto, Trucks, Cabs):

7. How often do you feel safe while walking on roads or crossing streets?

- Always
- Sometimes
- Rarely
- Never
- 8. Are you aware of road safety rules for pedestrians (e.g., using zebra crossings, obeying pedestrian signals)?
 - Yes
 - No
- 9. Do you think jaywalking (crossing roads without using designated crossings) is a serious issue?
 - Yes
 - o No

10. What is the safest place to cross a busy road ?

- Anywhere convenient
- At a pedestrian crossing or zebra crossing
- Between parked vehicles
- At traffic signal junctions only
- 11. What do you think is the main reason for pedestrian accidents?
 - Lack of pedestrian crossings
 - Speeding vehicles
 - Poor visibility

- Distracted walking (e.g., phone use)
- Other: _____

12. What can be done to improve pedestrian safety ?

- Increased number of pedestrian crossings
- Continuous pedestrian pathways with adequate width
- Speed reduction
- Increased number of traffic signals with pedestrian crossing light
- Increased timings in pedestrian signals for crossing
- Increased visibility

13. Do you believe that road safety education for pedestrians and public transport users is necessary?

- Yes
- o No

14. Do you agree that reducing speed limits can significantly reduce road accidents?

- Yes
- o No
- Maybe

15. What do you think is the main reason for speeding?

- Lack of awareness
- Poor enforcement of rules
- Overconfidence in driving skills
- Wider roads / better infrastructure
- Peer pressure
- Other: ____

16. Which of the following would encourage the public to follow traffic rules?

- Automatic enforcement (e.g., ANPR cameras)
- \circ Penalties/fines
- Increased presence of traffic personnel
- Randomized checkposts
- More awareness campaigns

17. Would you follow traffic rules if required to take a road safety course or do community service instead of paying fines/penalties?

- Yes
- o No

18. Where did you learn about road traffic rules?

- While applying for a license
- School or college
- Media/Television/Advertisements
- Newspapers

- Social media
- Friends and family



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