

Effect of Accessibility on Potential Tourist Destinations – A Case Study of Kozhikode District in Kerala

V S Sanjay Kumar, Saleel K, Teena John

Abstract— Kerala is well renowned for being one among the perfect tourist locations in India. Eventhough many of the locations in Kerala have high tourism potential, they are not projected out in to the sight of people as what it demands and subsequently may result in the decrease in proportion of the tourists. The paper tries to find out such types of unexplored locations and the reasons behind, taking Kozhikode district in the state of Kerala, India, as the study area. All the known and unknown tourist places in the district were analyzed and an attempt is made to explore those unexplored tourist locations. Data were collected on the basis of questionnaire survey including how many of them were already aware of each tourist places, how many of them had visited, not visited and the reason(s) behind. Along with this, data pertaining to existing condition and connectivity pattern of each of these locations were identified. It has been inferred that the identified unexplored locations will attract more tourists provided improvements in connectivity are made.

Index Terms - Accessibility, Tourism, Unexplored, Questionnaire.

I. INTRODUCTION

Tourism is considered as a key sector which ensures socio-economic development of the country. Transport accessibility is most often the factor that influences the choice of tourist destination. Transport is a key enabler of tourism and plays a vital role in moving tourists from their place of residence to their final destination and on to various attractions. It is a matter of fact that, in order to have better coverage and visibility, the tourism destinations should be accessible. There are a lot of tourist destinations in the state of Kerala, which lacks visibility/accessibility and hence only limited number of tourists visit the place. In order to increase the accessibility, the destination should be connected well with the major transport network by suitable mode. This paper tries to find out such types of unexplored locations and the reasons behind, taking Kozhikode district in the state of Kerala, India, as the study area, with an objective to develop a transport network connecting major tourist destinations and also to improve the existing transport facilities for promoting tourism, which will provide employment, increase business and earn foreign exchange for the country.

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V S Sanjay Kumar is Senior Scientist with the National Transportation Planning and Research Centre (NATPAC), Kerala, India

Saleel K, Teena John are Project Engineers with the National Transportation Planning and Research Centre (NATPAC), Kerala, India

II. SCOPE AND OBJECTIVES

The scope of the study was to identify the effect of transport network connecting the major tourist destinations in a region. The major objective was to identify the connectivity issues of various potential tourist destinations and to evaluate how these issues are affecting the tourist inflow and to examine the role of transport and quality of serviceable infrastructure in development of tourism.

III. STUDY AREA AND METHODOLOGY

Kozhikode district is in south west shore of Indian landmass with a long recorded history as a commercial hub from antiquated time travel records. The whiff of history keeps on saturating the paths, bazaars and business centres of Kozhikode. Lavish green, wide open quiet shorelines, historic sites, wildlife sanctuaries, rivers and hills make Kozhikode a popular destination.

The methodology of the study included a reconnaissance survey to identify the major and unexplored tourist destinations in the selected area. A detailed questionnaire survey was conducted to identify the tourist inflow and connectivity issues of all identified potential tourist destinations. Various data pertaining to existing connectivity were collected. Major connectivity issues were identified from the data analysis. The forecasting of number of tourists and corresponding traffic volume were made if all the connectivity issues are rectified.

IV. DATA COLLECTION

A. Reconnaissance survey

A reconnaissance survey was conducted to identify the various tourist locations in the study area. As part of reconnaissance survey, a total of 54 tourist attractions were recognized. Out of this, excluding all religious places and already explored tourist locations, 15 locations were found to be unexplored potential tourist destinations and are listed in Table I. These locations were categorized as refreshment, Dam/ Trekking/ Waterfall and beaches/Light house.

