

TRAFFIC CONGESTIONS IN PUNE: - CAUSES AND SOLUTIONS

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ABSTRACT

In now day's traffic congestion and road accident was a major problem for each and every citizen in world. These problems persist due to increasing number of vehicles travelling on the road. As The road network system of a country play a very important role in Development and Growth of country in various field like social, cultural economic and tourism sector, etc. So for better and rapid development and growth of country it was very important to find out solutions and solve this problem. In this paper we first describe and explain the factor affecting the problem and creating the traffic congestion in the city. Then study that problem and causes and find out some alternative measures for the resolve that issue.

Keywords: Traffic Congestion, Inaccurate Parking, Roadside Parking, Population Growth, Urban Transport, Vehicle density and traffic pattern, Alternative solution.

1. INTRODUCTION

Traffic jams and congestion is a one of largest problem in Pune city. Due to that traffic congestion problem there is chances of accidents. We all know that the Pune is a well developed metropolis city. The population density of city is also increased in last few decades. But in that well developed metropolis city there are some Traffic troubles. These troubles need some solution or alternative way to increases the traffic moving efficiency. Each and Every time when we travel in the Pune city, we see that some citizen, Autorikshas standing on or beside roadway disturbing moving traffic. That also the cause of the traffic congestion and also there is possibility of accident. Not only Rules, Regulations & laws Decreases the traffic problems but also we need to find out some alternative solution for that, Develop the roadway with advanced traffic regulation technologies. Also need to educate peoples, citizens about traffic rules and regulation, Advantages of it.

Traffic congestion problem create a serious and bad impact on development of city. Jams Decreases down the movement speed of the vehicles tends increase the travel time. The Objectives of our works is to provide a Good solutions, Logical and practical ideas and conceptual guidance to manage traffic movement in such way to reduce congestions and decreases the overall impact of it on individual citizens, Travelers and on society.

2. LITRATURE REVIEW

Study of Road Traffic & Management: A Case Study at Katraj and Nalstop Intersections In Pune City. In this Paper the Authors Gayatri Choudekar & Rohit Salgude Make an Case study on Road Traffic and the ways of it managements at 2 main junction in Pune city. They put some observation and causes of traffic troubles in these places [1].

[1] Urban Transport in India: Issues, Challenges, and the Way Forward.

[2] There work is based on the reasons and causes of traffic problem in whole India. They do survey off traffic movement are create a report. They also discussed about the impact of jams on environment and suggest some solution [2].

[3] Pune Traffic Problems & Control Measures.

- [4] In this Paper the Authors find out some Traffic congestions causes and put some solution for the better managements of traffic in Pune city. Also put the thoughts of Pune traffic police [3].
- [5] Traffic Congestion Problem at “Khadi Machine Square”, Pune.
- [6] There case study is particularly based on the one place which is joining the roads coming from outside of city, joining to the NH Highway. They do a survey at this place and observed various problems facing by users. They suggest some measure for these problems [4].
- [7] Traffic Congestion: Causes and Solutions case Study: Hinjewadi, Pune.
- [8] There case study is particularly based on the one place which is IT hub of Pune and joining the roads to the NH Highway. They do a survey at this place and observed various problems facing by users. They suggest some measure for these problems [5].
- [9] Traffic Congestion and Possible Solutions in Urban Transportation System.
There work is based on the reasons and causes of traffic problem in urban cities and they suggest some alternative solution. They also discussed about the impact of jams on environment [6].

3. OBJECTIVES

The main Aim & objectives of this study and this review paper is as follow,

1. Find out the actual reasons causing traffic congestion.
2. Suggests some practical solutions for traffic management for Pune city to reduced congestion.
3. Decrease the travel time by reducing the traffic jams.
4. Reduce the unpleasant impact of traffic jams on environment and society.
5. Improve traffic movement through proper traffic managements.

