

Urban Traffic System in Bangladesh: A Study on Sylhet City Corporation

Author: Fatema Khatun

Designation: Associate Professor

Department: Public Administration

Organization: Shahalal University of Science & Technology, Sylhet, Bangladesh.

Abstract

A viable traffic system is one of the fundamental elements of the sustainable growth of urban areas. However, almost every urban area of Bangladesh has failed to ensure a proper traffic system or at least facing tremendous challenges to manage it. Uncontrolled and rapid urbanization have sharply accelerated the number of both public and private transport in cities. The municipal government or city corporation is responsible to manage the traffic system of those areas so that the city dwellers can smoothly move here and there without any unnecessary hassle on the road. The main objective of the study is to explain the role of Sylhet City Corporation in traffic management and the result of their management. A mixed-method approach (both qualitative and quantitative) has been used in this study. Data has been collected both from primary and secondary to discover the objectives of this study. Accidental and snowball sampling has been used to collect the data through a structured questionnaire. . The secondary data has been collected from available books, journals, newspapers, websites and other online sources. The study finds that the city is overburdened with numerous traffic problems because of the high population growth rate, absence of proper urban planning, poor traffic management by City Corporation and the apathy of the mass people public to obey the traffic rules. It is clear from the study that not only the City Corporation but also every citizen should perform their responsibility to overthrow the traffic problems and make the city more livable.

Keywords: Traffic Management, Sylhet City Corporation (SCC), Urbanization, Governance

1. Background of the Study:

Safe, sound and sustainable transport are one of the fundamental necessities of the human being. There are various modes of transport, such as space, water, land. Among various modes of land transport, like- rail, road, off-road transport, the road is mostly and widely used as a means of transportation especially in developing countries. An efficient traffic system helps to generate economic scale, reduce cost, increase competition, share trade information and it is more real in the case of urban areas. Traffic system comprises a variety of techniques for dealing with traffic-related issues, traffic information, traffic control in per intersections, road system and situation, freight and passenger service etc. It also makes a substantial contribution to the working efficiency of a large city. But in developing countries, like- Bangladesh, city streets are not in a commendable situation.

The present situation in Bangladesh is far better than the situation had a few years earlier. Almost every district has a road connection with the capital city. Regional, highways, feeder roads and local roads are at a satisfactory level. But the situation has becoming worsened in urban areas, especially in our metropolitan cities. We should keep in mind that a good network of roads and an efficient urban transport system make a substantial contribution to the work efficiency of a large city where a poor urban transport system may slow down the economic growth of the city and also lead to its decay (M. Darbari, A. K. Srivastava and A. Medhabvi, 2008).

The history of transport development all over the world is a process of gradual evolution. Bangladesh is not an exception in this regard. Over centuries a varied and complex transport system has developed in this country on

account of its various geographical features and historical facts. The history of Bangladesh shows that though the cities have developed based on water transport, like- Dhaka, Narayanganj, but with the passage of time and development of technology the road has been the be-all and end-all of transportation. It is estimated that the contribution of cities to national GDP is 80 per cent or more of the total GDP. Hence it is clear that transport development is very crucial in cities for the movement of goods and people and therefore need an effective transport system for the efficient running of the economy (Fungai Hamilton Mdzengerere & Virginia Madiro, 2013). So the importance of road transportation in urban areas is inevitable. But with rapid urbanization, different traffic problems, urban traffic deterioration is increasing so rapidly. At present most of the cities of our country are with serious transport problems like rapid traffic growth, traffic congestion, lack of maintenance, inefficient transport system mix and misuse of transport technology, higher road accidents, environmental degradation, weak institutional support etc (Dbnath & Mohammed Saiful Islam, 2009). The situation of urban intersections is a beggar description. The concerned authority often remains silent about it.

Sylhet is a major city in north-eastern Bangladesh. The city approaching a population of more than 5, 00,000 coupled with high population growth. The urban transportation in Sylhet City Corporation mostly relies on road transport, where car, rickshaw, auto-rickshaw etc are coexistent. This creates a serious traffic jam in addition to health hazards caused by traffic pollution including air pollution. So the improvement of the traffic system of Sylhet City Corporation has become imperative.

2. The rationale of the study:

In present days, the road is the only way of communication and transportation, especially within a city. Again transport sector shares 8.27% of GDP (2008) while the contribution of road transport is 7.45%. So it draws serious attention of the policymakers. A well-functioning road system is required for a viable development of a city. Although the road network has been substantially expanded and improved roads of a city still now are burdened with numerous traffic problems. This paper will bring out some issues and problems of the traffic management system and the role of SCC in this context. This paper delivers a few recommendations to uplift the poor condition of the road transportation system of SCC which would assist the policymakers to formulate a technically corrected urban transport policy. This paper would also supplement the literature of further study in this field.

3. Research Question:

1. How is the situation of traffic in Sylhet City Corporation?
2. What are the causes and effects of a poor traffic system?
3. What are the roles playing by the city corporation in the traffic management system?

4. The objective of the study:

The main objective of the study is to find out the factors which are responsible for the poor traffic system in Sylhet City Corporation. Besides:

- To explore the traffic system of Sylhet City Corporation
- To identify the cause and effects of a poor traffic system.
- To identify the role of city corporations regarding traffic management systems.

5. Research methodology:

In this study, an exploratory method with a survey design has been used to collect information. A mixed-method approach (both qualitative and quantitative) has been used in this study. In this research, both primary and secondary data has been collected to explain the research objectives of the study. The Sylhet City Corporation and the offices under its jurisdiction have been selected as the study area. The population of the study has been selected from SCC localities which include passengers, pedestrians, drivers from all types of vehicles and city corporation officials. The total population of this study was 150 and the study has selected 108 samples (Krejcie and Morgan's Sample Size with 5.0% error). Among them 90 are general people who are selected by accidental

and snowball sampling method and 18 officers of city-corporation are selected by the purposive sampling method.

