



**NATIONAL TRANSPORT RESEARCH CENTRE**

GOVERNMENT OF PAKISTAN

MINISTRY OF COMMUNICATIONS

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**TRAFFIC COUNTS ON M-1, M-2, M-3, AND  
NATIONAL HIGHWAY N-05**

**AUGUST 2008**



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(NTRC)

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NATIONAL HIGHWAY N-05**

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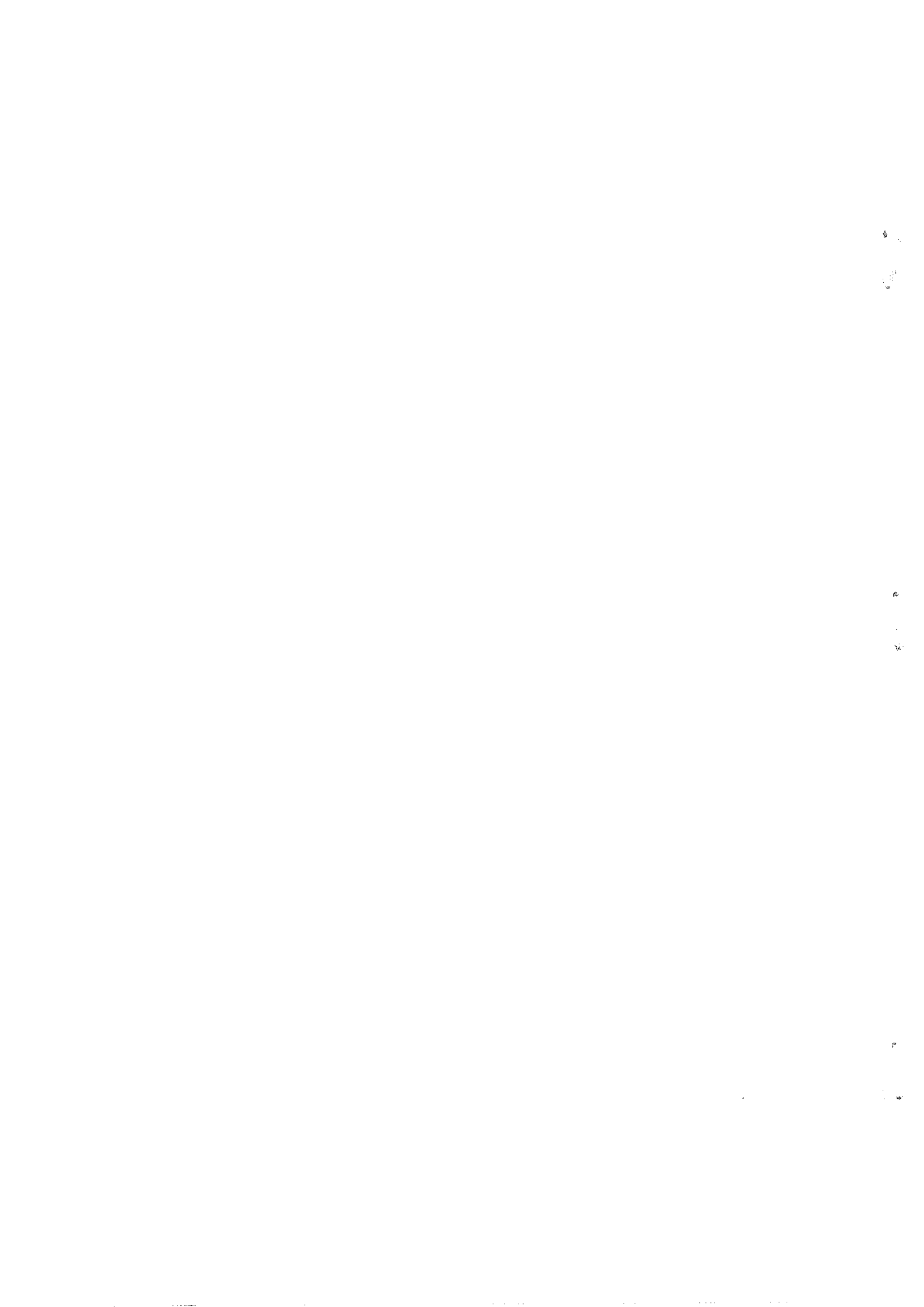
## LIST OF CONTENTS

<u>S. No.</u>	<u>Title</u>	<u>Page No.</u>
1.	Introduction	1
2.	Staff Training & Pilot Survey	3
3.	Methodology Adopted	3
4.	Survey Points	4
5.	Coding, Compiling and Computerization	5
6.	24-Hours Traffic Volume	5
7.	Hourly Flow and Peak Hours Factors	8
8.	Directional Distribution Factors (DDF)	14
9.	Daily Traffic by Type of Vehicles	15
10.	Standard Deviation and Variance Analysis	20
11.	Co-efficient of Variation	24
12.	Ratio of 16-Hours Volume to 24 Hours Volume	27
13.	Salient Results	28
14.	Recommendations	29



## LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page No.</u>
Table 6.1	24 Hours Traffic Volume on N-05	6
Table 6.2	24 Hours Traffic Volume on Motorways	6
Table 6.3	24-Hour traffic Volume (Section wise summary N-05)	7
Table 6.4	24-Hour traffic Volume (Section wise summary Motorways)	7
Table 7.1	Peak Hour Volume as Percentage of ADT(N-05)	11
Table 7.2	Peak Hour Volume as Percentage of ADT (Motorways)	11
Table 7.3	Maximum & Minimum Traffic Volume (No. of Vehicles on N-05)	12
Table 7.4	Maximum & Minimum Traffic Volume (No. of Vehicles on Motorways)	12
Table 7.5	Hourly Percentage of 24 Hours Volume National Highway N-05 and Motorways	13
Table 8.1	Directional Distribution of Traffic Flow (National Highway N-05)	14
Table 8.2	Directional Distribution of Traffic Flow (Motorways)	14
Table 9.1	Percentage Composition by Type of Vehicles (National Highway N-05)	17
Table 9.2	Percentage Composition by Type of Vehicles (Motorways M-1, M-2 & M-3)	17
Table 10.1	Standard Deviation of Classified Hourly Percentages on N-05	21
Table 10.2	Standard Deviation of Classified Hourly Percentages on Motorways M-1, M-2 & M-3	22
Table 10.3	Standard Deviations for Different Types of Vehicles (All Stations)	23
Table 10.4	Vehicle Composition Percentages.	24
Table 11	Standard Deviation of Hourly Flow	26
Table 12.1	Ratio of 16-Hours Traffic to 24-Hours Traffic (National Highway N-05)	27
Table 12.2	Ratio of 16-Hours Traffic to 24-Hours Traffic (Motorways M-1, M-2 and M-3)	28





## LIST OF DIAGRAMS

<u>Diagram</u>	<u>Title</u>	<u>Page No.</u>
Diagram-1	Hourly Flow -Pattern on N-05	9
Diagram-2	Hourly Flow Pattern on Motorways	10
Diagram-3	Pie Diagram of Traffic Composition on N-05	18
Diagram-4	Pie Diagram of Traffic Composition on Motorways	18
Diagram-5	Bar Diagram Showing traffic Flow by Mode on Different Section of N-05	19
Diagram-6	Bar Diagram Showing traffic Flow by Mode on Different Section of Motorways.	19

4

5

6

7

8

9

## LIST OF ANNEX

<u>Annex</u>	<u>Title</u>	<u>Page No.</u>
Annex-1	Letter of NH & MP for conducting survey	31
Annex-2	Survey Questionnaire	32
Annex-3	List of Survey Points	33
Annex-4	Map Indicating Survey Points	34
Annex-5	24 Hours Traffic Volume (Hourly)	35
Annex-6	Survey Photographs	68



## 1. Introduction

Precise information with regard to various characteristics of traffic flow is crucial for proper planning and management of the highway network. Modern methods of pavement design require more than simple estimates of current and future traffic volumes. It is necessary to know the composition of vehicle stream, configuration of axle assemblies for goods vehicles, extent of axle loads, laden weights, load factors, etc. Furthermore, in order to estimate the likely benefit from a particular road improvement or new construction, it is necessary to know the above characteristics and composition of a traffic stream because of differences in operating cost and cost changes among vehicle types. Such information is also crucial for drawing a proper maintenance and enforcement program of a road system. Also the environmental impact of traffic can only be assessed if the spatial and time variations of traffic both by composition and total number are known.

The aspect of variation assumes a huge dimension as variations in traffic flow take place not only from hour to hour (and in fact within the hour), day to day, week to week, month to month and from site to site but there is also variation in the proportion of different types of vehicles.

Proper planning of a transport system requires detailed knowledge of traffic flows. It being impossible to observe and record all traffic system movements, it is necessary to rely on samples. The type of sample required will be determined by the use to which it is to be put but the design of the sample will always be a compromise between accuracy and cost.

Survey design must always be preceded by precise identification of the ultimate purpose of data for a clearly defined study area. Such identification will help define the type of sample and the level of confidence required. The accuracy of the estimated parameter may not be a linear function of the amount of data collected. In fact the improvement is subject to diminishing returns. As the sample size increases, the scatter does not decrease in direct

proportion. To halve the standard error, the sample size has to be quadrupled. This suggests the need for the choice of an optimum amount of data as can give the best possible result for a given set of resource inputs.

Traffic flow defined as the total number of vehicles passing a point in a unit of time is perhaps the most important characteristic of a traffic stream. Traffic flow data is associated with fixed point and is normally expressed in relation to time; the base being determined by the type of information desired and the application in which it is to be used.

The 'Average Daily Traffic' (ADT) is defined as the total volume during a given time period (more than one day and less than one year) divided by the number of days in that time period.

NTRC has conducted countrywide traffic counts and Origin-Destination Surveys to assist in the preparation of National Transport Plans besides developing traffic growth factors and other relationships used in the planning and design of roads and highways in the country. Recognizing their expertise and experience in the field, NH & MP in May, 2008, requested to carry out traffic count surveys on M-1, M-2, M-3 and N-05 (Annex-1). Accordingly classified traffic counts as per the proforma shown in Annex-2 were conducted on 11 survey points in June, 2008 (as per list in Annex-3) and indicated on the map in Annex-4.

In addition to the staff provided by NTRC, NH & MP also provided ten officials for on-the-job training and also to assist in the field enumeration work. Phase-I of the project commenced on 10<sup>th</sup> June, 2008 and was completed on 29<sup>th</sup> June, 2008 during which manual classified traffic counts

on N-05 and Motorways (M-1, M-2 & M-3) from Peshawar to Multan were conducted.

**2. Staff Training & Pilot Survey**

A survey team comprising NTRC staff and NH & MP staff was arranged for the survey. NTRC members used to carry out field surveys and had enough experience to undertake such assignments. However, the task was new to NH & MP staff. Lecture sessions regarding survey methodology and the survey proforma were arranged for them in the NTRC Auditorium followed by pilot surveys on Islamabad Highway and Kashmir Highway. Even during the actual surveys, NH & MP staff were continued to be fully trained and supervised.

**3. Methodology Adopted.**

A survey team consisting of 24 Enumerators, 2 Relievers, and two Drivers headed by a Research Officer was assigned to carry out the survey.

The team was further divided into 3 groups for three shifts, each spread over 8 hours, to collect traffic flow information for 24-hours at each of the survey point. 8 Enumerators and 1 reliever were deputed in each shift. 4 Enumerators recorded the flow in each direction. Depending on the traffic volume of each category of vehicles, exclusive enumerators were deputed to record the number of vehicles correctly. Synchronized clocks were used to ensure the correct recording of the time. The Shift Incharge was directed to consolidate the forms at the end of the day.

Field staff was provided with all necessary equipment. Hourly classified traffic counts were taken manually in each direction, without any break, for

24 hours at each station. Every possible effort was made to ensure the accuracy of collected data. Frequent surprise visits by NTRC officers were made for inspection and checking of staff performance.

#### 4. Survey Points

11 survey points were chosen under phase-I of the program which may be seen at Annex-III (List of Stations) and Annex-IV (Location of Survey Stations on Map). Though the survey points had already been identified on a map, the exact location for each station was physically selected at the site keeping in view the following factors documented in various reference manuals/reports for traffic count surveys.

- (a) Straight section of road should be used free from junctions, entrances, sudden change in width and elevation so that visibility can work at a distance of at least 1 Km on either side of the survey point chosen.
- (b) There should be no stationary vehicles or building nearby the selected point. For the same reason, stretches of road on which parking frequently occurs should be avoided.
- (c) The survey point must be kept well away from schools, playing field, filling stations, parking zones and parks to minimize chances of any type of interference.
- (d) The survey point should be well away from city limits to eliminate the chances of counting local / urban traffic.
- (e) Besides the technical requirement, social needs must also be taken into account. The survey point should not be very far from where food and drinking water is available.



## 5. Coding, Compiling and Computerization of Traffic Data

The collected field data was edited and necessary codes were assigned to various 'fields' for computerization. Necessary tabulation and compilation was done for statistical analysis. In addition to compiling hourly classified traffic volume by composition and by direction on a 24 hours basis (Annex-5) the following additional conclusions have been drawn by Statistical Analysis of the data. These are as under:-

- (a) 24-Hours Classified Traffic Volume, (a proxy for ADT).
- (b) Working out Peak and lightest Hours and their shares as percentage of ADT
- (c) Hourly Traffic Flow Pattern as observed on N-05 and Motorways
- (d) Percentage Composition by type of vehicle at each location
- (e) Directional Distribution Factors
- (f.) Ratio of 16-Hours volume to 24-Hours volume.
- (g) Standard Deviation and Variance Analysis.

## 6. 24-Hour Traffic Volume

**Tables 6.1 and 6.2** show the total number of vehicles which passed the survey points over a period of 24 hours. By definition, 24-hours traffic flow cannot be taken as Average Daily Traffic (ADT) as the counts are not long enough to take average. However, they can be considered to be a proxy for ADT.

As may be seen from these Tables, the heaviest traffic was recorded on Taxila-Islamabad Section of N-05 (39,393 Veh./Day) followed by Lahore-Gujranwala Section of N-05 (32,765 Veh./Day) and Lahore-Pindi Bhattian Section of M-02 (32,143 Veh/Day).

**Table:- 6.1**

**24 Hours Traffic Volume on N-5**

<b>Section</b>	<b>Survey Location</b>	<b>Total No. of Vehicles</b>
Peshawar – Taxila N-05	Near Iqbal Shaheed Toll Plaza Attock	9287 *
Taxila – Islamabad N-05	Near Sangjani Toll Plaza Islamabad	39393
Jhelum – Rawalpindi N-05	Near Jhelum Toll Plaza	26449
Lahore – Gujranwala N-05	Kala Shah Kaku	32765
Khanewal – Lahore N-05	NTRC Survey Station Pattoki	23399
Multan – Khanewal N-05	16 Km short of Multan	13752

\*Low due to lawyer's procession and wet weather.

**Table:- 6.2**

**24 Hours Traffic Volume on Motorways**

<b>Section</b>	<b>Survey Location</b>	<b>Total No. of Vehicles</b>
Tarnol – Peshawar M1	Near Peshawar Toll Plaza	15088
N-05 to M-2	Near Kala Shah Kaku Toll Plaza on M-2 Bye Pass	12973
Lahore – Pindi Bhatian M-2	Near Ravi Toll Plaza on M-2	32143
Faisalabad – Pindi Bhattian M-3	18 Km after Faisalabad Toll Plaza on M-3	8485
Pindi Bhattian – Rawalpindi M-2	4 Km after Islamabad Toll Plaza on M-2	11967

**TABLE 6.3**

**24 HOURS TRAFFIC VOLUME**

Sectionwise Summary of National Highway N-05 Survey Points

Section	Motor-cycle		M. Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon/Hiace/Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2																	
Peshawar - Taxila N-05	334	58	3413	305	480	13	1390	240	735	1397	654	16	103	38	104	1	6	9287	
Taxila - Islamabad N-05	1946	8	19293	1455	1290	16	4054	505	830	5621	3858	90	212	109	81	14	1	39393	
Jhelum - Rawalpindi N-05	3889	78	11407	279	856	11	1748	1285	820	3506	2060	71	256	106	43	11	23	26449	
Lahore - Gujranwala N-05	5229	207	13634	761	1363	34	4129	1953	1598	2533	764	187	159	84	110	9	11	32765	
Khanewal - Lahore N-05	2959	896	10242	194	774	23	736	940	1852	2236	1101	111	844	244	158	8	81	23399	
Multan - Khanewal N-05	1728	33	6033	109	613	18	602	484	915	1607	655	72	562	164	135	17	5	13752	

**TABLE 6.4**

**24 HOURS TRAFFIC VOLUME**

Sectionwise Summary of Motorway M-1, M-2 & M-3 Survey Points

Section	Motor-cycle		M. Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon/Hiace/Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2																	
Tarnol - Peshawar M-1	0	0	10570	468	803	0	1753	165	257	605	189	0	157	29	89	2	1	15088	
Kala Shah Kaku Link M-2	0	0	9339	67	384	0	285	750	417	1049	305	0	205	64	106	0	0	12973	
Lahore - Pindi Bhatian M-2	0	0	24173	224	964	0	608	1270	1240	1753	985	0	496	209	221	0	0	32143	
Faisalabad - Pindi Bhatian M-3	0	0	5624	33	295	0	478	349	1084	467	64	0	51	28	12	0	0	8485	
Pindi Bhatian - Rawalpindi M-2	0	0	7659	101	520	0	596	301	1364	783	208	0	261	96	77	1	0	11967	

## 7. Hourly Flow and Peak Hour Factors

Hourly flow pattern as observed on N-05 and M-2 may be seen in Figures I & II respectively. The flow-curve for N-05 shows two peaks; first at 12 Noon to 1 PM and the second at 5 PM to 8 PM. It touches its lowest point at 3 AM to 6 AM. It is due to this reason that 16-hours traffic flow is normally taken from 7 AM to 11 PM. The flow curve shows a similar pattern as had been experienced by NTRC in the past regarding the study of N-05. Peak Hour Volume (PHV) is a useful parameter for highway engineers and planners. It is mainly used for geometric design with respect to number and width of lanes, channellization and shoulder design etc. It can also be used for determining capacity utilization, locating traffic control devices and evaluating and planning of an effective enforcement regime.

Peak hours and their respective traffic in respect of N-05 stations is shown in **Table-7.1**. The figures reveal that, on an average, 6.4% of the daily flow is contributed by the peak hour on N-05. It is worth mentioning that 6.304% of AADT was found to be contributed by the peak hour when NTRC set up twenty permanent traffic count stations all over the country and analysed 5 years data (Masoud Bakht, 1990). On Motorways (Table 7.2), this average slightly increases by 0.6%. It comes to be 6.8% on M-1. On M-3 it varies from 7.4% to 7.6% whereas on M-2 it shows a percentage of 6.8% followed by 5.7% on M-3.

The maximum and minimum traffic volumes on N-05 and Motorways and proportion of hourly volumes with 24-hour traffic volumes may be seen in Tables 7.3, 7.4 and 7.5 respectively.

Diagram 1  
Hourly Flow Pattern on N-05

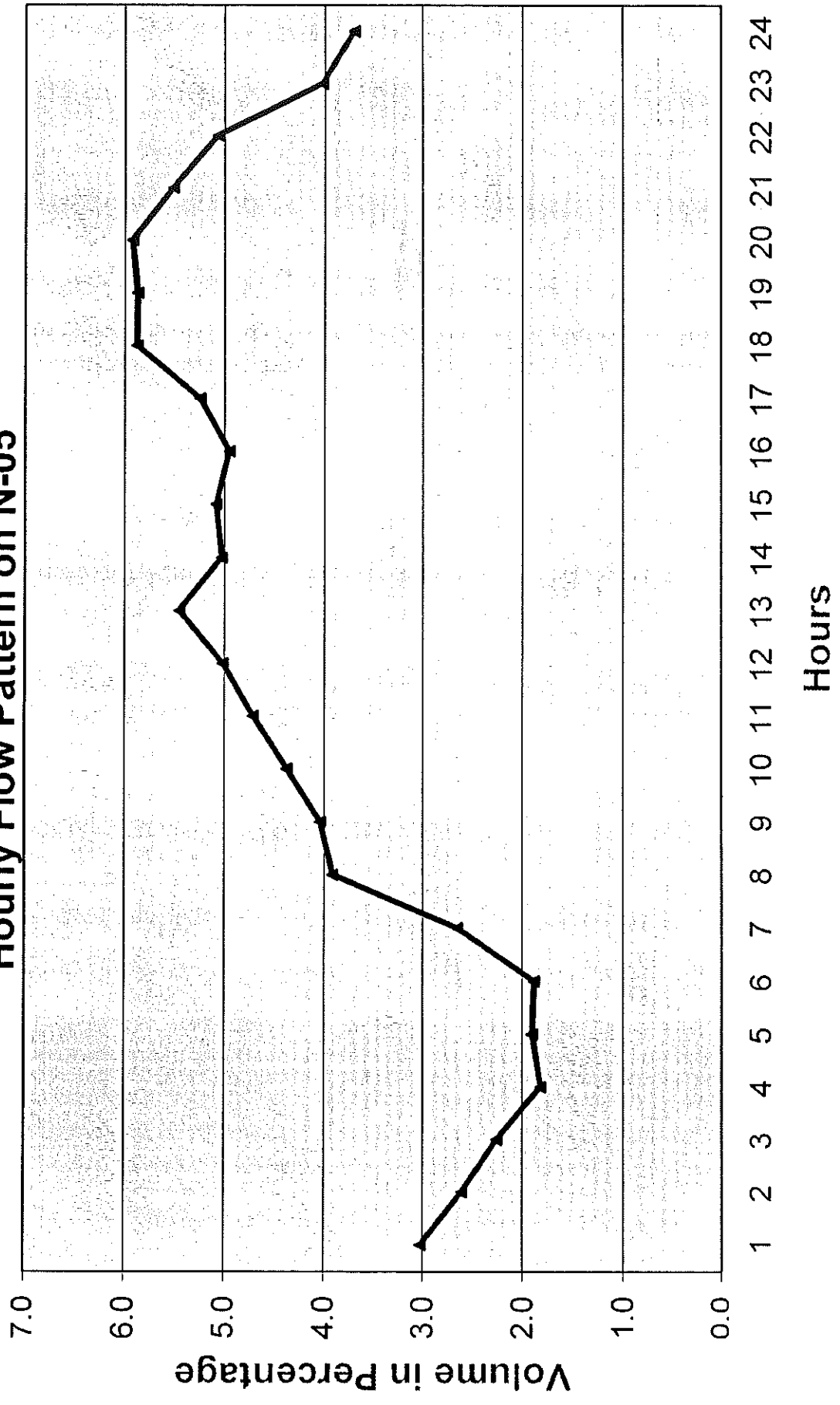
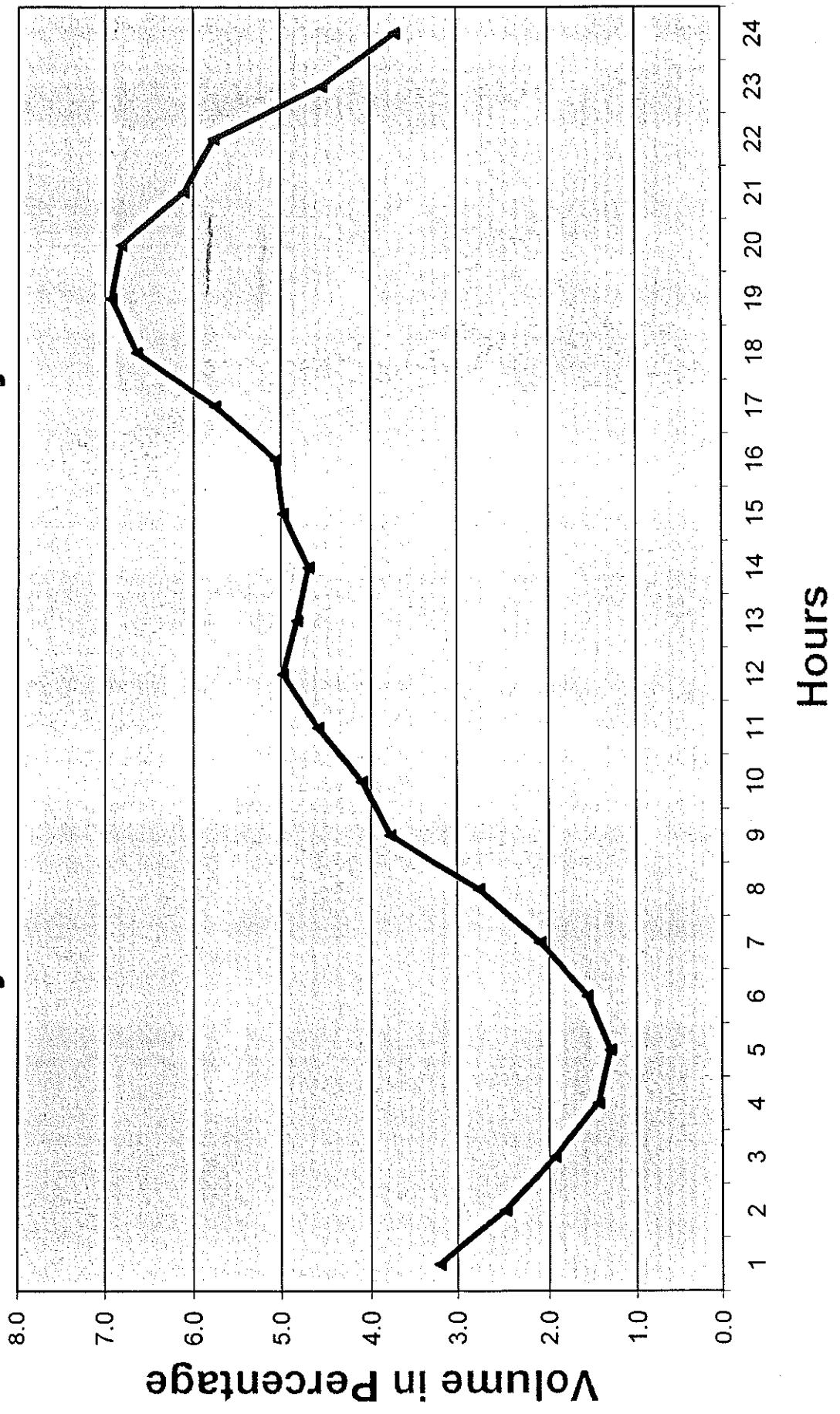


