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Bangladesh Road Transport Authority

ROAD SAFETY CELL

**NATIONAL
ROAD TRAFFIC ACCIDENT
REPORT
2002**

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1 INTRODUCTION

This National Road Traffic Accident Report for the period 2002 is the second annual report of road traffic accident statistics to be produced and published by the Road Safety Cell.

Since its inception in January, 2001, the Road Safety Cell (RSC) has reported the contents of the national road traffic accident (RTA) database. Whilst the RSC and the Police are working closely together to safeguard the integrity of the database and promote its statistical accuracy, it is widely recognised by road safety practitioners in Bangladesh, including both the RSC and the Police, that the RTA database is not a complete nor entirely accurate record of all road accidents in Bangladesh. To address this issue, the RSC is supplementing its normal Police training programme for the recording of traffic accident data, with a more extensive programme to achieve a wider coverage of Police officers working at the Thana level. Coupled with this, in an update of the road inventory system used to record accident location, a revision of the Police training manual and an upgrade of the computer hardware at the ten regional Accident Data Units where the data is electronically captured. This programme has commenced and will be completed in 2004.

As in the 2001 annual report, this report contains the statistics of accidents both nationally and for the six Divisions and the four main cities in Bangladesh. Additionally, compared to the 2001 report, the statistics of traffic accidents as reported in the 64 Districts is also recorded.

Towards the end of 2003 and during 2004, with technical assistance provided by the CIDC3 Project supported by the UK Department for International Development (DFID), the RSC will be undertaking an extensive programme to facilitate District Road Safety Committees in their activities and road safety interventions. The statistics reported herein will be a useful introduction to the purpose of this programme.

Also, this annual report contains a section on how to use the RTA database. The national database contains details of reported accidents for the five year period 1998 – 2002. For some areas, such as Dhaka City, there are RTA records in the database dating back to 1995. The database contains far more information than is reported in this annual report. The intent of including a guide on how the database can be used is so that members of the road safety community in Bangladesh can avail themselves of this information.

2 THE ROAD TRAFFIC ACCIDENT DATABASE

2.1 DATA COLLECTION

Road accident data is reported by Police working at the Thana level in an *Accident Reporting Form (ARF)* which was introduced nation-wide in 1997. This form, which is written in Bangla and published by the Government of Bangladesh, is a mandatory part of the investigation *First Information Report (FIR)* completed by the Investigating Officer for each road accident case.

Completed ARFs are compiled at the Accident Data Units (ADUs) in six Range and four Metropolitan Police offices (Dhaka Metro, Dhaka Range, Chittagong Metro, Chittagong Range, Rajshahi Metro, Rajshahi Range, Khulna Metro, Khulna Range, Sylhet Range and Barisal Range) where the data is entered into an electronic database. The software used to compile (and later interrogate) the database is known as MAAP (for Micro-computer Accident Analysis Package, developed and produced by TRL, UK) and the database is commonly referred to as the MAAP data. From these regional ADUs, the accident data is transferred by computer diskette (floppy disk) to the National ADU at Police Headquarters, Dhaka. The Road Safety Cell collects this data from the Police Headquarters and enters it into its own master database.

The MAAP software, which is used to compile and interrogate the electronic accident database, resides on the computers in each of the Police Range and Metro ADUs, the ADU at Police Headquarters and at the RSC Resource Centre. The software is a DOS-based version.

2.2 REPORTING

This Report, the National Road Traffic Accident (RTA) Report 2002, is the second annual report produced by the Road Safety Cell. The previous report (2001) set the standard for annual RTA reporting with full and comprehensive tabulation of national statistics for casualty road accidents and for casualties (fatalities and injured persons).

As with the previous report, the annual report for 2002 presents data on the following:

?? Casualty Accidents

- ?? by Divisions and Cities
- ?? by type of collision
- ?? by type of junction
- ?? by type of vehicle involved

?? Casualties

- ?? by Divisions and Cities
- ?? fatalities by age and road user group
- ?? passenger fatalities by age and sex
- ?? pedestrian fatalities by age and sex

The cities reported herein are Chittagong, Dhaka, Khulna and Rajshahi. RTA data for the cities of Sylhet and Barisal is not separately reported herein as, in the database, the data for these two cities is not fully differentiated from that of the districts. The RTA data for these two cities is included with the data for their respective Divisions.

Additionally, this years report includes RTA statistics for each of the country's 64 Districts. For each District, the number of fatal, grievous and simple injury accidents and the number of casualties are reported. This will help the DRSC's to formulate their own policies and initiatives to address the occurrence of road traffic accidents and reduce fatalities.

2.3 INTERPRETATION OF DATA

For targeting road safety improvement initiatives, interpretation of the accident data presented herein to either establish accident profiles or compare accident rates by District, Division or City can be undertaken with a measured degree of confidence. Caution is advised however when making comparisons of safety performance with that of other countries or when endeavouring to determine an absolute value of total accident occurrence.

In the previous report on the 2001 RTA database, caution was advised when interpreting the accident data to determine trends by comparison of the 2001 data with data from other years. The reason for this advise was because of known low reporting of accidents in some areas. This matter has been rectified in the 2002 data. As a result, comparison of the 2002 RTA data with data from the periods 1998 to 2000 can be made with a measured degree of confidence.

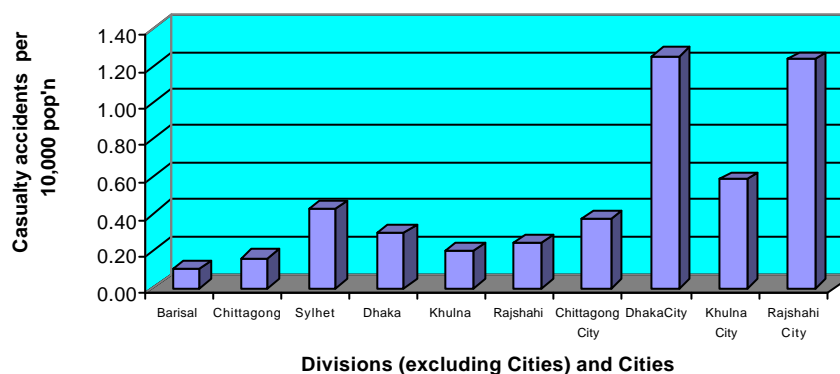
3 CASUALTY ACCIDENTS

Table 3-1 : Recorded Casualty Accidents by Division and City

Division or City	number of accidents ¹				population ² (‘000,000)	accident rates (no. per 10,000 pop'n)	
	severity			total		fatal accidents	fata + injury accidents
	fatal	grievous	simple injury				
<u>Divisions, excluding Cities</u>							
Barisal	65	17	6	88	8.232	0.079	0.107
Chittagong	253	65	26	344	21.104	0.120	0.163
Sylhet	237	81	22	340	8.017	0.296	0.424
Dhaka	741	228	39	1008	33.793	0.219	0.298
Khulna	226	44	12	282	13.898	0.163	0.203
Rajshahi	565	122	53	740	30.048	0.188	0.246
total	2087	557	158	2802	115.092	0.181	0.243
<u>Cities</u>							
Chittagong City	63	44	14	121	3.250	0.194	0.372
Dhaka City	400	265	21	686	5.458	0.733	1.257
Khulna City	24	19	3	46	0.785	0.306	0.586
Rajshahi City	25	19	4	48	0.389	0.643	1.234
total	512	347	42	901	9.882	0.518	0.912
TOTAL	2599	904	200	3703	124.974	0.208	0.296

- Notes: 1. This is the recorded number of accidents involving casualties (fatal and injury). Property damage only accidents are not included.
2. Year 2002 populations are derived from statistics published in the 2000 Statistical Yearbook and the Population Census 2001 Preliminary Report.

Figure 3-1 : Casualty Accident Rate by Division and City



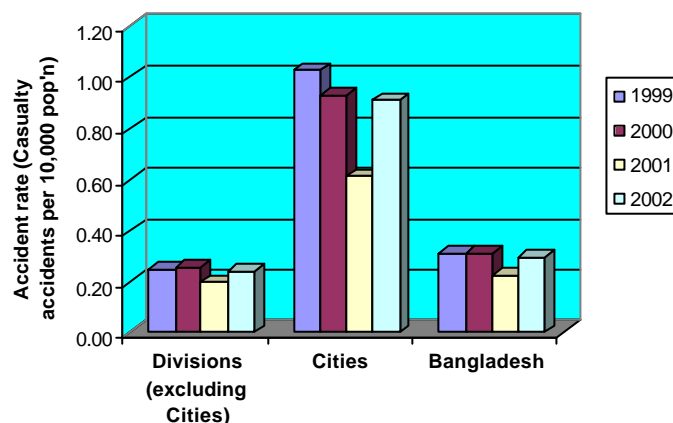
Comment:

Low cost road safety initiatives which target areas with high accident rates can normally be expected to have a greater impact and effect than low cost initiatives applied in areas of lower accident rate. Accordingly, low cost initiatives in Rajshahi City can be expected to achieve the best safety improvement performance.

Table 3-2 : Change in Recorded Casualty Accidents, 1999 - 2002

year	number of accidents ¹				population ² ('000,000)	accident rates (no. per 10,000 pop'n)	
	severity			total		fatal accidents	fatal + injury accidents
	fatal	grievous	simple injury				
Divisions, excluding the Cities							
1999	1984	595	170	2749	110.057	0.180	0.250
2000	2129	579	160	2868	111.735	0.191	0.257
2001	1688	407	117	2212	113.414	0.149	0.195
2002	2087	557	158	2802	115.092	0.181	0.243
Cities³							
1999	448	391	134	973	9.449	0.474	1.030
2000	394	450	49	893	9.593	0.411	0.931
2001	341	235	20	596	9.738	0.350	0.612
2002	512	347	42	901	9.882	0.518	0.912
Bangladesh							
1999	2432	986	304	3722	119.506	0.204	0.311
2000	2523	1029	209	3761	121.328	0.208	0.310
2001	2029	642	137	2808	123.152	0.165	0.228
2002	2599	904	200	3703	124.974	0.208	0.296

- Notes: 1. This is the recorded number of accidents involving casualties (fatal and injury). Property damage only accidents are not included.
 2. Year 2002 populations are derived from statistics published in the 2000 Statistical Yearbook and the Population Census 2001 Preliminary Report.
 3. Cities are Chittagong, Dhaka, Khulna and Rajshahi.

Figure 3-2 : Casualty Accident Rate, 1999 - 2002**Comment:**

The decrease in accident rates between 1999 and 2002 may be the start of a downward trend. (Refer Section 10.1).

Table 3-3 : Recorded Casualty Accidents by District (Zila)

Division and District	number of accidents ¹				population ² ('000,000)	accident rates (no. per 10,000 pop'n)	
	severity			total		grievous	simple injury
	fatal	grievous	simple injury				
Barisal Division							
Barguna	12	1	1	14	0.850	0.141	0.165
Barisal	16	6	1	23	2.365	0.068	0.097
Bhola	17	2	1	20	1.701	0.100	0.118
Jhalakati	5	3	0	8	0.706	0.071	0.113
Patuakhali	9	3	2	14	1.466	0.061	0.095
Pirojpur	6	2	1	9	1.143	0.052	0.079
Total	65	17	6	88	8.231	0.079	0.107
Chittagong Division							
Bandarban	4	0	1	5	0.297	0.135	0.168
Brahmanbaria	8	5	1	14	2.401	0.033	0.058
Chandpur	30	9	2	41	2.243	0.134	0.183
Chittagong District	56	10	8	74	3.392	0.165	0.218
Chittagong City	63	44	14	121	3.250	0.194	0.372
Comilla	56	8	2	66	4.655	0.120	0.142
Cox's Bazar	37	2	0	39	1.783	0.208	0.219
Feni	38	27	10	75	1.214	0.313	0.618
Khagrachhari	0	0	0	0	0.533	0.000	0.000
Lakshmipur	9	3	2	14	1.501	0.060	0.093
Noakhali	6	1	0	7	2.571	0.023	0.027
Rangamati	9	0	0	9	0.515	0.175	0.175
Total	316	109	40	465	24.355	0.130	0.191
Dhaka Division							
Dhaka District	73	12	1	86	3.245	0.225	0.265
Dhaka City	400	265	21	686	5.458	0.733	1.257
Faridpur	54	16	5	75	1.740	0.310	0.431
Gazipur	70	13	2	85	2.056	0.340	0.413
Gopalganj	35	17	5	57	1.149	0.305	0.496
Jamalpur	17	6	0	23	2.120	0.080	0.108
Kishoreganj	46	23	1	70	2.563	0.179	0.273
Madaripur	11	4	0	15	1.154	0.095	0.130
Manikganj	31	23	5	59	1.294	0.240	0.456
Munshiganj	32	13	4	49	1.313	0.244	0.373
Mymensingh	85	24	2	111	4.505	0.189	0.246
Narayanganj	85	12	5	102	2.170	0.392	0.470
Narsingdi	45	9	2	56	1.919	0.234	0.292
Netrokona	9	5	1	15	1.972	0.046	0.076
Rajbari	20	3	0	23	0.954	0.210	0.241
Shariatpur	12	10	0	22	1.073	0.112	0.205
Sherpur	28	4	1	33	1.265	0.221	0.261
Tangail	88	34	5	127	3.302	0.267	0.385
Total	1141	493	60	1694	39.252	0.291	0.432

