TOURISM DEVELOPMENT

IN DODAMARG TALUKA

A GEOGRAPHICAL ANALYSIS

The thesis submitted
for the Degree of
Ph. D in Geography

AT

TILAK MAHARASHTRA VIDYAPEETH
PUNE

BY
MR. GATHADE PRALHAD DNYANOBA
AT P.O. DODAMARG,
DIST. SINDHUDURG.

GUIDE
Dr. Hemant M. Pednekar
Vice-Principal and Head, Dept. of Geography,
Kirti M. Doongursee College,
Dadar (W), Mumbai - 400028.

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CHAPTER NO 1

The first chapter is introductive. The concept of tourism, tourism geography is highlighted in this chapter in the beginning. The significance of tourism, justification of selection of topic, information about sources of data collected is discussed in this chapter. The literature, information which have been studied during the research period are discussed and purpose of the research is also expressed in this chapter.

The methodology of the research and limitation of the study is also expressed in this chapter. The scheme of the chapter is presented at the end of the chapter.

Study Objectives

The major objective of the present study is to make a geographical study of Dodamarg Taluka as tourist center. The following are other objectives of the study-

1. To do geographical study of the Dodamarg taluka as a tourists center.

2. To find out scope and development rate of tourism in Dodamarg taluka.

3. To examine socio-economic impact of tourism on local people from the point of socio-economic development.

4. To examine the spatio - temporal changes in infrastructure facilities of the study region.

5. To analyze the socio-economic background of the tourists.
6. To make available the factual information about the basic necessary facilities to tourists.

7. To bring into focus the neglected tourist spots of the district.

8. To find out and study the reasons for underdevelopment of the region as tourist destination even after its declaration as the first tourist district of Maharashtra in the year 1995.

9. Although nature has bestowed scenic beauty to the Dodamarg taluka which has waterfalls, sunset points, valleys, hills, etc. the annual reach out of tourists in the taluka is meagre, hence to find out the reasons for the same.

10. To study and find out the role and policies of the State Government in the promotion of the tourism in the taluka.

11. To suggest innovative and new facilities for the attraction of the tourists in the taluka.

12. To find out and study the contribution of NGOs, individuals and different groups in the development of tourism and what is expected to be done by them.

13. To study the sport and other facilities that should be given more importance in order to promote tourism in the taluka.

14. To promote the development of folklore in the field of tourism.

15. To study how the locals will be benefited with the development of tourism in the taluka.

16. To anticipate the influence and impact of tourism in the taluka.
Hypothesis

Dodamarg taluka has better tourism potentials and the development of tourism in this region is essential for sustainable development of Dodamarg taluka.

Sources of Data & Information

The data is collected from primary and secondary sources. The primary data is collected through survey method where as secondary data is collected from the literature of the other researchers, Government publications and reports of the several departments. For example census handbook, gazetteer of Ratnagiri District, Sindhudurg district and Dodamarg taluka-statistical department etc. The information regarding physiography, relief, drainage, forest cover, and vegetation was obtained from topographical maps, cadastral and revenue maps. The information and data regarding physiography, geology, river and land use and tourist locations was obtained from Survey of India’s topographical maps, tahsil revenue maps and from district planning map of Sindhudurg District. The data regarding the tourists was collected from Government offices and M.T.D.C. offices. The data was also collected from local municipal councils of Dodamarg taluka and from official records of the local authorities who were related to tourist based industries.

Research Methodology

The present research is based on the systematic study of the secondary and primary data. The secondary data is collected from the available
literatures, Government offices and the topographic maps. Primary data was collected through the survey of the tourists at various destinations of the district. The questionnaire is prepared for the purpose of personal interviews of the tourists during the research period at selected and newly found tourist places of the Dodamarg taluka to fulfill the study objectives.

A random sample survey of tourists was conducted during the year 2010-11. The information related to geographical background, spatial background of tourists, age, religion, profession and mode of travel, duration of stay, income structure facilities used by tourist etc. was collected through the questionnaires. The behavioural attitude of tourists regarding the tourist centers in Dodamarg taluka and the views and effects of tourist were calculated with the help of percentage method.

