

**Government of Tamil Nadu
Highways Department
Tamil Nadu Road Sector Project**

**ROAD USER SATISFACTION SURVEY
(2004-2005)**

3. Customer Satisfaction on Road Network Outcomes or Attributes

3.1 General Travel Characteristics on the NH/SH/MDR/ODR/VR

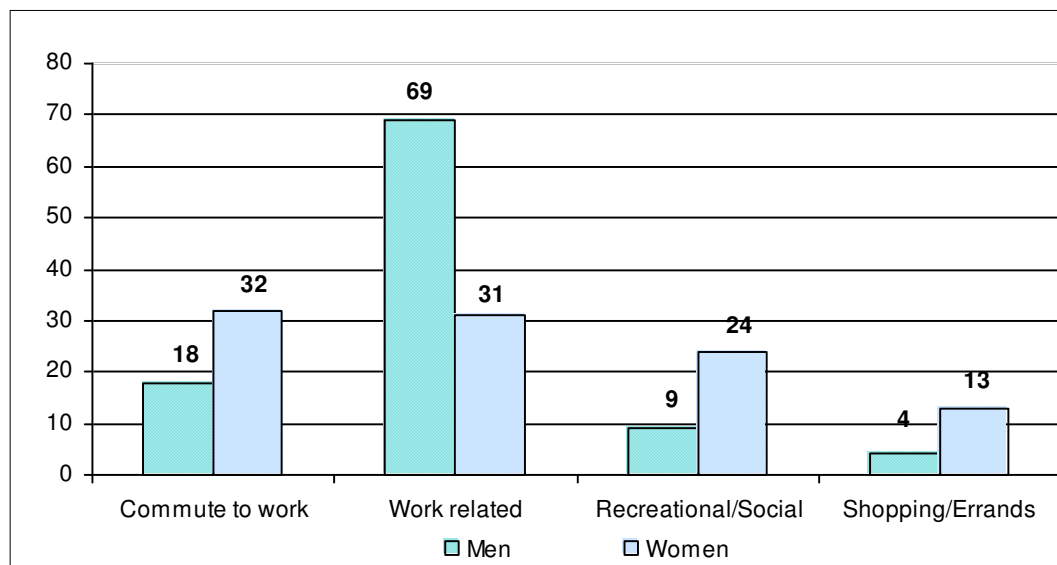
3.1.1 In a day, a majority of the respondents travel for 6 to 10 hours in a day.

Table 3.1 Number of hours of travel in a day

No. of hours of travel	Truck/Tanker Driver %	Private Bus Driver %	Govt. Bus Driver %	Taxi Driver %
1 to 5 hrs	2	-	2	6
6 to 10 hrs	61	60	61	64
11 hrs +	37	40	37	30
Total	100	100	100	100

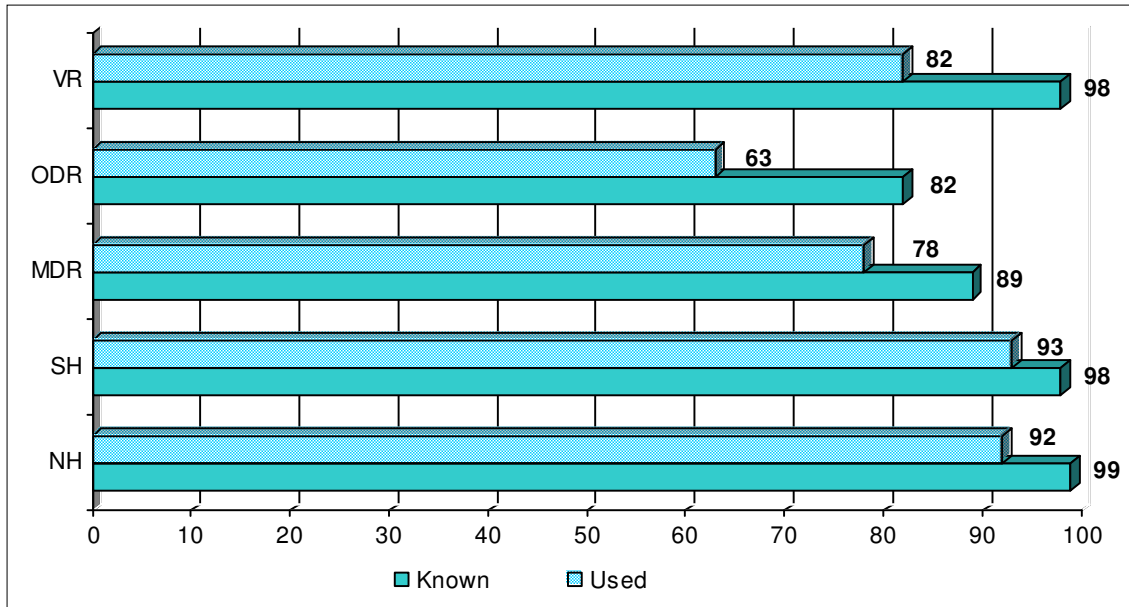
3.1.2 More men (69%) than women (31%) undertake work related trips. Women constitute a major percentage of road users with 32% of them commuting to work everyday, 24% undertaking trips related to recreational/social and 13% for shopping/errands.

Figure 3.1 Purpose of travel



3.1.3 Almost all the respondents have heard about the NH, SH and VR. The percentage of respondents who have used the ODR is much lesser when compared with all the other roads.

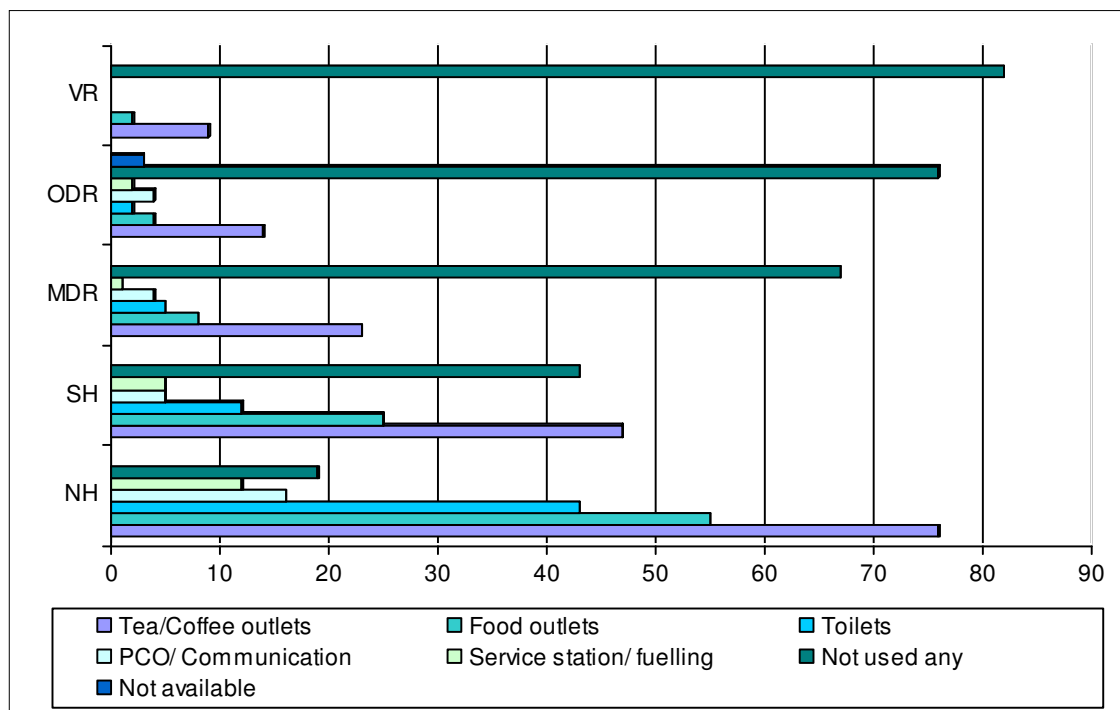
Figure 3.2 Respondents who are aware and who have used NH/SH/MDR/ODR/VR