Table 3-3 continued on next page

Table 3-3, continued

Division and District	number of accidents ¹				population ² ('000,000)	accident rates	
	severity			total		(no. per 10,000 pop'n)	
	fatal	grievous	simple injury		grievous	simple injury	
Sylhet Division							
Hobiganj	46	18	9	73	1.783	0.258	0.409
Moulavibazar	46	16	3	65	1.628	0.283	0.399
Sunamganj	29	11	2	42	1.998	0.145	0.210
Sylhet	116	36	8	160	2.608	0.445	0.613
Total	237	81	22	340	8.017	0.296	0.424
Khulna Division							
Bagerhat	21	5	3	29	1.538	0.137	0.189
Chaudanga	6	0	1	7	1.002	0.060	0.070
Jessore	63	15	2	80	2.477	0.254	0.323
Jhenaidah	67	12	5	84	1.578	0.425	0.532
Khulna District	1	1	0	2	1.584	0.006	0.013
Khulna City	24	19	3	46	0.785	0.306	0.586
Kushtia	30	6	0	36	1.739	0.173	0.207
Magura	12	0	0	12	0.823	0.146	0.146
Maherpur	5	0	0	5	0.588	0.085	0.085
Narail	0	0	0	0	0.699	0.000	0.000
Satkhira	21	5	1	27	1.870	0.112	0.144
Total	250	63	15	328	14.683	0.170	0.223
Rajshahi Division							
Bogra	45	14	5	64	3.033	0.148	0.211
Dinajpur	33	9	3	45	2.718	0.121	0.166
Gaibandha	23	4	3	30	2.149	0.107	0.140
Joypurhat	19	3	1	23	0.857	0.222	0.268
Kurigram	17	3	0	20	1.748	0.097	0.114
Lalmonirhat	12	1	0	13	1.105	0.109	0.118
Natore	48	12	6	66	2.412	0.199	0.274
Nawabganj	22	4	1	27	1.544	0.142	0.175
Nilphamari	18	4	3	25	1.441	0.125	0.173
Naogaon	45	2	1	48	1.574	0.286	0.305
Pabna	76	12	6	94	2.186	0.348	0.430
Panchgarh	10	2	1	13	0.842	0.119	0.154
Rajshahi District	45	16	9	70	1.907	0.236	0.367
Rajshahi City	25	19	4	48	0.389	0.643	1.234
Rangpur	64	19	6	89	2.572	0.249	0.346
Sirajganj	69	13	7	89	2.747	0.251	0.324
Thakurgaon	19	4	1	24	1.214	0.157	0.198
Total	590	141	57	788	30.438	0.194	0.259
TOTAL	2599	904	200	3703	124.98	0.21	0.30

4 CASUALTY ACCIDENTS BY TYPE OF COLLISION.

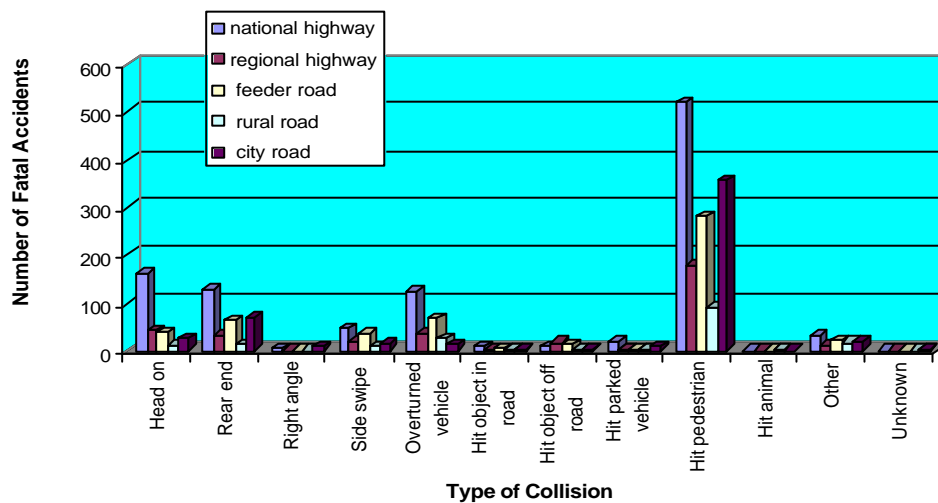
Table 4-1 : Recorded Casualty Accidents by Type of Collision

Table 4-1 (a) : Fatal Accidents

collision type	number of accidents								
	road environment			road class					
	urban	rural	total	national	regional	feeder	rural road	city	total
Head on	53	226	279	161	43	38	10	26	278
Rear end	96	203	299	128	32	62	12	68	302
Right angle	10	3	13	4	0	0	0	9	13
Side swipe	25	98	123	45	18	36	9	15	123
Overtaken vehicle	16	246	262	123	36	66	26	11	262
Hit object in road	3	15	18	8	3	5	1	1	18
Hit object off road	3	38	41	8	17	12	3	2	42
Hit parked vehicle	7	26	33	20	2	3	1	8	34
Hit pedestrian	458	958	1416	519	179	280	90	357	1425
Hit animal	0	1	1	0	0	0	1	0	1
Other	28	71	99	32	10	22	17	19	100
Unknown	3	12	15	0	0	0	0	1	1
TOTAL	702	1897	2599	1048	340	524	170	517	2599
% total	27%	73%	100%	40%	13%	20%	7%	20%	100%

Note: Collision type is the primary accident event.

Figure 4-1 : Fatal Accidents by Type of Collision and Road Class



Comment:

The predominant type of fatal collision on any type of road (road class) and in either an urban or rural road environment is a vehicle hitting a pedestrian. On roads outside the urban areas, head-on, rear end and overturning are other collision types which account for a high proportion of fatal accidents.

Table 4-1 (b) : Grievous and Simple Injury Accidents

collision type	number of accidents								
	road environment			road class					
	urban	rural	total	national	regional	feeder	rural road	city	total
Head on	63	122	185	85	15	29	9	48	186
Rear end	107	85	192	53	21	18	3	98	193
Right angle	22	1	23	1	0	0	0	22	23
Side swipe	26	68	94	42	12	16	6	18	94
Overtaken vehicle	20	112	132	54	18	40	10	11	133
Hit object in road	3	7	10	7	0	0	1	2	10
Hit object off road	10	35	45	15	10	9	2	9	45
Hit parked vehicle	12	20	32	15	4	1	0	12	32
Hit pedestrian	174	176	350	100	37	47	17	148	349
Hit animal	0	0	0	0	0	0	0	0	0
Other	22	15	37	7	5	5	1	19	37
Unknown	2	2	4	0	0	1	1	0	2
TOTAL	461	643	1104	379	122	166	50	387	1104
% total	42%	58%	100%	34%	11%	15%	5%	35%	100%

Table 4-1 (c) : Total Casualty Accidents

collision type	number of accidents								
	road environment			road class					
	urban	rural	total	national	regional	feeder	rural road	city	total
Head on	116	348	464	246	58	67	19	74	464
Rear end	203	288	491	181	53	80	15	166	495
Right angle	32	4	36	5	0	0	0	31	36
Side swipe	51	166	217	87	30	52	15	33	217
Overtaken vehicle	36	358	394	177	54	106	36	22	395
Hit object in road	6	22	28	15	3	5	2	3	28
Hit object off road	13	73	86	23	27	21	5	11	87
Hit parked vehicle	19	46	65	35	6	4	1	20	66
Hit pedestrian	632	1134	1766	619	216	327	107	505	1774
Hit animal	0	1	1	0	0	0	1	0	1
Other	50	86	136	39	15	27	18	38	137
Unknown	5	14	19	0	0	1	1	1	3
TOTAL	1163	2540	3703	1427	462	690	220	904	3703
% total	31%	69%	100%	39%	12%	19%	6%	24%	100%

Table 4-2 : Recorded Fatal Accidents by Type of Collision by Division and City

Division or City	number of fatal accidents												total
	collision type												
	Head on	Rear end	Right angle	Side swipe	Over-turned vehicle	Hit object in road	Hit object off road	Hit parked vehicle	Hit pedestrian	Hit animal	Other	Un-known	
<u>Divisions, excluding Cities</u>													
Barisal	7	4	0	8	9	1	0	1	29	0	6	0	65
Chittagong	41	20	1	6	29	1	14	4	133	0	4	0	253
Sylhet	27	23	1	10	25	0	4	3	125	1	18	0	237
Dhaka	77	83	0	18	115	5	9	8	400	0	26	0	741
Khulna	24	40	0	13	14	5	6	6	105	0	13	0	226
Rajshahi	76	62	2	56	60	5	6	5	280	0	13	0	565
total	252	232	4	111	252	17	39	27	1072	1	80	0	2087
<u>Cities</u>													
Chittagong City	10	10	0	0	1	0	0	1	39	0	2	0	63
Dhaka City	8	50	8	7	8	1	2	5	295	0	16	0	400
Khulna City	5	6	1	0	0	0	1	0	10	0	1	0	24
Rajshahi City	5	4	0	5	1	0	0	1	9	0	0	0	25
total	28	70	9	12	10	1	3	7	353	0	19	0	512
TOTAL	280	302	13	123	262	18	42	34	1425	1	99	0	2599

Comment:

On average, in all Divisions and Cities, half of all fatal accidents are collisions where a vehicle hits a pedestrian (average 55%, range 36% - 74%, refer Table 4-3). Table 4-2 indicates that most of these fatal pedestrian accidents occur in the Dhaka Division and Rajshahi Division, outside the City areas.

Table 4-3 : Recorded Fatal Accidents by Type of Collision by Division and City as percentage of total fatal accidents in Division or City

Division or City	total	% of fatal accidents in Division or City											
		collision type											
		Head on	Rear end	Right angle	Side swipe	Over-turned vehicle	Hit object in road	Hit object off road	Hit parked vehicle	Hit pedestrian	Hit animal	Other	Un-known
<u>Divisions, excluding Cities</u>													
Barisal	65	11%	6%	0%	12%	14%	2%	0%	2%	45%	0%	9%	0%
Chittagong	253	16%	8%	0%	2%	11%	0%	6%	2%	53%	0%	2%	0%
Sylhet	237	11%	10%	0%	4%	11%	0%	2%	1%	53%	0%	8%	0%
Dhaka	741	10%	11%	0%	2%	16%	1%	1%	1%	54%	0%	4%	0%
Khulna	226	11%	18%	0%	6%	6%	2%	3%	3%	46%	0%	6%	0%
Rajshahi	565	13%	11%	0%	10%	11%	1%	1%	1%	50%	0%	2%	0%
total	2087	12%	11%	0%	5%	12%	1%	2%	1%	51%	0%	4%	0%
<u>Cities</u>													
Chittagong City	63	16%	16%	0%	0%	2%	0%	0%	2%	62%	0%	3%	0%
Dhaka City	400	2%	13%	2%	2%	2%	0%	1%	1%	74%	0%	4%	0%
Khulna City	24	21%	25%	4%	0%	0%	0%	4%	0%	42%	0%	4%	0%
Rajshahi City	25	20%	16%	0%	20%	4%	0%	0%	4%	36%	0%	0%	0%
total	512	5%	14%	2%	2%	2%	0%	1%	1%	69%	0%	4%	0%
TOTAL	2599	11%	12%	1%	5%	10%	1%	2%	1%	55%	0%	4%	0%

Table 4-4 : Change in Recorded Fatal Accidents by Type of Collision, 1999 - 2002

year	number of fatal accidents													total
	collision type													
	Head on	Rear end	Right angle	Side swipe	Overtured vehicle	Hit object in road	Hit object off road	Hit parked vehicle	Hit pedestrian	Hit animal	Other	Unknown		
Divisions, excluding Cities														
1999	262	197	6	94	232	11	50	39	994	0	97	2	1984	
2000	274	253	11	78	226	6	46	36	1074	3	122	0	2129	
2001	207	187	4	69	211	14	31	37	834	1	92	1	1688	
2002	252	232	4	111	252	17	39	27	1072	1	80	0	2087	
Cities¹														
1999	26	71	4	19	12	1	2	1	302	0	10	0	448	
2000	22	76	3	8	9	4	4	1	255	0	12	0	394	
2001	25	66	10	1	14	1	5	0	211	0	8	0	341	
2002	28	70	9	12	10	1	3	7	353	0	19	0	512	
Bangladesh														
1999	288	268	10	113	244	12	52	40	1296	0	107	2	2432	
2000	296	329	14	86	235	10	50	37	1329	3	134	0	2523	
2001	232	253	14	70	225	15	36	37	1045	1	100	1	2029	
2002	280	302	13	123	262	18	42	34	1425	1	99	0	2599	

1. Cities are Chittagong, Dhaka, Khulna and Rajshahi.

Table 4-5 : Fatality Rate by Type of Collision

collision type	number of fatalities	number of fatal accidents	fatality index
Head on	458	280	1.64
Rear end	346	302	1.15
Right angle	15	13	1.15
Side swipe	148	123	1.20
Overtured vehicle	393	262	1.50
Hit object in road	18	18	1.00
Hit object off road	56	42	1.33
Hit parked vehicle	40	34	1.18
Hit pedestrian	1469	1425	1.03
Hit animal	1	1	1.00
Other	109	99	1.10

Note: fatality index = no. fatalities / no. fatal accidents

Comment:

The high numbers of persons killed on average in head-on and overturned vehicle types of fatal collisions (fatality index, Table 4-5), with the high occurrence of these fatal collision types, means that these types of collisions should be targeted in road safety education and enforcement programmes. Whilst the fatality index for fatal accidents where a vehicle hits a pedestrian is comparatively low (1.03), the sheer number of these types of accidents warrants their inclusion in road safety engineering and education programmes.