From the point of tourists, for the presentation two methods are normally used namely, Likert method and Satisfaction Index. Generally first method can be applied to big cities or single places. But, Satisfaction Index can be applied to any places at a time and comparison can be studied or understood easily, Therefore Satisfaction Index method is applied in the present study.

With the help of Satisfaction Index a level of satisfaction was calculated by applying the following formula:

\[
S_{li} = \frac{\Sigma M_{ni}}{N}
\]

Where,

\(S_{li}\) – Satisfaction Index for the ‘i’ th factor.

\(M_{ni}\) – Numerical value for particular level of satisfaction
**Ni** – Number of respondents deriving the particular level of satisfaction for the ‘i’th factor

**N** - Total number of respondents for that factor for all levels of satisfaction.

Nearly 10% tourists at various tourist destinations were asked to mention their opinions about facilities by stating excellent, good, satisfactory and unsatisfactory. These views were collected in the year 2010-11 at the time of various occasions i.e. Ganpati Festival, Diwali, Christmas, New year celebrations, Makarsankranti, Holi and summer vacation and in off seasons.

These views of tourists were converted into numerical values. Summing up the values given by the tourists and dividing the total number of tourists according to their recorded views; the factor wise average value was calculated and satisfaction index was calculated.

These averages were again multiplied by respective frequencies, which give total satisfaction and satisfaction index. Then the ranks were given to the satisfaction indices.

To assess the impact of tourists on host population the attitudinal survey was been conducted regarding the socio-cultural and economic aspect. For this purpose the questionnaire was prepared which is attached in the Appendix I. This survey was conducted during year January 2010-11.

For the analysis of the attitude of residents, entrepreneurs and public administration, samples were selected from tourist places in Dodamarg taluka in the year 2010-11. A set of Questionnaire was also prepared to measure the opinions of tourist’s effect on different aspect like, physical, socio-cultural and economic.
Limitation of the study

There are certain limitations in every work. In the present research work following limitations were observed.

The study is mainly based on primary and secondary data. Some of the conclusions are based on the estimates, assumptions, observations and informal interview. Time constraint is also one of the major factors because same tourists are not visiting certain places at certain time.

Tourists hesitate to fill up the questionnaire and they do not take it seriously because they are in different mood and hence there is need to convince them.

CHAPTER NO 2

The second chapter denotes physical feature of the Dodamarg taluka. It consists of location, extension of taluka, climate, physiography, etc. Land use pattern, status of transport and communication as well as population and demographic characteristics of the taluka are also discussed in this chapter. Occupational structure of the taluka is discussed at the end of the chapter.

Dodamarg Taluka is situated between latitudes 15° 37' N to 15° 60' north and longitudes 73° 19' E and 73° 40' east. It is bordered by the Goa state to the south, sea to the west and Sahyadri ranges to the east with a total area of 45053 hectares. Dodamarg is the smallest taluka in Sindhudurg district. According to the census of 2001, the taluka has 53 villages, out of which 12 villages are scarcely populated because the inhabitants from these villages have migrated to the urban areas for their livelihood.

Dodamarg is basically a hilly region broken by valleys and surrounded by mountains. Ridges and hills are common occurrences in the
region which belong to the Sahyadri hill range, to the east and Goa state to
the west. The main rivers flowing across the taluka are the Terekhol, the
Kalana and Tilari. These rivers flow along the east-west direction and form
southern border of the taluka.

The soil of the taluka is of good quality. The soil is red and yellow in
color and there is existence of modular pieces of iron and manganese ore.
Soil of Dodamarg can be classified into three categories i.e. alluvial soil,
saline soil, and lateritic soils.