Diagram 2  
Hourly Flow Pattern on Motorways



**Table:- 7.1**

**Peak Hour Volume as Percentage of ADT  
(National Highway -05)**

S. No.	Section	Peak Hour	No of Vehicles	% of 24 Hours Traffic Volume
1	Peshawar – Taxila	1200-1300	727	7.8
2	Taxila – Islamabad	2100-2200	2585	6.6
3	Jhelum – Rawalpindi	1800-1900	1582	6.0
4	Lahore – Gujranwala	1900-2000	1997	6.2
5	Khanewal – Lahore	1700-1800	1390	5.9
6	Multan – Khanewal	1000-1100	780	5.7
	Average	1900-2000	1510	6.4

**Table:- 7.2**

**Peak Hour Volume as Percentage of ADT  
(Motorways)**

S. No.	Section	Peak Hour	No of Vehicles	% of 24 Hours Traffic Volume
1	Tarnol - Peshawar M-1	1700-1800	1032	6.8
2	Kala Shah Kaku Link M-2	1900-2000	980	7.6
3	Lahore – Pindi Bhatian M-2	1800-1900	2371	7.4
4	Faisalabad - Pindi Bhattian M-3	1900-2000	47	5.7
5	Pindi Bhattian - Rawalpindi M-2	1800-1900	885	7.4
	Average	1800-1900	1063	7.0

Table:- 7.3

**Maximum And Minimum Traffic Volume  
(No. of Vehicles on N-05)**

Section	Time	Maximum	Time	Minimum
Peshawar - Taxila N-05	1800-1900	318	0100-0200	81
Taxila-Peshawar N-05	1200-1300	475	0500-0600	22
Taxila - Islamabad N-05	2100-2200	1257	0500-0600	229
Islamabad-Taxila N-05	1900-2000	1491	0400-0500	311
Jhelum - Rawalpindi N-05	1800-1900	871	0500-0600	325
Rawalpindi - Jhelum N-05	1100-1200	770	0300-0400	234
Lahore - Gujranwala N-05	1700-1800	1002	0300-0400	283
Gujranwala - Lahore N-05	1800-1900	1056	0300-0400	253
Khanewal - Lahore N-05	1700-1800	841	0300-0400	292
Lahore - Khanewal N-05	1200-1300	667	0500-0600	129
Multan - Khanewal N-05	0000-0100	310	2300-0000	361
Khanewal - Multan - N-05	0000-0100	205	2300-0000	213

Table:- 7.4

**Maximum And Minimum Traffic Volume  
(No. of Vehicles on Motorways)**

Section	Time	Maximum	Time	Minimum
Tarnol - Peshawar M-1	0900-1000	530	0400-0500	55
Peshawar _Tarnol M-1	1700-1800	544	0200-0300	26
N-5 to M-2	1900-2000	503	0500-0600	53
M-2 to N-5	0000-0100	513	2300-0000	64
Lahore - Pindi Bhatian M-2	1900-2000	1178	0300-0400	280
Islamabad - Lahore M-2	1800-1900	1252	0500-0600	140
Faisalabad - Pindi Bhattian M-3	0000-0100	310	0400-0500	64
Pindi Bhattian - Faisalabad M-3	2100-2200	252	0500-0600	76
Pindi Bhattian - Rawalpindi M-2	1800-1900	368	1400-1500	111
Rawalpindi - Pindi Bhattian M-2	1700-1800	535	0400-0500	54



Table 7.5

Hourly Percentage of 24-Hours Volume  
National Highway N-05 & Motorways

Time (Hours)	Percentage Contribution on N-05		Percentage Contribution on Motorways	
	Percentage	Cumulative percentage	Percentage	Cumulative percentage
0000-0100	3.028	3.028	3.198	3.198
0100-0200	2.614	5.642	2.483	5.681
0200-0300	2.262	7.904	1.934	7.615
0300-0400	1.820	9.725	1.426	9.041
0400-0500	1.906	11.630	1.293	10.334
0500-0600	1.887	13.517	1.549	11.883
0600-0700	2.655	16.172	2.103	13.985
0700-0800	3.916	20.088	2.765	16.750
0800-0900	4.042	24.130	3.785	20.535
0900-1000	4.381	28.512	4.100	24.635
1000-1100	4.713	33.225	4.574	29.209
1100-1200	5.018	38.243	4.979	34.188
1200-1300	5.458	43.701	4.812	39.000
1300-1400	5.030	48.731	4.680	43.681
1400-1500	5.085	53.816	4.979	48.660
1500-1600	4.952	58.768	5.062	53.722
1600-1700	5.249	64.017	5.762	59.483
1700-1800	5.880	69.897	6.639	66.123
1800-1900	5.875	75.772	6.933	73.056
1900-2000	5.926	81.697	6.815	79.871
2000-2100	5.518	87.215	6.105	85.976
2100-2200	5.064	92.279	5.774	91.750
2200-2300	4.019	96.298	4.525	96.276
2300-0000	3.702	100	3.724	100

## 8. Directional Distribution Factors (DDF):

Directional distribution is an important factor in Highway Capacity Analysis (HCA) with regard to capacity and level of service because of the interactive nature of directional flow.

Tables 8.1 & 8.2 show the overall DDF as worked out for N-05 and Motorways. These ratios are on hourly basis in respect of each survey point and may be derived from the data in Annex-5.

Table:- 8.1  
Directional Distribution of Traffic Flow  
(National Highway N-05)

Section	Total No of Vehicles		Total
	Incoming	Outgoing	
Peshawar – Nowshera	4892 (52.7%)	4395 (47.3%)	9287
Taxila – Nowshera	19151 (48.6%)	20242 (51.4%)	39393
Jhelum – Rawalpindi	13660 (51.6%)	12789 (48.4%)	26449
Lahore – Gujranwala	15990 (48.8%)	16775 (51.2%)	32765
Khanewal – Lahore	13440 (57.4%)	9959 (42.6%)	23399
Multan – Khanewal	6544 (47.6%)	7208 (52.4%)	13752

Table:- 8.2  
Directional Distribution of Traffic Flow  
(Motorways M-1, M-2 & M-3)

Section	Total No of Vehicles		Total
	Incoming	Outgoing	
Tarnol - Peshawar M-1	7694 (51.0%)	7394 (49.0%)	15088
Kala Shah Kaku Link M-2	6312 (48.7%)	6661 (51.3%)	12973
Lahore - Pindi Bhattian M-2	17612 (54.8%)	14531 (45.2%)	32143
Faisalabad - Pindi Bhattian M-3	4659 (54.9%)	3826 (45.1%)	8485
Pindi Bhattian - Rawalpindi M-2	5543 (46.3%)	6424 (53.7%)	11967

**9. Daily Traffic By Type of Vehicles:**

In general, classified volume is important for estimating highway user revenues, analysis of capacity in determining the effect of commercial vehicles and structural design of the pavement, bridges and other highway/motorway facilities. As described above, manual classified counts were taken as may be seen in detail in Annex-5. The summarized position (in percent) may be seen in Tables 9.1 & 9.2 respectively. Non motorized traffic (Animal Drawn) was quite insignificant on N-05 and zero on Motorways. However, Motor Cycles and Rickshaws, which are prohibited on Motorways, were recorded on N-05 survey points.

On the average, the highest share of 43% of the total flow is contributed by cars on N-05 followed by 11.9% by 2-Axles trucks and 10.7% by two-wheelers. 3-Axle trucks stood at 6.1%. Multi-axle vehicles, including 3-Axles trucks, constitute 9.5% of the total traffic volume.

On the Motorways cars contribute the highest share of 69.5% followed by 6.6% by buses and 5.9% by 2-Axle trucks. Multi-axle Goods vehicles, including 3-Axle trucks constitute 4.4% (Table 9.2).

The result of the data collected by NTRC from 1985 to 1992 on major highways showed the following percentage share contributed by different types of vehicles to the total traffic flow (Masoud Bakht, 1992). A comparison

of these figures with those of Pakistan Transport Plan Study (carried out by NTRC under the technical assistance of JICA and present survey is as under:

<u>Sl. No.</u>	<u>Vehicle Type</u>	<u>NTRC Research (1985-92)</u>	<u>JICA Study (2005)</u>	<u>Present Survey</u>
1.	Car/Jeep, etc.	36.9%	38.5%	43.0%
2.	Goods Vehicles	34.7%	42.8%	33.0%
3.	Buses	20.8%	18.7%	14.1%

Ever increasing Car-ownership rate in recent past years mainly due to leasing plans offered by various financial institutions seems to have changed the composition of traffic streams significantly. Car is now the dominating mode in road transport.

The traffic composition on N-05 and Motorways may be seen in the form of pie diagrams and bar charts in diagrams 3 to 6 respectively.

**Table-9.1**  
**Percentage Composition by Type of Vehicle**

National Highway N-05 Survey Points

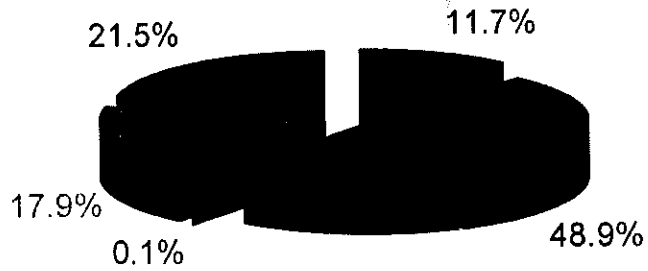
Section	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck (Greater than 24 Seats)	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Peshawar - Taxila N-05	3.6	0.6	36.8	3.3	5.2	0.1	15.0	2.6	7.9	15.0	7.0	0.2	1.1	0.4	1.1	0.0	0.1	100
Taxila - Islamabad N-05	4.9	0.0	49.0	3.7	3.3	0.0	10.3	1.3	2.1	14.3	9.8	0.2	0.5	0.3	0.2	0.0	0.0	100
Jhelum - Rawalpindi N-05	14.7	0.3	43.1	1.1	3.2	0.0	6.6	4.9	3.1	13.3	7.8	0.3	1.0	0.4	0.2	0.0	0.1	100
Lahore - Gujranwala N-05	16.0	0.6	41.6	2.3	4.2	0.1	12.6	6.0	4.9	7.7	2.3	0.6	0.5	0.3	0.3	0.0	0.0	100
Khanewal - Lahore N-05	12.6	3.8	43.8	0.8	3.3	0.1	3.1	4.0	7.9	9.6	4.7	0.5	3.6	1.0	0.7	0.0	0.3	100
Multan - Khanewal N-05	12.6	0.2	43.9	0.8	4.5	0.1	4.4	3.5	6.7	11.7	4.8	0.5	4.1	1.2	1.0	0.1	0.0	100
<b>Average</b>	<b>10.7</b>	<b>0.9</b>	<b>43.0</b>	<b>2.0</b>	<b>4.0</b>	<b>0.1</b>	<b>8.7</b>	<b>3.7</b>	<b>5.4</b>	<b>11.9</b>	<b>6.1</b>	<b>0.4</b>	<b>1.8</b>	<b>0.6</b>	<b>0.6</b>	<b>0.0</b>	<b>0.1</b>	<b>100</b>
<b>Standard Deviation</b>	<b>5.2</b>	<b>1.4</b>	<b>3.9</b>	<b>1.3</b>	<b>0.8</b>	<b>0.1</b>	<b>4.7</b>	<b>1.7</b>	<b>2.5</b>	<b>2.8</b>	<b>2.7</b>	<b>0.2</b>	<b>1.6</b>	<b>0.4</b>	<b>0.4</b>	<b>0.0</b>	<b>0.1</b>	
<b>Variance</b>	<b>27.1</b>	<b>2.0</b>	<b>15.6</b>	<b>1.7</b>	<b>0.7</b>	<b>0.0</b>	<b>22.3</b>	<b>2.8</b>	<b>6.1</b>	<b>8.1</b>	<b>7.1</b>	<b>0.0</b>	<b>2.6</b>	<b>0.2</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	

**Table-9.2**  
**Percentage Composition by Type of Vehicle**

Motorway M-1, M-2 & M-3 Survey Points

Section	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck (Greater than 24 Seats)	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Tarnol - Peshawar M-1	0.0	0.0	70.1	3.1	5.3	0.0	11.6	1.1	1.7	4.0	1.3	0.0	1.0	0.2	0.6	0.0	0.0	100.0
Kala Shah Kaku Link M-2	0.0	0.0	72.0	0.5	3.0	0.0	2.2	5.8	3.2	8.1	2.4	0.0	1.6	0.5	0.8	0.0	0.0	100.1
Lahore Pindi Bhatian M-2	0.0	0.0	75.2	0.7	3.0	0.0	1.9	4.0	3.9	5.5	3.1	0.0	1.5	0.7	0.7	0.0	0.0	100.2
Faisalabad - Pindi Bhatian M-3	0.0	0.0	66.3	0.4	3.5	0.0	5.6	4.1	12.8	5.5	0.8	0.0	0.6	0.3	0.1	0.0	0.0	100.0
Pindi Bhatian - Rawalpindi M-2	0.0	0.0	64.0	0.8	4.3	0.0	5.0	2.5	11.4	6.5	1.7	0.0	2.2	0.8	0.6	0.0	0.0	99.8
<b>Average</b>	<b>0.0</b>	<b>0.0</b>	<b>69.5</b>	<b>1.1</b>	<b>3.8</b>	<b>0.0</b>	<b>5.3</b>	<b>3.5</b>	<b>6.6</b>	<b>5.9</b>	<b>1.9</b>	<b>0.0</b>	<b>1.4</b>	<b>0.5</b>	<b>0.6</b>	<b>0.0</b>	<b>0.0</b>	<b>100.0</b>
<b>Standard Deviation</b>	<b>0.0</b>	<b>0.0</b>	<b>4.5</b>	<b>1.1</b>	<b>1.0</b>	<b>0.0</b>	<b>3.9</b>	<b>1.8</b>	<b>5.1</b>	<b>1.5</b>	<b>0.9</b>	<b>0.0</b>	<b>0.6</b>	<b>0.3</b>	<b>0.3</b>	<b>0.0</b>	<b>0.0</b>	
<b>Variance</b>	<b>0.0</b>	<b>0.0</b>	<b>19.9</b>	<b>1.3</b>	<b>1.0</b>	<b>0.0</b>	<b>15.3</b>	<b>3.2</b>	<b>26.1</b>	<b>2.3</b>	<b>0.8</b>	<b>0.0</b>	<b>0.4</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	

**Diagram 3**  
**Traffic Composition on N-05**



- M-C & M Rickshaw
- Car, Suzuki Pickup etc.
- Tractor without Trolley 6
- PSVs
- Goods Vehicles

**Diagram 4**  
**Traffic Composition on Motorways**



- Car, Suzuki Pickup etc.
- PSVs
- Goods Vehicles

Diagram -5  
Bar Diagram showing Traffic Composition on Various Sections of N-05

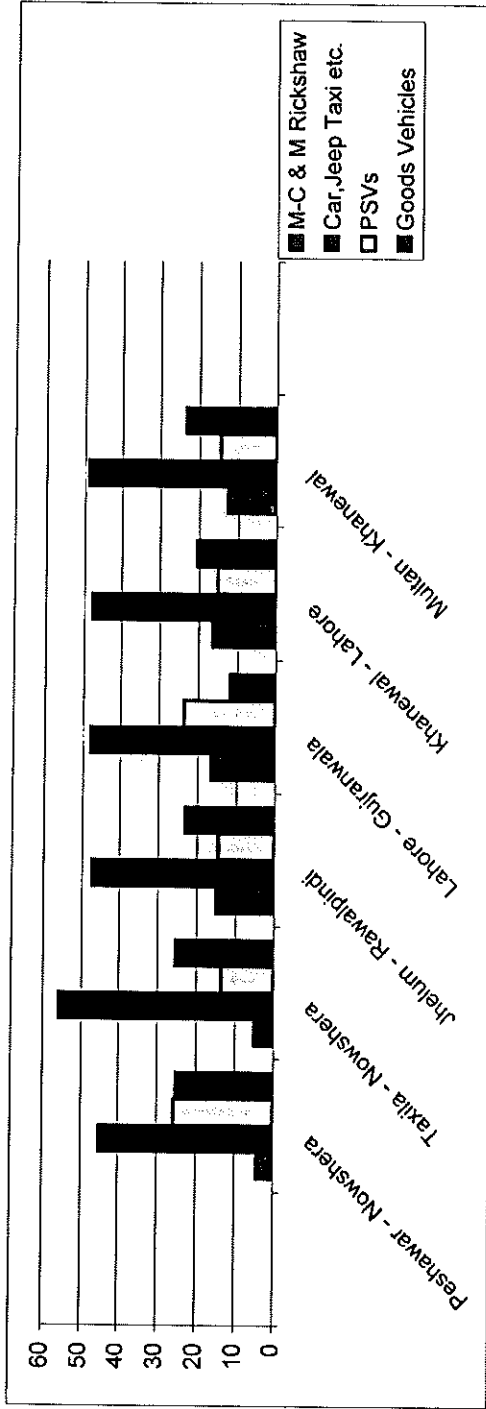
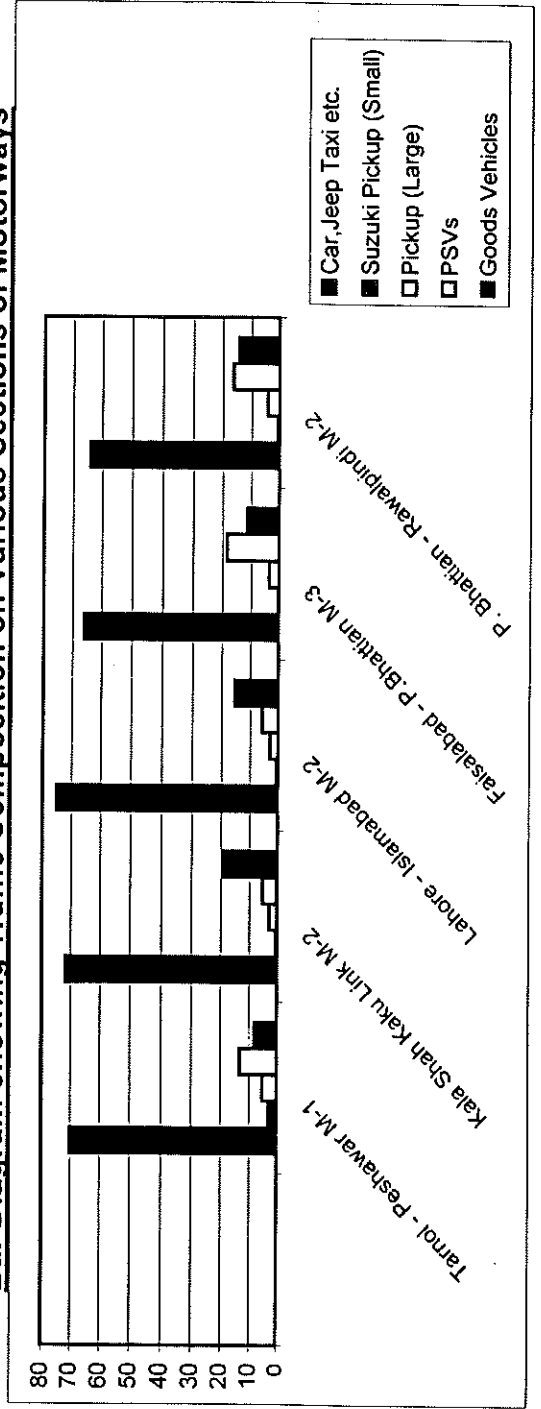


Diagram -6  
Bar Diagram showing Traffic Composition on Various Sections of Motorways



## 10. Standard Deviation And Variance Analysis

Theoretically, a good sample should be consistent and should have all prominent characteristics of the population it is derived from. The sample values (field survey data) should not be very much scattered from the population mean. This could be done by calculating dispersion i.e. how much observed values of a sample in a population are spread out. Standard Deviation is a reliable statistical technique to measure the extent to which values of a series/distribution deviate from the mean values. Thus the consistency of the concluded results in terms of averages, percentages, ratios, parameters, etc can best be found by calculating Standard Deviation or Variance. This particular analysis is done in respect of hourly data (Table 10.1 and that for classified composition of traffic flow (Tables 10.2 and 10.3). The smaller is the Standard Deviation or Variance, the more consistent is the distribution.