Table 4-6 : Recorded Fatal Accidents by Type of Collision by District (Zila)

Division and District	number of fatal accidents												total
	collision type												
	Head on	Rear end	Right angle	Side swipe	Overtaken vehicle	Hit object in road	Hit object off road	Hit parked vehicle	Hit pedestrian	Hit animal	Other	Unknown	
Barisal Division													
Barguna	0	0	0	3	0	1	0	0	6	0	2	0	12
Barisal	1	3	0	0	2	0	0	0	10	0	0	0	16
Bhola	3	1	0	1	4	0	0	0	7	0	1	0	17
Jhalakati	1	0	0	4	0	0	0	0	0	0	0	0	5
Patuakhali	2	0	0	0	3	0	0	0	3	0	1	0	9
Pirojpur	0	0	0	0	0	0	0	1	3	0	2	0	6
Total	7	4	0	8	9	1	0	1	29	0	6	0	65
Chittagong Division													
Bandarban	0	0	0	0	3	0	0	0	0	0	1	0	4
Brahmanbaria	0	1	0	0	0	0	0	0	6	0	1		8
Chandpur	1	1	0	0	5	0	3	0	19	0	1	0	30
Chittagong District	11	5	0	1	11	1	3	1	23	0	0	0	56
Chittagong City	10	10	0	0	1	0	0	1	39	0	2	0	63
Comilla	13	9	0	2	2	0	3	3	24	0	0	0	56
Cox's Bazar	8	0	0	0	3	0	1	0	23	0	2	0	37
Feni	4	2	1	3	2	0	1	0	25	0	0	0	38
Khagrachhari	0	0	0	0	0	0	0	0	0	0	0	0	0
Lakshmipur	1	2	0	0	1	0	1	0	4	0	0		9
Noakhali	1	0	0	0	1	0	0	0	4	0	0	0	6
Rangamati	2	0	0	0	1	0	1	0	5	0	0	0	9
Total	51	30	1	6	30	1	13	5	172	0	7	0	316
Dhaka Division													
Dhaka District	9	9	0	0	3	2	0	2	47	0	1	0	73
Dhaka City	8	50	8	7	8	1	2	5	295	0	16	0	400
Faridpur	9	6	0	2	10	1	0	0	25	0	1	0	54
Gazipur	8	9	0	3	6	0	1	0	38	0	5	0	70
Gopalganj	2	5	0	2	5	0	2	0	19	0	0	0	35
Jamalpur	1	1	0	0	4	0	0	0	9	0	2	0	17
Kishoreganj	5	6	0	2	5	0	2	0	22	0	4	0	46
Madaripur	0	1	0	0	1	0	0	0	9	0	0	0	11
Manikganj	1	5	0	0	3	0	0	1	19	0	2	0	31
Munshiganj	3	0	0	1	7	1	0	1	17	0	2	0	32
Mymensingh	12	9	0	0	21	0	1	2	39	0	1	0	85
Narayanganj	10	9	0	1	13	0	0	1	49	0	2	0	85
Narsingdi	4	7	0	3	9	1	0	0	17	0	4	0	45
Netrokona	0	1	0	1	2	0	0	0	5	0	0	0	9
Rajbari	3	3	0	0	1	0	0	0	12	0	1	0	20
Shariatpur	0	1	0	0	3	0	1	0	7	0	0	0	12
Sherpur	1	0	0	0	5	0	0	0	21	0	1	0	28
Tangail	9	11	0	3	17	0	2	1	45	0	0	0	88
Total	85	133	8	25	123	6	11	13	695	0	42	0	1141

Table 4-6 continued on next page

Table 4-6, continued

Division and District	number of fatal accidents													total
	collision type													
	Head on	Rear end	Right angle	Side swipe	Overtured vehicle	Hit object in road	Hit object off road	Hit parked vehicle	Hit pedestrian	Hit animal	Other	Unknown		
Sylhet Division														
Hobiganj	6	5	0	2	6	0	0	0	22	1	4	0	46	
Moulavibazar	3	6	1	1	4	0	2	2	24	0	3	0	46	
Sunamganj	4	0	0	1	2	0	1	0	21	0	0	0	29	
Sylhet	14	12	0	6	13	0	1	1	58	0	11	0	116	
Total	27	23	1	10	25	0	4	3	125	1	18	0	237	
Khulna Division														
Bagerhat	2	1	0	1	0	0	2	2	10	0	3	0	21	
Chaudanga	0	0	0	0	0	0	0	0	6	0	0	0	6	
Jessore	6	15	0	2	2	2	1	2	30	0	3	0	63	
Jhenaidah	11	9	0	8	4	2	0	0	31	0	2	0	67	
Khulna District	0	1	0	0	0	0	0	0	0	0	0	0	1	
Khulna City	5	6	1	0	0	0	1	0	10	0	1	0	24	
Kushtia	3	5	0	1	3	1	1	1	12	0	3	0	30	
Magura	0	3	0	0	1	0	0	1	7	0	0	0	12	
Maherpur	1	1	0	1	0	0	0	0	2	0	0	0	5	
Narail	0	0	0	0	0	0	0	0	0	0	0	0	0	
Satkhira	1	5	0	0	4	0	2	0	7	0	2	0	21	
Total	29	46	1	13	14	5	7	6	115	0	14	0	250	
Rajshahi Division														
Bogra	8	5	0	6	2	0	1	0	20	0	3	0	45	
Dinajpur	9	4	0	5	4	0	0	1	10	0	0	0	33	
Gaibandha	5	3	0	4	4	0	0	0	7	0	0	0	23	
Joypurhat	3	3	0	3	2	0	0	0	7	0	1	0	19	
Kurigram	1	1	0	2	1	1	1	1	9	0	0	0	17	
Lalmonirhat	0	0	0	0	2	0	0	0	10	0	0	0	12	
Natore	6	7	0	4	4	1	0	0	24	0	2	0	48	
Nawabganj	2	5	0	2	2	1	0	0	10	0	0	0	22	
Nilphamari	2	1	0	2	2	1	0	0	8	0	2	0	18	
Naogaon	4	6	0	5	4	0	1	0	23	0	2	0	45	
Pabna	14	4	0	4	7	0	0	0	45	0	2	0	76	
Panchgarh	1	1	0	2	2	0	0	0	4	0	0	0	10	
Rajshahi District	4	2	0	11	2	1	1	0	23	0	1	0	45	
Rajshahi City	5	4	0	5	1	0	0	1	9	0	0	0	25	
Rangpur	9	8	1	2	0	7	0	1	3	33	0	0	64	
Sirajganj	6	6	0	2	14	0	1	0	40	0	0	0	69	
Thakurgaon	2	6	1	2	1	0	0	7	0	0	0	0	19	
Total	81	66	2	61	54	12	5	11	252	33	13	0	590	
TOTAL	280	302	13	123	255	25	40	39	1388	34	100	0	2599	

5 CASUALTY ACCIDENTS BY TYPE OF JUNCTION.

Table 5-1 : Recorded Casualty Accidents by Type of Junction

Table 5-1 (a) : Fatal Accidents

junction type	number of accidents								
	road environment			road class					
	urban	rural	total	national	regional	feeder	rural road	city	total
Not at junction	485	1672	2157	940	313	458	121	335	2167
Cross junction	50	38	88	27	2	17	0	42	88
Tee junction	80	63	143	36	13	10	12	72	143
Off-set tee junction	5	11	16	6	3	2	2	3	16
Roundabout	14	2	16	2	0	1	1	12	16
Railway crossing	4	0	4	1	0	0	0	3	4
Other	47	94	141	34	10	34	32	34	144
Unknown	20	14	34	2	1	1	1	16	21
TOTAL	705	1894	2599	1048	342	523	169	517	2599
% total	27%	73%	100%	40%	13%	20%	7%	20%	100%

Figure 5-1 : Fatal Accidents by Type of Junction and Road Class

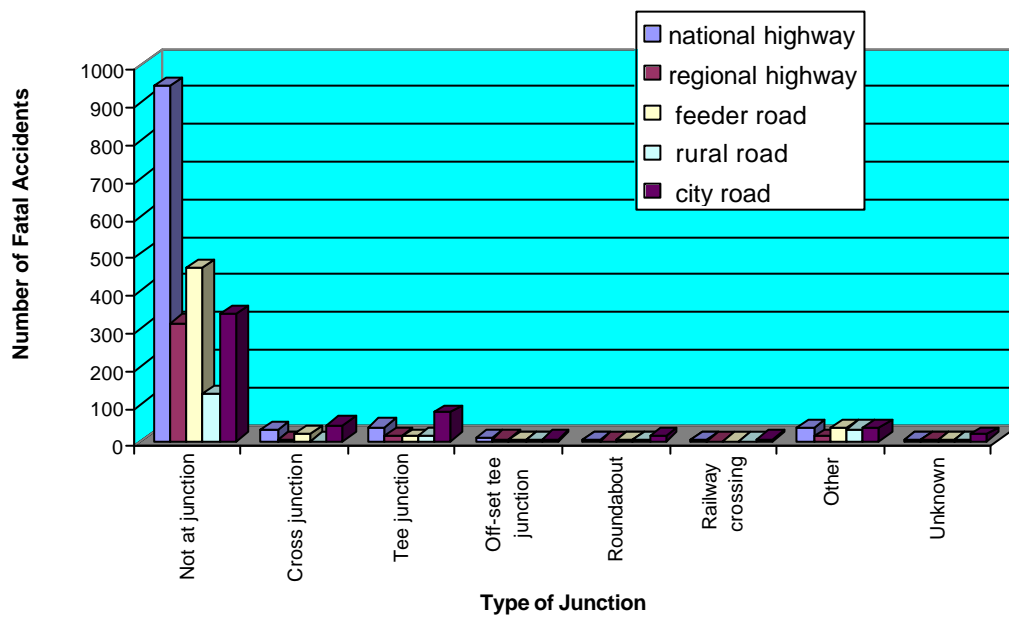


Table 5-1 (b) : Grievous and Simple Injury Accidents

junction type	number of accidents								
	road environment			road class					
	urban	rural	total	national	regional	feeder	rural road	city	total
Not at junction	271	571	842	339	107	144	35	220	845
Cross junction	42	6	48	6	1	3	0	38	48
Tee junction	87	27	114	13	9	7	5	80	114
Off-set tee junction	7	9	16	3	3	1	2	7	16
Roundabout	10	2	12	1	0	0	1	10	12
Railway crossing	6	0	6	0	0	0	0	5	5
Other	33	25	58	16	2	10	6	24	58
Unknown	4	4	8	1	1	1	1	2	6
TOTAL	460	644	1104	379	123	166	50	386	1104
% total	42%	58%	100%	34%	11%	15%	5%	35%	100%

Table 5-1 (c) : Total Casualty Accidents

junction type	number of accidents								
	road environment			road class					
	urban	rural	total	national	regional	feeder	rural road	city	total
Not at junction	756	2243	2999	1279	420	602	156	555	3012
Cross junction	92	44	136	33	3	20	0	80	136
Tee junction	167	90	257	49	22	17	17	152	257
Off-set tee junction	12	20	32	9	6	3	4	10	32
Roundabout	24	4	28	3	0	1	2	22	28
Railway crossing	10	0	10	1	0	0	0	8	9
Other	80	119	199	50	12	44	38	58	202
Unknown	24	18	42	3	2	2	2	18	27
TOTAL	1165	2538	3703	1427	465	689	219	903	3703
% total	31%	69%	100%	39%	13%	19%	6%	24%	100%

Table 5-2 : Recorded Fatal Accidents by Type of Junction and by Division and City

Division or City	number of fatal accidents								
	junction type								total
	Not at junction	Cross junction	Tee junction	Off-set tee junction	Roundabout	Railway crossing	Other	Unknown	
Divisions, excluding Cities									
Barisal	50	0	8	0	1	0	6	0	65
Chittagong	235	5	11	2	0	0	0	0	253
Sylhet	151	4	10	2	0	0	65	5	237
Dhaka	740	0	0	0	0	0	0	1	741
Khulna	160	13	14	5	1	0	33	0	226
Rajshahi	497	27	28	3	2	0	8	0	565
total	1833	49	71	12	4	0	112	6	2087
Cities									
Chittagong City	46	10	5	0	2	0	0	0	63
Dhaka City	265	22	58	2	10	3	26	14	400
Khulna City	9	3	4	1	0	1	6	0	24
Rajshahi City	15	4	5	1	0	0	0	0	25
total	335	39	72	4	12	4	32	14	512
TOTAL	2168	88	143	16	16	4	144	20	2599

