Scientific Journal of Impact Factor(SJIF): 3.134

e-ISSN(O): 2348-4470
p-ISSN(P): 2348-6406

International Journal of Advance Engineering and Research Development

Volume 2,Issue 10, October -2015

STUDY OF NMT IN HYDERABAD

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Abstract *–Economic and Industrial growth is a positive sign for a developing country like India. But all this growth is coming along with some new challenges to the environment and public which is creating an artificial disaster in urban areas as Traffic jams and creating much of noise and pollution. Even more deaths are caused by the road accidents more than t any other natural disaster or terrorist activities like 9/11. Unfortunately what happens on our urban transportation is more vehicles move rather than more people , Which is the source of the problem.The present study is to identify the reasons for this problem and working out a methodology to develop Non Motorized Transport(NMT)model for cyberabad region in Hyderabad city. A detailed study is done to understand the problems of pedestrians,who are mostly killed and injured on roads.Methodologies and measure are to be taken to make the road safer for pedestrians which by adopting the best paratices of NMT policies of various developed countries where the importance is understand for the safe roads and green public transport are recommend.The benfits of NMT and the cost of the components are also worked out to develop NMT infrastructure for cyberabad region of Hyderabad city where more private vehicles are used for commute.*

Keywords*-NMT, Pedestrians, Road accidents, Cycling, Public Transportation*

I. INTRODUCTION

Non-Motorized Transport modes (NMT) include walking, bicycle and cycle rickshaw. Earlier days Cycle Rickshaw was a mode of most of middle class public transport. With the economic, social technological growth there is a drastic shift in mode of public transport. In India the urban road infrastructure is mainly favoring only the use of motorized vehicles. No where in the country we can find a pedestrian friendly road infrastructure in India. The present situation itself is very pathetic and dangerous for non motorists on Indian roads. Now it's the peak time to make some measure s and corrective actions to make our roads safer for now and future. From the statistic it can be understood that every month there is a 9/11 happening on Indian roads taking more live than that of a terrorist attack. UNEP Study on fatalities on urban roads tells the dirty picture of Indian Roads. The reason for this is the importance given in spending for motorized vehicles is not overlooked by the policies and officials.

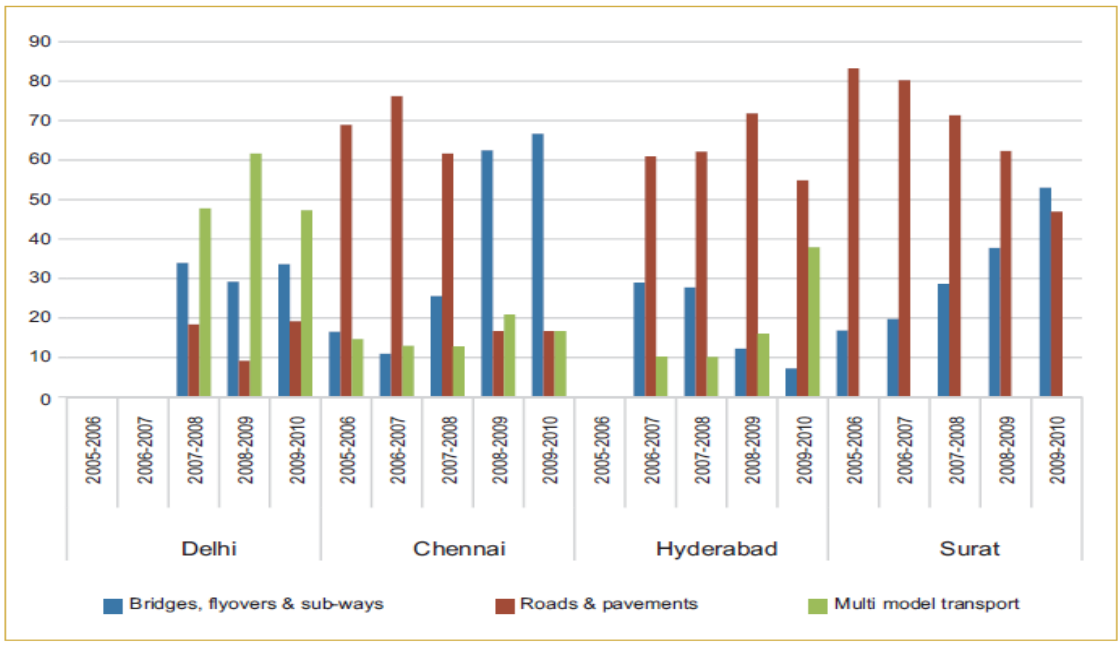

Fig 1: Percentage breakup of capital expenditure in transport

II. ABOUT HYDERABAD

Hyderabad Metropolitan Area (HMA) is the 2nd largest urban conglomerate in India in terms of area with an area of 7,146 sqkms extends over Hyderabad, Ranga Reddy, Medak , Nalgonda And Mahabubnagar Districts of Telangana state. There 2 municipalities, 39 mandals and 845 villgaes in the HMA beside the Greater Hyderabad Municipal corporation. HMA is one the fastest growing regions in India. The population of HMA as per 2011 census was about 9.4 millons and expected to reach the 19.47 millons by 2041.The motor vehicles are registerd in Telangana is close to 8 million out of which 4.5 million are on the roads on HMA and is expected to reach 7.79 millions by 2041. The steep increase in private vehicle growth can be attributed to the increase in income levels, change in life style pattern etc.

