COASTAL TOURISM

DR. A. K. SANYAL

Chairman, W.B. Biodiversity Board
Tourism is the largest and fastest-growing economic sector in the world.

Globally, tourism and related economic activities generate 11% of Global Domestic Product, employ 200 million people, and transport nearly 700 million international travellers per year. These figures are expected to double by 2020, especially in some of the world’s least developed countries.
Tourism has expanded dramatically over the last 50 years and has become a global industry. According to WTO’s forecasts, long-distance travel worldwide will grow faster (5.4% each year) in the next decades than travel within regions (3.8%). WTO statistics for 2002 estimated international tourist receipts of US$ 463 billion, a total of 693 million tourist arrivals across the globe and forecast over one billion arrivals by 2010. European tourism accounts for 2/3 of global tourism and is expected to double by the year 2025. The Mediterranean is the World’s number one tourist destination and is generating 1/3 of global tourist revenues.
Coastal areas are transitional areas between the land and sea characterized by a very high biodiversity and they include some of the richest and most fragile ecosystems on earth, like mangroves and coral reefs. At the same time, coasts are under very high population pressure due to rapid urbanization processes. More than half of today’s world population live in coastal areas (within 60 km from the sea) and this number is on the rise.

Additionally, among all different parts of the planet, coastal areas are those which are most visited by tourists and in many coastal areas tourism presents the most important economic activity.
Coastal areas are some of the most productive and biologically diverse on the planet. They're also the most densely populated: according to the UN, 60% of the world's population – more people than inhabited the entire planet in 1960 – live within 60km of the coast.

On top of this, 80% of all tourism takes place in coastal areas, with beaches and coral reefs amongst the most popular destinations.
The origins of tourism in coastal areas go back to Roman times, when the first villas were constructed in the Southern part of the Apennine peninsula.

In the centuries that followed, especially from the mid-18th century onwards, coastal tourism was generally related to the therapeutic properties of sea and sun.

Sun, sea and sand have continued to provide the main ingredients for coastal tourism until today, especially in the second half of the 20th century, which was marked by the development of mass tourism.
Coastal tourism is based on a unique resource combination at the interface of land and sea offering amenities such as water, beaches, scenic beauty, rich terrestrial and marine biodiversity, diversified cultural and historic heritage, healthy food and good infrastructure.

It includes a diversity of activities: development of tourism capacities (hotels, resorts, second homes, restaurants, etc.) and support infrastructure (ports, marinas, fishing and diving shops, and other facilities).
Besides physical conditions, the development of tourism in coastal areas is related to socio-economic features of the receiving environment such as local community interests, health and security conditions, political factors including unpredictable crises, exchange rate fluctuations, and traditional models of tourism exploitation or, simply, a successful or less effective marketing-led depiction of a destination.

Environmental conditions such as unpredictable climate conditions, algae blooms, winds and the associated risk of forest fires, tsunami, storms and floods, as well as many other constant features or unexpected events, affect tourism development in coastal areas.
Coastal recreation activities, which have been increasing both in volume and in number during the last decade, occupy a unique place in coastal tourism.

They take in two main types of recreational uses of coastal zones:

- Consumptive and non–consumptive ones. Activities such as fishing, shell fishing and shell collection, etc. belong in the first category while activities in the second include swimming, diving, boating, surfing, wind–surfing, jet skiing, bird watching, snorkelling, etc.
Coastal tourism is strongly dependent upon natural (climate, landscape, ecosystems) and cultural (historic and cultural heritage, arts and crafts, traditions, etc.) resources. It encompasses activities that can only be carried out in particular areas and in specific conditions. Therefore, certain areas are considered to be particularly suited to specific types of tourism activities, for which they became known on a global scale. Examples include sailing in the Gulf of Mexico, surfing on the beaches of Australia and Hawaii, or scuba diving in the Red Sea.
India has immense potential in the coastal tourism segment.

