

## Sustainable coastal tourism-an overview Turismo costero sostenible: una descripción general

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### ABSTRACT

An elementary theory of sustainable coastal tourism mainly depends on the crystal clear water, healthy ecosystem, and well preserved coastal environment. Coastal tourism has drawn worldwide attention and has become extremely competitive as everybody tries to increase their profit in terms of beach visitors, both domestic and international [Joseph, and Pakkeerappa,2015]. Usually, any coastal area growth is always looked at from a business perspective, while the environmental aspect is mostly neglected. This strategy leads towards impractical beachfront development, which has different negative ramifications, on the climate and society. It is uneconomical as it destroys the actual ecological structures, such as the beach scenery, the biodiversity, and the biological system in the ocean and on the land. Also the travel industry exercise at the seaside territory destroys the beach. This study summarizes environmental impacts of coastal Tourism and the sustainable options to make it eco-friendly. The sustainable solutions were suggested for better coastal conservation. Also the study points out the future crisis pertaining to the latest Environmental Impact Assessment (EIA) 2020 by the government of India.

Keywords—Coastal, Sustainable, tour, biodiversity, CRZ, EIA

### RESUMEN

Una teoría elemental del turismo costero sostenible depende principalmente del agua cristalina, un ecosistema saludable y un entorno costero bien conservado. El turismo costero ha atraído la atención mundial y se ha vuelto extremadamente competitivo ya que todos intentan aumentar sus ganancias en términos de visitantes de la playa, tanto nacionales como internacionales [Joseph y Pakkeerappa, 2015]. Por lo general, el crecimiento de cualquier área costera siempre se considera desde una perspectiva comercial, mientras que el aspecto ambiental se descuida en su mayor parte. Esta estrategia conduce a un desarrollo frente a la playa poco práctico, que tiene

diferentes ramificaciones negativas sobre el clima y la sociedad. Es antieconómico ya que destruye las estructuras ecológicas reales, como el paisaje de la playa, la biodiversidad y el sistema biológico en el océano y en la tierra. También el ejercicio de la industria de viajes en el territorio costero destruye la playa. Este estudio resume los impactos ambientales del turismo costero y las opciones sostenibles para hacerlo ecológico. Se sugirieron las soluciones sostenibles para una mejor conservación costera. Además, el estudio señala la futura crisis relacionada con la última Evaluación de Impacto Ambiental (EIA) 2020 del gobierno de India.

Palabras clave: costero, sostenible, recorrido, biodiversidad, CRZ, EIA

## INTRODUCTION

Sustainable tourism is an approach to make it ecologically supportable in the long term. The very importance of sustainable tourism lies in its motives to conserve the resources and increase local culture and tradition. Sustainable tourism is responsible for tourism intending to generate employment and income and alleviate any more resonant impact on the environment and local culture. The coastal zone is an area of interaction between land and sea. India has a coastline of about 7500km, the behavior of which varies between stretches. Coastal tourism being a fast-growing industry with multiple growth potential has become a key sector in building the nations and developing an international community. Sustainable tourism development has a chief role in accelerating socio-economic progress all over the world. Therefore, it is being weighed equally with the other sectors of the developed countries and the developing economies [Joseph andPakkeerappa,2015]. The present study discusses about the environmental impacts, impacts of biodiversity and social-cultural impacts of coastal tourism and the possible sustainable suggestions for the same.

## COASTAL TOURISM

Coastal tourism refers to tourism based on distinctive coastal resources and is associated with terrestrial and marine biodiversity, cultural and historical heritage, geologic history, beaches, water, and scenic beauty. Natural and cultural resources associate with tourism and recreation options, including hiking, fishing, hunting, bird watching, swimming, kayaking, and scuba diving. A coastal area supplies as a natural driver for coastal tourism growth and the resulting economic growth. Community leaders have to identify the coastal tourism industry as a prospective and possible solution to boost the local economy.

## SUSTAINABLE DEVELOPMENT IN COASTAL TOURISM

Sustainable development, a concept receiving increasing attention in recent years, provides a possible solution to the challenges faced by coastal areas. Sustainable development focuses on both immediate aspects and the preservation of elements necessary to maintain the future generations. This includes conservation of natural resources and social cultures that enable business achievements and product availability. In practice, sustainable development requires an intentional and attentive approach. However, this extra thought upfront generates years of future benefits [Johnson & Schroeder, 2012]. Coastal area promotes coastal tourism development, at the same time it is a concern, since the industry damages natural resources and negatively affecting the quality of life.