Table 5-3 : Recorded Fatal Accidents by Type of Junction and by Division and City as percentage of total fatal accidents in Division or City

Division or City	total fatal accidents	% of total fatal accidents in Division or City							
		junction type							
		Not at junction	Cross junction	Tee junction	Off-set tee junction	Roundabout	Railway crossing	Other	Unknown
Divisions, excluding Cities									
Barisal	65	77%	0%	12%	0%	2%	0%	9%	0%
Chittagong	253	93%	2%	4%	1%	0%	0%	0%	0%
Sylhet	237	64%	2%	4%	1%	0%	0%	27%	2%
Dhaka	741	100%	0%	0%	0%	0%	0%	0%	0%
Khulna	226	71%	6%	6%	2%	0%	0%	15%	0%
Rajshahi	565	88%	5%	5%	1%	0%	0%	1%	0%
total	2087	88%	2%	3%	1%	0%	0%	5%	0%
Cities									
Chittagong City	63	73%	16%	8%	0%	3%	0%	0%	0%
Dhaka City	400	66%	6%	15%	1%	3%	1%	7%	4%
Khulna City	24	38%	13%	17%	4%	0%	4%	25%	0%
Rajshahi City	25	60%	16%	20%	4%	0%	0%	0%	0%
total	512	65%	8%	14%	1%	2%	1%	6%	3%
TOTAL	2599	83%	3%	6%	1%	1%	0%	6%	1%

Table 5-4 : Change in Recorded Fatal Accidents by Type of Junction, 1999 - 2002

year	number of fatal accidents								
	junction type								total
	Not at junction	Cross junction	Tee junction	Off-set tee junction	Roundabout	Railway crossing	Other	Unknown	
Divisions, excluding Cities									
1999	1765	35	101	10	4	1	67	1	1984
2000	1858	37	112	33	1	0	87	1	2129
2001	1441	41	77	15	2	0	107	5	1688
2002	1833	49	71	12	4	0	112	6	2087
Cities¹									
1999	296	49	70	3	23	0	6	1	448
2000	292	39	51	1	3	4	3	1	394
2001	254	22	38	2	7	2	14	2	341
2002	335	39	72	4	12	4	32	14	512
Bangladesh									
1999	2061	84	171	13	27	1	73	2	2432
2000	2150	76	163	34	4	4	90	2	2523
2001	1695	63	115	17	9	2	121	7	2029
2002	2168	88	143	16	16	4	144	20	2599

1. Cities are Chittagong, Dhaka, Khulna and Rajshahi.

Table 5-5 : Fatality Rate by Type of Junction

junction type	number of fatalities	number of fatal accidents	fatality index
Not at junction	2577	2168	1.19
Cross junction	99	88	1.13
Tee junction	162	143	1.13
Off-set tee junction	17	16	1.06
Roundabout	17	16	1.06
Railway crossing	4	4	1.00
Other	151	144	1.05

Note: fatality index = no. fatalities / no. fatal accidents

Table 5-6 : Recorded Fatal Accidents by Type of Junction by District (Zila)

Division and District	number of fatal accidents								
	junction type								total
	Not at junction	Cross junction	Tee junction	Off-set tee junction	Roundabout	Railway crossing	Other	Unknown	
Barisal Division									
Barguna	9	0	3	0	0	0	0	0	12
Barisal	15	0	1	0	0	0	0	0	16
Bhola	12	0	2	0	1	0	2	0	17
Jhalakati	2	0	2	0	0	0	1	0	5
Patuakhali	8	0	0	0	0	0	1	0	9
Pirojpur	4	0	0	0	0	0	2	0	6
total	50	0	8	0	1	0	6	0	65
Chittagong Division									
Bandarban	4	0	0	0	0	0	0	0	4
Brahmanbaria	8	0	0	0	0	0	0	0	8
Chandpur	30	0	0	0	0	0	0	0	30
Chittagong District	51	1	3	1	0	0	0	0	56
Chittagong City	46	10	5	0	2	0	0	0	63
Comilla	53	1	2	0	0	0	0	0	56
Cox's Bazar	35	0	1	1	0	0	0	0	37
Feni	31	3	4	0	0	0	0	0	38
Khagrachhari	0	0	0	0	0	0	0	0	0
Lakshmipur	8	0	1	0	0	0	0	0	9
Noakhali	6	0	0	0	0	0	0	0	6
Rangamati	9	0	0	0	0	0	0	0	9
total	281	15	16	2	2	0	0	0	316
Dhaka Division									
Dhaka District	73	0	0	0	0	0	0	0	73
Dhaka City	265	22	58	2	10	3	26	14	400
Faridpur	54	0	0	0	0	0	0	0	54
Gazipur	70	0	0	0	0	0	0	0	70
Gopalganj	35	0	0	0	0	0	0	0	35
Jamalpur	17	0	0	0	0	0	0	0	17
Kishoreganj	46	0	0	0	0	0	0	0	46
Madaripur	11	0	0	0	0	0	0	0	11
Manikganj	31	0	0	0	0	0	0	0	31
Munshiganj	32	0	0	0	0	0	0	0	32
Mymensingh	85	0	0	0	0	0	0	0	85
Narayanganj	85	0	0	0	0	0	0	0	85
Narsingdi	45	0	0	0	0	0	0	0	45
Netrokona	9	0	0	0	0	0	0	0	9
Rajbari	20	0	0	0	0	0	0	0	20
Shariatpur	12	0	0	0	0	0	0	0	12
Sherpur	28	0	0	0	0	0	0	0	28
Tangail	87	0	0	0	0	0	0	1	88
total	1005	22	58	2	10	3	26	15	1141

Table 5-6 continued on next page

Table 5-6, continued

Division and District	number of fatal accidents								
	junction type								total
	Not at junction	Cross junction	Tee junction	Off-set tee junction	Roundabout	Railway crossing	Other	Unknown	
Sylhet Division									
Hobiganj	27	0	4	1	0	0	13	1	46
Moulavibazar	24	0	2	1	0	0	19	0	46
Sunamganj	14	0	1	0	0	0	11	3	29
Sylhet	86	4	3	0	0	0	22	1	116
total	151	4	10	2	0	0	65	5	237
Khulna Division									
Bagerhat	16	1	0	0	1	0	3	0	21
Chaudanga	6	0	0	0	0	0	0	0	6
Jessore	44	3	8	3	0	0	5	0	63
Jhenaidah	51	5	3	2	0	0	6	0	67
Khulna District	1	0	0	0	0	0	0	0	1
Khulna City	9	3	4	1	0	1	6	0	24
Kushtia	20	1	0	0	0	0	9	0	30
Magura	8	0	1	0	0	0	3	0	12
Maherpur	3	0	2	0	0	0	0	0	5
Narail	0	0	0	0	0	0	0	0	0
Satkhira	11	3	0	0	0	0	7	0	21
total	169	16	18	6	1	1	39	0	250
Rajshahi Division									
Bogra	39	2	4	0	0	0	0	0	45
Dinajpur	29	1	3	0	0	0	0	0	33
Gaibandha	20	0	2	0	0	0	1	0	23
Joypurhat	17	2	0	0	0	0	0	0	19
Kurigram	16	1	0	0	0	0	0	0	17
Lalmonirhat	12	0	0	0	0	0	0	0	12
Natore	42	1	4	0	1	0	0	0	48
Nawabganj	21	0	0	0	0	0	1	0	22
Nilphamari	16	2	0	0	0	0	0	0	18
Naogaon	38	3	3	1	0	0	0	0	45
Pabna	69	2	4	0	1	0	0	0	76
Panchgarh	9	0	0	0	0	0	1	0	10
Rajshahi District	35	2	4	1	0	0	3	0	45
Rajshahi City	15	4	5	1	0	0	0	0	25
Rangpur	57	3	2	1	0	0	1	0	64
Sirajganj	60	6	2	0	0	0	1	0	69
Thakurgaon	17	2	0	0	0	0	0	0	19
total	512	31	33	4	2	0	8	0	590
TOTAL	2168	88	143	16	16	4	144	20	2599

6 TYPES OF VEHICLE INVOLVED IN CASUALTY ACCIDENTS

Table 6-1 : Number of Vehicles by Type involved in Recorded Casualty Accidents by Road Environment and Road Class

Table 6-1 (a) : Fatal Accidents

vehicle type	vehicles per accident	number of vehicles								
		road environment			road class					
		urban	rural	total	national	regional	feeder	rural road	city	total
Bicycle	one	0	4	4	2	0	1	1	0	4
Rickshaw		0	1	1	1	0	0	0	0	1
Push cart		0	0	0	0	0	0	0	0	0
Motor cycle		8	37	45	10	8	17	6	4	45
Baby taxi		13	19	32	4	6	10	4	8	32
Tempo		8	66	74	11	7	28	19	9	74
Microbus		32	71	103	41	15	15	6	27	104
Minibus		86	127	213	64	18	53	8	71	214
Bus		124	413	537	254	74	110	19	82	539
Car		23	34	57	23	5	8	0	21	57
Jeep		6	27	33	8	8	3	10	4	33
Pick-up		8	35	43	13	12	9	4	5	43
Truck		6	56	62	21	6	18	16	2	63
Heavy truck		132	355	487	224	57	85	28	97	491
Artic truck		2	6	8	1	1	4	0	2	8
Oil tanker		2	8	10	2	4	1	0	3	10
Tractor		2	21	23	1	6	6	10	1	24
Animal drawn		0	0	0	0	0	0	0	0	0
Other		44	53	97	12	11	23	13	39	98
Unknown		31	25	56	19	7	0	0	19	45
Bicycle	two or more	26	93	119	47	16	35	7	15	120
Rickshaw		59	90	149	51	15	34	6	43	149
Push cart		7	2	9	1	0	2	0	6	9
Motor cycle		22	69	91	35	16	27	4	9	91
Baby taxi		15	29	44	12	9	6	3	14	44
Tempo		15	56	71	28	16	16	4	6	70
Microbus		6	41	47	27	6	6	4	4	47
Minibus		34	89	123	50	17	28	3	25	123
Bus		52	188	240	145	34	23	2	37	241
Car		12	34	46	29	3	5	0	9	46
Jeep		5	10	15	7	1	2	3	2	15
Pick-up		10	14	24	15	4	0	0	5	24
Truck		5	24	29	15	4	5	2	4	30
Heavy truck		78	251	329	181	36	60	8	48	333
Artic. truck		1	5	6	4	0	1	0	1	6
Oil tanker		1	6	7	4	1	1	0	1	7
Tractor		2	16	18	4	4	4	5	1	18
Animal drawn		0	0	0	0	0	0	0	0	0
Other		16	32	48	16	6	11	1	14	48
Unknown		6	10	16	4	4	0	1	1	10

Table 6-1 (b) : Grievous and Simple Injury Accidents

vehicle type	vehicles per accident	number of vehicles								
		road environment			road class					
		urban	rural	total	national	regional	feeder	rural road	city	total
Bicycle	one	0	0	0	0	0	0	0	0	0
Rickshaw		0	0	0	0	0	0	0	0	0
Push cart		0	0	0	0	0	0	0	0	0
Motor cycle		9	14	23	5	2	8	2	6	23
Baby taxi		9	7	16	3	2	0	4	7	16
Tempo		8	12	20	1	1	8	3	7	20
Microbus		14	21	35	16	5	5	0	9	35
Minibus		50	52	102	21	7	25	4	45	102
Bus		48	115	163	65	29	31	8	31	164
Car		26	10	36	7	1	3	1	23	35
Jeep		2	6	8	4	0	0	2	2	8
Pick-up		10	12	22	8	1	2	1	10	22
Truck		11	13	24	5	5	2	2	10	24
Heavy truck		34	73	107	49	12	15	2	29	107
Artic truck		1	1	2	1	0	0	0	1	2
Oil tanker		1	1	2	1	0	0	0	1	2
Tractor		1	5	6	0	2	2	2	0	6
Animal drawn		0	0	0	0	0	0	0	0	0
Other		10	2	12	0	1	2	0	9	12
Unknown		2	0	2	0	0	0	0	2	2
Bicycle		two or more	19	20	39	8	4	9	1	17
Rickshaw	58		31	89	11	10	10	4	55	90
Push cart	1		1	2	0	0	1	0	1	2
Motor cycle	34		55	89	23	11	14	12	29	89
Baby taxi	32		7	39	5	1	0	3	30	39
Tempo	16		33	49	15	3	16	0	15	49
Microbus	18		29	47	16	9	7	0	15	47
Minibus	61		50	111	33	6	14	1	58	112
Bus	58		125	183	96	23	16	4	44	183
Car	42		31	73	20	3	6	1	43	73
Jeep	2		11	13	4	2	4	2	1	13
Pick-up	18		21	39	16	8	3	0	12	39
Truck	10		10	20	7	4	1	2	6	20
Heavy truck	63		142	205	115	18	16	5	53	207
Artic. truck	3		5	8	3	1	1	0	3	8
Oil tanker	0		2	2	2	0	0	0	0	2
Tractor	1		6	7	3	0	3	1	0	7
Animal drawn	0		1	1	0	0	1	0	0	1
Other	14		14	28	9	5	2	0	12	28
Unknown	2		3	5	0	0	0	0	1	1

