

Sustainable Tourism Planning for a Coastal Region: A Case Study of Dumas in Gujarat State in Western India

¹ Khushbu A. Patel, ² Himanshu J. Padhya

¹ Post Graduate Student, ² Associate Professor

¹ Town and Country Planning, ² Faculty of Civil Engineering

¹ Sarvajanic College of Engineering and Technology (Surat, Gujarat), India

Abstract: Surat city is located on the western part of India in the Gujarat state. It is one of the most dynamic cities of India. Dumas beach is located 21 kilometers southwest of Surat city. It is an urban beach along the Arabian sea. It is situated on the outskirts of Surat city on the sea shore. Dumas is a popular tourist destination in South Gujarat. The objective of this paper is to propose a sustainable planning for a seafront of Dumas area, that will serve not only Surat urban area, but the villages and other small towns in vicinity as well. It is famous for its scenic beauty and delicious food options. It is also famous for being in the top 35 haunted spots in India. This place always remains the centre of attraction for the people. Its proximity to Surat, Magdalla port and Hazira port is its unique point. According to Gujarat forest department Dumas area consisting 12.6% mangrove cover and total forest land of 370287 Sq. Mt. So, to conserve this forest land it is required to develop the tourism at Dumas area in a sustainable manner. This paper presents the study of Existing Condition of Tourism around Dumas area of Surat city and to give Recommendations for development of Sustainable Tourism at Seafront of Dumas.

Keywords— Coastal tourism, Dumas Sea front, Environment, Eco Park development, Forest land, Mangrove cover, Sustainable tourism

I. INTRODUCTION

Tourism is documented as one of the largest industries in the world and one of the most significant sources of employment and gross domestic product (GDP). It benefits the economies of developing countries, where most of the sector's tourism jobs and businesses are being created. Tourism is a most desirable human activity which has the capability to change the socio-cultural, economic and environmental face of the World.

It includes a variety of disciplines which are either directly or indirectly related to the understanding of tourism so it is also called a complex field of study. The study of information technology enhances our understanding for the importance of the global distribution system and its effect on tourism business.

On 4th March 1993 Modern definition of tourism given by the World Tourism Organization (UN-WTO) as 'tourism is defined as the activities of persons traveling to and staying in places outside their usual environment for more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited. The use of this broad concept makes it possible to identify tourism between countries as well as tourism within a country. Tourism refers to all activities of visitors, including both tourists (overnight visitors and same day visitors)'. Tourism is the industry which sustains 25 million equivalent full-time jobs and 6% of workforce in India.

In India Gujarat is the sixth largest state with a coastline of 1600 km. Gujarat is one of the most popular tourist regions in the country and it was visited by 20 million domestic and international tourists in 2010-2011. It offers scenic beauty from the Great Rann of Kutch to the hills of Saputara. It is one and only one place to view Asiatic lions. Many structures built in the Gujarat state in this fashion. There are numerous Indian and worldwide organizations situated in Gujarat and the region has seen two-fold digit GDP developments in past decades.

II. COASTAL TOURISM

Coastal tourism is one of the largest segments of the tourism industry and the fastest growing in terms of job opportunities and economic importance source of revenue in many megadiverse tropical and mild weather countries. Warm weather provides desirable conditions for leisure and outdoor recreational activities, such as sunbathing, diving, kayaking and surfing to tourists.

The current and future scenarios of climate change and the on-going modification of coastal ecosystems, urbanization and coastal squeeze is of growing concern, especially considering the predictions of sea-level rise and increased storminess which will cause flooding in coastal areas. The future of coastal tourism is therefore at risk from increasing coastal squeeze, environmental degradation and erosion related to extreme weather events. With the growing urbanization and human-induced modifications of the coastal zone, the resilience of the beaches and the ability to change shape and extent in response to storms and sea level rise. This poses an increased safety risk to coastal and marine recreation activities and also reduces the attractiveness of some coastal areas for tourism. Therefore, sustainable protection measures with proper management and prevention of coastal squeeze, are needed to adapt to a changing climate.

III. SUSTAINABLE TOURISM

According to the World Tourism Organization 2004, sustainable tourism is "Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities"

There are mainly four elements of sustainable developments: Environment, society, ecology and culture [27]. This all developments are referred to some key elements of tourism like eco-tourism, cultural tourism, community tourism, accessible tourism etc.

The development of eco-tourism as a sustainable development and environment protection is best form of tourism. Eco-tourism has already become one kind to promote the environmental protection, the advocation green, to initiate the human and naturally the highly harmonious popularity tourism product type.[28]

Ecotourism in rural communities requires investment, employment, the environment, culture and traditions, the development of traditional local production (especially local manufacturing industry: textile, handicrafts, carpentry, folk art), the birth of a story. Strategic objectives of sustainable development, ecological safety and social inclusion means incorporating a certain extent, ecotourism in national and transnational development strategies.