The climate of this Taluka is generally moist and humid. The
temperature variation is not large during the day and night or throughout the
seasons. During summer the maximum temperature goes up to 40°C. During
winter the average minimum temperature recorded as low as 12°C.
The taluka receives rainfall from south-west monsoon wind during the
period from June to October. It is not uniform all over the district. The
annual average rainfall is in range from 3000 mm to 6000 mm. Variation in
wind direction can be observed along with the variation of rainfall received
in different parts of the Taluka.

**PHYSIOGRAPHY**

The outstanding feature in the region of the taluka is its highly uneven
nature and very narrow strip of plains that fringe the coastline, and almost 40
to 50% of the area in the taluka is hilly.

The Dodamarg taluka has three major physiographic divisions from
east to west:

(i) The eastern part close to the Western Ghats is hilly with deep valleys.
(ii) The middle part of the taluka is occupied by flat-topped hills with undulating plateau with elevations up to 300 meters above mean sea level (MSL) covered by laterite soil.

(iii) The physiographic features have given rise to five characteristic landforms viz.

(a) The estuarine alluvial plains
(b) The lateritic plateau
(c) Highly eroded remnant hills
(d) Scarp faces of Sahyadri hill ranges
(e) The drainage system of the major rivers in the taluka is mostly of sub-parallel type and the tributaries form a drainage pattern of sub-rectangular type

Major joints in the basalt rock formation control the drainage pattern. The river systems have a small drainage area. During monsoon the rivers carry heavy load of water having tremendous headward eroding capacity and ultimately drain in the Arabian sea.

All the major rivers originate in the Sahyadri hill ranges. The three major rivers in the taluka are Terekhol (69km), Tilari (53km), and Kalane (45km). All these rivers form part of the west flowing river system originating from Sahyadri hill ranges and joining the Arabian sea.

The soil formation in the Taluka is controlled mainly by climate. Most of the soils are derived from lateritic rocks. The soil is classified based on the basis of physical characteristics into four types viz., Rice soil, Garden soil, Varkas soil and Alluvial soil. The rice soils are termed as ‘Mali Soils’
when situated at the higher levels, ‘Kuryat Soil’ at the lower levels and ‘Panthal or Viagra’ when situated near water resources. Varkas soils are reddish brown to yellowish red in color and situated on hill slopes. These soils are poor in fertility, shallow in the depth and coarse in texture.

Garden soils are of mixed origin, yellow red to brown in color and are located in the valleys. These soils are light, well drained and fairly fertile.

**CHAPTER NO 3**

The third chapter is divided in two parts. The history, development and scope of the tourism in India, Maharashtra, Sindhudurg district and Dodamarg taluka is examined in the first part. Existing tourist places and its classification in Dodamarg taluka is discussed in the second part of the chapter.

**General Classification of Tourism**

Tourism is a multipurpose business and it is divided in various ways. Tourism is divided on the basis of number of tourists, duration of tourism, season and type of tourism. There are other supports of tourism such as attraction of tourist place, expenditure of tour, stage of the tour etc. So tourism is classified in various ways Tour planning is essential in the development of tourism. Development of tourist centre, supply of facilities for tourism, search of new tourist places and development of tourism are important factors. In developed countries and developing countries nature of tourism and their problems, nature of tourism are different, Therefore in these two groups of countries, there is a basic difference in the development of tourism. Development of tourism depends on marketing of tourism,
production in this business and also the nature of service is different from other industrial production and marketing.

**Classification Tourists Places in Dodamarg Taluka**

In Dodamarg there are tourist’s centers geographical, religious historical and recreational like other tourists centers in the world. They are being developed day by day; in future there is a scope of development of more tourist centers.

**Geographical tourism**

In Geographical tourism waterfalls, caves, vallies, forests, plateau are included. Tourists come here to enjoy the waterfalls.

There are beautiful waterfalls at Mangeli, Virdi, Sasoli when these waterfalls were discovered the tourists were attracted towards this waterfalls. Tourists come from Goa,Karnataka,Kolhapur & Konkan

**Caves:** At Sasoli the caves are found. These places have become curious place for the students from schools and college and they visit these places, in large number.

**Forest Garden:** Forest Garden is famous at Talkat from historical period. There are various plants and trees, insects and animals. Recently more facilities have been provided for the tourist and students.