A questionnaire was prepared to design with both an open-ended and close-ended. The primary data has been collected from the respondents by face to face interviews. The officials and staff of Sylhet City Corporation and executives of the road transport also have been consulted in this regard. The secondary sources of data comprise the relevant documents, research papers, articles on journals, web materials from home and abroad and the daily newspapers.

6. Literature review:

M. Darbari, A. K. Srivastava, S.Madhiva (2008) in their paper “Empirical Analysis of Urban Traffic System of Lucknow Using Data Modeling and Capturing Technique” stated that a good network of roads and an efficient urban traffic system make a substantial contribution to the working efficiency of a large city. On the contrary, a poor urban traffic system may slow down the economic growth of the city. In their view, the increase of private transport because of lack of public transport is mainly responsible for poor traffic system in urban cities. Along with it lack of street lighting, one-way road, absence of dividers, unawareness and apathy of young generation about traffic rules and regulations are their other stated problems.

Fungai Hamilton Mudzengere and Virginia Madiro (2013) in their article “Sustainable Urban Traffic Management in Third World Cities: The Case of Bulawayo City in Zimbabwe” stated that a viable traffic management system is crucial for the efficient movement of goods and people in urban areas. But traffic management system in cities of developing countries is far away from efficiency level. Among the various causes of the deterioration of urban traffic, rapid urbanization and an increase in car ownership are mainly responsible for such a situation. The other causes are lack of public transport, absence of adequate parking facilities, weak traffic control, flouting of traffic rules by motorists, inadequate traffic management measures, etc.

1stReport of Bangladesh Urban Forum (2011) illustrated the urban transportation system is not well-organized or coordinated to provide people with easy and comfortable access and mobility to different places. Private sector operators, although playing a major role in urban transportation, do not often comply with traffic rules due to a lack of efficient public monitoring arrangements. The mix of vehicles, motorized and non-motorized, and violation of traffic rules cause heavy traffic congestion in the cities. Thus it negatively affects the total inter-city traffic management system.

The Journal of Transport and Land Use, Vol.6 No. 1(2013) showed that the challenges of the transport system in developing countries are more than that of developed countries as mobility challenges are considerably different. Rapid population growth, poverty and income disparities, over-crowded urban cores, poorly designed road networks, economic losses from extreme traffic congestion are among the vexing challenges faced by developing cities that could be assuaged through improved coordination of transport and urban development.

Olaogbebikan Jimoh Enilo, Akinsulire Esther Seun and Enosko Okoko (2013) in their article “Traffic Management Problems in Lagos: A Focus on Alba International Market Road, Ojo, Lagos State Nigeria” illustrated traffic management system is a key element in the transportation improvement program of urban areas. They identified low spacious road, congestion, the ineffectiveness of traffic law enforcement agencies, one-lane road, ineffectiveness of traffic control measures, policy-related problems are main problems which are responsible for poor traffic system. They also recommended some measures to improve the situation. These are- long term plan, expanding the road network capacity, parking facility, execution of traffic rules effectively, advancement of traffic control system etc.

Construction, maintenance, planning of public roads, control and regulation of public transport and other means of communication etc, these functions are performed by Sylhet City Corporation like other city corporations. It also negotiates and advises SMP (Sylhet Metropolitan Police) in traffic control. But there are great problems in receiving road works related service. 51% of people face problems in receiving road work-related services and

30% of citizens are satisfied where 48% are dissatisfied with the road works of SCC (S.M. Saief Uddin Ahmed, 2013).

Knowledge gapIn different countries there are hundreds of research publications on the traffic management system of specific city. The research publication on the traffic system of Dhaka city is also available as it is the capital city Bangladesh and one of the traffic congestion cities in the world. However, most the researchers have little or no interest to study on the traffic system of the cities outside Dhaka. Therefore, this researcher has intended to study the traffic management system of Sylhet city in Bangladesh.

