CHAPTER III

REVIEW OF LITERATURE

The aim of this literature review is to generate awareness, understanding and interest for studies that have explored a given topic in the past. It helps to know the level of knowledge about the theoretical and conceptual research on tourism impacts on environment derived from different sources. Tourism is an interdisciplinary field and involves a number of different industries and natural settings. Planning is essential to stimulate tourism development and its sustainability. Without tourism planning, many unintended consequences may develop, causing tourist and resident dissatisfaction. These include damage to the natural environment, adverse impacts upon the cultural environment, and a decrease in potential economic benefits. The 1970s saw the impacts of tourism ventures on social-cultural issues (Bryden, 1980). Environmental impacts of tourism became the sole concern of tourism researchers in the 1980s (Butler, 1980). Researchers have studied tourism impacts in planning marketable tourism destinations within a community, and have demonstrated that tourism development has costs as well as benefits. Tourists have been accused of destroying the very things that they came to enjoy (Krippendorf, 1982). The assessment of impacts should include all phases of the travel experience, including initial preparations, the journeys to and from the destination, the stay, etc. (Mathieson, A., and Wall, G. 1982). The impact made by tourism depends upon the volume and characteristics of the tourists (length of stay, activity, mode of transport, travel arrangement, etc.). A selection of variables must also be taken into account in the determination of any impact of tourism as well as their interrelationships and the ways in which they influence the
nature, direction and magnitude of tourist impacts (Archer, B. and Cooper, C. 1994). The negative experience of many unplanned tourist destinations and the success of local and regional planned destinations demonstrate that tourism development should be based on a planning process that includes a solid assessment of the resources at the destination and their attractiveness potential (Gunn, 1994; Inskeep, 1994).

Early development planning focused on economic benefits, with almost complete disregard for social and environmental impacts. The rapid growth of tourism has increased economic, environmental and social effects. Until recently the attention has concentrated on the economic impacts and not on the environmental and social consequences of tourism. Tourism research has been reoriented after the acknowledgment of the size of the impacts of modern tourism. Moreover, the costs and negative impacts have been examined in a critical way. Later on the emphasis were made to analyze the impacts of tourism on environment and socio-cultural dimensions. Tourism impact studies were focused in 1990s as an integration of the effects of the previous determined impacts, leading to a shift from "Mass Tourism" to "Sustainable Tourism" in the form of Eco-tourism, heritage tourism, and Community tourism (Jurowski, Uysal, & Williams, 1997). Tourism has both positive as well negative impacts on the tourist destination.

3.1 COASTAL TOURISM

Coastal tourism is an important branch of tourism. According to Pearce (1989), however, it is the most significant form of tourism. The domestic and international Tourist flow in many countries is dominated by visitors seeking the sun, sand and the sea. The coast, with its beaches, dunes, coral reefs, estuaries and coastal waters, has always been a natural playground. Coastal environments provide open space, opportunity for
leisure, relaxation, contemplation and physical activity. Emerging recreation oriented life styles in developed countries and the rapid expansion of tourism facilities in developing countries have placed considerable strain on coastal resources and in many cases intensified conflicting pressures on them. The situation in coastal environment is particularly complex because of the often conflicting legislation associated with the interface of both terrestrial and marine systems. This situation emphasizes more studies in this direction. Dobias (1991) reported that coastal tourism development at Ban Don Bay, Thailand had proved to be a double edged sword, i.e., it had assisted the protection of coral reefs from grossly destructive blast fishing, but it had also contributed to the degradation of beaches and marine waters. In the same year Kenchington (1991) provided a case study of tourism as a reasonable use of the Great Barrier Reef Marine Park and summarized the multiple use management concept applied to the Marine Park. He described the general provisions of zoning and management that affected tourism and also the specific approach of the permit system which provided for case by case management and control of tourist Programmes and developments. Miller and Auyong (1991) noted the potential of coastal tourism to transform both society and natural environment quickly and permanently.