3.2 Characteristics of most recent travel

3.2.1 When respondents were asked about the road side amenities or facilities they utilised during the most recent trip, majority of them had stopped to have tea/coffee, followed by food and also to use the PCO.

Figure 3.3 Road side amenities/facilities used during the most recent trip



3.2.2 Food outlets have been used by the respondents in all the different roads. Respondents feel that there is a need to set up good restaurants which provide healthy food. Toilet facilities also need to be improved on the various roads.

“More healthy restaurants should be set up” – Public Transport Representative.

“Good drinking water facility should be provided” – Emergency Service Representative.

“In all the roads, road side hotels are there. But toilet facilities are not good” – Vehicle manufacturer/Repair Workshop.

“Government own hotels should be constructed”- Insurance Industry Representative.

3.2.3 Majority of the respondents found the road signs on the road side amenities helpful except for ODR and VR where the percentage of respondents who have not used the road side amenities is high.

Table 3.2 Road signs on the road side amenities available on different roads

Reason	NH%	SH%	MDR %	ODR%	VR%
Not available	0	0	1	2	16
Not noticed	1	1	3	8	14
Not helpful	1	4	12	18	18
Helpful	47	54	50	41	28
Very helpful	51	41	33	30	24
Total	100	100	100	100	100

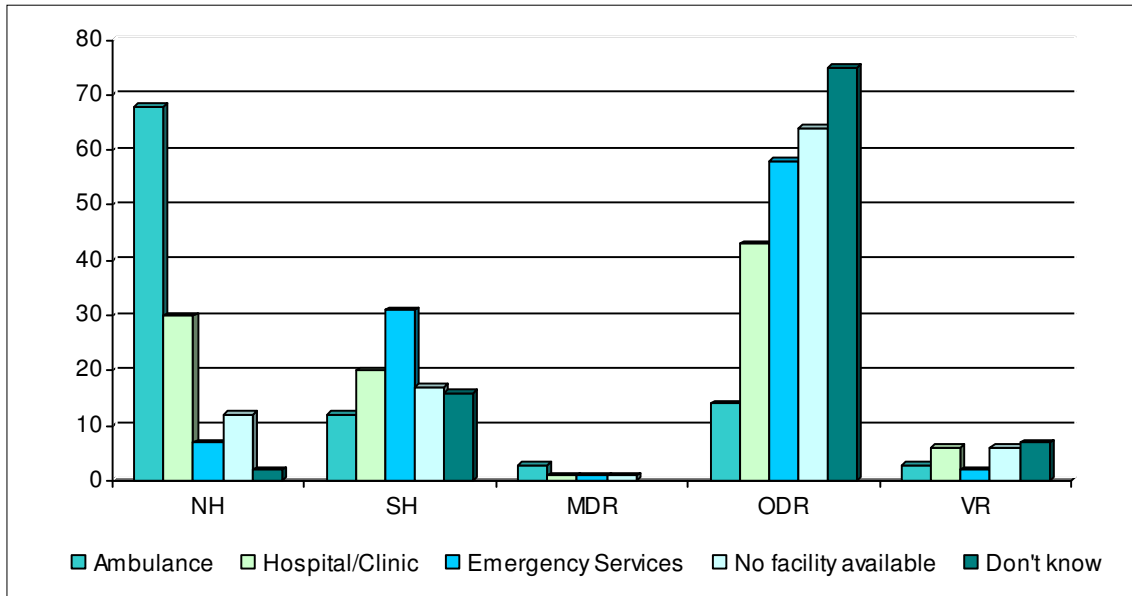
3.2.4 Almost all the respondents have found the road signs, especially the reflectors to be very useful and helpful. Some of the stated that though sign boards are less on the ODR and VR, a few of the existing ones are either in a bad condition or they are covered by posters which makes it difficult for the drivers to read.

“Sign boards are useful. All the sign boards should be in reflector light stickers. Because only in the nights we need these sign boards than in the day time”- Vehicle manufacturer/Repair Workshop.

“Sign boards are not there (on the VR). Even if it is there posters are stuck on them” – Emergency Service Representative.

3.2.5 Respondents are more aware of the medical relief and trauma care facilities available on the NH than on the other roads. On the NH, they are aware of the availability of ambulance and emergency services in case of any accident

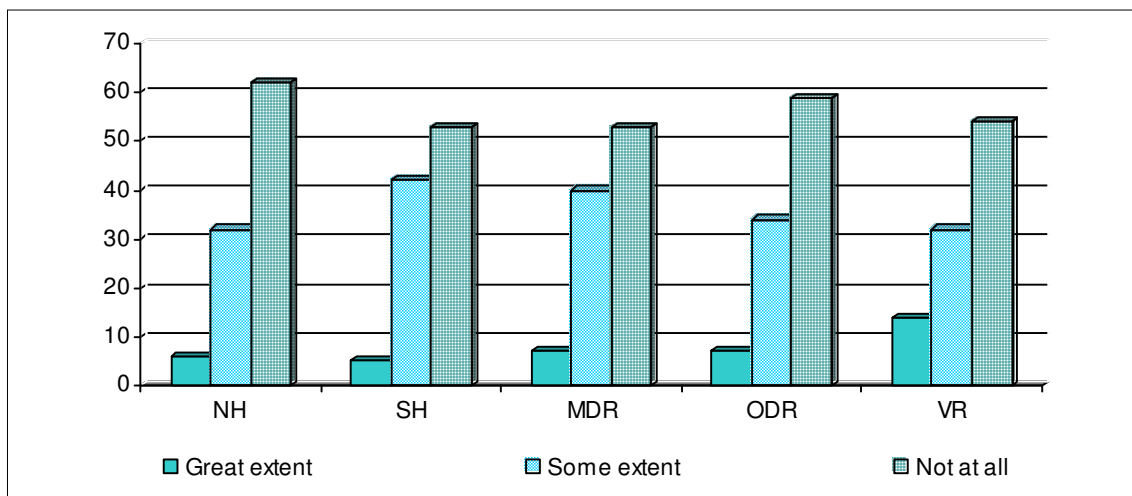
Figure 3.4 Medical relief and Trauma care facilities available on different roads



