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Cover Page Footnote

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1. Introduction

Sustainable tourism development is built on three main pillars namely economic, social-cultural and environmental sustainability, their current and future impacts on various stakeholders. The notion of sustainability in case of coastal tourism cannot be seen only from its economic perspective but needs to be viewed from the environmental as well as social aspects. While sustainable tourism is identified with responsible tourism and the strategies and frameworks for it, sustainability of tourism refers to the underlying principles, ideas to continuously progress on the above path (UNEP & UNWTO, 2005). At the same time, for a tourism-based economy to sustain itself in local communities, the residents must be willing partners in the process. Their attitudes toward tourism and perceptions of its impact on their livelihoods; culture and environment must be continually assessed (Allen et al. 1988) as the latter are most important yet often neglected group among all the stakeholders of tourism industry.

Coastal tourism is a mainstay of Goa's economy. With 80 percent of all tourism infrastructure in coastal areas, Tourism services in Goa directly and indirectly contribute, nearly 18 percent to the Net State Domestic Product, around 25 percent to the total employment and 1451 million US dollars to the exchequer in the form of foreign exchange earnings (Government of Goa 2019). The northern coast of Goa is one of the most developed tourist destinations on India's western coast, and harbors a third of all hotel accommodations on Goa's coast line. Calangute Beach, a tiny but world-famous tourist destination, spread over a stretch of 5 kms and having a population of 13,810 as per Census 2011, is one of the most densely developed tourism sites in North Goa attracting over 10 lakh tourists annually. But the large influx of tourists to this world class tourist beach destination, in turn, has created several negative impacts on the region. Coastal tourism in Goa has placed heavy pressure on the coastal land and beaches, environment, water, energy and sanitation facilities (Sathe and Sawkar, 2003). Most people think of tourism in terms of economic impacts, jobs, and taxes. However, the range of impacts from tourism is broad and often influence areas beyond those commonly associated with tourism. Different groups are often concerned about different tourism impacts. To generalize, where one group embraces the economic impacts of tourism, another group experiences social and cultural impacts, while another is affected by tourism's environmental impacts. For this purpose, it is essential to identify the possible impacts through the resident perceptions.

2. Objectives

The objective of the present research paper is to study the resident's perception about the economic, social and cultural impacts on coastal tourism with respect to Calangute Beach in Goa, India and to suggest the measures for achieving and maintaining sustainable coastal tourism in the region through stakeholders' participation.

3. Literature Review

3.1 Resident Perception and Sustainable Tourism Development:

There have been several research studies examining the attitudes of local residents towards tourism and their perception of impacts of tourism on the economy, society and environment of a region. Many of such studies on resident attitudes toward tourism have identified factors that influence their perception towards sustainable tourism development. These include: the scale of economic

gain, environmental quality, sociocultural identity, feelings of the native community, the use of the tourism resources, the ability to control tourism development and one's quality of life.

