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# Analysis and Survey of Road User Satisfactory of Gadag District

B.Vinayaka<sup>1</sup>, Tilak.P.Kurugod<sup>2</sup>

M. Tech, Department of Civil Engineering, Reva Institute of Technology, Bangalore, India

M. Tech, Department of Civil Engineering, Reva Institute of Technology, Bangalore, India

**ABSTRACT:** It is a well-known fact that INDIA is developing at a fast phase in terms of all aspect. It has shown a tremendous improvement in all fields let it be technology, industry as well as road network connecting nook and corner of the country, with planned "Sagarmala project" and "Strings of pearls" by GOI.

In this regard transportation sector is quant essential in overall development of the country. Thus we need to give a due consideration to the work done by the PWD department in respective district and their impact of the same to road user. Concerned PWD department looks only in the regard of investment rather than the amount of insight effect of the road user is not given due consideration. Secondary road user satisfaction survey of the Gadag district was carried out in this regard to check to what extent the road user are satisfied with the service provided in present condition.

This obtained data will help the concerned department as an insight to the work carried out and what best can be done in future days to come. Survey was carried out in all major Roads, junction and questionnaires where prepared for the same and Data was extracted to know the percentage of satisfaction of present road users of NH, SH, MDR &urban road by presenting them in Pie and Bar charts. Road furniture details were also given much importance and there amount of impact was taken as a feedback from users. Overall collected data was submitted to concerned PWD department for improvement in work in coming dates.

KEYWORDS: Road user, PWD, Road furniture, questionnaires survey and Pie and Bar charts.

## I. INTRODUCTION

The road network is very essential in overall development of any particular area, it can be categorized as one of the valuable assets in state of Karnataka. Overall road helps in the movement to various destination of their choice and services every day.

Road network is very important in bringing out a positive effect in society like employment, services, freight of goods and accessibility to isolated locations. It can be seen that Road network has such a positive outcome but the negative aspect of it is not given any consideration like accidents, deaths, environmental damage etc.

We as Indian citizens pay tax for obtaining betterfacilities, tax collected is being utilized for generation of fund for development project. All citizens as a tax payer have interest to know how the road network works .There is considerable gap for dialogue between citizens and government.

Government needs to have a better understanding to what extent the project has a positive impact on present road users and what best can be done in future days .In this regard survey was carried out on behalf of the PWD department to obtain the required data which would be segregated to know the outcome of the present project and future planned project as well.

Questionaries' and field survey was carried out in all selected locations and data was extracted to know the outcome of the project. Obtained data was utilized for understanding of what best can be done in present conditions and what best can be done to improve the same. This data collected was utilized as an insight of project carried out as ameans of self-evaluation of the project completed.

The main objective of the study are:

- 1. To obtain views of public over current sector outcome, Government program related to road sector and functioning of PWD department.
- 2. To collect required data of the selected location in suitable format and utilize the same for future comparison



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- 3. To present the findings of the survey to the senior authority of Government of Karnataka for future usage.
- 4. To present the survey findings to PWD department.
- 5. To analyses data obtained and extraction of sources for better understanding of project completed.

## **II. METHODOLOGY AND DATA COLLECTION**

The methodology adopted for the study is as follows:

#### i. Selection of district

The present study aims at finding of the road user satisfaction of Road network projects of different categories like NH, SH, MDR& urban road. Keeping this criteria in mind a suitable location pertaining to criteria a suitable district is selected. Hence for obtaining the required data Gadag District is chosen by keeping in mind the Road work of NH and SH which is under progress. The survey was carried out in selected location of SH-67(link 27-A) from Shelavadi to Gadagof length 27.70 km,(link 27-B) Gadag to Mundargi.





#### ii. Selection of road network

The study location was selected within the chosen District of study based on following conditions

(i) Type of road (ii) Roadfurniture (iii) Vehiclecomposition (iv) Ease of data collection

#### iii. Description of study area

The selected location for obtaining of data was Gadag district with Road network of link 27-A (Shelavadi to Gadagof length 27.70km), Link-27-B (Gadag to Mundargi of length 25 km).

Location was chosen keeping in mind the main data to be obtained in order to study the main aim of this project. Study was carried out in 5Different location of various categories of road network. In selected locations of Gadag district questioner's surveys were carried out in order to know the exact opinion of the road users. These locations were selected due to increase in volume of traffic and linking of different categories of the road so as to study its effect.