7. Conceptual framework:

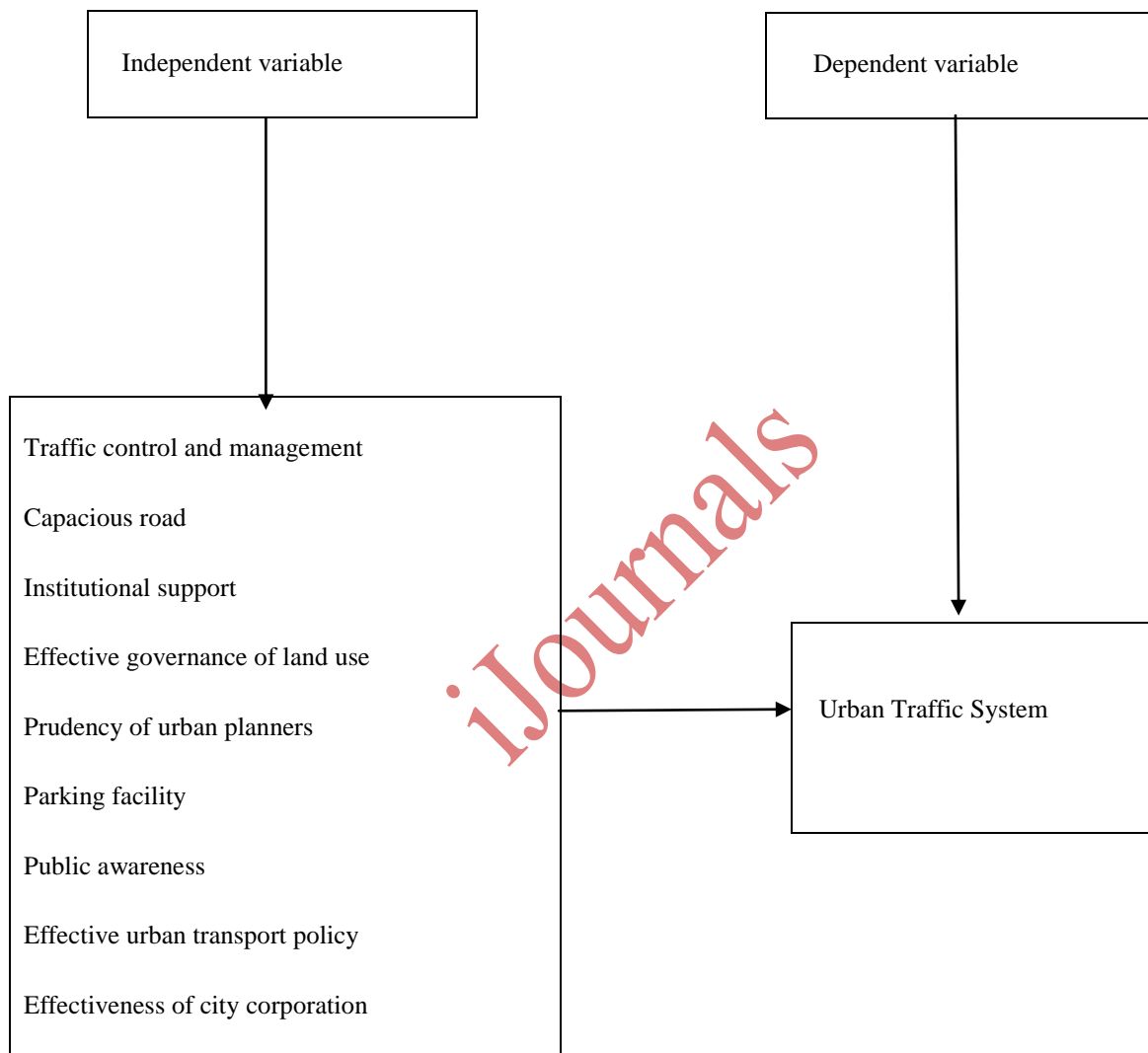
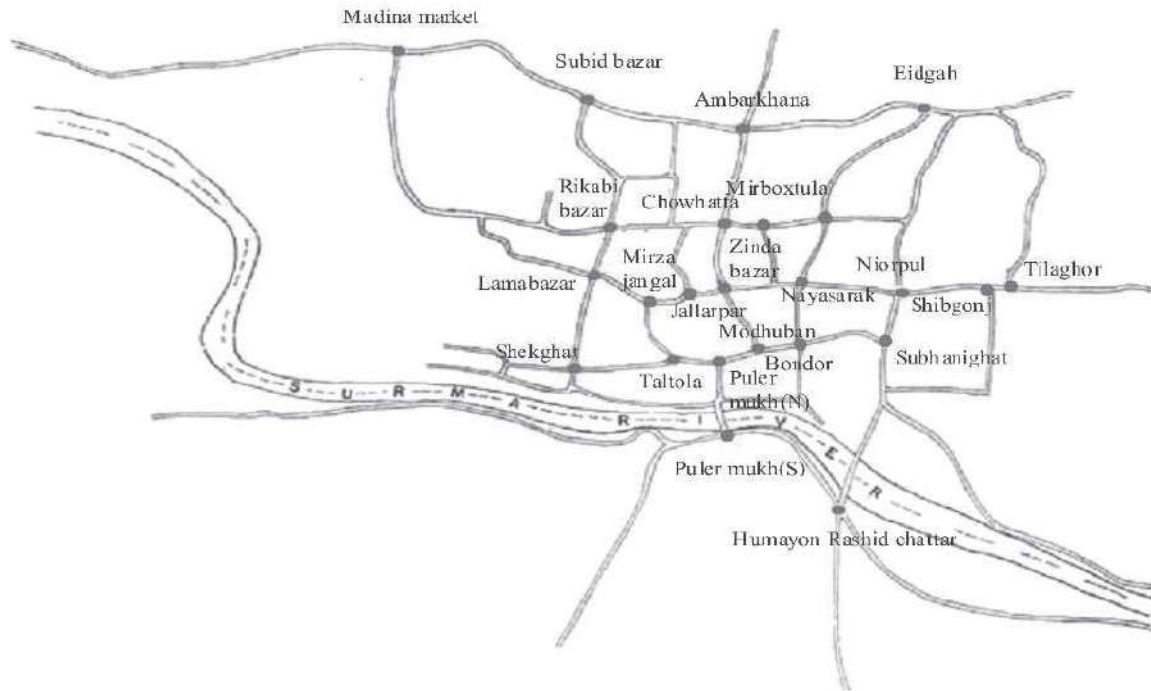


Fig: Conceptual Framework

8. Sylhet City Corporation at a glance:

The main city of north-eastern Bangladesh is Sylhet. It is one of the richest cities of Bangladesh. It was granted as a city corporation in 2001 and as a metropolitan city in March 2009. Sylhet City Corporation is situated on the banks of the Surma Valley and is surrounded by Jaintia, Khasi, Tripura hills. The City is approaching a population of 543,316 people also having a high population density (BBS, 2010). This city is the nucleus of the

greater Sylhet regions with all divisional heads of corporate offices, public and private universities, medical colleges, an international airport, tea gardens and so many public and private organizations. The Sylhet City Corporation is responsible for the services that are provided within the city which includes traffic, roads, garbage collection, water supply, registrations and many others.