3.3 Road Users Perceptions of Safety

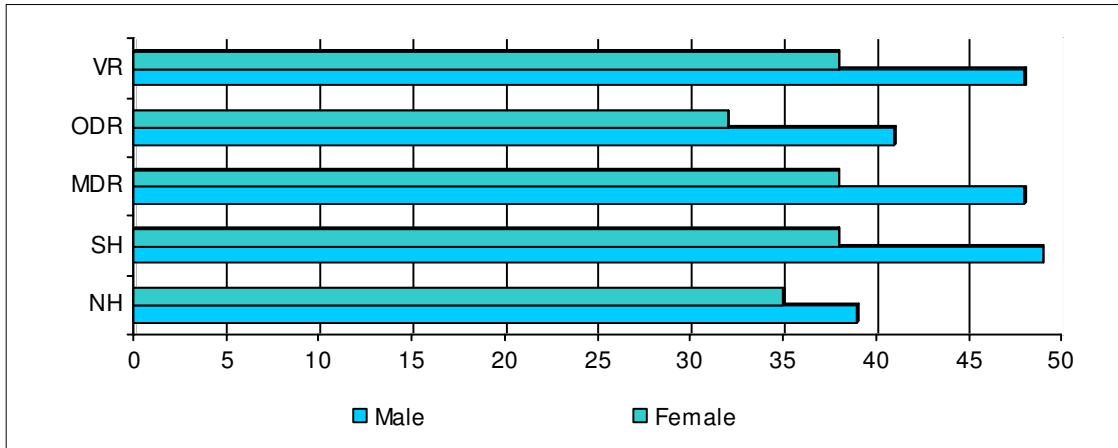
3.3.1 Respondents were asked whether or not they felt unsafe during their most recent journey on the NH/SH/MDR/ODR/VR. Majority of the respondents felt safe while traveling on the road. However, respondents traveling on the NH/SH/MDR/ODR/VR do feel unsafe to some extent.

Figure 3.5 Road Users Perceptions of Safety



3.3.2 38% of the respondents stated that they felt unsafe during their most recent journey on the NH/SH/MDR/ODR/VR. Among them 39% were men and 35% were women respondents.

Figure 3.6 Respondents who feel unsafe on the NH/SH/MDR/ODR/VR



3.3.3 The main factors which make travellers feel unsafe on the NH and SH is the high speed of the traffic, overtaking and poor aggressive driving. In the case of MDR, ODR and VR, poor road geometrics and bad roads are the main reasons that make travellers feel unsafe. Women feel more unsafe than men on the NH due to high speed of the traffic.

“The road safety is only in the hands of the drivers and a proper and a safe driving will contribute to the safety of the road” – Public Transport Representative.

Table 3.3 Reasons for feeling unsafe during journey

Reason	NH%		SH%		MDR%		ODR%		VR%	
	M	F	M	F	M	F	M	F	M	F
High speed of the traffic	30	43	12	20	4	7	2	6	1	1
Inconspicuous intersections	8	5	13	11	11	11	6	10	4	3
Lack of by pass/ring roads	5	5	11	14	9	13	4	4	1	1
Overtaking	43	42	34	34	11	10	6	6	2	2
Traffic	7	6	16	14	10	10	6	6	3	4
Poor/Aggressive driving	42	36	30	29	19	16	11	8	4	5
Heavy goods vehicles	12	11	7	7	6	5	3	2	1	1
Poor road geometrics	17	17	26	21	35	34	37	39	19	26
Bad road conditions	11	6	37	32	56	52	69	71	73	74
Absence of road signs	2	1	5	3	11	6	19	14	20	22
Absence of lighting at major intersections	4	1	6	4	9	13	12	13	20	25
Absence of pedestrian/cattle crossing facilities	9	6	14	14	19	25	12	7	25	24

3.3.4 In the in-depth interviews conducted, respondents had mixed response on safety. Though NH was considered to be safe due to the broad roads and the two and four lane system, bad and reckless driving on the NH made the road unsafe for most of the respondents. Roads like SH, MDR, ODR and VR were also considered to be unsafe but the reason cited was due to the bad condition of the roads.

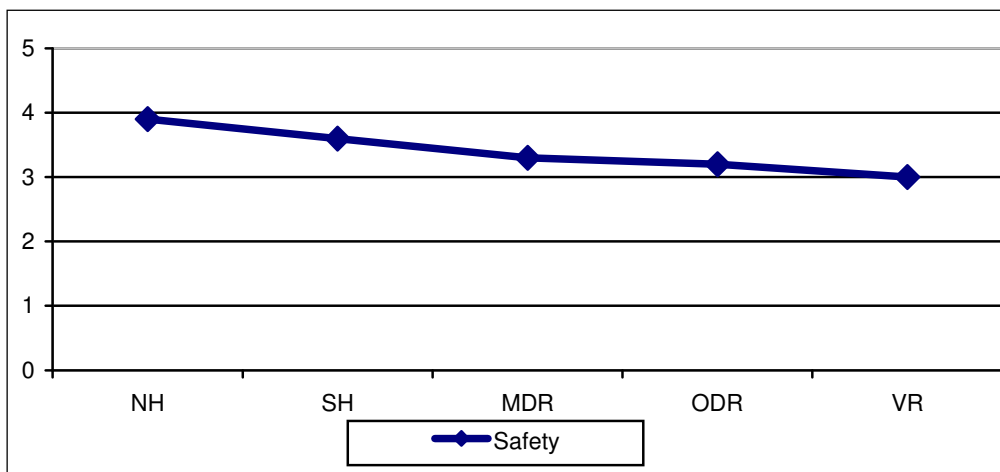
“There is a lot of overtaking and reckless driving on the NH. This makes us feel unsafe” – Pedestrian.

3.4 Opinions of Roads Used Most Recently

3.4.1 Respondents were asked to indicate their satisfaction with various aspects of the NH/SH/MDR/ODR/VR they had used most recently. Respondents ranked each aspect of the road on a scale of 1 to 5, where 1 represents not at all satisfied, 2 represents not satisfied, 3 represents some what satisfied, 4 represents satisfied and 5 represents very satisfied.