The development of coastal tourism is tied to the concept of sustainable tourism. We need to understand the complexity of the linkage between social and natural systems.

Our focus is to promote local tourism in Indian coastal belt along with awareness campaign for conservation of natural flora and fauna.
Beaches in Goa

- Arambol Beach
- Baga Beach
- Palolem Beach
- Calangute
- Benaulim
- Candolim
- Chapora Beach
- Dona Paula
- Miramar, Panaji
- Anjuna Beach
- Vagator Beach
- Varca Beach
- Majorda Beach
- mobor Beach
- Cavelossim Beach
Beaches in Andhra Pradesh

- Baruva, Srikakulam
- Bhavanapadu, Srikakulam
- Kalingapatnam, Srikakulam
- Kallepalli, Srikakulam
- Mypad Beach
- Mogadalapadu, Srikakulam
- Salihundam, Srikakulam
- Sri Kurman, Srikakulam
- Suryalanka Beach, Bapatla
- Vizag beach, Vizag
- Bheemili beach, Vizag
- Rushikonda beach, Vizag
- Ramakrishna Mission beach,
- Tenneti beach, Vizag
- Submarine Museum beach, Vizag
- Dolphins Nose beach, Vizag
- Manginapudi beach, Machilipatnam
- Kakinada beach, Kakinada
- Uppada beach, Uppada, Kakinada
- Yanam beach, Yanam
- Sikarim sagar Beach
Beaches in West Coast: Karnataka

- Karwar Beach, Karnataka
- Om beach, Gokarna
- Murudeshwara
- Kaup (village)
- Kudle beach
- Maravanthe
- Malpe Beach, Udupi
- Mukka
- Panambur
- St Mary's Island, Karnataka
- Tannirubhavi Beach
- Trasi
- Ullal
- Gopinath Beach
Beaches in West Coast: Gujarat

- Ahmedpur Mandvi Beach
- Chorwad Beach
- Diu Beach
- Gopnath Beach
- Umbergam Beach
- Tithal Beach
- Mandvi Beach – Mandvi – Kutch
Beaches in West Coast: Maharashtra

- Dahanu Beach
- Palghar Beach
- Kelwa Beach
- Arnala Beach
- Rajori Beach
- Suruchi Beach, Vasai

List of Mumbai Beaches

- Manori Beach
- Gorai Beach
- Madh Island's beach
- Marvé Beach
- Aksa Beach
- Versova Beach
- Juhu beach
- Band Stand
- Dadar Chowpatti
- Girgaum Chowpatty Beach
- Uran Beach
- Khim Beach
- Alibaug Beach
- Akshi Beach
Beaches in West Coast: Maharashtra

- Revdanda Beach
- Kashid Beach
- Murud Janjira Beach
- Adgaon Sea Beach
- Velas Beach
- Diveagar Beach
- Aravi Beach
- Shreewardhan Beach
- Harihareshwar Beach
- Bankot Beach
- Padale Beach
- Harne Beach
- Palande Beach
- Murud Harnai Beach
- Ladghar Beach
- Guhagar Beach
- Palshet Beach
- Bhudal Beach
- Welneshwar Beach
Beaches in West Coast: Maharashtra

- Hedave Beach
- Narvan Beach
- Nadiyade Beach
- Malgund Beach
- Ganpatipule Beach
- Dhokamle Beach
- Mandvi Beach
- Bhatye Beach
- Mervi Beach
- Padavane Ambolgad Beach
- Madban Beach
- Vijaydurg Beach
- Kotharwadi Beach
- Devgad Beach
- Mithamumbari Beach
- Kunkeshwar Beach
- Tambaldegh Beach
- Achara Beach
- Chivla Beach
- Malvan Beach
- Tarkarli Beach