Road furniture of selected locations was analyzed to check whether it meets needs of the people and what best can be done for its improvement

## iv. Data collection

Data pertaining to study area was carried out manually in selected location by following sampling techniques as described in steps below.

Step 1: selection of district



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All villages in 1 district of state is selected and complete data of the same is collected from all the villages Step 2: Allocation of sample size across district

The total sample size of the selected location is distributed proportionally

Step 3: selection of village

Across the 1 districts, 25 villages selected using systematic random sampling (at the rate of 6 villages per district from different taluks) for the household and farmer interviews. Of the total number of villages selected, 50% were close to NH, 40% located close to SH and 20% were close to MDR. In addition, 10urban areas were covered for household interviews

Step 4: selection of no of respondent households

A total of 10 agricultural household from each village and 7 nonagricultural household was chosen interview.

#### **III.SIMULATION AND RESULTS**

| TABLE 2: Distribution of Users by Perceived Reasons for Feeling Unsafe |    |     |        |        |     |      |       |    |      |
|--|----|-----|--------|--------|-----|------|-------|----|------|
| Reason   | TD | PBD | KSRTCD | T/HC-D | AD  | CO/U | TWO/U | нн | F/AP |
| National Highway   |    | L   |        |        |     |      |       | 1  |      |
| Over speed traffic   | 40 | 32  | 32     | 31     | 26  | 37   | 48    | 40 | 38   |
| Inconspicuous inter sections   | 11 | 8   | 9      | 13     | 8   | 6    | 7     | 11 | 8    |
| Over taking  | 36 | 29  | 36     | 31     | 36  | 27   | 26    | 38 | 35   |
| Volume of traffic  | 33 | 36  | 40     | 30     | 34  | 30   | 26    | 44 | 46   |
| Aggressive driving by others   | 24 | 13  | 22     | 28     | 16  | 19   | 24    | 27 | 25   |
| Heavy goods vehicles   | 21 | 31  | 36     | 32     | 44  | 28   | 43    | 30 | 30   |
| Poor road geometrics   | 25 | 10  | 16     | 19     | 13  | 19   | 4     | 19 | 17   |
| Absence of road signs  | 7  | 8   | 9      | 8      | 7   | 14   | 2     | 6  | 9    |
| Absence of lighting at major intersection                              | 7  | 4   | 3      | 7      | 5   | 5    | 0     | 6  | 6    |
| Pedestrian/Cattle crossing   | 7  | 8   | 6      | 10     | 15  | 10   | 7     | 13 | 12   |
| Total N  | 78 | 125 | 224    | 98     | 190 | 118  | 286   | 55 | 160  |
| State Highway  |    | 1   |        |        | 1   |      | •     |    |      |
| Over speed traffic   | 10 | 11  | 15     | 11     | 9   | 13   | 8     | 15 | 12   |
| Inconspicuous inter sections   | 11 | 11  | 7      | 5      | 5   | 8    | 11    | 11 | 10   |
| Over taking  | 11 | 11  | 13     | 13     | 18  | 14   | 16    | 17 | 16   |
| Volume of traffic  | 11 | 12  | 14     | 15     | 20  | 13   | 15    | 18 | 20   |
| Heavy goods vehicles   | 8  | 7   | 11     | 9      | 12  | 16   | 6     | 11 | 11   |
| Poor road geometrics   | 38 | 39  | 34     | 33     | 26  | 42   | 32    | 32 | 34   |
| Bad road condition   | 81 | 70  | 75     | 73     | 75  | 76   | 71    | 70 | 69   |
| Absence of road signs  | 22 | 26  | 22     | 22     | 23  | 24   | 32    | 15 | 17   |



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| Absence of lighting at major | 6  | 12  | 6   | 9   | 11  | 6   | 6   | 11 | 10  |
|------------------------------|----|-----|-----|-----|-----|-----|-----|----|-----|
| intersection                 |    |     |     |     |     |     |     |    |     |
| Pedestrian / Cattle crossing | 12 | 16  | 11  | 12  | 13  | 15  | 13  | 12 | 13  |
| Total                        | 65 | 106 | 187 | 114 | 182 | 128 | 221 | 60 | 150 |