Resident surveys have found that locals who enjoyed the economic benefits of tourism had a positive attitude towards tourism and those locals who experienced environmental degradation, traffic congestion, overcrowding, noise, road side garbage, higher costs and prices on account of rapid tourism growth had a negative perception towards environmental and cultural aspects of tourism (Lindberg & Johnson, 1997; Walpole & Goodwin, 2001). In one such study, Amuquandoh and Dei, (2007) examine the tolerance of residents to tourism development around the Lake Bosomtwe Basin in Ghana. A resident survey of 660 people in the basin reveals that residents have preference for large scale tourism. The chi-square test statistic results found that high income, highly educated and married locals wanted large scale tourism for more economic benefits and equated large inflows of visitors with success and money, Renata Tomljenovic et al (2013) in their article assess the attitudes of various stakeholders associated with tourism using chi-square test and find that resident stakeholders are not always opposed to tourism projects and that they perceive tourism positively for their region's economic sustainability. According to the authors those residents benefitting from tourism are more prone to see positive economic and social contribution of tourism. The attitude of local leaders and government to tourism development was also found to be positive. The authors conclude that local residents and government should be proactive to the changes created by tourism. In their article on coastal tourism and beach sustainability in Kovalam, India (Ghosh and Datta, 2012) find through participatory community appraisals that the coastal villagers of Kovalam are facing huge ecological problems due to the consumerist, urban-industrial culture. The main policy suggestion given is to engage the local community in managing the whole tourism process by themselves. Ghosh Tubin (2012) concludes that the impact of coastal tourism on coastal environment have created negative externalities and have pressurized the state to spend tax payer's money on improving tourism infrastructure and services. The study suggests eco-tourism, calculation of the carrying capacity of tourism, government investments funded by tourism tax revenue, development of environment friendly technology, learning from the local population sustainable coastal tourism practices and educating tourists about the risks they create to the beaches as measures to save coastal tourism. Polnyotee and Thadaniti (2014) in their article analyze the factors influencing sustainable tourism at Patong beach. A random sample survey of 120 locals and 120 tourists revealed that local people perceived tourism to be generating more negative than positive outcomes, while tourists revealed that the beach is potentially a very good tourist attraction, but were not satisfied by the supply of tourism services on the beach. The authors recommend all stakeholders to participate in the planning and conservation of the Patong beach. Hengky S.H. (2017) conducted a study based on the concept of sustainable coastal tourism. The concept was very realistic to be implemented on improving the performance of coastal ecotourism in the area that has a very limited number of human resources, funding and time. Using content analysis, the study showed that in addition to coastal tourism facilities and infrastructure, it was also important to sensitize all stakeholders on coastal tourism development in a sustainable manner. This collaboration would improve the performance of coastal tourism on the island. The residents who perceive that they have a proactive role in tourism planning are more in favor of tourism (Cavus & Tanrisevdi, 2003). On the other hand, local people who view the costs of tourism outweigh the gains, do not favor and support tourism development.

Though there have been various research studies (Noronha, Lourenco, Lobo-Ferreira, Lieopart, Feoli E., Sawkar, Chachadi, A.G., 2003, Alvares C., 2002) assessing Goa's coastal sustainability and many official reports on Goa's tourism, its carrying capacity etc., so far there has been no study focusing on the planning and management of coastal tourism in Goa from the holistic perception of residents, since they are the most vulnerable section facing the negative impacts of rampant expansion of tourism in Goa. The present study aims at identifying the various impacts on coastal tourism sustainability from the local residents' perspective, as the host community serves as a base for sound tourism planning as well as policy decision making.

4. Research Methodology

4.1 Research Techniques for Data Collection

Secondary data and documentary information investigated is obtained from many resources such as literature, the Internet, and other media for better understanding. Primary data was collected by firstly direct observation of the area of investigation and visit of the study area to explore the related tourism activities and infrastructure. A detailed questionnaire was designed to explore the perspective of local people in sustainable tourism development at Calangute beach from the economic, environmental and socio-cultural points of view. Reliability of questionnaire was tested and was found to be suitable. To get data, the questionnaire was administered to a convenience sample of 180 residents to elicit their views. Calangute is a small Census village with a population of 13810 as per Census 2011 and an estimated population of 15743 as per 2021 estimates of Indian Census. Using the Krejcie-Morgan formula as given in (1) the sample size should be 375.

$$n = \frac{\chi^2 NP(1-P)}{e^2 (N-1) + \chi^2 P(1-P)} \text{-----(1)}$$

where,

n = sample size.

χ^2 = Chi-square value at 95% confidence level with one degree of freedom.

N = population size.

P = Population proportion (normally 0.5).

e = base of natural logarithm (value approximately is 2.71828)

But the present sample size is 180, due to the following reasons: firstly, due to the pandemic and lockdown in Goa, physically meeting and interviewing 375 people was difficult. Secondly, since the researching was a highly specific population, it was difficult to sample a large number of people. Thirdly some locals did not want to or were unable to participate and some gave incomplete information. After filtering out, 180 questionnaires with complete information were selected for analysis.

4.2 Data Analysis Tools

To capture the attitudes and perceptions of resident population a 5-point Likert scale was designed ranging from strongly agree, agree, neutral to disagree and strongly disagree. In primary survey research, a Likert scale helps to convert qualitative data into quantifiable information which can be put to non-parametric tests like the chi-square test. The statistical technique used for the analysis

of the data is chi-square test. The chi square statistic compares survey respondents' actual responses to questions with expected answers to assess the statistical significance of a given hypothesis. The greater the level of deviation between the proportion of actual responses and expected responses, the higher the chi-square statistic indicating how people's views are actually differing from the ideal concepts in the Null hypothesis. In the present paper a five-point Likert scale is taken and for running the chi-square test the agree and strongly agree responses have been combined into one category and the disagree and strongly disagree into another. This gives three categories of responses: agree, disagree and neutral. The neutral responses were negligible in number.

