

# Challenges of Traffic Controlling and Urban Traffic Management in Srinagar City

Aijaz Ahmad Sofi <sup>1</sup>, Dr. Archana Sen <sup>2</sup>

<sup>1</sup> Research Scholar, <sup>2</sup> Assistant Professor

<sup>2</sup> Department of Regional Planning and Economic Growth

Barkatullah University, Bhopal, Madhya Pradesh, India

## Abstract

A maintainable transport system provides flexibility and availability to all its residents; and a safe and atmospheric friendly mode of transport. The road safety does not only depend on the drivers but also on the awareness and behavior of public on the roads and its stability with the traffic rules. Unnecessary to statement that there is an adverse health effect of city transportation in India due to poor planning and management of transportation and raising demands due to rapid urbanization. Appropriate Traffic Management can be seen as a beneficial measure of the state of governance in any city or nation. This study tries to explore the challenges of Urban Traffic Management and the role of Traffic Police in Srinagar city.

**Keywords:** Urban Transport, Traffic Management, Traffic Police, Maintainable Transport

## Introduction

Urban Transport problem has presumed a catastrophe quantity all over the world due to fast growth in population, move from village to cities, and consistent growth in the level of commercial activities, i.e. the flexibility of goods and services. The high manufacture, distribution, exchanges and effort of public and material has also placed pressure on transport movement. The demand for transport facilities can be generally divided into two groups, namely, passenger transport facility containing of traveler service or urban transport facility and the long distance passenger service and goods transport service includes short distance and long distance freight. Apart from this, 'there is also another way of looking at it, which has a diverse classification, specifically, urban transportation, and regional transportation, worldwide or intercontinental transportation. Though, to meet the demand for facilities of goods and commuters suitable modes of transport are essential. There is a need of suitable structure, e.g. road, rail, river network, sea port, airport etc., for accurate source of facilities. The transport structure should provide the essential facilities through suitable provision of required modes and infrastructure to reduction the crisis amounts and stop the cities from congestion, crowding, pollution and accidents.

## Traffic Management

The road traffic fatalities constitute 16.6% of all deaths, makes this the sixth leading cause of death in India, and a major contributor to socio-economic losses, the disability problem, and hospitalization. The problem of out-of-pocket expenses on accidental injuries, road traffic accidents, and falls, is the highest.

The financial problem is mostly high for poorer families in rural areas, and those looking for treatment at private health facilities with no health insurance. Traffic Management is that aspect of management which deals with the planning, organizing coordinating and regulating traffic operations, tools and methods so as to ensure safe, appropriate and economic transportation of persons and goods.

It has four aspects popularly known as Enforcement, Education, Engineering and Environment (4 E's):

**Enforcement:** An aspect of traffic management that deals with enforcement of traffic rules and regulation. It is one of the significant aspects of traffic management which runs the traffic orderly through ensuring the implementation of the traffic rules and regulations. It is deeply related to various other aspects viz. Engineering and Education. For instance, enforcement of traffic rules may depend on the awareness and suitable road infrastructure.

**Education:** Traffic education includes awareness and knowledge of traffic rules among the public. Understanding of traffic rules and regulation may bring self-discipline amongst the people and make the work easy for traffic. The traffic management through educating the people and imposing the rules properly may reduce the traffic accidents. Educational effort should be attached with strict enforcement. Without fear of enforcement, educational efforts do not work always. Traffic education should be the main concern of traffic management to make public follow the rules. Enforcement cannot be also operative without education as the police personnel or transport agencies cannot be ever-present. Self-regulation as the best outcome of education may reduction traffic accidents leading to major emotional and economic loss to the family and economic loss to the country. The education should become part of the school syllabus to teach the traffic values among the new generation. The student form higher classes and colleges should be involved in awareness drive. Funds provided for construction and maintenance of roads as well as for enforcing traffic rules should also cover the educational aspect.

**Engineering:** The engineering aspect deals with planning, geometric design and traffic processes of roads and streets and highways, their network, terminals, abetting land relationship with other modes of transportation for the achievement of safe, effective and suitable movement of persons and goods. It prevents traffic management from defective engineering design causing death trap. The appropriate small engineering procedures may decide the serious traffic difficulties. Indian Road Congress (IRC) is responsible for formulating, updating and disseminating various codes on construction and maintenance.