Table-10.1  
STANDARD DEVIATION OF CLASSIFIED HOURLY PERCENTAGES

National Highway N-05

Time	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck (Greater than 24 Seats)	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0000-0100	2.9	0.1	7.8	1.1	3.5	0.4	3	3.4	2.9	5	4.1	0.2	2.9	0.8	1.5	0	0
0100-0200	1.5	0.2	6.2	0.7	2.1	0	1.1	2.9	3.9	5.5	4.2	0.5	3.1	1.1	1.1	0	0
0200-0300	1.6	0.2	10.8	0.7	2	0	2.8	3.6	4.7	6.8	9.3	0.8	4.5	1.7	1.5	0	0
0300-0400	1.3	0.2	10.9	1.2	4.2	0	2.6	3.3	4.3	8.7	7.9	0.4	3.4	1.3	0.9	0	0
0400-0500	1.2	0.2	8.1	1	2.4	0.3	2.7	4.2	5.6	9.4	9.8	0.2	2.8	0.8	2.3	2	0
0500-0600	3	0.9	6	1.3	1.1	0.1	3.7	3.3	4.1	10.5	8.3	0.2	3	1.6	1.2	0.1	0
0600-0700	4.3	1.1	8.3	1.5	0.9	0.1	5.8	2	3.6	6.3	4.8	0.6	3.3	0.6	1.2	0.1	0.2
0700-0800	7.7	0.9	10.7	1.2	2.1	0.2	8.2	1.5	3	5.5	3.3	0.3	1.6	0.4	1.5	0.1	0.2
0800-0900	9.1	1.5	6	1.2	1.6	0.3	7.2	1.2	3.9	2.7	3.1	0.6	1.2	0.3	0.5	0.1	0.1
0900-1000	8	2.4	5	1.6	1.4	0.1	7.3	1	3.2	4.7	3.1	0.5	1.6	0.6	0.4	0	0.2
1000-1100	6.7	2.2	6.7	1.2	1.4	0.2	5.4	1.9	3.2	3.7	2.6	0.3	1.4	0.4	0.3	0.1	0.4
1100-1200	7.1	2.1	6.2	1.4	1.3	0.1	5.6	0.9	2.1	1.9	2.6	0.2	1.3	0.3	0.3	0	0.3
1200-1300	7.5	2.3	4.5	1.4	0.7	0.1	5.7	1.1	3.1	3	1.9	0.2	1.1	0.3	0.3	0.1	0.4
1300-1400	6	1.9	4	1.4	1	0.1	5.6	1.9	3.1	2.4	2.4	0.2	0.9	0.2	0.2	0	0.3
1400-1500	6.6	1.5	5.7	0.9	2.3	0.1	4.8	1.5	2.5	2.6	2.6	0.3	1.2	0.3	0.2	0.1	0.3
1500-1600	6.7	2.8	6.1	1.3	1.9	0.1	5.6	1.7	2.6	2.9	2.5	0.3	2.2	0.6	0.2	0.1	0.4
1600-1700	5	1.9	3.8	1.6	0.5	0.1	6	1.7	2	1.6	2.5	0.3	0.9	0.3	0.3	0.1	0.1
1700-1800	5.8	2.5	5.9	1.9	1.1	0.2	4.7	1.7	2.3	2.3	2.1	0.3	1.2	0.5	0.4	0	0.1
1800-1900	5.5	2.2	4.5	1.6	0.7	0.1	5.5	1.6	2	2.4	2.2	0.3	1.3	0.3	0.2	0.1	0.1
1900-2000	6.8	1.6	5	2.3	0.7	0.1	3.9	1.4	1.9	2.8	2.1	0.2	1.3	0.2	0.7	0	0.1
2000-2100	7	1.3	8.2	2	1.3	0.1	4	1.8	1.8	4.6	2.3	0.2	1.1	0.5	0.4	0.1	0
2100-2200	6.2	0.4	4.8	1.6	2.4	0.1	3.8	2.1	2	5.1	2.8	0.4	2	0.7	0.2	0.1	0
2200-2300	4.7	0.6	8.2	1.3	1.8	0.2	4.2	2.1	2.8	4.3	3.2	0.1	2.5	0.6	1	0	0
2300-0000	3.2	0.1	6	1.5	1.2	0	1.7	2.8	2	5.1	3.5	1.1	1.7	1.9	1	0	0.1

Table-10.2  
STANDARD DEVIATION OF CLASSIFIED HOURLY PERCENTAGES

Motorways M-1, M-2 & M-3

Time (Hours)	Standard Deviation of Classified Hourly Percentages																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	Motor-cycle	M. Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other
0000-0100	0.0	0.0	3.3	4.6	0.7	0.0	1.3	1.5	3.8	3.2	0.8	0.0	1.3	0.9	0.9	0.0	0.0
0100-0200	0.0	0.0	8.5	2.9	1.5	0.0	3.0	2.0	6.2	1.9	4.6	0.0	1.5	1.0	0.6	0.0	0.0
0200-0300	0.0	0.0	7.9	2.4	1.6	0.0	1.3	4.1	7.6	3.2	1.6	0.0	1.4	3.6	1.0	0.0	0.0
0300-0400	0.0	0.0	6.6	2.0	1.6	0.0	1.9	4.7	9.0	3.2	3.4	0.0	2.8	1.5	1.0	0.0	0.0
0400-0500	0.0	0.0	12.1	1.0	3.0	0.0	1.5	3.1	11.9	6.1	7.7	0.0	3.1	1.2	1.5	0.0	0.0
0500-0600	0.0	0.0	7.9	1.1	4.2	0.0	2.4	5.4	8.2	4.5	6.4	0.0	1.3	1.3	1.1	0.0	0.0
0600-0700	0.0	0.0	2.7	2.7	4.0	0.0	3.8	2.9	5.1	1.0	4.3	0.0	1.1	0.8	0.8	0.0	0.0
0700-0800	0.0	0.0	5.7	1.8	2.1	0.0	6.4	1.7	3.5	4.0	2.9	0.0	0.8	0.6	1.0	0.0	0.0
0800-0900	0.0	0.0	7.6	0.9	2.2	0.0	5.2	1.6	3.9	2.6	1.0	0.0	1.0	0.4	0.6	0.0	0.0
0900-1000	0.0	0.0	9.1	1.2	1.2	0.0	6.4	1.7	6.3	2.9	1.3	0.0	0.6	0.3	0.6	0.0	0.0
1000-1100	0.0	0.0	6.6	1.1	0.9	0.0	5.1	2.7	5.3	1.8	1.2	0.0	0.9	0.3	0.3	0.0	0.0
1100-1200	0.0	0.0	7.5	0.8	0.8	0.0	4.9	1.3	5.6	1.2	0.6	0.0	0.6	0.3	0.6	0.0	0.0
1200-1300	0.0	0.0	7.4	0.7	0.9	0.0	4.5	1.8	6.7	1.2	1.2	0.0	0.7	0.5	0.5	0.0	0.0
1300-1400	0.0	0.0	11.1	0.9	1.1	0.0	5.9	1.5	6.9	2.7	1.1	0.0	0.9	0.3	0.4	0.0	0.0
1400-1500	0.0	0.0	6.9	0.6	1.3	0.0	3.8	1.8	5.4	2.0	1.0	0.0	0.8	0.3	0.5	0.0	0.0
1500-1600	0.0	0.0	6.9	0.9	1.9	0.0	4.0	2.6	5.5	1.5	0.6	0.0	0.5	0.4	0.5	0.0	0.0
1600-1700	0.0	0.0	4.6	1.1	1.5	0.0	3.6	1.8	6.2	2.0	0.5	0.0	0.6	0.2	0.3	0.0	0.0
1700-1800	0.0	0.0	3.7	1.1	1.2	0.0	4.1	2.0	5.9	1.0	0.5	0.0	0.5	0.4	0.4	0.1	0.0
1800-1900	0.0	0.0	3.9	0.7	0.8	0.0	4.1	1.4	3.5	1.3	0.7	0.0	0.4	0.3	0.2	0.0	0.0
1900-2000	0.0	0.0	3.6	1.2	1.5	0.0	3.3	1.7	3.9	0.7	0.8	0.0	0.2	0.3	0.3	0.0	0.0
2000-2100	0.0	0.0	4.0	0.9	2.1	0.0	3.6	2.1	4.1	1.4	0.4	0.0	0.4	0.5	0.3	0.0	0.0
2100-2200	0.0	0.0	3.6	1.6	1.6	0.0	2.8	1.4	4.2	2.6	1.0	0.0	0.7	0.2	0.3	0.0	0.0
2200-2300	0.0	0.0	5.2	1.8	0.9	0.0	1.5	2.2	4.1	3.2	0.4	0.0	1.6	0.6	0.5	0.1	0.0
2300-0000	0.0	0.0	7.7	2.1	1.2	0.0	2.1	2.6	4.9	8.7	1.4	0.0	1.0	0.3	0.5	0.0	0.0

**Table-10.3**

**Standard Deviation For  
Different Types of Vehicles (All Stations)**

<b>Vehicles</b>	<b>N-05 Survey Points</b>	<b>Motorway Survey Points</b>
Motor-cycle	5.3	-
M.Cycle Rickshaw	0.5	-
Car/Jeep/Pajero/Taxi/Suzuki etc	9.6	10.8
Suzuki Pickup (Small)	0.4	0.4
Pickup Large (Toyota, Nissan, Datsun etc)	0.8	0.9
Tractor without trolley	0.1	-
Wagon / Hiace/ Transit (upto 24 seats)	2.9	1.5
Mini Truck	1.8	1.5
Bus, Coach (Greater than 24 Seats)	1.2	2.2
Truck (2 Axles)	8.2	4.2
Truck (3 Axles)	4.2	2.3
Tractor with Trolley	0.2	0.1
Truck (4 Axles)	1.0	1.0
Truck (5 Axles)	0.4	0.5
Truck (6 Axles)	0.3	0.3

It is interesting to note that all the three dominating modes i.e. Cars, buses and 2-Axle trucks have very low values of Standard Deviation accounting for 1.4, 2.5 and 2.8. respectively. It indicates the consistent flow of N-05 from north to the south in Multan. NTRC research has shown that the composition does not differ significantly up to Hyderabad, Sindh. However, Super Highway (Karachi – Hyderabad) shows a variation. The composition of ADT for the section as found in June, 2007 as a result of a 14-days traffic counts is as under :-

Table:-10.4

**VEHICLE COMPOSITION PERCENTAGES**

Sl. No.	Vehicle Class	Super Highway 2007 Survey (NTRC)	Peshawar - Multan 2008 Survey (NTRC)
1.	Motorcycles	1.17	0.90
2.	Cars	32.73	43.00
3.	Buses	11.03	5.40
4.	2-Axle Trucks	14.40	11.90

Regarding the classification of vehicles, National Highway shows more consistency than the Motorway.

**11. Co-efficient of Variation:**

Though standard deviation or variance is a good and reliable measure of dispersion but the disadvantage is that it is an absolute measure. A relative measure has some more advantages over an absolute one mainly due to the fact that it is free from all types of units of measurement. It is in the form of a ratio, percentage or co-efficient.

Co-efficient of variation is thus a relative measure which is well descriptive and cannot be affected easily by extreme values. It is obtained by dividing standard deviation by mean value and then is multiplied by 100 to get the figure in percentage form.

Table-11 shows the co-efficients of variation in respect of various hours of a day. It is clear that the National Highway-05 not only shows a good consistency in the composition of flow but also reflects a significant consistency in hourly flows. The least co-efficient of variation (5%) comes out for the hour 7 A.M to 8 A.M and 8 P.M to 9 P.M followed by 6% for 11 A.M to noon and from 2 P.M to 3 P.M.

Provision of certain traffic flow factors (having low co-efficients of variation) makes it possible to extend short count. The art of extracting final desirable figures from short counts has been developed to such an extent in the North America and Western Europe that even a 15 minutes count on any highway can be extended to ADT or AADT. Table-11 gives an example of its validity. For instance, one hour count from 7 A.M to 8 A.M (with the lowest variation) on any Tuesday on N-05 at any location from Peshawar to Multan is 850 and as per the survey 3.916% of the total traffic on Tuesday on N-05 (Table 7.5) is contributed by that particular hour. Therefore, the estimated ADT comes to 21,706 vehicles per day. As described earlier in Tables 9.1 and 9.2, classified factors have been given so that ADT can be bifurcated into various classes. As the co-efficient of variation is 5%, it could be said at 90% confidence level that the estimate for ADT is valid.

Table-11  
**Standard Deviation of Hourly Flow**  
National Highway N-05

Hours	St.Deviation	Coefficient of Variation (%)
0000-0100	0.6	20.0
0100-0200	0.5	16.7
0200-0300	0.5	25.0
0300-0400	0.3	15.0
0400-0500	0.3	15.0
0500-0600	0.3	15.0
0600-0700	0.5	16.7
0700-0800	0.2	5.0
0800-0900	0.8	20.0
0900-1000	0.6	12.0
1000-1100	0.5	10.0
1100-1200	0.3	6.0
1200-1300	1.1	18.3
1300-1400	0.4	8.0
1400-1500	0.3	6.0
1500-1600	0.7	14.0
1600-1700	0.6	12.0
1700-1800	0.4	6.7
1800-1900	0.7	11.7
1900-2000	0.6	10.0
2000-2100	0.3	5.0
2100-2200	1.0	20.0
2200-2300	0.8	20.0
2300-0000	0.6	15.0

**12. Ratio of 16-Hours Volume to 24-Hours Volume**

A common approach to reduce survey cost and manpower requirement is to use the ratio of 16-hours volume to 24-hours volume. The normal practice is to take the period from 7 A.M to 11 A.M for 16-hours counts. However, reliable Composition Factors, must be used simultaneously if these ratios are applied. Though the reliability of data is affected by 10% - 20%, by this method, the cost can be minimized significantly. The technique can only be recommended when a survey is carried out with limited resources and the complementary desired factors have already been derived from actual surveys. The following table reveals these ratios.

**Table 12.1**  
**Ratio of 16- Hours Traffic to 24 Hours Traffic**  
**(National Highway N-05)**

S.No	Section	Total No of Vehicles		Total	16- Hour Count Ratio
		16 Hours Total From 0700 to 2300	8 Hours Total from 2300 to 0700		
1	Peshawar - Nowshera	8062	1225	9287	1.152
2	Taxila – Nowshera	34007	5386	39393	1.158
3	Jhelum – Rawalpindi	21757	4692	26449	1.216
4	Lahore – Gujranwala	27336	5429	32765	1.199
5	Khanewal – Lahore	19268	4131	23399	1.214
6	Multan – Khanewal	11158	2594	13752	1.232

**Table:- 12.2**  
**Ratio of 16- Hours Traffic to 24 Hours Traffic**  
**(Motorways M-1, M-2 & M-3)**

S.No	Section	Total No of Vehicles		Total	16- Hour Count Ratio
		16 Hours Total From 0700 to 2300	8 Hours Total from 2300 to 0700		
1	Tarnol - Peshawar M-1	13888	1200	15088	1.086
2	Kala Shah Kaku Link M-2	11248	1725	12973	1.153
3	Lahore - Pindi Bhatian M-2	27751	4392	32143	1.158
4	Faisalabad - Pindi Bhattian M-3	6684	1801	8485	1.269
5	Pindi Bhattian - Rawalpindi M-2	9805	2162	11967	1.220

### **13. SALIENT RESULTS**

Following are some salient results of the analysis:

- a. Cars (43%) and 2-Axle Truck (11.9%) are the dominating modes on N-05 whereas cars (70%) and buses (6.6%) dominate the composition of traffic stream on Motorways.
- b. Goods vehicles contribute about 21 percent of the total traffic on N-05, while 2-Axle rigid trucks account for about 57% of the total goods vehicles.
- c. There is a high consistency in the composition of traffic flow on various sections of N-05 from Peshawar to Multan. Enough traffic counts have not been conducted on Motorways to conclude such results.
- d. There is a significant consistency in terms of hourly contribution on N-05. This leads to the use of short term counts or to use 16- hour traffic volume ratios for robust estimates of ADT. The study of motorways however is too short to workout such factors.



- e. Standard Deviation, Variance and Co-efficient of Variation analysis reveals that 24-Hour Traffic flows for Peshawar to Multan section of N-05 can be extrapolated from above developed factors with 90 percent confidence level.

#### **14. Recommendations**

The recommendations are as under:

1. Traffic counts should be conducted on a regular basis as per the methodology explained in this report on all the important sections of Motorways and National Highways.
2. Traffic counts conducted on Saturdays and Sundays should be repeated at least once more on any week day at that particular survey point.
3. Coverage of motorways should be extended (both in spatial and temporal domains).

**LIST OF ANNEX**

Annex-1	:	NH & MP Letter for conducting the survey
Annex-2	:	Survey Questionnaire
Annex-3	:	List of Survey Points
Annex-4	:	Map Indicating Survey Points
Annex-5	:	24 Hours Traffic Volume (Hourly)
Annex-6	:	Survey Photographs

**References**

1. D.H. Black more, RL Report LR 385, 1971
2. Masoud Bakht, NTRC Report No: 138, 1990
3. J.D.F. Howe, TRRL Laboratory Report No: 516, 1973
4. Highway Capacity Manual
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7. Pakistan Transport Plan Study (PTPS), (March, 2006)

**Government of Pakistan  
Ministry of Communications  
National Highways & Motorway Police  
(Road Safety Wing)**

No. AA-O-02/07/1255

Islamabad, the 24<sup>th</sup> April 2008

**Subject: Zone-wise Traffic Count Survey.**

In order to take preventive measures against accidents, multi-dimensional accident analysis is done by NH&MP. The data regarding exact traffic count forms the basis for accurate analysis. Unfortunately, neither NHA nor NH&MP has adequate facilities to conduct traffic count surveys. Presently, the traffic count available with NH&MP is not based on some scientific evidence/ facts.

2. Since the NTRC has the expertise in the field, therefore it is requested that a suitable team may be deputed for zonewise traffic count surveys to be conducted in collaboration with concerned NH&MP field staff. The survey would form basis for framing future operational policy including sanction of resources, upgradation administrative arrangements with regard to the sizes of beats, sectors and zones, etc.
3. An early response in the matter is requested so that a survey schedule can be prepared.

**The Chief NTRC,  
Ministry of Communication,  
Islamabad.**

  
**(KALB-I-ABBAS)  
Deputy Inspector General (HQ)**

**Copy to:**

- The PS to Secretary, Ministry of Communication, Islamabad.
- The PSO TO IGP, NH& MP, Islamabad.
- The DIG N-5(Central), NH&MP, Lahore.

NATIONAL TRANSPORT RESEARCH CENTRE (NTRC)

CLASSIFIED TRAFFIC COUNT SURVEY FORM

Date: \_\_\_\_\_ Day: \_\_\_\_\_ Time Start: \_\_\_\_\_ Time End: \_\_\_\_\_

Location: \_\_\_\_\_ Name of Surveyor: \_\_\_\_\_ To \_\_\_\_\_

Weather: (Fair, Poor, Rainy, Foggy etc)

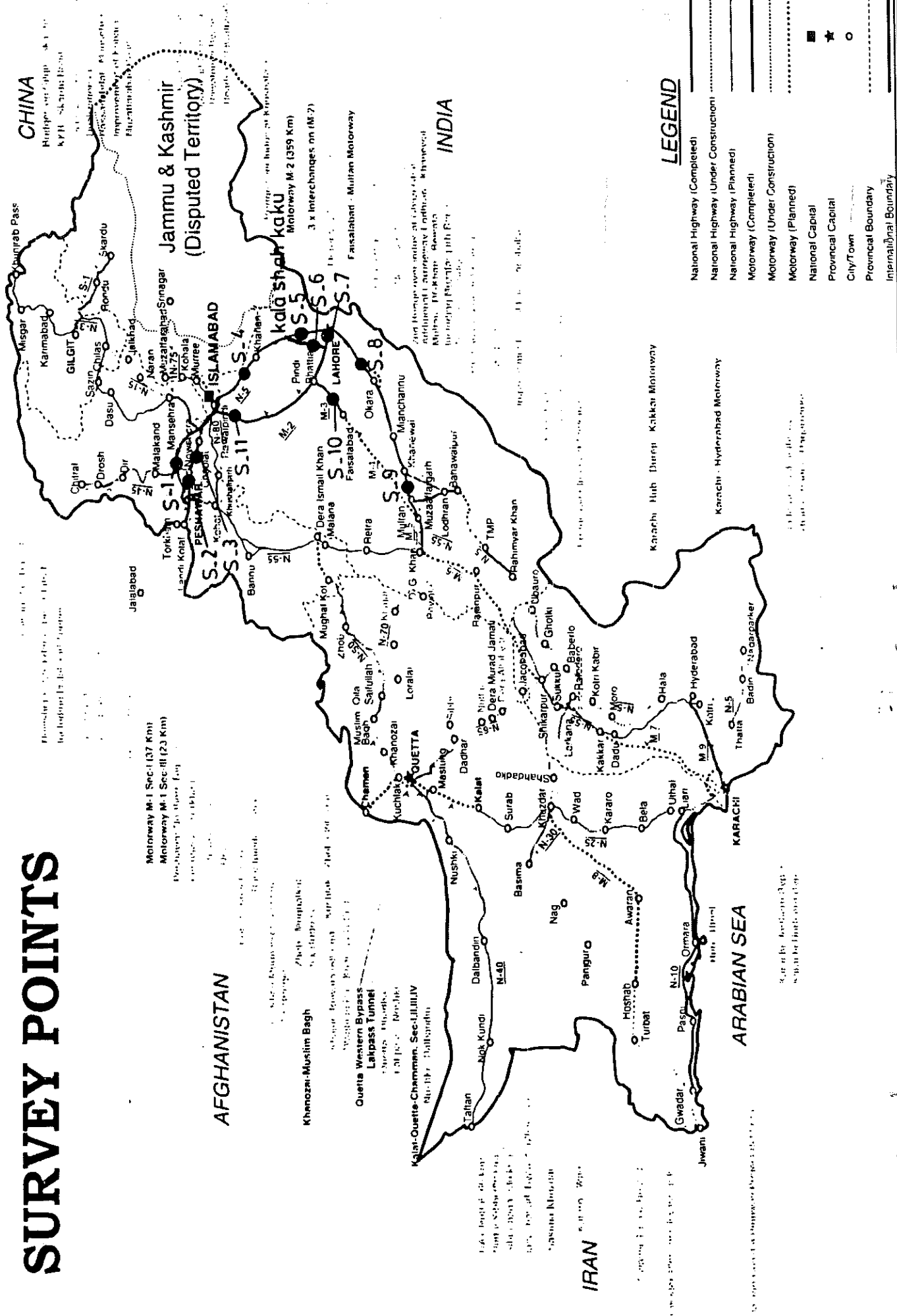
Time -> -< ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	Motor-cycle	M Cycle Ricksraw	Car/Jeep Pajero/Taxi/Suzuki etc.	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon/Hiace/Transit (Upto 24 Seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const Machinery	Others
0000-0100																	
0100-0200																	
0200-0300																	
0300-0400																	
0400-0500																	
0500-0600																	
0600-0700																	
0700-0800																	
0800-0900																	
0900-1000																	
1000-1100																	
1100-1200																	
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1800-1900																	
1900-2000																	
2000-2100																	
2100-2200																	
2200-2300																	
2300-2400																	