Figure 2: Percentage distribution of road users for feeling unsafe Table 3: Distribution of Drivers by Duration of Driving in a Day

| <b>Duration</b> (in a day) | TD | PBD | KSRTC-D | T/HC-D |
|----------------------------|----|-----|---------|--------|
| <5 hours                   | 8  | 3   | 15      | 6      |
| 5-9 hours                  | 6  | 3   | 18      | 5      |
| 10-14 hours                | 6  | 4   | 15      | 4      |
| 15-19 hours                | 2  | 2   | 4       | 2      |
| 20+ hours                  | 1  | 2   | 1       | 0      |
|                            |    |     |         |        |
| Total N                    | 65 | 106 | 187     | 114    |

Table 4: Distribution of Users by Extent of Overall Satisfaction

|                      | TD  | PRD | KSPTCD | T/HC D  | AD  | CO/U | TWO/U  | нн   | Ε/ΛΡ |
|----------------------|-----|-----|--------|---------|-----|------|--------|------|------|
|                      | ID  | FDD | KSKICD | 1/11C-D | AD  | 0/0  | 1 WO/0 | 1111 | ITAI |
| NIL                  |     |     |        |         |     |      |        |      |      |
| NH                   |     |     |        |         |     |      |        | -    |      |
| Not at all satisfied | 02  | 03  | 31     | 09      | 42  | 23   | 89     | 03   | 43   |
| Somewhat satisfied   | 22  | 25  | 21     | 21      | 57  | 23   | 91     | 19   | 30   |
| Satisfied            | 43  | 62  | 57     | 51      | 63  | 64   | 53     | 16   | 56   |
| Very satisfied       | 13  | 10  | 21     | 10      | 48  | 9    | 83     | 12   | 31   |
| -                    |     |     |        |         |     |      |        |      |      |
|                      |     |     |        |         |     |      |        |      |      |
|                      |     |     |        |         |     |      |        |      |      |
|                      | = 2 | 100 |        |         | 10. | 100  |        |      |      |
| Total                | 73  | 122 | 211    | 92      | 195 | 109  | 277    | 51   | 157  |
| SH                   |     |     |        |         |     |      |        |      |      |
| Not at all satisfied | 2   | 2   | 1      | 3       | 42  | 4    | 46     | 2    | 2    |
| Not satisfied        | 37  | 38  | 29     | 33      | 36  | 36   | 32     | 12   | 29   |
| Somewhat satisfied   | 22  | 51  | 57     | 51      | 37  | 49   | 49     | 26   | 48   |
| Satisfied            | 8   | 7   | 12     | 13      | 24  | 11   | 18     | 18   | 19   |
| Very satisfied       | 1   | 2   | 1      | 0       | 70  | 0    | 75     | 2    | 2    |
| Total                | 71  | 101 | 165    | 119     | 213 | 182  | 215    | 57   | 143  |



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Figure 3 : Percentage distribution of overall satisfaction and duration of driving



Figure 4:Opinion survey carried out in SH 63(link 27-A) and Agriculture household survey



Figure 5: details of the survey junction link 27-A, 27-B



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## **IV. CONCLUSION**

After carrying out work in the selected district following review can be drawn based on the data obtained:

- 1. It was found that in certain links of SH the main reason for feeling unsafe was due to Aggressive driving and over speeding traffic.
- 2. Certain road further in the selected link was not up to the designed guidelines and it does not meet the road users requirement
- 3. It was found that 60% of agriculture households people did not have a proper access to main roads and its facilities
- 4. The main reason for the traffic problem in the urban roads was due to absence of proper Road furniture and non-judicial road signs
- 5. It was also found that people were not satisfied for the amount of work carried out by the concerned department of the same
- 6. In case of the MDR stretch of road the road deign and geometric design standard was not given much importance, like unwanted speed breakers and absence of bus bays in important locations
- 7. As per data obtained and analyzed it was found that the amount of satisfaction by road users was reduced by 10 % compared to last year results which was a major drawback.
- 8. It was also found out that periodical maintained of road work and road furniture was not given importance

#### V.ABBREVATIONS

| TD     | : Truck drivers   |   |
|--------|---|---|
| PBD    | : Private bus drivers                                     |   |
| KSRTCD | : Karnataka state road transportation cooperation drivers | : |
| AD     | : Auto drivers  |   |
| CO/U   | : Car owners/users  |   |
| TWO/U  | : Two wheeler owner/user                                  |   |

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**Mr. B. Vinayaka** completed Mtech from Reva College of engineering. He has completed civil engineering from Reva College of engineering, Bangalore. Awarded gold medal from VTU in Mtech. His area of research is present trend in transportation engineering using VISSIM