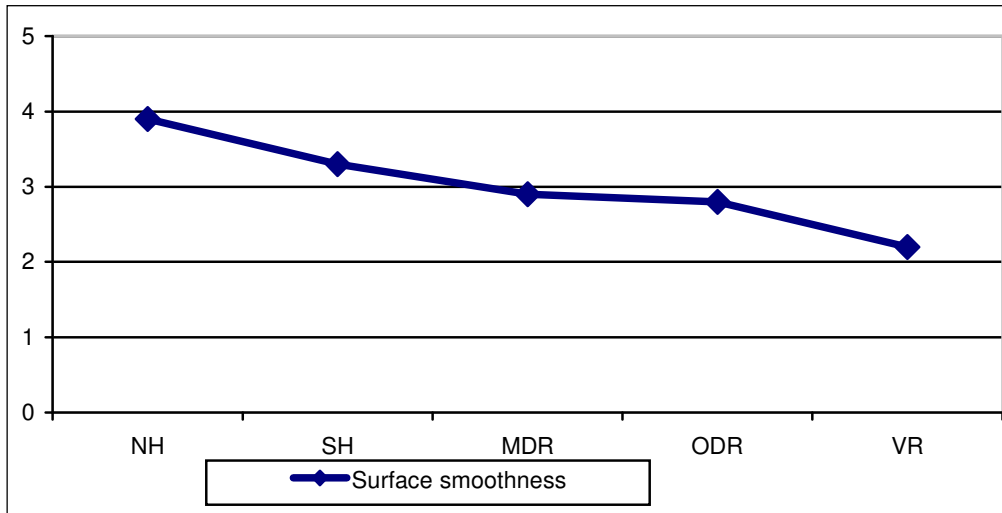
3.4.2 Figure 3.6 compares the mean score given to various aspects of the roads on NH/SH/MDR/ODR/VR. It is clear from this that there were generally higher levels of satisfaction with NH. Respondents were most satisfied with the aspect of safety, surface smoothness, traffic flow highway services and air/noise pollution.

Figure 3.7 Mean level of satisfaction on safety on the NH/SH/MDR/ODR/VR



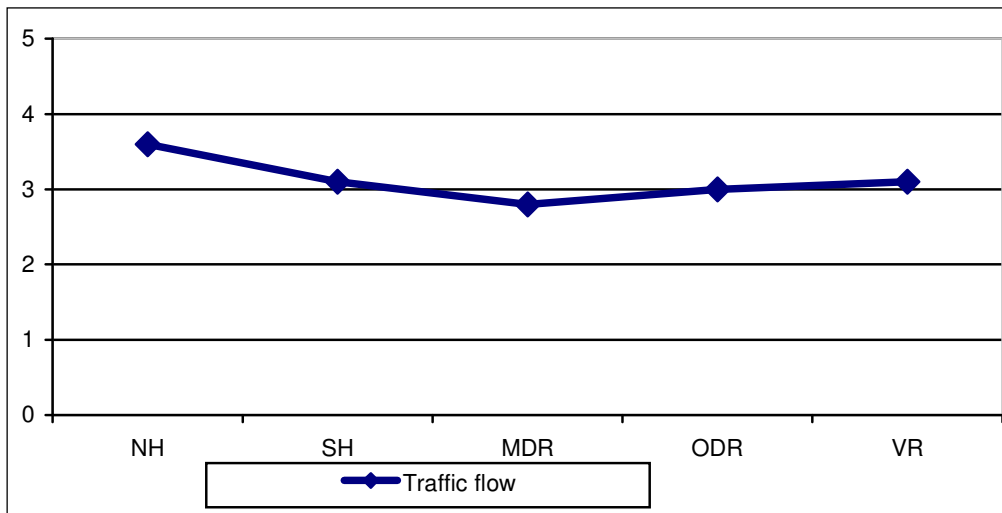
3.4.3 With regard to safety, a majority of the respondents found the NH to be much safer than all other roads. Respondents were somewhat satisfied with the VR.

Figure 3.8 Mean level of satisfaction on surface smoothness on the NH/SH/MDR/ODR/VR



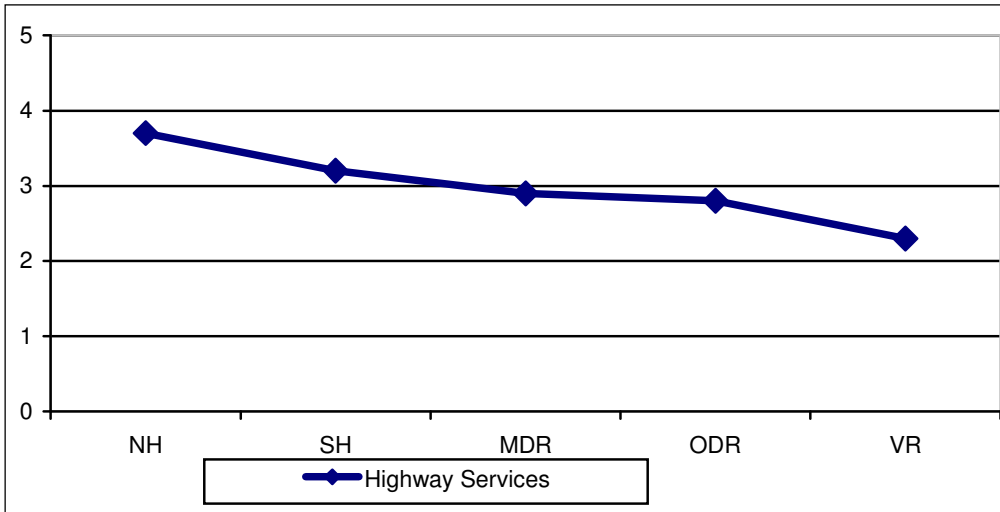
3.4.4 Figure 3.7 shows the level of satisfaction on surface smoothness on the various roads. Level of satisfaction on the aspect is much higher with NH and SH, while respondents were not satisfied with the VR and ODR.

Figure 3.9 Mean level of satisfaction on traffic flow on the NH/SH/MDR/ODR/VR



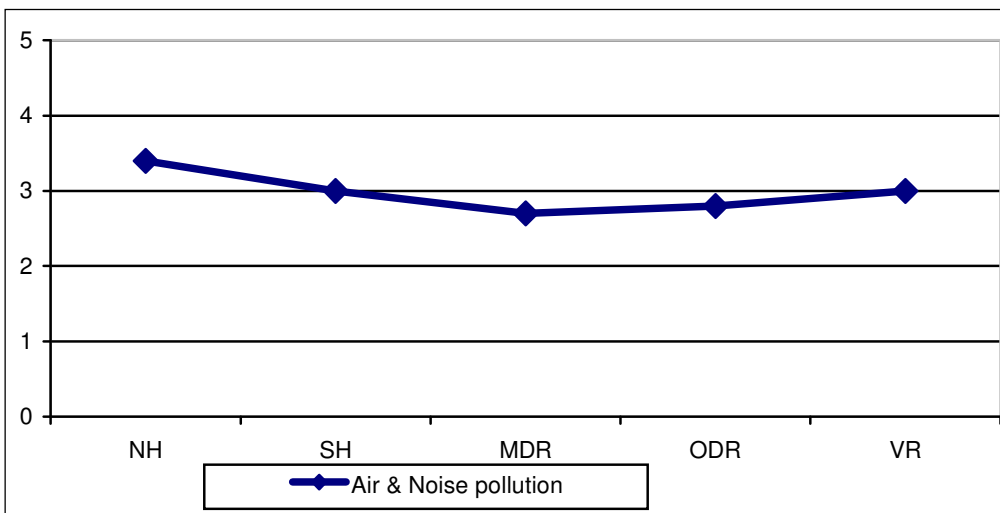
3.4.5 Respondents were least satisfied with the traffic flow on the MDR. The level of satisfaction on flow on the NH is very high. The traffic flow on ODR and VR was also considered satisfactory.