4. TRAFFIC PROBLEMS IN PUNE

When we try to understand the problem by discussion with Road users, Citizens and traffic police they told us some problem, causes of it. The traffic problems in Pune city are as follow;

1. Inefficient Road Network:

In last 25-30 years Pune's traffic has increased by more 100 time, Compare to this the road developed and constructed hardly by 6 times. Hence due to that huge traffic, the road network is not capable to handle this traffic efficiently. The road network was insufficient so that why there is traffic jams.

As per the Calculation there is required 15% road network area but currently there is only 7%.Hence due to this variation there are huge traffic jams in different parts of the city [3].

2. Inappropriate Traffic Management:

Traffic movement police are present in main junction but they are busy in checking licenses of user, vehicles document and applying penalty challans to the offenders. Also there are insufficient routes for reaching on destination [3].

3. Inefficient Inter-City Bus Transport:

In Pune Municipal Corporation Area there are major inter- city as well as outer city bus station located at Shivajinagar, Pune Station and Swargate. But there is lack of number of city buses travel in city. The passenger travel in these buses is more than its capacity. Due to that there is delay in reaching time [3].

4. Traffic Rule Violation:

Citizen and Road user are not follows the traffic rules. Many of them not follow the signal and break it; many of them stopped their vehicles on roadsides as well as on Zebra Crossings while waiting for signals. That's why the pedestrians not use Zebra Crossing for crossing the road and meet with an accident while try to cross the road [3].

5 Inadequate Infrastructural Facilities:

Infrastructure like Flyovers, Road side over bridge, Subways, Pedestrian Bridge and subway are in limited in number. So many areas are facing problems of traffic congestions [3].

6. Inappropriate Constructions & maintenances work:

While constructing the roads the quality of constructions is not as per norms so there is so many pot holes, unevenness persist on roads. As well as there is no any proper maintenance for damaged roads [3].

5. IMPACTS OF TRAFFIC CONGESTIONS

Traffic Jams make an improper negative impact on environment, Societies and as well as on development and economy of city. It involves long queuing, slower speeds of traffic movement and lots of travel time [3].

1. Congestions increase the travel time so our valuable time waste. Due to extra time of travel the cost of transporting and travelling also increases.

2. The repetitive start and stop movement of vehicles make adverse effect on vehicles. Also due to that driving pattern consumption of fuel is more it increasing the pollution by emitting more carbon in the environment.

3. The burning fuel in the vehicles also emits the nitrogen Oxide and some hydrocarbons which is very harmful for environment [6].

4. Traffic congestion makes noise which is more than 90 dB and creates noise pollution [6].

5. Traffic congestion also makes an adverse effect on health on road users, citizens. Due to pollution there is problem of hearts and due to noise pollution many citizen faced the problem of headaches.

6. CAUSES OF TRAFFIC JAMS

1. Number of migrating peoples is increasing:

The peoples from village or any undeveloped area migrated toward city for the better job and better earning. As well as industrial sector and construction sector required the well trained workers which are not present in cities so they need to call them from outside of city.

As well as the students from the various areas are also come in Pune city for better Education, after all Pune is the '*Vidyeche Maherghar*'. Also the patients are also come in city for good medical treatments [6].

2. Improper planning of city development:

Most of the cities are not well planned it result there is lot of problem in future. The master development plan of city has not planned based on long term role so its result of problem in future roads widening [6].

3. Illegal and improper Parking:

The citizens in the city are so irresponsible; they parked their vehicles illegally and improperly on the roads and beside the roads. These unauthorized parked vehicles creating congestion problem every day in everywhere in city.

4. Insufficient PMT facility:

In Pune Municipal Corporation Area there are major inter- city as well as outer city bus station located at Shivajinagar, Pune Station and Swargate. But there is lack of number of city buses travel in city. The passenger travel in these buses is more than its capacity. Due to that there is delay in reaching time hence the citizen gives priority to use of personal cars and vehicles [3] [6].

5. High Purchasing power of citizens:

Due to the higher income and developed lifestyle peoples live in the city constantly purchases a new vehicle, that's why the number of vehicles in the city is continuously increasing. The present road are not capable to handle this load properly that's why there is create a traffic jams [6].