Agardy (1993) suggested that user conflicts could be avoided by instituting proactive multiple use planning and nature based ecotourism could be encouraged in coastal protected areas aimed at achieving sustainability. Kenchington 1993 gave an overview of the development of recreational activities and identified a number of relationships between environmental conditions and human impacts associated with tourism. He argued that in the long terms interests of the environment and all usage
sectors, coastal and shallow marine environment and resource management should be conducted on a multiple use strategic basis. Miller 1993 proposed that the resolution of tourism problems in the coastal zone would require the scientific study of environmental and social conditions, policy analyses, planning and public education. Stewart (1993) presented an argument in favor of utilizing marine conservation regimes for managing and controlling tourism in coastal and marine areas. She argued that marine conservation regimes enable governments to choose a combination of preservation and development principles that reflect an area’s capacity for tourism and preferences of the nearby communities.

Clark (1996) underlined the need to keep the environmental changes within acceptable bounds. He argued that negative effects could be minimized, if priority was given to the identification and evaluation of resources and potential impacts and if a planning and control system was established. The Caribbean Environment Programme of United Nations Environment Programme (1996) (CEPUNEP) suggested certain tourism management practices on the basis of the best approaches and practices available. These practices included effective public awareness and training activities to determine the level of degradation of the coastal areas of small islands.

Ward, et al. (1998) prepared a key set of 61 environmental indicators for estuaries and the sea, which were important for sustainable tourism development, and were recommended for Australia. Of these, three relate to cited species or taxa, nine to habitat extent, seventeen to habitat quality, six to renewable products, two to non-renewable resources, five to water or sediment quality, seventeen to integrated management (which included coastal tourism) and two to ecosystem-level processes. Wong (1998) opined that coastal tourism experience provided valuable lessons for coastal zone management, i.e., the necessity for environmental impact assessment, management of increasing tourist numbers, evaluation of small scale resort development, consideration of conservation, defining and revising planning standards and aiming for sustainable development. Orams (1999) provided an overview of successful and unsuccessful tourism with regard to marine tourism and its impacts on development. He also examined the characteristics of marine tourists and considered the role of ‘vendors’ of marine tourism activities and opportunities.

European Commission (2000) expressed their view that integrated quality management offered an opportunity to act on all the three fronts, i.e., economic development, environmental protection and preserving the identity of the local people by promoting tourism in coastal destinations. Hall (2001) reviewed the trends in coastal tourism research, particularly those related to environmental impacts. Moscardo, et al. (2001) examined the similarities in demand for coastal and marine tourism activities and experiences from the three European markets, namely the United Kingdom, Germany and the Netherlands, their study also pointed out the implications for the future of ecotourism. Tanzania Coastal Management Programme (TCMP 2001) made a broad assessment of the current status of coastal tourism in Tanzania and identified the priority actions that are
needed to be taken in order to develop a sustainable coastal tourism industry. United Nations Environment Programme Convention on Biological Diversity (UNEP-CBD, 2001) suggested certain guidelines for activities related to sustainable tourism development in vulnerable terrestrial, marine and coastal and mountain ecosystems. Zhang (2001) presented an approach to utilize and apply information and data from remote sensing for better management of coastal tourism in Ameland, one of the Wadden Sea islands of the Netherlands and argued that the method is effective and economical. Dobson (2002) edited the proceedings of the workshop on “Policy Directions for Coastal Tourism”, organized by the Linking Science and Local Knowledge node of Ocean Management Research Network (OMRN), Vancouver, Canada.

Harriott (2002) categorized the marine tourism impacts as ecological, social and cultural. The specific types of marine tourism impacts noted were coastal tourism development (island-based), tourism infrastructure (marine based), boat-induced damage, water-based activities and wildlife interactions. Huttche, et al. (2002) prepared a sustainable coastal tourism handbook for Philippines, which explained the use of practical tools like carrying capacity, EIA, etc. for the integrated coastal zone management to avoid unnecessary environmental and social problems associated with tourism development. Gill (2003) prepared a note on coastal tourism by including the contributions of those who took active participation in Ocean Management Research Network (OMRN) National Conference. Miller, et al. (2003) published proceedings of the international coastal and marine tourism conferences held during the year 1999, which offered global case studies on a range of issues. Though there are quite a large number of studies on various aspects of tourism in general, there is only limited published material on coastal tourism and
most of these have appeared after 1990 Gill, (2003). An overview of the studies reviewed above points to the growing importance attached to coastal tourism development and the emerging environmental and social issues and the need for developing new strategies for mitigating the negative impacts. Proactive planning and involvement of local communities in planning and implementation of corrective/preventive actions were also suggested.