III. PUBLIC TRANSPORTATION IN HYDERABAD

As a fast growing IT hub and metropolitan city with vast population adding **everyday to** the city as migrants for better education of employment adds to the demand to the existing public transportation facilities. Modes of Public Transport in HMA are

(i) Multi-Modal Transport System (MMTS) rail with 43 Km network running in 3 routes having a ridership of 1,70,000 commuters daily using the facility travelling to and fro from home to work and vice versa.

(ii) City Buses operated by Road Transport Corporation serves more than 1 million commuters with 3700 buses plying all across the city.

(iii) Autos are also considered to be private owned public transport which serves more than 0.5 million commuters with 1,60,000 auto rickshaws.

(iv) Taxis/cabs serves near about 2lakh commuters with 40,000 plus vehicles.

(v) Institutional transport facilties provided for self use to commute own stake holders. Eg – Colleges buses transporting students, office buses transporting employees etc.,

(vi) As the last option commuters use their own vehicles primarily 2 wheelers occupying most of the roads with 3.6 million followed by four wheelers which are 4,00,000 plus moving on the roads of city.

(vii) Metro Rail which is to be commissioned by March 2017 is expected to make the real difference in the travel pattern of the commuters which may reduce the private vehicles usage.

3.1 Infrastructure Facilities

HMA is totally having a road network of 17000 kms including all the major and minors roads together. To park all the vehicles GHMC has estimated that a land of 4000 acres would be required. Huge crisis of parking spaces in the city greats and adds a problem to the increasing number of vehicles to the city. Daily 600 plus vehicles are registered by Road transport authorities adding to intensify the problem. But the crisis of parking is managed by occupying the road space creating chaos and traffic jams.

Out of the total road network in the city, not even 5% of the roads are having foot paths and wherever the footpaths are made available that is for the benefit of the street hawkers and not for the use of pedestrians. Very poor infrastructure facility is developed and no plans were made to develop cycle tracks and footpaths. As per IRC the width of footpaths based on the number of pedestrians are given as below.

Table 1.Capacity of side Walks

Width of side walk		
(in meters)	All in one direction	In both direction
1.50	1,200	800
2.00	2,400	1,600
3.00	4,800	3,200
4.00	6,000	4,000

With the existing infrastructure facility which is not at all useful for cyclists or walkers make HMA as unfriendly city for NMT. There is huge scope and need to develop large Infrastructure facilities for safe travel of NMT users who make a great difference in protecting city and environment by sacrificing their own comfort and which is also a risky affair to get on road without motorized vehicle.