**Plateau of Usap:** Here the hills are high and the slope of this hills are ideal for Paragliding. Tourists come to enjoy paragliding from domestic and foreign people gather there to see this sport.

**Religious tourist places**
Nagnath temple at Medhe, Kasainath Mountain, and goddess of Usap are religious centers from ancient period. Fairs are arranged at these places. Devotees crowd here for prayers and worship on Monday, Amavas, Pornima. These gods and goddess are famous for fulfilling to the wishes of their devotees. People come here from various parts of the country.

**Historical tourists place**

In Dodamarg taluka fort of Fukeri and Pargad are famous. Fort of Fukeri is extremely ignored. It’s remains are about to become ruins but Pargad is in well condition even today. On fort there are dwelling, lake, temple, school, people come there from various parts of India. Bharuds and powada program is celebrated on Shiv Jayanti.

**Recreation centre**

Tilari dam is built on Tilari River. Water reservoir has thick forest around it. There are numerous types of birds & animals in the forest and modern garden, Small dam built on canal at Medhe thermal power center produce electricity. Due to beautiful garden, several families, students, tourists visit this place. The number of tourists has been increasing day by day.

**CHAPTER NO 4**

The compiled data based on data collected from the tourists and its classification is discussed in the *fourth chapter*, which throws light on the types of tourists, their visiting period and purpose of visit etc. As per analysis of the data it is observed that most of the tourists are visiting for religious purposes especially at Kasainath Dongar, Nagnath Temple, Usap Temple. The non-resident people of Konkan are also major visitors in the taluka on occasion of Ganpati and Shimga festivals. The functional analysis
of tourists was done with the help of detail study of tourists; that includes age composition, sex composition, economic status, education, mode of transportation etc. These functional analyses have been discussed in this chapter with the help of tables, graphs and maps.

**Justification for selection of tourist places**

Sampling techniques have been used in this research work to explore the importance of tourism in Dodamarg taluka. In the sampling process secondary data is used to select the survey samples. The data published by the taluka information office of the state Government as well as records from the district gazette and published information in various news papers, tourist literatures have been used to categorize religious, historical, and natural tourists’ attraction places of the taluka.

The tourist places have been selected on the basis of the total number of tourists visited the places during a calendar year. Categories have been made on the basis of secondary data as shown in Table

<table>
<thead>
<tr>
<th>Index</th>
<th>Total No. of Visiting tourist Visiting Places</th>
<th>Name of the tourist places</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Less than 25,000</td>
<td>Usap Temple and Plateau, Sasoli, Talkat Garden</td>
</tr>
<tr>
<td>2.</td>
<td>25,000 to 50,000</td>
<td>Kasainath Hill, Medhe Temple, Virdi Waterfall</td>
</tr>
<tr>
<td>3.</td>
<td>More than 50,000</td>
<td>Tilari Dam, View Point, Mangeli Waterfalls, Pargad Fort</td>
</tr>
</tbody>
</table>

**Category of the Tourists places**

On the basis of above categories sample tourist places have been selected according to total numbers of tourists who visited these places in
the year 2009-2010. The first group considered was lowest number of visitors i.e. less than 25,000. There are three places out of which Sasoli Caves and Waterfalls, Talkat Garden, Usap temple and Plateau, were selected for detailed study.

The second category is between 25,000 to 50,000 visitors Virdi waterfalls Kasainath hills and Medhe temple were selected from this group. The last category of places is above the 50,000 visitors form which Tilari Dam, view Point, Mangeli waterfalls and Pargad Fort were selected. These places were visited twice in peak season and end of season.

The geographical location of the tourists places is also considered for the selection of the sample tourist destinations Tilari Dam, View Point, Mangeli waterfalls, Pargad Fort, are situated in the remote area of taluka.

