PLANNING FOR A FORMULATED GROWTH OF URBAN TRANSPORTATION IN JALANDHAR CITY

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ABSTRACT

“Cities in India are generally called the “growth engines of economy”. Indian cities are witnessing a massive urban growth in the form of smart city and sustainable concept. To fulfill this criteria urban transport is first leg which has to be completed with much importance for the successful execution of other phases. Future growth in urban Indian cities is likely to reach 75% of GDP by 2030. Urbanization leads to rapid motorization. The strength of motor vehicles in many Indian cities has increased manifold in the last 10 years, causing massive road congestion, increased number of road accidents and also an increase in the consumption of petroleum fuels. The country adopted the “National Urban Transport Policy” in 2006 which is solely emphasizing on the importance on moving more person while using less vehicles. There is a need of hour to step back and review so that future directions can be better aligned to deal with the emerging problems. With no availability of public transport system in Jalandhar, the urban road infrastructure has taken a toll by around 12 lakh private vehicles on the city roads each day. When the urban transport system started in Jalandhar around 8,000 people used to travel in the city buses every day. Now, with no bus service to move inside the city ,urban transport services in particular have deteriorated and passengers have turned to “intermediate public transport” (IPT), such as personalized modes and the auto rickshaws hence further leading to the increase in traffic congestion and pollution in the city. In Punjab the main cause of failure of public transport is the plying of unauthorized auto rickshaws well within the municipal area, and according to municipal rules the city bus service cannot go beyond the municipal limit, this scenario generally gets in favor of unauthorized auto rickshaws as city bus need to stop at particular stop and take more time to cover the same distance through route. To overcome this problem to some extend I have proposed a model which may solve the urban transport problem in Jalandhar if applied in a proper and strict manner.

Keywords

- MoUD- Ministry of urban development
- U.T- Urban transport
- B.R.T.S- Bus rapid transit system
- M.R.T.S- Mass rapid transit system
- N.U.T.P- National urban transport policy
- I.P.T- Intermediate public transport
- P.T- Public transport

1. INTRODUCTION

Modern cities in India can be differentiated according to their area, population, topography, economic activities, income levels, urban form, growth constraints etc [1]. Planning of urban transport will be depending
on these city specific features. Transport planning is directly linked to the land use planning and these both areas must be developed together so that it serves the entire population and yet minimizes travel needs. There is an urgent need to control pollution, conserve energy and to limit green house gases emissions[2]. Urban transport in itself is a solution to number of urban problems relating to mobility and economic wealth of the city. Traffic signals and road junctions are two main sources of delays on urban roads which in accidents and road rages as the user gets restless waiting for hour to get cleared from the traffic jams. In today’s world there is a huge deficit of public transport services in Indian cities. In Delhi 15 days even odd system brings the clear picture of how every individual prefers his or her own vehicle rather than using public transport .during 15 days period the occupancy rate of Delhi metro stood at 27.5 lakhs persons per day as to usual 26 lakhs. Indicating a marginal impact of the scheme that took thousands of car off the city [3]. Survey conducted by school of planning and architecture, New Delhi ,states that the volume of traffic decreased by 8-16% on some roads during the experiment, car pooling also helped in getting the some number decreased.

1.1.“Transportation Demand in Urban India”

According to the census 2011 urban population in India is 371 million which is 32% of the total population. It is projected to grow about 473 million in 2021(source MUT,MUD guidelines).total number of registered motor vehicles India is 142 million and is projected to rise to 450 million by 2021.which more than double the vehicles present today on roads.

1.2.“Road Network and related facilities”

Urban road network are the main infrastructure used in urban transport. The road network includes “intersections, bridges, footpaths, cycle tracks, street furniture, facilities for parking, terminals, intermodal transfer hubs, road markings, signage and traffic signals, taxi, auto, spaces for street vending and service lanes”[4].

2. SUSTAINABLE FUTURE TRANSPORT

Why Sustainable Transport a key issue to combat climate change

With historic Paris agreement in December 2015, the world has committed to striving towards a future where the global temperature rises no more than 1.5 degree Celsius. The right time to act, to save our environment is now and no environment plan can be successful without the inclusion of transportation plan[5].

