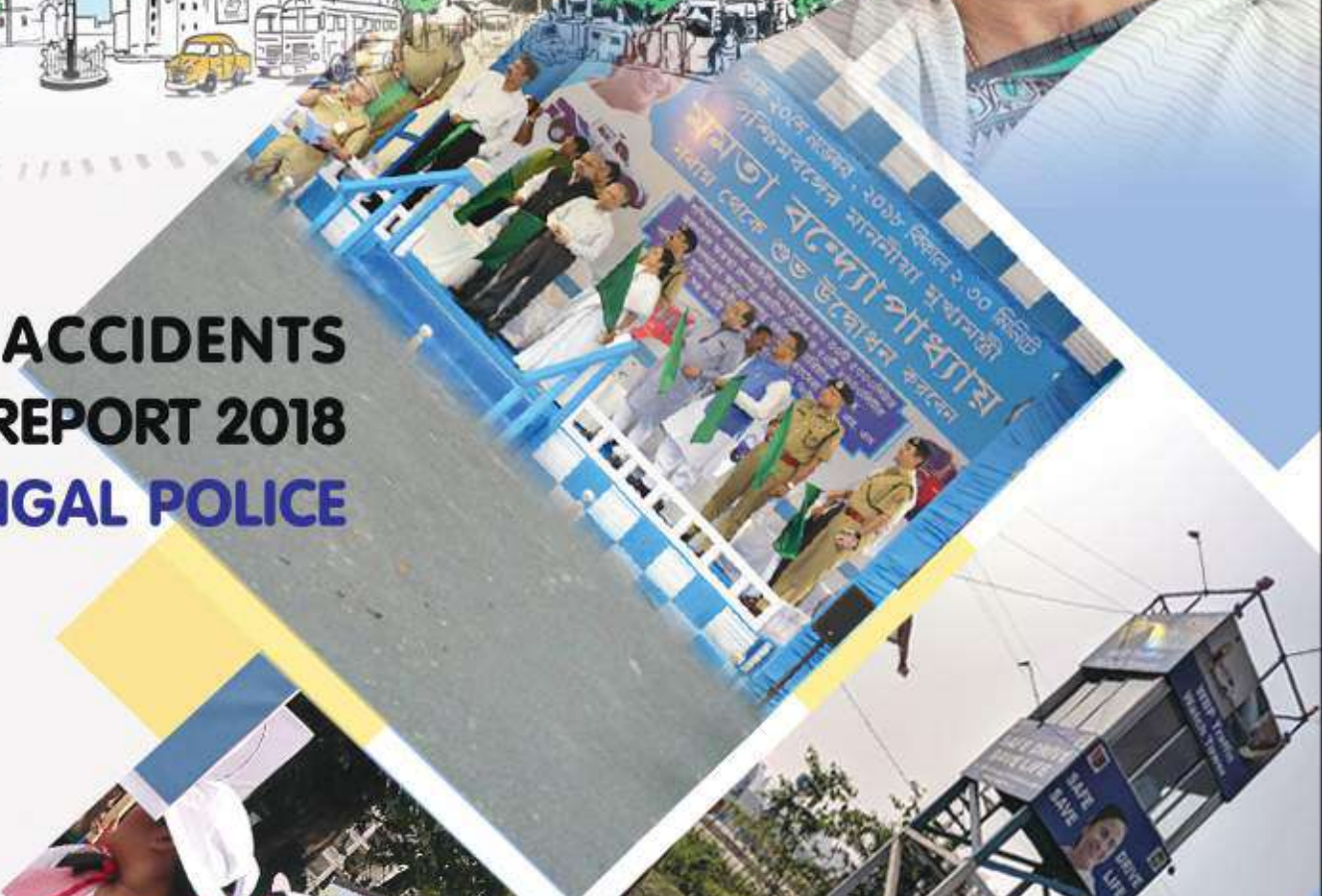
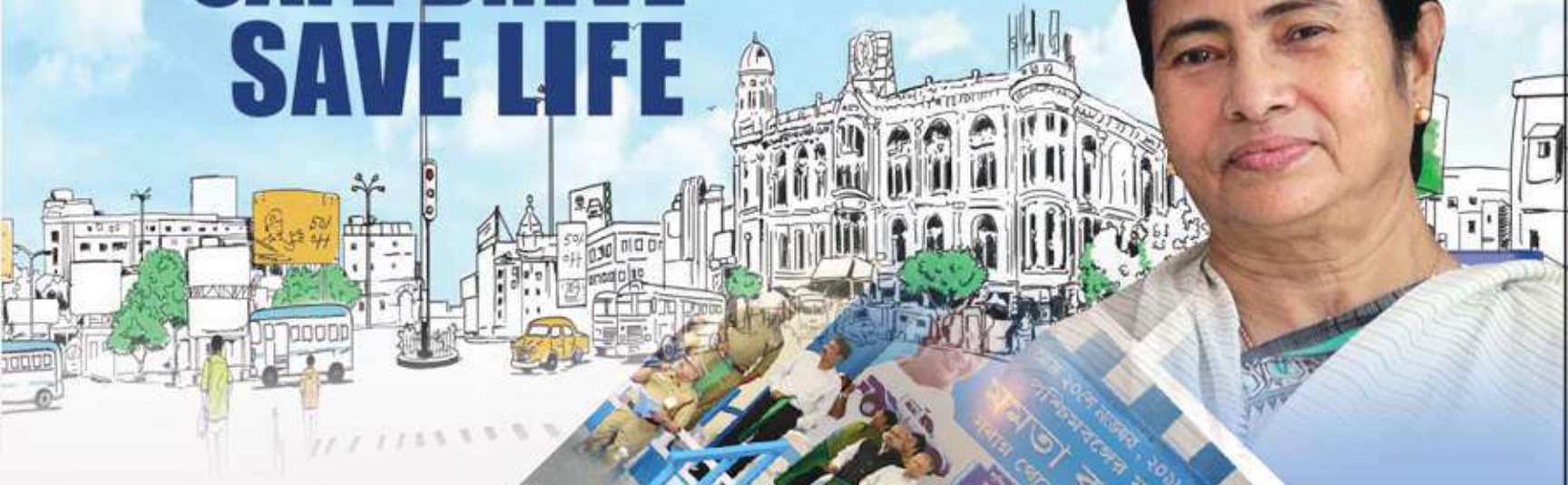




SAFE DRIVE SAVE LIFE

TRAFFIC ACCIDENTS ANNUAL REPORT 2018 WEST BENGAL POLICE



মমতা বানার্জী
মমতা বৈনর্জী
ممتا بنرجی

Mamata Banerjee



মুখ্যমন্ত্রী, পশ্চিমবঙ্গ
मुख्यमंत्री, पश्चिम बंगाल
وزیراعلیٰ مغربی بنگال

CHIEF MINISTER, WEST BENGAL

13th December, 2019

MESSAGE

I am happy to know that **West Bengal Traffic Police** is bringing out **TRAFFIC ACCIDENTS ANNUAL REPORT 2018** – a comprehensive account of the profile, category, trends and distribution of road accidents in Bengal and the safety measures taken up by the State Government to ensure safety on roads.

Road safety is a primary concern of our government. A number of useful measures including the very successful **Safe Drive Save Life** campaign have helped reduce road accidents substantially in the State in the last few years. Even the Hon'ble Supreme Court Committee on Road Safety has lauded our initiatives to ensure Road Safety.

The data provided in the publication is quite detailed and I hope all stakeholders will find it useful in further strengthening their efforts to ensure road safety.

On the occasion of the publication of the report, I convey my heartiest greetings and best wishes to all members of the West Bengal Traffic Police team and wish the initiative all success.


(Mamata Banerjee)

Nabanna, West Bengal Secretariat, Howrah - 711 102
West Bengal, India

Tel : +91-33-22145555, +91-33-22143101

Fax : +91-33-22144046, +91-33-22143528

রাজীব সিনহা
মুখ্য সচিব
পশ্চিমবঙ্গ
Rajiva Sinha
Chief Secretary
West Bengal



পশ্চিমবঙ্গ সরকার
নবান্ন
হাওড়া - ৭১১ ১০২
GOVERNMENT OF WEST BENGAL
"NABANNA"
325, SARAT CHATTERJEE ROAD
HOWRAH - 711102
Tele : 033 2214 5858, Fax : 033 2214 4328
E-mail : cs-westbengal@nic.in

Date : 04.12.2019

Government of West Bengal has consistently worked towards making roads safer for all categories of road users. As Chairperson of the State Road Safety Council, it gives me pleasure to note that Traffic Police Headquarters has taken out the first Annual Accident Report.

The Report brings to the fore, despite the many achievements in reduction of accidents and fatalities, areas which should seize the attention of the Council for fresh policy level interventions. One is on focusing on the problems of pedestrians who are the most vulnerable of the road users. The second is the training of focus on junction management. The data with the Council is quite granular and that facilitates prioritise work in this regard. The third is what is to be done for making the Safe Drive Save Life campaign more penetrating and effective in rural areas.

I hope that such data driven analysis is prepared in other areas of development and enforcement as well to develop road maps for making state interventions more effective.


Rajiva Sinha

আলাপন বন্দ্যোপাধ্যায় আইএএস
অতিরিক্ত মুখ্যসচিব
সরস্বতী ও পার্বত্য বিষয়ক ও
পরিমণ্ডীয় বিষয়ক দপ্তর
পশ্চিমবঙ্গ সরকার
'নবান্ন' ১৪ তল
৩২৪, শরৎ চাট্টার্জী রোড
হাওড়া ৭১১ ১০২
ফোন +৯১ ৩৩ ২২১৪-৫৬৫৬
ফ্যাক্স +৯১ ৩৩ ২২১৪-৩০০১



e-mail : wb.secyhome@gmail.com

Alapan Bandyopadhyay IAS
Additional Chief Secretary
Home & Hill Affairs and P.A. Deptts.
Government of West Bengal
'Nabanna' 13th Floor
325, Sarat Chatterjee Road
Howrah 711 102
Phone +91 33 2214-5656
Fax +91 33 2214-3001

17th December 2019

Message

Road safety is a paramount public issue in India today. In the case of West Bengal, Hon'ble Chief Minister Mamata Banerjee has centre-staged and mainstreamed the issue by bringing the road safety concerns to the core of several public campaigns and initiatives. The *Safe Drive Save Life* campaign has been personally steered and orchestrated by the Hon'ble Chief Minister, leading several Departments of the State Government to actively reorient their policies and programmes towards ensuring road safety.

These policies and programmes have multiple facets: Enforcement, Engineering, Education, Emergency healthcare, etc. Police authorities are principally concerned with the enforcement aspect, though they are also assisted and supplemented by the Motor Vehicle Officers in this regard. Several far-reaching measures have been taken in recent years to upgrade the organisational strength and efficiency of the State traffic police authorities and to endow them with latest varieties of equipment and traffic furniture. Simultaneously, the civil society campaigns and the State information dissemination initiatives have combined together to generate awareness and sensitivity about traffic issues. The traffic engineering exercises of the Public Works Department and other governmental engineering agencies have also been effective towards reduction of traffic hazards.

As a result of all this, the number of road accidents and fatalities have drastically reduced in the State. Indeed, as widely acknowledged nationally, West Bengal has been one of the best performers in the whole country in terms of ensuring road safety. We need to further chisel our efforts, and a massive augmentation of the traffic wings of the district police organisations in the State has already been planned.

Detailed analysis of data related to accidents, injuries and fatalities for 2018, as contained in this report brought out by the Traffic Police Headquarters, West Bengal Police, will be of immense help to all officers working at policy, strategic and tactical levels across the State.

(Alapan Bandyopadhyay)

Virendra, IPS
Director General &
Inspector General of Police,
West Bengal.



Nabanna, 325 Sarat Chatterjee Road
Howrah – 711102
Tel+91 33 22145400, Fax+91 33 22141139
Bhavani Bhavan, Alipur, Kolkata – 700027
Tel & Fax +91 33 24794069
Email dgpwestbengal@gmail.com

December 09, 2019.

Message

Since the launch of Safe Drive Save Life campaign by Hon'ble Chief Minister in July, 2016 considerable reduction in accidents and fatalities have been achieved by West Bengal Police. I am very happy to note that Traffic HQ has brought out this first annual report.

This Annual Accidents Analysis captures the picture of factors responsible for shortcomings in road safety of 2018 in details. It enables us not only to appreciate the areas where we have done extremely well but also identifies areas which need more attention like pedestrian safety, engineering interventions on curved stretches, bus stops and approaches to bridges / culverts and increased awareness campaigns in rural areas. This analysis will help all stakeholders both at policy and tactical levels to work on areas which need interventions.

It may be mentioned here that the Government is very sensitive and supportive of efforts being made for road safety. I extend my appreciation to Shri Vivek Sahay, IPS Additional DG, Traffic and Road Safety and his team for bringing out this booklet. I am sure West Bengal Police will make all efforts to make the Safe Drive Save Life Campaign successful & our roads more safe.

Virendra
(Virendra) 9.12.19.

নবীন প্রকাশ আইএএস
অতিরিক্ত মুখ্য সচিব
পূর্ব দপ্তর
পশ্চিমবঙ্গ সরকার



Naveen Prakash IAS
Additional Chief Secretary
Public Works Department
Government of West Bengal

MESSAGE

The Public Works Department plays a pivotal role in ensuring safety of various categories of road users. As part of the Safe Drive Save Life campaign and in compliance with directions of Supreme Court Committee on Road Safety, we are taking necessary steps to ensure that suitable road safety engineering measures are taken up on all important roads.

This Annual Accident Analysis for 2018 brought out by West Bengal Police is a first time compilation of accident data compiled across districts, highways, road features and spots of accidents. Details as fine as affected stretches for pedestrian, two wheeler and lorry accidents and profile of accidents concerning pedestrians would provide specific and actionable data for our engineers to focus on priority areas for road safety engineering.

I compliment West Bengal Police for bringing out this useful publication.

Kolkata
December 16, 2019.

(Naveen Prakash)
Additional Chief Secretary, PWD

Narayan Swaroop Nigam, IAS



Secretary
Transport Department
Government of West Bengal

D.O. No. 171-Secy(Tr)

Date 16.12.2019.....

Dear Sir,

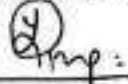
It gives me immense pleasure to learn that West Bengal Police is bringing out an Annual Book regarding Traffic Accidents in West Bengal for the year 2018. Reduction in road fatalities has been one of the important components of Safe Drive Save Life (SDSL) campaign launched under the guidance of the Hon'ble Chief Minister, West Bengal. Transport Department, Government of West Bengal works as a nodal department for promotion of the cause of road safety and also provides regular budgetary support for different traffic related interventions across the state.

This Annual Book is an excellent compilation of finer details and analysis of road accidents. I am sure that it will be helpful to all the stakeholders to identify proper interventions for the next level of SDSL campaign.

I sincerely thank Sri Vivek Sahay, IPS, Additional Director General of Police (Traffic), West Bengal and his team for bringing out this first ever Annual Book in the present form. I am sure this book will provide valuable information to all the stakeholders.

With best wishes

Yours sincerely,


16/12/2019
(Narayan Swaroop Nigam, IAS)

*Sri Vivek Sahay, IPS
Additional General of Police (Traffic)
West Bengal
Araksha Bhavan
Salt Lake City, Sector-II*



Vivek Sahay, IPS
Additional Director General &
Inspector General of Police
Traffic & Road Safety,
West Bengal.

December 17, 2019

M E S S A G E

The Brasilia Declaration of 2015, the directions of the Hon'ble Supreme Court Committee on Road Safety and the state government's **Safe Drive Save Life** campaign have brought traffic management and road safety into sharp focus for West Bengal Police. For stakeholders like PWD/NHAI/a host of local bodies and the Transport Department, the original tasks of road building & repair and of issuing driving licenses and registration/permits/fitness certificates for vehicles respectively have to be now calibrated towards road safety. The movement for safer roads continues to be joined by newer stakeholders like Health and Family Welfare and Education Department besides civil society.

For all these agencies, data driven analysis provides actionable inputs for coordinated action within their respective verticals of Education, Enforcement, Engineering and Emergency Response contained in the State Road Safety Action Plan. A very fine, extremely granular data with analyses has been compiled by the Computer Cell of Traffic HQ, West Bengal Police on the basis of online submission of Accident Report originally crafted from the proforma given by MoRTH.

For West Bengal Police Units, the book prepares all for **Know Your Area** programme- a significant addition in policing capacity by mapping out the road vulnerabilities and training the personnel to recognize them. Data on accidents by road categories, features, spots, types of junctions and junctions control prepares Traffic Guards to be proactive, plan education and enforcement activities and identify matters of road engineering more efficiently.

This book is also an acknowledgement of success in improving road safety for which West Bengal Police expresses deepest regard for state government's transformative Safe Drive Save Life campaign. Its publication also provides me with yet another opportunity to thank the Transport Department for its unstinted support. Finally, my gratitude to the Commissioners of Police and Superintendents of Police and their team of police personnel and Civic Volunteers for their excellent work.