3.2 POSITIVE IMPACTS OF TOURISM

Positive impact is conservation of important natural areas. It includes development of parks and reserves, both regionally as well as nationally. Without tourism, these natural areas might be developed for other uses or allowed to ecologically deteriorate which again results in a loss of environmental heritage. Also, without tourism, there would be little justification from the local viewpoint for this type of conservation (Inskeep, 1991). In conservation of archaeological and historical sites and architectural character tourism helps the conservation that might otherwise be allowed to deteriorate or disappear, and therefore result in the loss of the cultural heritage of areas. Further, improvement of environmental quality does also have a positive impact on the natural environment. Tourism gives an incentive to clean up the environment since everything needs to be appealing to the tourists. This involves control of air, water, and noise pollution, littering and other environmental problems. Another positive impact is enhancement of the environment, for instance making sites more attractive and interesting through well-designed tourist facilities. One more positive impact is improvement of infrastructure, which means that tourism usually helps pay for local infrastructure such as airports, roads, water, sewage, solid waste disposal systems and telecommunications. At last, tourism
increases environmental awareness. This holds true especially for places where residents have limited interest in or concern about the natural environment and therefore do not want to conserve it. By observing the tourists’ interest in nature the residents might realize the importance of conservation and that tourism brings economic benefits for the place, hence it might increase the local awareness on this subject (Inskeep, 1991).

3.3 NEGATIVE IMPACTS OF TOURISM

On the other side there are many negative impacts on the natural environment from the tourism development if it is not carefully planned, developed and managed. Negative impact is water pollution, which typically happens if not a proper sewage disposal system has been installed for hotels, resorts and other tourist facilities. This might result in pollution of ground water or river, lake or coastal sea water. Another negative impact is air pollution that can come from excessive use of combustion vehicles such as cars, busses and motorcycles used by tourists in tourist areas. Further, noise pollution generated by concentration of tourists or by tourist roads, airplanes and from motor boats. (Inskeep, 1991). Negative impact is visual pollution that can come from poorly-designed hotels or tourist facility buildings that are not compatible with the local architectural style, not well included into the natural environment, litter from the tourists, inappropriate landscaping, and obstruction of scenic views by tourism development, and poor maintenance of landscapes. Improper disposal of waste from hotels, restaurants and resorts is also a negative impact because it can generate both litter and environmental health problems from vermin, pollution and diseases. Waste disposal problems can also lead to a bad reputation and
the tourist destination can therefore become unattractive in the eyes of the tourists (Inskeep, 1991).

3.4 ENVIRONMENTAL IMPACTS

The environment encompasses all the natural and cultural surroundings of people. Definition of environment is the physical environment that consists of natural and built components. The biological and ecological impacts of tourism have been studied in the case of specific environments - Islands, Coastal Zones, alpine areas, National Parks etc. Tourism activities affect the natural environment in various ways and some forms of tourism can be extremely detrimental to ecologically sensitive areas, resulting in habitat degeneration or destruction. It can cause the deterioration of green fields, pollution of sea water as well as air and noise pollution. However, it may also call for the conservation of natural green areas and an improvement in the quality of the environment.

The study of the Environment Impacts of Tourism is currently in a growing stage and more research is expected to appear. The first effort towards environmental Impacts Assessment was directed basically to Impacts of Leisure activities and especially outdoor recreation. The first group of studies concerning the environmental impacts of tourism appeared after the mid-seventies (Tangi, 1977, Bavd-Bovy and Lawson, 1977) followed by more research activity in the 1980s. Residents of Cape Cod expressed the opinion that tourism negatively affected noise, litter, and air and water quality (Pizam, 1978). Virgin Islanders agreed that the water and beaches were being spoiled by tourism. (Sentha and Richmond 1978).

The size and intensity of tourism development and the associated urbanization of the coastline, the production of industrial wastes and the
generation of pollution together with insufficient planning controls, are the primary causes of environmental degradation and transformation in the built environment of the coastal cities. The pattern of the expansion of tourism functions depends on the nature of the surrounding topography, the transportation network and the existence and enforcement of planning regulations and restrictions (Matheison & Wall, 1982).