GOVERNMENT OF PAKISTAN  
MINISTRY OF COMMUNICATIONS  
NATIONAL TRANSPORT RESEARCH CENTRE (NTRC)  
++++

**SURVEY SCHEDULE**

<b>S.No.</b>	<b>DATE</b>	<b>SECTION TO BE SURVEYED</b>	<b>SURVEY LOCATION</b>
1.	11-12 June 2008	Peshawar- Tarnol Sec M-1	Peshawar Toll Plaza
2.	13-14 June 2008	Peshawar- Texila Sec N-5	Iqbal Shaheed Toll Plaza near Attok
3.	15-16 June 2008	Texila-Islamabad Sec N-5	Sangjani Toll Plaza
4.	17-18 June 2008	Rawalpindi- Gujranwala Sec N-5	Jehlum Toll Plaza
5.	19-20 June 2008	Gujranwala-Lahore Sec N-5	Kala Shah Kaku
6.	20-21 June 2008	M-2 Link to N-5	Kala Shah Kaku exit to M-2
7.	21-22 June 2008	Lahore- Pindi Bhatian Sec M-2	Ravi Toll Plaza M-2
8.	22-23 June 2008	Lahore- Khaniwal Sec N-5	NTRC Hut Pattoki
9.	24-25 June 2008	Khaniwal- Multan Sec N-5	18 Km- near Multan N-5
10.	26-27 June 2008	Faisalabad- Pindi Bhatian Sec M-3	8 Km after Faisalabad Toll Plaza on M-3
11.	28-29 June 2008	Pindi Bhatian-Rawalpindi Sec M-2	5 Km after Islamabad Toll Plaza on M-2

# SURVEY POINTS



## LEGEND

- National Highway (Completed)
- National Highway (Under Construction)
- National Highway (Planned)
- Motorway (Completed)
- Motorway (Under Construction)
- Motorway (Planned)
- National Capital
- Provincial Capital
- City/Town
- Provincial Boundary
- International Boundary

**CHINA**  
 Karakoram Highway  
 KPH - Skardu Road  
 Gilgit - Skardu Road  
 Gilgit - Skardu Road  
 Gilgit - Skardu Road

**Jammu & Kashmir (Disputed Territory)**  
 Jammu - Srinagar Road  
 Srinagar - Baramulla Road  
 Baramulla - Anantnag Road  
 Anantnag - Kathua Road  
 Kathua - Jammu Road

**INDIA**

**AFGHANISTAN**

**IRAN**

**ARABIAN SEA**

Motorway M-1 Sec-I (137 Km)  
 Motorway M-1 Sec-III (23 Km)  
 Provincial Capital

Karachi - Hyderabad Motorway  
 Karachi - Hyderabad Motorway

International Boundary  
 Provincial Boundary  
 City/Town  
 Provincial Capital  
 National Capital

# NATIONAL TRANSPORT RESEARCH CENTRE

SURVEY FORM "E"  
North Bound

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

Date: 11,12-06-08 Day: WED

Location: Peshawar Toll Plaza M-1  
Direction From: Islamabad To Peshawar

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
0000-0100	0	0	127	9	9	0	12	1	4	4	1	0	7	1	1	0	0	176
0100-0200	0	0	72	0	6	0	4	2	0	11	12	0	0	0	0	0	0	107
0200-0300	0	0	62	0	2	0	2	1	0	6	1	0	2	10	0	0	0	86
0300-0400	0	0	27	1	4	0	2	1	1	13	4	0	1	1	0	0	0	55
0400-0500	0	0	30	2	7	0	3	0	1	6	0	0	6	0	0	0	0	55
0500-0600	0	0	53	3	9	0	2	3	7	13	6	0	3	0	1	0	0	100
0600-0700	0	0	50	12	12	0	10	2	3	24	4	0	7	0	2	0	0	126
0700-0800	0	0	144	18	21	0	53	2	6	13	1	0	2	0	0	0	0	260
0800-0900	0	0	276	8	28	0	51	1	15	19	1	0	1	0	1	0	0	401
0900-1000	0	0	362	17	25	0	101	3	1	16	2	0	3	0	0	0	0	530
1000-1100	0	0	351	13	16	0	59	2	2	10	4	0	0	1	3	0	0	461
1100-1200	0	0	353	7	16	0	72	4	2	8	8	0	2	0	1	0	0	473
1200-1300	0	0	317	6	12	0	64	4	8	12	2	0	2	0	5	0	0	432
1300-1400	0	0	223	6	15	0	55	5	1	4	2	0	1	1	0	0	0	313
1400-1500	0	0	278	2	14	0	49	3	2	11	4	0	1	0	2	0	0	366
1500-1600	0	0	280	5	27	0	44	3	1	18	5	0	2	0	2	0	0	387
1600-1700	0	0	300	15	22	0	46	3	1	39	10	0	4	0	7	0	0	447
1700-1800	0	0	369	15	24	0	56	2	1	14	3	0	0	0	3	1	0	488
1800-1900	0	0	408	7	43	0	45	8	3	8	5	0	3	0	0	0	0	530
1900-2000	0	0	359	14	38	0	47	6	2	16	1	0	4	0	0	0	0	487
2000-2100	0	0	333	12	38	0	58	5	1	11	8	0	3	0	0	0	0	469
2100-2200	0	0	296	13	29	0	35	4	1	3	1	0	6	1	0	0	0	389
2200-2300	0	0	227	12	14	0	23	7	8	13	4	0	21	0	1	1	0	331
2300-0000	0	0	180	10	9	0	15	1	2	0	8	0	0	0	0	0	0	225
Total	0	0	5477	207	440	0	908	73	73	292	97	0	81	15	29	2	0	7694

# NATIONAL TRANSPORT RESEARCH CENTRE

SURVEY FORM "E"  
South Bound

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

Date: 11/12-06-08 Day: WED

Location: Peshawar Toll Plaza M-1  
Direction From: Peshawar To Islamabad

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon/Hiace/Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	0	0	54	21	3	0	2	6	8	4	3	0	4	1	1	0	0	107
0100-0200	0	0	18	12	1	0	2	3	3	13	9	0	5	5	1	0	0	72
0200-0300	0	0	10	6	0	0	2	0	1	3	1	0	3	0	0	0	0	26
0300-0400	0	0	12	3	0	0	3	5	1	5	1	0	0	0	1	0	0	31
0400-0500	0	0	17	0	2	0	0	5	0	2	2	0	2	0	0	0	0	30
0500-0600	0	0	39	2	4	0	11	1	3	4	1	0	0	0	0	0	0	65
0600-0700	0	0	110	7	9	0	23	4	7	2	0	0	0	0	2	0	0	164
0700-0800	0	0	159	4	6	0	38	8	16	6	6	0	3	0	0	0	0	246
0800-0900	0	0	283	12	46	0	75	3	12	22	8	0	0	0	1	0	0	462
0900-1000	0	0	304	11	19	0	66	3	4	9	1	0	1	1	0	0	0	419
1000-1100	0	0	283	11	19	0	59	1	2	6	2	0	2	0	0	0	1	386
1100-1200	0	0	313	13	18	0	50	3	22	10	2	0	2	0	0	0	0	433
1200-1300	0	0	363	11	24	0	51	0	28	12	1	0	1	3	4	0	0	498
1300-1400	0	0	312	14	26	0	63	7	19	20	3	0	1	0	0	0	0	465
1400-1500	0	0	303	8	26	0	38	2	14	13	4	0	3	0	2	0	0	413
1500-1600	0	0	198	14	22	0	36	0	14	18	0	0	0	0	6	0	0	308
1600-1700	0	0	310	11	28	0	52	9	7	15	0	0	6	0	1	0	0	439
1700-1800	0	0	365	15	29	0	63	8	2	38	10	0	6	0	8	0	0	544
1800-1900	0	0	357	7	6	0	72	0	2	32	13	0	6	0	5	0	0	500
1900-2000	0	0	353	18	23	0	47	11	1	24	4	0	7	0	6	0	0	494
2000-2100	0	0	310	13	28	0	36	6	6	11	5	0	8	2	6	0	0	431
2100-2200	0	0	309	23	11	0	35	2	3	15	4	0	4	2	5	0	0	413
2200-2300	0	0	212	15	13	0	14	5	4	6	7	0	5	0	7	0	0	288
2300-0000	0	0	99	10	0	0	7	0	5	23	5	0	7	0	4	0	0	160
Total	0	0	5093	261	363	0	845	92	184	313	92	0	76	14	60	0	1	7394



NATIONAL TRANSPORT RESEARCH CENTRE

Summary of Peshawar Motorway Toll M-1

Date 11/12-06-08 Day: WED

Location Peshawar Toll Plaza M-1

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
1	0	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	0	0	181	30	12	0	14	7	12	8	4	0	11	2	0	0	0	283
0100-0200	0	0	90	12	7	0	6	5	3	24	21	0	5	5	1	0	0	179
0200-0300	0	0	72	6	2	0	4	1	1	9	2	0	5	10	0	0	0	112
0300-0400	0	0	39	4	4	0	5	6	2	18	5	0	1	1	1	0	0	86
0400-0500	0	0	47	2	9	0	3	5	1	8	2	0	8	0	0	0	0	85
0500-0600	0	0	92	5	13	0	13	4	10	17	7	0	3	0	1	0	0	165
0600-0700	0	0	160	19	21	0	33	6	10	26	4	0	7	0	4	0	0	290
0700-0800	0	0	303	22	27	0	91	10	22	19	7	0	5	0	0	0	0	506
0800-0900	0	0	559	20	74	0	126	4	27	41	9	0	1	0	2	0	0	863
0900-1000	0	0	666	28	44	0	167	6	5	25	3	0	4	1	0	0	0	949
1000-1100	0	0	634	24	35	0	118	3	4	16	6	0	2	1	3	0	1	847
1100-1200	0	0	666	20	34	0	122	7	24	18	10	0	4	0	1	0	0	906
1200-1300	0	0	680	17	36	0	115	4	36	24	3	0	3	3	9	0	0	930
1300-1400	0	0	535	20	41	0	118	12	20	24	5	0	2	1	0	0	0	778
1400-1500	0	0	581	10	40	0	87	5	16	24	8	0	4	0	4	0	0	779
1500-1600	0	0	478	19	49	0	80	3	15	36	5	0	2	0	8	0	0	695
1600-1700	0	0	610	26	50	0	98	12	8	54	10	0	10	0	8	0	0	886
1700-1800	0	0	734	30	53	0	119	10	3	52	13	0	6	0	11	1	0	1032
1800-1900	0	0	765	14	49	0	117	8	5	40	18	0	9	0	5	0	0	1030
1900-2000	0	0	712	32	61	0	94	17	3	40	5	0	11	0	6	0	0	981
2000-2100	0	0	643	25	66	0	94	11	7	22	13	0	11	2	6	0	0	900
2100-2200	0	0	605	36	40	0	70	6	4	18	5	0	10	3	5	0	0	802
2200-2300	0	0	439	27	27	0	37	12	12	19	11	0	26	0	8	1	0	619
2300-0000	0	0	279	20	9	0	22	1	7	23	13	0	7	0	4	0	0	385
Total	0	0	10570	468	803	0	1753	165	257	605	189	0	157	29	89	2	1	15088

# NATIONAL TRANSPORT RESEARCH CENTRE

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
North Bound

Date: 13/14-06-08 Day: FRI

Location: Iqbal sheed Toll Plaza N-05  
Direction From: Islamabad To Peshawar

Time (Hours)	Motor-cycle	M. Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	0	0	0	30	2	12	9	5	4	22	4	0	1	0	5	0	0	94
0100-0200	0	0	0	25	0	7	5	4	5	19	8	0	5	0	3	0	0	81
0200-0300	0	0	0	14	0	6	4	4	2	23	15	0	0	1	4	0	0	73
0300-0400	0	0	0	18	1	17	4	9	6	37	15	0	0	1	3	0	0	111
0400-0500	0	0	0	12	2	9	8	4	22	65	11	1	0	0	2	0	0	136
0500-0600	0	0	0	11	0	5	11	5	17	82	11	0	3	0	0	0	0	145
0600-0700	0	0	0	30	2	10	17	7	30	78	22	0	3	3	10	0	0	212
0700-0800	0	0	0	51	3	4	37	13	19	66	8	1	10	1	14	0	0	227
0800-0900	6	1	1	61	1	4	24	9	18	22	14	0	2	1	0	0	0	164
0900-1000	7	1	1	88	15	8	38	11	15	43	15	0	0	0	0	0	0	242
1000-1100	8	3	3	75	5	9	31	4	19	22	27	0	5	0	2	0	0	210
1100-1200	17	3	3	96	11	10	40	6	15	34	16	0	0	2	2	0	1	254
1200-1300	15	3	3	92	12	13	32	9	21	29	18	2	4	0	0	0	1	252
1300-1400	12	0	0	91	10	15	31	2	18	3	3	1	1	2	0	0	0	189
1400-1500	9	0	0	94	4	22	32	17	16	25	15	0	6	1	0	0	3	244
1500-1600	8	3	3	100	6	8	36	6	19	35	18	0	3	2	0	1	1	246
1600-1700	13	1	1	113	15	2	41	8	26	24	24	0	2	0	3	0	0	272
1700-1800	19	3	3	127	17	7	41	11	23	39	13	0	9	2	6	0	0	317
1800-1900	22	3	3	129	11	6	55	15	25	25	18	0	2	4	2	0	0	318
1900-2000	8	2	2	143	13	3	42	8	18	35	12	0	1	2	11	0	0	298
2000-2100	8	1	1	67	13	11	33	8	12	55	16	0	4	5	4	0	0	237
2100-2200	2	2	2	84	5	7	29	9	10	46	18	0	2	1	3	0	0	218
2200-2300	5	0	0	72	5	11	28	3	4	57	14	1	0	4	9	0	0	213
2300-0000	0	0	0	52	2	7	9	5	8	41	10	0	2	0	3	0	0	139
Total	159	26	26	1675	155	213	637	182	372	927	345	6	65	32	86	1	6	4892

# NATIONAL TRANSPORT RESEARCH CENTRE

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
South Bound

Date: 13/14-06-08 Day: FRI

Location: Iqbal sheed Toll Plaza N-05  
Direction From: Peshawar To Islamabad

Time (Hours)	Motor-cycle		M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total	
	1	2																		
0000-0100	0	0	0	18	3	9	2	6	7	8	9	10	11	12	13	14	15	16	17	84
0100-0200	0	0	0	16	0	5	0	4	4	6	19	12	0	7	0	0	0	0	0	73
0200-0300	0	0	0	2	1	2	0	7	7	4	11	7	0	2	0	1	0	0	0	44
0300-0400	0	0	0	6	0	3	0	7	1	1	12	4	0	0	0	1	0	0	0	35
0400-0500	0	0	0	1	3	1	1	2	1	0	10	11	0	0	1	0	0	0	0	31
0500-0600	0	0	0	7	1	2	0	8	2	0	0	2	0	0	0	0	0	0	0	22
0600-0700	4	0	0	24	2	3	0	30	1	4	7	9	0	0	0	0	0	0	0	84
0700-0800	3	0	0	23	9	7	0	44	2	15	13	6	0	1	0	0	0	0	0	123
0800-0900	0	0	0	41	1	9	0	31	0	18	11	4	0	4	0	1	0	0	0	120
0900-1000	7	2	2	39	6	14	0	44	0	26	15	5	0	1	0	0	0	0	0	159
1000-1100	20	2	2	61	14	14	0	36	0	27	33	10	2	0	0	0	0	0	0	219
1100-1200	6	4	4	64	4	15	1	47	0	22	15	18	3	1	0	2	0	0	0	202
1200-1300	14	5	5	237	5	18	0	100	0	54	19	18	1	2	2	0	0	0	0	475
1300-1400	9	0	0	69	5	6	0	37	0	19	24	23	1	2	0	2	0	0	0	197
1400-1500	5	5	5	108	7	19	1	38	0	23	21	13	1	3	0	0	0	0	0	244
1500-1600	5	1	1	56	5	21	1	32	0	16	16	14	0	2	0	0	0	0	0	169
1600-1700	11	2	2	137	5	13	0	63	0	12	16	8	0	0	0	0	0	0	0	267
1700-1800	12	1	1	135	10	11	0	42	0	20	20	14	0	5	0	0	0	0	0	270
1800-1900	17	4	4	163	12	14	0	46	0	16	19	12	0	0	1	2	0	0	0	306
1900-2000	23	1	1	175	26	23	0	31	0	16	21	21	2	1	0	2	0	0	0	342
2000-2100	16	1	1	133	16	17	0	39	0	14	39	27	0	5	0	2	0	0	0	309
2100-2200	17	4	4	101	4	10	0	22	0	13	51	24	0	1	0	0	0	0	0	247
2200-2300	4	0	0	78	6	24	2	33	19	22	36	21	0	0	0	3	0	0	0	248
2300-0000	2	0	0	44	5	7	0	4	11	10	23	17	0	0	1	1	0	0	0	125
Total	175	32	32	1738	150	267	8	763	58	363	470	309	10	38	6	18	0	0	0	4395

# NATIONAL TRANSPORT RESEARCH CENTRE

## Summary of Iqbal Shaheed Toll Plaza N-5

Date 13,14-06-08 Day: FRI

Location Iqbal shaheed Toll Plaza N-05

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	0	0	48	5	21	2	15	15	9	41	13	0	2	1	6	0	0	178
0100-0200	0	0	41	0	12	0	9	8	11	38	20	0	12	0	3	0	0	154
0200-0300	0	0	16	1	8	0	11	11	6	34	22	0	2	1	5	0	0	117
0300-0400	0	0	24	1	20	0	11	10	7	49	19	0	0	1	4	0	0	146
0400-0500	0	0	13	5	10	1	10	5	22	75	22	1	0	1	2	0	0	167
0500-0600	0	0	18	1	7	0	19	7	17	82	13	0	3	0	0	0	0	167
0600-0700	4	0	54	4	13	0	47	8	34	85	31	0	3	3	10	0	0	296
0700-0800	3	0	74	12	11	0	81	15	34	79	14	1	11	1	14	0	0	350
0800-0900	6	1	102	2	13	1	55	9	36	33	18	0	6	1	1	0	0	284
0900-1000	14	3	127	21	22	1	82	11	41	58	20	0	1	0	0	0	0	401
1000-1100	28	5	136	19	23	0	67	4	46	55	37	2	5	0	2	0	0	429
1100-1200	23	7	160	15	25	2	87	6	37	49	34	3	1	2	4	0	1	456
1200-1300	29	8	329	17	31	1	132	9	75	48	36	3	6	2	0	0	1	727
1300-1400	21	0	160	15	21	0	68	2	37	27	26	2	3	2	2	0	0	386
1400-1500	14	5	202	11	41	1	70	17	39	46	28	1	9	1	0	0	3	488
1500-1600	13	4	156	11	29	1	68	6	35	51	32	0	5	2	0	1	1	415
1600-1700	24	3	250	20	15	0	104	8	38	40	32	0	2	0	3	0	0	539
1700-1800	31	4	262	27	18	0	83	11	43	59	27	0	14	2	6	0	0	587
1800-1900	39	7	292	23	20	1	101	15	41	44	30	0	2	5	4	0	0	624
1900-2000	31	3	318	39	26	0	73	8	34	56	33	2	2	2	13	0	0	640
2000-2100	24	2	200	29	28	0	72	8	26	94	43	0	9	5	6	0	0	546
2100-2200	19	6	185	9	17	0	51	9	23	97	42	0	3	1	3	0	0	465
2200-2300	9	0	150	11	35	2	61	22	26	93	35	1	0	4	12	0	0	461
2300-0000	2	0	96	7	14	0	13	16	18	64	27	0	2	1	4	0	0	264
Total	334	58	3413	305	480	13	1390	240	735	1397	654	16	103	38	104	1	6	9287

# NATIONAL TRANSPORT RESEARCH CENTRE

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
North Bound

Date 15/16-06-08 Day: SUN

Location Sangjani Toll Plaza - N-05  
Direction From: Rawalpindi To Taxila

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
0000-0100	5	1	249	20	15	3	53	27	7	131	83	2	20	10	11	16	17	637
0100-0200	6	1	130	7	16	1	24	30	4	161	64	12	9	5	0	0	0	470
0200-0300	2	0	52	7	5	0	14	12	5	104	69	14	0	4	2	0	0	290
0300-0400	2	0	33	11	1	0	6	16	9	94	63	1	13	10	6	0	0	265
0400-0500	1	0	32	1	2	1	14	14	7	100	58	0	7	5	1	0	0	243
0500-0600	0	0	56	7	5	1	10	8	15	63	54	0	6	2	2	0	0	229
0600-0700	6	0	96	9	2	0	16	11	20	53	56	1	7	2	3	0	0	282
0700-0800	21	0	240	19	7	0	66	17	21	63	41	5	4	2	3	0	0	509
0800-0900	16	0	262	21	34	0	143	4	53	107	83	2	5	0	1	1	1	733
0900-1000	16	0	353	25	32	0	0	6	0	100	83	2	1	2	3	1	0	624
1000-1100	32	0	456	31	35	0	70	9	22	86	43	6	6	6	0	0	0	802
1100-1200	52	0	598	30	31	0	117	13	18	84	63	3	3	0	0	0	0	1012
1200-1300	79	0	594	51	49	0	149	3	24	143	87	1	1	1	0	0	0	1182
1300-1400	78	0	579	42	33	0	148	10	17	142	99	5	6	0	0	0	0	1159
1400-1500	87	0	607	39	29	0	108	10	28	126	99	2	3	1	0	1	0	1140
1500-1600	62	0	628	45	47	0	162	16	30	126	82	0	3	1	0	0	0	1202
1600-1700	92	0	668	43	45	2	140	11	29	104	92	0	3	2	0	0	0	1231
1700-1800	74	0	690	59	29	0	136	16	28	128	78	0	2	0	0	0	0	1240
1800-1900	71	0	591	45	39	1	135	15	23	91	80	3	3	1	0	0	0	1098
1900-2000	47	0	592	57	36	0	98	20	13	80	66	1	1	1	0	0	0	1012
2000-2100	43	0	470	43	38	0	115	13	5	123	71	0	4	2	3	1	0	931
2100-2200	58	0	506	80	159	1	80	12	11	214	112	0	17	0	7	0	0	1257
2200-2300	32	0	413	34	32	0	86	4	10	157	109	1	7	5	6	0	0	896
2300-0000	14	0	356	29	14	0	72	19	13	101	52	0	13	13	11	0	0	707
Total	896	2	9251	755	735	10	1962	316	412	2681	1787	61	144	75	59	4	1	19151