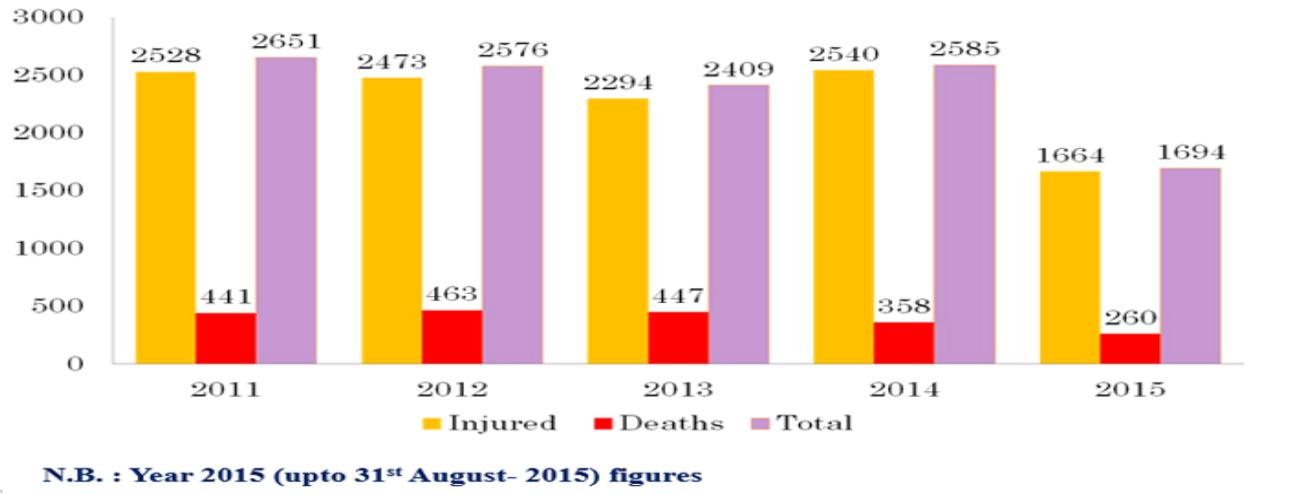

Fig 2: Accidents in Hyderabad City Year on Year

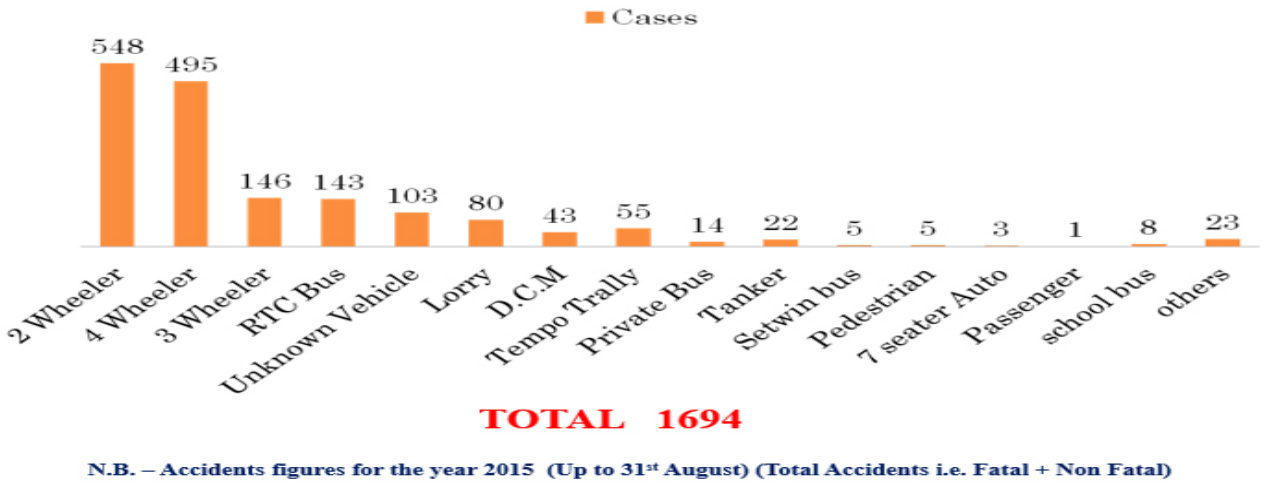

Fig 3: Accidents Vs Accused Vehicles

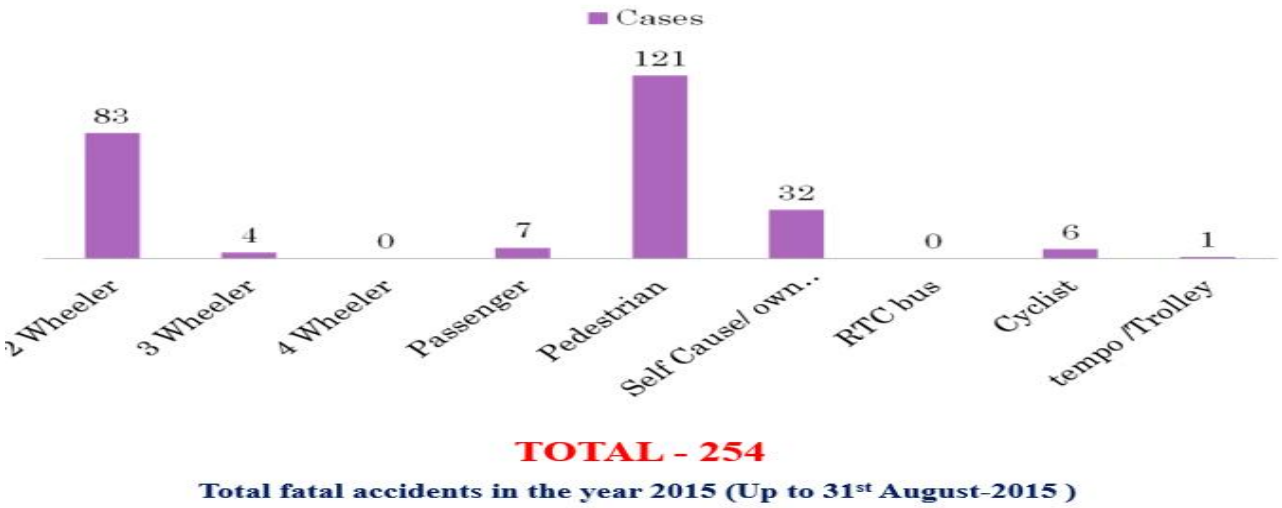

Fig 4 : Fatal Victims in Road Accidents in Hyderabad city

From the above bar charts of the Hyderabad, it can be understood that walking on roads is fatal. So to make NMT a safe mode of transportation in Hyderabad, a proposal is made for Cyberabad region to develop NMT infrastructure for pedestrians and bicyclist. People are much empowered with many organizations coming up with campaigns and activities to promote walk to work, Cycle to work, car pool, special buses for making people to shift in mode of transport. Few organization working in for the rights of pedestrians and Right to Walk foundation, CPIP of ASCI, Roadkraft etc., raising the problems and advocating with local governments for a safe road for cyclists and pedestrians. HYSEA, a software employees association had also made campaigns like Carfree Thrusday, Special buses for work and many other initiatives. To promote cycling Hyderabad Cycling Club (HBC) made bicycles available for rent.

Even after many such initiatives and efforts due to lacks of suitable infrastructure challenges are faced by green commuters. So, in this study a techno economic proposal for developing NMT is studied and derived an approximate budget required for developing a 56 km stretch of with 2 meter width of cycle track will cost only Rs 47 million for Cyberabad region. This region is primarily with IT employees which the awareness and adoption is easy and even the demand for the same is raised in various forums to have a better NMT infrastructure.

IV. BENEFITS OF USING NMT

Better planning leads to better(more integrated) put-system and NMT-Facilites, which result in better accessibility, conservation of energy and improved of the traffic flow for causing of traffic congestion and by using the NMT services for the Shorter distance it leads to the travel time saving and improving the saving in fuel consumption and improves in atmosphere in less air pollution and helps lead to the improving of the health of individual and also saves the environment by reducing the consumption of fossil fuels.

With the increase in vehicular growth, commuter's value of time, tendency to fast modes of travel, NMT in spite of its health benefits has been put away from regular travel mode. But in most of countries NMT has developed tends to be retrofitted to existing infrastructure, and to concentrate on minimizing the disturbance that it causes to the flow of motorized traffic. For various reasons, people are now trending to walk, bicycle.