- Ganapatipule Beach
- Tarkarli Beach
Beaches in West Coast: Maharashtra

- Mithamumbari Beach
- Kunkeshwar Beach
- Tambaldegh Beach
- Achara Beach
- Chivla Beach
- Malvan Beach
- Tarkarli Beach
- Devbag Beach
- Bhogve Beach
- Kalvi Beach
- Vaingani Beach
- Dabholi Beach
- Sagareshwar Beach
- Kurlevadi Beach
- Redi Beach
- Kondura Beach
- Mochemad Beach
- Shiroda Velagar Beach
- Arevare Seaface and Beach
- Varavde Beach
- Ganeshgule Beach
- Anjarlay Beach
- Kuravde Beach
- Kondavli Beach
- Anjarlaya Beach
- Sagareshwar Beach
- Kunkeshwar Beach
- Mithamumbari Beach

Maikand Beach
Beaches in Kerala

- Alappuzha Beach
- Cherai Beach
- Fort Kochi, Cochin
- Kappad
- Kappkadavu
- Kovalam, Trivandrum
- Marari beach
- Meenkunnu Beach
- Muzhappilangad Beach
- Payyambalam Beach
- Shangumugham Beach, Trivandrum
- Varkala, Trivandrum
- Veli beachside lagoon, Trivandrum
- Munnar

Cherai Beach

Stone Pavilion at Sangumukham beach, Trivandrum
Beaches in East Coast: Tamil Nadu

- Marina Beach, Chennai
- Golden Beach, Chennai
- Adyar Beach, Chennai
- Thiruvanmiyur Beach, Chennai
- Elliot's Beach, Chennai
- Santhome Beach, Chennai
- Thiruvottiyur Beach, Chennai
- Kovalam Beach, Kovalam
- Mahabalipuram Beach, Mahabalipuram
- Ennore Beach, Ennore
- Silver Beach, Cuddalore
- Dhanushkodi, Tamil Nadu
- Kanyakumari Beach, Kanyakumari (Both East and West coast)
- Tiruchendur Beach, Tiruchendur
- Kayalpattinam Beach, Kayalpattinam
- Velankanni Beach, Velankanni
- Poombukar (Mayavaram) Beach Poombukar
- Pondicherry Beach
- Portonova Beach, Parankipatai
- Tranqbar Beach, Tharangambadi
- Nagapattinam Beach

Marina Beach

Gulf of Mannar
BEACHES OF ORISSA, WEST BENGAL & OTHERS

Orissa
- Cheena vala
- Chandipur Beach
- Gopalpur Beach
- Gahirmatha Beach
- Puri Beach

West Bengal
- Digha Beach
- Bakkhali Beach
- Mandarmani Beach
- Sankarpur Beach
- Junput Beach

Others
- Colva Beach, Margao, India
- Panayur Beach

Pondicherry
- Auroville Beach
- Paradise beach

Andaman and Nicobar Islands
- Carbyn's Cove Beach
- Wandoor Beach
The state of West Bengal extends from the Himalayas to the Bay of Bengal.

- It has a varied climate and forestry ranging from temperate on the Himalayas to hot in the mangrove swamps at the estuaries providing habitat for an equally varied flora and fauna.
- The state has a coastline of 210 km.
- Midnapore coast is characterized by sand dunes, long shore currents, minor river discharges, etc.
- The Sunderbans in the South–24 Parganas have an intricate coastline, clusters of deltas with interlinked channels, creeks, and estuaries.
The length of the coastal line of West Bengal is 220 km with a coastal zone (stretching from LTL to 500m (as CRZ) inland and up to the landward extension of the successive series of older sand dune stretching up to Orissa coast canal in the western part; and LTL to Dampier–Hodges line, of about 9630 sq.km. The coastal zone population is 7 million.