TABLE I. IDENTIFIED UNEXPLORED AND POTENTIAL TOURIST DESTINATIONS

Refreshment	
1	Janakikkad
2	Kakkad Eco Tourism

3	Vanaparvam
4	Kanayamkode
5	Vallikotukavu
6	Payamkuttimala
Dam/ Trekking/ Water fall	
7	Arippara waterfalls
8	Peruvannamuzhi dam
9	Nambikkulam
10	Kakkayam dam
11	Vayalada
Beaches/ Light house	
12	Kadalur light house
13	Sand banks beach
14	Thikoti drive in beach
15	Velliya mkallu inscriptions

Kanayamkode	28	15	61	39
Kakkad Eco Tourism	40	13	52	48
Vanaparvam	19	8	67	33
Vallikkatukavu	27	15	49	51
Peruvannamuzhi Dam	62	33	59	41
Nambikkulam	13	1	33	67
Arippara Waterfalls	49	27	38	62
Kakkayam Dam	70	48	70	30
Vayalada	46	29	48	52
Thikkoti Beach	51	27	47	53
Sand Banks Beach	22	14	53	47
Kadalur Light House	27	16	49	51
Velliya mkallu	17	3	55	45
Payamkuttimala	35	17	87	13

B. Questionnaire survey

A detailed questionnaire survey was conducted on both explored and unexplored tourist locations. A total of 2025 samples were taken which give an accuracy level of 95% confidence interval at 1% significant level for an infinite population. Preliminary analysis was done to obtain gender wise classification, age group distribution and mode split. Mode split emerged from the results is shown in Fig.1.

V. RESULTS AND DISCUSSIONS

A. Data Analysis

An analysis was done which indicates the number of total tourists who have heard and who have visited each of these unexplored locations. From Table II, which details the proportion of sample who has visited/heard of the potential locations, it can be seen that most of the locations are remaining unexplored. From the questionnaire survey, it was found that most of the tourists who already have visited these locations are not interested to visit the places again after their first visit. The main reasons for not visiting and the responses given by tourists are tabulated in Table III. It was observed that most of the tourists who visited these unexplored tourist centres demand improvement on road conditions along with basic amenities, placing sign boards at major intersections and proper accessibility. So by rectifying all these identified issues, tourist inflow to each of these locations will enhance.

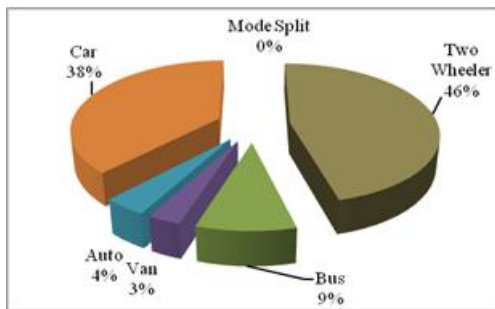


Fig. . Mode Split

TABLE II: AWARENESS RESULTS FROM QUESTIONNAIRE SURVEY

Location	% heard	% visited	% prefer to visit again	% not prefer to visit again
Janakikkad	32	9	71	29

TABLE III: REASONS FOR NOT VISITING AGAIN

Location	Poor accessibility (%)	Inadequate signs & information (%)	Far from other tourist places (%)	Security/safety issues (%)	Lack of basic amenities (%)	Not of interest (%)	Others (%)
Janakikkad	53.4	8.8	5.8	3.5	5.2	3.7	8.4
Kanayamkode	54.1	2.5	3.4	1.0	2.5	8.6	6.9
Kakkad	48.9	3.9	6.0	1.9	2.7	2.4	9.4
Vanaparvam	58.4	2.7	4.1	1.4	2.3	3.4	7.3
Vallikkatukavu	51.9	2.4	3.2	2.5	3.6	3.5	8.7
Peruvannamuzhi	37.3	6.9	5.2	6.3	8.9	1.9	8.0
Nambikkulam	58.7	2.2	1.7	0.7	1.1	1.8	7.0
Arippara	44.0	12.9	3.6	8.5	7.2	0.3	6.5
Kakkayam	32.5	7.4	4.0	4.8	6.1	0.6	7.1
Vayalada	41.4	9.6	4.2	6.8	6.6	1.4	7.4
Thikkoti beach	42.7	2.7	3.6	2.6	6.0	1.4	9.6
Sand banks	53.0	7.0	2.6	1.8	5.0	1.7	9.7
Kadalur	50.7	2.7	2.2	1.7	1.5	1.4	8.3
Velliya mkallu	57.6	16.9	4.0	5.8	4.0	2.8	8.4



B. Estimation of tourist demand if improvements are made

It is anticipated that the tourist inflow to the identified unexplored destinations will increase manifold provided improvements to the location are made, particularly the connectivity aspect. The potential tourist demand is calculated based on three aspects as follows,

1. Base year tourists: This corresponds to the existing condition and considers the number of tourists who visit the places in the base year

2. Recurring tourists: This category considers, those tourists, who have heard about these locations and who have already visited the location, but are not interested to visit again due to the reasons as per table 3. It is assumed that this proportion of tourists will visit the location again with the rectification measures demanded.