# NATIONAL TRANSPORT RESEARCH CENTRE

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
South Bound

Date 15/16-06-08 Day: SUN

Location Sangiani Toll Plaza - N-05  
Direction From: Taxila To Rawalpindi

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiacer/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	
0000-0100	13	0	310	14	9	0	21	5	19	160	79	0	5	3	1	0	0	639
0100-0200	3	0	185	8	8	0	15	3	18	163	82	0	5	0	0	0	0	490
0200-0300	3	0	87	6	11	0	7	4	10	148	148	2	1	1	2	0	0	430
0300-0400	1	0	45	4	8	0	6	2	1	157	87	0	2	3	0	0	0	316
0400-0500	0	0	39	13	15	0	5	1	4	133	97	0	2	1	0	1	0	311
0500-0600	3	0	66	13	22	0	18	4	3	90	98	0	0	0	0	0	0	317
0600-0700	32	0	179	23	35	0	89	4	25	50	26	0	0	4	0	0	0	467
0700-0800	55	1	490	28	12	0	188	3	57	63	17	0	0	0	0	0	0	914
0800-0900	24	0	238	19	17	0	109	5	11	72	62	2	2	1	0	1	0	563
0900-1000	69	0	322	35	34	0	134	11	25	122	74	1	3	1	0	0	0	831
1000-1100	42	0	393	21	35	0	140	7	20	128	76	0	0	0	0	0	0	862
1100-1200	60	0	424	34	29	2	135	10	29	109	92	0	1	2	0	0	0	927
1200-1300	42	0	500	49	29	4	109	12	22	114	70	2	3	0	0	0	0	956
1300-1400	45	0	379	29	40	0	107	8	19	78	60	3	3	1	2	0	0	774
1400-1500	35	0	535	27	25	0	107	12	18	123	76	4	5	2	4	0	0	973
1500-1600	41	0	499	34	18	0	97	5	21	94	87	1	0	3	3	0	0	906
1600-1700	55	0	606	47	12	0	109	12	15	93	87	6	5	1	0	0	0	1048
1700-1800	79	0	646	41	23	0	115	6	13	138	106	3	3	0	0	0	0	1173
1800-1900	110	2	692	54	28	0	145	11	17	153	98	2	5	3	5	0	0	1325
1900-2000	107	1	824	56	50	0	124	11	19	180	108	1	5	2	2	1	0	1491
2000-2100	102	0	837	26	32	0	112	15	10	115	77	1	6	1	1	3	0	1338
2100-2200	76	0	748	45	34	0	94	17	9	176	123	1	2	2	0	1	0	1328
2200-2300	17	0	517	37	14	0	67	16	8	121	97	0	6	1	0	0	0	901
2300-0000	36	2	481	37	15	0	49	5	25	160	144	0	4	2	2	0	0	962
Total	1050	6	10042	700	555	6	2102	189	418	2940	2071	29	68	34	22	10	0	20242

# NATIONAL TRANSPORT RESEARCH CENTRE

## Summary of Sangjani Toll Plaza N-5

Date: 15/16-06-08 Day: SUN

Location: Sangjani Toll Plaza - N-05

Start Time: 0800

End Time: 0800 (24 hrs)

Weather: (Fair, Poor, Rainy, Foggy etc)

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus. Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
0000-0100	18	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0100-0200	9	1	1	15	24	3	74	32	26	291	162	2	25	13	12	0	0	1276
0200-0300	5	0	0	13	16	0	21	16	15	252	217	16	1	5	4	0	0	960
0300-0400	3	0	0	15	9	0	12	18	10	251	150	1	15	13	6	0	0	720
0400-0500	1	0	0	14	17	1	19	15	11	233	155	0	9	6	1	1	0	581
0500-0600	3	0	0	20	27	1	28	12	18	153	152	0	6	2	2	0	0	554
0600-0700	38	0	0	32	37	0	105	15	45	103	82	1	7	6	3	0	0	546
0700-0800	76	1	0	47	19	0	254	20	78	126	58	5	4	2	3	0	0	749
0800-0900	40	0	0	40	51	0	252	9	64	179	145	4	7	1	1	2	1	1423
0900-1000	85	0	0	60	66	0	134	17	25	222	157	3	4	3	3	1	0	1296
1000-1100	74	0	0	52	70	0	210	16	42	214	119	6	6	6	0	0	0	1455
1100-1200	112	0	0	64	60	2	252	23	47	193	155	3	4	2	0	0	0	1664
1200-1300	121	0	0	100	78	4	258	15	46	257	157	3	4	1	0	0	0	1939
1300-1400	123	0	0	71	73	0	255	18	36	220	159	8	9	1	2	0	0	2138
1400-1500	122	0	0	66	54	0	215	22	46	249	175	6	8	3	4	1	0	1933
1500-1600	103	0	0	79	65	0	259	21	51	220	169	1	3	4	3	0	0	2113
1600-1700	147	0	0	90	57	2	249	23	44	197	179	6	8	3	0	0	0	2108
1700-1800	153	0	0	100	52	0	251	22	41	266	184	3	5	0	0	0	0	2279
1800-1900	181	2	0	99	67	1	280	26	40	244	178	5	8	4	5	0	0	2413
1900-2000	154	1	0	113	86	0	222	31	32	260	174	2	6	3	2	1	0	2423
2000-2100	145	0	0	69	70	0	227	28	15	238	148	1	10	3	4	0	0	2503
2100-2200	134	0	0	125	193	1	174	29	20	390	235	1	19	2	7	1	0	2269
2200-2300	49	0	0	71	46	0	153	20	18	278	206	1	13	6	6	0	0	2585
2300-0000	50	2	0	66	29	0	121	24	38	261	196	0	17	15	13	0	0	1797
Total	1946	8	0	1455	1290	16	4064	505	830	5621	3858	90	212	109	81	14	1	39393

# NATIONAL TRANSPORT RESEARCH CENTRE

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
North Bound

Date 17,18-06-08 Day: TUE

Location Jehlum Toll Plaza N-5  
Direction From: Rawalpindi To Gujranwala

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	16	0	173	0	15	0	22	36	20	83	58	0	5	0	0	0	0	428
0100-0200	13	0	100	2	15	0	14	24	10	78	61	0	16	3	0	0	0	336
0200-0300	1	0	82	3	15	0	13	32	17	99	52	0	13	3	0	0	0	330
0300-0400	1	0	47	4	14	0	4	29	25	114	82	0	8	2	0	0	0	330
0400-0500	1	0	39	3	13	0	10	33	20	131	114	0	7	3	0	0	0	374
0500-0600	1	0	47	2	16	0	3	32	17	105	98	0	2	0	0	2	0	325
0600-0700	26	0	90	1	21	0	8	31	8	103	81	2	6	2	0	0	0	379
0700-0800	84	1	163	5	22	5	20	36	6	102	65	3	8	3	0	0	1	524
0800-0900	69	7	166	3	37	3	34	5	4	61	46	5	1	2	0	0	0	443
0900-1000	90	0	185	9	22	0	39	16	11	72	27	0	1	3	0	0	0	475
1000-1100	132	7	290	6	9	0	57	13	14	64	18	4	3	1	1	0	1	620
1100-1200	165	5	277	3	23	0	60	10	18	57	27	1	7	0	0	0	1	654
1200-1300	144	1	368	10	28	0	56	11	23	32	20	4	3	2	1	1	0	704
1300-1400	128	4	315	6	26	0	72	15	24	45	20	2	6	1	3	0	2	669
1400-1500	131	5	385	13	14	0	70	20	24	56	15	4	2	1	1	0	0	741
1500-1600	148	1	417	7	19	0	61	28	21	40	17	3	5	1	0	0	0	768
1600-1700	98	0	367	6	22	0	77	23	36	57	28	3	4	4	3	3	3	734
1700-1800	112	1	431	5	27	0	56	18	38	59	41	2	4	2	0	0	3	799
1800-1900	127	1	467	13	25	0	60	22	25	79	27	4	5	4	4	4	4	871
1900-2000	116	0	400	10	25	0	59	20	18	80	31	3	2	0	0	0	0	764
2000-2100	191	5	359	3	34	1	37	13	20	62	33	4	3	0	0	0	1	766
2100-2200	126	7	341	4	10	0	25	18	10	73	40	1	4	3	0	0	0	662
2200-2300	78	6	219	3	15	0	16	30	15	78	35	2	2	2	1	0	0	502
2300-0000	30	0	194	4	11	0	22	31	16	81	63	0	1	8	0	0	1	462
Total	2028	51	5922	125	478	9	895	546	440	1811	1099	47	118	50	14	10	17	13660



# NATIONAL TRANSPORT RESEARCH CENTRE

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
South Bound

Date: 17/18-06-08 Day: TUE

Location: Jehlum Toll Plaza N-5  
Direction From: Gujranwala To Rawalpindi

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	
0000-0100	3	0	32	5	14	0	13	36	10	100	45	0	6	3	0	0	0	267
0100-0200	3	0	121	1	15	0	8	43	15	123	58	0	5	3	0	0	0	395
0200-0300	2	0	53	1	16	0	8	30	18	151	78	0	10	7	5	0	0	379
0300-0400	1	0	31	4	12	0	5	21	26	83	40	2	8	0	1	0	0	234
0400-0500	2	0	61	0	16	0	7	24	16	56	48	2	8	0	0	0	0	240
0500-0600	14	0	90	1	10	0	16	26	15	55	33	1	1	1	0	0	0	263
0600-0700	30	0	175	4	16	0	22	28	9	72	46	3	1	2	3	1	0	412
0700-0800	97	1	282	6	17	0	35	20	8	67	62	1	6	2	0	0	0	604
0800-0900	120	1	195	31	46	0	63	41	8	49	48	0	6	2	0	0	2	612
0900-1000	180	1	315	5	7	0	72	26	14	63	49	0	8	5	6	0	0	751
1000-1100	147	6	352	10	10	0	61	32	16	49	54	0	8	4	2	0	1	752
1100-1200	152	5	368	7	17	0	64	16	32	45	50	0	7	6	1	0	0	770
1200-1300	151	2	345	6	17	0	52	25	17	42	21	0	2	1	0	0	0	681
1300-1400	117	2	340	9	10	1	52	38	13	55	40	3	10	0	0	0	1	691
1400-1500	83	1	249	9	20	0	56	21	17	36	24	1	3	0	0	0	0	520
1500-1600	126	1	314	6	6	0	51	35	19	41	25	7	2	0	0	0	1	634
1600-1700	57	2	236	5	9	1	61	28	17	48	13	0	7	0	0	0	0	484
1700-1800	132	3	325	4	10	0	51	32	16	75	37	0	12	11	3	0	0	711
1800-1900	135	0	331	12	10	0	4	43	19	76	27	2	9	3	3	0	1	675
1900-2000	132	0	383	7	9	0	26	39	16	88	19	2	2	0	4	0	0	727
2000-2100	91	0	385	5	17	0	35	35	9	84	28	0	3	2	1	0	0	695
2100-2200	52	0	218	4	27	0	62	23	30	80	39	0	1	0	0	0	0	536
2200-2300	26	1	173	12	25	0	17	39	8	74	49	0	3	4	0	0	0	431
2300-0000	8	1	111	0	22	0	12	38	12	83	28	0	10	0	0	0	0	325
Total	1861	27	5485	154	378	2	853	739	380	1695	961	24	138	56	29	1	6	12789

# NATIONAL TRANSPORT RESEARCH CENTRE

## Summary of Jehlum Toll Plaza N-5

Date: 17/18-06-08 Day: TUE

Location: Jehlum Toll Plaza N-5

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	19	0	205	5	29	0	35	72	30	183	103	0	11	3	0	0	0	695
0100-0200	16	0	221	3	30	0	22	67	25	201	119	0	21	6	0	0	0	731
0200-0300	3	0	135	4	31	0	21	62	35	250	130	0	23	10	5	0	0	709
0300-0400	2	0	78	8	26	0	9	50	51	197	122	2	16	2	1	0	0	564
0400-0500	3	0	100	3	29	0	17	57	36	187	162	2	15	3	0	0	0	614
0500-0600	15	0	137	3	26	0	19	58	32	160	131	1	3	1	0	2	0	588
0600-0700	56	0	265	5	37	0	30	59	17	175	127	5	7	4	3	1	0	791
0700-0800	181	2	445	11	39	5	55	56	14	169	127	4	14	5	0	0	1	1,120
0800-0900	189	8	361	34	83	3	97	46	12	110	94	5	7	4	0	0	2	1055
0900-1000	270	1	500	14	29	0	111	42	25	135	76	0	9	8	6	0	0	1226
1000-1100	279	13	642	16	19	0	118	45	30	113	72	4	11	5	3	0	2	1372
1100-1200	317	10	645	10	40	0	124	26	50	102	77	1	14	6	1	0	1	1424
1200-1300	295	3	713	16	45	0	108	36	40	74	41	4	5	3	1	1	0	1385
1300-1400	245	6	655	15	36	1	124	53	37	100	60	5	16	1	3	0	3	1360
1400-1500	214	6	634	22	34	0	126	41	41	92	39	5	5	1	1	0	0	1261
1500-1600	274	2	731	13	25	0	112	63	40	81	42	10	7	1	0	0	1	1402
1600-1700	155	2	603	11	31	1	138	51	53	105	41	3	11	4	3	3	3	1218
1700-1800	244	4	756	9	37	0	107	50	54	134	78	2	16	13	3	0	3	1510
1800-1900	262	1	798	25	35	0	64	65	44	155	54	6	14	7	7	4	5	1546
1900-2000	248	0	783	17	34	0	85	59	34	168	50	5	4	0	4	0	0	1491
2000-2100	282	5	744	8	51	1	72	48	29	146	61	4	6	2	1	0	1	1461
2100-2200	178	7	559	8	37	0	87	41	40	153	79	1	5	3	0	0	0	1198
2200-2300	104	7	392	15	40	0	33	69	23	152	84	2	5	6	1	0	0	933
2300-0000	38	1	305	4	33	0	34	69	28	164	91	0	11	8	0	0	1	787
<b>Total</b>	<b>3889</b>	<b>78</b>	<b>11407</b>	<b>279</b>	<b>856</b>	<b>11</b>	<b>1748</b>	<b>1285</b>	<b>820</b>	<b>3506</b>	<b>2060</b>	<b>71</b>	<b>256</b>	<b>106</b>	<b>43</b>	<b>11</b>	<b>23</b>	<b>26449</b>

# NATIONAL TRANSPORT RESEARCH CENTRE

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
North Bound

Date: 19/20-06-08 Day: THU

Location: Kala Shah Kaku N-05  
Direction From: Lahore To Gujranwala

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	40	3	187	12	10	0	39	63	18	52	14	0	2	1	1	0	0	442
0100-0200	24	0	168	6	20	0	18	56	23	112	24	3	12	0	2	0	0	468
0200-0300	14	2	186	3	4	0	20	37	13	75	12	0	6	0	0	0	0	372
0300-0400	8	2	105	8	9	0	15	42	18	70	3	0	1	2	0	0	0	283
0400-0500	16	0	117	3	6	0	29	36	12	100	15	0	1	3	0	0	0	338
0500-0600	28	9	123	4	10	0	25	30	13	56	28	1	0	0	0	0	0	327
0600-0700	58	9	186	15	6	1	51	30	24	51	5	1	3	1	0	0	0	441
0700-0800	166	0	244	10	7	0	121	35	28	80	10	1	9	1	2	0	1	715
0800-0900	90	34	187	20	42	9	111	25	58	29	17	8	1	1	2	0	0	634
0900-1000	93	4	290	12	25	2	142	21	38	12	7	7	0	2	0	0	0	655
1000-1100	105	4	346	29	39	2	127	49	59	25	15	5	1	1	0	0	0	807
1100-1200	146	1	321	27	23	0	95	24	56	37	20	1	1	0	1	0	0	753
1200-1300	170	4	312	18	37	0	100	26	68	31	23	0	2	0	0	1	0	792
1300-1400	181	6	307	17	21	1	105	42	58	29	11	5	7	1	2	0	0	793
1400-1500	177	7	307	23	45	0	92	46	79	24	4	2	2	0	1	3	0	812
1500-1600	150	4	321	11	33	0	108	21	42	32	12	1	5	2	0	0	0	742
1600-1700	179	5	434	20	36	0	135	44	33	29	9	3	0	1	1	0	0	929
1700-1800	237	6	422	36	48	0	138	34	37	33	7	2	1	0	1	0	0	1002
1800-1900	222	6	411	22	43	0	133	45	27	37	4	3	4	0	2	0	0	959
1900-2000	235	5	368	27	27	0	148	50	25	32	19	0	3	0	2	0	0	941
2000-2100	233	5	397	25	21	0	95	30	20	33	13	2	2	2	1	0	0	879
2100-2200	153	3	402	18	26	0	70	39	27	31	11	1	1	2	1	0	0	785
2200-2300	91	21	278	18	15	1	45	47	35	35	19	0	1	1	0	0	0	607
2300-0000	30	0	247	19	9	0	42	58	19	67	14	2	6	1	0	0	0	514
<b>Total</b>	<b>2846</b>	<b>140</b>	<b>6666</b>	<b>403</b>	<b>562</b>	<b>16</b>	<b>2004</b>	<b>930</b>	<b>830</b>	<b>1112</b>	<b>316</b>	<b>48</b>	<b>71</b>	<b>22</b>	<b>19</b>	<b>4</b>	<b>1</b>	<b>15990</b>

# NATIONAL TRANSPORT RESEARCH CENTRE

SURVEY FORM "E"  
South Bound

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

Date: 19/20-06-08 Day: THU

Location: Kala Shah Kaku N-05  
Direction From: Gujranwala to Lahore

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	
0000-0100	42	0	248	18	54	0	51	33	25	69	27	1	7	3	1	0	0	579
0100-0200	10	0	223	7	23	0	18	33	17	68	26	0	2	0	6	0	0	433
0200-0300	18	1	160	12	50	1	12	48	14	72	17	1	1	0	3	0	0	410
0300-0400	9	1	103	7	31	0	13	25	4	34	16	3	4	0	3	0	0	253
0400-0500	5	1	71	7	51	0	22	37	8	81	10	1	7	0	4	0	0	305
0500-0600	24	3	69	1	20	0	24	40	14	101	26	3	2	4	1	0	0	332
0600-0700	52	1	175	10	20	1	49	21	32	67	9	3	3	2	1	0	0	446
0700-0800	78	5	196	7	18	0	131	33	37	48	10	3	4	3	5	1	0	579
0800-0900	184	5	177	13	31	3	138	23	35	62	28	16	6	12	14	0	0	747
0900-1000	227	4	247	8	39	0	145	38	21	28	17	14	1	5	2	0	2	798
1000-1100	99	5	285	12	25	1	113	35	27	23	13	10	0	2	2	1	1	654
1100-1200	104	0	379	17	29	1	95	26	24	49	20	6	5	2	2	0	1	760
1200-1300	161	3	370	20	39	1	118	36	34	49	10	4	5	0	4	0	0	854
1300-1400	137	4	384	19	33	0	144	47	35	37	18	7	3	1	0	0	0	869
1400-1500	119	6	316	19	38	0	116	42	28	61	25	7	3	5	4	0	0	789
1500-1600	112	2	313	18	40	0	127	40	28	43	16	8	2	1	8	0	0	758
1600-1700	106	5	423	17	26	0	124	54	35	52	19	7	2	0	4	0	0	874
1700-1800	128	8	363	26	12	0	126	78	81	65	23	11	2	4	4	0	1	932
1800-1900	155	1	495	26	22	0	117	72	78	48	13	14	5	1	8	1	0	1056
1900-2000	184	5	458	24	47	4	95	40	58	58	16	3	5	5	1	0	3	1006
2000-2100	154	3	384	24	19	0	96	81	45	64	29	6	4	4	5	1	0	919
2100-2200	129	2	394	13	18	4	107	73	34	80	27	8	3	2	6	1	1	902
2200-2300	70	2	373	13	79	2	109	31	24	90	18	1	5	1	2	0	0	820
2300-0000	76	0	362	20	37	0	35	37	30	72	15	2	7	5	1	0	1	700
Total	2383	67	6968	358	801	18	2125	1023	768	1421	448	139	88	62	91	5	10	16775

# NATIONAL TRANSPORT RESEARCH CENTRE

## Summary of Kala Shah Kaku N-05

Date: 19,20-06-08 Day: THU

Start Time 0800 End Time 0800 (24 hrs)

Location Kala Shah Kaku N-05

Weather : (Fair, Poor, Rainy, Foggy etc)

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
0000-0100	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0100-0200	82	3	435	30	64	0	90	96	43	121	41	1	9	4	2	0	0	1021
0200-0300	34	0	391	13	43	0	36	89	40	180	50	3	14	0	8	0	0	901
0300-0400	32	3	346	15	54	1	32	85	27	147	29	1	7	0	3	0	0	782
0400-0500	17	3	208	15	40	0	28	67	22	104	19	3	5	2	3	0	0	536
0500-0600	21	1	188	10	57	0	51	73	20	181	25	1	8	3	4	0	0	643
0600-0700	52	12	192	5	30	0	49	70	27	157	54	4	2	4	1	0	0	659
0700-0800	110	10	361	25	26	2	100	51	56	118	14	4	6	3	1	0	0	887
0800-0900	244	5	440	17	25	0	252	68	65	128	20	4	13	4	7	1	1	1294
0900-1000	274	39	364	33	73	12	249	48	93	91	45	24	7	13	16	0	0	1381
1000-1100	320	8	537	20	64	2	287	59	59	40	24	21	1	7	2	0	2	1453
1100-1200	204	9	631	41	64	3	240	84	86	48	28	15	1	3	2	1	1	1461
1200-1300	250	1	700	44	52	1	190	50	80	86	40	7	6	2	3	0	1	1513
1300-1400	331	7	682	38	76	1	218	62	102	80	33	4	7	0	4	1	0	1646
1400-1500	318	10	691	36	54	1	249	89	93	66	29	12	10	2	2	0	0	1662
1500-1600	296	13	623	42	83	0	208	88	107	85	29	9	5	5	5	3	0	1601
1600-1700	262	6	634	29	73	0	235	61	70	75	28	9	7	3	8	0	0	1500
1700-1800	285	10	857	37	62	0	259	98	68	81	28	10	2	1	5	0	0	1803
1800-1900	365	14	785	62	60	0	264	112	118	98	30	13	3	4	5	0	1	1934
1900-2000	377	7	906	48	65	0	250	117	105	85	17	17	9	1	10	1	0	2015
2000-2100	419	10	826	51	74	4	243	90	83	90	35	3	8	5	3	0	3	1947
2100-2200	387	8	781	49	40	0	191	111	65	97	42	8	6	6	6	1	0	1798
2200-2300	282	5	796	31	44	4	177	112	61	111	38	9	4	4	7	1	1	1687
2300-0000	161	23	651	31	94	3	154	78	59	125	37	1	6	2	2	0	0	1427
Total	5229	207	13634	761	1363	34	4129	1953	1598	2533	764	187	159	84	110	9	11	32765