Map: Road networks in Sylhet City Corporation showing important intersections.

9. The role City Corporation in maintaining traffic system:

Construction, maintenance, planning of public roads, control and regulation of public transport and other means of communication etc, these functions are performed by Sylhet City Corporation as like as other city corporation. It also negotiates and advises SMP (Sylhet Metropolitan Police) in traffic control. But there are great problems in receiving road works related service. 51% people face problems in receiving road work related services and 30% citizens are satisfied where 48% are dissatisfied with the road works of SCC (S.M. Saief Uddin Ahmed, 2013).

Table- 4.5: Infrastructure Facility Provided by Sylhet City Corporation

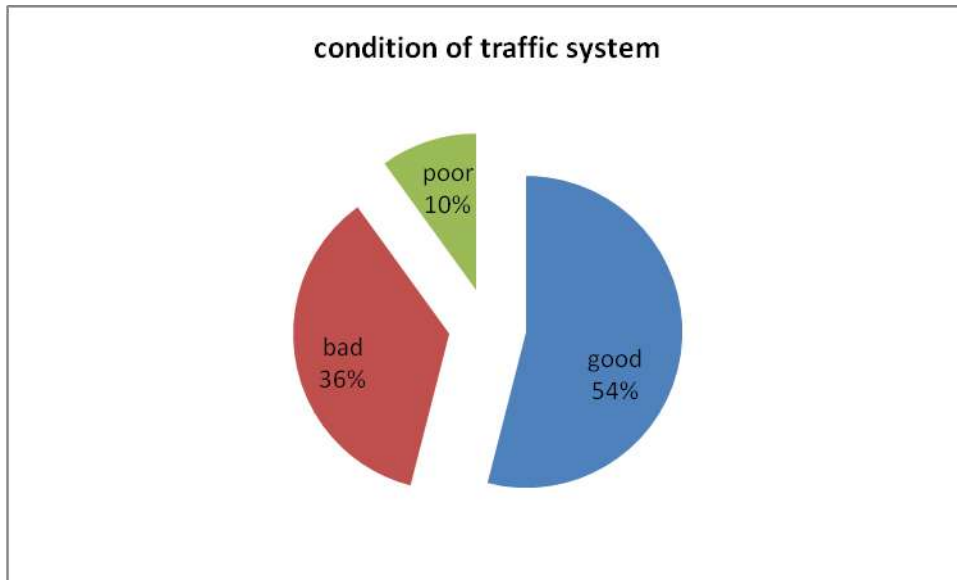
Sl. No.	Facilities Provided by SCC	Available
01	Pucca Road	500 Km.
02	Katcha Road	159 Km.
03	Pucca Drain	600 Km.
04	Katcha Drain	450 Km.
05	Bridge	04 Nos.
06	Box Culvert	50 Nos.
07	Foot Bridge	05 Nos.

Source: Sylhet City Corporation, 2007.

10. Data Presentation and Analysis:

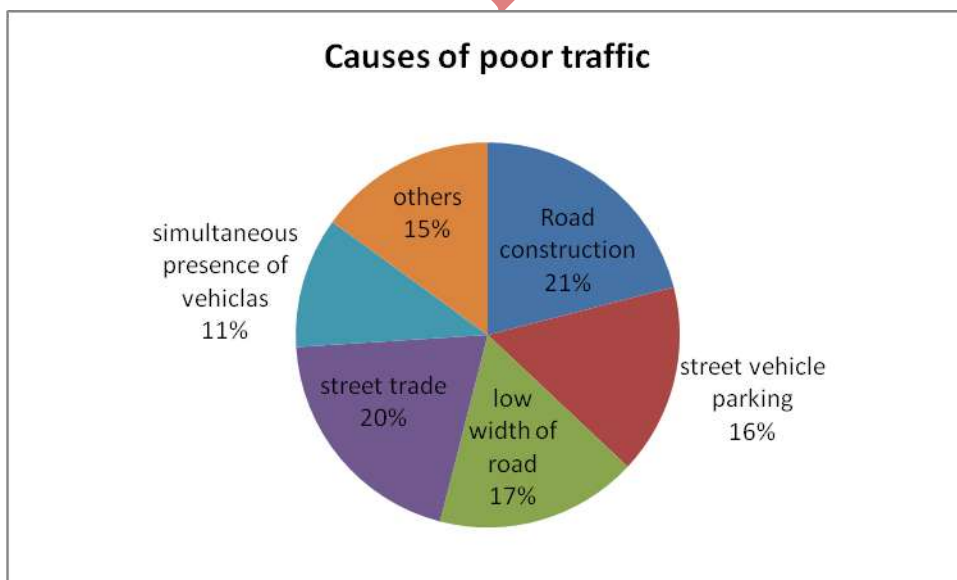
Data analysis is the most important part of social research since it helps to come to a decision about the researched issue. Proper data analysis presents a clear picture of the real situation. All the obtained data of this report, collected by questionnaire, have been explained in this part. And these data have been collected from face to face interview and some primary sources as well.

Chart 1: Condition of traffic system:



Among the respondents, 10% states that the traffic situation in SCC (Sylhet City Corporation) is good whereas 36% are bad and 54% are poor. But all of them agree to a point that the overall situation is deteriorating gradually and it will become intolerable in coming years. So we can state the overall traffic situation of SCC as poor.