Furthermore, many coastal tourism opportunities depend on the conservation of local natural resources [Joseph and Pakkeerappa, 2015]. Overuse may lead to the depletion of these resources. The success of coastal tourism depends on the ability and willingness of business operators, natural resource managers, and community leaders to adopt a sustainable approach to development perspectives and practices surrounding the budding coastal tourism industry [Johnson & Schroeder, 2012].

## THE BOTTOM LINE APPROACH IN COASTAL TOURISM

The bottom line approach provides a primary method to realign coastal tourism and resource-based business perspectives with the concept of sustainable development. The bottom-line approach to tourism development measures success based on the economy, environment, and society. The practice maintains that, since social and environmental assets typically lay the foundation for financial success, stakeholders interested in tourism development should incorporate the success of all three elements into their vision and plan [Mishra et al, 1997]. While the bottom line approach focuses on holistic success, it also requires stakeholders to prepare to mitigate unintended, negative impacts of development [Johnson & Schroeder, 2012]. Increased tourism offers many economic, environmental, and social benefits, but an influx of visitors may degrade economic, ecological, and social aspects.

## MATERIALS AND METHODS

Several works of literature regarding coastal tourism have been collected and reviewed thoroughly regarding ecological and sustainable aspects. Among those studies carried out along the Indian coast has been elaborated in detail in the following section. The section deals with the studies carried along east and west coast of India.

## CASE STUDIES – ALONG INDIAN COAST

The enlightening factor of sustainable tourism is vital for a community's background. Interactions between tourists and those of the local community are an opportunity for cultural exchanges that will promote understanding and reduce fanaticism and injustice. The guidelines for sustainable tourism were adopted during the seventh meeting of the Conference, held in Kuala Lumpur, Malaysia, in 2004 regarding the Convention on Biological Diversity. It covers policy making, development planning and management processes, proposal process and information requirements, and education, capacity-building, and awareness-raising as a tool for policy and decision-makers and managers in a multi-stakeholder procedure for raising a sustainable tourism industry [Socio-Cultural Effects of Tourism on Jamaica,2020]. Numerous studies regarding sustainable coastal tourism have been carried out all around the world. A couple of case studies carried out in our country will be discussed in this section.

Studies carried out in this case [Josephand Pakkeerappa,2015] deliberate that the current tourism development in the coastal area is not in the right direction of sustainability in various aspects. A research carried out around the northern coast of Karnataka has much potential but requires effective and efficient planning. More involvement of the local community at different levels of planning is one of the prerequisites. Simultaneously, the developers should ensure the local community's benefits and socio-cultural and environmental values are not deteriorated by tourism development in the coastal areas.

Balasore is a famous long sea beach located in Odisha State. It is renowned for the rivers Subarnarekha, Buhdabalanga, and the extended calm sea beach and appreciated for its salt, Brass utensils, stone, and clay work [Barman et al,2015]. Sustainable development as a strategic tool requires a process of planning and management that brings together a series of interests and indigenous people's concerns in the form of planning and development. Accelerated and unscientific developmental activities have induced catastrophic consequences [Sawaleand Mahadevia,2011]. Attaining benefits without hampering the balance requires adopting integrated coastal management strategies based on a solid scientific foundation that allows multiple uses of the resources without causing severe damage to the environment.

Coastal ecosystems found along continental margins are regions of remarkable biological productivity and high accessibility. It has made them centers of human activity for millennium. Coastal ecosystems provide a wide range of goods and services. They host the world's primary commercial ports; they are the primary producers of fish, shellfish, and

seaweed for human and animal consumption. They are also a considerable place of tourism industry development. The beauty of coastal ecosystems makes them a magnet for the world's population [Barman et al,2015]. People drift down to coastal regions to live and for leisure, recreational activities, and tourism. Analyzing the coastal zone has been defined to include the inter-tidal and sub-tidal areas on and above the continental shelf (to a depth of 200 meters) and immediately adjacent lands [Barman et al,2015].