In 2010, the transport sector was responsible for app 14% of worlds total green house gas emissions (23% of emissions related to energy) emissions from transport sector are rising despite significant carbon dioxide reduction efforts by many equipments and logistics providers.
3. PUBLIC TRANSPORT IN PUNJAB

Public transport is generally the facilities provided by the state and central government to the residents of city. Public urban system consists of mass rapid transit (MRT), B.R.T.S, Metro rail and city bus services are generally considered as the important part of urban systems which uses less vehicles to move large numbers of persons[6].

3.1. ‘Battery Operated Low Capacity Vehicles’

“Saarthi” are new inventions in the term of battery Operated Low Capacity Vehicles, which are quietly fulfilling the need of slow-moving transport system in cities. Since these vehicles are battery operated they emit zero pollution.

3.1.1. Eco-cab Project in Fazilka, Punjab

ECOCABS, worlds first rickshaw scheme with DIAL option, where technology meets tradition

An "Eco-cab" is a ‘dial-a- rickshaw’ service developed on a platform similar to OLA and UBER cab. The idea was to connect those areas of city where 4-wheeler cannot go or where 4-wheeler was creating traffic problems [7]. The concept was 1st launched at Fazilka, a small town in the state of Punjab near India Pakistan Border.

Table no.3.1 Eco-cab in Fazilka

<table>
<thead>
<tr>
<th>PROJECT ECOCABS</th>
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</thead>
<tbody>
<tr>
<td>Rickshaw operator in Fazilka</td>
</tr>
<tr>
<td>Registered with project Ecocabs</td>
</tr>
<tr>
<td>Beneficiaries of project Ecocabs</td>
</tr>
</tbody>
</table>
3.1.2. Eco-cab in Chandigarh

About 25,000 cycle rickshaws are operational in the Chandigarh area, transporting 5 lakh passengers per day, and thus saving estimated 75,000 litres of fuel. 114 tones of fresh air would be required to burn that fuel, otherwise.

Fig no: 3.2 Eco-cab in Chandigarh

3.2. B.R.T.S in Amritsar

‘Punjab Bus Metro Society’ (PBMS) a joint venture of Punjab government has successfully started the BRTS operations in Amritsar city. In series of success which the project witnessed it has been given the Best BRTS award for the year 2019 in whole India.

Fig no: 3.3 Amritsar B.R.T.S map

3.2.1. Services

“A 31 km BRT corridor has been started in the city with median side double docking stations”

- “Atari Road” – ISBT to India Gate via Bhandari Bridge, GNDU, Chheharta (12 km)"
- “Jalandhar Road” – ISBT to MCA Gate via Tarawalan Pul (6 km)"
- “Verka Road” – ISBT to Verka via Hussainpura Bridge, G. T. Road Bypass (13 km)"

The project, worth Rs 495 Crores, was approved by MoUD in 130th CSMC meeting and is now under implementation with funding from both, the Government of Punjab and Govt. of India.
4. URBAN TRANSPORT IN JALANDHAR

According to 2011 census Punjab comes under low urbanized category, but it is growing fast and by 2018 it will get into the category of medium urbanized states of India.

According to 2011 census the total population of Punjab is 27,704,236, which includes 17,316,800 of rural population and 10,387,436 of urban population. The top three states which highly urbanized are Goa, Mizoram and Tamil Nadu and the state with lowest urbanized population are Assam, Bihar and Himachal Pradesh. As per 2001 census Punjab has 139 statutory towns and 18 census towns and as per 2011 census there 143 statutory towns and 74 census towns. Jalandhar has a population of above 10 lakhs presently.


Jalandhar is in a dire need for an urban transport system. Started with much fanfare in 2008, the City Bus Service came to a grinding halt on 31st July 2014 in Jalandhar after authorities failed to stop illegal plying of auto-rickshaws and the operator decided to go off the road. Local commuters are dependent on auto-rickshaws, most of which ply illegally. Even minibus operators have been urging transport department officials and police to stop the illegal running of auto-rickshaws. Inaugurated by chief minister Parkash Singh Badal in August 2008, it was projected as a major initiative of the Punjab government to improve traffic, environment of Jalandhar and making the ride more comfortable for commuters. The project was handed over to Jalandhar Municipal Corporation, which had sought the services of a private operator.