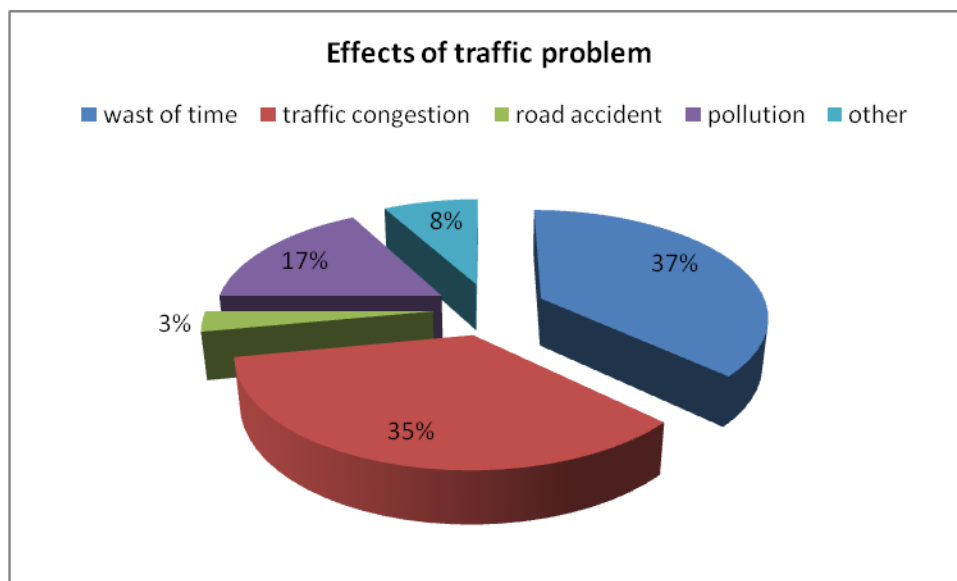
Chart 2: Causes of poor traffic



The study has shown that 21% respondent has identified poor road construction as the initial cause of poor traffic, then 16% on-street vehicle parking, 17% low width of the roads, 20% on-street trade, 11% simultaneous

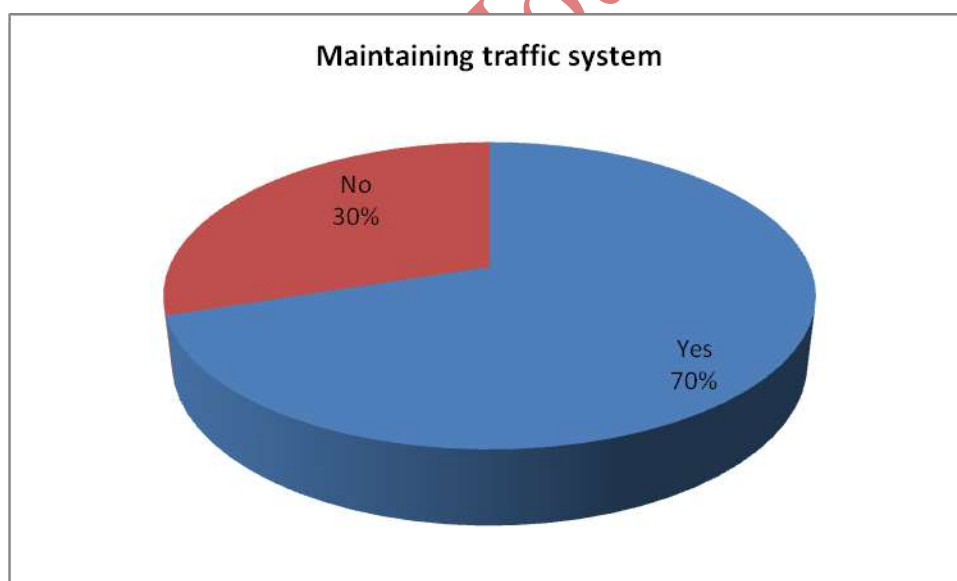
presence of a motorized and non-motorized vehicle and 15% others. Here other causes include poor traffic control management, un-integrated land use, construction materials at the roadside, ongoing construction activities, absence of mass transit, poor vehicle condition, lack of road furniture-road light, lane marking, loading and off-loading of goods and passengers on the road etc.

Chart 3: Effects of such problems:



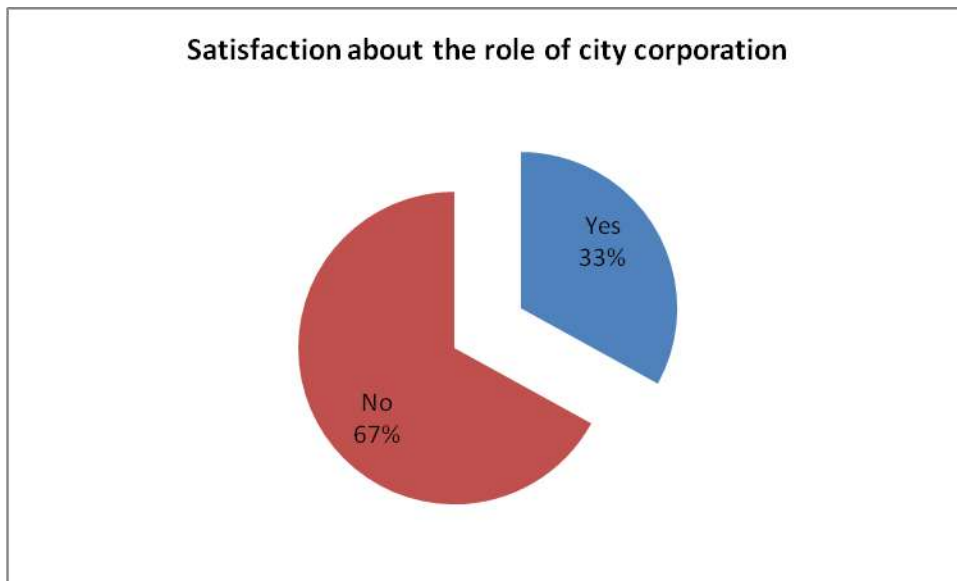
Such poor traffic has negative effects. The most serious impact of poor road is waste of time. 37% of respondent states that the most adverse impact of poor road traffic is waste of time, then 35% traffic congestion, 3% accident, 17% pollution and 8% other. Here, other impacts include stress, problems for emergencies vehicles, fuel consumption, spillover effects etc.