## ENVIRONMENTAL IMPACTS OF COASTAL TOURISM

Massive entries of tourists, often to a relatively small area, have an enormous impact. It leads to the pollution, waste, and water needs of the local population, laying local infrastructure and habitats under tremendous pressure. Tourism creates tremendous pressure on local resources such as energy, food, land, and water that may already be in short supply. Regional impacts of tourism on people and the environment at destinations are strongly affected deliberately in space and time, which leads to the intensive use of water and land by tourism and leisure facilities, which changes in the landscape arriving from the construction of infrastructure, buildings, and facilities. A consumer based society throws out bulky solid, liquid, and medical wastes. The hospitals alone generate around 1.5 lakh tonnes of solid waste per day. Estimation reveals that about one million cubic meters of sewage are generated per day in the coastal areas alone [Harris et al,2012].

### Impacts on Biodiversity

The increasing tourist demand for more responsible and environment friendly options is the focus today [Dobson,2003, Garrod &Wilson, 2003, Mycoo, 2006, Sharpley, 2006,2009]. Coastal tourism is becoming more harmful for the delicate natural and cultural areas, which is the major attraction to the tourists [Kline,2001, Briguglio,1996, and Driuset al, 2020]. Tourism can cause biodiversity loss in many ways, by destroying the habitat and natural resources of wild species of plants and animals.

### Socio-Cultural Impacts

Tourists demand souvenirs, arts, crafts and cultural manifestations. In many tourist destinations, craftsmen have responded to the growing demand and have made changes in their products design to attract new customers [Lal Mukherjee,2013]. Cultural erosion may occur in the process of commercializing the cultural traditions. Cultural clashes may arise through Economic inequality, Irritation due to tourist behavior, and job level friction [Manoj,2008].

## RESULTS AND DISCUSSION

### SUSTAINABLE OPTIONS

A conceptual framework has been formulated which aims at characterizing Coastal Ecosystem Services (CES), Coastal Tourism (CT), and the other Human Activities (HA) in the Mediterranean Sea [Driuset al, 2020]. Threats from CT and HA are based on a proposed classification, which integrates the significant impacts and pressures from CT in a single combined framework and proposes new threat categories like light pollution. Such classification can also be applied to coastal areas of Indian territory. The Cumulative threats models supported by the conceptual framework and applied to beach tourism and recreational boating offered a tool to address trade-offs between CT and the other HA[Sharpley,2009],[Kline, 2001] and [Drius et al ,2020]. This concept proved valuable in supporting the identification of areas at the highest trade-off to beach tourism and effective in conveying coastal management and planning information to decision-makers and authorities at different administrative levels (regional and local)[ Ghosh,2012] and [Johnson & Schroeder,2012]. In future, this conceptual framework can be further coupled with socio-economic indicators to better understand the coastal resource value for recreation. In this frame, Maritime Spatial Planning (MSP) and Integrated Coastal Zone Management (ICZM) can play an essential role in promoting CT's sustainable development by creating synergies with other coastal and maritime activities [Briguglio,1996]. This framework contributes to a better definition of the components in need of attention while addressing coastal sustainability [Harris et al,2012] and [Dobson,2003]. It also provided a concrete test whose methodology and results are transferrable to other touristic coastal regions [Garrod & Wilson ,2003] and [Sharpley,2006]. To enable CT to contribute positively to socio-economic wellbeing and even to be a positive force for nature conservation, sustainability pathways need to require a secure supply of all CES [Mycoo,2006].

### PROCEDURE FOR COASTAL REGULATION ZONE (CRZ) CLEARANCE FOR PERMISSIBLE AND REGULATED ACTIVITIES:

- a) Project summary details as per CRZ notification.
- b) EIA Report including marine and terrestrial components as required.
- c) Risk Assessment Report, Disaster Management Plan, and provisions towards supporting EIA Notification.
- d) CRZ map in 1:4000 scale, drawn up by any one of the agencies identified by the Ministry of Environment, Forest and Climate Change (MoEF& CC) 2014 using the demarcation of the High Tide Line (HTL) or Low Tide Line (LTL).
- e) Project layout superimposed on the CRZ map duly indicating the project boundaries and

the CRZ category of the project location as per the approved Coastal Zone Management Plan.

- f) The CRZ map covers a 7 km radius typically around the project site, indicating the CRZ-I, II, III, and IV areas, including other notified ecologically sensitive areas as exposed in Fig.1 and Fig.2.
- g) Consent to "Establish or No Objection" Certificate from the concerned State or Union Territory Pollution Control Board.