4.2. City bus service routes in jalandhar (2008-2013)

“Red line bus” - “Rama Mandi to Maqsoodan via bus stand and Mahavir Marg”,

“Blue line bus” - “Rama Mandi and cover the bus stand, Mahavir Marg, Basti Bawa Khel and Jalandhar Kunj”,

“Grey line bus” - “bus stand to Sat Guru Kabir Chowk via Guru Amar Dass Chowk, Masand Chowk, Manbro Chowk, Guru Ravi Dass Chowk and Guru Kabir Chowk”

“Green line bus” - “railway station to Rama Mandi via GPO and the bus stand and vice versa”.

Buses run from 6 A.M in the morning to 8 P.M in the evening. But soon after its implementation city bus service starts’ running into loses, and one after another its key routes were snapped and the profit percentage of the company decreases substantially. The main reason which was responsible for the failure of city bus service in jalandhar was the plying of 25,000 illegal and unauthorized auto rickshaws well within the city municipal limits.
4.3. Failure of City Bus Service

Within the month after starting service the main starting point of buses was changed from Rama Mandi to bus stand, as the buses generally stuck in traffic jam on busy intersection of PAP Chownk and Rama Mandi intersection.

4.3.1. Grey Line Route

The first route to get disconnected was the Grey line route which starts from bus stand and moves towards Nakodar road. As the road of this route was note very wide to accommodate a full length bus, it often causes traffic problems in the area which in turn made the general public and bus passengers suffers.

4.3.2. Blue Line Route

The second route to get disconnected was the bus stand–Jalandhar kunj blue line route. As the route was used by buses bound for Kapurthala city and also large number of illegal autos runs on this route, passengers prefer to take buses bound for Kapurthala as they were fast and the cost was also same, and off course the auto rickshaws which were always available in ample on this stretch.

First two routes gets disconnected within six months of the launch of city bus service due to the poor response given by public on this route.

4.3.3. Green Line Route

Third route to get disconnected was the green line route from bus stand to railway station, this route though was profitable keep on running till 2012, after municipal corporation declared some roads as one way, the buses have to pass through busy market of Phagwara gate, Shaheed bhagat singh chownk and Central town area before getting on main road near General post office this all process made the route very long and tedious process and auto rickshwas have a free run and were able to cover the same distance in half the time taken by buses.
4.3.4. Red Line Route

The last route was red line route this route was operational till the service were snapped on 31st July 2014. To make this route more viable the permit of city buses were extended from Maqsoodan to Kartarpur, which in beginning help generate new revenue but illegal auto here also play their part they also start plying autos illegally on this stretch and without any objection from traffic police this route also slowly become non profitable to the company.

4.4. Revival of City Bus Service in Jalandhar During Budget 2016-2017

The traffic in the city has increased manifolds; over 12 lakh registered vehicles ply on the city road daily. A sum of 52 cr has been set aside for 128 low floor buses which will be added in the city under the J.N.N.U.R.M.

Although in 2014 state government floated a proposal under JNNURM to fund 128 buses for city, but then high court had director jalandhar city bus service to install CNG station on various locations. As at that time CNG was not available in jalandhar, Municipal Corporation asked high court to allow diesel buses which was rejected but it gave approval for 46 CNG buses to be plied under city bus service (source – the tribune 30th march 2016). Now as the city is selected under the AMRUT scheme, the proposal for 128 city buses is under consideration at urban development ministry.

4.5. Feasibility of B.R.T.S in Jalandhar

The BRTs in Amritsar as has generated much potential for city residents to use public transport Jalandhar can also now has the need to have an urban transport system which can help the city roads to have a breather. Study should start on various routes defining the feasibility of this type of large infrastructure project which can help in generating jobs and clean environment for city residents.

