



NORMS FOR THE NUMBER OF TRAFFIC POLICE AND EQUIPMENT FOR IDENTIFYING VIOLATIONS OF TRAFFIC LAWS



**BUREAU OF POLICE RESEARCH AND
DEVELOPMENT**

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EXECUTIVE SUMMARY

MHA vide its letter No. 24013/29/C.C./2012-CSR.III dated 7 July 2015 requested BPR&D to take appropriate action on preparation of “Norms for the number of traffic police and also for the equipment for identifying violations of traffic laws with reference to vehicle population of that city/State” as desired by the Supreme Court Committee on Road Safety. BPR&D constituted a committee with heads of Traffic Police / senior officers as members representing nine major cities selected based on their size and location – Ahmedabad, Bengaluru, Chennai, Delhi, Gurgaon, Hyderabad, Kolkata, Lucknow and Mumbai – for preparation of the said norms.

Two meetings were held on 21 August 2015 and 16 September 2015 respectively at BPR&D headquarters under the chairmanship of Shri Radhakrishna Kini .A, Spl. D.G., BPR&D in which the heads of Traffic Police of major cities / their representatives and officers from BPR&D and MHA participated. A list of officers present is at Annexure ‘A’.

The norms have been finalised based on detailed discussions in the meetings and the data provided by the State Police concerned. Vehicle population in a city has been taken as the prime factor for arriving at the norms. Other factors of city population and special duties related to VVIP movements, dharnas, processions, rallies, festivals and special events have also been taken into account appropriately. Basic and vital inputs were provided by Delhi Traffic Police which needs special mention.

Apart from the norms for the number of traffic police and also for the equipment for identifying violations of traffic laws, this report also includes list of other traffic equipment required for traffic management and road safety. Few suggestions related to traffic policing have also been mentioned in the report.

Traffic Police is undoubtedly the most visible arm of Police and plays a pivotal role in the day-to-day policing. Traffic management is becoming increasingly difficult with enormous increase in vehicle population, lack of public transport that caters to the satisfaction of huge population, multiple stakeholders and infrastructure bottlenecks. These norms if implemented will contribute a lot in improving road safety, smooth traffic management and better enforcement of traffic laws.

Norms for the number of Traffic Police and for the Equipment for identifying violations of Traffic Laws with reference to Vehicle Population for a City/State

1. Introduction

Traffic Police is one of the most visible arms of Police and plays a pivotal role in the day-to-day policing. Traffic management has a direct impact on the lives of a common citizen. Traffic enforcement, regulation and management in a city/town is affected by many quantifiable and non-quantifiable factors some of which are mentioned below:

Quantifiable Factors

- a) Vehicle population
- b) Population
- c) VVIP movements
- d) Satellite towns
- e) Length of road network
- f) Floating population
- g) Transit vehicles
- h) No. of traffic junctions
- i) No. of accidents

Non-Quantifiable Factors

- a) Various modes of transport and the modal split
- b) Presence of slow moving traffic like cycle rickshaw, auto rickshaw, e-rickshaw, animal driven carts.
- c) Existence of NMV lanes and BRT etc.
- d) Presence of amenities like footpath, pedestrian facility
- e) Wholesale market, container depots, industrialization/commercial activity.
- f) Road user behavior
- g) Civic infrastructure such as condition of the roads, signages, water logging issues etc.
- h) Festivals, special events, demonstrations/dharnas

2. Criteria

After examining the above factors and based on the discussions and feedback of traffic police of major cities, it was decided to consider vehicle population in a city as the

major parameter for arriving at the requirement of traffic police manpower and the traffic equipment for identifying violations of traffic laws. However, parameters of city population and special duties related to VVIP movements, *dharnas*, processions, rallies, festivals and special events have also been taken into account for the number of traffic police.

3. Classification of Cities/Towns

The extent of traffic duties involving traffic regulations, management and enforcement depends mainly on the size of a city, its human population and vehicle population. Vehicles in Metro and Mega Cities spend more time on roads due to larger distances involved, large number of vehicles on road, satellite towns/adjacent cities with dense residential areas and higher floating population. Therefore, it is suggested to classify cities/towns based on the population and number of vehicles. Cities/towns have been categorized as under:

- (i) Category 'A': Metropolitan and other major cities having human population 50 lakh and above and vehicle population 20 lakh and above.
- (ii) Category 'B': Cities/Towns having human population 20 to 50 lakh and vehicle population 8-20 lakh.
- (iii) Category 'C': Cities/Towns having human population less than 20 lakh and vehicle population less than 8 lakh.

The human population and vehicle population mentioned are with respect to the area of cities/towns under jurisdiction of that City Traffic Police. Generally this area is much larger than the Central Business District or Municipal Corporation limits of the city. For example, Mumbai and Chennai City Traffic Police cover Greater Mumbai and Greater Chennai respectively.