Table 6-1 (c) : Total Casualty Accidents

vehicle type	vehicles per accident	number of vehicles								
		road environment			road class					
		urban	rural	total	national	regional	feeder	rural road	city	total
Bicycle	one	0	4	4	2	0	1	1	0	4
Rickshaw		0	1	1	1	0	0	0	0	1
Push cart		0	0	0	0	0	0	0	0	0
Motor cycle		17	51	68	15	10	25	8	10	68
Baby taxi		22	26	48	7	8	10	8	15	48
Tempo		16	78	94	12	8	36	22	16	94
Microbus		46	92	138	57	20	20	6	36	139
Minibus		136	179	315	85	25	78	12	116	316
Bus		172	528	700	319	103	141	27	113	703
Car		49	44	93	30	6	11	1	44	92
Jeep		8	33	41	12	8	3	12	6	41
Pick-up		18	47	65	21	13	11	5	15	65
Truck		17	69	86	26	11	20	18	12	87
Heavy truck		166	428	594	273	69	100	30	126	598
Artic truck		3	7	10	2	1	4	0	3	10
Oil tanker		3	9	12	3	4	1	0	4	12
Tractor		3	26	29	1	8	8	12	1	30
Animal drawn		0	0	0	0	0	0	0	0	0
Other		54	55	109	12	12	25	13	48	110
Unknown		33	25	58	19	7	0	0	21	47
Bicycle		two or more	45	113	158	55	20	44	8	32
Rickshaw	117		121	238	62	25	44	10	98	239
Push cart	8		3	11	1	0	3	0	7	11
Motor cycle	56		124	180	58	27	41	16	38	180
Baby taxi	47		36	83	17	10	6	6	44	83
Tempo	31		89	120	43	19	32	4	21	119
Microbus	24		70	94	43	15	13	4	19	94
Minibus	95		139	234	83	23	42	4	83	235
Bus	110		313	423	241	57	39	6	81	424
Car	54		65	119	49	6	11	1	52	119
Jeep	7		21	28	11	3	6	5	3	28
Pick-up	28		35	63	31	12	3	0	17	63
Truck	15		34	49	22	8	6	4	10	50
Heavy truck	141		393	534	296	54	76	13	101	540
Artic. truck	4		10	14	7	1	2	0	4	14
Oil tanker	1		8	9	6	1	1	0	1	9
Tractor	3		22	25	7	4	7	6	1	25
Animal drawn	0		1	1	0	0	1	0	0	1
Other	30		46	76	25	11	13	1	26	76
Unknown	8		13	21	4	4	0	1	2	11

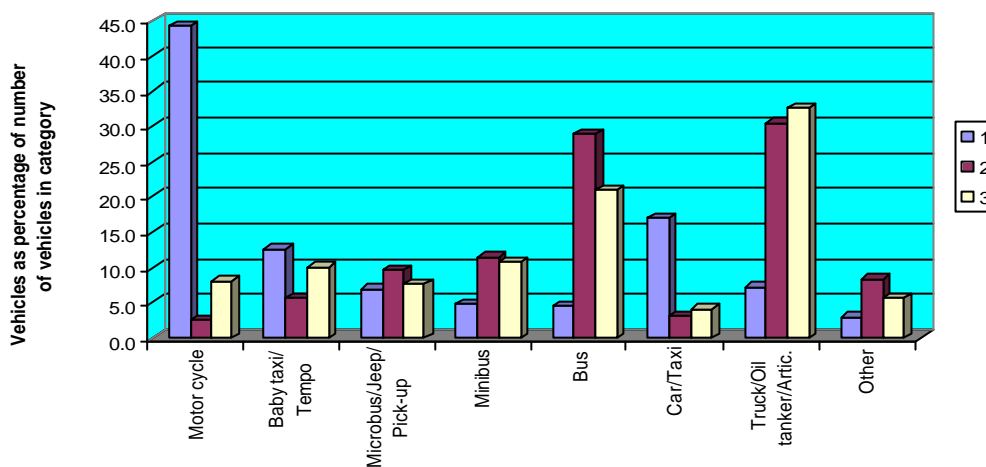
Comment:

The involvement of buses and heavy vehicles (trucks, heavy trucks, articulated trucks and oil tankers) in fatal accidents account for 59.4% of all single vehicle accidents and 53.8% of all accidents involving two or more vehicles (refer Table 6-2 on the following page). They are the predominant types of vehicle involved in fatal accidents.

Table 6-2 : Types of Registered Vehicles in Bangladesh

vehicle type	registered vehicles		vehicles involved in fatal single vehicle accidents		vehicles involved in fatal multiple vehicle accidents	
	number	% of total	number	% of total	number	% of total
Motor cycle	300,251	44.3%	45	2.4%	91	8.0%
Baby taxi and Tempo	84,623	12.5%	106	5.7%	115	10.1%
Microbus, Jeep and Pick-up	47,119	6.9%	179	9.6%	86	7.6%
Minibus	31,770	4.7%	213	11.5%	123	10.8%
Bus	30,196	4.5%	537	28.9%	240	21.1%
Car/Taxi	115,063	17.0%	57	3.1%	46	4.0%
Truck, Heavy truck, Artic. truck and Oil tanker	48,580	7.2%	567	30.5%	371	32.7%
Other	20,550	3.0%	153	8.2%	64	5.6%
total	678,152		1,857		1,136	

Figure 6-1 : Comparison of motor vehicle types involved in fatal accidents



- Categories: 1 registered vehicles
- 2 vehicles involved in fatal single vehicle accidents
- 3 vehicles involved in fatal multiple vehicle accidents

Interpretation of Figure 6-1:

For a particular vehicle type, wherever the percentage of vehicles involved in fatal accidents (categories 2 & 3) is greater than the percentage of registered vehicles of that type (category 1), then that type of vehicle is over-represented in the occurrence of fatal accidents.

Vehicle types which are over-represented in fatal accidents are:

- ?? trucks, heavy trucks, articulated trucks and oil tankers
- ?? buses

and, to a lesser degree,

- ?? mini-buses, micro-buses, jeeps and pick-ups.

Table 6-3 : Number of Vehicles by Type involved in Recorded Casualty Accidents by Type of Collision**Table 6-3 (a) : Fatal Accidents**

vehicle type	vehicles per accident	number of vehicles												total	% total
		collision type													
		Head on	Rear end	Right angle	Side swipe	Overtaken vehicle	Hit object in road	Hit object off road	Hit parked vehicle	Hit pedestrian	Hit animal	Other			
	one	0	0	0	0	0	0	0	0	4	0	0	4	0.2%	
Bicycle		1	0	0	0	0	0	0	0	0	0	0	1	0.1%	
Rickshaw		0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
Push cart		0	0	0	0	2	0	0	0	42	0	1	45	2.4%	
Motor cycle		1	0	0	0	3	0	1	0	26	0	1	32	1.7%	
Baby taxi		0	0	0	3	26	1	1	0	38	1	4	74	3.9%	
Tempo		0	1	0	4	4	1	2	0	90	0	2	104	5.5%	
Microbus		0	3	1	1	32	2	5	2	156	0	12	214	11.4%	
Minibus		5	10	0	7	91	5	13	1	372	0	35	539	28.6%	
Bus		1	0	0	0	2	0	2	1	51	0	0	57	3.0%	
Car		0	0	0	0	8	1	1	0	22	0	1	33	1.8%	
Jeep		1	1	0	0	5	0	1	2	30	0	3	43	2.3%	
Pick-up		0	3	0	0	10	1	0	0	43	0	6	63	3.3%	
Truck		6	5	0	2	55	2	12	5	389	0	15	491	26.0%	
Heavy truck		0	0	0	0	1	0	0	0	7	0	0	8	0.4%	
Artic. truck		0	0	0	0	1	0	1	0	8	0	0	10	0.5%	
Oil tanker		1	2	0	0	1	0	0	0	17	0	3	24	1.3%	
Tractor		0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
Animal drawn		0	0	0	1	10	1	0	0	83	0	3	98	5.2%	
Other		0	0	0	0	1	0	1	0	43	0	0	45	2.4%	
Unknown		33	55	2	21	2	1	0	0	1	0	5	120	8.4%	
Bicycle	two or more	27	93	1	21	2	1	0	4	0	0	0	149	10.4%	
Rickshaw		0	7	0	0	0	1	0	0	1	0	0	9	0.6%	
Push cart		28	37	2	16	3	1	1	2	0	0	1	91	6.4%	
Motor cycle		25	11	3	4	0	0	0	1	0	0	0	44	3.1%	
Baby taxi		30	25	1	11	0	0	0	3	0	0	1	71	5.0%	
Tempo		24	12	0	6	1	0	0	3	0	0	1	47	3.3%	
Microbus		42	44	4	21	6	0	0	4	1	0	1	123	8.6%	
Minibus		104	79	4	36	2	2	0	8	2	0	4	241	16.8%	
Bus		28	12	1	1	0	0	0	1	1	0	2	46	3.2%	
Car		10	3	0	1	0	1	0	0	0	0	0	15	1.0%	
Jeep		12	11	0	1	0	0	0	0	0	0	0	24	1.7%	
Pick-up		9	12	0	6	0	0	0	3	0	0	0	30	2.1%	
Truck		131	119	4	52	2	1	1	15	1	0	8	334	23.3%	
Heavy truck		5	0	0	1	0	0	0	0	0	0	0	6	0.4%	
Artic. truck		1	2	0	2	1	0	0	0	1	0	0	7	0.5%	
Oil tanker		4	7	0	5	0	0	2	0	0	0	0	18	1.3%	
Tractor		0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
Animal drawn		12	25	2	4	1	0	0	2	0	0	2	48	3.4%	
Other		3	4	0	0	0	0	0	0	0	0	1	8	0.6%	
Unknown															

Table 6-3 (b) : Grievous and Simple Injury Accidents

vehicle type	vehicles per accident	number of vehicles											total	% total	
		collision type													
		Head on	Rear end	Right angle	Side swipe	Overtaken vehicle	Hit object in road	Hit object off road	Hit parked vehicle	Hit pedestrian	Hit animal	Other			
Bicycle	one	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Rickshaw		0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Push cart		0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Motor cycle		1	0	0	1	1	0	0	0	20	0	0	23	4.0%	
Baby taxi		0	0	0	0	5	0	0	0	9	0	2	16	2.8%	
Tempo		0	0	0	0	6	0	1	1	11	0	1	20	3.4%	
Microbus		0	0	0	0	3	1	1	2	27	0	1	35	6.0%	
Minibus		1	0	0	1	29	2	7	0	55	0	7	102	17.6%	
Bus		0	1	0	4	54	1	12	0	77	0	15	164	28.3%	
Car		0	0	0	1	0	0	2	0	32	0	1	36	6.2%	
Jeep		0	0	0	0	2	0	0	0	6	0	0	8	1.4%	
Pick-up		0	0	1	0	2	1	3	0	14	0	1	22	3.8%	
Truck		0	1	0	0	6	1	0	0	15	0	1	24	4.1%	
Heavy truck		0	0	0	0	18	3	15	1	67	0	3	107	18.4%	
Artic. truck		0	0	0	0	0	0	1	1	0	0	0	2	0.3%	
Oil tanker		0	0	0	0	0	0	1	0	1	0	0	2	0.3%	
Tractor		0	0	0	0	1	0	0	0	5	0	0	6	1.0%	
Animal drawn		0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
Other		0	0	0	0	1	0	1	0	9	0	1	12	2.1%	
Unknown		0	0	0	0	0	0	0	0	1	0	0	1	0.2%	
Bicycle	two or more	7	22	0	8	1	0	0	0	0	0	1	39	3.7%	
Rickshaw		17	54	6	9	0	0	0	2	0	0	2	90	8.6%	
Push cart		0	2	0	0	0	0	0	0	0	0	0	2	0.2%	
Motor cycle		30	30	4	18	2	0	0	4	0	0	1	89	8.5%	
Baby taxi		16	18	0	2	0	0	0	2	0	0	0	38	3.6%	
Tempo		24	15	1	5	2	0	0	2	0	0	0	49	4.7%	
Microbus		16	15	3	13	0	0	0	0	0	0	0	47	4.5%	
Minibus		39	37	8	14	3	0	0	11	0	0	0	112	10.7%	
Bus		63	60	5	36	2	1	0	13	0	0	2	182	17.3%	
Car		14	34	4	17	0	1	0	3	0	0	0	73	7.0%	
Jeep		8	1	0	4	0	0	0	0	0	0	0	13	1.2%	
Pick-up		15	12	1	9	0	0	0	1	0	0	1	39	3.7%	
Truck		9	6	1	4	0	0	0	0	0	0	0	20	1.9%	
Heavy truck		95	57	7	29	0	0	1	15	2	0	1	207	19.7%	
Artic. truck		5	2	1	0	0	0	0	0	0	0	1	9	0.9%	
Oil tanker		1	0	0	1	0	0	0	0	0	0	0	2	0.2%	
Tractor		2	2	0	3	0	0	0	0	0	0	0	7	0.7%	
Animal drawn		1	0	0	0	0	0	0	0	0	0	0	1	0.1%	
Other		7	14	3	2	0	0	1	1	0	0	0	28	2.7%	
Unknown		0	0	0	0	0	0	0	0	3	0	0	3	0.3%	