According to Government of India's report, the road safety specifications and designs should guide the Planning and construction of National Highways. The geometric safety standards including provisions for flyovers, grade separation, by-passes, railway over/under bridges, bus/truck lay-byes, service roads, junctions, overhead signs, cautionary/regulatory/informatory retro-reflective sign boards, crash barriers etc. should be considered under the designs of highways.

**Environment:** Earlier traffic management used to be identified with 3Es- Enforcement, Education and Engineering. With inaction of public transport system and growth of personalized vehicles, environment has become a very important aspect and that is how fourth E is added in traffic management. This includes issues like Control of environmental pollution and improving quality of the environment.

It focuses on planning, organizing, coordinating and regulating traffic operations, tools and methods to control the noise and air pollution. The aspect needs to be addressed very seriously at policy level to find out maintainable traffic solution for the fast growing Indian economy. The creation of road organization should not lead to degradation of environment. It should not adversely affect the natural beauty of the landscape.

The increasing incidence and harshness of recent Road Traffic Accidents (RTAs) in India involving modern vehicles have caused serious concern for road safety, posing serious challenge to transport policy makers, planners, regulators, police, engineers and civil society alike. With just 1% of world's vehicles, India leads with 10% of world's total Road Traffic Fatalities (RTFs) of 1.3 million, resulting in untold misery to lakhs of people, the country losing about 3% of its GDP. Data with the Transport Research Wing (TRW) of the Ministry of Road Transport and Highways (MORTH) and the National Crime Records Bureau (NCRB) of India indicate an alarming rising trend during 2002-2011 in the number of RTAs, the leading cause of unnatural deaths in India.

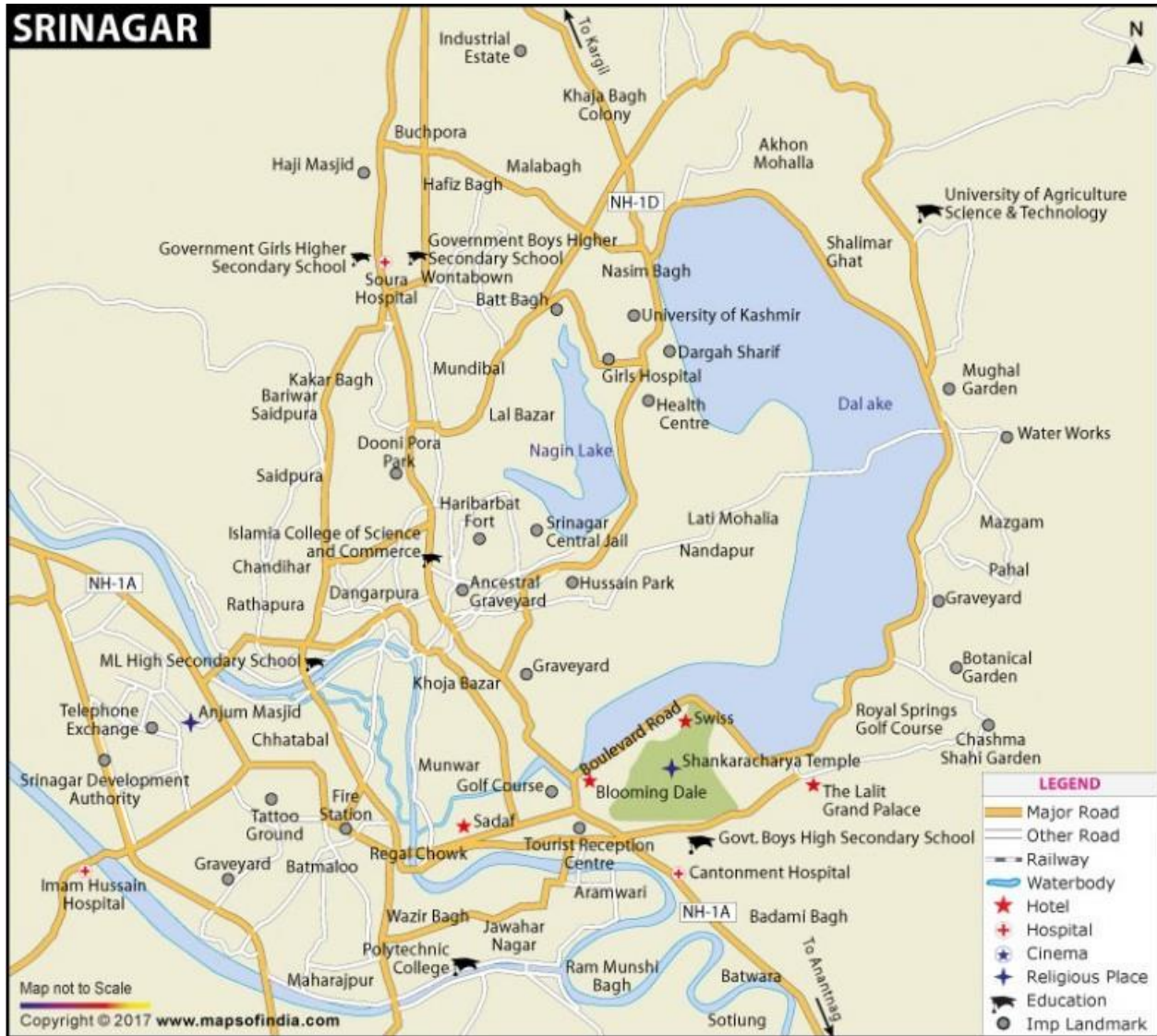
### **Traffic Management in Srinagar City**