(Vivek Sahay)

Traffic Head Quarters, West Bengal
Araksha Bhaban (1st floor), Block DJ, Sector-II
Salt Lake, Kolkata - 700 091
Ph. No. ☎ (033) 2359 3713 (O), 2359 4015 (Fax)

CONTENTS

| Sl. No. | Section | Page No. |
|---------|---|----------|
| 1. | Executive Summary | 2-4 |
| 2. | SECTION1: PROFILE AND TRENDS OF ROAD ACCIDENTS <ul style="list-style-type: none"> - <i>Broad profile of 2018 viz-à-viz 2017</i> - <i>Type of road accidents in 2018</i> - <i>Nature of road accidents in 2018</i> - <i>Collision types and their spread</i> | 5-9 |
| 3. | SECTION 2: ACCIDENTS BY ROAD CATEGORY AND ROAD FEATURES <ul style="list-style-type: none"> - <i>Long-run trend of relative share of road categories</i> - <i>Accidents by road environment</i> - <i>Accidents by road features</i> - <i>Accidents by road junction type</i> - <i>Distribution of accidents at junctions by day and night</i> - <i>Accidents by Traffic Control type</i> - <i>Accidents by Weather Condition</i> | 10-20 |
| 4. | SECTION3: SPATIAL AND INTER-TEMPORAL DISTRIBUTION OF ROAD ACCIDENTS. <ul style="list-style-type: none"> - <i>Road accidents in urban and rural areas</i> - <i>Month-wise distribution of road accidents</i> - <i>Time interval-wise distribution of road accidents</i> | 21-22 |
| 5. | SECTION 4: ROAD ACCIDENTS BY TYPE OF VEHICLE INVOLVE <ul style="list-style-type: none"> - <i>Vehicular composition of vehicles involves in accidents</i> - <i>Age of vehicles involved in road accidents</i> - <i>Load condition of vehicles involved in accidents</i> | 23-28 |
| 6. | SECTION 5: ROAD ACCIDENTS INVOLVING PEDESTRIAN | 29-32 |
| 7. | SECTION 6: PROFILE OF ROAD ACCIDENTS VICTIMS <ul style="list-style-type: none"> - <i>Age profile of road accidents victims</i> - <i>Gender and age profile of fatal road accident victims</i> | 33-34 |
| 8. | SECTION 7: CAUSES OF ROAD ACCIDENTS <ul style="list-style-type: none"> - <i>Traffic rules violations</i> - <i>Condition and age of vehicles</i> - <i>Traffic engineering issues as per road safety audit</i> | 35-39 |
| 9. | SECTION 8: BLACK SPOTS <ul style="list-style-type: none"> - <i>Identification of Black Spot - 2018</i> | 40-43 |
| 10. | SECTION 9: ROAD SAFETY INITIATIVES BY THE GOVERNMENT | 44-46 |



EXECUTIVE SUMMARY

1. A total of 10,042 road accidents have been reported by districts in the calendar year 2018, claiming 5,417 lives and causing injuries to 9,835 persons.
2. For the second consecutive year, the number of road accidents has declined. Similarly, the number of persons injured has been on the decline since 2016. In percentage terms, the number of accidents in 2018 has been lower by 13.66% and injuries by 2.54% over that of 2017.
3. Significantly, the number of persons killed in road accidents during 2018 has been less than that of 2017 by 6.10%.
4. There has also been a decline in the number of fatal accidents, i.e., accident involving at least one death. Total of 4,902 fatal accidents were reported in 2018, which is 5.68% lower than the 2017 figure of 5,197.
5. The accident severity in 2018 was 53.9 % as compared to all India average of 32.42%.
6. In terms of accidents by road categories, the National Highways accounted for 40.47 % of total road accidents and 39.51 % of deaths in 2018. Accidents on State Highways and other roads constitute 24.11% and 35.42% respectively. In case of fatalities, State Highways and other roads have accounted for 26.12% and 34.37%, respectively.
7. In 2018, 30.52% of road accidents were recorded in urban areas and 69.47 per cent were in rural areas. In case of fatalities, 24.97 per cent of the total persons killed in road accidents were in urban areas and 75.52 % were in rural areas. As compared to 2017, the share of accidents and fatalities in urban areas has come down in 2018.
8. In 2018, a total of 4,094 accidents occurred at road junctions which comprises 40.77 % of the total 10,042 accidents recorded in the State and resulted in 2168 fatalities or 40% of fatalities. Among different road junctions, staggered junctions accounted for the highest number of accidents (36.79 %).
9. Out 4094 RTAs at junctions, 1501 junctions had some form of traffic control while remaining 2593 were uncontrolled.
10. Accidents on curved roads (988 or 9.84%), Bridges and culvert 398 (4%) pothole (47), steep gradient (47) and Under Construction stretches (148) combined together accounted for 16.28% of the total road accidents.
11. Accidents in residential area constituted 31.63 % of total accidents and 30.64 % of total fatality. Market/commercial area accounted for 1717 or 17.10 % of total accidents and 15.53 % of fatality. There were a total 969 accidents around bus, and 292 accidents next to petrol pumps.
12. Among vehicle categories involved in road accidents, trucks & lorries accounted for the highest share (31.51%) in accidents and fatalities (32.88%) in 2018. Light vehicles comprising cars, jeeps and taxis as a category came next with a share of (22.81%) in total accidents and (20.05%) in total fatalities.
13. In terms of road-user categories, the share of two-wheeler riders in total fatality has been (33.24%) in 2018. Pedestrian road-users comprise 46.72% of persons killed in road accidents during 2018.
14. The percentage of pedestrian fatalities as a portion of all fatalities was 42% in 2017 and 46.72 % in 2018 of the 4161 accidents in 2018, 1802 number of such accidents took place during night hours and 2359 took place during day hours. It is seen that the largest numbers of accidents took place in residential



area 1465 resulting in death of 847 persons. Within this, rural road accounted for 1038 or 70.85% of the accidents and 634 or 74.85% of fatalities. Pedestrians suffered the most by lorries (1225 RTAs) and two wheelers (1009).

15. Fatal road accident victims largely constitute people having age between 25 to 35 years (24.09%) and between 45 to 60 years (21.21%). People in the age group of 18-45 years accounted for 53.64% of victims during 2018. People in age group of (25 -35) years accounted for a share of 24.09% in the total road accident fatalities.

16. Paschim Midnapur recorded highest number of road accidents in 2018, but the number of persons killed in road accident has been highest in Purba Bardhaman. The districts which achieved 10% reduction each in RTAs and fatalities were Mursidabad, Bashirhat, Sundarbans, Howrah Rural. Paschim Mednipur, Howrah Police Commissionerate, and Purba Bardhaman.

17. To implement the measures outlined in the State Road Safety Policy, the Government of West Bengal has formulated a multi-pronged road safety strategy based on 5 'E's viz. Education, Engineering (both of roads and vehicles), Enforcement, Evaluation and Emergency Care. Road safety has been made an integral part of road design at planning stage and safety audit of selected stretches of National Highways and State Highways has been taken up.

18. A total of 27,94,500 number of prosecutions under different heads of traffic violations were submitted in 2018 as against 16,89,641 in 2017 (increase in 65.40 %) while the number of Driving License suspended rose from 14,407 in 2017 to 42,564 in 2018.

19. Compared to 7,161 number of Safe Drive Save Life road safety awareness activities in 2017, 12,499 number were held in 2018.



Map 1.1 Road Accidents in 2018 District wise.



SECTION 1: PROFILE AND TRENDS OF ROAD ACCIDENTS

For the second consecutive year, the number of road accidents in West Bengal has declined in 2018 over the previous year. The number of road accidents in the state has seen a decline from the peak of 13,580 in 2016 to 11,631 in 2017 and further to 10,042 in 2018. Similarly, the number of persons injured has been on the decline since 2016. But a more remarkable feature about 2018 is the decline in the number of fatal accidents, i.e., accident involving at least one death, and the number of persons killed in road accidents. In 2018, a total of 4,902 fatal accidents were reported which is lower than the 2017 reported figure of 5,197. These fatal accidents had claimed 5,417 lives in 2018 as against 5,769 in 2017.

Broad profile of 2018 viz-à-viz 2017

Incidence of road accidents declined by 13.66% in 2018 as compared to 2017 and the number of fatal accidents declined by 5.68%. Similarly, there is a 6.10% fall in the number of persons killed in road accidents in 2018 and 2.54% decline in the injuries. Table 1 below compares major parameters of road accident statistics for 2018 viz-à-viz 2017. District-wise details for 2018 can be seen at **Table 1 A**.

The District which achieved a reduction of accident and fatalities by 10 % each were

Murshidabad, Basirhat, Howrah PC, Howrah Rural, Bidhannagar, Sundarban PD, Paschim Medinipur, Purba Bardhaman.

Type of road accidents in 2018: In 2018, out of 10,042 road accidents, 4,902 (48%) were fatal accidents, 5140 (51.18%) accidents were Injury causing accidents. Among the 5140 injury causing accidents, 4489 (87.3 %) were grievous injuries and 293 (5 %) were minor injuries. As compared to the previous year, there was absolute decline in the number of fatal accidents, minor accidents and non-injury accidents in 2018.

Table 1: Major parameters of road accident statistics in 2018 vis-à-vis 2017

| Parameter | | 2017 | 2018 | % change over previous year |
|---|--------------|---------------|---------------|-----------------------------|
| Number of Road Accidents | Total | 11,631 | 10,042 | -13.7 |
| | Fatal | 5,197 | 4,902 | -5.7 |
| | Non-fatal | 6,434 | 5,140 | -20.1 |
| Number of Person Killed | | 5,769 | 5,417 | -6.1 |
| Number of Person Injured | Total | 10,092 | 9,835 | -2.5 |
| | Grievous | 8,190 | 8,124 | -0.8 |
| | Minor | 1,902 | 1,711 | -10.0 |
| Accidents Severity (Persons killed per 100 accidents) | | 49.6 | 53.9 | 4.3 |



Table 1A: District wise road accident statistics in 2018 vis-à-vis 2017

| Sl. No. | District / PC | RTA Data 2017 | | | RTA Data 2018 | | | % change of Accidents | % change of Fatalities |
|--------------|-------------------|--------------------|----------------------|-------------------|--------------------|----------------------|-------------------|-----------------------|------------------------|
| | | Number of Accident | Number of Fatalities | Number of Injured | Number of Accident | Number of Fatalities | Number of Injured | | |
| 1 | Murshidabad | 742 | 402 | 688 | 445 | 326 | 476 | -40.03 | -18.91 |
| 2 | Barrackpore PC | 677 | 137 | 368 | 448 | 158 | 322 | -33.83 | 15.33 |
| 3 | Basirhat | 233 | 111 | 163 | 166 | 96 | 122 | -28.76 | -13.51 |
| 4 | Chandannagar PC | 183 | 69 | 149 | 134 | 78 | 109 | -26.78 | 13.04 |
| 5 | Howrah PC | 386 | 109 | 256 | 286 | 82 | 248 | -25.91 | -24.77 |
| 6 | Siliguri PC | 338 | 105 | 295 | 253 | 97 | 190 | -25.15 | -7.62 |
| 7 | Sundarban PD | 189 | 91 | 158 | 144 | 65 | 142 | -23.81 | -28.57 |
| 8 | Howrah Rural | 572 | 325 | 417 | 444 | 275 | 306 | -22.38 | -15.38 |
| 9 | Baruipur PD | 298 | 116 | 189 | 233 | 110 | 172 | -21.81 | -5.17 |
| 10 | Cooch Behar | 276 | 142 | 284 | 221 | 140 | 218 | -19.93 | -1.41 |
| 11 | Purba Medinipur | 726 | 351 | 546 | 598 | 335 | 527 | -17.63 | -4.56 |
| 12 | Paschim Medinipur | 817 | 441 | 832 | 691 | 367 | 790 | -15.42 | -16.78 |
| 13 | Bidhannagar PC | 267 | 62 | 269 | 227 | 38 | 273 | -14.98 | -38.71 |
| 14 | Barasat PD | 637 | 198 | 549 | 542 | 196 | 542 | -14.91 | -1.01 |
| 15 | Purba Bardhaman | 687 | 451 | 590 | 607 | 399 | 590 | -11.64 | -11.53 |
| 16 | Dakshin Dinajpur | 233 | 122 | 222 | 222 | 151 | 196 | -4.72 | 23.77 |
| 17 | Asn-Dgp PC | 468 | 297 | 465 | 447 | 286 | 349 | -4.49 | -3.70 |
| 18 | Ddh PD | 397 | 147 | 381 | 381 | 141 | 420 | -4.03 | -4.08 |
| 19 | Hooghly Rural | 486 | 285 | 503 | 471 | 246 | 685 | -3.09 | -13.68 |
| 20 | Uttar Dinajpur | 427 | 269 | 299 | 419 | 270 | 305 | -1.87 | 0.37 |
| 21 | Nadia | 503 | 285 | 488 | 496 | 258 | 451 | -1.39 | -9.47 |
| 22 | Jhargram | 118 | 69 | 178 | 117 | 75 | 253 | -0.85 | 8.70 |
| 23 | Malda | 383 | 218 | 255 | 381 | 205 | 341 | -0.52 | -5.96 |
| 24 | Birbhum | 425 | 306 | 281 | 425 | 316 | 392 | 0.00 | 3.27 |
| 25 | Jalpaiguri | 346 | 168 | 311 | 355 | 112 | 411 | 2.60 | -33.33 |
| 26 | Bankura | 293 | 177 | 413 | 304 | 205 | 314 | 3.75 | 15.82 |
| 27 | Alipurduar | 184 | 110 | 145 | 194 | 129 | 165 | 5.43 | 17.27 |
| 28 | Darjeeling | 138 | 74 | 179 | 146 | 79 | 254 | 5.80 | 6.76 |
| 29 | Purulia | 162 | 119 | 168 | 193 | 162 | 187 | 19.14 | 36.13 |
| 30 | Kalimpong | 40 | 13 | 50 | 52 | 20 | 85 | 30.00 | 53.85 |
| TOTAL | | 11,631 | 5,769 | 10,091 | 10,042 | 5,417 | 9,835 | -13.66 | -6.10 |



Table 2: Type of road accident in 2018 vis-à-vis 2017

| Type of Road accident | 2017 | 2018 | % change over previous year |
|---------------------------|-----------------|-----------------|-----------------------------|
| Fatal Accidents | 5,197 (44.7) | 4,902 (48.8) | -5.7 |
| Grievous injury accidents | 4,817 (41.4) | 4,489 (44.7) | -6.8 |
| Minor injury accidents | 557 (4.8) | 293 (2.9) | -47.4 |
| Non- injury accidents | 1,060 (9.1) | 358 (3.6) | -66.2 |
| TOTAL | 11,631 | 10,042 | -13.7 |

Note : Figures in parentheses are the percentage share in total accidents

Nature of road accidents in 2018

Nature of accident or collision types at aggregated state level data shows that ‘**head on collision**’ accounted for 18.18% of total road accidents in 2018. The other major types of collisions are ‘hit from back’ or **rear**

end(13.57%) and ‘hit from side’ or lateral (6.24%).As compared to 2017, ‘Run off Road, ‘Vehicle Overturn”and ‘Hit form Side”have shown significant increase in 2018. ‘Hit & Run, however, came down in 2018 as compared to 2017.

Table 3: Road accident by type of collision in 2018 vis-à-vis 2017

| Type of collision | 2017 | 2018 | % change over previous year |
|------------------------|----------------|----------------|-----------------------------|
| 1. Hit & Run | 1099 (9.4) | 389 (3.9) | -64.6 |
| 2. With Parked Vehicle | 194 (1.7) | 121 (1.2) | -37.6 |
| 3. Hit from Back | 3097 (26.6) | 1363 (13.6) | -56.0 |
| 4. Hit from side | 586 (5.0) | 627 (6.2) | 7.00 |
| 5. Run Off Road | 316 (2.7) | 594 (5.9) | 88.0 |
| 6. Fixed Object | 323 (2.8) | 166 (1.7) | -48.6 |
| 7. Vehicle Overturn | 188 (1.6) | 317 (3.2) | 68.6 |
| 8. Head on Collision | 2241 (19.3) | 1826 (18.2) | -18.5 |
| 9. Others | 3587 (30.8) | 4639 (46.2) | 29.3 |
| Total | 11,631 | 10,042 | -13.7 |

Collision types and their spread: -

Table 3 shows the occurrence of various collisions, while Table 4 is statement on the collision across districts. **Table 4A** shows collision types across divided- undivided carriageway. **Table 4B** shows collision types across various junctions.

The large number of head on collision on divided carriageways on NH (223) and 42 each on SH and OR point out to the menace of

foul driving, and enforcement authorities have to attend to it vigorously.

Out of 1826 Head on collisions, 1075 occurred on undivided carriageways. Similarly, it is seen that 539 out of 1363 numbers of rear end collision which accounted for 13.57 % of all accidents took place at different kind of junctions. It is clear that increase in stretch of divided carriageways and improvement in junction management by road building agencies will be a prime requirement to reduce accidents and fatalities.



Table 4: District wise RTA data of Collision Type wise-2018

| District / Police Commissionerate | Hit & Run | With parked vehicle | Hit from Back | Hit from Side | Run off Road | Fixed Object | Vehicle Overturn | Head on Collision | Others | Total Accident |
|-----------------------------------|------------|---------------------|---------------|---------------|--------------|--------------|------------------|-------------------|-------------|----------------|
| Alipurduar | 7 | 1 | 18 | 7 | 9 | 5 | 6 | 45 | 96 | 194 |
| ASL-DGP PC | 2 | 7 | 218 | 69 | 23 | 8 | 4 | 35 | 81 | 447 |
| Bankura | 17 | 2 | 37 | 14 | 22 | 6 | 14 | 75 | 117 | 304 |
| Barasat PD | 9 | 4 | 44 | 21 | 10 | 3 | 14 | 168 | 269 | 542 |
| Barrackpore PC | 61 | 3 | 49 | 24 | 27 | 3 | 9 | 74 | 198 | 448 |
| Baruipur PD | 7 | 1 | 21 | 11 | 24 | 3 | 28 | 54 | 84 | 233 |
| Basirhat PD | 8 | 4 | 5 | 9 | 3 | 0 | 5 | 53 | 79 | 166 |
| Bidhannagar PD | 2 | 1 | 20 | 14 | 3 | 7 | 10 | 30 | 140 | 227 |
| Birbhum | 16 | 3 | 92 | 21 | 9 | 12 | 13 | 103 | 156 | 425 |
| Chandannagar PC | 8 | 0 | 20 | 24 | 4 | 2 | 1 | 25 | 50 | 134 |
| Cooch Behar | 5 | 0 | 29 | 7 | 8 | 4 | 4 | 49 | 115 | 221 |
| Dakshin Dinajpur | 0 | 2 | 20 | 8 | 1 | 2 | 9 | 85 | 95 | 222 |
| Darjeeling | 0 | 10 | 5 | 6 | 14 | 6 | 23 | 26 | 56 | 146 |
| Diamond Harbour PD | 33 | 0 | 26 | 40 | 14 | 6 | 15 | 31 | 216 | 381 |
| Hooghly Rural | 6 | 8 | 50 | 14 | 20 | 3 | 12 | 121 | 237 | 471 |
| Howrah PD | 17 | 3 | 62 | 25 | 0 | 12 | 7 | 15 | 145 | 286 |
| Howrah Rural | 21 | 4 | 48 | 28 | 61 | 8 | 9 | 48 | 217 | 444 |
| Jalpaiguri | 11 | 5 | 34 | 18 | 25 | 5 | 11 | 76 | 170 | 355 |
| Jhargram | 2 | 1 | 7 | 1 | 5 | 2 | 9 | 27 | 63 | 117 |
| Kalimpong | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 49 | 52 |
| Malda | 13 | 3 | 49 | 30 | 43 | 4 | 4 | 49 | 186 | 381 |
| Murshidabad | 13 | 4 | 49 | 33 | 27 | 5 | 15 | 89 | 210 | 445 |
| Nadia | 21 | 7 | 60 | 19 | 10 | 7 | 10 | 97 | 265 | 496 |
| Paschim Medinipur | 31 | 8 | 95 | 26 | 50 | 9 | 11 | 142 | 319 | 691 |
| Purba Bardhaman | 34 | 8 | 68 | 23 | 49 | 7 | 27 | 84 | 307 | 607 |
| Purba Medinipur | 18 | 16 | 83 | 31 | 37 | 21 | 26 | 79 | 287 | 598 |
| Purulia | 11 | 0 | 27 | 18 | 6 | 3 | 4 | 44 | 80 | 193 |
| Siliguri PC | 4 | 1 | 49 | 44 | 60 | 6 | 3 | 24 | 62 | 253 |
| Sundarban PD | 10 | 4 | 11 | 21 | 27 | 1 | 5 | 5 | 60 | 144 |
| Uttar Dinajpur | 2 | 11 | 67 | 21 | 3 | 5 | 8 | 72 | 230 | 419 |
| Total | 389 | 121 | 1363 | 627 | 594 | 166 | 317 | 1826 | 4639 | 10042 |

Table 4A: RTA Data on Traffic Collision Type with Road categories wise-2018

| Type of Collision | NH | | SH | | OR | |
|---------------------|-------------|-------------|------------|-------------|------------|-------------|
| | Divided | Un-divided | Divided | Un-divided | Divided | Un-divided |
| Hit & Run | 60 | 63 | 40 | 78 | 10 | 138 |
| With parked vehicle | 45 | 26 | 2 | 21 | 2 | 25 |
| Hit from Back | 275 | 314 | 57 | 276 | 51 | 390 |
| Hit from Side | 104 | 148 | 23 | 119 | 42 | 191 |
| Run off Road | 101 | 147 | 25 | 112 | 24 | 185 |
| Fixed Object | 29 | 29 | 3 | 33 | 11 | 61 |
| Vehicle Overturn | 50 | 63 | 7 | 68 | 23 | 106 |
| Head on Collision | 223 | 494 | 42 | 475 | 42 | 550 |
| Others | 773 | 1111 | 137 | 931 | 194 | 1493 |
| Total | 1660 | 2395 | 336 | 2113 | 399 | 3139 |



Table 4B: RTA Data on Traffic Collision type across junctions-2018

| Type of collision | T-Junction | Y-junction | Four arm junctions | Staggered junction | Round about junction |
|------------------------|------------|------------|--------------------|--------------------|----------------------|
| 1. Hit & Run | 41 | 30 | 14 | 52 | 8 |
| 2. With Parked Vehicle | 10 | 3 | 4 | 27 | 0 |
| 3. Hit from Back | 180 | 68 | 53 | 204 | 34 |
| 4. Hit from side | 76 | 24 | 29 | 88 | 21 |
| 5. Run Off Road | 108 | 38 | 15 | 100 | 30 |
| 6. Fixed Object | 20 | 9 | 4 | 22 | 11 |
| 7. Vehicle Overturn | 38 | 22 | 7 | 61 | 23 |
| 8. Head on Collision | 262 | 103 | 76 | 319 | 77 |



SECTION 2: ACCIDENTS BY ROADCATEGORY AND ROAD FEATURES

The total road length in West Bengal is about 18,520.4 km. consisting of 2,908.64km. of National Highways 4,489 km. of State Highways and the remaining 11,122.8 km. consist of Other roads. In percentage term, National Highways constitute 16%, State Highways 24% and Other roads 60%, respectively of the total road length in the State. Though the percentage share of these three broad categories of roads in the total road length is highly uneven, the distribution of the number of road accidents, fatality and injury in 2018 among these road categories was much less skewed.

