

Coastal Pollution and Eco Problems in Kerala

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Abstract

Kerala- God's own country is one of the smallest states in India, covering merely 1.3 percent of the total area of a country, Flanked by Karnataka on the north and Tamil Nadu to the east, Kerala is sandwiched between the Western Ghats on the east and Arabian sea on the west. Based on the physical feature, the state can be divided into three natural divisions namely- the Sandy coastal region with its extensive coconut groves, paddy field, back water and sea, the middle region made up of fertile reddish hills and the valley that grow most of the Kerala crops, and the mountainous region of peaks, extensive ridges and ravines of the western ghats, where sandalwoods, tea, coffee, rubber and most of Kerala's exotica spices are grown, clean water, healthy coastal habitats and a safe secure and enjoyable environment are clearly fundamental to successful tourism. But Kerala's coasts are facing a great threat of uncontrollable pollution and degradation due to population growth, urbanization and improper waste disposal. A proper conservatory means of safeguarding the coasts is necessary for the development of a future generation. This paper aims to examine how far coastal pollution hinders human development and growth. Overall conservation of coa sts is necessary for a better and healthy future generation.

Keywords: Coastal issues, coastal conservation, coastal ecosystems, public awareness, marine ecosystem

Introduction

Kerala is regarded as one of the destinations with the highest brand recall and became a global super brand. The vast coastal area owned by some nations promoted as a separate area of tourism. Recreation comprises the largest and fastest growing secto. Leisure and recreationallly oriented activities tale place in the coastal zone and the offshore coastal waters (Chawla 2004). The basic ingredient fundamental for the promotion of tourism is clean water, healthy coastal habitats and a safe and secure and enjoyable environment. But Kerala coasts are facing an uncontrollable threat of pollution and degradation, which may affect marine diversity and coastal ecosystem. Clean, hygienic and healthy environment enhances sustainable tourism. The degradation of coastal area hinders the growth of any development in this sector.

Objectives

The broad objective of the study is to identify how far coastal pollution and eco problems affect marine plants and animals.

The specific objectives include:

- 1) To identify the major coastal problems, threats and pollutions that Kerala coasts face
- 2) To suggest various remedial measures to preserve, Kerala coasts and steps to rectify coastal degradation

Methodology

This study is exploratory. The basic data needed for the study include primary and secondary data. Primary data is collected by way of observation of and conversations with the stake holders including management staffs, beach merchants and the public, Secondary data is collected from the existing studies, organization records, journals, brochures and websites

Costal Degradation

The main reason for coastal degradation is rapid population growth and unscientific urbanization. Coastal pollution is a major problem. Coastal pollution affects not only the seas but also the rest of the earth. The coastal sandy beach system is home to hundreds of species of plants and animals that are dependent upon the dunes and near shore waters for all or part of their lives. While marine plants and animals are the most immediate victims of coastal pollution, animals higher up the food chain that feed on marine life (including humans) are not spared. The toxic substances eventually get to these higher order animals as they consume poisoned sea food. Also, toxic substances washed up shores also destroy coasts.

The dumping of untreated or under-treated sewage into the seas and oceans is still taking place. Sewage released into the sea is untreated. This is because there are still many cities that have ineffective, little or no sewage treatment. As the population continues to grow beyond the capacity of available sewage treatment facilities, the problem will only worsen. Cities are not the only source of sewage pollution affecting the seas. Sewage discharged from ships and other large vessels sailing the seas also contribute. Human sewage largely consists of excrement from toilet- flushing, waste water from bathing, laundry, dishwashing and kitchen garbage disposal. The discharge of sewage sludge into the sea has devastating effects on the coastal environment.

Most of the rivers ultimately join the ocean. The pollution which these rivers carry from their drainage basins is finally poured into the sea. These included sewage sludge, industrial effluents, synthetic detergents, agro chemicals, solid wastes, plastics, heavy metals, etc. This may adversely affect the

life of the marine eco system and these substances washed up shores destroy coastal life.

Driving vehicles, motor cycles and bicycles on the shore for fun and adventure are likely to harm coastal life. The shells, grains and animals that inhabit beaches can be crushed and destroyed under the weight of vehicles

The unscientific way of fishing by throwing crushed poisonous seeds and by the use of explosive devices causing heavy sounds may threaten and degrade the marine ecosystem. The water will be contaminated and poisoned which may lead to the death of fishes, algae and other marine organisms. The dead creatures will be washed up the shores and pollute the sandy beaches

The accumulation of plastic bags and bottles and thermocol in the water causes a major threat to coastal sustenance and development. The use of plastic day by day is rapidly increasing and these are not biodegradable. The presence of plastics in the coastal area may degrade the soil fertility as well as may badly impact, upon the biological characteristics. The birds, marine animals and fish can die by swallowing or getting entangled in plastics.

Sand mining has become an anti- environmental practice. Sand has become a very important mineral for the expansion of society. Not only it is used for manufacturing glass but more so far making concrete, filling roads and for the construction industry in general. Sand mining is a direct cause of erosion and also impacts the local wild life. For example, sea turtles depend, on sandy beaches for their nesting. As a result of erosion, the beaches will be engulfed by the sea. Thus beaches become shorter and adversely affect a coastal environment.