The categorization is also represented in the following table:

Category	Human Population	Vehicle Population
'A'	50 lakh and above	20 lakh and above
'B'	20 to 50 lakh	8-20 lakh
'C'	Less than 20 lakh	Less than 8 lakh

Note-1: In case any city based on human population falls in one category and based on vehicle population falls in other category, the city is graded on criteria of vehicle population.

Note-2: NCR Cities – Gurgaon, Noida, Ghaziabad, and Faridabad can be taken as Category A cities considering their close proximity to Delhi and very high intercity movements

4. Norms for Number of Traffic Police/Manpower for Traffic Police:

Considering the operational duties, mandatory duties and special duties in the field performed by traffic police personnel which have been elaborated later in para 4.9, the following norms are suggested for Number of Traffic Police:

4.1 For category ‘A’ cities: One traffic police personnel for every 700 vehicles.

4.2 For category ‘B’ cities: One traffic police personnel for every 850 vehicles.

4.3 For category ‘C’ cities: One traffic police personnel for every 950 vehicles.

4.4 The traffic police personnel worked out based on the above will comprise Inspectors, Sub-Inspector (SI), Asstt. Sub-Inspector (ASI), Head Constable (HC) and Constable (Ct.) rank officials. ***These will be referred as Field Traffic Police Personnel. Provision for weekly rest (one seventh i.e. 14 % approx.) has been considered in the above norms.*** The distribution of various ranks based on various duties is suggested later in para 4.9. However, it is only indicative and may be decided by cities/States based on their specific requirements.

4.5 Factoring Special Conditions in National Capital and State Capitals: Considering VVIP movements and other factors such as higher number of processions, *dharnas*, rallies and special events in capital cities, the requirement of traffic police personnel is higher and therefore following is suggested:

Additional traffic police personnel 5% of the strength arrived on the basis of norms suggested above in para 4.1 – 4.3 irrespective of the capital falling under category ‘A’, ‘B’ or ‘C’ city.

4.6 Factoring the Ratio of Human Population to Vehicle Population: Cities like Mumbai and Kolkata have much less number of vehicles as compared to Bengaluru, Hyderabad and Chennai, but have higher population which indicates higher pedestrian movement and use of public transport and other non-motorised transport. This requires additional traffic manpower and therefore the following is suggested:

- (i) Additional traffic police personnel 10% of the strength arrived on the basis of norms suggested above in para 4.1 for those category 'A' cities where the ratio of human population to vehicle population based on the figures of previous or current financial year is more than 4.0.
- (ii) Additional traffic police personnel 5% of the strength arrived on the basis of norms suggested above in para 4.2 – 4.3 for category 'B' and 'C' cities where the ratio of human population to vehicle population based on the figures of previous or current financial year is more than 4.0.

4.7 Manpower Resources at City Traffic Police Headquarter: The Traffic Police Headquarters would normally have other functional units such as Administration, Provisioning, Traffic Management Centre/Control Room, Road Safety Cell, Traffic Engineering Cell, Notice Branch, Enforcement Branch, Legal Cell, Training Unit etc.

The traffic police personnel comprising Inspector, SI, ASI, HC and Constable under this head will be referred as Headquarters Traffic Police Personnel.

The following manpower is suggested for Delhi Traffic Police for such functional units at the Headquarters:

S. No.	Branch	DCP/SP	ACP/DSP	Inspector	SI/ASI	HC	Ct.
1	Road Safety Cell and Publicity Cell		1	2	4	2	24
2	Traffic Engineering*		1	1	1	2	3
3	Signal Cell		0	1	1	2	3
4	Control Room		0	3	12	4	12
5	Public Interface Unit		0	1	3	9	12
6	Accident Research Cell*		0	1	1	2	3
7	Notice Branch		0	1	2	2	4
8	Public Redressal of Grievances		1	2	4	8	8
9	Enforcement		0	2	4	8	12

	Branch						
10	Legal Cell*		1	1	3	3	3
11	RTI Cell		1	1	1	2	2
12	Training		0	1	2	4	4
13	M.T. Section		Maintenance			Drivers	
			1	2	6	8	12
14	Pre-paid Services		0	1	1	3	0
15	Printing Section		0	1	1	4	0
16	Mapping Section		0	1	1	4	0
17	Administration, Procurement and other office work		1	2	18	20	60
	Total	03	07	24	65	87	162

*These posts will be filled with domain experts.

Note: Many of the branches / functional units at HQr mentioned above involve clerical work. So, the HC / Ct rank officials mentioned above include those recruited for ministerial work and any separate ministerial staff.