Chart 4: Idea about the role of City Corporation in maintaining traffic system:



The chart shows the consciousness of public about the role of City Corporation in maintaining traffic system. Among 70% respondent, more or less, possesses knowledge about the City Corporation role where 30% is ignorant about it.

Chart 5: Satisfaction about the role of City Corporation:



33% respondents are satisfied on the role of City Corporation and 67% is not satisfied.

Chart 6: information provided by City Corporation:

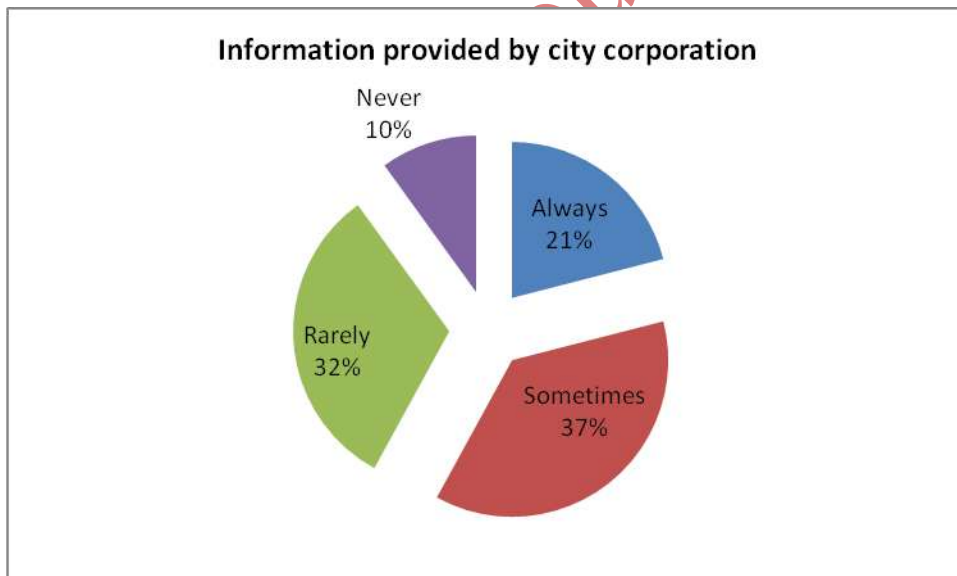
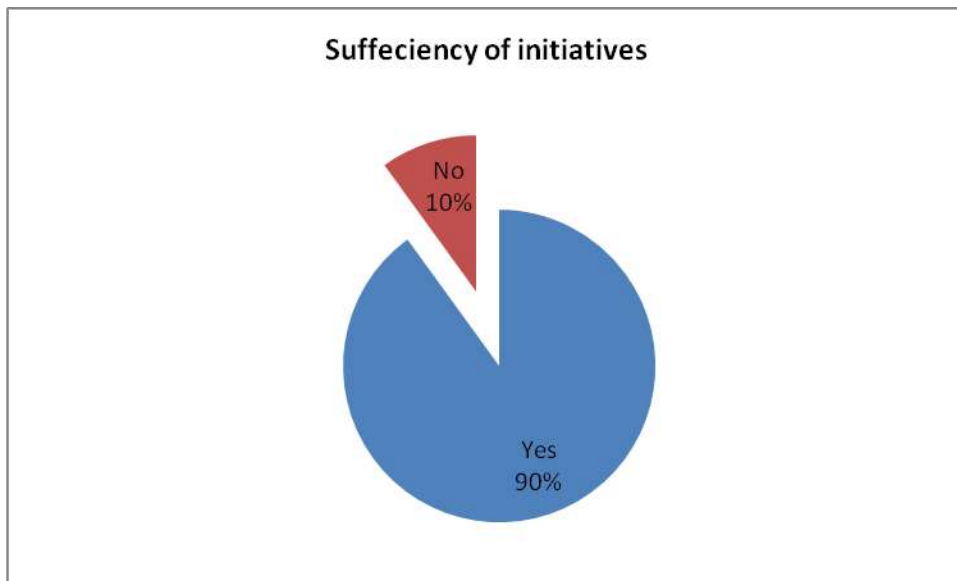