Lindsay, (1986) has developed the impact structure matrix combining environmental elements and the range of possible impacts of these elements from the development of tourism to a certain level (carrying capacity levels). To fill out the structure matrix a set of different tools are used (Social surveys, behavioral inquiries, multiple measurement techniques, ecological indicators etc.). The study of the environmental impacts of tourism thus started basically after 1970s. The analysis of the environmental impacts of tourism has been predominantly qualitative and mostly descriptive.

Studies of resident’s perception of the impact of tourism on the environment imply that residents may view tourism as having either a positive or negative impact on their environment. Some people believe that tourism helps create a greater awareness and appreciation for the need to preserve the environment to capture its natural beauty for tourist purposes, and increase investments in the environmental infrastructure of the host country. Tourism is also thought to be a clean industry, without the pollution problems associated with other types of economic development. Residents have expressed agreement with statements that suggest that tourism improves the appearance of their town or surroundings (Perdue et al., 1987). Ritchie (1988) found that 91% of respondents agreed that tourism affected the quality and upkeep of attractions and 93% believed that tourism affected the quality of national
provincial parks. However, others believe that tourism causes environmental pollution, the destruction of natural resources, the degradation of vegetation and the depletion of wild life.

Wheeler, (1991) has suggested that controlling the volume of tourism might alleviate the situation, especially since the tourism is typically found in locations with fragile environments, such as mountains and coasts which are peripheral to the world economy. The natural environment exists in the following elements; nature-climate and weather, the land, soils, topography, geology, water features, flora, fauna and ecological systems (Inskeep, 1991). The tourism industry has had an enormous impact on the natural environment at several destinations where the consequences of tourism have not been considered before the tourism destinations were developed. Nevertheless, there seem to be both positive and negative impacts on the natural environment resulting from the development of the tourism industry (Inskeep, 1991). Several types of ecological disruption can result from uncontrolled tourism development and use. Overuse of fragile natural environments can lead to damage, for example killing the growth of vegetation in parks because of too many tourists walking through them, trees being cut by hikers and campers for use as fuel, and especially the marine environment where endangered species might die out caused by the overuse of tourism. Also, poor land use planning and management of tourist facilities can generate environmental hazards such as erosion, flooding, landslides and other problems. Damage caused by such environmental hazards may not be entirely prevented but good planning may certainly reduce the extent of it (Inskeep, 1991).

Land use problems can also arise when tourist destinations are not developed according to sound land use planning principles. One example
of this is that tourist facilities occupy land areas that are more suitable for agriculture or other industries that are more beneficial for the society. Even without accommodation and large scale facilities, nature and adventure tours which are designed and managed for minimum impacts may have considerable impacts on biodiversity and other components of the natural environment. It is evident that not only has tourism grown rapidly worldwide, but also many of those concerned about the negative impacts of the destinations assume that mass forms of tourism are responsible for these problems (Cooper and Odzil, 1992).

The relationship between tourism and the environment is taking place on various levels. In addition to direct tourism impacts on the environment through e.g., pollution, noise and disturbance, indirect, irreversible and long term consequences between tourism and environmental quality is characterized by dynamic feedback mechanisms (OECD 1994).

On the other hand Sun D. Walsh D. (1998) have emphasized the setting up tourism and recreation based environmental management plans that have extensive impact on natural ecosystems, their descriptive and spatial relationship must be examined. Tourism is receiving close scrutiny in environmental terms because of its actual and potential impacts in land use, energy consumption, biodiversity loss, climate, change and water consumption.

Tourism, a multifaceted economic activity, interacts with the environment in the framework of a two-way process. On the one hand, environmental resources provide one of the basic "ingredients", a critical production factor, for the production of the tourist product: the natural and/or manmade setting for the tourist to enjoy, live in, and relax. On the other hand, tourism produces a variety of unwanted by-products, which are
disposed, intentionally and unintentionally, to and modify the environment; the case of negative environmental externalities. Moreover, economic activities besides tourism use up and modify environmental resources quality available for tourism purposes. Because of this linkage, the tourism sector needs increasingly to become a knowledge participant in the planning as the use of the environment and its impacts (Batta, 2000). The type and intensity of the environmental impacts of tourism depends on the interaction between the types of tourism development, the socio-economic and other characteristics of tourist and the natural, socio-economic and institutional characteristics of the host area. The environment is being increasingly recognized as a key factor in tourism. In the last decade of the twentieth century, it was noted that tourism depends ultimately upon the environment, as it is a major tourism attraction itself, or is the content in which tourism activity takes place (Holden, 2000).