Ecotourism, as well as tourism generally involves: complex use of natural resources, cultural and human; It assumes a communication infrastructure, transport, training of social networking, utilities existence; assumes a specific infrastructure: hostels, hotels, reception staff, guides, qualified to provide food, particularly from local gastronomy; the existence of recreational infrastructure: cultural, disconnection activities, sports activities; promotion through travel agencies, information offices, etc. but especially to protect the ecosystem.[10]

IV. STUDY AREA PROFILE

Dumas beach is located 21 kilometers southwest of Surat city. It is a urban beach along the Arabian sea. It is situated on the outskirts of Surat city on Sea shore. Dumas is a popular tourist destination in South Gujarat. It is famous for its scenic beauty and delicious food options. It is also famous for being in the top 35 haunted spots in India. This place always remains the centre of attraction for the people. The coast line of Tapi runs for 11 kms. Dumas is 20 km away from the Surat railway station and 4.4 km away from Surat airport. The total area of dumas is 20.577 sq. km. It has population of 7224. And two town planning schemes are proposed in dumas. One is TP 80 Sultanabad Bhimpore which has area of 321.75 sq. mt. and other is TP 81 Dumas which has area of 234.89 sq. mt. Footfall activities at dumas in weekdays is 1000-2000 and in weekends is 3000-5000.

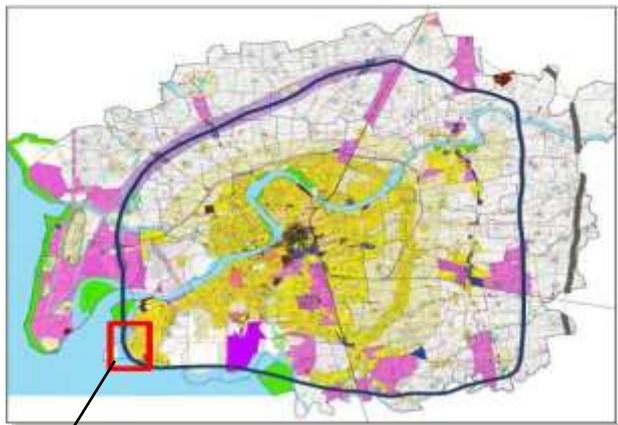


fig. 1 map of Surat



fig. 2 Surat development plan 2035

Dumas

The figure 1 shows the map of Surat city and highlight the area of Dumas beach. The highlighted area in figure 2 shows the area of Dumas. And pink outer boundary shows the proposed 120 m wide road I development plan 2035.



fig. 3 area of selected site



fig. 4 satellite image of selected site

Fig 3 is the Auto CAD plan of selected site. The total area of selected site is 10,20,652 sq. mt. in that forest land is 2,30,700 sq. mt.

Fig 4 shows the satellite image of the beach in that concentrated beach activity is clearly seen. And proper planning is not there so unorganized parking spaces and hawker area is occurred.

V. CONCLUSION

Dumas is only beach available with the fastest growing city Surat. There is already established beach activities and Presence of Dariya Ganesh temple as important destination. There is Strong presence of eco systems due mud flats and fishes. The Mangrove cover at dumas is 12.6% and total Forest land is 370287 Sq. Mt. mangrove area help to protect shorelines from damaging storm and hurricane winds, waves and floods. It also helps to prevent erosion by stabilizing sediments. And also maintain water quality. And it is essential to protect this mangrove and forest area by developing tourism in sustainable way. The Eco park is recommended to develop at dumas sea face. In that facilities like trail network, Bird watching, butterfly trail, mangrove board walk, food and beverages area, villas, beach club etc. to be develop. The Eco Nature Park is open to the guests and offers the possibility to discover the local fauna and flora. The park has a scientific and educational purpose, offering to biologists and volunteers an area of study of this eco-system and offering to the public an entertaining way to discover the fauna and flora of the eco-system. Visitors are able to walk through the park on wood board trails and marked trails. These trails are punctuated by information board that describe the ecosystem of the park. Trekking, bird watching, diving and other nature activities can be organized.