Figure 3.10 Mean level of satisfaction on highway services on the NH/SH/MDR/ODR/VR



3.4.6 Figure 3.10 shows the satisfaction level on the highway services available on the NH/SH/MDR/ODR/VR. Respondents were satisfied with NH, SH and MDR but the level of satisfaction were lower with ODR and VR.

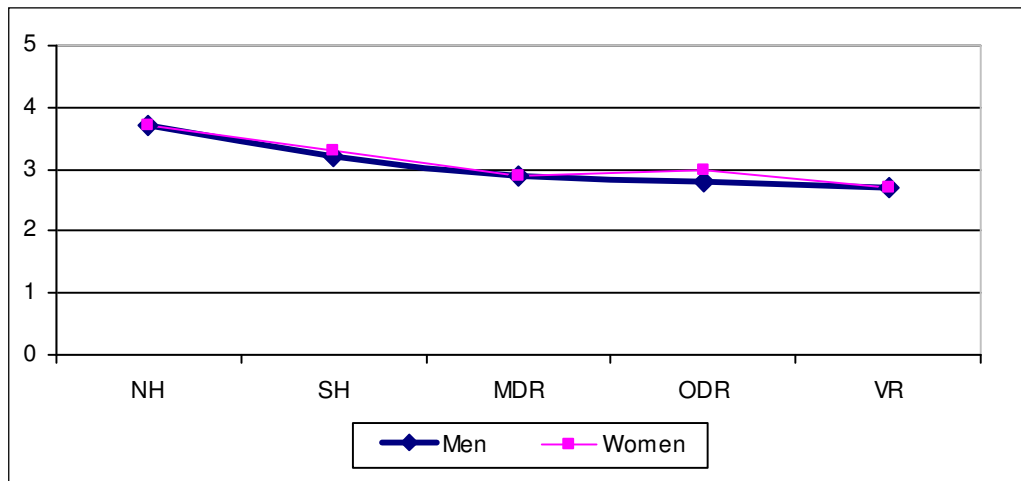
Figure 3.11 Mean level of satisfaction on air and noise pollution on the NH/SH/MDR/ODR/VR



3.4.7 With regard to air and noise pollution, respondents were least satisfied on the MDR and ODR. Respondents were satisfied on the aspect of air and noise pollution on the NH, SH and VR.

3.4.8 Figure 4.12 shows clear differences in the overall satisfaction among both men and women road users. Respondents are overall satisfied with the various aspects on NH and SH, while they are some what satisfied with MDR, ODR and VR. There not much difference between the satisfaction level of men and women on the overall satisfaction level. The tables on the mean level of overall satisfaction SEC wise is provided in the annexure on page 48.

Figure 3.12 Mean level of satisfaction on overall satisfaction



3.5 Views on NH/SH/MDR/ODR/VR

3.5.1 Respondents were asked to say what irritates them most when using NH/SH/MDR/ODR/VR

3.5.2 More than half of the respondents opined that rough driving by others and over taking are the most irritating factors both on the NH and on the SH. Bad road condition seems to be the major irritating factor on the MDR/ODR and VR. Pedestrian/cattle crossing, tree bunches/branches and the width of the road was the most irritating factors on the VR.

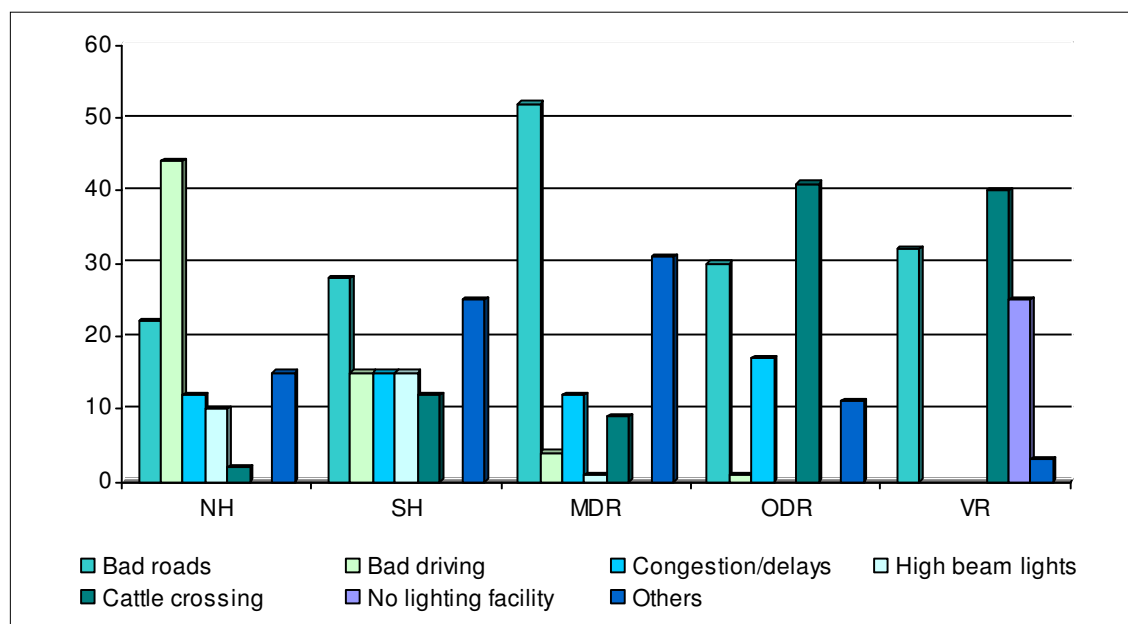
“They are digging the roads at many places and this leads to traffic congestion. The road width gets reduced and the vehicles are not able to move freely” – Transport Representative.