Long-run trend of relative share of road categories: The share of different categories of roads in the number of accidents, persons killed and injured has remained largely stable over the years. The number of road accidents on National Highways in 2018 has been lower than the previous year i.e., 2017. The number of road accident has declined in 2018 for other road categories as well. The fatality in road accidents on NH has, however, marginally increased in 2018 both in absolute term as well as in percentage share.

Table 5 below gives the percentage share of the three broad categories of roads from 2016 to 2018.

District wise distribution of accidents, injury and fatalities across different road categories and types of carriageways is given at Table 5A. Accidents across different National Highways is given at Table 5B and State Highways and other Roads in Table 5C.

In 2018, out of a total 10,042 road accidents, 4,055 (40.4%) took place on the National Highways (NH), 2,449 (24.4%) on State Highways (SH) and 3,538 (35.2%) on Other roads. In case of fatality, accidents on the NH accounted for 2,137 (39.4%) deaths, SH 1,427 (26.3%) and other roads 3,538 (34.2%).

It is seen that the highest number of RTAs on NH and Other Roads is in Paschim Mednipur district, while on SH it is in Purba Bardhaman district. The highest number of RTAs on NH is in NH 34 (929) followed by NH 2 (499) and NH 6 (434).

SH 1 is the highest affected state highway with 393 RTAs. On the Other roads, maximum RTAs (251) took place in Paschim Mednipur.

It is also seen that undivided carriageways accounted for 7647 number (76.15%) and 3791(77 %) number of fatal accidents.

Table 5: Trends of relatives share of road categories in road accident, fatalities and injuries

| Year | National Highways | | | State Highways | | | Other Roads | | |
|--------------|-------------------|--------------|---------------|----------------|--------------|--------------|---------------|--------------|---------------|
| | RTA | Fatalities | Injury | RTA | Fatalities | Injury | RTA | Fatalities | Injury |
| 2016 | 4,469 | 2,304 | 4,110 | 3,792 | 1,882 | 3,475 | 5,139 | 2,358 | 4,274 |
| 2017 | 4,158 | 2,135 | 3,959 | 2,458 | 1,294 | 2,281 | 5,015 | 2,340 | 3,851 |
| 2018 | 4,055 | 2,137 | 4,199 | 2,449 | 1,427 | 2,522 | 3,538 | 1,853 | 3,114 |
| TOTAL | 12,682 | 6,576 | 12,268 | 8,699 | 4,603 | 8,278 | 13,692 | 6,551 | 11,239 |



Table 5A: Road accidents, fatalities and injuries by road category (NH/SH/OR - 2018)

| Sl. No. | District / PC | RTA Data 2018 | | | | | | | | |
|--------------|---------------------|--------------------------------|---------------------|-----------------------|--------------------------------|---------------------|-----------------------|---|---------------------|-----------------------|
| | | NH | | | SH | | | OTHERROAD | | |
| | | Total Number of Accident on NH | Divided Carriageway | Undivided Carriageway | Total Number of Accident on SH | Divided Carriageway | Undivided Carriageway | Total Number of Accident on Others Road | Divided Carriageway | Undivided Carriageway |
| 1 | Alipurduar | 96 | 19 | 77 | 45 | 3 | 42 | 53 | 2 | 51 |
| 2 | Asansol-Durgapur PC | 238 | 161 | 77 | 22 | 0 | 22 | 187 | 37 | 150 |
| 3 | Bankura | 79 | 7 | 72 | 138 | 6 | 132 | 87 | 4 | 83 |
| 4 | Barasat PD | 247 | 64 | 183 | 69 | 20 | 49 | 226 | 11 | 215 |
| 5 | Barrackpore PC | 65 | 63 | 2 | 273 | 114 | 159 | 110 | 8 | 102 |
| 6 | Baruipur PD | 0 | 0 | 0 | 82 | 6 | 76 | 151 | 12 | 139 |
| 7 | Basirhat | 0 | 0 | 0 | 63 | 0 | 63 | 103 | 4 | 99 |
| 8 | Bidhannagar PC | 21 | 20 | 1 | 46 | 38 | 8 | 160 | 110 | 50 |
| 9 | Birbhum | 171 | 33 | 138 | 85 | 2 | 83 | 169 | 16 | 153 |
| 10 | Chandannagar PC | 50 | 32 | 18 | 62 | 3 | 59 | 22 | 1 | 21 |
| 11 | Cooch Behar | 75 | 7 | 68 | 54 | 2 | 52 | 92 | 6 | 86 |
| 12 | Dakshin Dinajpur | 88 | 16 | 72 | 15 | 0 | 15 | 119 | 5 | 114 |
| 13 | Darjeeling | 86 | 31 | 55 | 19 | 1 | 18 | 41 | 3 | 38 |
| 14 | Diamond Harbour PD | 204 | 60 | 144 | 0 | 0 | 0 | 177 | 22 | 155 |
| 15 | Hooghly Rural | 70 | 49 | 21 | 276 | 23 | 253 | 125 | 4 | 121 |
| 16 | Howrah PC | 91 | 60 | 31 | 33 | 2 | 31 | 162 | 25 | 137 |
| 17 | Howrah Rural | 239 | 140 | 99 | 59 | 4 | 55 | 146 | 15 | 131 |
| 18 | Jalpaiguri | 203 | 15 | 188 | 21 | 0 | 21 | 131 | 5 | 126 |
| 19 | Jhargram | 16 | 3 | 13 | 53 | 5 | 48 | 48 | 1 | 47 |
| 20 | Kalimpong | 47 | 6 | 41 | 2 | 0 | 2 | 3 | 0 | 3 |
| 21 | Malda | 272 | 118 | 154 | 36 | 1 | 35 | 73 | 0 | 73 |
| 22 | Murshidabad | 142 | 71 | 71 | 156 | 14 | 142 | 147 | 13 | 134 |
| 23 | Nadia | 243 | 69 | 174 | 163 | 8 | 155 | 90 | 2 | 88 |
| 24 | Paschim Medinipur | 310 | 156 | 154 | 130 | 5 | 125 | 251 | 19 | 232 |
| 25 | Purba Bardhaman | 199 | 124 | 75 | 256 | 30 | 226 | 152 | 17 | 135 |
| 26 | Purba Medinipur | 289 | 171 | 118 | 118 | 10 | 108 | 191 | 19 | 172 |
| 27 | Purulia | 63 | 13 | 50 | 84 | 5 | 79 | 46 | 3 | 43 |
| 28 | Siliguri PC | 114 | 49 | 65 | 36 | 20 | 16 | 103 | 20 | 83 |
| 29 | Sundarban PD | 64 | 1 | 63 | 13 | 0 | 13 | 67 | 5 | 62 |
| 30 | Uttar Dinajpur | 282 | 111 | 171 | 31 | 5 | 26 | 106 | 10 | 96 |
| TOTAL | | 4064 | 1669 | 2395 | 2440 | 327 | 2113 | 3538 | 399 | 3139 |



Table5B: District wise RTA Data on National Highways – 2018

| Sl. No. | District / PC | RTA on National Highways | | | | | | | | | | | | | | | | | | | | | |
|--------------|-------------------|--------------------------|-----------|------------|-----------|------------|-----------|------------|------------|-----------|------------|------------|-----------|-----------|------------|-----------|-----------|------------|------------|-----------|----------|------------|----------|
| | | 2 | 2B | 6 | 10 | 31 | 31A | 31C | 31D | 32 | 34 | 35 | 41 | 55 | 60 | 60A | 81 | 116B | 117 | 131A | 317B | 512 | 717 |
| 1 | Alipurduar | | | | | 36 | | 60 | | | | | | | | | | | | | 1 | | |
| 2 | ASN-DGP PC | 206 | | | | | | | | | | | | | 32 | | | | | | | | |
| 3 | Bankura | | | | | | | | | | | | | | 64 | 15 | | | | | | | |
| 4 | Barasat PD | | | | | | | | | | 118 | 129 | | | | | | | | | | | |
| 5 | Barrackpore PC | | | | | | | | | | 56 | | | | | | | | | | | | |
| 6 | Baruipur PD | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Basirhat PD | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Bidhannagar PC | | | | | | | | | | | | | 21 | | | | | | | | | |
| 9 | Birbhum | | 6 | | | | | | | | | | | | 165 | | | | | | | | |
| 10 | Chandannagar PC | 50 | | | | | | | | | | | | | | | | | | | | | |
| 11 | Cooch Behar | | | | | 75 | | | | | | | | | | | | | | | | | |
| 12 | Dakshin Dinajpur | | | | | | | | | | | | | | | | | | | | | 88 | |
| 13 | Darjeeling | | | | | 40 | 14 | 14 | | | | | | | | | 10 | | | | 8 | | |
| 14 | DDH PD | | | | | | | | | | | | | | | | | | 204 | | | | |
| 15 | Hooghly Rural | 70 | | | | | | | | | | | | | | | | | | | | | |
| 16 | Howrah PC | 20 | | 23 | | | | | | | | | | | | | | | | 48 | | | |
| 17 | Howrah Rural | | | 237 | | | | | | | | | | | | | | | | 2 | | | |
| 18 | Jalpaiguri | | | | | 29 | | 47 | 125 | | | | | | | | | | | | | | 2 |
| 19 | Jhargram | | | 16 | | | | | | | | | | | | | | | | | | | |
| 20 | Kalimpong | | | | | | 47 | | | | | | | | | | | | | | | | |
| 21 | Malda | | | | | | | | | | 200 | | | | | | 43 | | | 16 | | 13 | |
| 22 | Murshidabad | | | | | | | | | | 142 | | | | | | | | | | | | |
| 23 | Nadia | | | | | | | | | | 243 | | | | | | | | | | | | |
| 24 | Paschim Medinipur | | | 96 | | | | | | | | | | | 214 | | | | | | | | |
| 25 | Purba Bardhaman | 153 | 46 | | | | | | | | | | | | | | | | | | | | |
| 26 | Purba Medinipur | | | 62 | | | | | | | | | | 96 | | | | | 131 | | | | |
| 27 | Purulia | | | | | | | | | 51 | | | | | | 12 | | | | | | | |
| 28 | Siliguri PC | | | | 17 | 81 | | 1 | 12 | | | | | | | 3 | | | | | | | |
| 29 | Sundarban PD | | | | | | | | | | | | | | | | | | | 64 | | | |
| 30 | Uttar Dinajpur | | | | | 136 | | | | | 146 | | | | | | | | | | | | |
| TOTAL | | 499 | 52 | 434 | 17 | 397 | 61 | 122 | 137 | 51 | 926 | 129 | 96 | 13 | 475 | 27 | 43 | 131 | 318 | 16 | 9 | 101 | 2 |



Table 5C: District wise RTA Data on State Highways& Others Road– 2018

| Sl. No. | District / PC | RTA on State Highways | | | | | | | | | | | | | | | RTA on OR | | | | |
|---------|---------------------|-----------------------|-----|-----|-----|----|-----|-----|-----|----|----|----|-----|-----|-----|----|-----------|-----|----|-----|------|
| | | 1 | 2 | 3 | 4 | 4A | 5 | 6 | 7 | 8 | 9 | 10 | 10A | 11 | 11A | 12 | | 12A | 13 | 14 | 15 |
| 1 | Alipurduar | | | | | | | | | | | | | | | 16 | 28 | | | | 53 |
| 2 | Asansol-Durgapur PC | | | | | | 3 | | | | | | | | | | | | 14 | | 187 |
| 3 | Bankura | | 57 | | 11 | | 1 | | | 28 | 38 | | | | | | | | | | 90 |
| 4 | Barasat PD | 26 | 15 | 28 | | | | | | | | | | | | | | | | | 226 |
| 5 | Barrackpore PC | 277 | 1 | 4 | | | | | | | | | | | | | | | | | 110 |
| 6 | Baruipur PD | 48 | | 34 | | | | | | | | | | | | | | | | | 151 |
| 7 | Basirhat PD | | 37 | 26 | | | | | | | | | | | | | | | | | 103 |
| 8 | Bidhannagar PC | | | 46 | | | | | | | | | | | | | | | | | 160 |
| 9 | Birbhum | | | | | | | 34 | 18 | | | | | | 10 | | | | | 23 | 169 |
| 10 | Chandannagar PC | | 4 | | | | | 33 | | | | | | | | | | | 25 | | 22 |
| 11 | Cooch Behar | | | | | | | | | | | | | | | | 54 | | | | 92 |
| 12 | Dakshin Dinajpur | | | | | | | | | | | | 15 | | | | | | | | 119 |
| 13 | Darjeeling | | | | | | | | | | | | | | | 19 | | | | | 41 |
| 14 | Diamond Harbour PD | | | | | | | | | | | | | | | | | | | | 177 |
| 15 | Hooghly Rural | | 118 | | | | | 53 | 28 | | | | | | | | | | 38 | 39 | 125 |
| 16 | Howrah PC | | 1 | | | | | 29 | | | | | | | | | | | | 3 | 162 |
| 17 | Howrah Rural | | | | | | | 8 | | | | | | | | | | | | 51 | 146 |
| 18 | Jalpaiguri | | | | | | | | | | | | | | | 2 | 19 | | | | 131 |
| 19 | Jhargram | | | | | | 33 | | | | 20 | | | | | | | | | | 48 |
| 20 | Kalimpong | | | | | | | | | | | | | | | 2 | | | | | 3 |
| 21 | Malda | | | | | | | | | | | 36 | | | | | | | | | 73 |
| 22 | Murshidabad | | | | | | | | 53 | | | | | 76 | 27 | | | | | | 147 |
| 23 | Nadia | 29 | | 38 | | | | 7 | | 8 | | | | 79 | | | | | | 2 | 90 |
| 24 | Paschim Medinipur | | | | 68 | | 35 | | 27 | | | | | | | | | | | | 251 |
| 25 | Purba Bardhaman | | | | | | | 97 | 81 | 10 | | | | | | | | | 20 | 15 | 33 |
| 26 | Purba Medinipur | | | | 72 | | 46 | | | | | | | | | | | | | | 191 |
| 27 | Purulia | | | | 20 | 10 | 48 | | | 6 | | | | | | | | | | | 46 |
| 28 | Siliguri PC | | | | | | | | | | | | | | | 12 | 24 | | | | 103 |
| 29 | Sundarban PD | 13 | | | | | | | | | | | | | | | | | | | 67 |
| 30 | Uttar Dinajpur | | | | | | | | | | | | 31 | | | | | | | | 106 |
| TOTAL | | 393 | 233 | 176 | 171 | 10 | 166 | 261 | 207 | 52 | 63 | 36 | 46 | 165 | 27 | 51 | 125 | 83 | 54 | 126 | 3541 |

Accidents by road environment

Road environment refers to the nature of built up area on the road. The distribution of accident and fatalities across different environment is given at **Table 6**, the similar distribution district wise is given at **Table 6A**. Accidents in residential area constitute 31.63% of total accidents and 30.64% of total fatality.

Market/commercial area accounted for 1717 or 17.10% of total accidents and 15.53% of fatality with highest (151) in Barasat. There were a total 969 accidents around bus stops (highest in Purbo Bardhaman 107), and 292 accidents next to petrol pumps (with 28 in Nadia as highest).



Table 6: Accidents, fatalities and injuries by road environment-2018

| Type of Area | Total No. of Accident | Persons Killed | Persons Injured |
|---------------------------|-----------------------|-----------------|-----------------|
| 1. Residential Area | 3176 (31.63) | 1660 (30.64) | 2671 (27.16) |
| 2. Institutional Area | 254 (2.53) | 128 (2.36) | 292 (2.97) |
| 3. Market/Commercial Area | 1717 (17.10) | 841 (15.53) | 1478 (15.03) |
| 4. Open Area | 3083 (30.70) | 1832 (33.82) | 3530 (35.89) |
| 5. Bus Stop | 969 (9.65) | 500 (9.23) | 810 (8.24) |
| 6. Petrol Pump | 292 (2.91) | 143 (2.64) | 340 (3.46) |
| 7. Hospital | 97 (0.97) | 46 (0.85) | 86 (0.87) |
| 8. Others | 454 (4.52) | 267 (4.93) | 628 (6.39) |
| Total | 10042 | 5417 | 9835 |

Note : Figures in parentheses are percentage share in the total of respective columns.