# NATIONAL TRANSPORT RESEARCH CENTRE

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
North Bound

Date 20,21-06-08 Day: FRI

Location Kala Shah Kaku Toll Plaza M-2  
Direction From: N-05 To M-2

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	0	0	0	119	2	3	0	5	11	16	15	5	0	1	4	0	0	185
0100-0200	0	0	0	131	0	2	0	6	12	15	15	1	0	4	2	0	0	188
0200-0300	0	0	0	60	0	3	0	2	19	7	10	3	0	2	1	5	0	112
0300-0400	0	0	0	20	1	5	0	1	5	3	8	5	0	4	0	2	0	54
0400-0500	0	0	0	19	0	2	0	4	6	7	6	16	0	4	2	0	0	68
0500-0600	0	0	0	20	1	4	0	4	7	3	6	6	0	1	0	0	0	53
0600-0700	0	0	0	55	1	7	0	1	10	3	16	21	0	1	3	0	0	118
0700-0800	0	0	0	54	0	3	0	7	7	7	20	11	0	0	1	0	0	110
0800-0900	0	0	0	130	1	6	0	2	4	7	13	5	0	5	1	1	0	175
0900-1000	0	0	0	151	2	2	0	2	9	11	17	5	0	2	1	0	0	202
1000-1100	0	0	0	197	2	11	0	2	26	9	7	1	0	1	0	0	0	257
1100-1200	0	0	0	266	3	3	0	7	12	5	9	1	0	1	0	0	0	307
1200-1300	0	0	0	227	1	14	0	3	14	9	21	10	0	2	1	0	0	302
1300-1400	0	0	0	308	5	7	0	4	15	6	17	5	0	8	1	0	0	376
1400-1500	0	0	0	268	0	7	0	5	15	14	5	5	0	3	0	0	0	325
1500-1600	0	0	0	284	1	8	0	4	14	5	10	5	0	3	0	0	0	334
1600-1700	0	0	0	306	1	4	0	8	27	11	19	6	0	9	0	1	0	392
1700-1800	0	0	0	388	3	11	0	5	38	10	20	6	0	4	1	0	0	487
1800-1900	0	0	0	404	1	9	0	6	20	14	17	6	0	3	2	1	0	483
1900-2000	0	0	0	407	5	8	0	10	25	14	19	9	0	5	1	0	0	503
2000-2100	0	0	0	287	2	3	0	10	25	8	10	6	0	1	0	3	0	355
2100-2200	0	0	0	268	2	9	0	4	13	7	17	9	0	5	0	2	0	336
2200-2300	0	0	0	160	0	12	0	8	10	9	15	5	0	7	0	2	0	228
2300-0000	0	0	0	153	1	16	0	3	17	20	141	3	0	6	1	0	0	362
Total	0	0	0	4682	35	159	0	113	361	220	453	155	0	82	21	31	0	6312

# NATIONAL TRANSPORT RESEARCH CENTRE

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
South Bound

Date: 20/21-06-08 Day: FRI

Location: Kalia Shah Kaku Toll Plaza M-2  
Direction From: M-2 To N-05

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	0	0	0	157	0	12	0	7	16	8	25	6	0	4	0	7	0	242
0100-0200	0	0	0	98	0	10	0	16	19	9	25	3	0	8	3	2	0	193
0200-0300	0	0	0	71	0	12	0	7	12	5	27	8	0	1	1	0	0	145
0300-0400	0	0	0	38	0	7	0	3	17	5	24	4	0	4	1	2	0	105
0400-0500	0	0	0	16	0	4	0	3	9	1	14	8	0	8	1	3	0	67
0500-0600	0	0	0	20	0	3	0	1	11	4	16	4	0	2	1	2	0	64
0600-0700	0	0	0	96	1	1	0	4	2	5	12	1	0	7	2	0	0	131
0700-0800	0	0	0	111	0	5	0	6	10	7	20	8	0	5	4	4	0	180
0800-0900	0	0	0	152	2	7	0	6	11	6	5	10	0	3	2	0	0	206
0900-1000	0	0	0	172	1	5	0	11	13	6	12	10	0	4	1	4	0	239
1000-1100	0	0	0	214	1	9	0	9	14	7	26	3	0	6	4	3	0	296
1100-1200	0	0	0	258	1	8	0	7	10	4	14	8	0	3	1	8	0	322
1200-1300	0	0	0	254	1	12	0	4	14	15	14	4	0	2	1	3	0	324
1300-1400	0	0	0	263	5	12	0	8	21	14	19	7	0	8	1	7	0	365
1400-1500	0	0	0	255	0	5	0	8	20	9	22	8	0	2	3	4	0	336
1500-1600	0	0	0	242	5	16	0	7	30	12	31	9	0	8	2	0	0	362
1600-1700	0	0	0	250	5	11	0	9	17	8	30	3	0	3	1	3	0	340
1700-1800	0	0	0	298	1	15	0	9	17	12	23	5	0	3	4	5	0	392
1800-1900	0	0	0	285	2	15	0	6	16	11	36	8	0	5	1	2	0	387
1900-2000	0	0	0	300	0	13	0	7	28	11	28	7	0	6	4	3	0	407
2000-2100	0	0	0	297	2	13	0	3	19	10	28	2	0	9	0	2	0	385
2100-2200	0	0	0	374	3	15	0	11	19	9	53	13	0	10	2	4	0	513
2200-2300	0	0	0	234	0	8	0	8	28	10	52	8	0	1	2	4	0	355
2300-0000	0	0	0	202	2	7	0	12	16	9	40	3	0	11	1	2	0	305
Total	0	0	0	4657	32	225	0	172	389	197	596	150	0	123	43	77	0	6661

# NATIONAL TRANSPORT RESEARCH CENTRE

## Summary of Kala Shah Kaku Toll M-2

Date 20-21-06-08 Day: FRI

Location Kala Shah Kaku Toll Plaza M-2

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	
0000-0100	0	0	276	2	15	0	12	27	24	40	11	0	5	4	11	0	0	427
0100-0200	0	0	229	0	12	0	22	31	24	40	4	0	12	5	2	0	0	381
0200-0300	0	0	131	0	15	0	9	31	12	37	11	0	3	2	6	0	0	257
0300-0400	0	0	58	1	12	0	4	22	8	32	9	0	8	1	4	0	0	159
0400-0500	0	0	35	0	6	0	7	15	8	20	24	0	12	3	5	0	0	135
0500-0600	0	0	40	1	7	0	5	18	7	22	10	0	3	1	3	0	0	117
0600-0700	0	0	151	2	8	0	5	12	8	28	22	0	8	5	0	0	0	249
0700-0800	0	0	165	0	8	0	13	17	14	40	19	0	5	4	5	0	0	290
0800-0900	0	0	282	3	13	0	8	15	13	18	15	0	8	3	3	0	0	381
0900-1000	0	0	323	3	7	0	13	22	17	29	15	0	6	2	4	0	0	441
1000-1100	0	0	411	3	20	0	11	40	16	33	4	0	7	4	4	0	0	553
1100-1200	0	0	524	4	11	0	14	22	9	23	9	0	4	1	8	0	0	629
1200-1300	0	0	481	2	26	0	7	28	24	35	14	0	4	2	3	0	0	626
1300-1400	0	0	571	10	19	0	12	36	20	36	12	0	16	2	7	0	0	741
1400-1500	0	0	523	0	12	0	13	35	23	27	13	0	5	3	7	0	0	661
1500-1600	0	0	526	6	24	0	11	44	17	41	14	0	11	2	0	0	0	696
1600-1700	0	0	556	6	15	0	17	44	19	49	9	0	12	1	4	0	0	732
1700-1800	0	0	686	4	26	0	14	55	22	43	11	0	7	5	6	0	0	879
1800-1900	0	0	689	3	24	0	12	36	25	53	14	0	8	3	3	0	0	870
1900-2000	0	0	707	5	21	0	17	53	25	47	16	0	11	5	3	0	0	910
2000-2100	0	0	584	4	16	0	13	44	18	38	8	0	10	0	5	0	0	740
2100-2200	0	0	642	5	24	0	15	32	16	70	22	0	15	2	6	0	0	849
2200-2300	0	0	394	0	20	0	16	38	19	67	13	0	8	2	6	0	0	583
2300-0000	0	0	355	3	23	0	15	33	29	181	6	0	17	2	3	0	0	667
Total	0	0	9339	67	384	0	285	750	417	1049	305	0	205	64	108	0	0	12973



**NATIONAL TRANSPORT RESEARCH CENTRE**

**CLASSIFIED TRAFFIC COUNT SURVEY FORM**

SURVEY FORM "E"  
North Bound

Date 21/22-06-08 Day: SAT

Location Ravi Toll Plaza M-2  
Direction From: Lahore To Islamabad

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiacer/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
0000-0100	0	0	288	1	19	0	19	19	27	45	18	0	17	19	3	0	0	475
0100-0200	0	0	237	0	6	0	6	23	35	35	19	0	5	7	7	0	0	380
0200-0300	0	0	172	1	10	0	7	28	26	42	22	0	6	3	1	0	0	318
0300-0400	0	0	123	0	7	0	5	25	11	55	36	0	16	2	0	0	0	280
0400-0500	0	0	73	0	7	0	3	36	5	69	61	0	22	5	4	0	0	285
0500-0600	0	0	149	3	11	0	3	12	7	83	90	0	21	16	10	0	0	405
0600-0700	0	0	271	6	9	0	8	25	17	26	46	0	8	2	9	0	0	427
0700-0800	0	0	423	6	5	0	14	26	22	35	37	0	13	2	3	0	0	586
0800-0900	0	0	591	0	15	0	19	22	16	20	19	0	9	4	4	0	0	719
0900-1000	0	0	604	0	5	0	8	21	19	20	20	0	10	0	7	0	0	714
1000-1100	0	0	720	3	16	0	14	37	29	15	37	0	6	4	9	0	0	890
1100-1200	0	0	670	3	17	0	14	27	26	21	19	0	10	3	5	0	0	815
1200-1300	0	0	702	6	25	0	17	35	33	30	35	0	16	4	5	0	0	908
1300-1400	0	0	708	4	26	0	16	51	21	29	27	0	17	5	8	0	0	912
1400-1500	0	0	718	7	19	0	15	45	29	45	22	0	14	8	26	0	0	948
1500-1600	0	0	752	1	22	0	19	19	22	30	12	0	17	8	5	0	0	907
1600-1700	0	0	794	9	36	0	30	31	34	66	15	0	13	6	5	0	0	1039
1700-1800	0	0	911	12	30	0	25	39	42	46	23	0	15	4	5	0	0	1152
1800-1900	0	0	881	12	37	0	26	40	30	53	14	0	13	5	8	0	0	1119
1900-2000	0	0	909	11	44	0	28	53	30	54	23	0	10	9	7	0	0	1178
2000-2100	0	0	730	8	24	0	27	38	46	60	18	0	17	9	12	0	0	989
2100-2200	0	0	599	10	41	0	26	31	42	65	31	0	17	7	8	0	0	877
2200-2300	0	0	549	0	14	0	13	25	26	49	18	0	11	9	3	0	0	717
2300-0000	0	0	362	8	16	0	5	22	31	59	33	0	16	5	15	0	0	572
Total	0	0	12936	111	461	0	367	730	626	1052	695	0	319	146	169	0	0	17612

# NATIONAL TRANSPORT RESEARCH CENTRE

SURVEY FORM "E"  
South Bound

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

Date: 21/22-06-08 Day: SAT

Location: Ravi Toll Plaza M-2  
Direction From: Islamabad To Lahore

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon/Hiace/Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	0	0	353	4	14	0	1	19	27	43	6	0	6	5	2	0	0	480
0100-0200	0	0	265	1	5	0	0	13	13	24	10	0	10	3	1	0	0	345
0200-0300	0	0	203	0	16	0	3	15	19	23	11	0	7	2	7	0	0	306
0300-0400	0	0	147	1	13	0	3	18	10	17	6	0	2	1	1	0	0	219
0400-0500	0	0	87	1	9	0	3	6	12	25	3	0	5	4	2	0	0	157
0500-0600	0	0	79	1	10	0	4	7	13	18	4	0	1	1	2	0	0	140
0600-0700	0	0	85	3	8	0	7	4	21	28	10	0	8	0	1	0	0	175
0700-0800	0	0	117	4	10	0	3	9	13	21	10	0	8	3	1	0	0	199
0800-0900	0	0	271	0	16	0	8	16	19	17	8	0	12	0	0	0	0	367
0900-1000	0	0	377	3	26	0	8	14	22	17	6	0	1	5	2	0	0	481
1000-1100	0	0	511	4	22	0	15	12	24	14	12	0	5	1	0	0	0	620
1100-1200	0	0	588	2	20	0	11	29	32	23	18	0	2	4	7	0	0	736
1200-1300	0	0	431	3	27	0	13	34	23	26	14	0	7	0	0	0	0	578
1300-1400	0	0	457	6	21	0	3	25	24	19	16	0	9	3	0	0	0	583
1400-1500	0	0	538	15	21	0	23	33	35	25	15	0	4	2	1	0	0	712
1500-1600	0	0	578	3	7	0	24	4	54	25	20	0	8	5	2	0	0	730
1600-1700	0	0	655	11	25	0	10	19	27	28	4	0	7	1	2	0	0	789
1700-1800	0	0	734	11	37	0	15	49	35	27	19	0	6	2	0	0	0	935
1800-1900	0	0	1009	13	44	0	12	36	39	47	27	0	16	3	6	0	0	1252
1900-2000	0	0	935	6	40	0	9	39	28	50	16	0	15	2	5	0	0	1145
2000-2100	0	0	899	9	24	0	17	34	25	53	21	0	17	7	3	0	0	1109
2100-2200	0	0	849	9	27	0	13	37	29	35	8	0	4	3	1	0	0	1015
2200-2300	0	0	614	2	29	0	33	41	47	63	13	0	3	2	5	0	0	852
2300-0000	0	0	455	1	32	0	3	27	23	33	13	0	14	4	1	0	0	606
Total	0	0	11237	113	503	0	241	540	614	701	290	0	177	63	52	0	0	14531

# NATIONAL TRANSPORT RESEARCH CENTRE

## Summary of Ravi Toll M-2

Date 21/22-06-08 Day: SAT

Location Ravi Toll Plaza M-2

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	
0000-0100	0	0	641	5	33	0	20	38	54	88	24	0	23	24	5	0	0	955
0100-0200	0	0	502	1	11	0	6	36	48	59	29	0	15	10	8	0	0	725
0200-0300	0	0	375	1	26	0	10	43	45	65	33	0	13	5	8	0	0	624
0300-0400	0	0	270	1	20	0	8	43	21	72	42	0	18	3	1	0	0	499
0400-0500	0	0	160	1	16	0	6	42	17	94	64	0	27	9	6	0	0	442
0500-0600	0	0	228	4	21	0	7	19	20	101	94	0	22	17	12	0	0	545
0600-0700	0	0	356	9	17	0	15	29	38	54	56	0	16	2	10	0	0	602
0700-0800	0	0	540	10	15	0	17	35	35	56	47	0	21	5	4	0	0	785
0800-0900	0	0	862	0	31	0	27	38	35	37	27	0	21	4	4	0	0	1086
0900-1000	0	0	981	3	31	0	16	35	41	37	26	0	11	5	9	0	0	1195
1000-1100	0	0	1231	7	38	0	29	49	53	29	49	0	11	5	9	0	0	1510
1100-1200	0	0	1258	5	37	0	25	56	58	44	37	0	12	7	12	0	0	1551
1200-1300	0	0	1133	9	52	0	30	69	56	56	49	0	23	4	5	0	0	1486
1300-1400	0	0	1165	10	47	0	19	76	45	48	43	0	26	8	8	0	0	1495
1400-1500	0	0	1256	22	40	0	38	78	64	70	37	0	18	10	27	0	0	1660
1500-1600	0	0	1330	4	29	0	43	23	76	55	32	0	25	13	7	0	0	1637
1600-1700	0	0	1449	20	61	0	40	50	61	94	19	0	20	7	7	0	0	1828
1700-1800	0	0	1645	23	67	0	40	88	77	73	42	0	21	6	5	0	0	2087
1800-1900	0	0	1890	25	81	0	38	76	69	100	41	0	29	8	14	0	0	2371
1900-2000	0	0	1844	17	84	0	37	92	58	104	39	0	25	11	12	0	0	2323
2000-2100	0	0	1629	17	48	0	44	72	71	113	39	0	34	16	15	0	0	2098
2100-2200	0	0	1448	19	68	0	39	68	71	100	39	0	21	10	9	0	0	1892
2200-2300	0	0	1163	2	43	0	46	66	73	112	31	0	14	11	8	0	0	1569
2300-0000	0	0	817	9	48	0	8	49	54	92	46	0	30	9	16	0	0	1178
Total	0	0	24173	224	964	0	608	1270	1240	1753	985	0	496	209	221	0	0	32143

# NATIONAL TRANSPORT RESEARCH CENTRE

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
North Bound

Date: 22/23-06-08 Day: SUN

Location: Pattoki Toll Plaza N-05  
Direction From: Okara To Lahore

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	2	1	207	2	15	2	15	15	34	88	20	2	30	7	3	0	0	443
0100-0200	0	2	157	0	15	0	13	17	26	73	38	0	17	2	1	0	0	361
0200-0300	0	0	108	1	10	0	5	26	28	72	34	1	42	3	2	0	0	332
0300-0400	0	1	69	0	13	0	3	27	41	73	34	2	24	3	2	0	0	292
0400-0500	0	3	66	1	28	0	4	35	59	67	29	0	17	6	0	0	0	315
0500-0600	9	7	91	4	26	0	13	16	45	61	42	0	24	8	4	0	0	350
0600-0700	48	16	150	4	10	0	32	31	47	66	41	3	24	7	4	1	0	484
0700-0800	110	20	257	4	11	0	46	17	56	59	39	2	22	2	3	1	0	649
0800-0900	160	32	372	2	19	2	39	20	64	54	33	1	2	6	9	0	0	815
0900-1000	92	40	145	14	23	1	12	23	39	49	18	4	21	9	10	0	6	506
1000-1100	106	38	210	14	20	2	18	35	47	47	18	9	19	6	7	0	11	607
1100-1200	135	46	235	8	19	1	18	19	41	47	15	3	18	3	3	0	9	620
1200-1300	110	27	239	9	24	2	22	21	58	62	32	5	14	6	5	0	12	648
1300-1400	89	29	273	7	39	1	28	42	62	34	21	3	16	3	3	0	9	659
1400-1500	84	29	283	5	25	1	12	18	51	32	20	4	26	6	5	1	8	610
1500-1600	97	69	314	1	21	0	17	23	47	45	38	2	20	6	1	0	14	715
1600-1700	114	36	318	1	16	0	14	24	39	36	10	0	21	4	2	0	2	637
1700-1800	140	55	411	4	25	0	23	31	39	49	25	5	18	12	4	0	0	841
1800-1900	117	26	329	6	27	0	25	29	42	40	29	5	21	1	5	1	0	703
1900-2000	79	19	377	4	23	0	27	23	42	57	14	2	22	4	1	0	0	694
2000-2100	65	23	455	6	7	0	33	21	32	48	20	1	20	0	4	1	0	736
2100-2200	8	2	290	4	14	0	13	18	37	52	21	6	39	8	2	1	0	515
2200-2300	4	2	220	1	18	0	13	10	20	41	26	0	18	5	3	1	0	382
2300-0000	5	1	268	2	14	0	20	30	21	82	38	1	32	7	5	0	0	526
Total	1574	524	5844	104	462	12	465	571	1017	1334	655	59	527	124	88	7	71	13440

# NATIONAL TRANSPORT RESEARCH CENTRE

SURVEY FORM "E"  
South Bound

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

Date: 22/23-06-08 Day: SUN

Location: Pattoki Toll Plaza N-05  
Direction From: Lahore To Okara

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	4	1	107	5	6	0	3	13	28	50	26	0	14	5	2	0	0	284
0100-0200	0	1	94	2	3	0	5	7	35	60	30	0	25	4	6	0	0	272
0200-0300	0	0	73	0	6	0	6	8	66	61	30	4	23	3	1	0	0	281
0300-0400	0	0	45	0	10	0	6	17	34	55	34	3	19	17	4	0	0	244
0400-0500	6	0	58	4	5	0	5	17	15	24	6	0	8	3	3	0	0	154
0500-0600	3	0	24	8	5	0	5	10	17	27	12	0	9	4	5	0	0	129
0600-0700	23	2	86	3	17	1	7	6	20	24	7	4	5	0	2	0	3	210
0700-0800	48	3	129	4	17	0	5	13	27	17	15	8	4	0	1	0	2	293
0800-0900	58	10	151	4	20	0	8	8	30	35	15	8	6	3	5	0	1	362
0900-1000	93	25	289	5	15	0	15	14	30	36	24	0	10	9	3	0	0	568
1000-1100	111	28	228	5	12	3	12	15	36	39	12	0	12	7	3	0	0	523
1100-1200	96	21	301	2	9	0	20	17	38	44	8	0	23	5	2	0	0	586
1200-1300	130	50	312	10	13	0	19	14	46	37	16	3	11	4	2	0	0	667
1300-1400	115	32	292	4	12	0	19	12	45	39	16	0	13	4	0	0	0	603
1400-1500	82	18	284	11	19	1	14	28	49	31	5	0	14	2	2	0	0	560
1500-1600	86	20	222	1	9	0	9	11	47	46	32	1	35	15	1	1	0	536
1600-1700	83	22	264	0	16	0	14	16	40	42	20	2	6	4	2	0	0	531
1700-1800	91	32	207	2	23	5	14	30	58	39	18	2	15	4	5	0	4	549
1800-1900	113	43	242	2	16	0	19	8	33	24	18	3	12	4	2	0	0	539
1900-2000	133	36	280	4	13	0	20	13	37	32	14	6	18	3	5	0	0	614
2000-2100	86	20	246	1	20	0	18	9	30	30	20	2	7	2	3	0	0	494
2100-2200	18	5	174	2	9	1	14	26	21	29	19	2	7	8	2	0	0	337
2200-2300	3	1	167	0	19	0	7	18	25	25	18	2	11	7	5	0	0	308
2300-0000	3	2	123	11	18	0	7	39	28	56	31	0	10	3	4	0	0	335
<b>Total</b>	<b>1385</b>	<b>372</b>	<b>4398</b>	<b>90</b>	<b>312</b>	<b>11</b>	<b>271</b>	<b>369</b>	<b>835</b>	<b>902</b>	<b>446</b>	<b>50</b>	<b>317</b>	<b>120</b>	<b>70</b>	<b>1</b>	<b>10</b>	<b>9959</b>