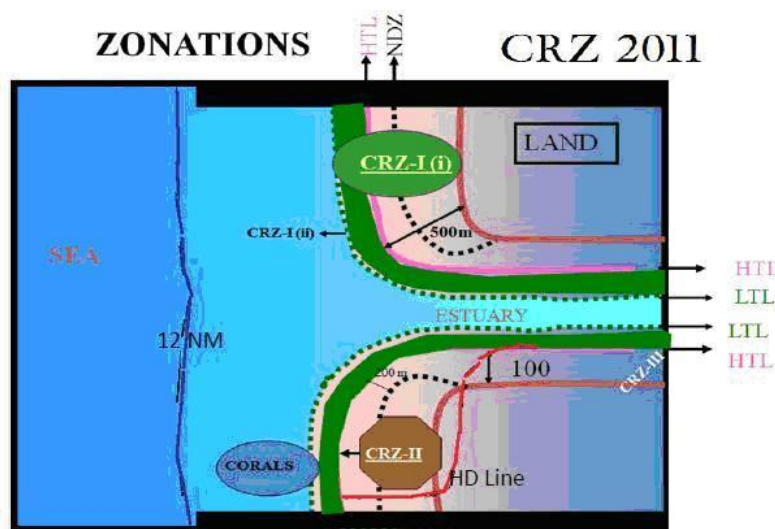


Fig.1. Types of CRZ Zones with an estuary [Garrod & Wilson, 2003]

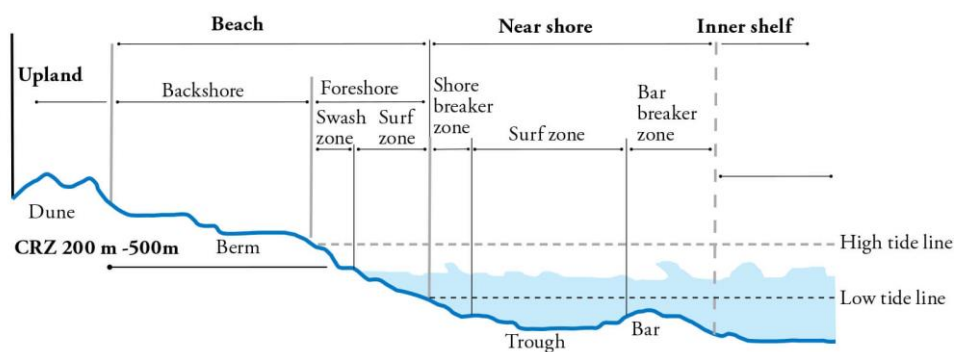


Fig.2 Zonation in the coastal region of India

### LIMITATIONS OF EIA 2020

MoEF& CC amended the EIA 2006 to make the process more precise and convenient. Nevertheless, the new draft of EIA 2020 criticizes widely for its problematic changes in rules.

- i. It allows post facto clearance, which means any project can carry out its operations without any environmental permission.
- ii. If a project is categorized as Strategic, then no information related to such a project shall be placed in the public domain.
- iii. Projects concerning national defense and security are naturally categorized as Strategic. There is a list of other projects exempted from assessment in the new EIA draft and considered as Strategic. For example, All inland waterways and national highway projects, building construction projects for an area up to 1,50,000 sq.m, and the project about the roads and pipelines in border areas.
- iv. Under existing EIA 2006 norms, expert approval committees must screen the above projects. However, in EIA 2020, it is placed under the Strategic category.
- v. Now EIA allows only the government representatives or the project promoter to report against any violations, and the citizens cannot complain against such issues.

#### CONCLUSIONS

Sustainable tourism is responsible for tourism intending to generate employment and income and alleviate any more resonant impact on the environment and local culture. Environmental impacts, biodiversity issues and socio-cultural impacts were identified as the major challenges to sustainability in the coastal zone. The solution framed for Mediterranean coast can be adopted by coupling socio-economic indicators to identify the critical parameters for the sustainable development in coastal tourism. It is hard to find a distinctive solution for all these problems. In our country, coastal tourism can be developed better, but sustainability is still a question regarding EIA 2020. However, it must be essential to follow these points: (a) An Integrated Coastal Zone Management, (b) It should achieve a better dissemination of the current information, through better coordination of the present governmental bodies that deal with coastal management is necessary, (c) An improvement of environmental education is crucial for the sustainable development of the coast.

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