5. Results and Discussion

5.1 Demographic and Social Profile

Out of the total 180 people, in terms of gender the number of females (68.3 percent) outnumbered the male respondents (31.7 percent) as seen in figure 1.

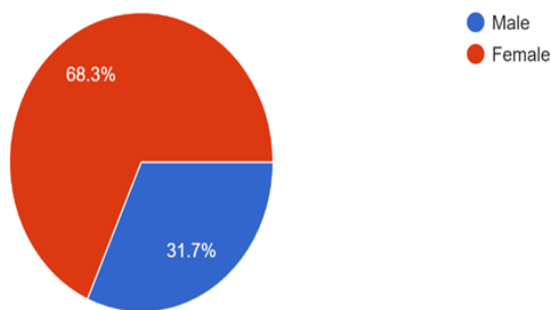


Figure 1 Gender Distribution of the Resident Sample

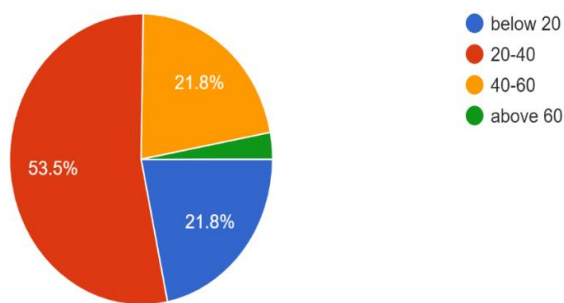


Figure 2 Age Distribution of Respondents

Age distribution in figure 2 shows 53.5 percent residents were young in age group 20-40 years, followed by 21.8 percent in the age group 40-60 years as well as in the age group below 20 years and the old residents were less than 10 percent.

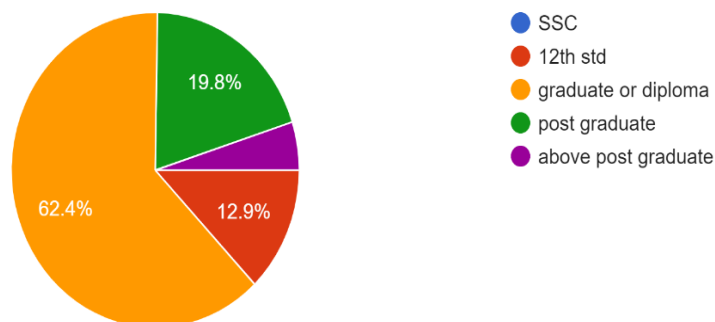


Figure 3 Educational qualifications of respondents.

The figure 3 shows that majority of the locals are educated and graduates or diploma holders. Although the survey is in a rural area, there is a good share of population with good educational levels.

5.2 Resident Perceptions and Attitudes towards Economic, Environmental and Social Sustainability of Tourism in Calangute.

Residents' perception and attitude on the economic, environmental and social aspects of tourism on the Calangute beach are analysed using Chi-square test statistic, the following facts about economic sustainability are revealed. Based on the Table 1 it is clear that the proportion of locals who perceive that they enjoy a higher quality of life, higher income and jobs, better infrastructure and better road networks due to tourism is more than those who disagree with the positive impact of tourism. This implies that residents perceive that tourism has a positive economic impact on their livelihoods. But at the same time, the proportion of people who agree that tourism has created a negative impact by creating more migrant jobs, reduced agriculture and increased inequalities is higher than those who disagree. When it comes to economic impacts, there are always mixed results with those benefiting from tourism seeing the positive impact, while those with no connect to the tourism seeing it from a negative perspective. All the results are statistically significant at 5 percent level of significance.