Table 6-3 (c) : Total Casualty Accidents

vehicle type	vehicles per accident	number of vehicles											total	% total
		collision type												
		Head on	Rear end	Right angle	Side swipe	Overturned vehicle	Hit object in road	Hit object off road	Hit parked vehicle	Hit pedestrian	Hit animal	Other		
Bicycle	one	0	0	0	0	0	0	0	0	4	0	0	4	0.2%
Rickshaw		1	0	0	0	0	0	0	0	0	0	0	1	0.0%
Push cart		0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Motor cycle		1	0	0	1	3	0	0	0	62	0	1	68	2.8%
Baby taxi		1	0	0	0	8	0	1	0	35	0	3	48	1.9%
Tempo		0	0	0	3	32	1	2	1	49	1	5	94	3.8%
Microbus		0	1	0	4	7	2	3	2	117	0	3	139	5.6%
Minibus		1	3	1	2	61	4	12	2	211	0	19	316	12.8%
Bus		5	11	0	11	145	6	25	1	449	0	50	703	28.5%
Car		1	0	0	1	2	0	4	1	83	0	1	93	3.8%
Jeep		0	0	0	0	10	1	1	0	28	0	1	41	1.7%
Pick-up		1	1	1	0	7	1	4	2	44	0	4	65	2.6%
Truck		0	4	0	0	16	2	0	0	58	0	7	87	3.5%
Heavy truck		6	5	0	2	73	5	27	6	456	0	18	598	24.3%
Artic. truck		0	0	0	0	1	0	1	1	7	0	0	10	0.4%
Oil tanker		0	0	0	0	1	0	2	0	9	0	0	12	0.5%
Tractor		1	2	0	0	2	0	0	0	22	0	3	30	1.2%
Animal drawn		0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Other		0	0	0	1	11	1	1	0	92	0	4	110	4.5%
Unknown		0	0	0	0	1	0	1	0	44	0	0	46	1.9%
Bicycle	two or more	40	77	2	29	3	1	0	0	1	0	6	159	6.4%
Rickshaw		44	147	7	30	2	1	0	6	0	0	2	239	9.6%
Push cart		0	9	0	0	0	1	0	0	1	0	0	11	0.4%
Motor cycle		58	67	6	34	5	1	1	6	0	0	2	180	7.3%
Baby taxi		41	29	3	6	0	0	0	3	0	0	0	82	3.3%
Tempo		54	40	2	16	2	0	0	5	0	0	1	120	4.8%
Microbus		40	27	3	19	1	0	0	3	0	0	1	94	3.8%
Minibus		81	81	12	35	9	0	0	15	1	0	1	235	9.5%
Bus		167	139	9	72	4	3	0	21	2	0	6	423	17.0%
Car		42	46	5	18	0	1	0	4	1	0	2	119	4.8%
Jeep		18	4	0	5	0	1	0	0	0	0	0	28	1.1%
Pick-up		27	23	1	10	0	0	0	1	0	0	1	63	2.5%
Truck		18	18	1	10	0	0	0	3	0	0	0	50	2.0%
Heavy truck		226	176	11	81	2	1	2	30	3	0	9	541	21.8%
Artic. truck		10	2	1	1	0	0	0	0	0	0	1	15	0.6%
Oil tanker		2	2	0	3	1	0	0	0	1	0	0	9	0.4%
Tractor		6	9	0	8	0	0	2	0	0	0	0	25	1.0%
Animal drawn		1	0	0	0	0	0	0	0	0	0	0	1	0.0%
Other		19	39	5	6	1	0	1	3	0	0	2	76	3.1%
Unknown		3	4	0	0	0	0	0	0	3	0	1	11	0.4%

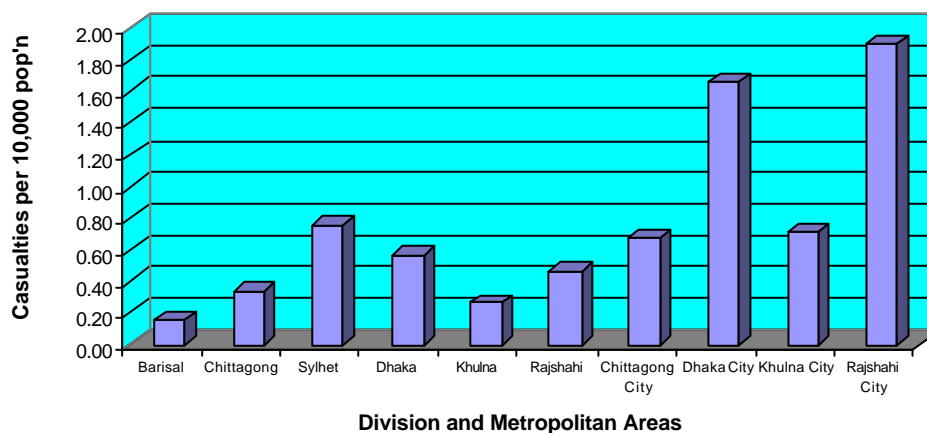
7 CASUALTIES

Table 7-1 : Recorded Casualties by Division and City

Division or City	number of casualties				population ¹ (‘000,000)	casualty rates	
	severity			total		(no. per 10,000 pop'n)	
	fatal	grievous injury	simple injury		fatalities	total casualties	
<u>Divisions, excluding Cities</u>							
Barisal	75	32	20	127	8.232	0.091	0.154
Chittagong	317	203	187	707	21.104	0.150	0.335
Sylhet	273	212	124	609	8.017	0.341	0.760
Dhaka	937	631	328	1896	33.793	0.277	0.561
Khulna	249	79	37	365	13.898	0.179	0.263
Rajshahi	662	402	315	1379	30.048	0.220	0.459
total	2513	1559	1011	5083	115.092	0.218	0.442
<u>Cities</u>							
Chittagong City	76	98	45	219	3.25	0.234	0.674
Dhaka City	414	444	48	906	5.458	0.759	1.660
Khulna City	24	23	9	56	0.785	0.306	0.713
Rajshahi City	26	31	17	74	0.389	0.668	1.902
total	540	596	119	1255	9.882	0.546	1.270
TOTAL	3053	2155	1130	6338	124.974	0.244	0.507

Notes: 1. Year 2002 populations are derived from statistics published in the 2000 Statistical Yearbook and the Population Census 2001 Preliminary Report.

Figure 7-1 : Casualty Rate by Division and Metropolitan Area



Comment:

The comments made below Figure 3-1, page 4, apply to Figure 7-1 also.

Table 7-2 : Change in Recorded Casualties, 1999 – 2002

year	number of casualties				population ¹ (no. per 10,000 pop'n)	casualty rates	
	severity			total		(no. per 10,000 pop'n)	
	fatal	grivous injury	simple injury		fatalities	total casualties	
<u>Divisions, excluding the Cities</u>							
1999	2416	1531	979	4926	110.057	0.220	0.448
2000	2638	1552	1079	5269	111.735	0.236	0.472
2001	2025	1221	840	4086	113.414	0.179	0.360
2002	2513	1559	1011	5083	115.092	0.218	0.442
<u>Cities²</u>							
1999	473	634	322	1429	9.449	0.501	1.512
2000	420	718	136	1274	9.593	0.438	1.328
2001	363	440	64	867	9.738	0.373	0.890
2002	540	596	119	1255	9.882	0.546	1.270
<u>Bangladesh</u>							
1999	2889	2165	1301	6355	119.506	0.242	0.532
2000	3058	2270	1215	6543	121.328	0.252	0.539
2001	2388	1661	904	4953	123.152	0.194	0.402
2002	3053	2155	1130	6338	124.974	0.244	0.507

Notes: 1. Year 2002 populations are derived from statistics published in the 2000 Statistical Yearbook and the Population Census 2001 Preliminary Report.
2. Cities are Chittagong, Dhaka, Khulna and Rajshahi.

Figure 7-2 : Casualty Rates, 1999 – 2002

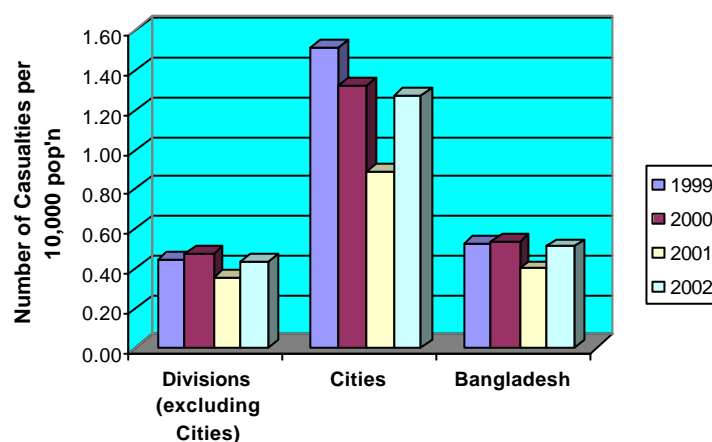


Table 7-3 : Recorded Casualties by District (Zila)

Division and District	number of casualties				population ¹ (no. per 10,000 pop'n)	casualty rates (no. per 10,000 pop'n)	
	severity			total		fatalities	total casualties
	fatal	grievous injury	simple injury				
Barisal Division							
Barguna	14	3	3	20	0.850	0.165	0.235
Barisal	19	12	5	36	2.365	0.080	0.152
Bhola	19	8	7	34	1.701	0.112	0.200
Jhalakati	6	4	0	10	0.706	0.085	0.142
Patuakhali	9	3	3	15	1.466	0.061	0.102
Pirojpur	8	2	2	12	1.143	0.070	0.105
Total	75	32	20	127	8.231	0.091	0.154
Chittagong Division							
Bandarban	4	0	16	20	0.297	0.135	0.673
Brahmanbaria	8	9	9	26	2.401	0.033	0.108
Chandpur	34	38	10	82	2.243	0.152	0.366
Chittagong District	74	45	57	176	3.392	0.218	0.519
Chittagong City	76	98	45	219	3.250	0.234	0.674
Comilla	70	29	13	112	4.655	0.150	0.241
Cox's Bazar	49	15	9	73	1.783	0.275	0.409
Feni	46	62	62	170	1.214	0.379	1.400
Khagrachhari	0	0	0	0	0.533	0.000	0.000
Lakshmipur	9	4	6	19	1.501	0.060	0.127
Noakhali	6	1	1	8	2.571	0.023	0.031
Rangamati	17	0	4	21	0.515	0.330	0.408
Total	393	301	232	926	24.355	0.161	0.380
Dhaka Division							
Dhaka District	95	36	9	140	3.245	0.293	0.431
Dhaka City	414	444	48	906	5.458	0.759	1.660
Faridpur	75	59	38	172	1.740	0.431	0.989
Gazipur	93	35	19	147	2.056	0.452	0.715
Gopalganj	39	45	24	108	1.149	0.339	0.940
Jamalpur	29	13	6	48	2.120	0.137	0.226
Kishoreganj	56	44	15	115	2.563	0.218	0.449
Madaripur	11	7	1	19	1.154	0.095	0.165
Manikganj	34	48	33	115	1.294	0.263	0.889
Munshiganj	36	36	17	89	1.313	0.274	0.678
Mymensingh	111	78	40	229	4.505	0.246	0.508
Narayanganj	104	38	20	162	2.170	0.479	0.747
Narsingdi	52	38	19	109	1.919	0.271	0.568
Netrokona	9	10	3	22	1.972	0.046	0.112
Rajbari	21	7	0	28	0.954	0.220	0.294
Shariatpur	12	19	11	42	1.073	0.112	0.391
Sherpur	38	11	8	57	1.265	0.300	0.451
Tangail	122	107	65	294	3.302	0.369	0.890
Total	1351	1075	376	2802	39.252	0.344	0.714

