

## "SUSTAINABLE TOURISM DEVELOPMENT IN DIGHA COASTAL REGION: CHALLENGES AND OPPORTUNITIES"

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#### **Abstract**

The most common way of arranging and the executives that joins various interests and partner worries through arranging and improvement is vital for the practical improvement as an essential instrument. Social, social, political, and financial challenges all impact the nearby local area because of coastline the travel industry. Accordingly, remembering the importance and significance of partner joint effort for supportable seaside the travel industry advancement, and the neighborhood local area/occupants being the key partners, the objective of this quantitative exploration is to concentrate on the nearby inhabitants' mentalities towards the impacts of waterfront the travel industry in the beach front retreat of Digha, West Bengal, India, as well as to propose vital mediations for guaranteed issues and long haul necessities. In this system, the specialist accumulated essential information from 180 respondents in the review region utilizing a study strategy, and afterward further dissected the information utilizing Small scale Tab and SPSS utilizing different measurable devices and methods like co-connection, relapse, and straightforward factual estimations to arrive at a resolution. As per the review's discoveries, occupants' participation and inclusion are vital for the advancement's supportability.



**Keywords:** sustainable tourism, coastal tourism, environment, local community, residents' attitude

## 1. INTRODUCTION

Nowadays, tourism is acknowledged as a sector of the economy that has both social and economic advantages. It has a great deal of potential to boost the economy and create jobs. Coastal tourism is the fastest-growing business in the world and one of the most well-liked natural tourist destinations. More than 70% of the world's megacities are found in coastal regions, while 20% of the earth's surface is covered with coasts. As a result, it offers unusual resource combinations that combine land and water activities, increasing the appeal of such locations to tourists and travellers.

Yet, the growth of the tourism sector is not well planned and controlled, and this has a variety of detrimental effects on every tourist destination. The ecosystem of the region might be drastically altered by any human action. The deterioration of wetlands, dune migration, erosion, siltation, and water pollution are all caused by human intervention. Due to their vulnerability and fragility, coastal regions need more protection in order to maintain their natural beauty and, as a result, guarantee their long-term sustainability and profitability as a travel destination. Since the tourist sector is so reliant on natural settings, it is important to maintain a balance between tourism-related activities and coastal ecosystems. Without environmental preservation and the wise use of natural resources, sustainable growth is not feasible.

The current endeavor is a case study to see how the ecosystem is impacted by coastal tourism. In WB, India, Digha is a well-known seaside destination. Digha is distinguished by the natural splendor of its expansive, azure water and alluring rows of Caesarian trees. For the species that live there, the salt marches, mangrove swamps, estuaries, sand dunes, and its geomorphological structure create a unique set of environmental circumstances. It is a highly well-liked vacation spot; each year, large numbers of travellers go to Digha to enjoy the seashore. Hence, this natural equilibrium has been disturbed by significant human influence. In this paper, an effort has been



made to examine how tourism affects Digha's coastal ecosystem and how to implement sustainable ecotourism techniques.