CHAPTER NO 5

The satisfaction index of tourists is discussed in the fifth chapter which explains the opinion of the tourists about the availability of the amenities and their serviceability at the distinct tourist destinations. The facts and figures of the present and potential tourist resources as well as status of available infrastructure facilities of the taluka with reference to tourist’s potentiality are examined in this chapter.

Place-wise Satisfaction Index of Tourists

Satisfaction index method is used to assess the level of satisfaction of the tourists in this study area. It was necessary to know the views of tourists about the various facilities, which are provided to them at the tourist destination. Such tourist satisfaction assessment of a certain tourist places
was essential to modify the tourist programmes and the facilities available at these destinations.

The tourists who are coming from different places to the destination may have different behaviours, ideas, views and expectations, but if required facilities are provided to them at reasonable rates, they will be satisfied and it will be helpful to increase the reputation of tourist destination.

Present research work is based on sample survey.

The questionnaire was prepared to assess the level of satisfaction of the tourists by taking their views regarding the various facilities i.e. Lodging, Boarding, Food, Transportation, Travelling problems and the behaviour of local people.

The indicator wise level of satisfaction is calculated and tabulated with the help of following formula.

\[ S_{li} = \frac{M_i \cdot N_i}{N} \]

\( S_{li} \) = Satisfaction index for ‘i’ th factor

\( M_i \) = Numerical value for the particular level of satisfaction for the ‘i’ th factor

\( N_i \) = Number of respondents deriving the particular level of satisfaction for the ‘i’ th factor

\( N \) = Total number of respondents for that factor for all levels of satisfaction, final ranks are given according to these satisfaction indicators.

The indicator wise average value is calculated and it is used to
compute the satisfaction index. Then the ranks were given to these satisfaction indicators. Satisfaction level of tourists is an important and universally accepted tool for measurement.

Here an attempt has been made to assess the level of satisfaction by adopting certain satisfaction methods. This indicator wise distribution of each tourist place

**CHAPTER NO 6**

The **sixth chapter** explains the tourism related problems and issues of the taluka. The suggestion and measures for the development of tourist centers have been discussed in this chapter. Sample tour programmes of some tour and travel packages have been designed though practical journey have been recommended in this chapter.

Necessary suggestions have been made in this chapter to guide the tourists regarding their stay, food and mode of travel and what they can see. This chapter also deals with scope and development of tourism in the taluka.

**Problems faced by tourists in Dodamarg Taluka**

Dodamarg Taluka is a mountainous, remote, unexplored and underdeveloped region. It was established on 26th June 1999. After that period roads were constructed, offices were built and independent revenue was received, means of transportation were developed. This city is connected to the state of Goa, Belgaum and Kolhapur. In this manner some tourism spots
came to light. This enabled development and growth of initially undeveloped and unexplored tourist destinations.

The Indian as well as foreign tourists who visited Goa were curious to know about various untouched and ignored tourist spots in Dodamarg taluka. Because of this many tourists were attracted towards this area in very short span of time.

Tilari dam, garden, viewpoint, power generating centre, waterfall in Mangeli, Pargad are the destinations visited by tourists throughout the year. Tourist from all over Maharashtra and neighbouring states like Goa and Karnataka come here to visit local temples like Sateridevi temple at Usap, Nagnath temple at Tervan medhe, Virdi waterfall, Kasainath Dongar, caves and waterfall of Sasoli. Some foreign tourists who visit Goa have stopover in this area.

CHAPTER NO 7

The last chapter, i.e. chapter seven, is the concluding chapter. The fact full construction has been presented in this chapter. On the basis of the findings Dodamarg is a fast growing tourism destination of the state of Maharashtra. Its tourism potentiality is yet not properly explored. Status of basic amenities and frequency of road transport needs to be improved.

Water sport and marine transport are not developed and at some places it is totally absent. In this context some recommendations have been made in this chapter. The literature references, questionnaire, appendix and other information is given at the end.
Recommendations

From the above discussion it is clearly observed that Dodamarg taluka has enough scope and vast potential for tourism development, due to hilly and rich natural resources such tourism development can generate employment and income. In this chapter suggestions have been given for the development of tourism in Dodamarg taluka.