For other category 'A' cities the requirement is taken as 70% of Delhi, for category 'B' cities 50% and for category 'C' cities 30%. Based on this the manpower resources at Traffic Police Headquarters for these cities are suggested as under:

S. No.	Branch	DCP/ SP	ACP/ DSP	Inspect or	SI/ASI	HC	Ct.
1	Category 'A' Cities other than Delhi	2	5	17	45	61	113
2.	Category 'B' Cities	1	4	12	32	43	81
3.	Category 'C' Cities	1	2	7	19	26	49

Sub-total of Headquarters Traffic Police Personnel (excluding supervisory officers – DSP and SP) from above tables:

Delhi	-	338
Category 'A' Cities other than Delhi	-	236
Category 'B' Cities	-	168
Category 'C' Cities	-	101

4.8 Norms for Supervisory Officers

Supervisory officers in the rank of DSP, SP, DIG, IG and ADG are required for effective and minute supervision of traffic management duties and traffic police personnel. The norms for these ranks and their supporting staff are suggested as under:

(i) DSP - One DSP for every 1000 field traffic police personnel

Traffic police personnel required for the office of one DSP:

S. No.	Staff	SI/ASI	HC	Ct.
1	Staff Officer	1	-	-
2	Office Assistant	-	1	-
3	Clerical Work*	-	1	2
4	Driver	-	1	2
5	Wireless Operator			3
	Total	1	3	7

(ii) SP - One SP for every 2000 field traffic police personnel

Traffic police personnel required for the office of one SP:

S. No.	Staff	Inspector/SI	HC	Ct.
1	Staff Officer	1	-	-
2	PA/Steno*	1	-	-
3	Office Assistant	1	1	1
4	Clerical Work*	-	2	3
5	Driver	-	1	2
6	Wireless Operator			3
	Total	3	4	9

(iii) DIG - One DIG for every 4000 traffic police personnel

Traffic police personnel required for the office of one DIG:

S. No.	Staff	Inspector/SI	HC	Ct.
1	Staff Officer	1	-	-
2	PA/Steno*	1	-	-
3	Office Assistant	-	2	1
4	Clerical Work*	-	3	3
5	Driver	-	1	2
6	Wireless Operator			3
	Total	2	6	9

(iv) **IG - One IG for overall supervision**

Traffic police personnel required for the office of one IG:

S. No.	Staff	Inspector/SI	HC	Ct.
1	Staff Officer	1	-	-
2	PA/Steno*	1	-	-
3	Office Assistant	1	2	1
4	Clerical Work*	-	3	3
5	Driver	-	1	2
6	Wireless Operator			3
	Total	3	6	9

(v) **ADG - One ADG for overall supervision**

Traffic police personnel required for the office of one ADG:

S. No.	Staff	Inspector/SI	HC	Ct.
1	Staff Officer	1	-	-
2	PA/Steno*	1	-	-
3	Office Assistant	1	2	1
4	Clerical Work*	-	3	3
5	Driver	-	1	2
6	Wireless Operator			3
	Total	3	6	9

**Ministerial Staff*

4.9 Duties of traffic police personnel may be categorized into the following three categories. As we have a concept of Police Stations for law and order, investigation and other police functions, similar concept of Traffic Circle is followed by some City Traffic Police including Delhi Traffic Police. The traffic police manpower suggested in para 4.1 – 4.3 can be distributed in traffic circles for performing operational, mandatory and special duties as under:

(a) **Operational Duties** : Operational duties performed by traffic police personnel are as follows:

- (i) Traffic Beat Management
- (ii) Traffic Junction Management
- (iii) Crane duty
- (iv) Pedestrian Management

- (v) Traffic Management at Metro stations, Railway Stations, Bus Terminals, airports etc.
- (vi) Motorcycle patrol
- (vii) Quick reaction duty
- (viii) Border check posts
- (ix) Prosecution: Against Traffic rule violations, special drives against encroachments, unauthorized/obstructive parking, implementation of Court/Tribunal orders.

Traffic Police Manpower suggested for Operational Duties:

S. No.	Duties	SI/ASI	HC	Ct.
1	Each circle divided into 10 traffic beats. Each traffic beat will have 1 to 2 major junctions with several smaller/ minor junctions in the periphery.	01	3	3
	Total	10	30	30
2	Traffic Beat staff for night duties	05	10	10
3	Crane duty	-	04	-
4	Pedestrian regulation including bus stands	-	05	05
5	Motorcycle patrol	-	10	10
6	Prosecution staff including speed checking through Interceptor	02	08	08
7	Quick reaction team	01	02	02
8	Drivers	01	03	04
	Total	19	72	69

Note: The provision for number of Head Constables (HC) has been done considering the fact that the power to issue challans lies with Head Constables (HC) and not Constables.