Table 3.4 Irritating factor while using the NH/SH/MDR/ODR/VR

Reason	NH%	SH%	MDR %	ODR%	VR%
Congestion/delay	11	19	14	5	2
Rough driving of other drivers	33	25	14	10	3
Road work/diversions	6	9	9	7	3
Speed	18	14	6	5	1
Trucks/heavy vehicles	13	9	6	3	1
Over taking	29	30	15	10	1
Noise	5	6	7	5	1
Petrol fumes/pollution	6	9	12	8	3
Pedestrians/cattle crossings	6	12	19	21	26
Road side soil/mud	2	5	13	16	18
Parking on the road side	5	8	11	11	8
Tree bunches/branches	1	2	5	8	24
Width of the road	2	7	12	14	29

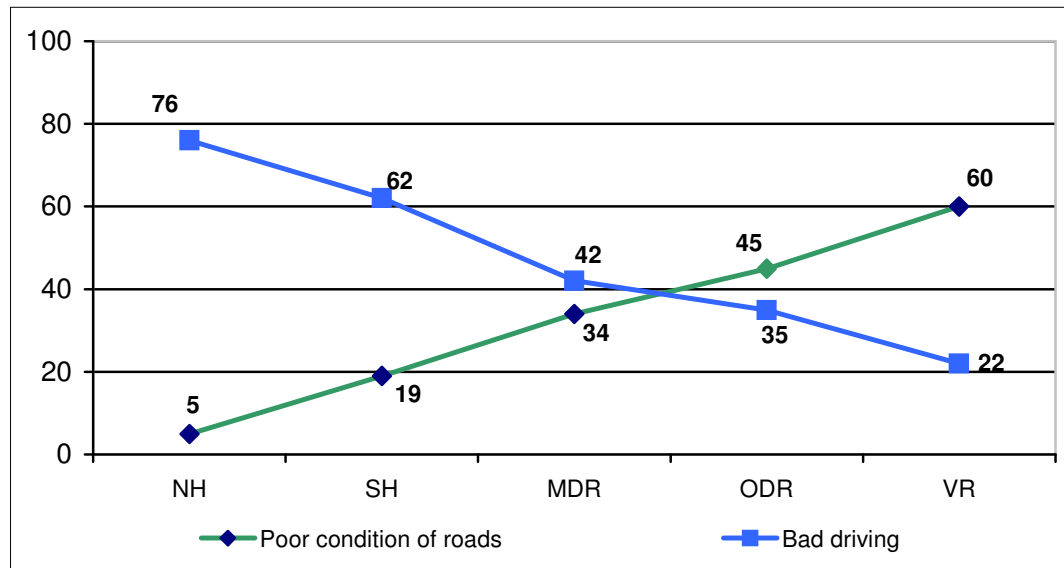
3.5.3 Bad driving has been considered as the major problem faced on the NH, SH and MDR. Cattle crossing are seen as a main problem on the ODR and VR. Lack of lighting facility on the VR has also been stated by the respondents as a problem.

Figure 3.13 Main problems faced on the NH/SH/MDR/ODR/VR



3.5.4 Poor road conditions and bad driving has been considered as the major reasons for road accidents on the NH/SH/MDR/ODR and VR.

Figure 3.14 Reasons for accidents on the NH/SH/MDR/ODR/VR



3.5.5 Bad driving had been considered as the main reason for accidents on the NH/SH, while poor road condition had been considered as the main reason for accidents on the VR/ODR and MDR.

“Public are driving their vehicles very safely. But it won’t be useful always. If the roads are not good and the vehicles coming in the opposite direction is not driven properly then accidents occur” - Emergency service representative.

3.5.6 Apart from pot holes and pits and narrow roads being reasons for bad road condition, respondents have stated poor road geometrics also as reasons for accidents.

“To reduce accidents, roads should be maintained well. The tar and the sand roads should be made equal. The sand on the road sides should be removed” - Public Transport Representative.

3.5.7 Increase in the number of vehicles on the road due to easy credit availability has also been stated as one of the reason for increase in accidents by the respondents.

“On NH the number of accidents has increased in the last five years. The reason for this is the increase in the number of motor vehicles, increase in human population, though roads are good, vehicles are driven at an uncontrollable speed”- Public Transport Representative.

3.6 Opinion of Households staying adjacent to highway

3.6.1 A majority of the respondents (60%) have been staying adjacent to the highway for more than 20 years. They were asked what the advantages of staying adjacent to the highway are. The majority indicated easy accessibility to other places and the availability of bus/transport facility are the most important factors. Other aspects were also considered advantageous, like:

- Less fear of theft and burglary;
- Shops/Market and theatres are present near by;
- Availability of medical facility.

3.6.2 64% of the respondents felt safe staying adjacent to highway. Respondents were also asked to indicate what made them feel unsafe staying adjacent to the highway. Many felt unsafe due to the vehicles and also due to air/noise pollution.

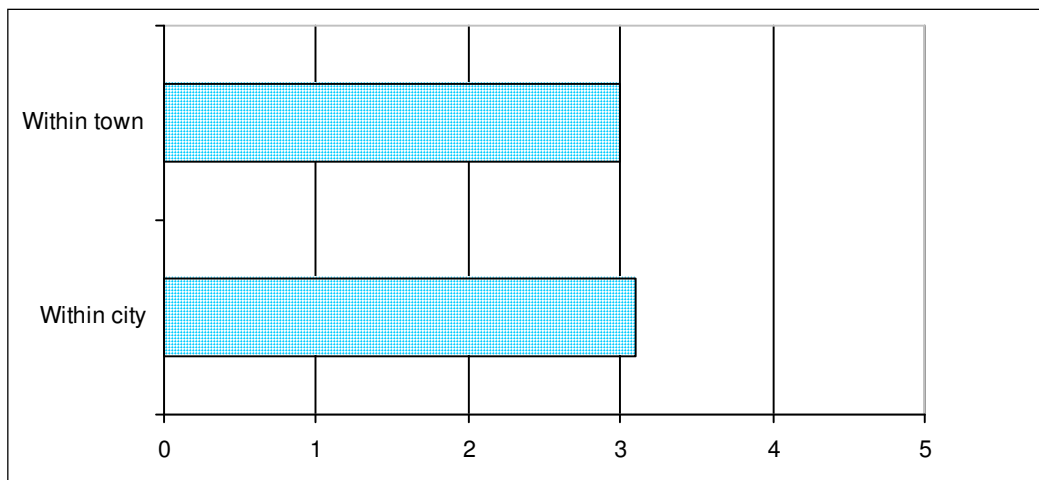
3.6.3 When asked about the problems faced during their stay near the highway, most respondents said that not able to cross the road were a serious problem. Many also cited that air pollution causes a lot of health problems. Other problems faced are:

- Public meetings and processions;
- Accidents;
- Speeding vehicles;
- No proper garbage disposal.

3.7 Opinions on the parking facilities available

3.7.1 Taxi drivers, hired car drivers, wagon drivers, auto rickshaw drivers, private car drivers, two wheeler and four wheeler owner/user were asked to indicate their satisfaction with the parking facility available within city/town. Respondents ranked the parking facility available within the city and town on a scale of 1 to 5, where 1 represents not at all satisfied, 2 represents not satisfied, 3 represents some what satisfied, 4 represents satisfied and 5 represents very satisfied.