Table 1: Results of chi-square tests on economic aspects of tourism

	Statements asked to residents	impact	p value	Chi-square
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serial no				test statistic	table statistic
1	The locals' quality of life has significantly improved because of tourism.	positive	0.000	82.88**	5.99
2	Tourism has created more jobs for the migrant labour than goans in the lower category jobs.	negative	0.000	113.55**	5.99
3	Tourism is the main reason for the decline of agriculture in coastal areas.	negative	0.000	33.98**	5.99
4	Tourism has improved infrastructure services like roads, power, water supply etc..	positive	0.000	57.26**	5.99
5	Tourism has increased the prices of products and services for the locals.	negative	0.000	116.49**	5.99
6	Overall tourism destination areas generate higher incomes, employment and services than non-tourism areas in Goa.	positive	0.000	107.55**	5.99
7	Tourism has benefited only the higher class of the society.	negative	0.01	8.24**	5.99
8	The road network in coastal parts of Goa is considerably good due to tourism development.	positive	0.000	26.96**	5.99

Based on the results given below in table 2, environmental aspects of coastal tourism, except for sewerage management where the chi-square results are statistically insignificant, for the rest of the statements about environmental sustainability the results are significant at 5 percent level of significance and point to the fact that a greater percentage of local people agree that there has been a negative impact on environment due to tourism as compared to residents who perceive otherwise. Tourism has led to environmental degradation, overcrowding, noise pollution and there is a visible loss of the coastline due to sand erosion. Most of the local residents perceive uncontrolled tourism and resultant tourism infrastructure expansion has led to destruction of the coastal environment, increased pollution in all forms and spoilt the scenic beauty of the coastline. Most of the host community members also agreed that here is heavy consumption of power and water by hotels, restaurants etc. during peak season and garbage management is a challenge for local authorities.

Table 2: Results of chi-square tests on environmental aspects of tourism

serial no	Statements asked to residents	impact	p value	Chi-square	
				test statistic	table statistic
9.	Uncontrolled tourism and hospitality infrastructure has led to the destruction of natural environment in coastal areas.	negative	0.000	92.72**	5.99
10.	Due to overcrowding of tourists, garbage and litter have increased.	negative	0.000	145.05**	5.99
11.	There is heavy consumption of power and water by hotels, restaurants etc. during peak season.	negative	0.000	139.59**	5.99
12.	Tourism has contributed to the increase of congestion, noise and pollution.	negative	0.000	107.55**	5.99
13.	Coastal Zone Regulation Act is aimed at protecting the coastal environment in Goa.	positive	0.0000	46.22**	5.99
14.	Sand erosion, is visible on the beaches in Goa.	negative	0.0000	84.08**	5.99
15.	The present sewage and solid waste management systems in coastal areas are sufficient in tourist areas.	positive	0.4538	1.58	5.99
16.	Tourist developments have spoilt the scenic beauty of our coastline.	negative	0.000	60.62**	5.99

Analysing the data on the attitude of local people on social and cultural sustainability, table 3 shows the proportion of people who perceive tourism as having a negative impact on the social and cultural life of locals is more than those who disagree with such statements. Only in case of Goa being protected and for creating more cultural and entertainment opportunities in tourism, the impact seems positive for a larger percentage of people. The results are significant at 5 percent level of significance,

Table 3: Results of chi-square tests on social and cultural aspects of tourism.

serial no	Statements asked to respondents	impact	p value	Chi-square	
				test statistic	table statistic
17.	My place is special and should be protected.	positive	0.000	121.358**	5.99
18.	Tourism has increased cultural and entertainment opportunities.	positive	0.000	108.75**	5.99
19.	We are losing Goa's traditional culture to casinos and electronic music festivals.	negative	0.000	90.02**	5.99
20.	Tourists only create crowds and ques.	negative	0.000	35.84**	5.99
21.	Further coastal tourism development will negatively affect our quality of life.	negative	0.000	53.54**	5.99
22.	Social problems like drug abuse, excessive drinking etc is more in tourist visited areas than non-tourist areas.	negative	0.000	125.00**	5.99

Thus, the chi-square tests point out to the fact that local resident's perception about the environmental and social sustainability of tourism is negative, while there is a proportion of locals who feel economic sustainability of tourism is beneficial while a similar proportion of locals who perceive no benefit. The results indicate that coastal tourism has a negative impact on the environment and society and its impact on the coastal regional economy is mixed.