Srinagar is the largest city in J&K and the largest city of Kashmir division. It is summer capital of the union territory and is situated on the banks of the Jhelum River, and Dal and Anchar lakes. Geographically, it is spread over an area of 1979 sq.km. with the growing population of 1,250,173 (2011 census). It is also well known for natural environment, gardens, waterfronts, houseboats and medical facilities etc. The change in commercial life of the public has led to growth of vehicles in the urban area of Srinagar. The economic activities together with inappropriate planning and maintenance of transport creates large traffic flow, spreading of congestion, accidents, flow of traffic etc. in the city.

In last two decades India has been growing with fast speed. The escalation in road traffic is evident outcome of economic growth. Effective traffic management is very important need for the economic growth of the country. The transport infrastructure of the country has not been able to keep pace with the increasing traffic demand. The most worrying aspect is approaching stagnation in the growth of public transport in quality as well as its quantity.

Srinagar city is not different from the rest of India. The problems in the bigger cities of the country are reflected in Srinagar city, of course on a different scale. The current study provides an overview of traffic management in Srinagar city and the role played by the Traffic Police. While the improper planning and maintenance of transport has main to spreading of congestion, accidents, flow of traffic etc. At the same time the total number of vehicles has increased in an accelerated rate on roads in Srinagar city. Effective traffic management is very important need for the economic growth of Srinagar city. The Transport infrastructure of the city has not been able to keep pace with the increasing traffic demand. The most worrying aspect is near stagnation in the growth of public transport in qualitative and quantitative terms.

Map of Srinagar City



### Objectives of the Study

The objectives of the study are as under:

1. To study the state of traffic management in Srinagar city.
2. To identify the challenges faced by the Traffic Police in traffic management of Srinagar city.

### Research Methodology

The universe for this study consisted of population from the five most congested areas of Srinagar city viz; Lal Chowk, By-pass Route, Natipora junction, M.A. Road and Batmaloo. By looking at the management of traffic in these areas, an attempt has been made in gauging overall state of traffic management in the city. The sample consisted of total 130 (100 citizens and 30 traffic police personnel) from the five most traffic congested areas of Srinagar city, selecting 20 respondents from each area. Different areas of Srinagar city were surveyed and data was collected within the scope of this study. Two sets of questionnaire were administered for citizens and traffic personnel.



### **Challenges of Traffic Police in Traffic Controlling**

Srinagar is the largest city in J&K and the largest city of Kashmir division. The city of Srinagar is spread geographically over an area of about 1979 sq.km. with the growing population of 1,250,173 (2011 census). While the wrong planning and maintenance of transport has led to spreading of congestion, accidents, flow of traffic etc. At the same time the total number of vehicles has increased in an accelerated rate on roads in Srinagar city. Traffic police has an important role in ensuring effective traffic management in the city.