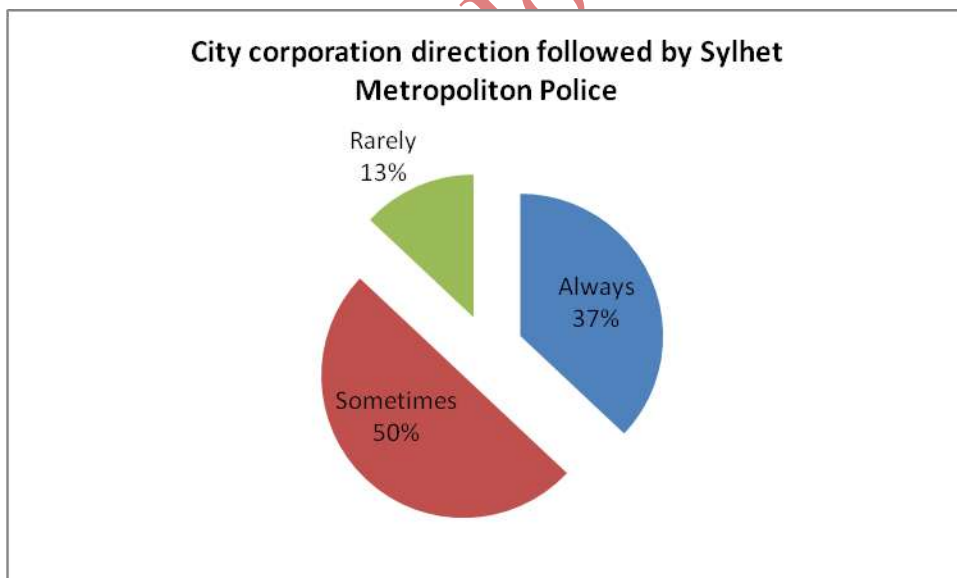
Chart 6 reveals that only 21% city dweller aligns with that City Corporation always provides basic information to them, where 37% sometimes, 32% rarely and 10% never.

Chart 7: Sufficiency of initiatives:



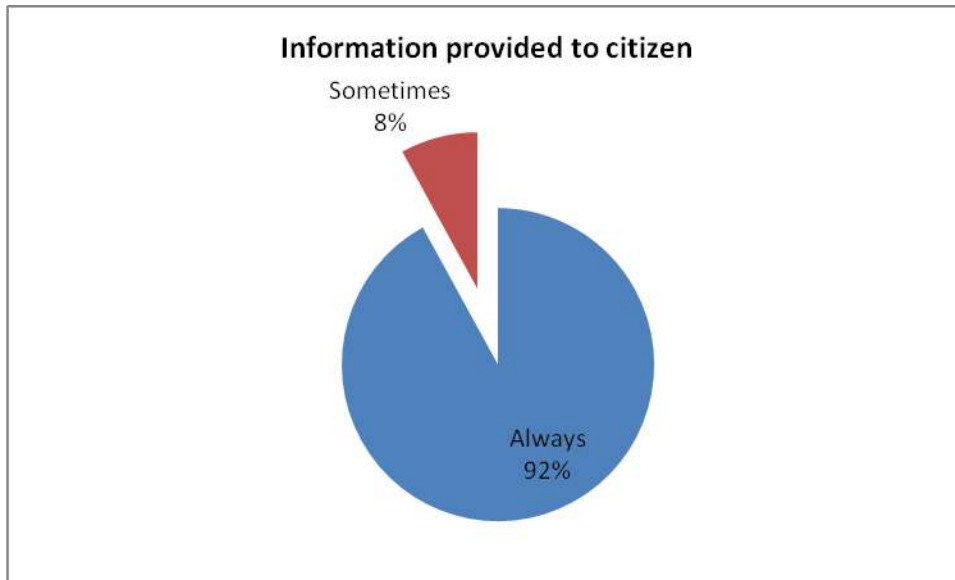
90%, officials think that the adopted initiatives are sufficient to extenuate traffic-related problems. Only 10% officials think that there need to take some other initiatives to give better performance.

Chart 8: City Corporation directions followed by Sylhet Metropolitan Police (SMP):



37%, of City Corporation officials, align that SMP follows the directions of City Corporation always where 50.00% sometimes and 13% rarely.

Chart 9: Information provided to citizens:



92% officials assented to the point that City Corporation provides information to the city dwellers regularly. On the other hand 8% officials said that City Corporation sometimes provides information to the city dwellers.

11. Findings and discussions:

This study reveals the opinion of city dwellers about the traffic system of SCC. It is found that the total condition of the traffic system is non-commendable. Most of the respondents think that the condition of the traffic system is poor (10%). But all of them agree to a point that the situation is deteriorating rapidly. And it will become unendurable in the coming years.

The study has shown that poor road construction and maintenance is the most significant cause of poor traffic systems. Because of the ineffectiveness and corruption of city corporation officials, roads are not constructed and maintained properly. Again incessant rainfall during the monsoon period and movement of overloaded heavy vehicles, such as - track, has aggravated the situation. The route, Amberkhana to Akhali, is an example, in where over-loaded tracks are mainly responsible for worst road condition. Besides this, almost all of the routes within the jurisdiction of the City Corporation are in poor condition and maintenance. Such condition underlies accidents, waste of time, traffic congestion and other serious problem.

The second most serious cause of poor traffic is on-street vehicle parking. Due to the absence of parking facilities in multistoried buildings, the ineffectiveness of law enforcing agencies, lack of awareness of public etc, and this tendency is increasing among car owners so enormously. On-street vehicle parking leads to serious traffic jams, waste of time, etc. The most affected areas of the city are Zindabazar, Modhushid (front of the Popular Diagnostic Centre), Niorpul point, etc.

Then low width of the roads which is the prime cause of traffic jam all along with the city. Almost all of the intersections are affected by it. The most invaded intersections are Lamabazar point, Zindabazar point, Amberkhana point, etc. With the exception, Chuhatta and Rikabibazar point are free of traffic jams because of specious intersections.

Another serious cause of poor traffic system is on-street trade. The assented space for footpath is used for trade. The nearest areas of Zindabazar and Bondor are most affected by it. Several attempts were taken by City

Corporation but most of them were in vain. Here, a noticeable thing is that there is a silent conflict between Sylhet City Corporation and Sylhet Metropolitan Police in performing this duty to abolish the traders.