## 1.1. History of Digha Coastal Region

One of India's fastest-growing industries is tourism, which aids in a region's economic development and social connection (Palit.S, Patra.U.K, Saren M). Due to its natural beauty and distinct character, the coast is well suited for the growth of the tourist industry (Mason, 2003). It is one of the key drivers of global growth, overseas trade, and employment. According to the World Trade Organization, India would dominate the south Asian tourist market in 2020. (Statistical Year Book India, 2013) The Himalaya Mountains in the north, the Bay of Bengal in the south, Sundar Boycott, safe-havens, thick timberland in the west, Thar Desert, open sea shores, and other verifiable destinations make West Bengal more fitting for a creating vacationer business than different pieces of India. The coastal parts of West Bengal are primarily divided into three districts: PurbaMedinipur, North 24parganas, and South 24parganas. Digha, which is situated in the western part of the PurbaMedinipur district, is one of the best coastal tourist destinations in West Bengal (Ganguly, P., & Sharma, S.). In order to spend their vacations, the East India Company built few cottages in the little hamlet of "Digha" during the British occupation of India. The first banglo was built by Governor Warren Hastings close to the seashore. Digha was steadily developed for tourist purposes after West Bengal gained its independence, and it is now the most popular destination in the state. Due to a well-developed transportation infrastructure, hotels, private lodges, and vacation homes, "ancient Digha" is now generally appealing (such as the most beautiful setting, aquatic life, sand dunes, flora and wildlife), and tourism to this region is constantly increasing (Mandal, Dandapath&Shukla, 2013). 25, 47,017 tourists visit Digha each year (Dept. of tourism, West Bengal, 2010). People go to Digha for leisure from West. Dumping is the biggest issue in the Digha coastal area, and it is becoming worse every day as a result of tourist activities, which are harming the ecology along the shore. P. Ganguly and S. Sharma. Hence, it is crucial to understand that Digha is a significant tourist destination in West Bengal, and it is necessary to emphasize every aspect via study or talks. This essay examines the state of coastal tourism as well as many environmental and



tourist-related issues in the historic city of Digha. Its goals are to educate tourists and invest money in environmental preservation for long-term sustainability (Patra et al., 2018). The local economy benefits most from tourism since it generates jobs and some local money for the people who live in tourist areas (Plait et al., 2020).

## 1.2.Aims & Objectives

The research's primary goals are to:

- i. To evaluate the current state of tourism, as well as the viability and efficacy of environmental mitigations for the study area's tourist industry.
- ii. To research how the locals feel about the growth of tourism and the effects it has on the aforementioned region.
- iii. To provide recommendations for the region's sustainable tourism development

## 1.3. Hypothesis

- i. Tourist growth has some effects on the neighborhood.
- ii. Sustainable development may help with today's tourism-related issues by addressing future community demands.

#### 2. LITERATURE REVIEW

### 2.1. Coastal tourism and the environment

Our nation's coastline, which includes its island possessions, is around 7500 kilometers long. The strain on India's coastline is rising as a result of the country's growing urbanisation, tourist growth, municipal sewage discharge, abuse of beach front assets, and progressing advancement in peril inclined areas (JayanthiNatarajanMinister of State, Climate and Timberland: Govt. of India, 2012). A few investigations on seaside the travel industry put more accentuation on the vacationer framework than on how the business collaborates with related normal frameworks (Wong, 1993).

Low-lying deltas, reef islands, and coral atolls are particularly vulnerable to changes in rainfall, storm frequency, and severity, as well as to sea level rise (Ehler et al., 1997). The prospect for



different sorts of tourist development with coastal and marine management is undoubtedly provided by the beauty and distinctiveness of coastal environments (Mason, 2003). Harm to waterfront environments, including sea shores and wetland regions, deforestation, disintegration, exorbitant utilization of and expanded request on scant energy and freshwater assets, natural disturbance and debasement of organic variety, contamination and waste age, asset use clashes, and dangers to neighborhood inhabitants' way of life and customs are only a couple of the impacts of beach front the travel industry (UNWTO-1994). Over utilization of regular assets, including new water, energy, land, and marine assets, may cause asset debasement and exhaustion. This also fuels disputes between residents and industry (Gossling 2003; McLaren 2003; Neto 2003). Serious vacationer development may likewise affect common habitats by causing deforestation, wetland misfortune, and soil disintegration (Neto 2003). This is a huge issue in beach front places where there is bunched enormous scope improvement (Gossling 2003; McLaren 2003). As indicated by different investigations (Ehler et al. 1997; UNWTO, 2008; IPCC, 2007; UNEP, 2007a; Simpson et al. 2008), the environment in seaside regions is changing because of both normal and human-prompted processes. Thus, there are different regular perils (man-actuated cycles) and calamities (Fritz, 1961; Burton and Kates, 1964; Shaper, 1996; Quarantelli, 1998) that fundamentally hurt the beach front biological system (Henderson, 2007; Ramanamurthy et, al, 2007; Birkland et, al, 2006; Trumbic and Randic, 1998). Numerous studies have focused on coastal hazards and how they affect tourism, including coastal erosion (Bird, 2000; Bryant, 2005; Leatherman et al, 2000; Capobianco et al, 1999); storm surges and their associated storms (Harris, 1963; Nott & Hayne, 2000); coastal flooding (Kaiser, 2006; Burston, 2007); and sea level rise (McGranahan et, al, 2007; Douglas, 2001; Ablain et. al, 2009; Kaiser, 2006). Loss of biodiversity as a result of development in coastal regions has a detrimental impact on tourism (CI, 2003). The financial areas along the shore will be influenced by these expanded bio geophysical changes because of the deficiency of land and assets as well as a decrease in the monetary, social, and environmental upsides of those areas (Klein & Nicholls, 1999).