Table 6A: District wise Accidents by road environment-2018

| Sl. No. | District / PC | Accident Spots | | | | | | | |
|--------------|---------------------|------------------|--------------------|------------------------|-------------|------------|-------------|-----------|------------|
| | | Residential Area | Institutional Area | Market/Commercial Area | Open Area | Bus Stop | Petrol Pump | Hospital | Others |
| 1 | Alipurduar | 62 | 4 | 22 | 73 | 19 | 7 | 0 | 7 |
| 2 | Asansol-Durgapur PC | 123 | 25 | 40 | 150 | 55 | 15 | 4 | 35 |
| 3 | Bankura | 88 | 5 | 38 | 129 | 20 | 5 | 1 | 18 |
| 4 | Barasat PD | 231 | 11 | 151 | 77 | 35 | 11 | 7 | 19 |
| 5 | Barrackpore PD | 165 | 20 | 75 | 84 | 43 | 11 | 5 | 45 |
| 6 | Baruipur PD | 101 | 10 | 50 | 54 | 5 | 2 | 4 | 7 |
| 7 | Basirhat | 83 | 5 | 41 | 25 | 6 | 3 | 0 | 3 |
| 8 | Bidhannagar PD | 75 | 11 | 41 | 26 | 50 | 3 | 4 | 17 |
| 9 | Birbhum | 144 | 1 | 32 | 163 | 50 | 11 | 5 | 19 |
| 10 | Chandannagar PC | 43 | 5 | 51 | 16 | 7 | 1 | 2 | 9 |
| 11 | Cooch Behar | 97 | 3 | 36 | 57 | 8 | 7 | 3 | 10 |
| 12 | Dakshin Dinajpur | 56 | 9 | 42 | 75 | 25 | 6 | 2 | 7 |
| 13 | Darjeeling | 44 | 4 | 18 | 69 | 1 | 2 | 1 | 7 |
| 14 | Diamond Harbour PD | 125 | 8 | 44 | 166 | 26 | 7 | 4 | 1 |
| 15 | Hooghly Rural | 102 | 6 | 121 | 177 | 25 | 23 | 1 | 16 |
| 16 | Howrah PC | 115 | 7 | 25 | 80 | 42 | 3 | 6 | 8 |
| 17 | Howrah Rural | 137 | 22 | 80 | 106 | 62 | 23 | 4 | 10 |
| 18 | Jalpaiguri | 129 | 7 | 48 | 128 | 6 | 16 | 4 | 17 |
| 19 | Jhargram | 32 | 1 | 6 | 60 | 7 | 2 | 1 | 8 |
| 20 | Kalimpong | 24 | 1 | 0 | 26 | 0 | 0 | 0 | 1 |
| 21 | Malda | 105 | 5 | 55 | 100 | 57 | 25 | 11 | 23 |
| 22 | Murshidabad | 209 | 6 | 42 | 109 | 54 | 11 | 1 | 13 |
| 23 | Nadia | 120 | 13 | 102 | 164 | 39 | 28 | 5 | 25 |
| 24 | Paschim Medinipur | 158 | 12 | 123 | 271 | 76 | 21 | 2 | 28 |
| 25 | Purba Bardhaman | 148 | 10 | 123 | 171 | 107 | 13 | 14 | 21 |
| 26 | Purba Medinipur | 128 | 15 | 125 | 177 | 91 | 19 | 2 | 41 |
| 27 | Purulia | 66 | 4 | 12 | 86 | 10 | 4 | 0 | 11 |
| 28 | Siliguri PC | 114 | 6 | 56 | 64 | 5 | 3 | 2 | 3 |
| 29 | Sundarban PD | 21 | 4 | 22 | 67 | 21 | 0 | 1 | 8 |
| 30 | Uttar Dinajpur | 131 | 14 | 96 | 133 | 17 | 10 | 1 | 17 |
| TOTAL | | 3176 | 254 | 1717 | 3083 | 969 | 292 | 97 | 454 |



Table 6B:RTA on Accident Spot at Open Area on Junction type wise-2018

| T-Junction | | Y-Junction | | Four Arm Junction | | Staggered Junction | | Round about Junction | | Un-Controlled Junction | |
|------------|------------|------------|------------|-------------------|------------|--------------------|------------|----------------------|------------|------------------------|------------|
| RTA | Fatalities | RTA | Fatalities | RTA | Fatalities | RTA | Fatalities | RTA | Fatalities | RTA | Fatalities |
| 348 | 199 | 126 | 82 | 42 | 20 | 521 | 285 | 164 | 103 | 1025 | 633 |

The data for 2018, however, showed that over 30.70 % accidents occurred in **open area**, i.e. locations which normally do not have any human activities in the vicinity (**Table 6 and 6A** below). However, if accidents in open areas are combined with accidents at junctions, it will be seen (**Table 6 B**) that out of 3083 accidents in open areas, 1201 (39%) of such accident took place at different kind of junctions- 348 (11%) at T-Junctions, 126 (4%) at Y-Junctions, 42 (1.3%) at Four Arm Junctions 521 (17%) at Staggered Junctions and 164(5%) at Round about Junctions. 1025 of these junctions for Un-Controlled.

Hence, analysis of accidents by road environment points out to the great need of appropriate road engineering interventions- Proper traffic calming at Market areas, better design and location of Bus Stops, safety at Petrol Pumps, appropriate markings, signages and signals as well as road calming measures at the junctions.

Similarly district which have very high numbers of accident in residential area like Barasat PD (231), Birbhum (141), Howrah Rural (137), Jalpaiguri (129), Barrackpore PC (165) should improve awareness campaigns regarding Road Safety in those areas.

Accidents by road features

Road features such as curve road, potholes and steep gradient tend to be accident prone as it takes skill, extra care and alertness to negotiate

these road features. Accidents on curved roads (988 or 9.84%), Bridges and culvert 398 (4%) pothole (47), steep gradient(47) and Under Construction stretches (148) combined together accounted for 16.28% of the total road accidents (**Table 7**). District wise distribution of accidents on curve roads is given at table **7A**.

The data for 2018 has shown that 83.72 % or 8407 of accidents took place on straight road which are normally considered less risky. However, a finer analysis by overlaying data of junction control with road features (see **Table 7 B**) shows that out of 8407 RTAs recorded on stretches on Straight Road, 3346 (40%) were at spots where there was a kind of junction - 1113 were at T junctions, 1308 at staggered junctions, etc. Out of 3346 accidents on Straight Roads which took a place at Junctions, 2499 number were uncontrolled junctions.

Hence analysis of accident by road feature point out to the great need of appropriate road engineering interventions-highlighting approach to bridges as well as the curvature of curve stretches (both day & night), better design and location of Bus Stops, safety at Petrol Pumps, appropriate markings, signages and signals as well as road calming measures at the junctions and on stretches under repair.



Table 7: Accidents, fatalities and injuries by road features-2018

| Road Type | RTA | Fatalities | Injuries |
|---|-----------------|-----------------|-----------------|
| 1. Straight Road | 8407 (83.72) | 4459 (82.31) | 7919 (80.52) |
| 2. Curved Road | 988 (9.84) | 554 (10.23) | 1196 (12.16) |
| 3. Bridge | 238 (2.37) | 146 (2.70) | 267 (2.71) |
| 4. Culvert | 160 (1.59) | 113 (2.09) | 181 (1.84) |
| 5. Pot Holes | 54 (0.54) | 39 (0.72) | 91 (0.93) |
| 6. Steep Grade | 47 (0.47) | 23 (0.42) | 83 (0.84) |
| 7. On-going Road Works / Under Construction | 148 (1.47) | 83 (1.53) | 98 (1.00) |
| Total | 10,042 | 5,417 | 9,835 |

Note : Figures in parentheses are percentage share in the total of respective columns.

Table 7A: Accidents, fatalities and injuries on curve Road-2018

| Sl. No. | District / Police Commissionerate | RTA | Fatalities | Injuries |
|--------------|-----------------------------------|------------|------------|-------------|
| 1 | Alipurduar | 9 | 4 | 8 |
| 2 | Asansol-Durgapur PC | 26 | 22 | 16 |
| 3 | Bankura | 49 | 29 | 69 |
| 4 | Barasat PD | 37 | 11 | 41 |
| 5 | Barrackpore PC | 43 | 15 | 30 |
| 6 | Baruipur PD | 33 | 19 | 25 |
| 7 | Basirhat PD | 19 | 14 | 8 |
| 8 | Bidhannagar PC | 17 | 3 | 20 |
| 9 | Birbhum | 41 | 32 | 55 |
| 10 | Chandannagar PC | 13 | 8 | 6 |
| 11 | Cooch Behar | 18 | 12 | 13 |
| 12 | Dakshin Dinajpur | 25 | 14 | 24 |
| 13 | Darjeeling | 43 | 19 | 89 |
| 14 | Diamond Harbour PD | 16 | 7 | 13 |
| 15 | Hooghly Rural | 53 | 31 | 64 |
| 16 | Howrah PC | 26 | 4 | 25 |
| 17 | Howrah Rural | 38 | 21 | 32 |
| 18 | Jalpaiguri | 30 | 13 | 50 |
| 19 | Jhargram | 17 | 18 | 82 |
| 20 | Kalimpong | 12 | 2 | 34 |
| 21 | Malda | 62 | 24 | 97 |
| 22 | Murshidabad | 26 | 17 | 43 |
| 23 | Nadia | 31 | 20 | 30 |
| 24 | Paschim Medinipur | 77 | 48 | 72 |
| 25 | Purba Bardhaman | 51 | 28 | 67 |
| 26 | Purba Medinipur | 79 | 47 | 85 |
| 27 | Purulia | 47 | 41 | 63 |
| 28 | Siliguri PC | 11 | 5 | 9 |
| 29 | Sundarban PD | 6 | 5 | 6 |
| 30 | Uttar Dinajpur | 33 | 21 | 20 |
| Total | | 988 | 554 | 1196 |



Table 7B RTA on Accident Spot on straight Stretches on Junction type wise-2018

| T-Junction | | Y-Junction | | Four Arm Junction | | Staggered Junction | | Round about Junction | | Un-Controlled Junction | |
|------------|------------|------------|------------|-------------------|------------|--------------------|------------|----------------------|------------|------------------------|------------|
| RTA | Fatalities | RTA | Fatalities | RTA | Fatalities | RTA | Fatalities | RTA | Fatalities | RTA | Fatalities |
| 1113 | 559 | 368 | 221 | 336 | 142 | 1308 | 708 | 221 | 128 | 2499 | 1426 |

Accidents by road junction type

Road junctions are points where traffic merges and hence are prone to accidents. They are also major challenges for use of roads by vulnerable road users like pedestrians.

In 2018, a total of 4,094 accidents occurred at road junction which comprises 40.77 % of the total 10,042 accidents recorded in the State and resulted in 2168 fatalities or 40% of fatalities (Table-8).

Among different road junctions, staggered junctions accounted for the highest number of accidents at junctions: comprising 36.79 %. This indicates the challenge faced to Road Safety by mushrooming of a very large number of lower hierarchy roads merging into the main carriageways. Accidents at T-junction was 1303 or 31.83 %, followed by Y-junction 509 or 12.43%, Four-arm junctions 401 or 9.79% and Round about junction 375 or 9.16 %.

Distribution of accidents at junctions across different road features is given at Table 8A. It is seen that out of 8407 RTAs on Straight roads, 3346 occurred at junctions. Even at 553

RTA spots on Curved roads, some kind of junction was there.

The distribution of accidents of different type of junction across road categories is given at Table 8 B. Of the 4094 accidents at junctions, 1717 or 41.93% occurred on National Highways, 975 or 23.81 % on State Highways and 1402 or 34.22 % on Others Road.

The distribution of accidents at different types of junctions covering vulnerable road users like pedestrians as well as by major vehicle categories like Bus, Lorry, Four-wheelers and two wheelers given at Table 8 C. It is seen that out of the 4161 accidents involving pedestrians, 1693 or 40.68 % occurred at junctions. It clearly points out the need of road engineering interventions at junctions like protective railings at intersection arcs, signages, road marking and traffic calming measures. Out of 3618 accidents involving lorries, 41.76% occurred at junctions.

Distribution of accidents at junctions by day and night is given at Table 8D. It is seen that 48.60% of such accidents takes place at night clearly pointing out the need of adequate night traffic control devices at junctions.

Table 8: Accidents road junction type-2018

| Junction type | Total No. of Accident | Persons Killed | Persons Injured |
|-------------------------|-----------------------|----------------|-----------------|
| 1. T Junction | 1303 (31.83) | 657 (30.30) | 1201 (30.15) |
| 2. Y Junction | 509 (12.43) | 304 (14.02) | 428 (10.75) |
| 3. Four Arm Junction | 401 (9.79) | 173 (7.98) | 342 (8.59) |
| 4. Staggered Junction | 1506 (36.79) | 815 (37.59) | 1661 (41.70) |
| 5. Round About Junction | 375 (9.16) | 219 (10.10) | 351 (8.81) |
| Total | 4,094 | 2,168 | 3,983 |

Note : Figures in parentheses are percentage share in the total of respective columns.



Table 8A: Road Features wise RTA Data on Junction type wise -2018

| Road Features | Type of Junction | | | | | No Junction | Total |
|----------------------------|------------------|------------|------------|-------------|-------------|-------------|--------------|
| | T-Junction | Y-Junction | Four Arm | Staggered | Round About | | |
| Straight Road | 1113 | 368 | 336 | 1308 | 221 | 5061 | 8407 |
| Curve Road | 114 | 99 | 33 | 82 | 107 | 553 | 988 |
| Bridge | 25 | 27 | 9 | 46 | 15 | 116 | 238 |
| Culvert | 17 | 7 | 3 | 31 | 17 | 85 | 160 |
| Pot Holes | 3 | 1 | 2 | 9 | 3 | 36 | 54 |
| Steep Grade | 9 | 3 | 2 | 8 | 3 | 22 | 47 |
| On going Road Construction | 22 | 4 | 16 | 22 | 9 | 75 | 148 |
| Total | 1303 | 509 | 401 | 1506 | 375 | 5948 | 10042 |

Table 8B: RTA on Road Type Junction with NH/SH/OR-2018

| Junction Type | RTAs | Fatalities | Injury | NH | | | SH | | | Others Road | | |
|----------------------|-------------|-------------|-------------|-------------|------------|-------------|------------|------------|-------------|-------------|------------|-------------|
| | | | | RTAs | Fatalities | Injury | RTAs | Fatalities | Injury | RTAs | Fatalities | Injury |
| T-Junction | 1303 | 657 | 1201 | 596 | 313 | 585 | 286 | 150 | 268 | 421 | 194 | 348 |
| Y-Junction | 509 | 304 | 428 | 208 | 120 | 177 | 105 | 87 | 92 | 196 | 97 | 159 |
| Four Arm Junction | 401 | 173 | 342 | 198 | 96 | 178 | 91 | 44 | 71 | 112 | 33 | 93 |
| Staggered Junction | 1506 | 815 | 1661 | 616 | 324 | 731 | 385 | 219 | 505 | 505 | 272 | 425 |
| Round About Junction | 375 | 219 | 351 | 99 | 50 | 92 | 108 | 63 | 113 | 168 | 106 | 146 |
| Total | 4094 | 2168 | 3983 | 1717 | 903 | 1763 | 975 | 563 | 1049 | 1402 | 702 | 1171 |

Table 8C: Vulnerable road users wise RTA Data on Junction type wise -2018

| Road users | Type of Junction | | | | | No Junction | Total |
|--------------|------------------|------------|----------|-----------|-------------|-------------|-------|
| | T-Junction | Y-Junction | Four Arm | Staggered | Round About | | |
| Pedestrian | 579 | 198 | 157 | 606 | 153 | 2468 | 4161 |
| Bus | 128 | 71 | 50 | 151 | 36 | 588 | 1024 |
| Lorry | 473 | 168 | 155 | 590 | 125 | 2107 | 3618 |
| Four-Wheeler | 316 | 107 | 104 | 381 | 99 | 1400 | 2407 |
| Two-wheeler | 399 | 172 | 114 | 477 | 137 | 2020 | 3319 |

Table 8D: RTA Data during the day and night time at Junctions.

| Junction Type | Day Time | | Night Time | |
|----------------------|-------------|-------------|-------------|-------------|
| | RTA | Fatalities | RTA | Fatalities |
| T-Junction | 706 | 331 | 597 | 326 |
| Y-Junction | 257 | 157 | 252 | 147 |
| Four Arm Junction | 212 | 93 | 189 | 80 |
| Staggered Junction | 763 | 395 | 743 | 420 |
| Round About Junction | 205 | 114 | 170 | 105 |
| Total | 2116 | 1090 | 1951 | 1078 |



Accidents by Traffic Control type

Out of 4,094 accidents at road junctions, 1,501 (36.66%) accidents took place at junctions which had traffic control measures such as traffic light signals, police control, stop sign and flashing signals/blinkers and the remaining 2,593 (63.34%) accidents took place at uncontrolled junctions (**Table 9**). This highlights the importance and also inadequacy of traffic control mechanism at road junctions and a major traffic engineering short coming. RTAs on junction control on different road categories is given at **Table-9A**. It is seen that out of total of 4094 accident on various junctions, 1752 or 42.72 % took place on NH, 990 or 24.18% on SH and 1352 or 33% on

other roads. It is also seen that out of 2593 accidents on uncontrolled junctions 1004 or 38.71% occurred on NH. Out of the 1501 controlled junctions where accidents took place, 1046 or 69.68% were controlled by Policemen. Further out of 748 accidents on controlled junctions on NH as many as 562 were controlled by Policemen. It clearly point out to the severe gap in placing non manned traffic control mechanisms on National Highways and the limitations of police controls on such high speeding carriageways. District-wise figures of accidents at junctions by type of traffic control is given at Table 9B.

Table 9: Accidents at road junctions by type of traffic control-2018.

| Type of Traffic Control | RTA | Fatality | Injury |
|----------------------------|-----------------|-----------------|-----------------|
| 1. Traffic Light Signal | 325 (7.94) | 108 (5.22) | 262 (6.58) |
| 2. Police Control | 1046 (25.55) | 518 (25.05) | 1110 (27.87) |
| 3. Stop Sign | 92 (2.25) | 51 (2.47) | 78 (1.96) |
| 4. Flashing Signal/Blinker | 38 (0.93) | 17 (0.82) | 31 (0.78) |
| 5. Uncontrolled | 2593 (63.34) | 1474 (66.64) | 2502 (62.82) |
| Total | 4,094 | 2,168 | 3,983 |

Note : Figures in parentheses are percentage share in the total of respective columns.

Table 9A: RTA on Junction Control with NH/SH/OR-2018.

| Junction Control | RTA | Fatality | Injury | NH | | | SH | | | Others Road | | |
|-------------------------|-------------|-------------|-------------|-------------|------------|-------------|------------|------------|-------------|-------------|------------|-------------|
| | | | | RTA | Fatality | Injury | RTA | Fatality | Injury | RTA | Fatality | Injury |
| Traffic Light Signal | 325 | 108 | 262 | 120 | 47 | 101 | 141 | 49 | 115 | 64 | 12 | 46 |
| Police Control | 1046 | 518 | 1110 | 562 | 246 | 650 | 211 | 148 | 222 | 273 | 124 | 238 |
| Stop Sign | 92 | 51 | 78 | 50 | 32 | 38 | 26 | 11 | 27 | 16 | 8 | 13 |
| Flashing Signal/Blinker | 38 | 17 | 31 | 16 | 6 | 12 | 13 | 8 | 14 | 9 | 3 | 5 |
| Uncontrolled | 2593 | 1474 | 2502 | 1004 | 578 | 1054 | 599 | 354 | 708 | 990 | 542 | 740 |
| Total | 4094 | 2168 | 3983 | 1752 | 909 | 1855 | 990 | 570 | 1086 | 1352 | 689 | 1042 |



Accidents by weather condition

Table 10 shows that in 2018, almost 49.27 of the accident took place under sunny/clear weather. Accidents under adverse weather

conditions such as rainy, fog and hail/sleet accounted for only 9.87 % of total road accidents during 2018.

Table 10: Road accidents by weather condition.

| Weather Condition | RTA | Fatality | Injury |
|---------------------|-----------------|-----------------|-----------------|
| 1. Sunny/Clear | 4948 (49.27) | 2491 (45.98) | 5033 (51.17) |
| 2. Rainy | 354 (3.53) | 167 (3.08) | 406 (4.13) |
| 3. Foggy/Misty | 619 (6.16) | 389 (7.18) | 591 (6.01) |
| 4. Hail/Sleet | 18 (0.18) | 10 (0.18) | 10 (0.10) |
| 5. Others (Specify) | 4103 (40.86) | 2360 (43.57) | 3795 (38.59) |
| Total | 10,042 | 5,417 | 9,835 |

Note : Figures in parentheses are percentage share in the total of respective columns.



SECTION 3: SPATIAL AND INTER-TEMPORAL DISTRIBUTION OF ROAD ACCIDENTS

This section examines the distribution of road accidents statistics of 2018 between rural areas and urban areas, and also across the months in a year and time during a day. As per 2011 census, 67.8 per cent of India's population lives in rural area and while 31.2 per cent lives in urban areas. Urban areas have more population and more NH passes through this area and therefore more incidences of road accidents as compared to urban areas. Social and economic activities and travel during a year and in a day have some seasonality and pattern which affects road traffic volume and, perhaps, incidences of accidents as well. This section presents a summary of the related data for 2018 furnished by the districts.