The oil spills in sea water as a result of oil leaks from vessels and the fishing boats are major pollution. The oil that floats on the surface of the water also blocks out sunlight and prevent oxygen from dissolving in the water. Marine plants in the water, in the absence of sunlight, are unable to photosynthesize and produce oxygen. Marine life in the water beneath the oil pool loses access to oxygen and suffocates to death. The water will be contaminated and the wastes will be washed off to the beaches and make it oil and greasy.

In festivals and celebrations, there is a practice of conducting fire works and crackers in beaches. The animal's creatures and plants of the beach soil lose life and such practices are likely to degrade the beach. This will cause noise and air pollution

Organizing functions, events to and festivals on beaches with a campfire in the sea shores may make the occasion joyful and memorable. At the same time, it will cause a great threat to the coastal eco system. Certain animals and plants that the soil contains may burn out and lose life because of the extreme heat

Leaving unusable fishing nets, lines and hooks on the beaches is an unfair practice. The fishing nets and lines are bio degradable plastics and can strangle marine animals. Hooks can injure other mammals as well as humans walking on the shore.

Burying of dead pet and domestic animals in the sandy beaches is a common practice found in Kerala. Burying of the dead animals on the beach is easy compared with the dry or wet land. It is a major problem which hinders coastal conservation. The buried animals will come out with the waves and tides and will lead to contamination of water, soil and air.

Dumping the poultry and butchery wastes in the sea water or the coast is found in several coastal areas. It is a severe issue which makes the land, water and air polluted. The sea wastes in the sea are washed back into the beaches and make a severe problem to coastal life.

Even though the literacy rate of Kerala is high, urinating and excreting human waste on the shore, coastal land constitutes a major issue to the coastal environment. This practice will degrade the dignity of a human being, society and the reputation of the sovereign nation. Unscientific construction of building and infrastructure on coastal area violating the Coastal Regulatory Zone Act (CRZ) is a major challenge to the sustainability of the coastal area. This may affect the coastal eco- systems as well as the natural environment. Certain coastal animals, plants or biodiversity may be reduced and got extinct by such construction

Coast Conservation and Environmental Protection

Clean coastal water, healthy coastal ecosystem producing abundant fish and wild life are essential for healthy and sustainable tourism.

To conserve and preserve the water, coasts and the marine environment for a healthy future, a cooperation of every individual is necessary. By alleviating and nullifying the threats and problems faced by Kerala coasts, a healthy environment leading to sustainable tourism can be developed. To preserve coasts free from trashes and plastics, trash boxes has to be installed with proper awareness and indications to motivate the public to use it. The rashes and plastics that beach contained can be picked up and deposited in the boxes and later disposed of. Dumping of sewage into the sea is a major threat to the coastal environment, proper machinery or mechanism has to be developed and followed to treat the sewage before being released in ocean. Avoid dumping and throwing sewages, plastics, solid wastes, etc . to rivers, streams, ponds and drains which finally join the ocean, These pollutants present in rivers, streams, ponds and drains, which finally join the ocean. Those pollutants present in rivers, ponds and drains that finally reach the sea cause pollution and degradation.

Regulations have to be legislated to impose restrictions against conducting fire works and the use of crackers on the beach for celebrations and festivals. Prior permission has to be obtained from the pollution control authority to organize functions events and festivals on the coastal area and beach. Unscientific ways of fishing by poisoning and using explosives should be prevented. The water will be contaminated and poisoned which may take a person into the food chain and lead to the destruction of immense wealth of sea food.

Regulate and restrict the unscientific construction of buildings and infrastructure on the coastal area, to preserve the coasts, coastal animals and coastal ecosystem. Construct public toilets and comfort stations for the public and tourists and encourage them to use it, to preserve the beaches unpolluted. Prevent the coastal area from dumping poultry and butchery waste and burying dead animals on the shore.

Public awareness about environment is at a stage of infancy. Of late some awareness has taken place related to environmental degradation, pollution conservation, etc. but incomplete knowledge or ignorance about many aspects had often led to

misconceptions. There is an immense need for environmental awareness. It is to be created through formal and informal education to all sections of society. Everyone needs to understand it because 'environment belongs to all' and every individual matter' when it comes to conservation and protection of the environment. The following measures and steps can be useful for raising environmental awareness among different sections of the society through:

- (i) Education of students such education should be imparted to the students right from childhood. These environment studies are now being incorporated at all stages in school, college as per the directives of the Supreme court
- (2) mass media: media can play an important role in educating the mass through articles, rallies, campaigns street plays, TV serials, etc. This will appeal all age groups at the same time.
- (3) Awakening planners, decision-makers and leaders: it is very important to give these classes of people necessary orientation and training through specially organized workshops and training programmes

Jointly working with various initiatives, movements and schemes enacted by international, national and state level authorities to preserve environment may also be of help. Various initiatives such as 'Go Green,' 'Green Earth,' 'Swachh Bharat,' 'Clean Kerala' ' Shuchitva Keralam,' etc. will enrich nature to preserve harmony.

Conclusion

Maintaining a healthy coastal area, having clean water, unpolluted beaches and healthy marine and coastal ecosystem will reduce eco-problems in Kerala. A healthy, safe and comfortable environment economize coastal degradation and pollution and create Kerala memorable. Presently Kerala is facing a great threat of competition with others states and other countries. The unique cultural tradition, heritage, climate and varied demography along with healthy coastal area and unpolluted environment will help nourish Kerala to compete with its competitors. Creating and preserving a healthy environment will aid to increase the demand of Kerala tourism in the global world.

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