Based on Tidal Amplitude only, West Bengal Coast can be sub-divided into two different coastal environments:

1. **Macro tidal** (tidal range > 4 m) Sagar Islnd to the border of Bangladesh to the east.
2. **Meso tidal** (tidal range 2 – 4 m) Medinipur (Digha–Sankarpur–Junput) coastal plain to the west of the Hugli estuary.
Tourism Promotion at Coastal Areas in West Bengal

- Development of Eco-tourism in Sagar Island
- Beach Beautification and Illumination
- Sundarban Interpretation Center
1. **Digha / Shankarpur/ Mandarmoni/ Junput:**
This area lies between the Subranarekha river on the border with Orissa and the Hugli River.

2. **Sagar Island / Herobhanga or Haribhanga Island:**
Sagar is a large island on the mouth of the Hugli and offers good habitat for a variety of waterbirds on its long and varied coastline. Herobhanga is an isolated and seasonally inhabited sandy island off the coast of Sagar island. It offers safe roosting for large numbers of waders and seabirds.

3. **Bakkhali / Frazerganj / Henrys Island / Jambu Island:**
Bakkhali is about 80 kilometers due south of Kolkata. It the last inhabited island on the eastern sea face till the border with Bangladesh. Frazerganj and Bakkhali are connected on the coast and the almost uninhabited Henrys Island lies to the east of Bakkhali and is separated by a wide, deep and muddy creek. Protected Jambu Island lies off the Frazerganj coast and is uninhabited.

4. **Kalash Island:**
Kalash Island, in South 24 Parganas, is a part of Sundarbans National Park and lies at the estuary of the River Matla. This is tiger country.
KAPIL MUNI TEMPLE – SAGAR ISLAND
Coastal erosion at Digha–Sankarpur
Solid waste management at Digha
Shell craft at Digha
Electrification at Sagar Island
Modernization of Marine Aquarium
Livelihood generation at Sagar Island & Digha
Main sources of impact

- Residence in the coastal zone
- Fisheries and aquaculture
- Shipping
- Tourism
- Land-use practices (Agriculture, Industrial development)
- Climate change
Coastal Hazards

The coastlines of many countries face high risks of damage from certain types of natural disasters. The major concern is death and property loss by winds and waters of hurricanes or cyclones. Along many densely populated coastlines, the risks of natural disasters are being increased by population growth and unmanaged development projects, including residential urban development. Coastal natural disasters cut across all economic sectors.
Massive influxes of tourists, often to a relatively small area, have a huge impact. They add to the pollution, waste, and water needs of the local population, putting local infrastructure and habitats under enormous pressure.

85% of the 1.8 million people who visit Australia's Great Barrier Reef are concentrated in two small areas, Cairns and the Whitsunday Islands, which together have a human population of just 130,000 or so.
Coastal tourism and recreation are important parts of the largest and most rapidly growing activity in the world---international tourism. Tourism and recreation-related development is one of the major factors shaping development patterns in the coastal zones. Foreign tourism, much of it coastal-motivated, provides significant economic benefits that relate directly to the increasingly competitive global economy.

The term "coastal tourism and recreation" embraces the full range of tourism, leisure, and recreationally oriented activities that take place in the coastal zone and the offshore coastal waters. These include coastal tourism development (hotels, resorts, restaurants, food industry, vacation homes, second homes, etc.), and the infrastructure supporting coastal development (retail businesses, marinas, fishing tackle stores, dive shops, fishing piers, recreational boating harbors, beaches, recreational fishing facilities, and the like). Also included is ecotourism and recreational activities such as recreational boating, cruises, swimming, recreational fishing, snorkeling, and diving.
Coastal areas provide recreation opportunities for local people and for tourists who travel the whole world.

Tourism cause pressures on coastal ecosystems by excessive influx of visitors. People movements rely on transportation systems which range from pathways for walkers to landing strips for airports. Such movements at the planetary level mean the wandering of pests, construction and building with associated pollution and eutrophication and disposal of litter and other waste in tourist areas.