Road accidents in urban and rural areas

In 2018, 30.52% of road accidents were recorded in urban areas and 69.47 per cent were in rural areas. In case of fatalities, 24.97 per cent of the total persons killed in road accidents were in urban areas and 75.52 % were in rural areas. As compared to 2017,

the share of accidents and fatalities in urban areas has come down in 2018. The decline in the share of accidents and fatalities on the urban area could be on account of a massive road safety awareness programme (Safe Drive Save Life) which probably touched urban areas much more than rural areas.

Table 11: Number of road accidents, fatalities and injuries in Rural and Urban areas during 2017 and 2018

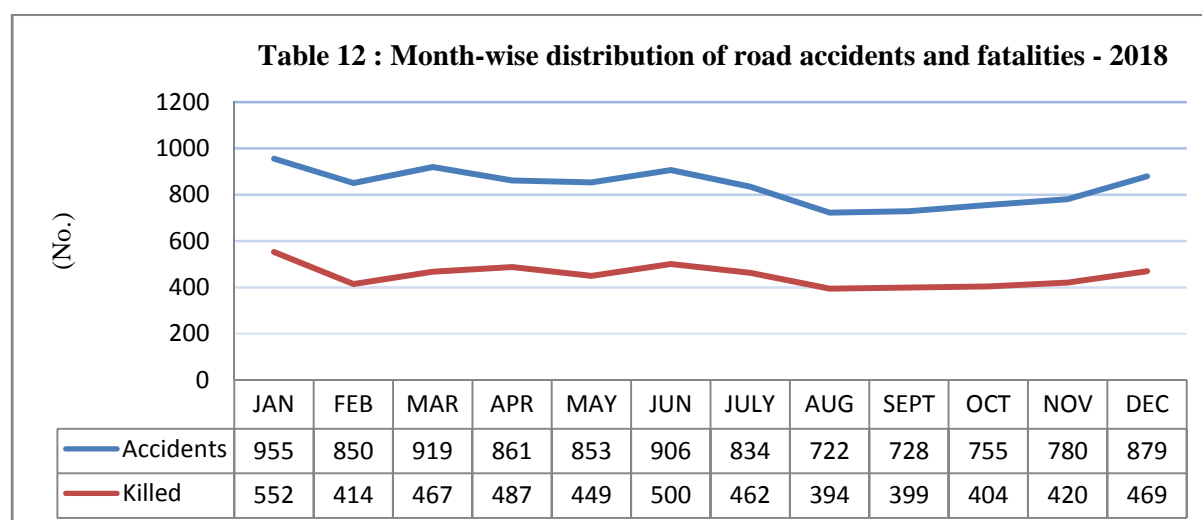
| Area Type | 2017 | | | 2018 | | |
|--------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | RTA | Fatality | Injury | RTA | Fatality | Injury |
| Urban Area | 4,412 (37.93) | 1,753 (30.38) | 3,645 (36.12) | 3,065 (30.52) | 1,326 (24.97) | 2,688 (27.33) |
| Rural Area | 7,219 (62.06) | 4,016 (69.61) | 6,446 (63.87) | 6,977 (69.47) | 4,091 (75.52) | 7,147 (72.66) |
| Total | 11,631 | 5,769 | 10,091 | 10,042 | 5,417 | 9,835 |

* Figures in parentheses indicate the percentage share in the total of share of the total.

Month-wise distribution of road accidents

The aggregate data on month-wise distribution of road accidents for 2018 shows that the

number of accidents are the highest during the November to February and fatalities peaked in June (see table 12 below).



Time interval-wise distribution of road accidents

During the dark hours, i.e. between 6 PM to 6AM 45% of the accident took place although the numbers of vehicles could be hardly 30%. One of the reasons is inadequate non manual traffic control on roads as mentioned in the preceding chapter. Further, the qualities of the signage and road marking is quite poor. Another reason could be non-compliance of the vehicles with rear end conspicuity signs. A big reason could be the high use of roads by

Lorries by the night. The distribution of accident by various road user is given at Table 13 A. In 2018, the time interval between 00:00 PM and 03:00AM recorded maximum number of road accidents, accounting for 16.3% of the total accidents in the state (see Table 13 below).The second highest time interval of a day was between 3:00 PM and 6:00 PM constitute 13.8 per cent.

Table 13: Number of road accidents by time interval of day – 2017& 2018.

| Time | 2017 | | 2018 | |
|----------------------------|---------------------|-------------------------------|---------------------|-------------------------------|
| | Number of Accidents | % of share in total accidents | Number of Accidents | % of share in total accidents |
| 06:00 – 09:00 hrs. (Day) | 1299 | 11.2 | 1088 | 10.8 |
| 09:00 – 12:00 hrs. (Day) | 1994 | 17.1 | 1547 | 15.4 |
| 12:00 – 15:00 hrs. (Day) | 1908 | 16.4 | 1356 | 13.5 |
| 15:00 – 18:00 hrs. (Day) | 1963 | 16.9 | 1384 | 13.8 |
| 18:00 – 21:00 hrs. (Night) | 1687 | 14.5 | 1272 | 12.7 |
| 21:00 – 24:00 hrs. (Night) | 1174 | 10.1 | 924 | 9.2 |
| 00:00 – 03:00 hrs. (Night) | 611 | 5.3 | 1636 | 16.3 |
| 03:00 – 06:00 hrs. (Night) | 995 | 8.6 | 835 | 8.3 |
| TOTAL | 11,631 | 100.0 | 10,042 | 100.0 |

Table 13 A: The distribution of accident by various road user during day & night.

| Road user | Total Accident | Day | Night |
|--------------|----------------|------|-------|
| Pedestrian | 4161 | 2359 | 1802 |
| Bus | 1024 | 655 | 369 |
| Lorry | 3618 | 1838 | 1780 |
| Four-Wheeler | 2407 | 1259 | 1148 |
| Two-wheeler | 3319 | 1760 | 1559 |

SECTION 4: ROAD ACCIDENTS BY TYPE OF VEHICLE INVOLVED

There are over 96lacs registered vehicles in West Bengal. The level of vulnerability of road-users to accidents is high as the same road space is shared among wide variety of motorized and non-motorized vehicles and pedestrians. Among motorized vehicles, truck/lorry constitutes 31.51% motorized two-wheeler comprising of cars, jeeps and taxis constitute 22.81%. Non-motorized vehicles on the roads include cycles, cycle rickshaws, hand-drawn carts, animal drawn carts.

Vehicular composition of vehicles involved in accidents: Truck/lorry, which constitute 5.53 % of registered vehicles, accounted for

31.51% of the total road offenders during the calendar year 2018. Within motorized vehicle categories, truck/lorry accounted for the



highest share as offenders in total road accidents at 31.51% followed by Car/ Jeep / Van / Taxi 22.81% and the two wheeler vehicle 22.35%, then the combined vehicle category comprising cars, jeep & taxi 22.81 and other articulated vehicles 1.93, buses 8.85 and auto-rickshaws 2.73.

In case of fatality, 32.88% of deaths in road accidents during 2018 involved truck/lorry against 21.23% in 2017. The number and percentage share of accidents, persons killed and injured during 2017 and 2018 based on vehicle type involved is given at **Table 14**. Distribution of truck accidents across districts is given at **Table 14A**. It is seen that the highest numbers of lorries accidents are in Paschim Medinipur 691, Purba Bardhaman 607, Purba Medinipur 598, Barasat PD 542, Nadia 496, Barrackpore PC 448, Hooghly

Rural 471 and Howrah Rural 444. A list of stretches vulnerable to truck accident are given in 14B. At **Table 14C** a list of 15 Police Stations with the largest numbers of Truck accidents is given.

Distribution of two-wheeler accidents across districts is given at **Table 14D**. It is seen that the maximum numbers of accidents involving two wheelers was in Barasat PD 206 Purab Medinipur 195, Paschim Medinipur 181, Asansol Durgapur 180, Howrah Rural 173, Purba Bardhaman 160, in Hooghly Rural 171. Stretches with high intensity of two-wheeler accident are given in **Table 14E**. The distribution of age of drivers of offending two-wheeler is given at **Table 14F**.

Table 14: Road accidents, fatalities and injuries by offending vehicle type-2017 & 2018

| Type of Vehicles | 2017 | | | 2018 | | |
|--------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | RTA | Fatality | Injury | RTA | Fatality | Injury |
| 1. Motorised Two-Wheeler | 2346 (20.17) | 1067 (18.50) | 1874 (18.57) | 2244 (22.35) | 1171 (21.62) | 1722 (17.51) |
| 2. Auto Rickshaw | 280 (2.41) | 96 (1.66) | 294 (2.91) | 274 (2.73) | 117 (2.16) | 295 (3.00) |
| 3. Car/Jeep/Van/Taxi | 2705 (23.26) | 1111 (19.26) | 2576 (25.53) | 2291 (22.81) | 1086 (20.05) | 2348 (23.87) |
| 4. Bus | 948 (8.15) | 347 (6.01) | 1685 (16.70) | 889 (8.85) | 436 (8.05) | 1999 (20.33) |
| 5. Truck/Lorry | 2699 (23.21) | 1225 (21.23) | 2188 (21.68) | 3164 (31.51) | 1781 (32.88) | 2698 (27.43) |
| 6. Heavy Articulated Vehicle/Trolley | 115 (0.99) | 64 (1.11) | 64 (0.63) | 194 (1.93) | 104 (1.92) | 176 (1.79) |
| 7. Tempo/Tractor | 339 (2.91) | 156 (2.70) | 293 (2.90) | 368 (3.66) | 227 (4.19) | 305 (3.10) |
| 8. E-Rickshaw | 0 (0.00) | 0 (0.00) | 0 (0.00) | 2 (0.02) | 2 (0.04) | 0 (0.00) |
| 9. Bicycle | 105 (0.91) | 41 (0.71) | 72 (0.71) | 4 (0.04) | 2 (0.02) | 2 (0.02) |
| 10. Cycle Rickshaw | 50 (0.43) | 18 (0.31) | 52 (0.52) | 0 (0.00) | 0 (0.00) | 0 (0.00) |
| 11. Hand Drawn Cart | 2 (0.02) | 0 (0.00) | 3 (0.03) | 0 (0.00) | 0 (0.00) | 0 (0.00) |
| 12. Animal Drawn Cart | 1 (0.01) | 0 (0.00) | 0 (0.00) | 1 (0.01) | 1 (0.02) | 0 (0.00) |
| 13. Others (Specify) | 2041 (17.55) | 1644 (28.50) | 990 (9.81) | 611 (6.08) | 490 (9.05) | 290 (2.95) |
| Total | 11631 | 5769 | 10091 | 10042 | 5417 | 9835 |

Note : Figures in parentheses are percentage share in the total of respective columns.



Share of different vehicle types in road accidents 2018

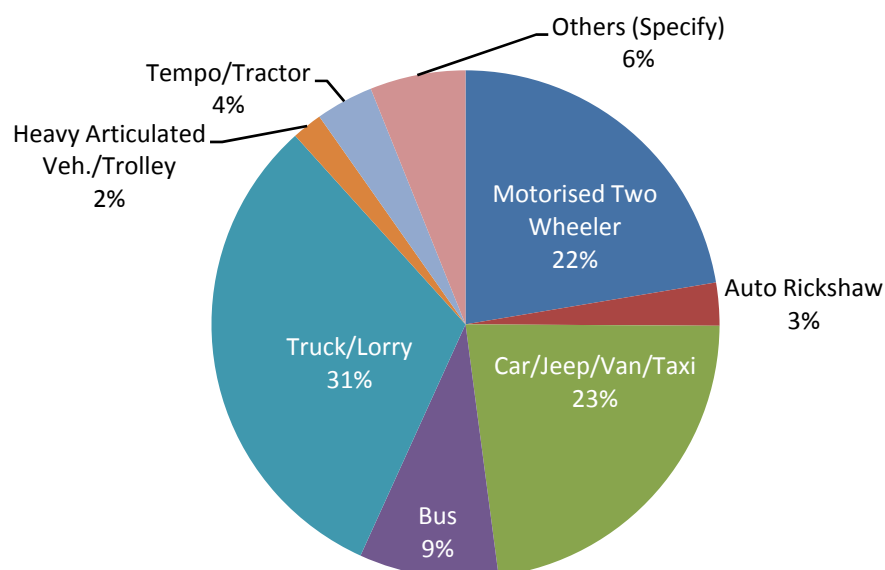


Table 14A: Annual District wise Truck / Lorry involved in RTA Cases - 2017 & 2018

| Sl. No. | District / PC | Total Number of Accident in RTA 2018 | Truck / Lorry involved in RTA 2018 | | | % of Accidents |
|--------------|---------------------|--------------------------------------|------------------------------------|-------------|-------------|----------------|
| | | | RTA | Fatality | Injury | |
| 1 | Alipurduar | 194 | 68 | 40 | 63 | 35.1 |
| 2 | Asansol-Durgapur PC | 447 | 173 | 111 | 149 | 38.7 |
| 3 | Bankura | 304 | 132 | 82 | 175 | 43.4 |
| 4 | Barasat PD | 542 | 211 | 84 | 192 | 38.9 |
| 5 | Barrackpore PC | 448 | 100 | 29 | 68 | 22.3 |
| 6 | Baruipur PD | 233 | 62 | 36 | 42 | 26.6 |
| 7 | Basirhat | 166 | 61 | 35 | 45 | 36.7 |
| 8 | Bidhannagar PC | 227 | 24 | 5 | 25 | 10.6 |
| 9 | Birbhum | 425 | 204 | 154 | 187 | 48.0 |
| 10 | Chandannagar PC | 134 | 62 | 40 | 43 | 46.3 |
| 11 | Cooch Behar | 221 | 63 | 39 | 58 | 28.5 |
| 12 | Dakshin Dinajpur | 222 | 50 | 31 | 46 | 22.5 |
| 13 | Darjeeling | 146 | 59 | 39 | 56 | 40.4 |
| 14 | Diamond Harbour PD | 381 | 89 | 48 | 96 | 23.4 |
| 15 | Hooghly Rural | 471 | 238 | 126 | 314 | 50.5 |
| 16 | Howrah Pc | 286 | 74 | 24 | 46 | 25.9 |
| 17 | Howrah Rural | 444 | 179 | 114 | 114 | 40.3 |
| 18 | Jalpaiguri | 355 | 110 | 41 | 114 | 31.0 |
| 19 | Jhargram | 117 | 31 | 17 | 29 | 26.5 |
| 20 | Kalimpong | 52 | 13 | 5 | 21 | 25.0 |
| 21 | Malda | 381 | 171 | 76 | 201 | 44.9 |
| 22 | Murshidabad | 445 | 219 | 138 | 238 | 49.2 |
| 23 | Nadia | 496 | 199 | 127 | 152 | 40.1 |
| 24 | Paschim Medinipur | 691 | 310 | 164 | 386 | 44.9 |
| 25 | Purba Bardhaman | 607 | 252 | 171 | 192 | 41.5 |
| 26 | Purba Medinipur | 598 | 150 | 80 | 141 | 25.1 |
| 27 | Purulia | 193 | 55 | 47 | 52 | 28.5 |
| 28 | Siliguri PC | 253 | 64 | 36 | 49 | 25.3 |
| 29 | Sundarban PD | 144 | 33 | 12 | 34 | 22.9 |
| 30 | Uttar Dinajpur | 419 | 162 | 101 | 139 | 38.7 |
| TOTAL | | 10042 | 3618 | 2052 | 3467 | 36.0 |



Table 14B: Top Stretches where Truck / Lorry Accident occurred -2018

| District / PC | Police Station | Total Number of Accident | Number of Accident involved by Truck / Lorry | Stretches | KM |
|-------------------|----------------|--------------------------|--|--|------------|
| Asl-Dgp Pc | Jamuraia | 50 | 25 | Satgram Fatak to Nigha More on NH- 2 Kunustoria to Dhasal More on NH-60 | 6.2 3.1 |
| Bankura | Bankura | 55 | 24 | Ekteswar bridge to Bikna DAV School on NH - 60 | 5.5 |
| Barasat PD | Amdanga | 68 | 40 | Mirhati Bus Stop to Rajberia on NH - 34 | 18.2 |
| Barasat PD | Madhyamgram | 67 | 35 | Doltala More to Meghdoot on NH-34 | 2.5 |
| Chandannagar PC | Dankuni | 55 | 34 | Hazra Para Bus stand to Coal India Gate on NH - 2 | 5.5 |
| Hooghly Rural | Arambagh | 64 | 45 | Harinkhola Bridge to Kalipur on SH -2 | 11.2 |
| Howrah Rural | Sankrail | 88 | 40 | Alampur to Ranihati Xing on NH - 6 | 7.9 |
| Howrah Rural | Uluberia | 78 | 47 | Decathlan to Skkipper on NH - 6 | 15.7 |
| Malda | Gazole | 74 | 29 | Adina to Mayna on NH - 34 | 19.9 |
| Malda | Kaliachak | 48 | 28 | Sultanganj to Shimuldhhab on NH - 34 | 11.2 |
| Murshidabad | Berhampore | 58 | 39 | Bhakuri to Radhaghat on NH - 34 | 16.6 |
| Nadia | Chakdah | 45 | 23 | Narapati Para to Mahanala on NH - 34 | 11.5 |
| Paschim Medinipur | Debra | 70 | 29 | Srirampur to Dalapatipur on NH - 6 | 12.8 |
| Paschim Medinipur | Narayangarh | 33 | 24 | Poktapool to Makrampur on NH - 60 | 12.8 |
| Purba Bardhaman | Burdwan | 88 | 39 | Alisha More to Fagupur on NH - 2 | 13.3 |
| Uttar Dinajpur | Dalkhola | 35 | 26 | Domohana Bridge to Purnia More on NH - 34 | 12.3 |

Table 14 C: Top 15 Police Stations where 10 or more accidents occurred due to Truck / Lorry

| Sl. No. | District / PC | Police Station | Total Number of RTA | Truck/ Lorry involved in RTA | Fatality | Injury | % of RTA |
|---------|-------------------|----------------|---------------------|------------------------------|----------|--------|----------|
| 1 | Paschim Medinipur | Kharagpur (L) | 104 | 74 | 43 | 95 | 71.2 |
| 2 | Howrah Rural | Sankrail | 88 | 40 | 17 | 27 | 45.5 |
| 3 | Purba Bardhaman | Burdwan | 88 | 39 | 23 | 25 | 44.3 |
| 4 | Uttar Dinajpur | Raiganj | 87 | 29 | 16 | 25 | 33.3 |
| 5 | Uttar Dinajpur | Islampur | 82 | 36 | 18 | 40 | 43.9 |
| 6 | Barasat PD | Habra | 81 | 39 | 13 | 42 | 48.1 |
| 7 | Howrah Rural | Uluberia | 78 | 47 | 34 | 38 | 60.3 |
| 8 | Malda | Englishbazar | 75 | 41 | 14 | 47 | 54.7 |
| 9 | Malda | Gazole | 74 | 29 | 20 | 18 | 39.2 |
| 10 | Paschim Medinipur | Garhbeta | 74 | 29 | 14 | 45 | 39.2 |
| 11 | Howrah Rural | Domjur | 73 | 32 | 19 | 17 | 43.8 |
| 12 | Paschim Medinipur | Debra | 70 | 29 | 9 | 27 | 41.4 |
| 13 | Barasat PD | Amdanga | 68 | 40 | 16 | 48 | 58.8 |
| 14 | Barasat PD | Madhyamgram | 67 | 35 | 12 | 20 | 52.2 |
| 15 | Jalpaiguri | Maynaguri | 67 | 30 | 17 | 34 | 44.8 |