Figure 3.15: Mean level of satisfaction with parking facility within city/town

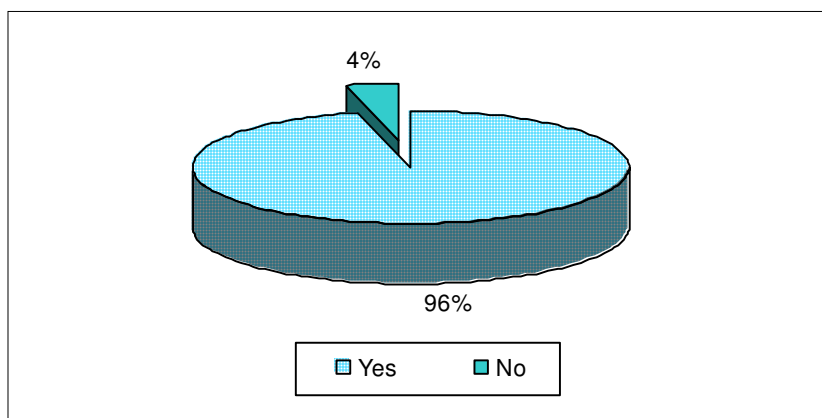


3.7.2 Almost all the respondents were somewhat satisfied with the parking facility available within the city and town.

3.7.3 Respondents have also expressed their concern over the parking facility available through the in-depth interviews. They feel that parking on the road side causes traffic congestion and also leads to accidents.

“On the road side a lot of motorcycles are parked and this causes congestion and also accidents” – Pedestrian.

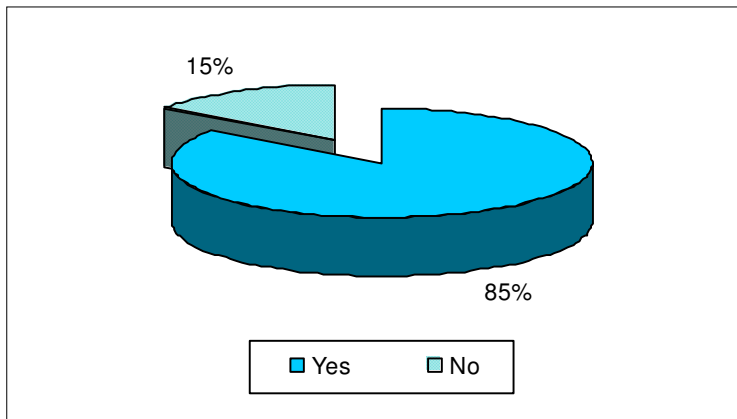
Figure 3.16: Need for more parking facility within city/town



3.7.4 Majority of the respondents (95%) agreed that they needed more parking spaces.

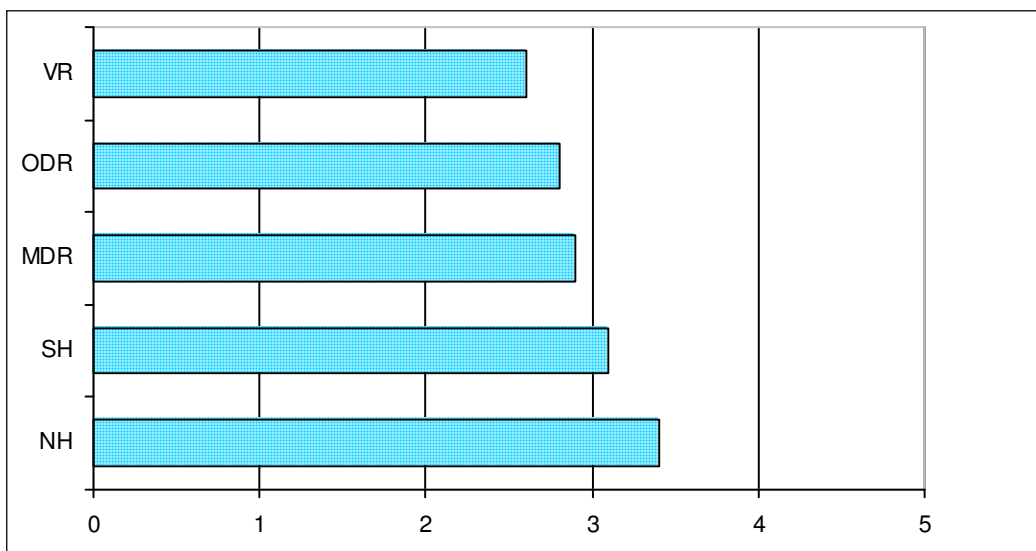
3.7.5 When respondents were asked if they were prepared to pay for parking within city/town all most all that is 85% of the respondents stated that would pay for parking within the city/town.

Figure 3.17: Respondents who are prepared to pay for parking



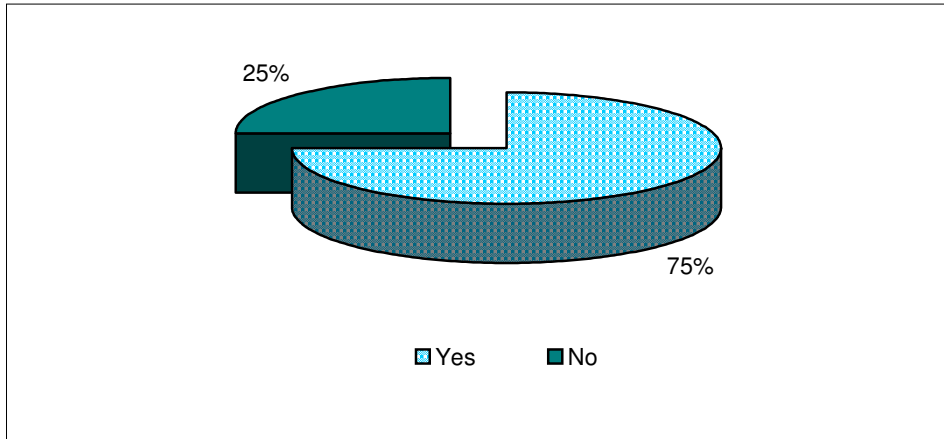
3.7.6 Taxi drivers, hired car drivers, wagon drivers, auto rickshaw drivers, private car drivers, two wheeler and four wheeler owner/user were asked to indicate their satisfaction with the parking facility available on the NH/SH/MDR/ODR/VR. Respondents ranked the parking facility available on the NH/SH/MDR/ODR/VR on a scale of 1 to 5, where 1 represents not at all satisfied, 2 represents not satisfied, 3 represents some what satisfied, 4 represents satisfied and 5 represents very satisfied.

Figure 3.18: Mean level of satisfaction with parking facility on the NH/SH/MDR/ODR/VR



3.7.7 The level of satisfaction with parking facility on the NH was much higher than on any other roads.

Figure 3.19: Need for more parking facility on the NH/SH/MDR/ODR/VR



3.7.8 Three fourth of the respondents stated that they require more parking facility of the NH/SH/MDR/ODR/VR.

3.7.9 Respondents feel that due to the lack of parking facility on the NH and SH, heavy vehicles like trucks and lorries are forced to park on the road sides which results in road accidents.

“In some places (on the NH and SH), vehicles are parked on the road side unnecessarily especially big lorries and trucks and because of this lots of accidents happen” – Insurance Industry Representative.