6. Policy Suggestions

The major findings of this paper confirm to the existing findings on coastal tourism in Goa that is, our coastal tourism sustainability is getting jeopardised on the environmental and socio-cultural grounds. Based on the options suggested by local residents for sustainable coastal tourism development, it can be concluded that the local residents want improvement of Goa's tourism image as a clean and safe destination (80%), preservation of natural resources (77%) and

government incentives for better water and waste management by hoteliers, tourist enterprises. 64 percent of the residents said that improving the quality and affordability of services in tourism areas is crucial for sustainable tourism development.

Based on the findings of the perception of residents on sustainable coastal tourism on Calangute beach and its consequent impacts, the following policy measures are suggested on the basis of the responses: firstly, tourism must contribute to preserving its main stays, nature and culture. This is the responsibility of not only the tourists but also of the hotels, casinos, tour operators, local residents and others who derive income from tourism. Tourism has to curb its consumption of natural resources. The intensity of resource use and that of waste flow have to be regulated. For instance, no water guzzling facilities in regions where there is not enough water for the needs of the local population. Lower energy consumption at tourism facilities and making it mandatory for hotels and tourism operators to use renewable sources of energy (like solar energy). The sewage water (raw or treated) discharged by hotels, casinos, industries, domestic urban households into the nearby rivers and lakes must be regularly inspected against a waste water discharge standard and areas which violate the standards must be punished with heavy fines and penalty. Similarly, tourism enterprises which cause excessive garbage beyond certain limits must be charged a pollution tax for discouraging them from polluting the environment further. In this way negative externalities caused by the polluter can be internalised. The strain on tourism traffic has to be reduced by providing good roads and road networks. For providing smooth mobility at tourism destinations within the state, the local authorities should ask the star hotels to plant trees on the roadways as a part of their corporate social responsibility or payback to the state and society efforts and contribute to the greening of coastal belts. There should be a code of conduct for tour operators and hotels, like respect for human rights, no drug trade and promoting Goa as a sustainable tourist destination through their individual websites. Beach tourism is the main stream of tourism activity in Goa. But it has been over exploited. Diversion of tourists towards hinterland from beaches for controlling excessive concentration of tourists in the beaches is the need of the hour. It is time for the stakeholders to diversify tourism into Eco tourism.

Finally, a people centric approach to conservation is required to protect the coastal areas, using the local knowledge on how to manage the region through stakeholder's involvement in planning, decision-making and implementing all the tourism projects in coastal regions. The local developmental authorities must involve the local population in the local tourism planning. The role of perception studies in terms of developing more successful conservation management plans in various areas has been unequivocally emphasized in the scientific literature (Weladji, Moe & Vedeld, 2003; Dimitrakopoulos *et al.*, 2010;). Investigating local perceptions and how they positively influence attitudes toward protected areas provide the starting point to successful local participatory conservation management (Vodouhe *et al.*, 2010).

7. Conclusion

The present research study reveals that coastal tourism development in Calangute, Goa has an impact on local community. As per the impact analysis environmental issues should be the top priority, followed by socio-cultural issues and economic issues for planning sustainable coastal tourism development in Calangute, Goa. Residents will be willing partners and cooperate in sustainable tourism development when they will get benefit from tourism and this should be kept in mind by the local policymakers. To ensure participation from local community it is necessary

to involve more locals in tourism and minimize all the negative externalities caused due to tourism like environmental degradation, social uncertainty and migrant labor influx and problems arising out of insufficient infrastructural development. For the tourism industry to be sustainable, cooperation from all stakeholders is a must. Tourism growth should maintain the socio-cultural identity of the host community, and provide fair economic returns to all stakeholders (Black and Crabtree, 2007). These goals can only be attained if the various players in public, private, and social sectors, do not work on their different agendas with narrow interests. The future research should explore the strategy of tourism development, along with stakeholder participation, for sustainable tourism development and community-based tourism. A bottom-up approach to coastal destination management must be adopted and local people should be active and continuous part of the process.