Table 14 D: District wise Motorised Two-Wheeler involved in RTA cases 2018

| Sl. No. | District / PC | Total RTA Data | | | Offender | | | Victim | | |
|--------------|---------------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|
| | | RTA | Fatality | Injury | RTA | Fatality | Injury | RTA | Fatality | Injury |
| 1 | Alipurduar | 66 | 44 | 53 | 48 | 31 | 35 | 18 | 13 | 18 |
| 2 | Asansol-Durgapur PC | 180 | 128 | 105 | 117 | 77 | 57 | 63 | 51 | 48 |
| 3 | Bankura | 105 | 66 | 79 | 62 | 40 | 39 | 43 | 26 | 40 |
| 4 | Barasat PD | 206 | 81 | 187 | 135 | 56 | 110 | 71 | 25 | 77 |
| 5 | Barrackpore PC | 121 | 47 | 109 | 82 | 33 | 75 | 39 | 14 | 34 |
| 6 | Baruipur PD | 73 | 32 | 60 | 58 | 24 | 45 | 15 | 8 | 15 |
| 7 | Basirhat | 50 | 32 | 34 | 28 | 15 | 18 | 22 | 17 | 16 |
| 8 | Bidhannagar PC | 85 | 16 | 97 | 47 | 11 | 55 | 38 | 5 | 42 |
| 9 | Birbhum | 129 | 96 | 116 | 62 | 42 | 68 | 67 | 54 | 48 |
| 10 | Chandannagar PC | 54 | 29 | 57 | 23 | 12 | 26 | 31 | 17 | 31 |
| 11 | Cooch Behar | 70 | 39 | 46 | 48 | 27 | 29 | 22 | 12 | 17 |
| 12 | Dakshin Dinajpur | 102 | 69 | 48 | 78 | 49 | 34 | 24 | 20 | 14 |
| 13 | Darjeeling | 43 | 32 | 38 | 26 | 21 | 25 | 17 | 11 | 13 |
| 14 | Diamond Harbour PD | 120 | 46 | 153 | 99 | 33 | 130 | 21 | 13 | 23 |
| 15 | Hooghly Rural | 171 | 84 | 182 | 97 | 57 | 83 | 74 | 27 | 99 |
| 16 | Howrah PC | 89 | 26 | 81 | 50 | 14 | 41 | 39 | 12 | 40 |
| 17 | Howrah Rural | 173 | 118 | 110 | 131 | 85 | 80 | 42 | 33 | 30 |
| 18 | Jalpaiguri | 158 | 46 | 180 | 116 | 36 | 132 | 42 | 10 | 48 |
| 19 | Jhargram | 49 | 30 | 53 | 23 | 14 | 17 | 26 | 16 | 36 |
| 20 | Kalimpong | 13 | 6 | 12 | 11 | 6 | 9 | 2 | 0 | 3 |
| 21 | Malda | 93 | 49 | 67 | 56 | 25 | 40 | 37 | 24 | 27 |
| 22 | Murshidabad | 115 | 73 | 77 | 87 | 52 | 55 | 28 | 21 | 22 |
| 23 | Nadia | 133 | 66 | 109 | 88 | 41 | 63 | 45 | 25 | 46 |
| 24 | Paschim Medinipur | 181 | 106 | 112 | 125 | 68 | 72 | 56 | 38 | 40 |
| 25 | Purba Bardhaman | 160 | 96 | 125 | 98 | 59 | 70 | 62 | 37 | 55 |
| 26 | Purba Medinipur | 195 | 128 | 121 | 152 | 90 | 94 | 43 | 38 | 27 |
| 27 | Purulia | 71 | 54 | 52 | 41 | 26 | 26 | 30 | 28 | 26 |
| 28 | Siliguri PC | 125 | 49 | 93 | 99 | 33 | 79 | 26 | 16 | 14 |
| 29 | Sundarban PD | 35 | 12 | 48 | 33 | 12 | 39 | 2 | 0 | 9 |
| 30 | Uttar Dinajpur | 154 | 101 | 98 | 124 | 82 | 76 | 30 | 19 | 22 |
| TOTAL | | 3319 | 1801 | 2702 | 2244 | 1171 | 1722 | 1075 | 630 | 980 |

Table 14E: Stretches where Motorised Two-Wheeler Accident occurred -2018

| District / PC | Motorised Two-Wheeler Road wise RTA Data -2018 | | | | Length (in Km.) |
|--------------------|--|----------|--------|--|---------------------------|
| | RTA | Fatality | Injury | Top Stretches | |
| Barasat PD | 206 | 81 | 187 | 48 (NH-35) Fish Market under Barasat PS to Debipur under Gaighata PS 24 (NH-34) Doltala under Madhyamgram PS to Rangmahal under Amdanga PS 15 (SH-1) Motiganj More under Bongaon PS to Kadamtala under Gopalnagar PS | 43.4 19.2 15.6 |
| Barrackpore PC | 121 | 47 | 109 | 23 (SH-1- BT Road) Golghar under Jagaddal PS to Baranagar PS Gate 42 (SH-1 - Kalyani Highway) Kaltala under Bizpore PS to Golbagan under Nimta PS | 25.3 35.6 |
| Bidhannagar PC | 85 | 16 | 97 | 15 (SH-3) Tali Park under Baguati PS to Sreebhumi Bus Stop under Lake Town PS | 12.6 |
| Chandannagar PC | 54 | 29 | 57 | 15 (NH-2) Maitypara to Coca Cola Factory under Dankuni PS 10 (SH-13) Sweetpur More under Bhadreswar PS to Baidyabati under Serampore PS | 5.4 9.7 |
| Darjeeling | 43 | 32 | 38 | 9 (NH-31C) Bengai Jote to Kiran Chandra TE under Naxalbari PS | 9.2 |
| Diamond Harbour PD | 120 | 46 | 153 | 65 (NH-117) Rasapunja under Bishnupur PS to Hatugunj More under Diamond Harbour PS | 29.4 |
| Howrah PC | 89 | 26 | 81 | 20 (NH-117) Khejurtala under Jagacha PS to Nabanna under Shibpur PS 15 (SH-6) Jalan Road Xing under M P Ghora PS to D. Sk. Lane under AJC Bose B Garden PS | 7.3 10.6 |
| Howrah Rural | 173 | 118 | 110 | 73 (NH-6) Salap More under Domjur PS to Khadinan Laibery More under Bagnan PS | 39.4 |
| Jhargram | 49 | 30 | 53 | 16 (SH-5) Jamda to Gadro Bus Stop under Jhargram PS | 13.7 |
| Siliguri PC | 125 | 49 | 93 | 32 (NH-31) Bhutabari under Bagdogra PS to Belgal Safari under Bhaktinagar PS 8 (NH-10) Gandhi Nagar to Check Post under Bhaktinagar PS 8 (SH-12A) Jalpai More under Siliguri PS to Junction under Pradhannagar PS 6 (SH-12) Himul Gate to Khapraail Bazar under Matigara PS | 21.4 1.5 3.2 6.8 |



Table 14 F: Age Group of offenders Motorised Two-Wheeler

| Age-group | RTA | Fatality | Injury |
|--------------------|--------------|--------------|--------------|
| Less than 18 years | 88 | 46 | 78 |
| 18 - 25 | 346 | 203 | 269 |
| 25 - 35 | 909 | 456 | 681 |
| 35 - 45 | 349 | 183 | 266 |
| 45 - 60 | 136 | 95 | 80 |
| 60 and Above | 18 | 10 | 12 |
| 7. Age not known | 398 | 178 | 336 |
| Total | 2,244 | 1,171 | 1,722 |

Age of vehicles involved in road accidents

Age of vehicles involved in road accidents is meant to throw some light on prevalence of aged or over-aged vehicles on the roads, accidents due to vehicle defects, assuming that old vehicles tend to have more frequent

malfunction, and the number and share of old vehicles in total accidents. In 2018, a total of 2,990 road accidents happened involving vehicles older than 10 years (**Table: 15**).

Table 15: Road accidents, fatalities and injuries by age of vehicles involved 2017 & 2018

| Age of Vehicle | 2017 | | | 2018 | | |
|----------------------|---------------|--------------|---------------|---------------|--------------|--------------|
| | RTA | Fatality | Injury | RTA | Fatality | Injury |
| 1. Less than 5 years | 1,217 | 660 | 993 | 2,689 | 1,487 | 2,555 |
| 2. 5 - 10 years | 1,678 | 851 | 1,635 | 2,990 | 1,529 | 3,101 |
| 3. 10.1 - 15 years | 313 | 164 | 330 | 816 | 464 | 963 |
| 4. > 15 years | 681 | 392 | 803 | 1,827 | 984 | 1,847 |
| 5. Age Not Known | 7,742 | 3,702 | 6,330 | 1,720 | 953 | 1,369 |
| Total | 11,631 | 5,769 | 10,091 | 10,042 | 5,417 | 9,835 |

Note : Only known age of vehicles as reported by District Including in the table.



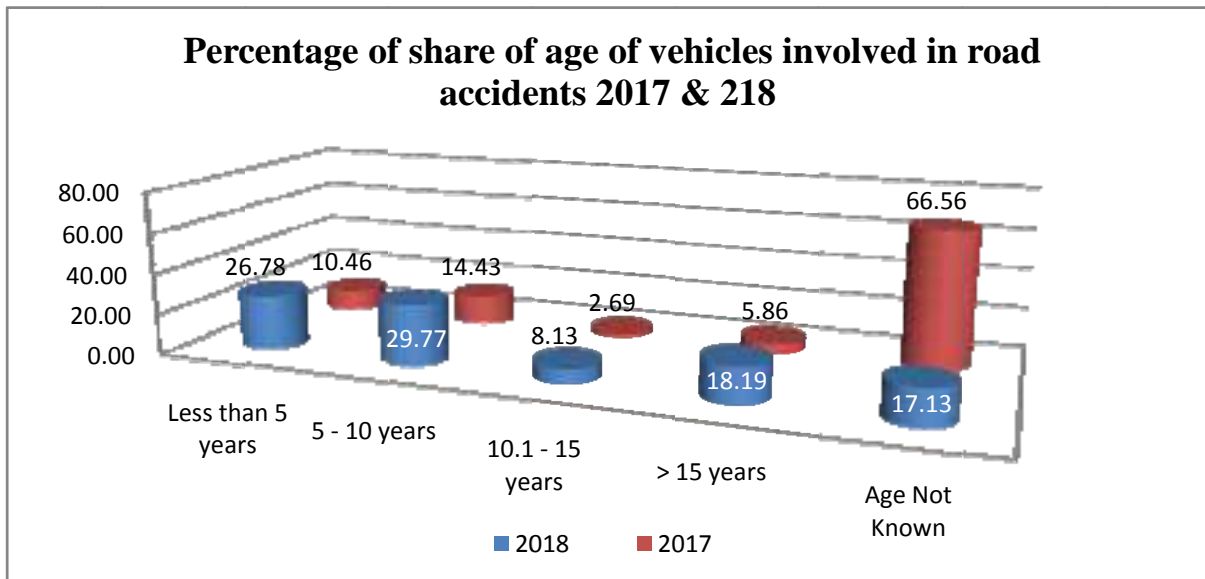


Table 15 A: Road accidents by age of Offending vehicles – 2018

| Age-group | Bus | Truck /Lorries | Car/Van/Jeep/Taxi | Heavy Articulated Vehicle |
|-------------------|------------|----------------|-------------------|---------------------------|
| Less than 5 years | 312 | 1180 | 808 | 86 |
| 5 - 10 years | 254 | 952 | 577 | 62 |
| 10 - 15 years | 117 | 340 | 162 | 20 |
| > 15 years | 206 | 692 | 378 | 26 |
| Total | 889 | 3,164 | 1,925 | 194 |

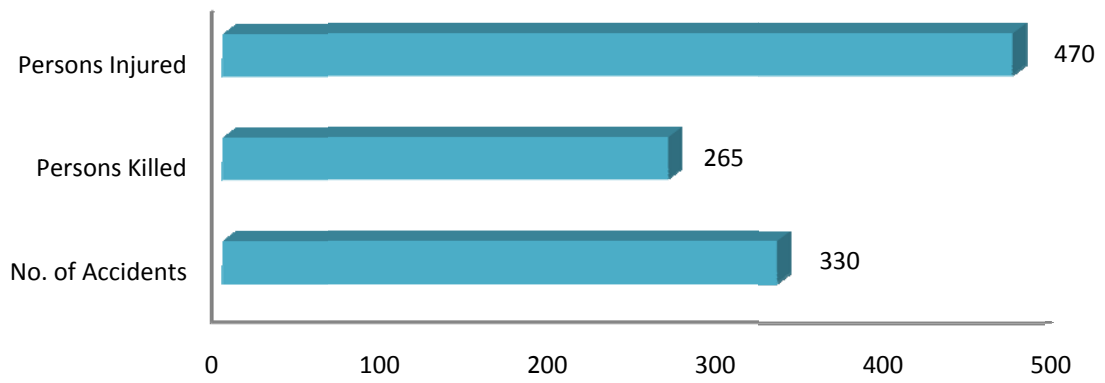
Load condition of vehicles involved in accident

Overloaded vehicles and vehicles with loads protruding/hanging are road traffic hazard, risking accident for itself and also for other

road users. A total of 330 road accidents during 2018 involved overloaded vehicles. (Chart) depicts the number of accidents, fatality and injury in cases involving overloaded vehicles.



Accidents, Fatalities, and Injuries involving overloaded vehicles 2018



SECTION 5: ROAD ACCIDENTS INVOLVING PEDESTRIANS

This section examines the accident involving pedestrians who are considered to be the most vulnerable of the road users. The data on accidents and fatalities involving pedestrians is given in **Table 16**. It is seen that RTAs of pedestrians involved in 2017 & 2018 are same. The percentage of pedestrian fatalities as a portion of all fatalities was 42% in 2017 and 46% in 2018. So, while the number of accidents were same, the number of fatalities went up in 2018 by 2531-2429= 102.

Of 4161 pedestrian accidents in 2018, 1184 numbers took place on urban roads and 2977 number took place on rural roads. Similarly out of 2531 fatalities in 2018, 1892 took place on rural road and 639 on urban road. Of the 4161 accidents in 2018, 1802 number took place during night hours and 2359 took place during day hours.

The numbers of accidents and fatalities of pedestrians in 2018 at various junctions was 1693 (40.6%) and 989 (39%) respectively out of which the number of accidents at uncontrolled junctions was 1251 and fatalities was 776. The distribution of pedestrian accidents and fatalities across different road categories and districts is given in **Table 16A**. 1553 or 37% RTAs involving pedestrians took place on NH. Out of 4055 RTAs on NH in 2018, 1553 or 38% involved pedestrians. It is seen that the highest number of pedestrian RTAs took place in Purba

Bardhaman 295, Paschim Medinipur 294, Nadia 251, Murshidabad 246, Barasat PD 211, Uttar Dinajpur 210, Purba Medinipur 257 and Asansol Durgapur 202.

Similarly pedestrians accidents were maximum on **Other road** (1581 or 37.99%) accounting for 945 or 37.33% of all pedestrian deaths. The spot wise involvements of pedestrians and by type of vehicles is given at **Table 16B** and **Table 16C** respectively. It is seen that the largest numbers of accidents took place in residential area 1465 resulting in death of 847 persons. Within this, rural road accounted for 1038 or 70.85% of the accidents and 634 or 74.85% of fatalities.

The high incidence of pedestrian accidents and deaths on **other roads** and **residential** area in **rural roads** indicates the need for stronger traffic engineering interventions and for launching for more robust road safety awareness campaigns on the others roads in rural areas. Out of 1009 accidents in which pedestrians were hit by two wheelers, 751 or 75% took place on rural roads. Enforcement drive against errant two wheelers drivers behaviour is required. Vulnerable stretches of pedestrian accidents are given at **Table 16D**. Age group of pedestrian fatalities is given at **Table 16 E**.

Table 16: RTA data on Pedestrian involved in 2017 & 2018.

| Year | RTA | | Fatality | | Injury | |
|--------------|-------------|-------|-------------|-------|-------------|-------|
| | Urban | Rural | Urban | Rural | Urban | Rural |
| 2017 | 1421 | 2740 | 721 | 1708 | 950 | 1803 |
| Total | 4161 | | 2429 | | 2753 | |
| 2018 | 1184 | 2977 | 639 | 1892 | 707 | 1755 |
| Total | 4161 | | 2531 | | 2462 | |



Table 16(A): District wise Pedestrians involved in RTA Cases - 2018

| Sl. No. | District / PC | RTA in Pedestrian Involved | | On National Highway | | On State Highway | | On Others Road | |
|--------------|---------------------|----------------------------|-------------|---------------------|------------|------------------|------------|----------------|------------|
| | | RTA | Fatality | RTA | Fatality | RTA | Fatality | RTA | Fatality |
| 1 | Alipurduar | 74 | 51 | 35 | 27 | 21 | 13 | 18 | 11 |
| 2 | Asansol-Durgapur PC | 202 | 147 | 99 | 83 | 11 | 8 | 92 | 56 |
| 3 | Bankura | 120 | 93 | 29 | 25 | 54 | 40 | 37 | 28 |
| 4 | Barasat PD | 211 | 102 | 83 | 33 | 23 | 13 | 105 | 56 |
| 5 | Barrackpore PC | 110 | 46 | 10 | 5 | 64 | 27 | 36 | 14 |
| 6 | Baruipur PD | 99 | 54 | 0 | 0 | 37 | 20 | 62 | 34 |
| 7 | Basirhat | 93 | 62 | 0 | 0 | 33 | 22 | 60 | 40 |
| 8 | Bidhannagar PC | 67 | 18 | 7 | 2 | 18 | 3 | 42 | 13 |
| 9 | Birbhum | 164 | 131 | 48 | 35 | 36 | 26 | 80 | 70 |
| 10 | Chandannagar PC | 48 | 35 | 21 | 19 | 22 | 12 | 5 | 4 |
| 11 | Cooch Behar | 115 | 68 | 47 | 26 | 24 | 18 | 44 | 24 |
| 12 | Dakshin Dinajpur | 100 | 74 | 44 | 33 | 4 | 3 | 52 | 38 |
| 13 | Darjeeling | 35 | 23 | 21 | 13 | 5 | 2 | 9 | 8 |
| 14 | Diamond Harbour PD | 176 | 71 | 109 | 41 | 0 | 0 | 67 | 30 |
| 15 | Hooghly Rural | 122 | 74 | 8 | 6 | 77 | 44 | 37 | 24 |
| 16 | Howrah PC | 117 | 39 | 27 | 17 | 16 | 3 | 74 | 19 |
| 17 | Howrah Rural | 156 | 104 | 79 | 55 | 29 | 20 | 48 | 29 |
| 18 | Jalpaiguri | 126 | 51 | 65 | 25 | 4 | 2 | 57 | 24 |
| 19 | Jhargram | 44 | 29 | 4 | 2 | 20 | 12 | 20 | 15 |
| 20 | Kalimpong | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21 | Malda | 182 | 124 | 122 | 87 | 22 | 11 | 38 | 26 |
| 22 | Murshidabad | 246 | 146 | 67 | 42 | 82 | 41 | 97 | 63 |
| 23 | Nadia | 251 | 134 | 102 | 53 | 90 | 46 | 59 | 35 |
| 24 | Paschim Medinipur | 294 | 193 | 110 | 76 | 70 | 52 | 114 | 65 |
| 25 | Purba Bardhaman | 295 | 217 | 79 | 57 | 145 | 99 | 71 | 61 |
| 26 | Purba Medinipur | 257 | 156 | 113 | 69 | 46 | 29 | 98 | 58 |
| 27 | Purulia | 87 | 72 | 34 | 24 | 32 | 30 | 21 | 18 |
| 28 | Siliguri PC | 85 | 32 | 36 | 14 | 14 | 4 | 35 | 14 |
| 29 | Sundarban PD | 75 | 36 | 33 | 15 | 8 | 4 | 34 | 17 |
| 30 | Uttar Dinajpur | 210 | 149 | 121 | 83 | 20 | 15 | 69 | 51 |
| TOTAL | | 4161 | 2531 | 1553 | 967 | 1027 | 619 | 1581 | 945 |