3. Induced demand: It is clear from the questionnaire survey that most of the tourists were not aware about the unexplored tourist centres. Proportion of people who are interested in the type of tourist location but were not aware of the existence of such places were determined. Based on the preference made by the corresponding sample, the induced tourist traffic to the unexplored places is found out.

Total Demand

Total anticipated demand of tourists is obtained by adding these three categories for the base year. This demand is forecasted for the year 2030. Tourist inflow towards individual unexplored tourist centres can be obtained by multiplying the total demand with corresponding percentage of tourists obtained as per the preceding paragraphs. The obtained values are converted to vehicular traffic based on the base year mode split. Table 4 shows the existing percentage share of tourists for each locations, corresponding number of tourists in the base year, increased percentage share after improvements and the corresponding number of tourists and the forecasted traffic volume.

TABLE IV: ESTIMATED NUMBER OF TOURISTS AND TRAFFIC

Location	% share of tourists	Demand in base year	% share of tourists after improvement	Estimated demand in base year	Tourist demand in 2030	Estimated Traffic in 2030 (PCU/day)
Janakikad	9.1	74377	31.5	257202	343096	643
Kanayamkode	14.8	120687	59.4	485332	647411	1212
Kakkad	12.6	102911	38.0	309995	413519	774
Vanaparvam	7.8	64086	44.3	362190	483144	905
Vallikkatukavu	15.3	124897	64.6	527598	703790	1318
Peruvannamuzhi Dam	33.1	270377	67.1	547848	730803	1369
Nambikkulam	1.3	10291	19.7	160540	214153	401
Arippara	27.2	222195	72.1	589219	785991	1472

Waterfalls						
Kakkayam Dam	48.0	391999	82.7	675249	900750	1687
Vayalada	29.4	239971	79.5	649478	866374	1623
Thikkoti Beach	27.4	224066	68.0	555487	740993	1388
Sand Banks Beach	14.4	117413	72.2	589526	786401	1473
Kadalu r Light House	16.5	134720	70.5	576175	768591	1439
Velliya mkallu	3.4	28067	22.0	179881	239953	449
Payamkuttimala	17.2	140480	51.5	420959	561539	1052

It can be inferred from the table that the number of tourists that will visit the unexplored destination will increase to the tune of 3 to 7 times. The result will be an overall economic development of the area and in turn increasing the state's revenue.

VI. CONCLUSION

Even though many of the locations in our country have high tourism potential, they are not projected out in to the sight of people as what it demands. There will be many reasons for the same. This paper examined such a scenario taking one of the districts in Kerala, as a case study. It was observed that the tourists who visited these unexplored locations were worried about proper transport connectivity and signs and information. The analysis of data revealed that the tourist inflow will increase to the tune of 3 to 7 times to these locations once proper connectivity is made. The result will be an overall economic development of the area and in turn increasing the state's revenue

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V S Sanjay Kumar is working as Senior Scientist of National Transportation Planning & Research Centre (NATPAC), an R&D Centre of Govt. of Kerala. He holds a Post Graduate Degree in Civil Engineering (specialized in Traffic and Transportation Engineering). Other qualifications include Post Graduate Diploma in Environment and Sustainable Development from IGNOU and Diploma in Transport Economics and Management (with bronze medal) from Institute of Rail Transport. He has got 14 years of professional experience and the field of expertise includes Traffic Engineering, Transportation Planning, Pavement Evaluation and Highway Design.

He has about 35 publications to his name in various journals and seminar/conference proceedings. As a scientist in NATPAC, he has completed more than 60 research and sponsored projects and has guided several M. Tech theses and B. Tech projects in the area of Traffic and Transportation Engineering.