The paradox is that, most often, tourism will disturb and threaten local populations and wildlife and their habitats, which attracted them to the area in the first instance.
The tourist developments are located at or near fragile marine ecosystems. For example:

1. Mangrove forests and sea grass meadows have been removed to create open beaches.
2. Tourist developments such as piers and other structures have been built directly on top of coral reefs.
3. Nesting sites for endangered marine turtles have been destroyed and disturbed by large numbers of tourists on the beaches.
Some of the most pressing tourism and coastal development problems are caused by:

- large coastal cities, dykes and dams, and other developments
- tourism infrastructure and activities
- In addition, in many cases local people do not benefit from tourism. Mass tourism often destroys local culture without contributing significantly to local income – most of the profits flow to foreign tour operators and investors. A knock-on effect can be reduced support by local people for protecting their environment.
The rapid growth of coastal tourism in the last 40 years is one of the major reasons for the urban infrastructural development of these coastal areas and consequent coastal environmental problems (Hall, 2001). The question of sustainability is particularly important in the context of coastal tourism, which is an activity at the interface of humankind, land and water (Ramachandran et al., 2005). Coastal tourism, therefore, is facing the challenge of balancing tourism’s economic advantages with maintaining environmental sustainability and the inevitable change of its own character with the progress of time. The sea beaches perform, in this context, a fundamental role where the issues related to planning and management are increasingly more important when it comes to the implementation of sustainable development strategies.
In less than a decade, more than 7% of the country’s coastline has eroded due to rapid development activities.

The 7,500 km Indian coastline is packed with 1,262 settlements, 1,023 structures, 143 existing ports and another 76 proposed ports. Within 10 km, there are 27 power plants and another 59 proposed power plants. “Huge development along the coastline is eroding the sea and affecting the livelihood of man.”
Resulting problems

- Loss of marine resources due to destruction of coral reefs, overfishing
- Pollution of marine and freshwater resources
- Soil degradation and loss of land resources (e.g. desertification and salinification due to excessive water use, overuse of fertilizers, erosion)
- Air pollution
- Loss of cultural resources, social disruption
- Loss of public access
- Natural hazards and sea level rise
- Climate change
Biodiversity is an important value and not always sufficiently considered, given its vital role in the provision of ecosystem goods and services, including fisheries, marine resources, recreation and tourism. There could be greater recognition of biodiversity impacts, and the use of vulnerable coastal and marine ecosystems.
The composition and structure of the fauna, flora and habitats of coastal seas has been changing at an unusual rate in the last few decades, due to changes in the global climate, invasive species and an increase in human activities.

The unusual rapid rate of change, rather than the nature of the change itself, is the reason for the deterioration of many environments; over the last 50 years the rate and extent of this deterioration has been unprecedented, as were the consequences on biological diversity. Living organisms are an essential link in the turnover of biogeochemical cycles through coastal systems.
Ecologically Important Coastal Areas – Identification

- Occurrence of specialized ecosystems or habitats such as Mangroves, Coral reefs, Sea grass, Seaweed beds, Salt marsh etc.
- Occurrence of specialized breeding or nesting of Marine animals such as turtles.
- Occurrence of use in uninhabited and unexplored island.
- Occurrence of endemic or endangered Marine fauna or flora.
Coastal plains and seas include the most taxonomically rich and productive ecosystems on the earth, although together occupying only 8% of the total surface, they account for 20–25% of global plant growth.

Mangrove forests are over 20 times more productive than the average open ocean.

Estuaries, salt marshes and coral reefs are 5–15 times higher and shelf seas and upwelling zones 2–5 times higher.

These enhanced rates of primary production result in an abundance of other life forms, including many species of commercial importance. Coastal shelf seas yield 90% of the total marine catch of fish, crustaceans and edible molluscs.
Tourism is one of many activities in a coastal area that require planning and coordination for sustainable tourism development of coastal destinations.

Strategic planning is the process of identifying objectives and defining and evaluating methods of achieving them.

Strategic planning considers all of the tourism resources, organisations, markets, and programmes within a destination. Strategic planning also considers economic, environmental, social, and institutional aspects of tourism development.