Though all is not well with the state, national and world economy due to the COVID 19 pandemic, there are some bright spots which the state machinery can focus on and also learn from other countries who have in the past overcome the ill effects of equally deadly SARS virus which adversely affected tourist-based economies like Hong Kong, Bangkok, Singapore, Thailand and other such countries. In March 2003 when the SARS virus broke out, Singapore and Hong Kong suffered badly but after the SARS alert ended, they sprang back to action promoting domestic tourism with very high standards of hygiene and security in place. This is also a major part of sustainable coastal tourism development.

The References

- Alvares, C. (Ed), (2002). *Fish Curry and Rice*, The Goa Foundation, Mapusa Goa, India.
- Allen, L.R., Long, P.T., Perdue, R.R., and Dieselbach, S. (1988). The Impact of Tourism Development on Resident's Perception of Community Life. *Journal of Travel Research*, 27(1), 16-21.
- Amuquandoh, F. E., & Dei, L. A. (2007). Tourism Development Preferences Among the Residents of Lake Bosomtwe Basin, Ghana, *Geojournal*, 70, (2/3), 173-183.
- Black, R. and A. Crabtree (2007). *Quality Assurance And Certification In Ecotourism*, CAB International, Oxfordshire, UK.
- Cavus, S., & Tanrisevdi, A. (2003). Residents' Attitudes Toward Tourism Development: A Case Study in Kusadasi, Turkey. *Tourism Analysis*, 7, 259-269.
- Dimitrakopoulos, P. G., Jones, N., Iosifides, T., Florokapi, I., Lasda, O., Paliouras, F., & Evangelinos, K.I. (2010). Local Attitudes On Protected Areas: Evidence From Three Natura 2000 Wetland Sites In Greece. *Journal of Environmental Management*, 91(9), 1847-1854.
- Ghosh, P.K., & Dutta D., (2012) Coastal tourism and beach sustainability – An assessment of community perceptions in Kovalam, India, *Geografia Online- Malaysia Journal of Society and Space* 8 (7), 75 – 87.
- Ghosh, T. (2012). Sustainable Coastal Tourism Problems and Management Options, *Journal of Geography & Geology*, 4(1), 163-169.
- Government of Goa (2019). *Economic Survey of Goa 2018-19*, Government of Goa DPSE, Goa.

- Hengky, S.H.(2017).Discovering Sustainable Coastal Tourism in Dodala Island Indonesia, *Journal of Aquaculture and Marine Biology*,6 (2), 1-8.
- Lindberg, K., & Johnson, R. (1997). Modelling Resident Attitudes Toward Tourism. *Annals of Tourism Research*, 24(2),402-424.
- Noronha, L.,Lourenco, N., Lobo-Ferreira J.,Lieopart A., Feoli E.,Sawkar K.,Chachadi A.G(Eds). (2003) *Coastal Tourism,Environment and Sustainable Local Development*. TERI, New Delhi.
- Polyyotee, M.,& Thadaniti, S.(2014).The Survey of Factors Influencing Sustainable Tourism at Patong Beach, Phuket Island, Thailand. *Mediterranean Journal of Social Sciences* ',05(9),651-655.
- Renata, T.,Sanjuana, B.Z., and Zrinka, M. (2013).Stakeholder Support for Tourism Development. *Acta Turistica*,June,25(1), 73-102.
- Sathe P.V. and Sawkar K.(2003). 'Landform Changes from Remote sensing data'. In Noronha L., Lourenco N., Lobo-Ferreira J, Lieopart A, Feoli E., Sawkar K.,Chachadi A.G.(Eds),*Coastal Tourism,Environment and Sustainable Local Development*. TERI, New Delhi.151-157.
- UNEP & UNWTO, (2005). *Making Tourism More Sustainable – A Guide for Policy Makers*.
- Vodouhe, F., Coulibaly, O., Adegbidi, A., & Sinsin, B. (2010).Community Perception Of Biodiversity Conservation Within Protected Areas In Benin. *Forest Policy and Economics*,12, 505-512.
- Walpole, M., & Goodwin, H. (2001). Local Attitudes Towards Conservation And Tourism Around Komodo National Park, Indonesia. *Environmental Conservation*, 28(2),160-166.
- Weladji, R., Moe, S., & Vedeld, P. (2003).Stakeholder Attitudes Towards Wildlife Policy And The Benoue Wildlife Conservation Area, North Cameroon RID G-1507-2011.*Environmental Conservation*,30(4),334-343.