5. PROPOSALS FOR BETTER AND SUSTAINABLE URBAN TRANSPORT IN JALANDHAR

5.1. The segregation of auto rickshaw from bus routes

The auto rickshaws must be given separate route for transporting passengers and city buses must be given individual routes where no auto rickshaw must be allowed. The main route which are generally from bus stand to railway station and from bus stand to maqsoodan must segregated from auto rickshaws and alternate route must be provided to the city buses.

As the auto rickshaw driver has a lone source of income so by implementing B.R.T.S or city bus service we can’t just make them unemployable so segregation of individual routes is must for the success of urban transport system in jalandhar.
Table no. 5.1 new route distribution for city bus service

<table>
<thead>
<tr>
<th>ROUTE NO.</th>
<th>ROUTE</th>
<th>CITY-BUS</th>
<th>AUTO RICKSHAW</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROUTE NO 1</td>
<td>BUS STAND – RAILWAY STATION</td>
<td>POLICE LINE,DISTRICT COURT, ALASKA CHOWNK, AJIT CHOWNK</td>
<td>BMC CHOWNK, BHAGAT NAMDEV CHOWNK, MILAP CHOWNK, BHAGAT SINGH CHOWNK</td>
</tr>
<tr>
<td>ROUTE NO 2</td>
<td>BUS STAND – MAQSOODAN-KARTARPUR</td>
<td>CHUN MUN, GURU AMAR DAS CHOWNK, NAKODAR CHOWNK, KAPURTHALA CHOWNK, WORKSHOP CHOWNK</td>
<td>BMC CHOWNK, GURU NANAK MISSION CHOWNK, NAKODAR CHOWNK, FOOTBALL CHOWNK, OLD JAIL CHOWNK, WORKSHOP CHOWNK</td>
</tr>
<tr>
<td>ROUTE NO 3</td>
<td>BUS STAND – KARTARPUR</td>
<td>BSF CHOWNK, PAP CHOWNK, CHOUGITI, LAMBA PIND CHOWNK, RERU CHOWNK</td>
<td>NO AUTO BE ALLOWED ON THIS ROUTE</td>
</tr>
<tr>
<td>ROUTE NO 4</td>
<td>BUS STAND – L.P.U</td>
<td>BSF CHOWNK, PAP CHOWNK, RAMA MANDI, HAVELI</td>
<td>NO AUTU BE ALLOWED ON THIS ROUTE</td>
</tr>
<tr>
<td>ROUTE NO 5</td>
<td>BUS STAND – DAV UNIVERSITY-KISHANGARH</td>
<td>POLICE LINE, DISTRICT COURTS, ALASKA CHOWNK, AJIT CHOWNK, RAILWAY STATION, DAMORIA FLYOVER, DOABA CHOWNK, RERU CHOWNK</td>
<td>NO AUTO BE ALLOWED ON THIS ROUTE</td>
</tr>
</tbody>
</table>

5.2. Non Motorized Street Pattern

Non motorized street pattern must be followed on certain streets in jalandhar, especially in rush area where there is continuous jams takes place,
5.2.1. Model town area jalandhar

This is the most urbanized area of jalandhar city and witness heavy rush of vehicles and pedestrians all day long. This area of the city must be made vehicle free zone and well maintained Pedestrian Street must be constructed. Regarding scheme there is already a proposal passed in the municipal corporation budget 2016-17.33cr has been sanctioned in budget regarding the construction of non motorized roads in jalandhar city.

5.2.2. Use of electric rickshaws in core market area

The core market area of Jalandhar is the old city area located in the centre of the city, the movement of diesel and petrol vehicles should be totally banned and use of electric vehicles must be increased. This in one hand will decrease the pollution level and on the other hand will make the area look more spacious.

6. CONCLUSION

The urban and regional sustainable transportation plan cannot achieve their 100% goal without the co-operation of local residents. So the local population must be taken into full confidence before implementing any scheme relating to public domain. Campaign relating to Green travel habits and using public transport must be conducted regularly so that the local ideas relating to the improvement of the scheme keep on generating. The Government should start a major awareness campaign so that need of this type of urban transport project can be established through ranking system or any other multimedia platform.

REFERENCES


[4] Urban Transport in Indian Cities


[6] Service level benchmarking in urban transport for Indian cities