With an island included, West Bengal's coastline is about 100 kilometers long and is distinguished by a high level of floral and faunal biodiversity, a variety of geomorphic characteristics, and human incursions (Bhattacharya et. al., 2003). The whole region is environmentally fragile and is subject to the Coastal Regulation Zone rules established by the Ministry of Environment and Forests of the Indian government (2001). According to the CRZ demarcation made for the study area by the Ministry of Environment and Forest in 2001 and information obtained from DSDA (Digha-Shankarpur Development Authority), all hotels and commercial areas, hospitals, other public offices, and water works are classified as CRZ III in the Old and New Digha areas, while all other areas are classified as CRZ III. The Digha-Midnapore District in West Bengal's seaside area is recognized by sand ridges, long shoreline flows, high saltiness, low turbidity, and little vegetation (Annon, 2005; Paul, 2002).

## 2.2. Sustainability & Sustainable Coastal Tourism

There has been a lot of conversation of the thoughts of supportability and manageable improvement in the writing (Pearce, Barbier and Markandya, 1990; Pezzey 1993; Munasinghe and Shearer 1995; Atkinson, Dubourg, Hamilton, et. Al. 1997; Benefactor and Jahn, 1999) The writing uncovers a worry for three issues: value between and inside ages; significance of the climate for people as an obstruction to monetary action due to the biophysical limits it might force as well as a calculate deciding human prosperity; and worry for the oppressed as far as both intergenerational value and the safeguarding of the climate for people in the future. Hence, sustainability necessitates consideration of the economic, social, and environmental spheres that support or have an impact on human health and welfare. This theory was developed by Instep (1991) and McCool (1995), who suggested that if tourism expansion was managed incorrectly, it may endanger the same resources (for example, financial, ecological, and social assets) that act as the reason for the travel industry in a town. In response to the idea of sustainable development, Barbier (1989) defines it as the harmony between intergenerational equality, economic development, environmental consequences, and participatory procedures. Owing to recent rapid expansion, individuals in charge of tourist management are aware that the viability of these especially vulnerable habitats in coastal regions depends heavily on their quality



(CoastLearn, 2009). Planning and managing tourism should include community stakeholders to achieve social sustainability (Moseley, 2002; Pearce ET. Al., 1996; Choi & Sirakaya, 2006) respecting ecosystem carrying capacity and eliminating all forms of pollution are two ways to achieve environmental sustainability (Durovic&Lovrentjev, 2014). High-quality tourism products should be used to establish economic sustainability (Durovic&Lovrentjev, 2014). Utilizing ecological preparation, local area based the travel industry, quality the travel industry, long haul extensive preparation, and vital preparation, the UNWTO proposed a technique for maintainable vacationer improvement in 1994. For a sustainable growth of coastal tourism, Natura 2000 suggested organic inventories, the inclusion of all parts, the executive's plans, drafting, and the recovery of harmed regions. It is absolutely necessary to consider all possible dangers when developing coastal regions for sustainable development, like floods, timberland fires, biodiversity misfortune, and seaside disintegration (EEA, 2006). Effective sustainable coastal management requires the use of the environmental impact assessment methodology (Clark, 1992). A few metropolitan states have involved its arranging divisions to propose answers for issues connecting with public utilization of the shoreline and normal assets, the rebuilding of ocean fronts, and legitimate drafting for economical retreat and marina improvement (Mill operator et. al., 2002).