### **Shortage of Adequate Manpower**

Traffic police of Srinagar lacks an adequate number of personnel to ensure operative traffic management in the city. Majority of the respondents revealed that there was shortage of adequate traffic police personnel for ensuring proper management of traffic in the city.

### **Shortage of Resources**

The survey revealed insufficiency of resources in general and financial resources in particular. According to the respondents there is lack of appropriate financial support to carry out the proper working and management of traffic in the city.

### **Usage of Social Media**

Accessibility of people on social media specifically in urban areas can also be operated for spreading information and awareness about traffic issues among them. Reporting of traffic areas through social media can help the organizations in dealing with traffic difficulties. The majority (90%) of the respondents were found using social media for spreading awareness about traffic rules and also rising the value of it for traffic administration.

### **Requirement of Particular Training**

Training plays an important role in the working of policemen. It brings practical know how and helps in discharging duties professionally and successfully. For traffic police personnel, training in specific field can help them realizing their full potential. There was full arrangement of traffic police about the requirement of specialized training for traffic cops in Srinagar city. Because in the traffic police, personnel are posted from general police cadre and they keep shifting from one branch of policing to other.

### **Coordination of Traffic Police with other Organizations**

Various bodies like Municipal Corporations, licensing authorities for shops and other agencies can assist in the traffic management. The better coordination among the different organizations is essential in the active traffic management. There was a lack of contract among majority (76%) about better coordination between Traffic Police and other organizations in ensuring active traffic management in the city.

### **Awareness and Education about Traffic Rules**

According to all the (100%) the traffic police personnel interviewed, the public are unaware about of appropriate awareness about the traffic rules in Srinagar city. Thus, they all hold that people need to be educated about the traffic rules. They also thought in the important linkage between awareness and

helpful behavior of people and level of co-operation from public. People's cooperation helps the traffic police to enforce the laws efficiently that eventually lead to operative traffic management system. There has been a low level of cooperation from people in general or in enforcing the Traffic rules in particular in the city. Though, cooperation from public enforcing the traffic rules specially is major (53.63%) than general aspect of it.

### **Grievance Redressal Mechanism**

According to majority (66.66 %) of responses, there is no procedure of grievance redressal mechanism at their clearance to address the traffic related issues of public. A feeling among all was noticed about the need of establishing Traffic Lights throughout the city for decreasing the cost and saving the time. Though, 86.66% of respondents recognized opening of feedback mechanism to get views on application and other efforts. The redressal of grievances of non-motorized modes of traffic may help in designing the maintainable transport system for urban and ensure the public transport and the environment safety. The structure design should meet the requirements of pedestrians, bicyclists and non- motorized rickshaws, all modes of transport operate in sub-optimal conditions. However, replanning existing roads will not only provide a safer and suitable environment for non- motorized modes, it will also progress competence of public transport vehicles and enhance the capability of the passage when measured in number of passengers transported per hour and per lane.

### **Perception of Citizens on Traffic Management in Srinagar City**

Majority (62%) of the citizen respondents were not satisfied with the present status of traffic management in the city. And (47%) of them highlighted their resentment for not having appropriate complaint mechanism to resolve their daily traffic related issues. Due to the lack of support from other organizations, the Traffic Police alone deals with the Traffic Management. Majority (60%) believed that despite of lack of well trained personnel, the traffic police were noticed to attempt at applying the traffic rules and laws to an extent. The 90% of them also expressed their awareness about Traffic Rules. According to 51%, the active role of traffic police and awareness among people play a important role in avoiding the Congestions, overloading, rash driving etc. to reduce the accident rates in a city. Agencies are responsible for traffic management do not work in a planned manner.

Traffic police do need to have short term and long term traffic management plan. The majority people (74%) held their silence about the police traffic strategy-planning, executing, monitoring, and evaluating their actions deliberately. 68% highlighted the active role of traffic police in informative the masses about traffic rules. Vehicles running on remnant fuels discharge carbon emissions among other harmful emissions that contribute in the serious problem of air and sound pollution. Traffic congestion also results in wastage of time of passengers, pedestrians and traffic police. The awareness to some extent may reduce the congestion also in the city. According to 91% of respondents, awareness acts as a catalyst that adopts the improvement in overall traffic management. The current cooperation from both sides as an outcome of awareness needs to be continuously increased.