6. Encroachment by local shop kippers.

The retailers, shopkeepers forcefully and illegally set up their business on roads road and roadside pavements also put their advertising hoarders on roads it causes narrowing the road.

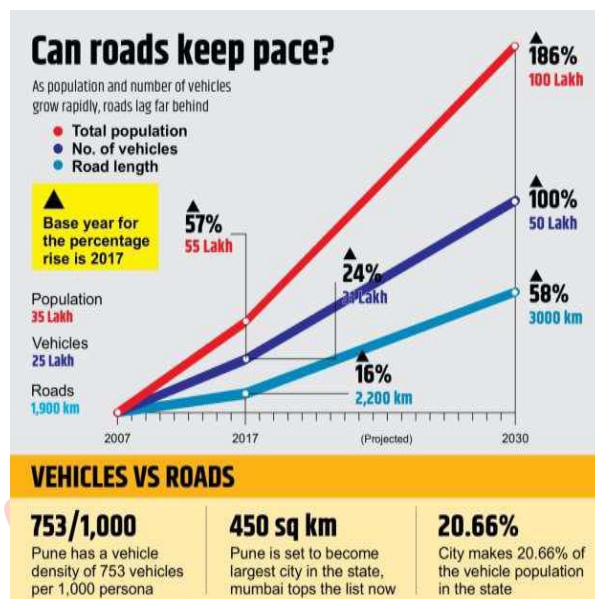


Figure 1: Statistics of Vehicles in Pune city [7].

7. SOLUTIONS FOR TRAFFIC PROBLEMS

1. Developing and promoting Public Transport:

The Employments in the city are mainly depend upon the Public transport but due to huge rush they choose their own vehicle for travelling. The organizations need to increases the number of buses and there frequency on various routes as well as developed the condition of busses. In addition to that need to gives various facilities during travelling [6].

2. Better future planning:

The corporations need to do a better future master plan with considering 25 years development as well reserve the empty space besides road for the future extension of roads.

In addition to that they need to do work on the current scenario of road and what was the reason behind this [6].

3. Strict traffic rules:

Need to take serious and strict action on the drivers who breaks the traffic rules and regulation. As well as take an action on rude, careless drivers who drive the vehicles irresponsibly.

4. Installing intelligent signal system:

The current signals are work based on time but this method is not much more effective because the there are long queuing on road where the number of arriving vehicles are more.

Instead of this need to install the intelligent signals which work on the number of vehicles stop on signal [6].

5. Construct smart parking hubs:

Need to construct a Proper and sufficient smart parking hubs in the highly population density area. So the citizen can easily get the parking space. It helps to increases the road width which is occupied by road side parked vehicles.

6. Removing Encroachment:

Need to remove Encroachment of local shopkeepers and clear the footpath. Due to that Encroachment the pedestrian use road shoulder for walking on roads. After removing it need to regular monitoring by administration and prevent such type of occupancy [9].

7. Install Traffic Management System:

A smart traffic management system informs the drivers about upcoming situation of road condition. Due to that pre alert the driver can avoid the problematic route and select alternative route. This system gives the information about traffic intensity, temporary closed routes; ongoing maintains work, condition of roads, etc. This help to reduce the traffic congestions [8].

8. Construct a short fly over and subways:

Construct a short fly over and subway or underpass for the pedestrian at the junction where 2 or more than 2 roads meet like: Swargate, Hadapsar gadital, Katraj, Shivajinagar, etc. It also helps to reduce the accident of pedestrians.

8. CONCLUSION

In this study we see that the main reason of traffic jams in Pune is unauthorized and illegal road side parking. Also there is lot of deficiencies both in operational efficiencies and infrastructure. And due to that's traffic jams, there is possibility of accidents because of traffic jams.

This Traffic jams can be improvised by various strategies such as road broadening, improving road infrastructures and constructing a Fly over.

Traffic Jams make an improper negative impact on environment, Societies and as well as on development and economy of city. It involves long queuing, slower speeds of traffic movement and lots of travel time.

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