## 2.3.Local Community (Perception & Participation)

According to Smith and Krannich (1998), a community's dependency on tourism is linked to poorer levels of local satisfaction, greater levels of anxiety about crime, and an increase in unfavorable opinions about the community's progress. As per Allen, Long, R.R. Perdue, and Kieselbach's (1988) research, the ominous impression of the travel industry appear to be restricted to specific parts of local area life connecting with opportunities for public, municipal, and social commitment.

According to Liu, Sheldon, and Var (1987), as tourism pressure increases, there is a corresponding rise in criticism of the industry as people become more aware of the environmental and cultural problems it causes. This, in turn, leads to a rise in opposition to the



expansion of the tourism industry. According to Pearce (1980), places with strong tourist growth lead to resident unhappiness because of issues with traffic and stopping, wrongdoing, expansion, and so on.

Lawson, Williams, Youthful, and Cossens (1998) analyzed the perspectives on local people towards the travel industry in ten New Zealand areas and found that although there were many parallels in the backdrop of the economy and jobs, there were variances in the locals' assessments of every form of social repercussions.

According to Gursoy, Jurowski, and Uysal (2002), there are six variables that can be used to model how tourism develops: the degree of local residents' concern for their communities; the extent to which they use tourism resources; the degree to which they hold eccentric values; the condition of the neighborhood economy; the apparent expense and advantages of the travel industry advancement.

As indicated by Allen, Long, Perdue, and Kieselbach (1988), the recurrence of collaborations between locals and visitors, as well as their inclination to be gracious hosts, determine the degree of affects.

Sheldon and Abenoja (2001) emphasized that without the participation of people impacted by tourism, sustainable tourism cannot be conducted effectively.

#### 3. MATERIALS & METHODS

### 3.1.Research design

The review's attention is just on local people's perspectives in regards to the development of beach front the travel industry in Digha, West Bengal, one of the state's most popular tourist destinations. The research area, which includes twenty two villages (as determined by the Digha-Shankarpur Tourist Development Authority) and fifteen beaches, is related to the rural and suburban villages and beaches on the outskirts of Digha. According to the 2011 Census, there are around 18,000 people living in these communities. The secondary data were gathered as a basis for eventual primary data verification. According to the research scholar's assessment, six towns



and three beaches were selected for the survey's sites, and equal numbers of people were randomly selected from those places to represent the 180 respondents, or around 1% of the study area's total population. After applying filters and using other suitable approaches to lower answer error, the researcher was able to get 150 (83%) full and useable surveys. The capability, involvement/participation, and response of the local community to tourist development were the main topics of the field survey and observation of the study region. To figure out the impacts of manageable the travel industry on the local area, a thorough interview was done with community members on the three key areas of sustainability: environmental, economic, and cultural. A three-part questionnaire that was self-administered served as the survey instrument. In order to comprehend the fair representation from all connected demographic aspects of society, the inquiries in the principal segment consolidate the respondent's socio-segment data. The second portion of the survey included a 15-item attitudinal index for tourist effects that was divided into four main groups: environment (EN), economy (EC), sociocultural (SC), and overall attitude. Three variables are included in the third section of the questionnaire to analyze the job and commitment of maintainable improvement in settling recent concerns and tending to local area needs from here on out. To determine where the research instrument needed to be improved, a pilot survey of 25 people was first undertaken. The remaining data gathering was completed, nonetheless, since no significant change was necessary. Respondents rated their opinions and attitudes on each question utilizing a 5-point Likert scale: 1-Firmly Dissent, 2-Deviate, 3-Uncertain, 4-Concur, and 5-Unequivocally Concur.