**Sources of Awareness**

Name	Frequency	Percentage
Social Media	87	66.92%
Press	23	17.69%
NGOs	14	10.76%
Other	6	4.61%
<b>Total</b>	<b>130</b>	<b>100%</b>

**Level of Training for Traffic Operation**

Name	Frequency	Percentage
Good	34	26.15%
Satisfactory	28	21.53%
Low	68	52.30%
<b>Total</b>	<b>130</b>	<b>100%</b>

**Knowledge about Traffic Rules**

Name	Frequency	Percentage
Good	33	25.38%
Satisfactory	40	30.76%
Low	50	43.84%
<b>Total</b>	<b>130</b>	<b>100%</b>

**Grievance Redressal Mechanism**

Name	Frequency	Percentage
Good	19	14.61%
Satisfactory	25	19.23%
Low	86	66.15%
<b>Total</b>	<b>130</b>	<b>100%</b>

**Perception of Citizens on Traffic Management**

Name	Frequency	Percentage
Unsatisfied with traffic management	81	62.30%
Lack of well-trained Persons	78	60%
Role of traffic person in avoiding congestion, overloading	66	50.76%
Unplanned strategy in executing and monitoring traffic operations	96	73.84%
Need for awareness in overall traffic management	118	90.76%

### Suggestions

The city should be made 'smart' on priority basis to analyze the state of traffic in the area. And the focus of the Srinagar Smart City should be on establishing the smart transportation through creating and implementing an intelligent traffic management system which in result address the issues of congestion detection and prevention, emergency management, car safety and accident avoidance etc. It should also try to make transportation greener by helping to reduce gas emissions, fuel or energy consumption in vehicles.

The government should plan and implement various measures focusing on capacity building and research, strengthening and enabling legal, institutional, and financial environment for road safety. An effective implementation, enforcement and monitoring of policies, rules and intent should be made for the better results.

Discussion of Transportation Systems Management & Operations (TSMO) strategies from the planning stages to the construction phase of any general transportation project should be used in understanding the current initiatives started and the best practices to create a strong and performance-based program. The developed TSM&O project cycle process provides a detailed structure for the potential interactions between phases of a project and department staff as a key to ensure the achievements of the program to its main level of optimization. Continuous evaluation must be undertaken by the agencies to ensure the performance of the system. Developing performance measures should be utilized accurately to describe the objectives of the agency to ensure the action of plan.

The intelligent traffic management system based on internet can manage urban traffic more efficiently. This method of intelligent traffic management uses components like RFID and finding machineries to intellect the incidence and movement of labeled objects. The system plays a vital role in monitoring and managing the traffic automatically. The traffic signal lights at junction points are based on traffic congestion on roads interconnecting at that point. The model should be practiced as a single platform of communication with the large number of decentralized heterogeneous components.

The serious and uninterrupted traffic safety awareness drive connecting all sectors of society, mostly the operators, the drivers, school and college students, and on the need for strict agreement to traffic regulations should be initiated with the help of suitable communication strategy. It should be made a part of school syllabus and other projects. There should be continuous monitoring, verification and enforcement of rules under the Motor Vehicles Act (MV Act) viz. issue of vehicle permits, driving licenses, testing, insurance, on 5 key risk factors (like over-speeding and drink driving), mobile phone use, first-aid-boxes, driver fitness, vehicle fitness and its operation and maintenance condition, inflammable materials etc. the responsibility and accountability related to various offences should be made clear to all the officers as the operator need to establish Safety Management Systems.

The low floor buses with mechanical doors and segregated pedestrian and bicycle lanes should be adopted to reduce the fatal crashes of bicycles and pedestrians involving buses. Moreover, a legal, institutional and financial framework is necessary to ensure the road safety in India. A National Road Safety Board should be set up to lay down standards and guidelines, and to oversee and coordinate all



activities pertaining to road safety. The states as a major role player in promoting the road safety should get a package of incentives as an encouragement to adopt well designed programmes to reduce road accidents.