# NATIONAL TRANSPORT RESEARCH CENTRE

## Summary of Pattoki Toll Plaza N-05

Date: 22-06-08 Day: SUN

Location: Pattoki Toll Plaza N-05

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	6	2	314	7	21	2	18	28	62	138	46	2	44	12	5	0	0	707
0100-0200	0	3	251	2	18	0	18	24	61	133	68	0	42	6	7	0	0	633
0200-0300	0	0	181	1	16	0	11	34	94	133	64	5	65	6	3	0	0	613
0300-0400	0	1	114	0	23	0	9	44	75	128	68	5	43	20	6	0	0	536
0400-0500	6	3	124	5	33	0	9	52	74	91	35	0	25	9	3	0	0	469
0500-0600	12	7	115	12	31	0	18	26	62	88	54	0	33	12	9	0	0	479
0600-0700	71	18	236	7	27	1	39	37	67	90	48	7	29	7	6	1	3	694
0700-0800	158	23	386	8	28	0	51	30	83	76	54	10	26	2	4	1	2	942
0800-0900	218	42	523	6	39	2	47	28	94	89	48	9	8	9	14	0	1	1177
0900-1000	185	65	434	19	38	1	27	37	69	85	42	4	31	18	13	0	6	1074
1000-1100	217	66	438	19	32	5	30	50	83	86	30	9	31	13	10	0	11	1130
1100-1200	231	67	536	10	28	1	38	36	79	91	23	3	41	8	5	0	9	1206
1200-1300	240	77	551	19	37	2	41	35	104	99	48	8	25	10	7	0	12	1315
1300-1400	204	61	565	11	51	1	47	54	107	73	37	3	29	7	3	0	9	1262
1400-1500	166	47	567	16	44	2	26	46	100	63	25	4	40	8	7	1	8	1170
1500-1600	183	89	536	2	30	0	26	34	94	91	70	3	55	21	2	1	14	1251
1600-1700	197	58	582	1	32	0	28	40	79	78	30	2	27	8	4	0	2	1168
1700-1800	231	87	618	6	48	5	37	61	97	88	43	7	33	16	9	0	4	1390
1800-1900	230	69	571	8	43	0	44	37	75	64	47	8	33	5	7	1	0	1242
1900-2000	212	55	657	8	36	0	47	36	79	89	28	8	40	7	6	0	0	1308
2000-2100	151	43	701	7	27	0	51	30	62	78	40	3	27	2	7	1	0	1230
2100-2200	26	7	464	6	23	1	27	44	58	81	40	8	46	16	4	1	0	852
2200-2300	7	3	387	1	37	0	20	28	45	66	44	2	29	12	8	1	0	690
2300-0000	8	3	391	13	32	0	27	69	49	138	69	1	42	10	9	0	0	861
Total	2959	896	10242	194	774	23	736	940	1852	2236	1101	111	844	244	158	8	81	23399

# NATIONAL TRANSPORT RESEARCH CENTRE

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
North Bound

Date: 24/25-06-08 Day: TUE

Location: 18 Km from Multan N-05  
Direction From: Multan To Khanewal

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	10	0	0	96	14	0	1	10	30	77	25	2	20	10	14	0	0	310
0100-0200	2	0	0	84	7	0	13	15	30	50	15	0	12	7	8	0	0	244
0200-0300	4	0	0	49	7	0	6	6	12	51	14	0	18	10	3	0	0	181
0300-0400	3	0	0	50	9	0	0	8	9	44	19	0	8	2	3	0	0	155
0400-0500	0	0	0	21	6	1	2	6	10	66	19	0	5	6	18	16	0	176
0500-0600	5	0	0	35	5	0	2	8	11	51	16	0	7	12	5	0	0	159
0600-0700	24	0	0	65	11	0	3	5	20	37	20	7	19	5	3	0	0	221
0700-0800	41	3	0	49	28	2	10	4	14	38	16	4	5	3	4	0	2	230
0800-0900	51	0	0	117	16	0	8	3	18	29	8	0	8	0	2	0	0	265
0900-1000	51	0	0	141	11	0	20	3	25	17	13	4	7	0	0	0	0	297
1000-1100	66	3	0	151	10	0	19	6	27	28	10	0	17	0	1	1	0	345
1100-1200	56	1	0	177	14	1	22	4	22	20	4	1	4	1	2	0	0	331
1200-1300	59	1	0	155	15	0	20	7	21	21	10	2	15	2	1	0	0	330
1300-1400	62	2	0	179	3	0	19	11	29	27	13	1	11	1	2	0	0	363
1400-1500	54	1	0	172	4	0	17	13	20	25	7	6	3	0	2	0	0	329
1500-1600	23	0	0	111	5	0	16	13	18	14	4	0	7	0	1	0	1	216
1600-1700	29	0	0	190	11	0	20	16	15	9	5	1	3	1	2	0	0	304
1700-1800	31	0	0	175	19	0	22	15	20	27	7	2	5	0	3	0	0	329
1800-1900	33	1	0	162	10	0	13	16	21	15	6	0	2	2	0	0	0	283
1900-2000	60	2	0	159	12	0	11	14	20	16	10	0	5	1	0	0	0	311
2000-2100	52	1	0	158	18	0	13	15	14	19	9	1	4	4	2	0	0	312
2100-2200	37	3	0	85	24	0	6	15	12	22	6	0	3	0	1	0	0	215
2200-2300	9	0	0	139	15	1	12	14	17	36	14	0	10	0	4	0	0	277
2300-0000	20	0	0	131	17	0	10	19	28	65	27	0	14	14	16	0	0	361
Total	782	18	0	2851	292	5	285	246	463	804	297	29	212	81	97	17	3	6544

NATIONAL TRANSPORT RESEARCH CENTRE

SURVEY FORM "E"  
South Bound

CLASSIFIED TRAFFIC COUNT SURVEY FORM

Date 24/25-06-08 Day: TUE

Location 18 Km from Multan N-05  
Direction From: Khanewal to Multan

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		Total
0000-0100	7	1	72	2	9	0	7	9	18	43	14	0	19	2	2	0	0	205
0100-0200	2	0	56	0	3	0	6	2	21	31	18	0	22	5	3	0	0	169
0200-0300	3	0	43	3	9	0	1	4	15	40	17	2	14	6	2	0	0	159
0300-0400	3	0	44	0	3	0	2	5	11	27	13	0	13	1	0	0	0	122
0400-0500	1	0	35	2	2	1	0	4	10	41	25	0	18	1	1	0	0	141
0500-0600	11	0	30	0	4	0	1	7	22	31	17	0	12	0	4	0	0	139
0600-0700	27	0	43	1	12	0	5	18	27	36	18	0	20	4	2	0	0	213
0700-0800	61	0	98	2	11	0	24	9	15	47	18	0	20	4	4	0	0	313
0800-0900	106	0	144	4	18	0	29	17	10	32	24	0	15	6	0	0	0	405
0900-1000	72	0	177	11	35	0	29	15	20	43	21	0	22	1	3	0	0	449
1000-1100	69	0	189	4	17	0	31	17	17	58	17	2	13	1	0	0	0	435
1100-1200	53	1	200	0	25	0	25	18	22	32	17	3	10	4	0	0	0	410
1200-1300	38	3	190	3	17	0	14	12	16	58	13	1	6	1	3	0	0	375
1300-1400	51	0	170	2	19	1	14	9	17	23	11	3	8	1	1	0	0	330
1400-1500	73	2	195	0	13	0	14	18	26	46	11	1	12	0	2	0	0	413
1500-1600	32	0	121	1	10	0	17	13	21	37	15	0	19	4	1	0	0	291
1600-1700	45	2	141	4	11	1	16	6	23	26	7	4	10	2	2	0	2	302
1700-1800	37	0	201	2	17	3	13	6	28	21	13	1	16	4	4	0	0	366
1800-1900	49	1	215	0	19	2	13	6	18	31	9	4	18	3	0	0	0	388
1900-2000	68	1	230	5	8	2	15	6	20	20	7	0	12	1	0	0	0	395
2000-2100	69	3	209	0	17	1	15	6	19	16	7	2	16	5	2	0	0	387
2100-2200	43	0	194	1	19	1	3	10	13	30	17	0	8	4	0	0	0	343
2200-2300	7	1	88	0	14	1	15	14	29	34	10	2	22	6	2	0	0	245
2300-0000	19	0	97	2	9	0	8	7	14	0	19	16	5	17	0	0	0	213
Total	946	15	3182	49	321	13	317	238	452	803	358	41	350	83	38	0	2	7208



# NATIONAL TRANSPORT RESEARCH CENTRE

## Summary of Multan Section on N-05

Date: 24/25-06-08 Day: TUE

Location: 18 Km from Multan N-05

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without Trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total	
																		13	14
0000-0100	17	1	3	4	5	6	7	8	9	10	11	12	13	14	15	16	0	0	515
0100-0200	4	0	140	1	10	0	19	17	51	81	33	0	34	12	11	0	0	413	
0200-0300	7	0	92	4	16	0	7	10	27	91	31	2	32	16	5	0	0	340	
0300-0400	6	0	94	0	12	0	2	13	20	71	32	0	21	3	3	0	0	277	
0400-0500	1	0	56	2	8	2	2	10	20	107	44	0	23	7	19	16	0	317	
0500-0600	16	0	65	2	9	0	3	15	33	82	33	0	19	12	9	0	0	298	
0600-0700	51	0	108	3	23	0	8	23	47	73	38	7	39	9	5	0	0	434	
0700-0800	102	3	147	9	39	2	34	13	29	85	34	4	25	7	8	0	2	543	
0800-0900	157	0	261	9	34	0	37	20	28	61	32	0	23	6	2	0	0	670	
0900-1000	123	0	318	16	46	0	49	18	45	60	34	4	29	1	3	0	0	746	
1000-1100	135	3	340	10	27	0	50	23	44	86	27	2	30	1	1	1	0	780	
1100-1200	109	2	377	2	39	1	47	22	44	52	21	4	14	5	2	0	0	741	
1200-1300	97	4	345	4	32	0	34	19	37	79	23	3	21	3	4	0	0	705	
1300-1400	113	2	349	5	22	1	33	20	46	50	24	4	19	2	3	0	0	693	
1400-1500	127	3	367	4	18	0	31	31	46	71	18	7	15	0	4	0	0	742	
1500-1600	55	0	232	4	15	0	33	26	39	51	19	0	26	4	2	0	1	507	
1600-1700	74	2	331	6	22	1	36	22	38	35	12	5	13	3	4	0	2	606	
1700-1800	68	0	376	5	36	3	35	21	48	48	20	3	21	4	7	0	0	695	
1800-1900	82	2	377	2	29	2	26	22	39	46	15	4	20	5	0	0	0	671	
1900-2000	128	3	389	6	20	2	26	20	40	36	17	0	17	2	0	0	0	706	
2000-2100	121	4	367	2	35	1	28	21	33	35	16	3	20	9	4	0	0	699	
2100-2200	80	3	279	2	43	1	9	25	25	52	23	0	11	4	1	0	0	558	
2200-2300	16	1	227	6	29	2	27	28	46	70	24	2	32	6	6	0	0	522	
2300-0000	39	0	228	2	26	0	18	26	42	65	46	16	19	31	16	0	0	574	
<b>Total</b>	<b>1728</b>	<b>33</b>	<b>6033</b>	<b>109</b>	<b>613</b>	<b>18</b>	<b>602</b>	<b>484</b>	<b>915</b>	<b>1607</b>	<b>655</b>	<b>72</b>	<b>562</b>	<b>164</b>	<b>135</b>	<b>17</b>	<b>5</b>	<b>13752</b>	

# NATIONAL TRANSPORT RESEARCH CENTRE

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
North Bound

Date: 26/27-06-08 Day: THU

Location: Faisalabad M-3  
Direction From: Faisalabad To Pindi Bhattian

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	0	0	0	195	0	5	0	17	15	43	3	0	3	3	1	0	0	310
0100-0200	0	0	0	110	0	6	0	21	7	35	1	0	1	0	0	0	0	194
0200-0300	0	0	0	59	0	4	0	11	7	37	2	0	2	0	1	0	0	137
0300-0400	0	0	0	34	0	0	0	8	0	23	0	0	0	2	0	0	0	79
0400-0500	0	0	0	32	1	2	0	3	0	11	0	0	0	0	1	0	0	64
0500-0600	0	0	0	51	0	4	0	9	3	21	10	0	0	0	0	0	0	116
0600-0700	0	0	0	91	0	1	0	13	10	23	13	2	0	1	0	0	0	154
0700-0800	0	0	0	144	0	7	0	12	7	21	7	0	0	1	0	0	0	199
0800-0900	0	0	0	98	0	7	0	15	4	18	2	0	0	0	0	0	0	146
0900-1000	0	0	0	117	0	7	0	15	6	24	3	1	0	1	0	0	0	174
1000-1100	0	0	0	132	0	9	0	20	2	21	3	0	0	0	1	0	0	188
1100-1200	0	0	0	111	0	6	0	18	4	31	5	2	0	1	1	0	0	179
1200-1300	0	0	0	160	0	7	0	16	9	29	3	0	0	2	1	0	0	227
1300-1400	0	0	0	127	0	7	0	18	10	24	3	1	0	0	0	0	0	190
1400-1500	0	0	0	189	0	8	0	15	10	29	3	0	0	2	0	0	0	256
1500-1600	0	0	0	124	0	6	0	12	13	28	5	3	0	2	0	0	0	193
1600-1700	0	0	0	178	0	10	0	15	11	30	7	0	0	1	0	0	0	252
1700-1800	0	0	0	216	0	8	0	12	5	31	7	1	0	0	1	2	0	283
1800-1900	0	0	0	195	0	6	0	13	8	22	6	1	0	0	1	0	0	253
1900-2000	0	0	0	227	0	11	0	11	11	21	11	1	0	2	0	0	0	295
2000-2100	0	0	0	200	0	4	0	9	9	25	6	2	0	3	0	0	0	258
2100-2200	0	0	0	159	1	5	0	9	10	14	4	0	0	1	1	0	0	204
2200-2300	0	0	0	74	0	3	0	14	16	23	22	0	0	1	0	0	0	153
2300-0000	0	0	0	93	0	6	0	11	9	22	12	1	0	0	1	0	0	155
Total	0	0	0	3116	2	139	0	317	186	606	218	33	0	23	13	6	0	4659

# NATIONAL TRANSPORT RESEARCH CENTRE

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
South Bound

Date: 26/27-06-08 Day: THU

Location: Faisalabad M-3  
Direction From: Pindi Bhattian To Faisalabad

Time (Hours)	Motor-cycle	M. Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total	
																			1
0000-0100	0	0	0	97	0	9	5	11	14	27	0	0	1	0	1	0	0	0	165
0100-0200	0	0	0	81	0	4	7	7	16	19	0	0	0	0	0	0	0	0	134
0200-0300	0	0	0	53	0	9	2	4	13	22	3	3	3	2	0	0	0	0	111
0300-0400	0	0	0	48	0	8	0	2	17	12	1	0	0	5	0	0	0	0	93
0400-0500	0	0	0	49	0	3	0	7	17	9	2	0	3	0	0	0	0	0	90
0500-0600	0	0	0	37	0	3	0	10	17	5	1	0	1	1	1	0	0	0	76
0600-0700	0	0	0	48	0	1	0	11	3	12	0	0	1	0	1	0	0	0	78
0700-0800	0	0	0	74	0	3	0	3	10	13	1	0	1	0	0	0	0	0	111
0800-0900	0	0	0	89	1	8	0	11	9	10	4	0	0	1	0	0	0	0	135
0900-1000	0	0	0	93	0	9	0	13	10	12	2	0	3	0	0	0	0	0	152
1000-1100	0	0	0	121	0	6	0	13	3	20	1	0	0	0	0	0	0	0	174
1100-1200	0	0	0	133	1	3	0	15	1	25	1	0	3	2	0	0	0	0	199
1200-1300	0	0	0	127	0	1	0	13	7	18	2	0	0	0	0	0	0	0	176
1300-1400	0	0	0	128	1	4	0	16	4	22	6	1	0	0	0	0	0	0	182
1400-1500	0	0	0	137	2	5	0	18	5	24	3	0	1	0	3	0	0	0	198
1500-1600	0	0	0	96	6	7	0	12	5	23	3	0	2	0	0	0	0	0	154
1600-1700	0	0	0	121	1	10	0	7	4	35	0	0	0	0	0	0	0	0	178
1700-1800	0	0	0	128	1	8	0	2	8	44	7	2	0	2	0	0	0	0	202
1800-1900	0	0	0	139	1	9	0	1	9	15	5	0	4	0	0	0	0	0	183
1900-2000	0	0	0	140	3	7	0	3	7	23	6	0	3	0	0	0	0	0	192
2000-2100	0	0	0	146	7	13	0	1	15	28	9	3	1	0	0	0	0	0	223
2100-2200	0	0	0	178	5	8	0	7	7	36	7	2	0	2	0	0	0	0	252
2200-2300	0	0	0	158	2	8	0	6	6	21	15	4	1	0	0	0	0	0	221
2300-0000	0	0	0	87	0	10	0	5	12	18	14	1	0	0	0	0	0	0	147
Total	0	0	0	2508	31	156	0	161	478	249	31	0	28	15	6	0	0	0	3826

# NATIONAL TRANSPORT RESEARCH CENTRE

## Summary of Faisalabad Motorway Toll M-1

Date 26/27-06-08 Day: THU

Location Faisalabad M-3

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	0	0	0	292	0	14	0	22	57	52	3	0	4	3	2	0	0	475
0100-0200	0	0	0	191	0	10	0	28	51	32	1	0	1	0	0	0	0	328
0200-0300	0	0	0	112	0	13	0	13	50	36	5	0	5	2	1	0	0	248
0300-0400	0	0	0	82	0	8	0	8	40	24	1	0	0	7	0	0	0	172
0400-0500	0	0	0	81	1	5	0	3	28	23	2	0	3	0	1	0	0	154
0500-0600	0	0	0	88	0	7	0	9	38	23	11	0	1	1	1	0	0	192
0600-0700	0	0	0	139	0	2	0	14	26	25	2	0	1	1	1	0	0	232
0700-0800	0	0	0	218	0	10	0	15	31	20	1	0	2	0	0	0	0	310
0800-0900	0	0	0	187	1	15	0	26	27	12	6	0	0	1	0	0	0	281
0900-1000	0	0	0	210	0	16	0	28	34	15	3	0	4	0	0	0	0	326
1000-1100	0	0	0	253	0	15	0	33	41	13	1	0	0	1	0	0	0	362
1100-1200	0	0	0	244	1	9	0	33	56	20	3	0	4	3	0	0	0	378
1200-1300	0	0	0	287	0	8	0	29	47	11	2	0	2	1	0	0	0	403
1300-1400	0	0	0	255	1	11	0	34	46	9	2	0	0	0	0	0	0	372
1400-1500	0	0	0	326	2	13	0	33	53	6	0	0	3	0	3	0	0	454
1500-1600	0	0	0	220	6	13	0	24	51	8	3	0	4	0	0	0	0	347
1600-1700	0	0	0	299	1	20	0	22	65	7	0	0	1	0	0	0	0	430
1700-1800	0	0	0	344	1	16	0	14	75	14	3	0	0	3	2	0	0	485
1800-1900	0	0	0	334	1	15	0	14	37	11	1	0	4	1	1	0	0	436
1900-2000	0	0	0	367	3	18	0	14	44	17	1	0	5	0	0	0	0	487
2000-2100	0	0	0	346	7	17	0	10	53	15	5	0	4	0	0	0	0	481
2100-2200	0	0	0	337	6	13	0	16	50	11	2	0	1	3	0	0	0	456
2200-2300	0	0	0	232	2	11	0	20	44	37	4	0	2	0	0	0	0	374
2300-0000	0	0	0	180	0	16	0	16	40	26	2	0	0	1	0	0	0	302
Total	0	0	0	5624	33	295	0	478	1084	467	64	0	51	28	12	0	0	8485

# NATIONAL TRANSPORT RESEARCH CENTRE

## CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
North Bound

Date 28/29-06-08 Day: SAT

Location Islamabad Toll Plaza M-2  
Direction From: Pindi Bhattian To Islamabad

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	0	0	132	1	8	0	7	2	12	14	1	0	8	3	0	0	0	188
0100-0200	0	0	103	0	14	0	5	10	11	21	3	0	8	3	2	0	0	180
0200-0300	0	0	86	0	7	0	3	11	13	16	4	0	8	0	0	0	0	148
0300-0400	0	0	87	0	5	0	1	3	33	18	0	0	13	0	2	0	0	162
0400-0500	0	0	72	0	9	0	5	7	62	7	3	0	8	0	0	0	0	173
0500-0600	0	0	59	2	29	0	2	2	44	13	0	0	3	0	0	0	0	154
0600-0700	0	0	95	1	32	0	10	5	44	16	3	0	7	0	0	0	0	213
0700-0800	0	0	49	0	11	0	4	5	33	12	3	0	5	3	7	0	0	132
0800-0900	0	0	146	3	8	0	17	3	28	36	9	0	3	4	7	0	0	264
0900-1000	0	0	129	2	8	0	12	5	18	11	3	0	7	3	6	0	0	204
1000-1100	0	0	144	1	9	0	18	6	26	10	1	0	7	3	1	0	0	226
1100-1200	0	0	93	0	1	0	21	3	18	9	4	0	10	0	4	0	0	163
1200-1300	0	0	132	2	5	0	13	4	35	14	2	0	4	2	5	0	0	218
1300-1400	0	0	131	1	4	0	19	5	20	6	4	0	5	3	1	0	0	199
1400-1500	0	0	44	1	7	0	9	2	26	15	4	0	3	0	0	0	0	111
1500-1600	0	0	185	4	11	0	21	8	28	4	0	0	4	0	0	0	0	265
1600-1700	0	0	210	1	8	0	16	3	37	7	0	0	5	1	1	0	0	289
1700-1800	0	0	263	2	3	0	22	2	24	7	2	0	8	4	0	0	0	337
1800-1900	0	0	264	10	6	0	23	4	35	12	4	0	8	0	2	0	0	368
1900-2000	0	0	261	8	11	0	10	4	29	11	5	0	1	2	4	0	0	346
2000-2100	0	0	261	11	13	0	16	4	21	11	4	0	3	2	4	0	0	350
2100-2200	0	0	239	10	15	0	9	9	19	18	4	0	2	0	4	0	0	329
2200-2300	0	0	230	0	10	0	10	3	19	13	0	0	4	3	2	0	0	294
2300-0000	0	0	181	3	5	0	9	3	12	12	1	0	2	0	2	0	0	230
Total	0	0	3596	63	239	0	282	113	647	313	64	0	136	36	54	0	0	5543