It is undeniable that tourism has enormous potentials for the environment conservation of environment. However, it must also be borne in mind that the balance between tourism and the environment is very fragile one. Many developing countries, anxious to reap the full benefits of tourism have, without undertaking a proper analysis of the potential impacts transformed their virgin areas into tourists’ centers to cater for the tastes and desires of mass tourism. Such rapid development may lead to a complete transformation of an area, producing irreversible impacts to the natural environment.

Impacts on biodiversity are particularly severe for large new tourism developments in relatively undisturbed areas, such as those in and around conservation reserves and other Protected Areas. These developments involve clearing vegetation, major disturbance to fauna through loss of
habitat, noise, barriers etc. (Buckley, 2001). In some destinations, tourism can produce a local economic boom leading to uncontrolled high impact private development, high resource consumption, waste generation beyond the capacity of local waste treatment disposal systems, if any, and land clearance and harvesting with major impacts on biodiversity. In addition, infrastructure built for tourism may be used for illegal collection of endangered plant and animal species (Buckley, 2002). The environmental impacts of tourism include water pollution, waste and noise brought by tourists. Moreover, soil becomes vulnerable to erosion when the vegetative cover is disturbed or removed by intensive trail use, off-trail activities and facilities related to construction activities including road, visitor center, restaurant and hotel. Ecotourism not only depends on mass tourism enterprises and infrastructure (air, travel, other forms of transports, tour operators, hotels, etc.), but also involves the danger to eventually promote mass tourism itself. Unfortunately, the experience of alternative tourism in general shows that adventurous travelers have just served to open up destinations “of the beaten track” to large-scale tourism projects, accelerating the pace of social and environmental degradation of these areas. As a result of increasing globalization and liberalization, the competition within the international tourism industry and among tourist-receiving countries has become so fierce that there is hardly any margin left for social and ecological concerns. Many studies throughout the world have now documented the ecological impact of indigenous population on the environment (Bhattacharya, 2003a & 2003b). Ecotourism or nature-based tourism is promoted to maintain some of the positive effects of tourism, and eliminate or reduce the negative environmental impacts. This type of tourism is promoted by environmental organizations (such as Conservation International, World Wild Foundation, and The Nature
Conservancy) to educate visitors, finance conservation work and provide income to local communities (Christ et al. 2003). Tourism occurs in environmentally fragile areas with high landscape quality, its impact on the environment is significant on ecological, visual and socio-cultural terms. Tzatzanis et al. (2003) stated that landscapes in the Mediterranean have evolved under constant, intensive, human impact. This has resulted in a highly differentiated mosaic of landscape types, ranking from semi natural to highly artificial ones. Demand for tourism exaggerates the pressure on coastal areas of high natural and visual value, and is becoming a major concern in the Mediterranean. While many problems concerns mining industry exist in tourism, such as social/cultural influence on local communities, environmental impact on ecosystem and income distribution within host community and between it and outsiders, tourism is still widely regarded as probably the one with most potential to provide a green alternative to communities live on agriculture, herding and mining. Strategies for making tourism more “pro-poor” have shown some success at the local level (Ashley, Roe et al. 2004). Scaling these approaches up and applying those to biodiversity based tourism could result in positive synergies between tourism.