- (b) **Mandatory Duties** : The staff assigned for mandatory duties in the traffic circles are as follows:

- (i) Duty Officer
- (ii) Maintenance of record
- (iii) Malkhana (Property room)
- (iv) Process serving staff
- (v) Pairvi officer/ Legal Staff
- (vi) Naib Court / Court Staff
- (vii) Office Complex security
- (viii) Cash duty
- (ix) Dak duty

Traffic Police Manpower suggested for Mandatory Duties:

S. No.	Duties	SI/ASI	HC	Ct.
1	Malkhana Staff	-	1	3
2	Daily Dairy Writer	-	-	2
3	Naib Court/ Legal Staff	-	-	2
4	Process Server	-	1	3
5	Dak Duty	-	-	1
6	Office Assistant	-	1	-
7	Cash duty	-	-	1
8	Computer operator	-	-	1
9	Security duty	-	-	2
10	Record keeper	-	1	-
11	Pairvi Officer	01	-	-
	Total	01	04	15

Sub-Total of Operational and Mandatory Duties = 180	SI/ASI	HC	Ct.
	20	76	84

One Traffic Circle should be headed by an Inspector.

- (c) **Special Duties:** To perform a number of duties which are otherwise not performed on day to day basis, such as for *melas*, *dharnas*, processions, rallies, festivals, VVIP movements and major events like cricket matches etc. additional manpower is required. Provision has already been made in para 4.5. This manpower can be deployed based on specific requirements.

(d) **Provision for weekly rest:** Most of these duties require reporting on a daily basis including holidays. Therefore, provision for additional staff i.e. one-seventh (14 per cent) of the above mentioned strength should be made. So one traffic circle will require 180 + 26 (weekly rest) + 1 (Inspector) = 207 traffic police personnel.

Therefore,

Total Field Traffic Police Personnel for Operational and Mandatory Duties under one Traffic Circle	Inspector	SI/ASI	HC	Ct.	Total
	1	23	87	96	207

4.10 Provision for leave/medical reasons and Training:

Provision for **additional 10%** of the total number of traffic police personnel is recommended for leave / medical reasons.

Provision for **additional 4 %** of the total number of traffic police personnel is recommended for refresher and promotional trainings.

4.11 Provision for Women Traffic Police:

At least **10%** of the Total Traffic Police Personnel should comprise of women.

4.12 Number of Traffic Police Personnel based on available data of some cities under category 'A', 'B' and 'C' have been worked out in 'Annexure – I' for reference.

5. Norms for the Number of Traffic Equipment for Identifying Violations of Traffic Laws

Sl. No.	Name of the Traffic Equipment	Norms recommended
1.	Integrated Traffic Management System (ITMS) based on Automatic Number Plate Reading (ANPR) System with Speed Detection and Automatic Red Light Violation Detection System (ARLVD). The system will comprise various types of high resolution cameras and other supporting hardware at the junctions / locations	Recommended for all Major Cities which come under Category 'A', 'B' and 'C'. Requirement of number of cameras and other hardware and software of such system is city specific which requires detail

	connected to Traffic Management Centre housing Central Servers with required software and other supporting hardware.	survey and analysis. Therefore, common norms with respect to number of equipment are not being suggested. State / City Traffic Police may work out their requirement.
2.	E-Challan System for generating electronic challans and enabling payment of fines remotely (for example: credit card, net banking etc.). The system comprises of Handheld Devices / Smart Gadgets with supporting hardware and software connected to ITMS.	Recommended for all Major Cities which come under Category 'A', 'B' and 'C'.
3.	Body Worn High Resolution Cameras	1 per 10,000 Vehicles
4.	Breath Analysers	1 per 10,000 Vehicles
5.	Car Dashboard Camera	1 per Vehicle used by Traffic Inspector and Supervisory Officers
6.	Tow Vehicle Cameras	1 per Tow Vehicle
7.	Digital Cameras	1 per 50,000 Vehicles
8.	Smart Phones/tablets for taking pictures related to violations and communicating with Traffic Management Centre	1 per 5,000 Vehicles
9.	Interceptor Vehicles with High Resolution Cameras, GPS and Other Hardware / Software for Detection of Traffic Violations	1 per 2,00,000 Vehicles
10.	Speed Radar Guns	1 per 1,00,000 Vehicles
11.	Tow Vehicles (Cranes / Recovery Vehicles)	1 per 50,000 Vehicles

6. Other Equipment Required: Apart from the Equipment mentioned above for Detection of Traffic Violations, the following Major Equipment are required by Traffic Police for Traffic Management and Road Safety:

