International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 06 Issue: 05 | May 2019 www.irjet.net p-ISSN: 2395-0072

MOBILITY PLANNING FOR AN INDIAN PILGRIMAGE CITY- A CASE OF OMKARESHWAR CITY, MADHYA PRADESH, INDIA

Ar. Vinamrata Sugandhi[1], Dr. Anjali Patil[2]

[1]Student, Department of Architecture & Planning, MITS, Gwalior (M.P.)
[2]Professor, Department of Architecture & Planning, MITS, Gwalior (M.P.)

Abstract - *This paper discusses the importance of a Mobility Plan and its various aspects. A case study of Omkareshwar explains here how a mobility plan can be a solution for its inadequate transport facilities. Omkareshwar, located at the confluence of Narmada river, is a scared religious pilgrims spot of Hindus, situated in Khandwa district of M.P. It has one of the 12 idolised jyotirlinga shrines of shiva which draws millions of pilgrims from all over the country and is a must visit pilgrimage destination for Lord Shiva devotes, particularly during the days of Kumb, Shriven, Shivratri etc.as a result of which the roads are overcrowded causes a great inconvience to the devotees. This situation prevails till the crowd returns back to their homes. The transportation arrangement being improper in the town during peak days the residents as well as the pilgrims have to face problem of their mobility. With a view to overcome this situation the only solution is to design and effective mobility plan of this city, which includes creation of necessary infrastructure in transport sector like widening of roads pedestrian way, development of spacies parking etc. this help transform the socio economic condition of the people residing therein and due to development of these facilities more and more people would pour in and the local people would get more opportunities to grow and raise their standard of living.*

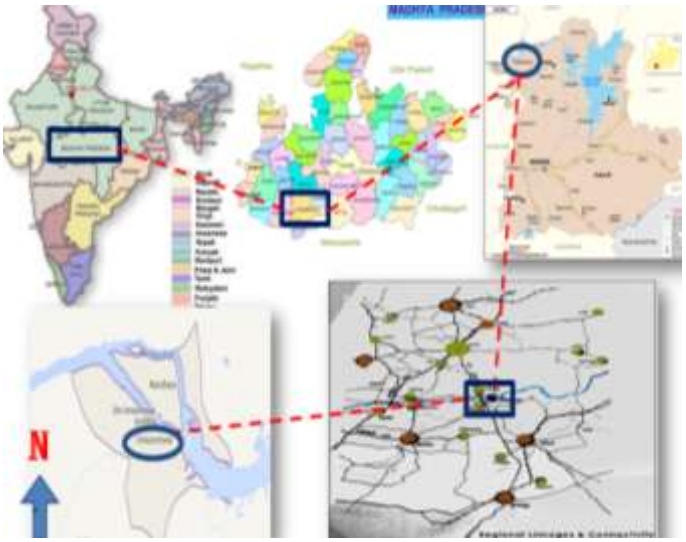
The paper explains the different steps of developing a Mobility Plan. This paper highlights the importance of mobility plan and suggests ways to develop the same for Omkareshwar.

1. INTRODUCTION

Omkareshwar is a prominent pilgrimage destination in India visiting millions of tourists annually it is situated on the bank of the Narmada river. Omkareshwar, is a sacred place of lord Shiva, called Mandhata, which is situated 80 km away from Indore. This place has its own importance. the pilgrim starts Parikrama from the place called Gau Ghat in omkareshwar with holy water of the river Narmada and undertake parikrama of the river Naramda and returns with the holy water and the same water which the pilgrim had carried with himself is bestowed in the Mamleshwar temple. This holy place attracts a large number of pilgrims particularly on occassion of Kumbh, Mahashivratri, Shravan, Naramda jayanti .To manage and control the crowd on these days sustainable mobility plan needs to be worked out for the convience of the pilgrims.

It requires a sustainable mobility plan that promotes health and well-being of the city residents.

A. Location Of Omkareshwar In India



B. Municipal boundary Of Omkareshwar

1.1 Need of The Study

To address the mobility problem such as limited capacity of existing roads, traffic management etc., a Mobility Plan for Omkareshwar was prepared by Omkareshwar Municipal Corporation. While CMP proposed detailed Traffic and Transportation plan, it fails to connect personal health and safety of residents of Omkareshwar with its mobility pattern. To fill the void, this research proposed environment friendly transportation strategy, including enhancement of active mass public transit network and development of cycle routes.

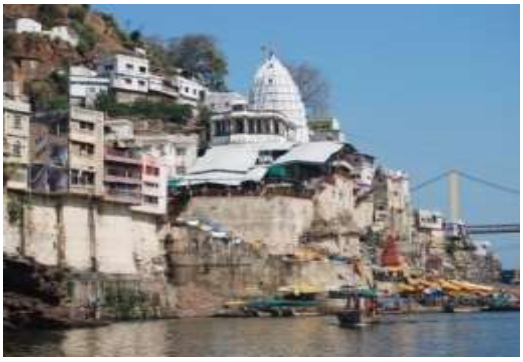


Fig -1 Omkareshwar Temple

2. METHODOLOGY FOR ENHANCING MOBILITY OF OMKAREHSWAR CITY –

2.1 Existing City Transport Network

A bus service only covers 36% of the municipal area with a very low frequency.