Table 16B:Spot wise involvement of Pedestrian in RTA -2018

| Sl. No. | Accident Spot | RTA | Fatality | Injury |
|--------------|--------------------------|-------------|-------------|-------------|
| 1. | Residential Area | 1465 | 847 | 907 |
| 2. | Institutional Area | 84 | 53 | 41 |
| 3. | Market / Commercial Area | 782 | 440 | 469 |
| 4. | Open Area | 1084 | 716 | 647 |
| 5. | Bus Stop | 459 | 286 | 247 |
| 6. | Petrol Pump | 94 | 54 | 57 |
| 7. | Hospital | 39 | 23 | 24 |
| 8. | Others | 154 | 112 | 70 |
| Total | | 4161 | 2531 | 2462 |



Table 16C: Pedestrian involved in RTA by type of Vehicles-2018

| Sl. No. | Type of Vehicle | RTA | Fatality | Injury |
|--------------|-----------------------------------|-------------|-------------|-------------|
| 1 | Motorised Two-Wheeler | 1009 | 522 | 630 |
| 2 | Auto Rickshaw | 76 | 30 | 56 |
| 3 | Car/Jeep/Van/Taxi | 957 | 542 | 661 |
| 4 | Bus | 329 | 174 | 237 |
| 5 | Truck/Lorry | 1225 | 823 | 670 |
| 6 | Heavy Articulated Vehicle/Trolley | 76 | 51 | 38 |
| 7 | Tempo/Tractor | 187 | 126 | 92 |
| 8 | E-Rickshaw | 2 | 2 | 0 |
| 9 | Bicycle | 4 | 2 | 2 |
| 13 | Others | 296 | 259 | 76 |
| TOTAL | | 4161 | 2531 | 2462 |

Table 16D: Stretches where Pedestrian involved in RTA -2018

| Sl No. | District / PC | Road Stretches | Length (in KM) |
|--------|--------------------|---|---------------------------|
| 1. | Asansol-Durga PC | 83 (NH-2) B.B.D. Market under Bud Bud PS to Sarakdihi More under Asansol (N) PS | 68.9 |
| 2. | Bankura | 7 (SH-2) Hetyagara to Simlapal Lalmaidan under Simlapal PS | 6.0 |
| 3. | Barasat PD | 40 (NH-34) Doltala under Madhyamgram PS to Baikunthapur under Amdanga PS | 28.6 |
| 4. | Barrackpore PC | 10 (NH-34) Malancha Bus stop to Mathkal under Dum Dum PS 49 (SH-1 - BT Rd) Jhautala More under Jagaddal PS to In front of Baranagar PS | 3.2 26.5 |
| 5. | Basirhat | 15 (SH-3) Kayalbari to Bamanpukur under Minakhan PS | 10.3 |
| 6. | Bidhannagar PC | 18 (SH-3) Haldiram Bus Stop under Baguiati PS to Dakshindari under Lake Town PS 7 (NH-34) Apanaloy Housing to Airport 1 No Gate under Airport PS | 8.1 5.6 |
| 7. | Chandannagar PC | 21 (NH-2) Hazra Para Bus stand to Coca-Cola Factory under Dankuni PS 7 (SH-13) Bangihati under Serampur PS to Delhi Road Chowmatha under Dankuni PS | 5.9 7.2 |
| 8. | Darjeeling | 12 (NH-31) Bidhannagar to Ghoshpukur under Phensedewa PS | 12.3 |
| 9. | Diamond Harbour PD | 109 (NH-117) Pailan under Bishnupur PS to Kanpur under Diamond Harbour PS | 37 |
| 10. | Howrah PC | 11 (NH-117) Garfa ROB under Jagacha PS Kankrapara under Chatarjeehat PS 10 (NH-6) Joypur Bil Chamrail to Kona under Liluah 6 (NH-2) Nibedita Toll Plaza to Rajchandrapur under Nischinda PS 14 (SH-6) Bally Halt under Bally PS to Danesh SK Lane under AJC Bose B Garden PS | 4.4 2.6 1.4 15.6 |
| 11. | Howrah Rural | 77 (NH-6) Pakuria under Domjur PS to Khadinan Library More under Bagnan PS | 40.4 |
| 12. | Jalpaiguri | 10 (NH-31) Batabari to Soongachi Tea Estate More under Meteli PS | 10.3 |
| 13. | Malda | 87 (NH-34) Farakka Barrage under Baishnabnagar PS to Mayna under Gazole PS | 66.9 |
| 14. | Nadia | 102 (NH-34) Simurali Chowrasta under Chakdah PS to Janakinagar under Kaliganj PS | 101 |
| 15. | Purba Bardhaman | 17 (SH-15) Maldanga under Monteswar PS to Maharaj Marriage hall under Memari PS | 8.7 |
| 16. | Siliguri PC | 26 (NH-31) Monee More under Bagdogra PS to Himali Sahid nagar under Bhaktinagar PS | 21.1 |
| 17. | Sundarban PD | 8 (SH-1) Siddhaswar more under Mathurapur PS to Laxmikantapur under Mandirbazar PS | 8.3 |

Table 16 E: Age group of Pedestrian involved in RTAs-2018

| Victim Age Group | RTA | Fatality | Injury |
|--------------------|-------------|-------------|-------------|
| Less than 18 years | 371 | 193 | 206 |
| 18 - 25 | 344 | 188 | 211 |
| 25 - 35 | 885 | 490 | 505 |
| 35 - 45 | 831 | 454 | 430 |
| 45 - 60 | 1027 | 653 | 399 |
| 60 and Above | 339 | 211 | 129 |
| Age not known | 364 | 342 | 582 |
| Total | 4161 | 2531 | 2462 |



SECTION 6. PROFILE OF ROAD ACCIDENT VICTIMS

Age profile of road accident victims

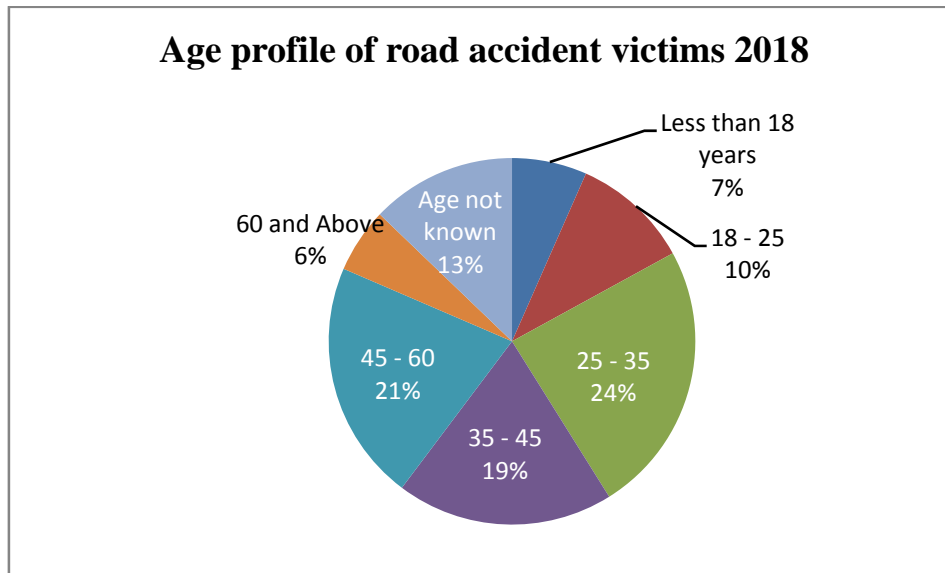
Age profile of fatal road accident victims of 2018 remains largely same with that of 2017. Road accident victims largely constitute young people in the productive age groups underscoring major implication on economic cost of road accidents, apart from their emotional and psychological impact. Young

adults in the age group of 25-45 years accounted for the high share of 24.09% and working age group, 18-60 years accounted for a share of 81.45% in the total road accident fatalities. Table below gives age profiles of fatal victims of road accident in 2017 and 2018.

Table 17 :Age profile of fatal road accident victims during 2017 and 2018

| Age-group | Persons killed in 2017 | Persons killed in 2018 |
|-----------------------|------------------------|------------------------|
| 1. Less than 18 years | 523 (9.06) | 358 (6.60) |
| 2. 18 - 25 | 1,492 (25.86) | 564 (10.41) |
| 3. 25 - 35 | 1,213 (22.02) | 1,305 (24.09) |
| 4. 35 - 45 | 1,058 (18.33) | 1,037 (19.14) |
| 5. 45 - 60 | 990 (17.16) | 1,149 (21.21) |
| 6. 60 and Above | 493 (8.54) | 309 (5.70) |
| 7. Age not known | 0 (0.00) | 695 (12.82) |
| Total | 5,769 | 5,417 |

Note: Figures in parentheses are percentage share in the total of respective columns.



Gender and age profile of fatal road accident victims

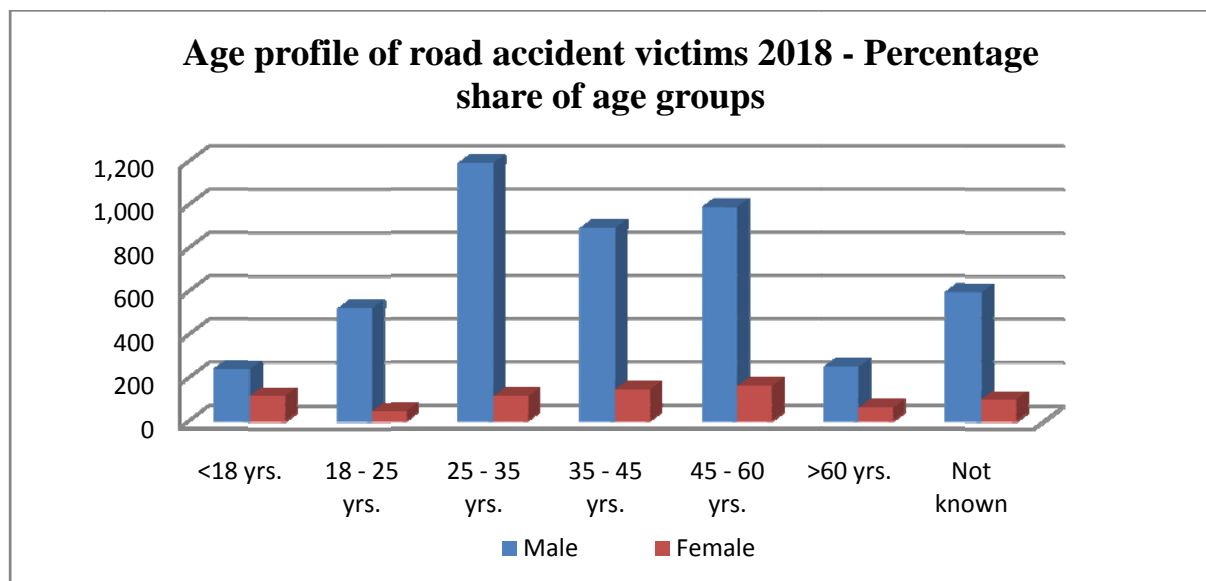
The gender-wise comparison in road accident deaths for the year 2018 revealed that the total number of males and females killed during the calendar year 2018 were 4,675 and 742

respectively. During the last calendar year the share of males and females in number accident deaths were 86.30% and 13.70% respectively. This is given at Table 13.

Below and Chart 7 depicts gender-wise distribution for the year 2018.

Table 18: Gender-wise age profile of fatal road accident victims in 2017 & 2018

| Age-group | 2017 | | 2018 | |
|-----------------------|--------------|------------|--------------|------------|
| | Male | Female | Male | Female |
| 1. Less than 18 years | 441 | 82 | 241 | 117 |
| 2. 18 - 25 | 1,298 | 194 | 519 | 45 |
| 3. 25 - 35 | 1,044 | 169 | 1,191 | 114 |
| 4. 35 - 45 | 866 | 192 | 891 | 146 |
| 5. 45 - 60 | 792 | 198 | 989 | 160 |
| 6. 60 and Above | 428 | 65 | 249 | 60 |
| 7. Age not known | 0 | 0 | 595 | 100 |
| Total | 4,869 | 900 | 4,675 | 742 |



SECTION7: CAUSES OF ROAD ACCIDENTS

Road accidents are multi-causal and are the result of interplay of various factors which can broadly be categorized into human errors, road condition/environment and vehicular condition. However, the problem in ascertaining the causes with exactitude stems from many reasons.

Firstly, most data on traffic violations as cause of accidents are based on First Information Report and not on the result of investigation. As a result of this, a very large number of cases show over speeding as a cause though in majority of such cases, one does not know whether the speed was determined after post accident reconstruction and whether or not it was more than the permitted carriageway speed limit.

Secondly, data on incidence of drunken driving is very limited as in hardly 5% of the cases are offending drivers apprehended within 24 hours of the incident. Similarly, in the absence of installation of red light signals at over 90% of the intersections where the Indian Road Congress Codes prescribe, the Red Light violations is severely underreported. On the other hand, traffic violations may not be even be mentioned in some FIRs.

Thirdly, the contribution of road engineering defects (except potholes) are not reflected in the data collected. Hence, whether the accident was caused due to poor road design, intersection and road edge management, signages and road markings, vision blocking, etc are not accounted for in the data.

Fourthly , the contribution of errant pedestrian road use behaviour as a cause of accidents and fatalities is rarely documented.

Fifthly, not all causes can be gleaned from accident reports, but also from other sources of which the most authoritative are road safety audit reports of experts. Of these , mention is being made to two – road engineering defects reflected in road safety audit reports and comment on drivers skills seen in video footages .

So, the causes being submitted below are informed by these limitations and a general co relational surmise is being made.

Traffic rules violations

Subject to the disclaimer made above, RTAs due to different traffic violations are given at **Table 19**. Over speeding and driving on wrong side together accounted for 49% of total accident and 48% of total death. Violation of other rules, viz., drunken driving, red light jumping and use of mobile phones together accounted for just 0.72 % accidents and 0.76 deaths. Road accidents which do not involve traffic rules violation or violation not known (such as hit-and-run cases) constitute 50.17 % and accounted for 49.27 % of the total fatality.



Table 19: Road accidents by type of traffic rules violations

| Traffic rules violation | No. of Accidents | Killed | Injured |
|--------------------------|------------------|--------------|--------------|
| 1. Over Speeding | 4,640 | 2,535 | 4,963 |
| 2. Jumping Red Light | 12 | 2 | 15 |
| 3. Driving on Wrong side | 186 | 99 | 227 |
| 4. Drunken Driving | 46 | 26 | 36 |
| 5. Use of Mobile Phone | 17 | 50 | 25 |
| 6. No violation | 574 | 265 | 551 |
| 7. Not Known | 4567 | 2,440 | 4,018 |
| Total | 10,042 | 5,417 | 9,835 |

Note: Figures in parentheses are percentage share in the total of respective columns.

The distribution of over speeding cases across divided and undivided road categories is given at **Table 19A**. From this, it appears that given

all condition being same, over speeding related accidents occur more (3405) on undivided than divided carriageways (1235).

Table 19 A: The distribution of over speeding on divided and undivided road categories-2018

| NH | | SH | | Others Road | | Total | |
|------------|-------------|------------|------------|-------------|-------------|-------------|-------------|
| Divided | Un-Divided | Divided | Un-Divided | Divided | Un-Divided | Divided | Un-Divided |
| 886 | 1081 | 162 | 947 | 187 | 1377 | 1235 | 3405 |

The distribution of over speeding related RTAs (see Table 19B) across various junctions indicate that out of 4640 RTAs in 2018, 1923 took place at various junctions (41.44%) out of which 695 at Staggered junctions were the highest. Further, out of a total of 1923 over speeding accidents at various junctions, 1248

were at Uncontrolled junctions of which 583 at Staggered Uncontrolled junctions was the highest. From this it appears that all junction design and junction control imperfections have a huge role to play in cases reported as over speeding.



Table 19 B: RTA due to over speeding on various Junctions-2018

| RTA due to over speeding on various Junction Type wise-2018 | | | | | | | | | | |
|---|------------|------------|------------|------------|---------------------|------------|---------------------|------------|----------------------|------------|
| District/ Commissionerate | T-Type | | Y-Type | | Four Arms Junctions | | Staggered Junctions | | Round about Junction | |
| | Control | Un-Control | Control | Un-Control | Control | Un-Control | Control | Un-Control | Control | Un-Control |
| Total | 315 | 345 | 105 | 138 | 116 | 64 | 112 | 583 | 27 | 118 |

Over speeding results in various types of collisions of which head on Collision is the highest (920). Of these 920 head on collisions arising at undivided carriageways is 729 while 685 rear end collisions were due reportedly due to overspeeding. It reflects, therefore, poor driving skills of drivers in keeping to their side of the lane and maintaining braking distance.

However, the fact that only approximately 90,000 violations against over speeding of over 90 lacs registered vehicles were launched points to need for drastic improvement in vigil and enforcement against this offence.

Table 19 C: RTA due to over speeding by collision type wise-2018

| With parked vehicle | Hit from Back | Hit from Side | Run off Road | Fixed Object | Vehicle overturn | Head on Collision |
|---------------------|---------------|---------------|--------------|--------------|------------------|-------------------|
| 66 | 685 | 281 | 270 | 88 | 171 | 920 |

Condition and age of vehicles

Vehicle maintenance issues are also relevant. In 2018, Mechanical failures resulted

in 805 (Table 19D) accidents. Similarly, RTAs arising out overloading of lorries and of buses resulted in 58 RTAs.

Table 19 D: RTA due to Various type of Mechanical Faliure-2018.

| Defective Brakes | Defective Steering / Axle | Punctured or Burst Tyres | Bald / Resoled / Worn Out Tyres |
|------------------|---------------------------|--------------------------|---------------------------------|
| 536 | 79 | 24 | 28 |

Overloading - Load condition of vehicles involved in accident

Overloaded vehicles and vehicles with loads protruding/hanging are road traffic hazard, risking accident for itself and also for other

road users. A total of 330 road accidents during 2018 involved overloaded vehicles.