1. Ambulance with Driver, Paramedical Staff and Basic Equipment (it is suggested to have one ambulance per police district)
2. Blinker (Body Worn)
3. Blinker (Barricade Mounted)
4. Barricade
5. Binocular
6. Breathing Filter/Mask

7. Cone and Collapsible Spring Posts
8. Digital Communication Equipment (Wireless – VHF / UHF)
9. Disaster Management Vehicle (Medium Vehicle) fitted with Crane, Electric Cutters, Emergency Lights etc. for use in severe accident cases for removal of obstacles and other purposes
10. Diversion Sign Boards
11. GPS based Resource Tracking System for all Traffic Police Vehicles
12. LED Baton
13. Loud Hailer
14. Mobile Phone
15. Motorcycles/Two Wheelers (with necessary fitments)
16. Oxygen Concentrating Machines
17. Printing Machines
18. Progressive Glass Goggles
19. Public Address System
20. Raincoats
21. Road Safety Exhibition Vehicle
22. Reflective Jackets
23. Reflective Signage
24. Reflective Tapes
25. Ropes
26. Solar Power backup and Inverters for traffic signals
27. Traffic Signaling System / Intelligent Traffic Signaling System
28. Traffic Training Simulators
29. Traffic Line Tape
30. UV Protecting Goggles
31. UAVs/Drones (Micro)
32. Umbrellas and Chairs on Intersections
33. Variable Message Signboards
34. Vehicles – Light, Medium and Heavy
35. Voice Amplifiers
36. Water Dispensers

7. Other suggestions:

1. Maintenance of Traffic Signal System may be outsourced under monitoring/ supervision of Traffic Police. Budget/fund should be directly earmarked to the Traffic Police for establishment and maintenance of Traffic Signal System.
2. All traffic poles should be numbered and there should be provision for pelican signal.
3. Working together of all stakeholders/functional units for traffic management at one place should be followed as far as possible.
4. Concept of establishing separate Traffic Police Stations for investigation of road accident cases is recommended and possibilities may be explored by State Police.
5. A national level database integrating e-challan and traffic management system of various State police may be created for better enforcement of traffic violations.

Delhi:

City	Human Population(2014)	Vehicle Population(2014)
	50 lakh and above	20 lakh and above
Delhi	1.85 crore	8500000

1. For category 'A' cities: One field traffic police personnel for every 700 vehicles (Refer para4.1)
= $8500000/700 = 12142.8 = @12143$
2. Additional field traffic police personnel 5% of the strength (Refer para4.5)
= $12143 \times .05 = 607.1 = @ 607$
3. Ratio of human population to vehicle population is (Refer para 4.6)
= $18500000/8500000 = 2.17$ therefore no additional traffic policemen

Total Field Traffic Police Personnel: 1+2+3= 12750

4. Supervisory Officers (Refer para 4.8 and 4.7)

Rank	Against Field Duties		Against Headqr. Duties	Total
	Criteria	Numbers		
DSP/ACP	@ 1000 traffic personnel	13	7	20
SP/DCP	@ 2000 traffic personnel	7	3	10
DIG/Addl. CP	@ 4000 traffic personnel	3	-	3
IG/Joint CP	overall supervision	1	-	1
ADG/Spl. CP	overall supervision	1	-	1
Grand Total				35

5. Headquarter Traffic Police Personnel (Refer para 4.7) = 338

6. Office Staff of Field Supervisory Officers (Refer para 4.8)

	Inspr./ SIs	SIs/ASIs	HCs	Cts.	Total
DSP/ACP	-	13	39	91	143
SP/DCP	21	-	28	63	112
DIG/Addl. CP	6	-	18	27	51
IG/Joint CP	3	-	6	9	18
ADG/Spl. CP	3	-	6	9	18
Grand Total					342

7. Total Traffic Police Personnel = 3+5+6=13430

8. Provision for leave/medical rest and training reserve: 14% of the Total requirement (Ref. para 4.10) = 13430 x 0.14 = 1880.2=@ 1880

(Provision for leave/medical rest and training reserve has not been made for supervisory officers)

9. Total Traffic Police Personnel (7+8)= 13430 + 1880 = 15310

10. Number of Traffic Police (9+4)= 15310 + 35 = 15345

Traffic Manpower Calculation summarised in the following table for Delhi

Category 'A' City

1.	Field traffic police personnel @ 700 vehicles (para 4.1) (includes provision for weekly rest 14% approx.)	12143
2.	Additional 5 % field traffic police personnel for special duties (para 4.5)	607
3.	Additional field traffic police personnel factoring the ratio of human population to vehicle population	Nil
4.	Supervisory Officers (para 4.8 and 4.7)	35
5.	Headquarter Traffic Police Personnel (para 4.7)	338
6.	Office staff of field supervisory officers (para 4.8)	342
7.	Total Traffic Police Personnel (1+2+3+5+6)	13430
8.	14% of 13430 for leave/medical rest and training reserve (supervisory officers not included) (para 4.10)	1880
9.	Total Traffic Police Personnel (7+8)	15310
10.	Number of Traffic Police (4+9)	15345

Delhi has been taken as a model for calculation as it has – largest no. of vehicles, various law and order engagements as well as VIP movements, and large no. of transit vehicles. Figure of other cities will vary but will not exceed the manpower estimated for Delhi considering the number of vehicles.