- Nagar Parishad in district Khandwa
- Total Municipal Area : 12.67 sq. km
- Total Road Length : 18 km
- PUBLIC TRANSPORT MODES- Auto Rickshaw, Buses, Tata Magic
- There is a facility of Tata magic from Mortakka to Bus stand .
- Fleet Sizes Of Auto Rickshaw & Tata Magic =**72**
- Railway line and state highway 27 are passing from Mortakka town which is approximately 12 km away.

2.2 Travel Behavior Assessment Of Pilgrims On Festival Day-

To study travel behaviour pattern in the city, tourist opinion survey was carried out on shivratri taking feedback of 269 persons. amongst other following festivals, mahashivratri attracts maximum no. of pilgrims in omkareshwar, hence this paper prominently discusses the environmental friendly transportation strategy which includes pedestrian route, transportation infrastructure for pilgrims.

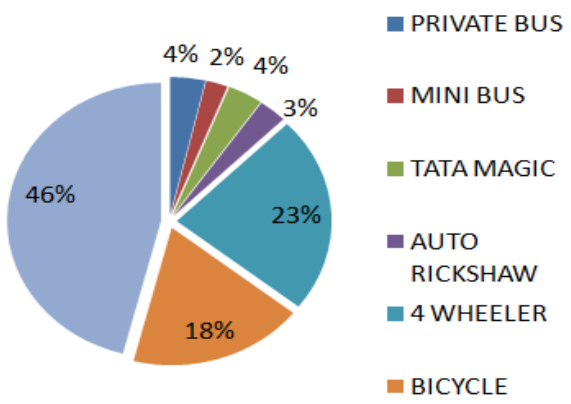
I. NUMBER OF PILGRIMS VISITING THE TOWN DURING FESTIVAL

Sr. No.	Festival	Duration (Days)	Number of Pilgrims (lakh)	Pilgrims per day
1	Kartik Purnima Fair	10	5.00	50,000
2	Maha Shivratri Fair	5	5.00	100,000
3	Shrawan month	30	3.00	10,000
4	Somwati Amavasya	2	1.60	80,000
5	Amavasya	1	0.50	50,000
6	Purnima	1	0.25	25,000
7	Narmada Jayanti	3	0.50	16,667
8	Ganga Dasharni	1	0.25	25,000
9	Ganesh Visarjan	2	0.20	10,000
10	Durga Visarjan	2	0.30	15,000

•No. of pilgrims on mahashivratri is around 1 lakh. So my study promotes facilities for peak days so that they can also use in normal days, maximum no. of pilgrims were came there from foot and from self vehicle.

3. NO. OF TRANSPORT IN FESTIVAL DAY

3.1 No. Of Vehicle Per Day On Shivratri Festival



3.2 No. Of Pedestrian Per Day On Shivratri Festival = 20'000

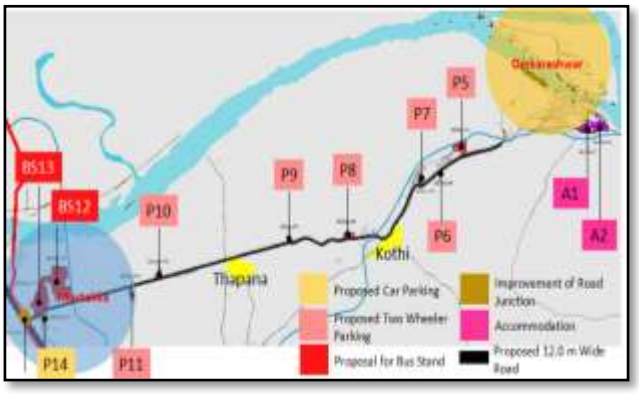
My proposal is for transport infrastructure of main roads, parking facilites, and development of parikrama path, avoid conflicting at junctions during festival days.

4. CONCLUSION

- As the result from analysis the most safe and popular transport is railway but work of conversion of narrow gauge to broad gauge is not completed.
- This effects the pilgrims to use safe and popular use of transportation.
- As it is densely populated area so the convenient mode of transportation may be used to used to avoid rush.
- Bicycles and battery autos could be provided by nagar panchayat to facilitate the pilgrims. Pollution free and safe environment could be provided to pilgrims from new bus stand to temple.
- There was a single way to enter in temple so there was possibilities of heavy rush during festival season which may cause accidents.
- To avoid rush or any accidents rope way from a long distance could be proposed.
- Another route may be established to avoid accidents.
- Lack of buses creates poor connectivity which causes availability of poor transportation services.
- To avoid poor transportation number of buses could be increased.
- To avoid Conflicting at Junctions during Festival days need to separate vehicular and pedestrian movement.
- Parikrama path has less width so at the time of festival it is very crucial to facilitate the pilgrimage. Another parikrama path was established to provide good facilities for pilgrims

A. RESTRICTED VEHICULAR ENTRY

- Vehicle free town
- Shuttle services from Mortakka junction to Omkareshwar
- Identification of parking sites on waste land



B. AVOID CONFLICTING AT JUNCTIONS DURING FESTIVAL DAYS

- This vehicular movement is for IPT which will travel from new bus stand to temple.
- Pilgrims can travel from new bus stand to temple from IPT **(intermediate public transport.**

REFERENCES

1. CDP Omkareshwar 2011
2. Data Obtained From Nagar Parishad
3. Census 2011 Omkareshwar Report
4. Strategic Mobility Planning Toolkit_Itdp_Ver2.
5. General Guidelines For "Developing A Mobility Plan".
6. Research Paper On Ujjain Mobility Plan,2018