Table 7-3 continued on next page

Table 7-3, continued

Division and District	number of casualties				population ¹ (no. per 10,000 pop'n)	casualty rates	
	severity			total		(no. per 10,000 pop'n)	
	fatal	grievous injury	simple injury			fatalities	total casualties
Sylhet Division							
Hobiganj	48	44	48	140	1.783	0.269	0.785
Moulavibazar	53	41	22	116	1.628	0.326	0.713
Sunamganj	33	37	12	82	1.998	0.165	0.410
Sylhet	139	90	42	271	2.608	0.533	1.039
Total	273	212	124	609	8.017	0.341	0.760
Khulna Division							
Bagerhat	32	9	8	49	1.538	0.208	0.319
Chaudanga	6	0	2	8	1.002	0.060	0.080
Jessore	66	23	12	101	2.477	0.266	0.408
Jhenaidah	74	22	9	105	1.578	0.469	0.665
Khulna District	1	1	0	2	1.584	0.006	0.013
Khulna City	24	23	9	56	0.785	0.306	0.713
Kushtia	31	11	0	42	1.739	0.178	0.242
Magura	12	3	1	16	0.823	0.146	0.194
Maherpur	6	0	1	7	0.588	0.102	0.119
Narail	0	0	0	0	0.699	0.000	0.000
Satkhira	21	10	4	35	1.870	0.112	0.187
Total	273	102	46	421	14.683	0.186	0.287
Rajshahi Division							
Bogra	51	33	27	111	3.033	0.168	0.366
Dinajpur	39	26	20	85	2.718	0.143	0.313
Gaibandha	31	21	12	64	2.149	0.144	0.298
Joypurhat	22	11	9	42	0.857	0.257	0.490
Kurigram	17	20	2	39	1.748	0.097	0.223
Lalmonirhat	14	2	2	18	1.105	0.127	0.163
Natore	59	34	21	114	2.412	0.245	0.473
Nawabganj	24	12	6	42	1.544	0.155	0.272
Nilphamari	20	8	11	39	1.441	0.139	0.271
Naogaon	47	9	23	79	1.574	0.299	0.502
Pabna	98	33	27	158	2.186	0.448	0.723
Panchgarh	12	7	3	22	0.842	0.143	0.261
Rajshahi District	54	53	39	146	1.907	0.283	0.766
Rajshahi City	26	31	17	74	0.389	0.668	1.902
Rangpur	76	59	46	181	2.572	0.295	0.704
Sirajganj	77	62	60	199	2.747	0.280	0.724
Thakurgaon	21	12	7	40	1.214	0.173	0.329
Total	688	433	332	1453	30.438	0.226	0.477
TOTAL	3053	2155	1130	6338	124.98	0.24	0.51

Notes: 1. Year 2002 populations are derived from statistics published in the 2000 Statistical Yearbook and the Population Census 2001 Preliminary Report.

8 FATALITIES

Table 8-1 : Road Accident Fatalities by Age

age (years)	number of fatalities			
	driver	passenger	pedestrian	total
0 - 5	2	17	48	67
6 - 10.	0	26	184	210
11 - 15.	6	26	76	108
16 - 20	21	54	61	136
21 - 25	32	97	68	197
26 - 30	34	125	75	234
31 - 35	44	109	77	230
36 - 40	26	70	64	160
41 - 45	17	48	46	111
46 - 50	6	42	67	115
51 - 55	2	18	45	65
56 - 60	2	19	61	82
61 - 65	1	11	36	48
66 - 70	1	4	35	40
71 - 75	0	2	13	15
> 75	0	2	11	13
unknown	227	389	606	1222
TOTAL	421	1059	1573	3053
% total	14%	35%	52%	

Comment:

More than half of the fatal victims of road accidents are pedestrians.

Figure 8-1 : Number of Road Accident Fatalities by Age

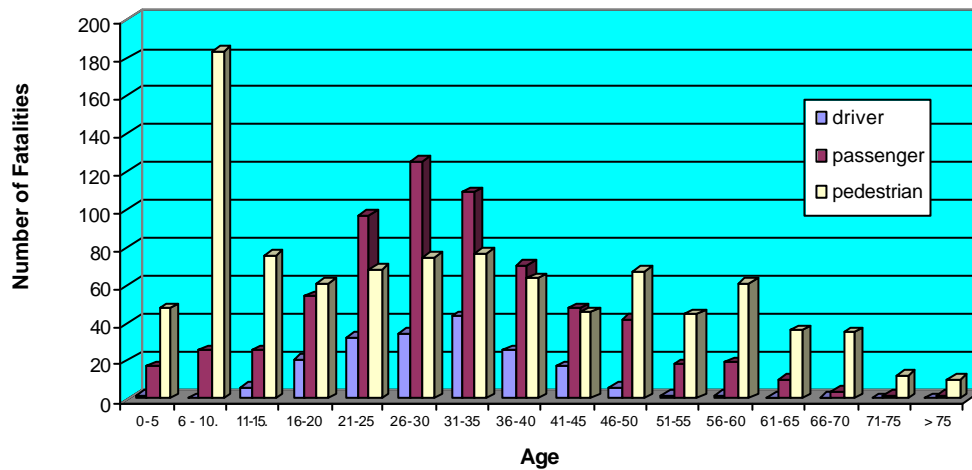
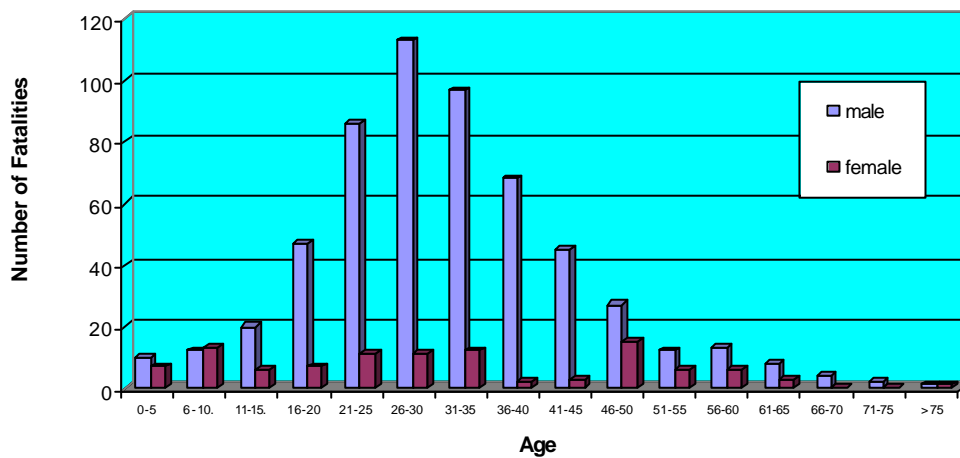


Table 8-2 : Passenger Fatalities by Age and Sex

age (years)	number of passenger fatalities		
	male	female	total
0 - 5	10	7	17
6 - 10.	12	13	25
11 - 15.	20	6	26
16 - 20	47	7	54
21 - 25	86	11	97
26 - 30	113	11	124
31 - 35	97	12	109
36 - 40	68	2	70
41 - 45	45	3	48
46 - 50	27	15	42
51 - 55	12	6	18
56 - 60	13	6	19
61 - 65	8	3	11
66 - 70	4	0	4
71 - 75	2	0	2
> 75	1	1	2
unknown	365	26	391
TOTAL	930	129	1059
% total	88%	12%	

Figure 8-2 : Number of Passenger Fatalities by Age and Sex

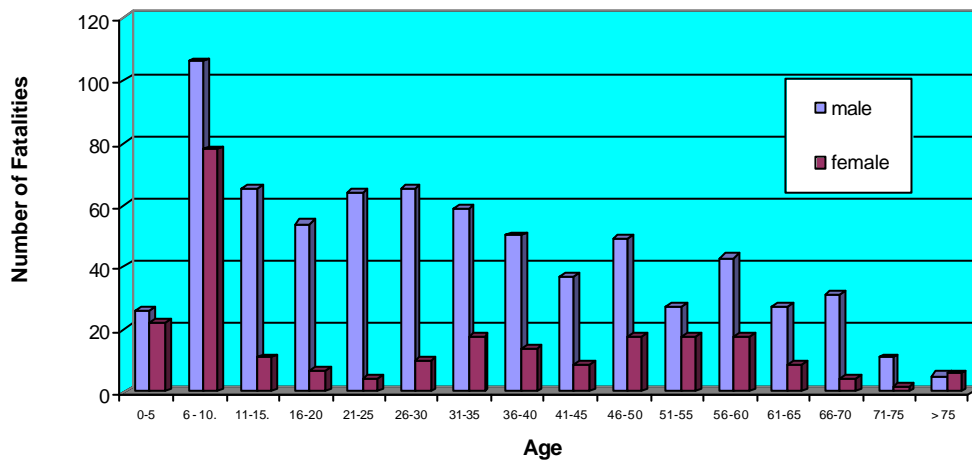


Comment:

The high proportion (37%) of passenger fatalities of unknown age should be recognised in any in-depth analysis involving age profiles.

Table 8-3 : Pedestrian Fatalities by Age and Sex

age (years)	number of pedestrian fatalities		
	male	female	total
0 - 5	26	22	48
6 - 10.	106	78	184
11 - 15.	65	11	76
16 - 20	54	7	61
21 - 25	64	4	68
26 - 30	65	10	75
31 - 35	59	18	77
36 - 40	50	14	64
41 - 45	37	9	46
46 - 50	49	18	67
51 - 55	27	18	45
56 - 60	43	18	61
61 - 65	27	9	36
66 - 70	31	4	35
71 - 75	11	2	13
> 75	5	6	11
unknown	510	96	606
TOTAL	1229	344	1573
% total	78%	22%	

Figure 8-3 : Number of Pedestrian Fatalities by Age and Sex**Comment:**

As with passenger fatalities, the high proportion (39%) of pedestrian fatalities of unknown age should be recognised in any in-depth analysis involving age profiles.

9 HOW TO ACCESS THE NATIONAL RTA DATABASE

9.1 INTRODUCTION

The impact of road traffic accidents (RTAs) is wide ranging and cuts across sectoral boundaries. Road safety involves the social, health, economic and development sectors, and persons who may be interested in road safety and the use of the RTA Database come from a variety of professional and organisations. They may be politicians, engineers, social workers, health advisors, the media, or planners; they may be from Government offices, the private sector or non-government organisations. For anyone planning road safety initiatives, statistical information on RTAs is an essential resource to correctly target and design the intervention measures.

The RSC is the custodian of the National RTA Database. Details of the database are available to all who seek the information.

The section of the Annual RTA Report describes the form of the database so that persons seeking RTA information are aware of the database content and can properly request their requirements.

9.2 CONTENT OF THE RTA DATABASE

There are details of almost 20,000 road accident events held in the National Road Traffic Accident (RTA) database. Table 9-1 below summarises the number of RTAs recorded in the database since its inception in 1996.

Table 9-1 : Number of accidents recorded in the National RTA Database

year	type of accident				total
	fatal	serious injury	simple injury	collision	
1997 *	1281	875	233	238	2627
1998	2000	1137	193	203	3533
1999	2432	986	304	220	3942
2000	2523	1029	209	209	3970
2001 *	2029	642	137	117	2925
2002	2599	904	200	238	3941
total	12864	5573	1276	1225	20938

* Incomplete National coverage, data not comparable with data of other years.

Accident details recorded in the database details are technical. There is no record in the database of persons' names nor vehicle identification, other than a general classification, e.g. car, truck, etc. Personal information concerning traffic accidents is retained by the Police.

Each accident record in the database contains several fields of coded information. The fields are divided into sections, as shown in Table 9-2, and for each field there are several field values.

Each accident record also contains some written description fields. These are contained in the first part of the general accident details section. The fields in this section are the key fields which uniquely define the accident event.

Table 9-2 : RTA Database Coded Data Fields and Field Values

Section	Data Fields	Field Values
General 1	Thana	[name of Thana Police station at which accident reported]
	vehicles involved	[number]
	driver casualties	[number]
	passenger casualties	[number]
	pedestrian casualties	[number]
	accident severity	fatal; grievous; simple injury; collision
	day	Sat; Sun; Mon; Tue; Wed; Thu; Fri.
	date of occurrence	date; month; year
	time of occurrence	[24 hour clock]
	Location (1)	[name of City/town/village]
	Location (2)	[name of road]; between landmark 1 [name] and landmark 2 [name]
	Location (3)	[name of road]; [name of second road];
General 2	junction type	not at a junction; cross roads; tee intersection; off-set tee intersections; roundabout; railway crossing; other
	traffic control	no control; centreline; pedestrian crossing; Police controlled; traffic lights; Police and traffic lights; Stop/Give Way sign; other.
	collision type	head-on; rear end; right angle; side-swipe; overturned vehicle; hit object in road; hit object off road; hit vehicle; hit pedestrian; hit animal; other.
	movement	one-way street; two-way street.
	divider (median)	yes; no.
	weather	fair; rain; wind; fog.
	light	daylight; dawn/dusk; night (lit); night (unlit).
	road geometry	straight and flat; curve only; slope only; curve and slope; crest.
	surface condition	dry; wet; muddy; flooded; other.
	surface type	sealed; brick; earth.
	surface quality	good; rough; under repair.
	road class	national; regional; feeder; rural road; city.
	road feature	none; bridge; culvert; narrowing/restriction; speed breakers.
location type	urban area; rural area.	
Vehicle(s)	Number	[assigned identification number, e.g. 1,2,3 ...]
	Valid fitness certificate	yes; no; not applicable.
	Insurance cover	third party; comprehensive.
	Vehicle type	bicycle; rickshaw; pushcart; motorcycle; baby taxi; tempo; microbus; minibus; bus; car; jeep; pick up; truck (< 3.5 t); heavy truck; articulated truck; oil tanker; tractor; animal drawn; other.
	Vehicle manoeuvre	left turn; right turn; U turn; crossing road; overtaking; going ahead; reversing; sudden start; sudden stop; parked; other.
	Vehicle loading	legal; illegal/unsafe.
	Vehicle defects	none; lights; brakes; steering; tires; multiple; other.
	Vehicle damage	none; front; rear; right; left; roof; multiple; other.
Driver(s)	Vehicle number	[number]
	Driving licence	type and category; expiry date.
	Driver sex	male; female.
	Driver injury	fatal; grievous; simple injury; not injured.
	Driver age	[number]
	Alcohol	alcohol suspected; not suspected.
Seat belt/helmet	worn; not worn.	
Passenger casualty(s)	Vehicle number	[number]
	Passenger sex	male; female.
	Passenger age	[number]
	Passenger injury	fatal; grievous injury; simple injury.
	Passenger position	inside vehicle; outside vehicle; on roof.
	Passenger action	no action; boarding; de-boarding; falling off; other.
Pedestrian casualty(s)	Vehicle number	[number]
	Pedestrian sex	male; female.
	Pedestrian age	[number]
	Pedestrian injury	fatal; grievous injury; simple injury.
	Pedestrian location	on pedestrian crossings; with than 50 m of pedestrian crossing; Central Island/divider; road centre; footpath; roadside; bus stop.
Pedestrian action	no action; crossing the road; walking along the road; walking along roadside; playing on the road.	
General 3	Contributory factors	speeding; careless driving; driver fatigue; driving too close; bad driver signals; bad overtaking; bad turning; drunk driver; pedestrian action; passenger action; road condition; road feature; weather; vehicle defects; unsafe loading; tyre burst; animal action; other.