REFERENCES

- [1] A. Abubakirova, A. S. (2016). Place of tourism in the economy of Kazakhstan republic. *Procedia economic and finance*.
- [2] Abdullah, A. A. (2006). The creation of an eco-tourism site: a case study of Palau Singa Besar. *Ecology and the environment*.
- [3] Ayazlar, R. A. (2015). Flow phenomenon as a tourist experience in paragliding: A qualitative research. *Procedia economics and finance*.
- [4] Cavallaro, F. (2019). A tool to support transport decision making in tourist coastal area. *Case studies on transport mobility*.
- [5] Chang, Y. (2017). Sustainable Coastal zone planning based on historical coastline changes: A model case study in Tainan, Taiwan. *Landscape and urban planning*.
- [6] Chen, C.-L. (2017). A Transition beyond traditional fisheries: Taiwan's experience with developing fishing tourism. *Marine Policy*.
- [7] Darren Man-Wai Cheung, B. s. (2015). Social order, leisure, or tourist attraction? The changing planning missions for waterfront space in Hong Kong. *Habitat international*.
- [8] Doshi, A. (2015). Eco-Tourism a Tool of Livelihood in Madhya Pradesh, India. *International Journal of Current Microbiology Applied Sciences*.
- [9] Eva Simkova, J. H. (2014). Motivation of tourism participants. *Procedia- social and behavioural science*.
- [10] (2016). GOA'S TOURISM MASTER PLAN AND POLICY. Department of Tourism, Government of Goa.
- [11] GUJARAT TOURISM. (2019). Retrieved from the official website of gujarat tourism: <https://www.gujarattourism.com/>
- [12] Irina-Ramona, P. (2016). Eco-tourism and sustainable development. *Engineering Series*.
- [13] Jamaluddin, M. R. (2016). Responsible tourism practices and quality of life: perspective of Langkawi island communities. *Procedia- social and behavioural sciences*.
- [14] Jia Liu, J. Z. (2017). Tourism eco-efficiency of Chinese coastal cities e Analysis based on the DEA-Tobit model. *Ocean and Coastal management*.
- [15] Kostopoulou, S. (2013). On the Revitalized Waterfront: Creative Milieu for Creative Tourism. *Sustainability*.
- [16] Lakshmi.S.R. (2016). Transformation of Coastal Settlements Due to Tourism. *Procedia technology*.
- [17] Lithgow, D. (2019). Exploring the co-occurrence between coastal squeeze and coastal tourism in a changing climate and its consequences. *Tourism Management*.
- [18] Malik, M. I. (2015). Sustainability of tourism development in Kashmir-is paradise lost? *Tourism management perspectives*.
- [19] Mega Sesotyaningtyas, A. M. (2015). Analysis of Sustainable Tourism Village Development at Kutoharjo Village, Kendal Regency of Central Java. *Procedia- social and behavioural science*.
- [20] MINISTRY OF TOURISM. (2019). Retrieved from Government of india: <http://tourism.gov.in/>
- [21] Najdesk, K. A. (2012). Planning of sustainable tourism development. *Procedia- social and behavioural science*.
- [22] Pavel Ziarana, I. A. (2014). Quality management of the tourist destination in the context of visitor's satisfaction. *Procedia economics and finance*.
- [23] Phillip Feifan Xie, K. G. (2015). The Changing Urban Morphology: waterfront Redevelopment and event tourism in New Zealand. *Tourism management perspective*.
- [24] (2018). PLANNING PROPOSAL OF MUMBAI PORT TRUST. MbPT- Special Planning Authority.
- [25] Refaat, M. H. (2014). Sustainable Landscapes; the use of Eco Parks as a Tool for Sustaining the Living Landscape. *International Journal of Education and Research*.
- [26] Ristianti, N. S. (2015). S.M.A.R.T. eco-village for hazardous coastal area in Bedono Village, Demak Regency. *Procedia - Social and Behavioral Sciences*.
- [27] Rudiastuti, A. W. (2019). Coastal management strategy for small island: ecotourism potency development in Karimata island, west Kalimantan. *Earth And Environmental Science*.
- [28] Sanghaa, K. K. (2019). A state-wide economic assessment of coastal and marine ecosystem services to inform sustainable development policies in the Northern Territory, Australia. *Marine Policy*.
- [29] Shu-yuan-pan. (2019). Advances and challenges in sustainable tourism towards green economy. *Science of total environment*.
- [30] (n.d.). SiNGAPORE- A city in a Garden: Enhancing Greenery and Biodiversity. National Parks Board Singapore.
- [31] Song, L. (2010). Liasoning Coastal Economical belt ecology tourism sustainable development analysis. *IEEE- Economics and Management*.
- [32] SUDA, Surat Urban Development Authority. (2019). Retrieved from <https://www.sudaonline.org/>
- [33] SURAT MUNICIPAL CORPORATION. (2019). Retrieved from <https://www.suratmunicipal.gov.in/>
- [34] SUSTAINING TOURISM. (2019). Retrieved from Global sustainable future: Sustainable Tourism: <https://sustainabletourism.net/>

- [35] Suzanna Ratih Sari. (2018). A Development Plan for Tourism Potentials in Coastal Area of Ujungnegoro, Batang Regency. Journal of coastal development.
- [36] TEACHING AND LEARNING FOR A SUSTAINABLE FUTURE. (2010). Retrieved from UNESCO: UN Decade of Education for Sustainable Development: http://www.unesco.org/education/tlsf/mods/theme_c/mod16.html
- [37] Titu, M. A. (2016). Measuring Service Quality in Tourism Industry. Procedia- social and behavioural science.
- [38] vibrant gujarat earth summit. (2019). Retrieved from <http://vibrantgujarat.com/>
- [39] Vytautas Barkauskas, E. J. (2015). Analysis of macro environmental factors influencing the development of rural tourism: Lithuanian case. Procedia- social and behavioural science.