Table 3.5 Parking facility on the NH/SH/MDR/ODR/VR

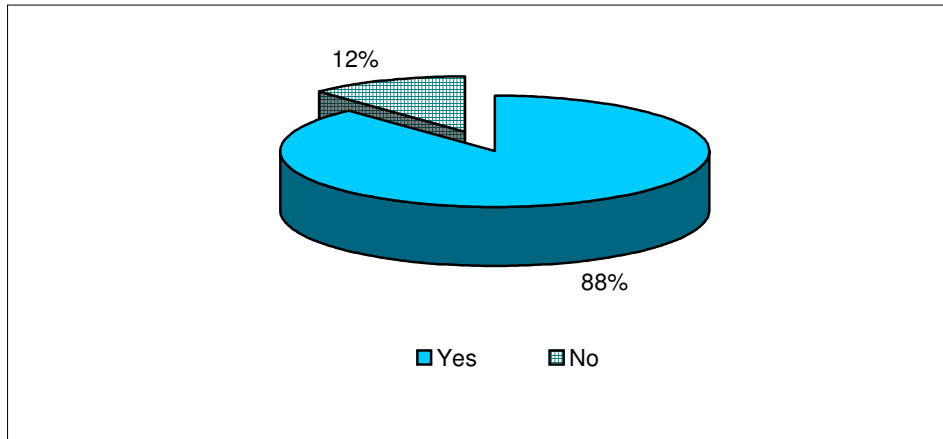
Parking facility	NH%	SH%	MDR %	ODR%	VR%
Separate parking yard for every 20 kms	3	9	15	12	18
Separate parking yard for every 30 kms	3	21	17	19	9
Separate parking yard for every 40 kms	12	19	18	13	3
Separate parking yard for every 50 kms	51	35	11	6	2
Not sure	31	16	39	50	68

3.7.10 Among those respondents who required more parking facility on the NH/SH/MDR/ODR/VR, a majority stated that they required a separate parking yard for every 50 kms on the NH and on the SH. With regard to MDR, ODR and VR, most of them agreed for a separate parking lot for every 20 to 40 kms.

3.8 Opinions on the market facilities available

3.8.1 A majority (88%) of the respondents agreed that there is a market nearby to sell/buy commodities.

Figure 3.20: Availability of a market nearby to buy/sell commodities



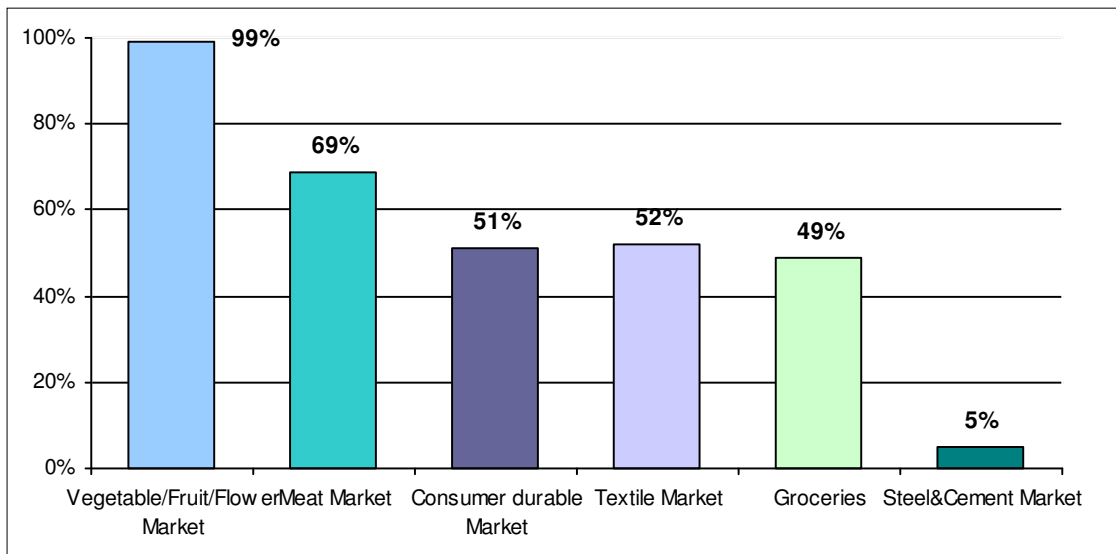
3.8.2 Three fourth of the respondents sated that the market is situated 2 to 5 kms from their place of stay.

Table 3.6 Distance to the nearest market from place of stay

Parking facility	%
2-5kms	76
6-9kms	13
10-13kms	8
More than 13 kms	3
Total	100

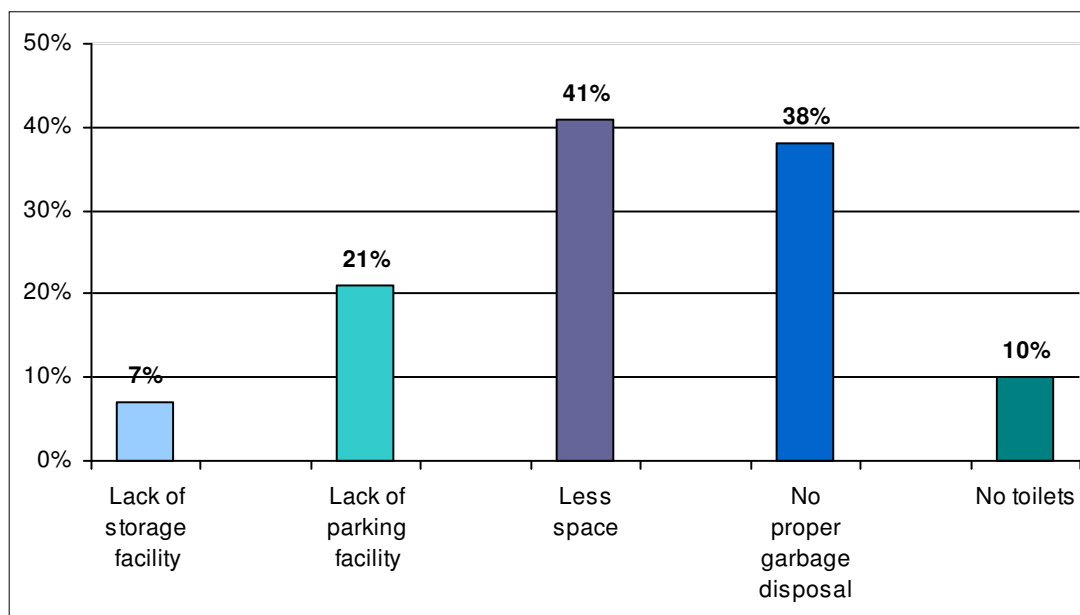
3.8.3 All have access to vegetable/fruit/flower market. More than half of the respondents have access to meat, consumer durable and textile market while almost half of the respondents have access to the groceries market.

Figure 3.21: Type of market available



3.8.4 Among the respondents who had access to the market place, almost half of them (48%) agreed that parking facility was available in the market place. However, no proper garbage disposal (38%) and less space (14%) are the major inconveniences faced by the respondents in the market.

Figure 3.22: Type of inconveniences faced in the market



3.8.5 43% of the respondents agreed that they required more market space and a majority of them stated that the market space should be of one to two acre land.

Figure 3.23: Market space required by the respondents