1. In Dodamarg taluka each and every tourist place has its own limitations and carrying capacity. If it is over utilized then it may create stress on the local environment so the extra flow of tourists should be diverted towards nearby existing and potential tourist places through proper co-ordination and planning.

2. Infrastructure Facilities like transportation and accommodation should be developed on priority base and to promote tourism, frequency and quality of transportation should be increased as well as roads should be metalled and wider. There should be a long term plan and policies for these issues related to the development of tourism in the study region especially at Tilari dam, View point, Mangeli.

3. In the present study, few places have been identified as potential tourist places, where the corals and related biodiversity is identified by the concerned researchers. Such places such as Tilari dam, Talkat garden, should be developed further.

4. There is an ample scope to develop adventure tourism in the taluka. Various adventurous activities like paragliding, ballooning, rock climbing, trekking etc. should be developed. This will also become the employment and income source to the local people. State
Government or other authorities have to take lead for the proper training of such sports activities, in collaboration of training institute. Pargad, Virdi, Mangeli, Tilari, Talkat Garden are the ideal locations for such development.

5. There is also scope to develop new types of tourism, such as Agro tourism at Bhikikonal, Bhedashi, Shirange, Mangeli, Zarebambar in the taluka. Ayurvedic massage centers, nature therapy centers can be developed at the potential tourist places like Shirval Dam, Phukeri Fort, Mahalaxmi, Power Limited, Sai Temple and other places. Eco tourism should be developed at most of the rural places in the study region, which are ideal for sustainable development of the region and will create employment to the local people and improve their standard.

6. Dodamarg taluka is famous for its culture, hence it should be utilized though proper way by the local NGOS or unemployed youths can be trained for various dance forms like Talgadi, Chapay,Dhala, Fugdi , Folk Dance Dashawtara and other programs can be performed for entertainment purpose of the tourists.

7. The publicity literature should be prepared and distributed properly in all the major cities of Maharashtra by the state government. The marketing and advertising of the tourist places should be done on television radio and in news paper throughout the year. A documentary can be produced with the help of professional and experts to highlight biodiversity, marine life, festivals and cultural aspects of Dodamarg taluka.
8. The government should prepare websites of tourist places with proper information for the out of state and overseas tourists.

9. Safety measures and rescue operation teams should be arranged by the government with proper training in most of the tourist places especially at Tilari dam, Mangeli, Pargad.

10. The government should start tourist information center in major areas of the study region. The road maps of the tourists places showing the important features of the taluka. i.e. forts cave, waterfalls, etc. needs to be prepared and it should be displayed at certain locations on national highway, railway station and bus stand. It will be helpful to tourists and attract more tourists to the taluka.

11. To attract more tourists in the study area the government or MTDC should start Festival similar to Pune Festival.

12. The government and the bankers have to provide financial help with subsidy to local people for the development of tourists industry.

Tourists guides should be made available with proper training by local authority or government. (This type of training programmes have been recently started in Sindhudurg district.)
BIBLIOGRAPHY

1. Akashe S.M. - (Research Paper 2011) - Tourism Policy of Maharashtra - Interlink Research Analysis, July to December 2011


5. Gadekar D.J. - (M. Phil Thesis 2009) - A Particular study of Religious Tourist Centre in Rahata Taluka- Tilak Maharashtra University Pune

6. Gangarede R.S. - (M. Phil Thesis 2008) - Tourism in Parli Taluka - A Geographical Study - Tilak Maharashtra University, Pune


11. Mandale and Bhavake Editor- (January 2011) - Tourism Development Application in Economics - S.K. Patil College, Malvan District Sindhudurg


14. Salunkhe Chandrasekhar Editor - (February 2010) - Tourism development in South Konkan - Arts and Commerce College Khed District Ratnagiri


GATHADE P. D. Dr. HEMANT M. PEDNEKAR
Research Student Vice Principal and head
Navnirman College Dept. of Geography
Doda Marga, Kirti College, Dist Sindhudruga Mumbai