The awareness through including traffic related issues in the educational curriculum at various levels, using social media, special Enforcement and awareness drives under the NCC and NSS programme can be instrumental to redress the issues viz. Drunken driving, Over speeding, Driving without license, Teen-age driving, Transportation of passengers illegally, without necessary permit, Triple riding on two-wheelers, Use of mobile phone while driving, Dazzling head lights, Wrong side overtaking. Parking Strategy should be framed avoid the Parking on roads, narrow roads, busy markets, streets. The Parking lots should be developed both by government agencies and private developers on PPP model.

### Conclusion

The trend in urbanization is though the most important single factor in the region. However, on the basis of the findings of the study, in Srinagar like in other new emerging metropolitan cities- quality of roads, air, level of awareness, enforcement of law, traffic police and people cooperation, grievance redressal mechanism and most importantly match between number of vehicles and space availability etc. will play a significant roles in the future local urban transportation system. Non-cooperation of people in general sense harms the enforcement of traffic rules. The main reason for lack of self-regulation and non-cooperation is lack of awareness. The awareness among the common people helps the execution of the law. Using helmet, seat-belt, driving without license, the teen-age driving, triple riding on two-wheelers, the illegal transportation of the passengers without having necessary permits, the parking regulations, use of mobile phone while driving, drunken driving, speed regulations etc. are some of the important regulations that should be effectively implemented by police. The reduction of services of traffic management to the level of customary practice i.e. simply standing on the road and issuing traffic challans should be stopped. Various issues like absence of specialized police personnel/separate traffic police cadre and separate wing for studying issues and making appropriate recommendations should be resolved on priority. In Srinagar city, there is no concern or arrangement for women, children, students and senior citizens as their transport life only depends on the mercy of co-travelers. Lack of coordination among various agencies viz. Municipal bodies, Police authorities, licensing authorities for shops, the Road Transport department of the government make traffic, transport planning and management defective. The cooperative attitude is required for addressing the issues of encroachment, issuing license, parking, congestion etc. The various type of adequate resources are needed for setting up the modern infrastructure, i.e. modern vehicles, separate control rooms, specialized training, modern technological gadgets etc. The lack of Public Transport System in the city had led to operation of private buses and other private vehicles like matadors, mini door rickshaw, and tempo etc. which attention only on the income rather than facilities or traffic rule.

### References

1. G. Kondala Rao, “Road Traffic Safety Management in India – Analysis - Exploring Solutions”, International Journal of Application or Innovation in Engineering and Management, 2013, 2(12), 54-67.
2. Bhagwansing M. Bainade, “Smart Traffic Management: An Important Step towards Smart City”,

- An International Journal of Contemporary Studies, 2007, 2(2), 1-7.
3. Sarjo Das, Priyankar Roychowdhury, “Smart Urban Traffic Management System”, Trends in Transport Engineering and Applications (TTEA), 4(1), 56-65.
  4. Srinivas Goli, Shruti, Mohammad Zahid Siddiqui, Jitendra Gouda, “High Spending on Hospitalized Treatment: Road Traffic Accidents and Injuries in India”, Economic and Political Weekly, 53(14), 7 April 2018. <https://www.epw.in/journal/2018/14/special-articles/road-traffic-accidents-and-injuries-india.html>
  5. Dinesh Mohan, Geetam Tiwari, “Sustainable Transport Systems”, Economic and Political Weekly, 19 June 1999, 34(25), 1589-1596.
  6. Harish M., “Urban Transport and Traffic Management: For Sustainable Transport Development in Mysore City”, International Journal of IT, Engineering and Applied Sciences Research, 2013, 2(3).
  7. Shankar Nath Mukhopadhyay, “A Comprehensive Study of Traffic Management for the Improvement of Urban Transportation in the Districts of West Bengal”, (Ph.D. Thesis), University of Calcutta, 2004.
  8. Hasmukh Patel, “Traffic Management: Issues and Solutions”, (Ph.D. Thesis), M.K. Bhavnagar University, April 2013.
  9. Sundar Committee, “Road Safety and Traffic Management”, Ministry of Road Transport and Highways, Govt of India, February 2007.
  10. Hatem Abou-Senna, Essam Radwan, Alexander Navarro, Hassan Abdelwahab, “Integrating transportation systems management and operations into the project life cycle from planning to construction: A synthesis of best practices”, Journal of Traffic and Transportation Engineering, 5(1), February 2018, 44-55.