Mumbai:

City	Human Population(2014)	Vehicle Population(2014)
Mumbai	12655220	2332806

1. For category 'A' cities: One field traffic police personnel for every 700 vehicles. (Refer para4.1)

$$= 2332806/700 = 3332.5=@3332$$

2. Additional traffic police personnel 5% of the strength (Refer para4.5)

$$= 3332 \times .05 = 166.6=@167$$

3. Ratio of human population to vehicle population is (Refer para4.6)

$$= 12655220/2332806 = 5.42$$

$$\text{Therefore additional traffic policemen} = 3332 \times .10 = 333.2 = @333$$

$$\text{Total: } 1+2+3 = 3832$$

4. Supervisory Officers (Refer 4.8 and 4.7)

Rank	Against Field Duties		Against Headqr. Duties	Total
	Criteria	Numbers		
DSP/ACP	@1000 traffic personnel	4	5	9
SP/DCP	@2000 traffic personnel	2	2	4
DIG/Addl. CP	@4000 traffic personnel	1	-	1
IG/Joint CP	overall supervision	1	-	1
ADG/Spl. CP	overall supervision	-	-	-
Grand Total				15

5. Headquarter Traffic Police Personnel (Refer para 4.7) = 236

6. Office Staff of Field Supervisory Officers (Refer para 4.8)

	Inspr./ SIs	SIs/ASIs	HCs	Cts.	Total
DSP/ACP	-	4	12	28	44
SP/DCP	6	-	8	18	32
DIG/Addl. CP	2	-	6	9	17
IG/Joint CP	3	-	6	9	18
ADG/Spl. CP	-	-	-	-	-
Grand Total					111

7. Total Traffic Police Personnel = 3+5+6=4179

8. Provision for leave/medical rest and training reserve: 14% of the Total requirement (Ref. para 4.10) = 4179 x 0.14 = 585.06=@585

(Provision for leave/medical rest and training reserve has not been made for supervisory officers)

9. Total Traffic Police Personnel(7+8)= 4179+ 585 = 4764

10. Number of Traffic Police (9+4)= 4764+15=4779

Traffic Manpower Calculation summarised in the following table for Mumbai

Category 'A' City

1.	Field traffic police personnel @ 700 vehicles (para 4.1) (includes provision for weekly rest 14% approx.)	3332
2.	Additional 5 % field traffic police personnel for special duties (para 4.5)	167
3.	Additional field traffic police personnel factoring the ratio of human population to vehicle population (10% of 3332)	333
4.	Supervisory Officers (para 4.8 and 4.7)	15
5.	Headquarter Traffic Police Personnel (para 4.7)	236
6.	Office staff of field supervisory officers (para 4.8)	111
7.	Total Traffic Police Personnel (1+2+3+5+6)	4179
8.	14% of 4179 for leave/medical rest and training reserve (supervisory officers not included) (para 4.10)	585
9.	Total Traffic Police Personnel (7+8)	4764
10.	Number of Traffic Police (4+9)	4779

Lucknow:

City	Human Population(2014)	Vehicle Population(2014)
Lucknow	5000000	2020845

1. For category 'A' cities: Number of field traffic police personnel for every 700 vehicles. (Refer para 4.1)

$$= 2020845/700 = 2886.9 = @2887$$

2. Additional traffic police personnel 5% of the strength (Refer para 4.5)

$$= 2887 \times .05 = 144.35 = @144$$

3. Ratio of human population to vehicle population is

$$= 5000000/2020845 = 2.47$$

Therefore additional traffic policemen (Refer para 4.6 (i)) = NIL

$$\text{Total: } 1+2+3 = 3031$$

4. Supervisory Officers (Refer 4.8 and 4.7)

Rank	Against Field Duties		Against Headqr. Duties	Total
	Criteria	Numbers		
DSP/ACP	@1000 traffic personnel	3	5	8
SP/DCP	@2000 traffic personnel	2	2	4
DIG/Addl. CP	@4000 traffic personnel	1	-	1
IG/Joint CP	overall supervision	1	-	1
ADG/Spl. CP	overall supervision	-	-	-
Grand Total				14