The methodological framework to establish the process of strategic planning for sustainable tourism development in coastal areas:

1. Strategic Planning Approach;
2. Integrated Coastal Zone Management;
3. UNEP/UNWTO 12 Sustainable Tourism Aims;
4. Tourism Carrying Capacity Assessment;
5. Stakeholder Involvement.
“Sustainable tourism development guidelines and management practices are applicable to all forms of tourism in all types of destinations, including mass tourism and the various niche tourism segments.

Thus, sustainable tourism should:

1) Make optimal use of environmental resources
2) Respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values,
3) Ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.

Sustainable tourism development requires the informed participation of all relevant stakeholders, as well as strong political leadership to ensure wide participation and consensus-building.

Sustainable tourism should also maintain a high level of tourist satisfaction and ensure a meaningful experience to the tourists.
Following restrictions on the setting up and expansion of industries, operations or processes and the like in the CRZ,—

(i) the land area from High Tide Line (hereinafter referred to as the HTL) to 500 mts on the landward side along the sea front.

(ii) CRZ shall apply to the land area between HTL to 100 mts or width of the creek whichever is less on the landward side along the tidal influenced water bodies that are connected to the sea and the distance up to which development along such tidal influenced water bodies is to be regulated shall be governed by the distance up to which the tidal effects are experienced which shall be determined based on salinity concentration of 5 parts per thousand (ppt).
to ensure livelihood security to the fisher communities and other local communities, living in the coastal areas,
to conserve and protect coastal stretches, its unique environment and its marine area and
to promote development through sustainable manner based on scientific principles taking into account the dangers of natural hazards in the coastal areas, sea level rise due to global warming, does hereby, declare the coastal stretches of the country and the water area upto its territorial water limit,
excluding the islands of Andaman and Nicobar and Lakshadweep and the marine areas surrounding these islands upto its territorial limit, as Coastal Regulation Zone (hereinafter referred to as the CRZ)
restricts the setting up and expansion of any industry, operations or processes and manufacture or handling or storage or disposal of hazardous substances as specified in the Hazardous Substances
Why regulated development of the coast?

- Protection of fishery
- Protection of coastal ecosystems
- Protection of life and property
- Maintain the scenic beauty of coast
- Encourage sustainable tourism
- Ensure public access to beach
Physical Actions

1. Stringent implementation and maintenance of CRZ guidelines
2. Monitoring of concretization and built up areas within the beach premises
3. Provisions for periodical monitoring of coastal water quality and habitat condition
4. Protection of beach morphology with least human intervention
5. Maintenance of local freshwater bodies as steady sources of drinking water
6. Development of proper parking area
7. Promotion of other alternative tourist attractions, aquatic recreational modes to decongest the overcrowded beaches
Framework of guidelines for implementation of sustainable tourism: Actions required

Social Actions
1. Tourism should concisely interact with the prevailing value systems and cultural integrity of local communities
2. Community-level participation in the policy-making process of tourism development should be ensured
3. Tourism should create employment options to enhance livelihood status without disturbing traditional lifestyles
4. Sex tourism, child prostitution, and drug peddling should be addressed at the grassroots by developing proper ‘host-guest’ relationships and infrastructural development fulfilling basic needs of the society
5. Beach vendors should be rehabilitated by giving legal permits and selling areas to solely promote local handicrafts

Ecological Actions
1. Preservation and restoration of coastal ecology through tree planting, watershed development, reduction of marine pollution and use of biodegradable wastes
2. Establishment of a proper waste disposal system
3. Environmental impact assessment should be done for any artificial development as well as factors that can change land use pattern of the beach
4. Proper sanitation and ecologically sustainable ambiance should be the criteria before giving permission to any type of development in the CRZ 1 leaving the area of 500 m length from the coastline completely undisturbed
5. Awareness campaign through posters, workshops, and objective-based tourist information centers