The simultaneous presence of all types of vehicles also motivates to increase traffic-related problems such as traffic congestion, accident etc. The simultaneous presence of all types of the vehicle coupled with the narrow road has doubled the sufferings of city dwellers. Though there are some areas or intersections where separate lane has been managed for the slow-motion vehicle, such as – Bandor Court point, but these initiatives are too much incommensurate to face the problem it caused. If it is possible to initiate an extra lane for slow-motion vehicles rest of the intersections of the city it may reduce traffic-related problems.

Along with these some other serious problems are the absence of mass transit, un-integrated land use, on-going construction activities, poor traffic control management, construction materials amid road, on-street loading and off-loading, the apathy of traffic police, absence of traffic signals, non-cooperation of business class, negligence of traffic rules by drivers, exiguous enforcement of traffic rules, non-cooperation of citizens, etc.

The study also finds the role City Corporation playing in constructing, rejuvenating and maintaining the roads and road-related other infrastructures. Most of the respondents possess general knowledge about it where rest of the respondent doesn't have. The reasons why people remain uninformed about the role of City Corporation are the paucity of publication of City Corporation works, limitation of information provided by the city corporation, unconsciousness of public etc. Here it is an important as well as oppressive issue that many uneducated and semi-educated people are aware of the role of City Corporation where many educated persons are not. Again they are aloof about it.

Who are aware, most of them are not satisfied with the role that City Corporation plays in maintaining roads. 67% respondent is not satisfied with City Corporation roles and 33% people are satisfied with it. The reasons for such dissatisfaction are low quality of road construction, delay in constructing roads, public remain uninformed in times of construction, construction during the rainy season, and failure in expelling on-street business, etc. Traffic control is the role of traffic police but it is the responsibility of City Corporation to carry out the expenditure of materials relating to traffic control. Unwillingness in collecting waste also degrades the environment of roads. City Corporation has also failed to provide such service in some busiest points, such- Rikabibazar point, Niorpul, Puran puler mukh etc. Those who are satisfied with the role of City Corporation for the following reasons – construction of new roads, rejuvenation of old roads, the establishment of the waterfall at some point and other beautification works an extra lane for slow-motion vehicles in some points, such as Bandor Court point, etc.

City Corporation usually informs the citizens when they are explicitly involved in construction when the abode or some parts of a building will be broken down exiguously or exorbitantly. On the other issues, the citizens remain uninformed. In this situation, the opinion of City Corporation officials is that they inform respective councillors on constructing and expanding roads and drainage, building different road infrastructures etc. and the respective councillor must inform the citizen. Due to such elongating process, citizens have to suffer a lot.

City Corporation officials think that the taken initiatives are enough sufficient to mitigate traffic-related problems. They don't have any specific plan to mitigate excessive traffic congestion, to manage parking facility or to widen the roads. But the only plan they have is Sylhet Master Plan (SMP). They hope that SMP will better the situation if it is executed. They also expressed their doubt to execute SMP. The main resistances to execute SMP are political pressure, dearth of personnel, non-cooperation of public, etc. The budget is sufficient. But to formulate, execute a plan on transport, City Corporation hardly consults with Sylhet Development Authority, Sylhet Road Transport Group and other associations.

It is the responsibility of Sylhet Metropolitan Police to exclude on-street business. And the decision will come out from City Corporation. There is a contradiction that SMP often ignore the direction of City Corporation.

12. Recommendations:

This city has been the central point of the Sylhet division and many north and south districts. So people are increasingly migrating towards Sylhet and the migration rate is higher than in many other cities. Such an increase in population causes excessive pressure on its roads of the pre-urban stage. Again there is no growth plan for the city. Such a situation has created tremendous traffic problems. Among various problems, one is traffic congestion and the other is the scarcity of vehicles. The City Corporation authority can take the following steps to improve the situation:

- The authority should widen some roads in front of intersections immediately. Ex- Amberkhana, Zindabazar.
- Alternative roads should be constructed. Ex- in amberkahana road, the track is mainly responsible for traffic congestion. In this situation, an alternative road for tracks will mitigate traffic congestion in this point to a great extent.
- City Corporation can arrange regular education programs to sensitize the road users on effective utilization of roads.
- The authority should fix all dysfunctional road signals at various and introduce modern traffic control techniques rest of the busiest intersections, like- Amberkhana.
- A parking facility should be introduced and the CC can enforce or negotiate with the building owners to execute a parking plan.
- Administrative and institutional premises should be removed elsewhere of the city from Amberkhana, Zindabazar which will reduce traffic congestion in these areas.

Recommendations from the public' view:

- A public transport system should be introduced.
- Slow-motion vehicles, like- rickshaws, auto-rickshaw, should not be allowed in some areas, like- Amberkhana, Zindabazar.
- Construction of roads should be viable.
- On-street business should be removed permanently.
- Road construction should be stopped during the rainy season.
- The traffic control system should be more effective.

13. Conclusion:

Nowadays development is city-centred development. For the well-functioning of a city, well-functioning roads are inevitable. And well-functioning of roads mostly depends on a viable traffic system. In this study, an attempt was made to find out the factors which are responsible for the poor traffic system in Sylhet City Corporation and the role of City Corporation in this situation. Unplanned city growths, low width of roads, non-cooperation of public and some other causes have intensified the poor traffic system in Sylhet City Corporation. Again high migration rate has added an extra burden on it. The present situation is not beyond accomplishable. Some points of the city are burdened with numerous traffic problems but not the entire. If the situation of such intersections can be improved, there will be no traffic problems in the city. But here the most serious issue is a public cooperation. City Corporation has indeed vested with the authority to maintain all transport-related issues within the city but without the cooperation of all classes of people City Corporation alone cannot improve the situation. So citizens should come forward with a mind of cooperation and City Corporation should perform its responsibilities properly.

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