V. CONCULSION:

A well-functioning road infrastructure must fulfill the requirements of all road users. In the context of the present socio-economic realities pedestrians cannot be ignored from the urban landscape. It is true that all the investment plan focus more on cars but congestion seems to worsen along with lesser pedestrians. Given that there is not much space available to expand existing roads. Future mobility needs are best met by increasing the capacity of the existing road network. This can only be achieved by encouraging modes which are more efficient in terms of space utilization. If pedestrian paths are constructed together with dedicated public transport corridors, will ease of congestion on roads as well as it will make the travel safer. To achieve the sustainability goals of the transport sector, it is necessary to promote use of NMT in Hyderabad. Cost for developing NMT infrastructure would be less than 1 million per km for Cyberabad region for a stretch of 56 kilometers, approximate cost is Rs 47 million. A single project, Hyderabad Metro is expected to spend 150 billion just for a stretch of 72 km. if atleast 0.5% of amount is spend the same length NMT infrastructure could be

developed. So, hereafter for any infrastructure development it should be made as a policy that 1 % is to be kept for NMT. Always every Urban Local Body (ULB) need to have a policy for green commutation to promote NMT, Plan for implementing the policy with proper fund allocation and monitoring the service levels regularly.

REFERENCES

[1] Mahadevia, D. (2011). Branded and renewed? Policies, politics and processes of urban development in the reform era. *Economic and Political Weekly , 46* (31), pp 56-64.

[2] Ministry of Urban Development. (2007). *National Urban Transport Policy*. Retrieved May 25, 2010, from http://www.urbanindia.nic.in/policies/Transportpolicy.pdf

[3] Shastri, P. (2012). Where is the walker's paradise of the city? *Times of India*, January 6.

[4] Singh, A., & Gadgil, R. (2011). *Comprehensive Assessment of Cycle Tracks in Pune*. Pune: Parisar & Centre for Policy Research.

[5] Geetam Tiwari, and Himani Jain. (2008), "Bicycles in Urban India". Urban Transport Journal. 7:2, 59-68

[6] P.S. Kharola (2008), "Financing Urban Public Transport". Urban Transport Journal. 7:2, 70-83

[7] Mahadevia, D., Joshi, R., & Datey, A. (2012). Low Carban Mobility in India and the Challenges of Social Inclusion:(BRT) Bus Rapit Transit Case Studies in India UNEP Risoe Centre .

[8] Shastri, P. (2012). Where is the walker's paradise of the city? Times of India, January 6,2014