Non wearing of helmets and seat belts

These omissions do not cause accidents but affect nature of injuries and chances of fatalities. In 2018, out of 1666 number two-wheeler fatal accidents, in 85 cases out of 3319 cases of RTA involving two wheelers was the driver/pillion found wearing helmets (2.56%) which resulted in the death of 602 persons and grievous injury to 933 drivers/pillion

riders. Similarly, in 2851 number of cases involving four wheelers, in only 59 cases driver/passenger was found to be wearing seat belt. Further if we consider that out of approximately 74,61,002 registered two wheelers, prosecution against non wearing of helmets was launched in only 12,83,204 cases (17.19%), and in 11,39,264 number of four



wheelers, 3,37,677 (29.63 %) number of prosecutions were launched against non wearing of seat belt, it is clear that police

Traffic Engineering

The large number of RTAs at different junctions of which a large number are uncontrolled make engineering inadequacies a major contributory cause of accident. In 2018, a total of 4,094 accidents occurred at road junction which comprises 40.77 % of the total 10,042 accidents recorded in the State and resulted in 2168 fatalities or 40% of fatalities (Table-8) above. Out of 4,094 accidents at road junctions, 1,501 (36.66%) accidents took place at junctions which had traffic control measures such as traffic light signals, police control, stop sign and flashing signals/blinkers and the remaining 2,593

authorities have to step up enforcement in big way.

(63.34%) accidents took place at uncontrolled junctions (Table 9). This highlights the importance and also inadequacy of traffic control mechanism at road junctions and a major traffic engineering short coming. RTAs on junction control on different road categories is given at Table-9A above. The high incidence of pedestrian accidents and deaths on **other roads** and **residential area in rural roads** indicates the need for stronger traffic engineering interventions and for launching for more robust road safety awareness campaigns on the others roads in rural areas.

Driving skills and knowledge of road safety regulations:

Skill deficit of drivers and their knowledge of road safety regulations relating to right of way, lane driving, overtaking, braking distance is not tested in any post-accident investigation as a result of which the causes arising out these are not reflected. However, video footages of

undisciplined driving and the large number of traffic violations relating to over speeding and rear end and head on collisions compel urgent need for drastic increase in thoroughness of Basic driver's license test conducted by RTOs.

Traffic engineering issues as per road safety audit

Main extracts from road safety audit reports conducted by IIT, Kharagpur on different NH and SH are given below:

1. Inadequate, often incorrect **signage and pavement marking-**
2. **Restricted right of way and Vulnerable road users – Very little separation of pedestrian channels from motorized flow**
3. **Issues relating to Road Appurtenant:** Absent or discontinuous crash barriers(CB) and pedestrian guard rails (PGR).
4. **Intersections-** unsignalized; located at influence area of curves; inadequate traffic calming measures; uneven levels of main carriageway and merging lane.
5. **Encroachment** - Poor sight distance from minor roads due to road side encroachments by shops, parking lots and billboards/hoardings/flexes
6. **At Horizontal Curves-** restricted sight distance; lack of advance signages and chevron markings
7. **Construction Zone:** Improper demarcation and delineation, insufficient pre-warning signs, speed limits and 'no overtaking' signs at the construction zones.



SECTION 8: BLACK SPOTS

Identification of Black Spots -2018 under West Bengal Police jurisdiction:

“A road accident black spot, as per the current protocol, is a stretch of National Highway of about 500m in length in which either 5 road accidents (in all 2015, 2016, 2017 put together involving fatalities/grievous injuries) took place during these 3 calendar year or 10 fatalities (in all three years put together) took place during these 3 calendar year” as defined by MoRTH vide No. RW/NH/15017/109/2015/P&M(RSCE) Dated 28.10.2015

Table 20: District wise identify Total Number of Black Spots - 2018

| Sl No. | District / PC | National Highways | State Highways | Others Road | Total Black Spots |
|--------------|---------------------|-------------------|----------------|-------------|-------------------|
| 1 | Alipurduar | 14 | 6 | 1 | 21 |
| 2 | Asansol-Durgapur PC | 45 | 7 | 9 | 61 |
| 3 | Bankura | 9 | 12 | 2 | 23 |
| 4 | Barasat PD | 48 | 6 | 9 | 63 |
| 5 | Barrackpore PC | 4 | 50 | 3 | 57 |
| 6 | Baruipur PD | 0 | 12 | 16 | 28 |
| 7 | Basirhat PD | 0 | 10 | 7 | 17 |
| 8 | Bidhannagar PC | 8 | 10 | 14 | 32 |
| 9 | Birbhum | 22 | 8 | 2 | 32 |
| 10 | Chandannagar PC | 10 | 3 | 0 | 13 |
| 11 | Cooch Behar | 7 | 11 | 0 | 18 |
| 12 | Dakshin Dinajpur | 20 | 1 | 0 | 21 |
| 13 | Darjeeling | 12 | 4 | 1 | 17 |
| 14 | Diamond Harbour PD | 35 | 0 | 10 | 45 |
| 15 | Hooghly Rural | 22 | 52 | 2 | 76 |
| 16 | Howrah PC | 15 | 5 | 1 | 21 |
| 17 | Howrah Rural | 42 | 11 | 4 | 57 |
| 18 | Jalpaiguri | 30 | 1 | 5 | 36 |
| 19 | Jhargram | 5 | 1 | 0 | 6 |
| 20 | Kalimpong | 6 | 0 | 0 | 6 |
| 21 | Malda | 39 | 5 | 2 | 46 |
| 22 | Murshidabad | 42 | 22 | 6 | 70 |
| 23 | Nadia | 42 | 21 | 2 | 65 |
| 24 | Paschim Medinipur | 80 | 14 | 16 | 110 |
| 25 | Purba Bardhaman | 43 | 42 | 2 | 87 |
| 26 | Purba Medinipur | 68 | 18 | 12 | 98 |
| 27 | Purulia | 2 | 4 | 0 | 6 |
| 28 | Siliguri PC | 20 | 6 | 6 | 32 |
| 29 | Sundarban PD | 14 | 0 | 1 | 15 |
| 30 | Uttar Dinajpur | 51 | 6 | 2 | 59 |
| TOTAL | | 755 | 348 | 135 | 1238 |



Table 20A: Black Spot on National Highway - 2018

| Sl No. | District / PC | Total on NH | 2 | 2B | 6 | 31 | 31A | 31C | 31D | 32 | 34 | 35 | 41 | 55 | 60 | 81 | 116B | 117 | 512 |
|--------------|--------------------|-------------|------------|----------|-----------|-----------|----------|-----------|-----------|----------|------------|-----------|-----------|----------|-----------|----------|-----------|-----------|-----------|
| 1. | Alipurduar | 14 | | | | 5 | | 9 | | | | | | | | | | | |
| 2. | ASL-DGP PC | 45 | 41 | | | | | | | | | | | | 4 | | | | |
| 3. | Bankura | 9 | | | | | | | | | | | | | 9 | | | | |
| 4. | Barasat PD | 48 | | | | | | | | | 16 | 32 | | | | | | | |
| 5. | Barrackpore PC | 4 | | | | | | | | | 4 | | | | | | | | |
| 6. | Baruipur PD | 0 | | | | | | | | | | | | | | | | | |
| 7. | Basirhat PD | 0 | | | | | | | | | | | | | | | | | |
| 8. | Bidhannagar PC | 8 | | | | | | | | | 8 | | | | | | | | |
| 9. | Birbhum | 22 | | 0 | | | | | | | | | | | 22 | | | | |
| 10. | Chandannagar PC | 10 | 10 | | | | | | | | | | | | | | | | |
| 11. | Cooch Behar | 7 | | | | 7 | | | | | | | | | | | | | |
| 12. | Dakshin Dinajpur | 20 | | | | | | | | | | | | | | | | | 20 |
| 13. | Darjeeling | 12 | | | | 8 | 1 | 2 | | | | | | 1 | | | | | |
| 14. | Diamond Harbour PD | 35 | | | | | | | | | | | | | | | | | 35 |
| 15. | Hooghly Rural | 22 | 22 | | | | | | | | | | | | | | | | |
| 16. | Howrah PC | 15 | 2 | | 2 | | | | | | | | | | | | | | 11 |
| 17. | Howrah Rural | 42 | | | 42 | | | | | | | | | | | | | | 0 |
| 18. | Jalpaiguri | 30 | | | | 3 | | 7 | 20 | | | | | | | | | | |
| 19. | Jhargram | 5 | | | 5 | | | | | | | | | | | | | | |
| 20. | Kalimpong | 6 | | | | | 6 | | | | | | | | | | | | |
| 21. | Malda | 39 | | | | | | | | | 35 | | | | | 2 | | | 2 |
| 22. | Murshidabad | 42 | | | | | | | | | 42 | | | | | | | | |
| 23. | Nadia | 42 | | | | | | | | | 42 | | | | | | | | |
| 24. | Paschim Medinipur | 80 | | | 27 | | | | | | | | | | 53 | | | | |
| 25. | Purba Bardhaman | 43 | 37 | 6 | | | | | | | | | | | | | | | |
| 26. | Purba Medinipur | 68 | | | 16 | | | | | | | | 24 | | | | 28 | | |
| 27. | Purulia | 2 | | | | | | | | 2 | | | | | | | | | |
| 28. | Siliguri PC | 20 | | | | 17 | | 1 | 1 | | | | | 1 | | | | | |
| 29. | Sundarban PD | 14 | | | | | | | | | | | | | | | | | 14 |
| 30. | Uttar Dinajpur | 51 | | | | 24 | | | | | 27 | | | | | | | | |
| Total | | 755 | 112 | 6 | 92 | 64 | 7 | 19 | 21 | 2 | 174 | 32 | 24 | 2 | 88 | 2 | 28 | 60 | 22 |



Table 20B: Black Spot on State Highway – 2018

| District / PC | Total on SH | 1 | 2 | 3 | 4 | 4A | 5 | 6 | 7 | 8 | 9 | 10 | 10A | 11 | 11A | 12 | 12A | 13 | 14 | 15 |
|---------------------|-------------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|----------|----------|-----------|----------|----------|-----------|-----------|-----------|-----------|
| Alipurduar | 6 | | | | | | | | | | | | | | | 3 | 3 | | | |
| Asansol-Durgapur PC | 7 | | | | | | | | | | 1 | | | | | | | | 6 | |
| Bankura | 12 | | 2 | | | | | | | 1 | 9 | | | | | | | | | |
| Barasat PD | 6 | 2 | 2 | 2 | | | | | | | | | | | | | | | | |
| Barrackpore PC | 50 | 45 | 5 | | | | | | | | | | | | | | | | | |
| Baruipur PD | 12 | 6 | | 6 | | | | | | | | | | | | | | | | |
| Basirhat PD | 10 | | 10 | 0 | | | | | | | | | | | | | | | | |
| Bidhannagar PC | 10 | | | 10 | | | | | | | | | | | | | | | | |
| Birbhum | 8 | | | | | | | 1 | 1 | | | | | 0 | | | | 0 | 6 | |
| Chandannagar PC | 3 | | 0 | | | | | 2 | | | | | | | | | | 1 | | 0 |
| Cooch Behar | 11 | | | | | | | | | | | | | | | | 11 | | | |
| Dakshin Dinajpur | 1 | | | | | | | | | | | | 1 | | | | | | | |
| Darjeeling | 4 | | | | | | | | | | | | | | | 4 | | | | |
| Diamond Harbour PD | 0 | | | | | | | | | | | | | | | | | | | |
| Hooghly Rural | 52 | | 27 | | | | | 9 | 4 | | | | | | | | | 6 | | 6 |
| Howrah PC | 5 | | | | | | | 5 | | | | | | | | | | | | |
| Howrah Rural | 11 | | | | | | | 6 | | | | | | | | | | | | 5 |
| Jalpaiguri | 1 | | | | | | | | | | | | | | | 1 | 0 | | | |
| Jhargram | 1 | | | | | | 1 | | | | 0 | | | | | | | | | |
| Kalimpong | 0 | | | | | | | | | | | | | | | | 0 | | | |
| Malda | 5 | | | | | | | | | | | 5 | | | | | | | | |
| Murshidabad | 22 | | | | | | | | 7 | | | | | 15 | 0 | | | | | |
| Nadia | 21 | 4 | | 0 | | | | 0 | | 2 | | | | 15 | | | | | 0 | |
| Paschim Medinipur | 14 | | | | 7 | | 5 | | 2 | | | | | | | | | | | |
| Purba Bardhaman | 42 | | | | | | | 10 | 13 | 7 | | | | | | | | 6 | 2 | 4 |
| Purba Medinipur | 18 | | | | 9 | | 9 | | | | | | | | | | | | | |
| Purulia | 4 | | | | 1 | 0 | 3 | | | 0 | | | | | | | | | | |
| Siliguri PC | 6 | | | | | | | | | | | | | | | 1 | 5 | | | |
| Sundarban PD | 0 | 0 | | | | | | | | | | | | | | | | | | |
| Uttar Dinajpur | 6 | | | | | | | | | | | | 6 | | | | | | | |
| Total | 348 | 57 | 46 | 18 | 17 | 0 | 18 | 33 | 27 | 10 | 10 | 5 | 7 | 30 | 0 | 9 | 19 | 13 | 14 | 15 |



Table 20C: Black Spot on Others Road – 2018

| Sl. No. | District / PC | Number of Black Spot |
|--------------|---------------------|----------------------|
| 1 | Alipurduar | 1 |
| 2 | Asansol-Durgapur PC | 9 |
| 3 | Bankura | 2 |
| 4 | Barasat PD | 9 |
| 5 | Barrackpore PC | 3 |
| 6 | Baruipur PD | 16 |
| 7 | Basirhat PD | 7 |
| 8 | Bidhannagar PC | 14 |
| 9 | Birbhum | 2 |
| 10 | Chandannagar PC | 0 |
| 11 | Cooch Behar | 0 |
| 12 | Dakshin Dinajpur | 0 |
| 13 | Darjeeling | 1 |
| 14 | Diamond Harbour PD | 10 |
| 15 | Hooghly Rural | 2 |
| 16 | Howrah PC | 1 |
| 17 | Howrah Rural | 4 |
| 18 | Jalpaiguri | 5 |
| 19 | Jhargram | 0 |
| 20 | Kalimpong | 0 |
| 21 | Malda | 2 |
| 22 | Murshidabad | 6 |
| 23 | Nadia | 2 |
| 24 | Paschim Medinipur | 16 |
| 25 | Purba Bardhaman | 2 |
| 26 | Purba Medinipur | 12 |
| 27 | Purulia | 0 |
| 28 | Siliguri PC | 6 |
| 29 | Sundarban PD | 1 |
| 30 | Uttar Dinajpur | 2 |
| TOTAL | | 135 |



SECTION 9: ROAD SAFETY INITIATIVES BY THE GOVERNMENT

1. The state has set up **State Road Safety Council** (headed by Chief Secretary) and District Road Safety Committees (headed by District Magistrates) as per directions of the Supreme Court Committee on Road Safety. The state Road Safety Council meets twice every year – it met on 23.04.2018 and 13.07.2018 in 2018 while the District Road Safety Committees have been asked to meet once every quarter. A State Road Safety Plan was formulated in 2015.
2. **Lead Agency**- The lead agency includes Director (Transport) as the Chairman, IG (Traffic) as the Co-Chairman of the agency, PD of PIU-I/PWD, Joint Director, Health and Family WELFARE and Chief Engineer, WBTIDCL are included as the member of the lead agency. They have been entrusted with monitoring of the implementation of the directions from SCCRS.
3. To implement the measures outlined in the State Road Safety Policy, the Government of West Bengal has formulated a multi-pronged **Safe Drive Save Life** campaign based on 5 'E's viz. Education, Engineering (both of roads and vehicles), Enforcement, Evaluation and Emergency Care.
4. **Awareness Campaign on Road Safety**
 - a) The 33 units of West Bengal Police have conducted a massive community outreach under the **Safe Drive Save Life** launched by the government on **8th July 2016**. In 2018, 12,499 number of various activities (as compared in 2017) - road safety lectures in schools, colleges, villages, Sit and Draw competitions, Road shows, tableaux, skits and draw competition, counselling sessions for drivers, and **even 45** number medical camps for drivers were conducted in 2018. These are continuous awareness programmes in addition the accelerated programmes conducted during the **Road Safety Week** observed from 11th to 17th January, 2018.
 - b) Education Department has conducted **road safety training programme for the teachers**. The awareness programme on road safety is being conducted at schools. "Safe Drive, Save Life" slogan has been inducted and published in to the school curriculum. The department have incorporated the road safety awareness curriculums from Class-I to Class-VIII. Further development of course curriculum for Madhyamik and higher secondary syllabus has been planned.
5. The government has **augmented strength of traffic police personnel** by posting 25, 011 of various rank including 3,30,4 CVs. A very significant measure was to post 25 Deputy Superintendents of Police (Traffic).



6. **Funds for traffic furniture** which included traffic uniform items, traffic channelizers and enforcement equipment like speed laser guns and breathalysers were received from various sources like Transport Department, MPLAD, etc. Fixed watch towers (52), Mobile Watch Tower (40), Speed laser guns (199), breathalysers (254), road painting machines (19) were some of the significant items of procurement.
7. **Drivers' Training –**
- i) A state of art a sensor-based driving track is being commissioned in Behala, Kolkata. After commissioning, the State may evaluate the results and based on the learning, this may be taken in other locations across the State.
 - ii) **DL Testing under CCTV** surveillance has been introduced in 4 PVD offices as Pilot Project - 3 are in Beltala and 1 in Howrah.
 - iii) **Monitoring of Motor Training School:** Transport Department with the technical assistance from IIT Kharagpur has prepared and distributed to various motor driving training schools.
8. The highlights of “*Good Samaritan*” Law are being displayed prominently for public notification to encourage citizens to save lives during the Golden Hours.
9. **Ban on Sale of Alcohol in the proximity of the entire SHs and NHs-**
10. **Vehicle Safety notifications:**The Government of West Bengal of Road Transport & Highways has issued notification for vehicle safety:
- **Anti-lock Brake System (ABS)** has been made mandatory for M1 and M2 category Vehicles;
 - **Fitment of Speed Governor** on M1 category;
 - Turning circle and Steering effort requirements;
 - Additional safety provision for M1 category – seatbelt reminder, air bag, manual over-ride, speed alert system;
 - Standardization of fully built bus as per AIS : 153
 - Self-certification of Bus Body Code;
 - Ventilation system in truck cabin
11. Change in IS standards for Agricultural Tractor, brakes, Turning Circle diameter and location of exhaust pipe.
12. **Identification and rectification of accident black spots:**1238 Black Spots identified and jointly visited.
13. **Road Safety Audits:** Done by a team of IIT Kharagpur on SH-11, SH-2, NH-60 & NH-117.
14. **Enforcement of Road Safety Laws:**The following tables gives the data on Enforcement of Road Safety Laws.



M.V Prosecution under different heads for the year 2017 and 2018 in West Bengal Police

| Year | Drunken Driving | Non-wearing of helmet | Non wearing of seat belt | Use of Mobile Phone while driving | Overloading | Red light jumping | Over speeding |
|------|-----------------|-----------------------|--------------------------|-----------------------------------|-------------|-------------------|---------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2017 | 15181 | 751421 | 140219 | 22339 | 6007 | 168662 | 39300 |
| 2018 | 17517 | 1283204 | 337677 | 60639 | 12801 | 224818 | 89373 |

Statement of Prosecution, Imposed and Realised for the Year 2017 and 2018 in West Bengal

| Year | Prosecution | Fine imposed by Compound slip issued (In Rs.) | Spot Fine realise through bank / court (In Rs.) |
|------|-------------|---|---|
| 2017 | 16,89,641 | 40,66,41,235 | 30,62,84,304 |
| 2018 | 27,94,500 | 55,50,89,017 | 43,02,60,967 |

15. Suspension of Driving License: 42,564

No. of Driving License suspended / revoked during the year 2018.