NATIONAL TRANSPORT RESEARCH CENTRE

CLASSIFIED TRAFFIC COUNT SURVEY FORM

SURVEY FORM "E"  
South Bound

Date 28, 29-06-08 Day: SAT

Location Islamabad Toll Plaza M-2  
Direction From: Islamabad To Pindi Bhattian

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	
0000-0100	0	0	124	0	12	0	3	22	41	29	5	0	6	7	2	0	0	251
0100-0200	0	0	83	3	8	0	6	15	50	22	6	0	9	4	4	0	0	210
0200-0300	0	0	72	1	10	0	9	8	29	33	2	0	4	3	0	0	0	171
0300-0400	0	0	30	0	3	0	3	7	3	19	2	0	3	1	1	0	0	72
0400-0500	0	0	31	0	4	0	1	2	5	5	4	0	2	0	0	0	0	54
0500-0600	0	0	49	0	3	0	5	5	3	9	0	0	2	0	0	0	0	76
0600-0700	0	0	82	0	3	0	3	1	4	15	1	0	1	0	0	0	0	110
0700-0800	0	0	169	2	13	0	9	1	7	3	3	0	0	0	0	0	0	207
0800-0900	0	0	121	0	15	0	9	0	20	8	2	0	3	0	0	0	0	178
0900-1000	0	0	125	1	8	0	10	6	28	12	2	0	0	0	0	0	0	192
1000-1100	0	0	122	0	12	0	14	0	25	9	7	0	2	0	0	0	0	191
1100-1200	0	0	304	1	14	0	10	6	35	12	5	0	1	0	1	0	0	389
1200-1300	0	0	124	3	7	0	15	6	46	4	5	0	4	4	0	0	0	218
1300-1400	0	0	65	1	11	0	18	12	48	29	6	0	0	0	0	0	0	190
1400-1500	0	0	238	0	9	0	18	14	39	16	6	0	8	2	1	0	0	351
1500-1600	0	0	302	4	15	0	30	4	46	21	9	0	5	4	3	0	0	443
1600-1700	0	0	333	1	10	0	32	12	49	22	10	0	9	3	1	0	0	482
1700-1800	0	0	382	7	12	0	25	18	39	36	5	0	4	6	0	1	0	535
1800-1900	0	0	358	5	20	0	22	15	37	30	14	0	8	7	1	0	0	517
1900-2000	0	0	301	4	14	0	27	10	38	28	11	0	12	3	2	0	0	450
2000-2100	0	0	234	0	19	0	15	7	30	26	9	0	9	6	0	0	0	355
2100-2200	0	0	206	0	28	0	11	3	28	23	11	0	12	5	2	0	0	329
2200-2300	0	0	86	5	13	0	15	6	26	30	10	0	13	4	3	0	0	211
2300-0000	0	0	122	0	18	0	4	8	41	29	9	0	8	1	2	0	0	242
Total	0	0	4063	38	281	0	314	188	717	470	144	0	125	60	23	1	0	6424

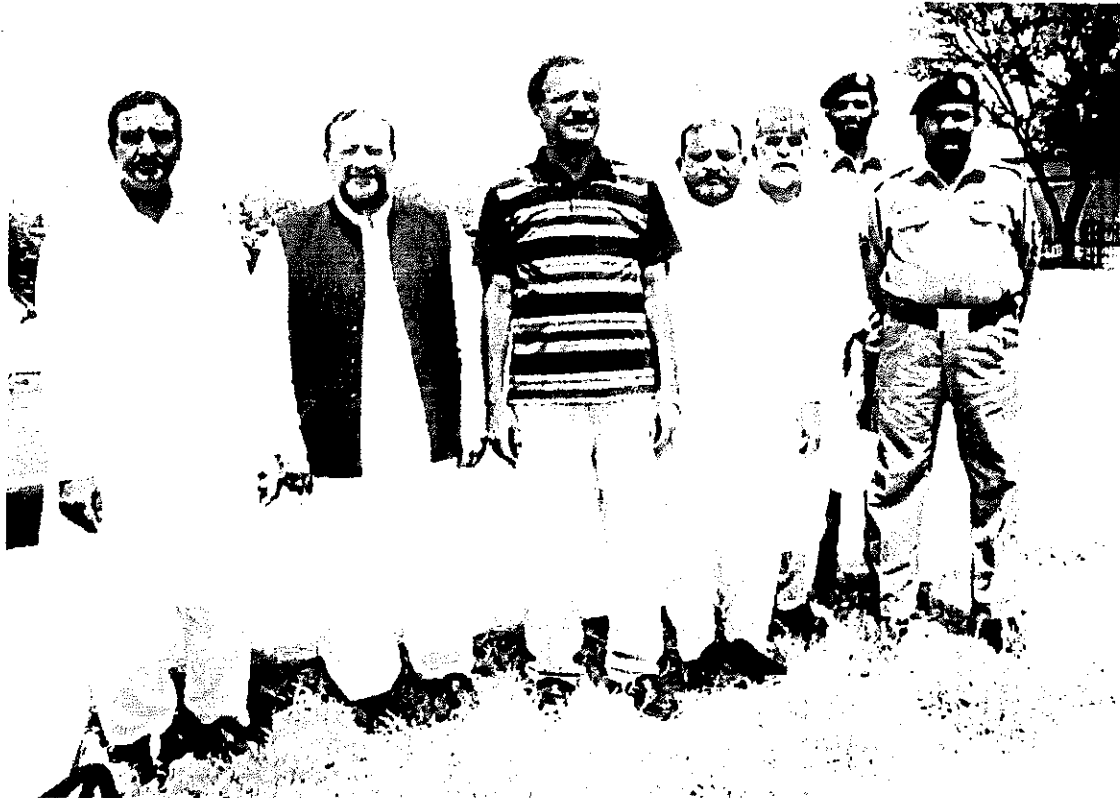
# NATIONAL TRANSPORT RESEARCH CENTRE

## Summary of Islamabad Motorway Toll Plaza M-2

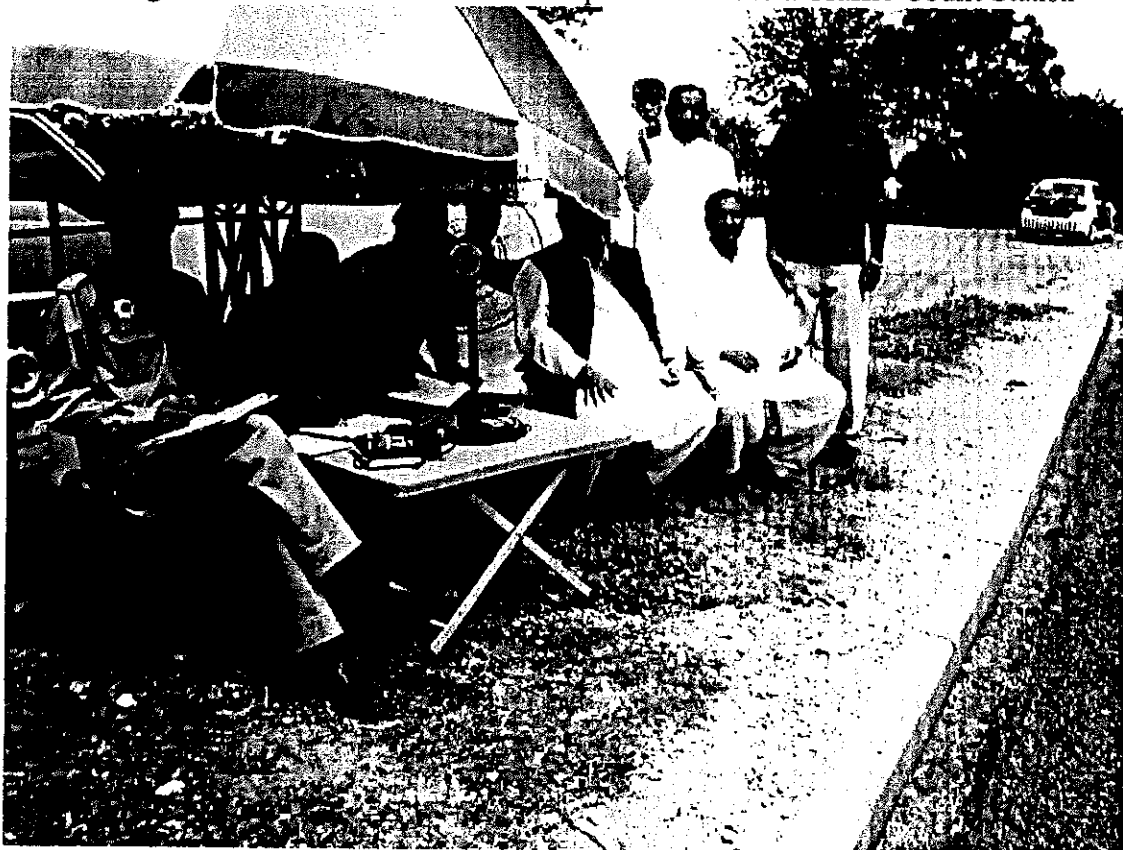
Date: 28.29-06-08 Day: SAT

Location: Islamabad Toll Plaza M-2

Time (Hours)	Motor-cycle	M.Cycle Rickshaw	Car/Jeep/Pajero/Taxi/Suzuki etc	Suzuki Pickup (Small)	Pickup Large (Toyota, Nissan, Datsun etc)	Tractor without trolley	Wagon / Hiace/ Transit (upto 24 seats)	Mini Truck	Bus, Coach (Greater than 24 Seats)	Truck (2 Axles)	Truck (3 Axles)	Tractor with Trolley	Truck (4 Axles)	Truck (5 Axles)	Truck (6 Axles)	Const. Machinery	Other	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
0000-0100	0	0	0	255	1	20	10	24	53	43	6	0	14	10	2	0	0	439
0100-0200	0	0	0	186	3	22	11	25	61	43	9	0	17	7	6	0	0	390
0200-0300	0	0	0	158	1	17	12	19	42	49	6	0	12	3	0	0	0	319
0300-0400	0	0	0	117	0	8	4	10	36	37	2	0	16	1	3	0	0	234
0400-0500	0	0	0	103	0	13	6	9	67	12	7	0	10	0	0	0	0	227
0500-0600	0	0	0	108	2	32	7	7	47	22	0	0	5	0	0	0	0	230
0600-0700	0	0	0	177	1	35	13	6	48	31	4	0	8	0	0	0	0	323
0700-0800	0	0	0	218	2	24	13	6	40	15	6	0	5	3	7	0	0	339
0800-0900	0	0	0	267	3	23	26	3	48	44	11	0	6	4	7	0	0	442
0900-1000	0	0	0	254	3	16	22	11	46	23	5	0	7	3	6	0	0	396
1000-1100	0	0	0	266	1	21	32	6	51	19	8	0	9	3	1	0	0	417
1100-1200	0	0	0	397	1	15	31	9	53	21	9	0	11	0	5	0	0	552
1200-1300	0	0	0	256	5	12	28	10	81	18	7	0	8	6	5	0	0	436
1300-1400	0	0	0	196	2	15	37	17	68	35	10	0	5	3	1	0	0	389
1400-1500	0	0	0	282	1	16	27	16	65	31	10	0	11	2	1	0	0	462
1500-1600	0	0	0	487	8	26	51	12	74	25	9	0	9	4	3	0	0	708
1600-1700	0	0	0	543	2	18	48	15	86	29	10	0	14	4	2	0	0	771
1700-1800	0	0	0	645	9	15	47	20	63	43	7	0	12	10	0	1	0	872
1800-1900	0	0	0	622	15	26	45	19	72	42	18	0	16	7	3	0	0	885
1900-2000	0	0	0	562	12	25	37	14	67	39	16	0	13	5	6	0	0	796
2000-2100	0	0	0	495	11	32	31	11	51	37	13	0	12	8	4	0	0	705
2100-2200	0	0	0	445	10	43	20	12	47	41	15	0	14	5	6	0	0	658
2200-2300	0	0	0	316	5	23	25	9	45	43	10	0	17	7	5	0	0	505
2300-0000	0	0	0	303	3	23	13	11	53	41	10	0	10	1	4	0	0	472
Total	0	0	0	7659	101	520	596	301	1364	783	208	0	261	96	77	1	0	11967

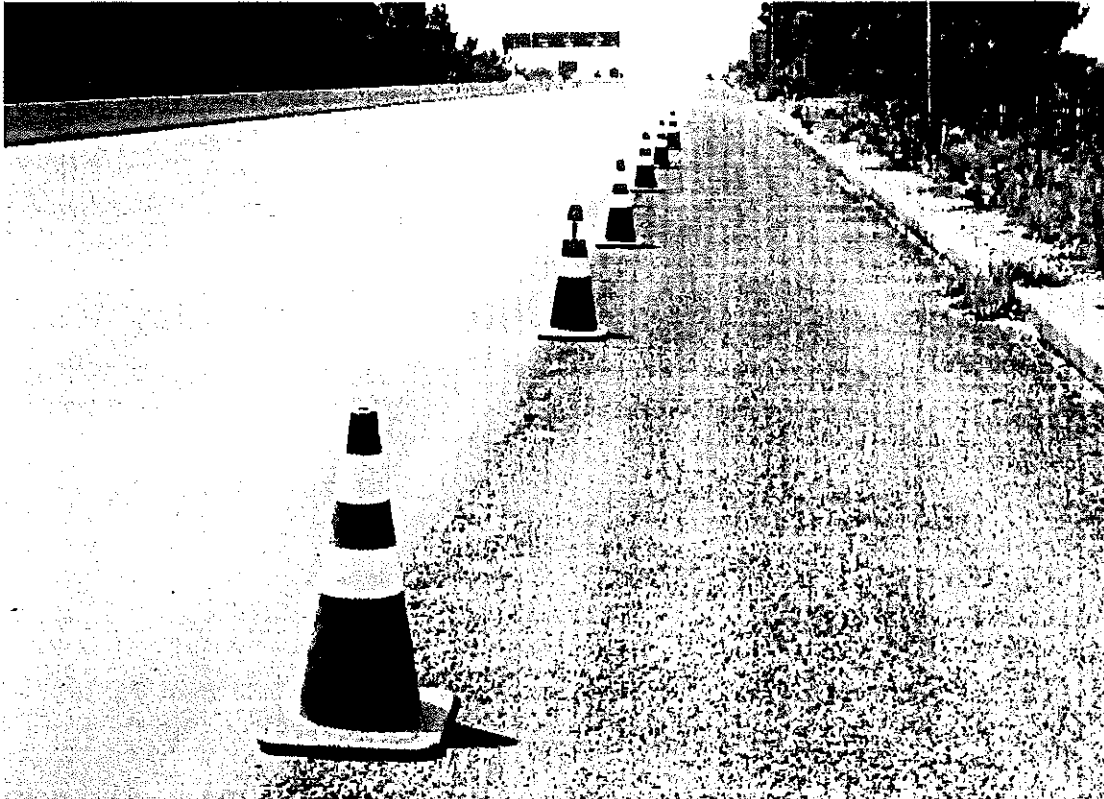


Chief along with officers of NTRC on an inspection visit to a Traffic Count Station

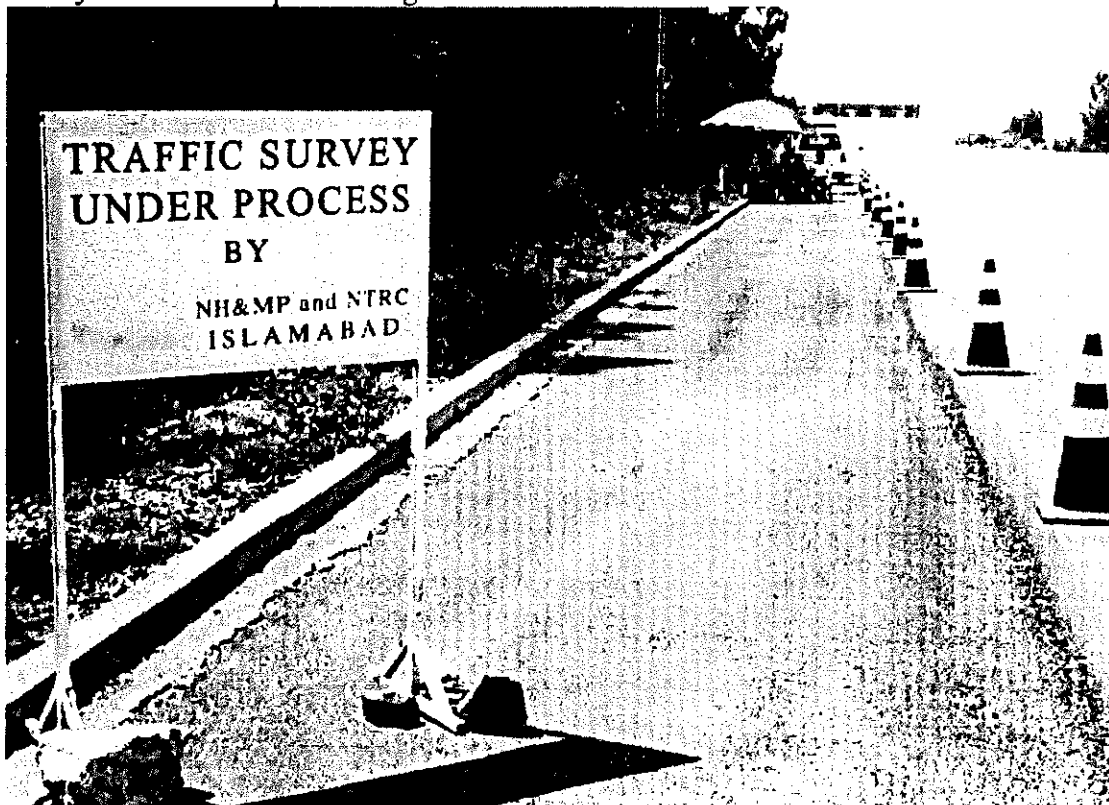


Chief NTRC on an inspection visit to a Traffic Count Station

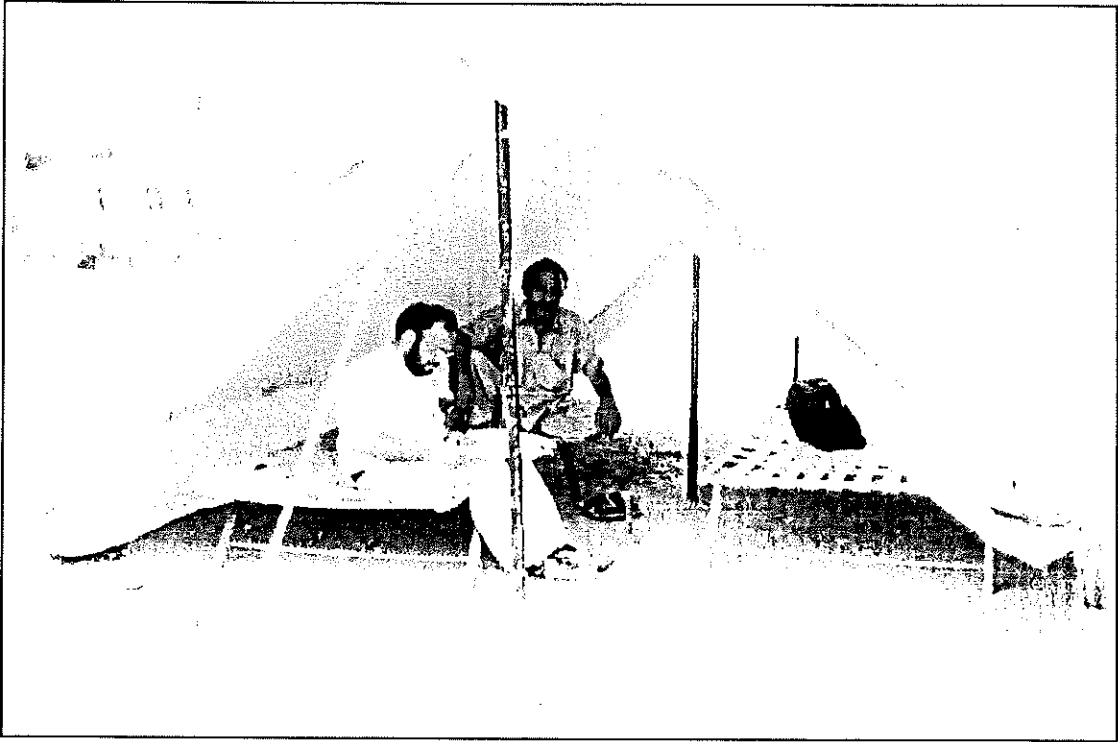




Safety Measures adopted during Traffic Count



Advance information to the Road Users regarding Traffic Count Survey



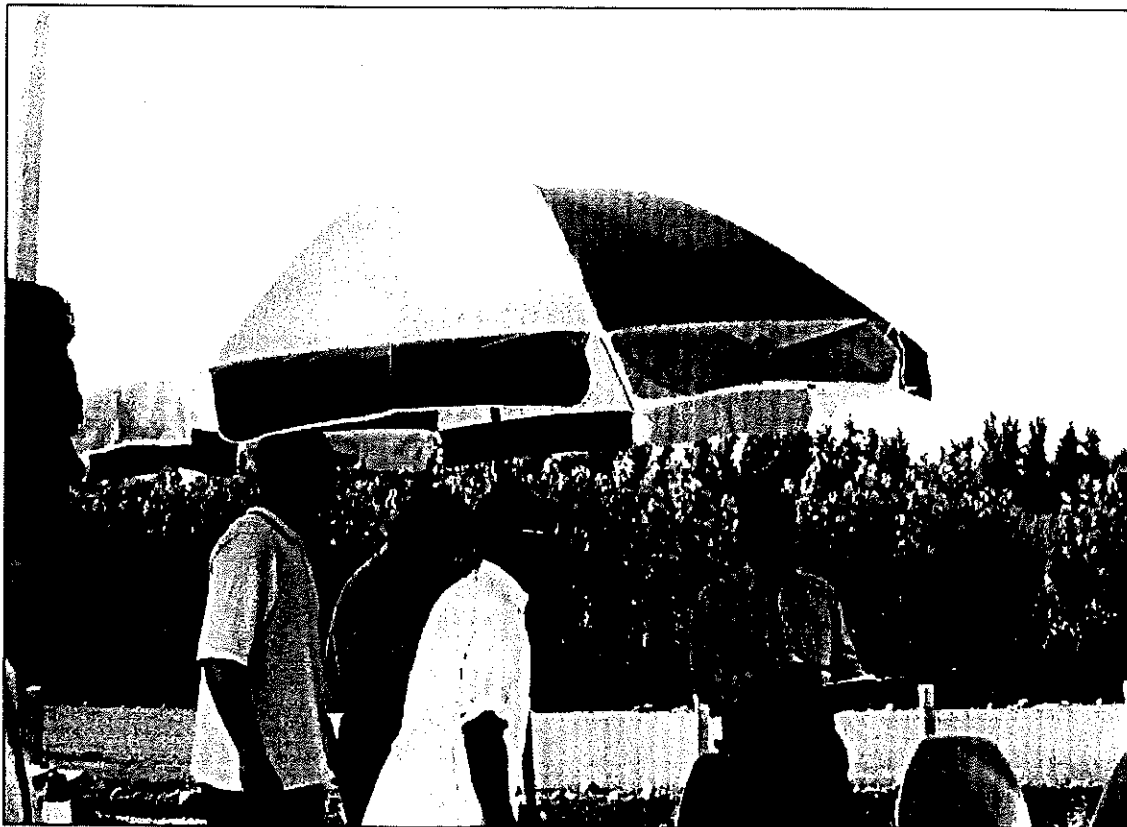
On the site Field data checks and compilation by the supervisor/field officer



On the site storage arrangement for survey equipment



Setting up of Traffic Count Station



Setting up of Traffic Count Station



Survey Team during Traffic Count



Survey Team at work