5. Headquarter Traffic Police Personnel (Refer para 4.7) = 236

6. Office Staff of Field Supervisory Officers (Refer 4.8)

	Inspr./ SIs	SIs/ASIs	HCs	Cts.	Total
DSP/ACP	-	3	9	21	33
SP/DCP	6	-	8	18	32
DIG/Addl. CP	2	-	6	9	17
IG/Joint CP	3	-	6	9	18
ADG/Spl. CP	-	-	-	-	-
Grand Total					100

7. Total Traffic Police Personnel = 3+5+6=3367

8. Provision for leave/medical rest and training reserve: 14 % of the Total requirement(Ref. 4.10) = 3367 x 0.14 = 471.38=@ 471

(Provision for leave/medical rest and training reserve has not been made for supervisory officers)

9. Total Traffic Police Personnel(7+8)= 3367+ 471 =3838

10. Number of Traffic Police (9+4)= 3838+14= 3852

Traffic Manpower Calculation summarised in the following table for Lucknow

Category 'A' City

1.	Field traffic police personnel @ 700 vehicles (para 4.1) (includes provision for weekly rest 14% approx.)	2887
2.	Additional 5 % field traffic police personnel for special duties (para 4.5)	144
3.	Additional field traffic police personnel factoring the ratio of human population to vehicle population	Nil
4.	Supervisory Officers (para 4.8 and 4.7)	14
5.	Headquarter Traffic Police Personnel (para 4.7)	236
6.	Office staff of field supervisory officers (para 4.8)	100
7.	Total Traffic Police Personnel (1+2+3+5+6)	3367
8.	14% of 3367 for leave/medical rest and training reserve (supervisory officers not included) (para 4.10)	471
9.	Total Traffic Police Personnel (7+8)	3838
10.	Number of Traffic Police (4+9)	3852

Sample City Category 'B':

City	Human Population(2014)	Vehicle Population(2014)
Sample City	4000000	1600000

1. For category 'B' cities: Number of field traffic police personnel for every 850 vehicles. (Refer para4.2)

$$=1600000/850 = 1882.35=@1882$$

2. Additional traffic police personnel 5% of the strength (Refer para4.5) = Nil (say the city is not falling under state capital)

3. Ratio of human population to vehicle population is

$$= 4000000/1600000= 2.5$$

Therefore additional traffic policemen (Refer para4.6 (ii)) = Nil

$$\text{Total: } 1+2+3= 1882$$

4. Supervisory Officers (Refer 4.8 and 4.7)

Rank	Against Field Duties		Against Headquarters Duties	Total
	Criteria	Numbers		
DSP/ACP	@1000 traffic personnel	2	4	6
SP/DCP	@2000 traffic personnel	1	1	2
DIG/Addl. CP	@4000 traffic personnel	-	-	-
IG/Joint CP	overall supervision	-	-	-
ADG/Spl. CP	overall supervision	-	-	-
Grand Total				8

5. Headquarter Traffic Police Personnel (Ref. para 4.7) = 168

6. Office Staff of Field Supervisory Officers (Refer 4.8)

	Inspr./ SIs	SIs/ASIs	HCs	Cts.	Total
DSP/ACP	-	2	6	14	22
SP/DCP	3	-	4	9	16
DIG/Addl. CP	-	-	-	-	-
IG/Joint CP	-	-	-	-	-
ADG/Spl. CP	-	-	-	-	-
Grand Total					38

7. Total Traffic Police Personnel = 3+5+6=2088

8. Provision for leave/medical rest and training reserve: 14% of the Total requirement (Ref. 4.10) = 2088 x 0.14 = 292.32=@292

9. Total Traffic Police Personnel (7+8)= 2088 + 292 =2380

10. Number of Traffic Police (9+4)= 2380 + 8 = 2388

Traffic Manpower Calculation summarised in the following table for Sample Category 'B' City

1.	Field traffic police personnel @ 850 vehicles (para 4.2) (includes provision for weekly rest 14% approx.)	1882
2.	Additional 5 % field traffic police personnel for special duties (para 4.5)	Nil
3.	Additional field traffic police personnel factoring the ratio of human population to vehicle population	Nil
4.	Supervisory Officers (para 4.8 and 4.7)	8
5.	Headquarter Traffic Police Personnel (para 4.7)	168
6.	Office staff of field supervisory officers (para 4.8)	38
7.	Total Traffic Police Personnel (1+2+3+5+6)	2088
8.	14% of 2088 for leave/medical rest and training reserve (supervisory officers not included) (para 4.10)	292
9.	Total Traffic Police Personnel (7+8)	2380
10.	Number of Traffic Police (4+9)	2388

Sample City Category 'C':