For a dependability test, the trial of the examination instrument (poll) is similarly significant. As far as measurements, the run of the mill way to deal with unwavering quality depends on the thought that everything (or blend of inquiries) ought to furnish discoveries that are reliable with the aftereffects of the entire poll. As indicated by Andy Field (2005), an outcome somewhere in the range of 0.7 and 0.9 is viewed as being very reliable.

A few factual techniques, like the rate strategy, mean, standard deviation, and numerous relapses, were used to dissect the information. Used measurable software engineer like Minitab and SPSS The respondent's portrayal is made sense of utilizing the rate method. Utilizing a 5-point Likert



scale, the mean and standard deviation were utilized to measure how occupants had an outlook on the impacts of the travel industry. To research the consolidated effect of a picked bunch variable of occupants' perspectives on complete mentalities, different relapse approaches were applied. Reaction components have been utilized to explore the capability and worth of economic advancement in settling present issues and tending to local area needs from now on.

### 4. FINDINGS & ANALYSIS

The research is limited to how rural communities in and around Digha, a seaside resort, feels about the development of coastal tourism. Table 1 shows a profile of respondents who are country occupants.

Table 1: Respondents' Profiles of Rural Residents

S.no.	Description	No. of	Percentage of
		Respondents	Respondent
a)	Age (years)		
	i) Below 25	40	26.67
	ii) 25-40	53	35.34
	iii) Above 40	57	38
<b>b</b> )	Marital Status		
	i) Married	110	73.33
	ii) Unmarried	40	26.67
c)	Gender		
	i) Male	115	76.67
	ii) Female	35	23.33
d)	Qualification		
	i) Under Matric	80	53.33
	ii) Matric & above	70	46.67
<b>e</b> )	Household Monthly Income(RS)		



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ISSN: 2320-3714 Volume 3 Issue 3 September 2021 Impact Factor: 11.9 Subject: Geography

	i) Below 10,000	75	50
	ii) 10,000-25,000	35	23.33
	iii) Above 25,000	40	26.67
f)	Involvement in Tourism		
	i) Direct	65	43.33
	ii) Indirect	60	40
	iii) No Involvement	25	16.67

More over half of the survey's 150 participants were aged 25 to 40, followed by adults over 40 who made up 38% of the sample, and those under 25 who made up the remaining 26.67% of responses. Residents that were surveyed are more likely to be married (73.33%) than single (26.67%). Males (76.67%) outnumber females (23.33%) in terms of gender. While the examination district incorporates rustic networks with restricted open doors for business and further instruction, there is in any case areas of strength for an of respondents with a secondary school confirmation (53.33%) and those without a certificate (46.67%). It is essential to take note of that most of respondents (half) had family salaries of not as much as Rs. 10,000/ - each month, whereas just roughly 26.67% did so. A question in the poll asked respondents about their engagement in tourism. The majority of respondents (approximately 40%) said they were indirectly engaged, followed by directly by 43.33% and not at all by 16.67%.

Table 2 illustrates the degree to which each independent variable and the dependent variable, OA, are related. OA rises by 0.2384 at the point when Climate Effects is raised by one unit. OA disposition ascends by 0.7743 for each unit expansion in financial results. OA diminishes by 0.4460 when Sociocultural is raised by one unit, which is critical at the 1% and 5% levels. Various connection coefficients between the reliant variable OA and the free factor (R=0.40) show that autonomous elements affect OA. It is likewise obvious from the way that the joint factors EN, EC, and SC explain for R2=0.16 of the variance in OA. The lower values of R2 show that, despite the positive link between tourism effects and OA, attitudes regarding tourism



impacts often depend on a variety of factors in addition to the group variables used for the research.