9.3 ACCESS TO THE RTA DATABASE

When requesting a database search, conditions can be set so that only a sub-set of the accident record is contained in the search output. Conditions are used to screen the data so that the search output contains only the accident records for the area of interest and for the type of accident specified. Conditions are set by nominating what fields are to be included in the search. One, more than one, or all of the fields may be selected.

To request data from the RTA Database, a standard form (available from the RSC) should be completed.

To receive the form, a request should be sent to:

The Manager,
BRTA Road Safety Cell,
House 10A, Road 25A,
Banani,
Dhaka.
Attention: Accident Data Analyst

The form will guide the person requesting the information through the process for correctly specifying the area of interest and the selection of data fields. Data fields are selected by a "tick box" method. The area of interest may be described in either of two ways.

- (a) either by administrative area, by specifying either
 - (i) the Thanas, or
 - (ii) the City or Municipality, or
 - (iii) the District(s), or
 - (iv) the Division(s) of interest
- (b) or by route, by specifying the route number with a start displacement and an end displacement.

When requesting data for a City or Municipality, the data output can be screened, if required, to include only the accidents which have occurred on named main or arterial roads.

Specifying an area of interest by route applies to national highways, regional highways and feeder roads.

The RSC retains an inventory of all national and regional highways, which details landmarks within each kilometre section of highway. Landmarks are located as a measured distance (displacement) from a fixed reference point. These documents should be referred to when specifying an area of interest for a national or regional highway by the route methodology.

Specifying an area of interest for a feeder road requires a statement of the route number only. Start and end displacements are not necessary for feeder roads.

The data output from the RTA database can be provided either in coded format (for experienced analysts) or english. Data output is a table of the requested information, and an electronic copy(MS Excel format) can be provided.

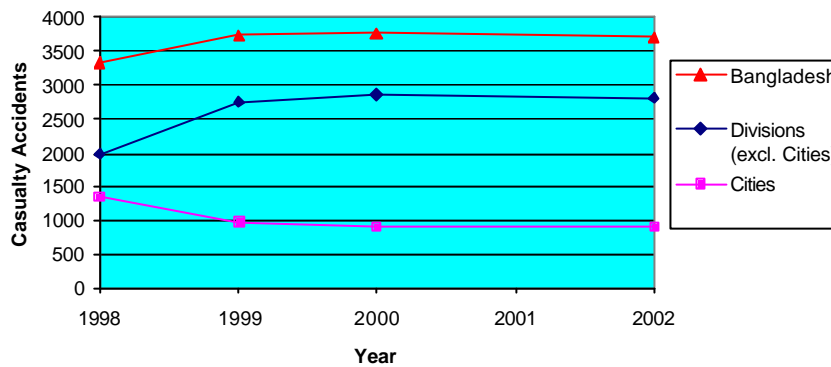
10 CONCLUSION

10.1 STABILISATION IN THE OCCURRENCE OF CASUALTY ACCIDENTS

As commented in Section 2.3 (page 3), the issue which prevented the 2001 RTA data from being compared with RTA data of earlier years has been rectified in the 2002 database. The RTA statistics for the periods 1998, 1999, 2000 and 2002 can be compared with some degree of confidence,

Figure 10-1 make this comparison for casualty accidents (i.e. all fatal and injury accidents). In this figure, the data for the periods 1999 – 2002 is taken from Table 3-1, page 4 . The 1998 data, from the RTA Database, is Bangladesh, 3330 casualty accidents; Divisions, 1991; and Cities, 1339.

Figure 10-1 : Number of Casualty Accidents, 1998 to 2002



The two figures on the following page illustrate the regular annual increase in the number of registered vehicles in Bangladesh (typically 6%- 9% per annum) and the increase in the GDP of the Land Transport Sub-sector (synonymous with increased vehicle movement and activity on the road network). Prior to year 2000, the Land Transport GDP increased at about 11% per annum. In 2001, the increase was 17%, and 28% in 2002. Together these confirm the regular increase in motorisation in Bangladesh.

Trends cannot be reliably forecast on the basis of limited data points, but the reduction in the increase of casualty accidents per year after 1999, as shown in Figure 10-1, may represent a stabilisation in the occurrence of casualty road traffic accidents in Bangladesh, particularly when viewed against a background of increasing accident exposure due to the increase in motorisation.

Figure 10-2 : Number of registered vehicles in Bangladesh, 1997 to 2002

Source: BRTA, June 2003

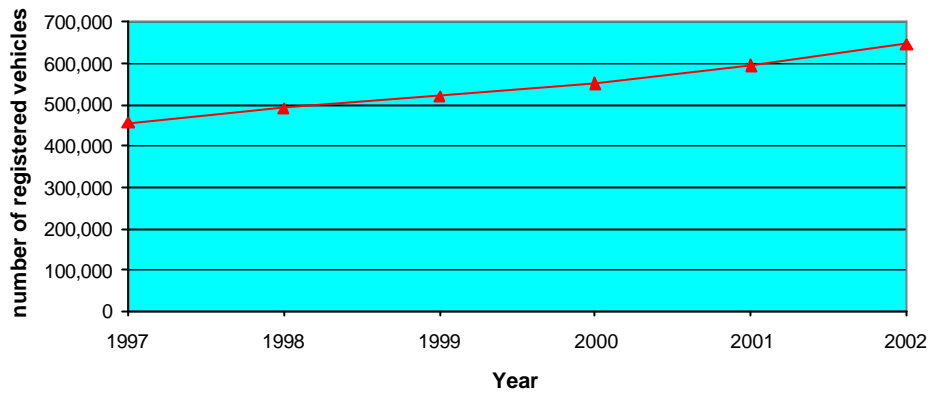
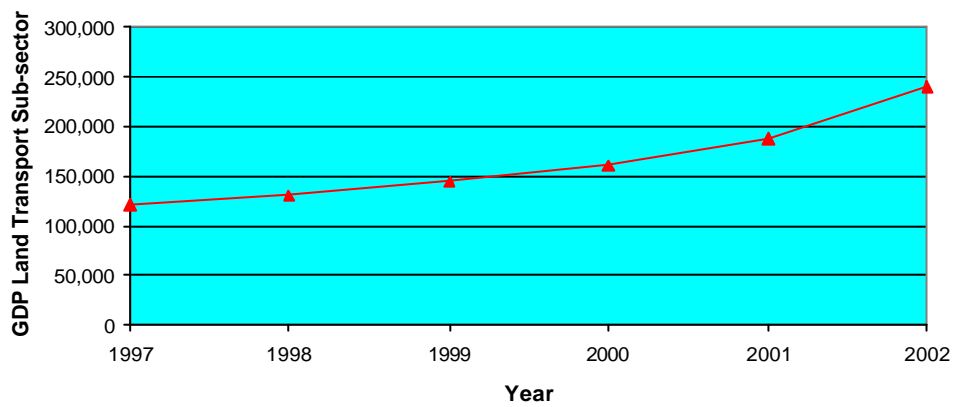


Figure 10-3 : Land Transport Sub-sector GDP (million Taka), 1997 to 2002

Source: National Account Statistics, Bangladesh Bureau of Statistics, May 2003



10.2 PROFILE OF FATAL ACCIDENTS AND FATALITIES

The profile of fatal road accidents remains similar to the profile reported last year. This is not unexpected given the continuing high proportion of accidents where vehicles hit pedestrians (53% of all fatal accidents, refer Table 4-3, page 10), and the continuing high proportion of trucks and busses involved in fatal pedestrian accidents, (refer to the comments following Table 6-3 (c)).

The profile is as follows:

Fatal accidents mainly occur

?? on national highways.

Predominantly, fatal accidents involve

?? vehicles hitting pedestrians.

The greatest number of fatal accidents by far involve

?? heavy vehicles, and

?? buses

The highest number of fatalities per accident occurs when

?? vehicles collide head on.

Persons who are killed as the result of a road accident are predominantly

?? young pedestrians, children less than 10 years old,

?? adult male pedestrians, and

?? passengers.

10.3 ROAD SAFETY INITIATIVES

Whilst the profile of fatal road accidents remains more or less as before, there will be no change in the recommendations for road safety initiatives to that reported in the previous annual report. In addition to this, because the statistics contained in this year's Report permit greater confidence in comparing the frequency and rate of accidents in different locations and on different parts of the network, target areas for planning road safety interventions and initiatives can be determined

10.3.1 NATIONAL HIGHWAYS

With 40% of all fatal accidents occurring on National Highways, these roads continue to be the principle target of recommendations for road safety initiatives. The recommendations are listed in Table 10-1 below. These initiatives may be actioned independently but preferably they should be actioned in combination with each other on selected sections of national highway of some length (typically lengths between 10 km and 50 km).

Dhaka Division and Rajshahi Division, outside the city areas of Dhaka and Rajshahi, account for the majority of fatal accidents and should be the principle target areas for these initiatives.

Table 10-1 : Recommendations for Road Safety Initiatives on National Highways

Road Safety Attribute	Recommended Road Safety Initiatives	Comment
Safer Roads	a. Rationalisation of inappropriate activities on, adjacent to or near the road	Different parts of the road are designed for different purposes. Inappropriate activities are those which reduce the capacity of any part of the road to serve its design purpose.
	b. Provision of facility where appropriate for conflicting road uses	Conflicting road uses are, for example, turn and through traffic; stopped and through traffic; non-motorised and motorised traffic; slow and faster traffic; pedestrians and vehicles.
	c. Establishment of speed limit zones where warranted	Speed limit zones can only be established where the nature and extent of adjacent activities warrants reduced vehicle speed. In other cases, initiative (a) applies.
	d. Provision of road signs and pavement markings throughout the network, and removal of any obstruction to the placement and effective visibility of signs	The BRTA Traffic Signs Manual contains the standards for road signs and pavement markings.
Safer People	e. Education of pedestrians, particularly children, on safe practices when near the road	An education programme should focus in communities near the national highways.
	f. Education of drivers, particularly heavy vehicle and bus drivers, on road rules and safe driving practices	Sustainable education requires production of a highway code in a format appropriate for all road users.
	g. Increased enforcement of Regulations regarding excessive speed (especially in speed limit zones) and reckless or dangerous driving	Sections 142 (Driving at excessive speed) and 143 (Driving recklessly or dangerously) of MVO 1983 apply.
Safer Vehicles	h. Increased enforcement of Regulations regarding unsafe vehicle condition and overloading.	Sections 86 (Limits of weight) and 149 (Using vehicle in unsafe condition) of MVO 1983 apply.

10.3.2 INITIATIVES ON OTHER ROADS AND HIGHWAYS

Where road safety initiatives are being considered for roads outside the urban areas and other than national highways (i.e. regional highways, feeder roads and rural roads), such initiatives should be generally consistent with the recommended initiatives listed in Table 10-1 for national highways.

10.3.3 LOW COST INTERVENTIONS

Dhaka City and Rajshahi City have comparatively high fatal accident rates (more than twice that of any other city, refer Table 3-1), with a predominance of pedestrian accidents and rear end accidents (for Dhaka, pedestrian accidents are 74% and rear end accidents are 13% of all fatal accidents; for Rajshahi City, the proportions are 36% and 16%; refer Table 4-3). In this scenario, low cost engineering interventions, coupled with public education programmes, are likely to achieve good results.

Rajshahi City is recommended as a potential target area for low cost interventions, which can be monitored to assess their application for other cities as well as municipalities and other parts of the network.

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