City	Human Population(2014)	Vehicle Population(2014)
Sample City	1800000	600000

1. For category 'C' cities: Number of field traffic police personnel for every 950 vehicles. (Refer para4.3)

$$= 600000/950 = 631.5=@631$$

2. Additional traffic police personnel 5% of the strength (Ref: para4.5) = Nil
(say the city is not falling under state capital)

3. Ratio of human population to vehicle population is

$$= 1800000/600000= 3$$

Therefore additional traffic policemen (Refer para4.6 (ii)) = Nil

$$\text{Total: } 1+2+3= 631$$

4. Supervisory Officers (Refer 4.8 and 4.7)

Rank	Against Field Duties		Against Headqr. Duties	Total
	Criteria	Numbers		
DSP/ACP	@1000 traffic personnel	1	2	3
SP/DCP	@2000 traffic personnel	-	1	1
DIG/Addl. CP	@4000 traffic personnel	-	-	-
IG/Joint CP	overall supervision	-	-	-
ADG/Spl. CP	overall supervision	-	-	-
Grand Total				4

5. Headquarter Traffic Police Personnel (Ref. para4.7) = 101

6. Office Staff of Field Supervisory Officers (Refer 4.8 and 4.7)

	Inspr./ SIs	SIs/ASIs	HCs	Cts.	Total
DSP/ACP	-	1	3	7	11
SP/DCP					
DIG/Addl. CP					
IG/Joint CP					
ADG/Spl. CP	-	-	-	-	-
Grand Total					11

7. Total Traffic Police Personnel = 3+5+6 = 743

8. Provision for leave/medical rest and training reserve: 14% of the Total requirement(Ref. 4.10) = 743 x 0.14 = 104.02=@ 104

9. Total Traffic Police Personnel (7+8)= 743+ 104 =847

10. Number of Traffic Police (9+4)= 847+4= 851

Traffic Manpower Calculation summarised in the following table for Sample Category 'C' City

1.	Field traffic police personnel @ 950 vehicles (para 4.3) (includes provision for weekly rest 14% approx.)	631
2.	Additional 5 % field traffic police personnel for special duties (para 4.5)	Nil
3.	Additional field traffic police personnel factoring the ratio of human population to vehicle population	Nil
4.	Supervisory Officers (para 4.8 and 4.7)	4
5.	Headquarter Traffic Police Personnel (para 4.7)	101
6.	Office staff of field supervisory officers (para 4.8)	11
7.	Total Traffic Police Personnel (1+2+3+5+6)	743
8.	14% of 743 for leave/medical rest and training reserve (supervisory officers not included) (para 4.10)	104
9.	Total Traffic Police Personnel (7+8)	847
10.	Number of Traffic Police (4+9)	851

Annexure 'A'

List of officers who participated in the meetings for preparation of the norms

Organisation/Traffic Police	Name of the officer and designation
BPR&D	Sh. Radhakrishna Kini, Spl. DG Sh. Anand Prakash, IG (Modernization) Sh. Sumit Gupta, Principal Scientific Officer Dr. M M Gosal, Senior Scientific Assistant
MHA	Sh. S.K. Bhalla, Dir(CS-I), MHA Sh. S.K. Jaiswal, Dir(PM), MHA Sh. Amrik Singh, Dy. Secy. (PM), MHA Sh. Ashok Sharma, Under Secretary (UT), MHA
Delhi	Dr. Muktesh Chander, Spl. CP(Traffic), Delhi Police Sh. Harendra K Singh, DCP(Traffic), Delhi Police
Mumbai/ Maharashtra	Sh. Anil D. Kumbhore, DCP(Traffic), South Mumbai
Chennai/ Tamilnadu	Sh. M.T. Ganesh Moorthy, JCP(Traffic), Chennai
Kolkata/ West Bengal	Sh. Soumen Mitra, Spl. CP, Kolkata Sh. V. Solomon Nesakumar, DCP(Traffic)
Bangalore/ Karnataka	Dr. M.A. Saleem, Addl. CP (Traffic), Bangalore Sh. S. Girish, DCP (Traffic) Bangalore
Hyderabad/ Telengana	Sh. Jitender, Addl. CP, Traffic, Hyderabad Sh. Avinash Mohanty, DCP (Traffic) Cyberabad Sh. A.V. Ranganath, DCP(Traffic), Hyderabad
Lucknow/ Uttar Pradesh	Anil Aggarwal, ADG (Traffic)
Ahmedabad/ Gujarat	Sh. Harikrishna Patel, Addl. CP(Traffic) Ahmedabad
Gurgaon / Haryana	Sh. Saurabh Singh, Jt. CP, Gurgaon Sh. Sibash Kabiraj, DIG (Traffic and Highways) Sh. Ved Parkash, DCP (Traffic) Gurgaon