Table 2: Regression Equation of General Attitude (GA) on Economic, Sociocultural, and Environmental

Variable constant	Regression	T value	Multiple correlation
	Coefficients		
Environmental	0.2384	2.00*	R= 0.828
Economic	0.7743	6.45***	$(R^2) = 0.330$
Socio-Cultural	0.4460	-3.88***	Adjusted R <sup>2</sup> =0.317

<sup>\*\*\*</sup>  $P \le 0.001$ ,\*  $p \le 0.05$ , 1= Strongly Disagree, 2= Disagree, 3=Undecided, 4= Agree, 5= Strongly Agree

## 5. CONCLUSION

Based on the aforementioned results, the current study project suggests that the growth of tourism in Digha, West Bengal, has some effect on the neighborhood local area. As per the effect study, the model's top center would be financial worries, trailed by socio-social issues and natural contemplations for the advancement of manageable waterfront the travel industry in Digha, West Bengal (Coordinated improvement model for practical the travel industry advancement like PrakobsiriPakdeepinit, 2007). Yet again occupants' support and collaboration in the improvement of an economical the travel industry where the inhabitants will profit from the business ought to be given first concern. Partner support and collaboration are likewise expected for the maintainable the travel industry to foster nearby. It is vital for attempt and dispose of the multitude of adverse consequences brought about by the development of the travel industry, for example, ecological corruption, monetary instability and low wages because of irregularity and an absence of neighborliness abilities, as well as socio-social issues brought about by lacking framework improvement and legitimate preparation. As it was examined for certain local people engaged with different the travel industry related callings, local people are benefiting monetarily from the improvement of the travel industry nearby. For example, one van



(tourist transport) driver earns Rs. 750 per day in peak tourist season, one coconut seller earns Rs. 650 per day in peak tourist season, one steward earns Rs. 400 per day in tips, and one barber earns Rs. 1100 per day in peak tourist season. A well-maintained park (Amarabati Park), which is located in New Digha, required casual staff members from the local community to provide good service on December 25, 2013, as shown by information from the ticket counter. Locals may enjoy more economic success as a result of the growth of sustainable tourism. Tourism development has a greater economic impact on local communities, so careful planning is essential from all stakeholders (public and private) for infrastructure development, tourism promotion, facilities for foreign visitors, local skill development, and overall economic development in the area. Even if the effects of environmental degradation only become apparent relatively recently, it is nevertheless highly important to gain an honest assessment of them. Those who are older are more concerned about environmental damage. The improvement of tourism assures improved upkeep and cleanliness, which in turn makes the populace—both host and visitor—happy. The main reason for worry is the Old Digha area's sewage and rubbish, which contribute to pollution and illnesses spread by mosquitoes there. In this location, soil erosion is a major issue. For the local company owners, who don't have enough opportunities to operate their companies and aren't in a position to compete with large foreign investors conducting business in Digha, a proper land use plan has to be devised. To achieve a sustainable future, local governments should make sure that everyone is subject to the CRZ principles and that appropriate environmental protection knowledge is raised. For proper local engagement in tourism in the area, it is crucial to improve their sociocultural lifestyle. Concerning advancement of the neighborhood networks in the area, there is a few misconceptions among local people about the elements of the panchayat and the Digha-Shankarpur Improvement Authority. While the DSDA was primarily created to handle tourist development, the authority also has to guarantee that all enterprises, including locals, have access to the facilities, infrastructure, and general environment. Although it has been noted that villagers' standards of living are rising, they are also said to be having issues with fresh water and power during the peak tourist season. Several troubling problems plague West Bengal, resulting in disputes amongst many parties. This West Bengal coastal resort has distinctive ecological characteristics that offer significant but



untapped tourism potential, such as coastal areas (aside from old Digha), recreational parks, fish landing harbors, temples, marine aquariums, science center's, flora & fauna, water sports, and scenic beauty. It is necessary to properly and sustainably develop these resources in order to improve local communities' standard of living across this region. The significance of vacationer interest, the idea of the travel industry assets, intergenerational fairness, socio-social progression, coordination between numerous partners, and at last long haul manageability are other topics that must be addressed in the study. For the growth of sustainable tourism, the local community must actively participate and be informed. Finally, we could draw the conclusion that residents' cooperation and participation are essential for sustainable development that fosters harmonious relationships between guests and hosts. This could be fortified by impartial dissemination of advantages and expenses for inhabitants, which could result in a positive attitude towards tourism.

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