The great variety of combination of natural resources can create environments that are attractive to tourism development. The quality of the natural resources must be maintained to sustain tourism demand, and when planning to develop a tourist destination, proper levels of quality must be considered. In this case ecological and environmental considerations are important in order to maintain sustainability and at the same time keep it attractive for the tourist (Goeldner& Ritchie, 2006). However, despite the rising importance for recreation and tourism, the amount of research on their environmental effects is still scarce.
3.5 POLLUTION

Air pollution is primarily a result of emissions from vehicles and airplanes. In rural areas, air pollution due to tourism is minimal, but in congested areas, emissions harm vegetation, soil, and visibility. On the island of Jersey in the English Channel, for example, the number of cars increased from less than 250 to over 2,500 during the summer peak session, resulting in high levels of emissions and associated impacts (Romeril, 1985). Water pollution is primarily a result of wastewater generated by tourist facilities and runoff. Water pollution occurs on inlakes and streams and in the marine environment. Much of this pollution, such as septic tank seepage, lawn fertilizer, road oil, and runoff from disturbed soil, is not serious (Gartner, 1987). Water resources are a prime attraction for tourism and recreational developments, and they frequently suffer negative impacts (Andereck, 1995).

Pollution is a subject that has not been studied very well in the Maldives. As such, there is a lack of information on pollution, especially coastal and marine pollution and the risks and threats associated with the issue. Groundwater is a more pressing and apparent problem and effectively studies as well as legislations have been limited to groundwater pollution. However, marine pollution, while not so evident in the Maldives, is an area that should be addressed urgently and studied extensively, given the nature of geography of the country and the dependency on the marine environment.

Ali (2003) suggests that the “bay effect” in the Bay of Bengal Large Marine Ecosystem created by the low levels of flushing of the area may result in the persistence of pollutants produced by heavy maritime traffic and run-offs and discharges of nutrients and other pollutants. This would
result in compounding the effect of pollutants in the area for long periods of time. While industrial activities are very limited or even negligible in the Maldives, Ali (2003) suggests that the increasing industrial discharge by the countries north of Maldives would increase the level of contamination in the Maldivian waters. Pollution sources can be land-based or sea/marine based. In the Maldives, the distance from land to sea is very short and therefore effects from both these sources of pollution are felt significantly by the marine environment. Pollution in the Maldives is predominantly from point sources and therefore will provide more control over monitoring and management of these pollution sources.

3.6 SOLID WASTE

The tourism industry produces large quantities of waste products. Hotels, airlines, attractions and other related businesses that serve tourists throw away tons of garbage a year. Liu and Var (1986) reported that 62% of the residents in Hawaii felt that government expenditure should be used to protect the environment rather than encouraging tourists to visit; 52% of residents agreed to fine tourists who litter. Lankford and Howard’s (1994) study shows that the majority of respondents felt that tourism brings more littering and waste problems. The problem seems to be particularly troublesome in third world countries with less sophisticated solid waste management programs and technologies (Andereck, 1995).

Solid waste disposal is one of the most obvious impacts of tourist resort operation and one of the easiest environmental management problems to deal with and thus has been addressed in a number of reports on tourism development in the Maldives. The pollution of the sea with garbage and piles of waste found in the resorts often close to the tourist cottages were identified in 1983 among features that was not aesthetically pleasing. In
1985 the Department of Tourism reported that the disposal of non-biodegradable waste was then a serious problem and that there was need for education to increase environmental awareness, and for the use of recycling technology.

In the new Tourism Master Plan solid waste is identified as a major issue for resort islands and it is stated that at current tourism levels, problems are probably more aesthetic than environmental. The plan also points out that while solid waste itself may not currently pose a serious environmental threat, its impact in conjunction with the effects of other human activities should be considered.

3.7 PRIORITY CATEGORIES OF PARAMETERS

The most significant category of concern of pollution sources in the Maldives is solid waste. Solid waste management has been a serious issue for many societies, specifically with the increase in population along with the changes in industry and the increase in Gross Domestic Product (GDP). These problems are even more pronounced in small island states such as the Maldives where space is limited and the islands are spread over a large geographical area, making it difficult to implement waste management strategies. Solid and hazardous waste management has been identified as one of the greatest environmental challenges in the Maldives (MEC, 2004). These challenges can be attributed to several issues including rapid population growth, the uneven distribution of this population over a widely dispersed set of islands, the changing lifestyles and the high cost involved in transferring the waste from the islands to final disposal at the landfill site. The changing consumption patterns have worsened the waste management situation of the country.

The lead agency having the mandate for solid waste management in the Maldives is the Environmental Protection Agency. A National Solid
Waste Management Policy was implemented in 2008 and a Solid Waste Management Framework is being developed under this policy. Waste management in the Maldives is carried out in an integrated manner, facilitating the requirements of the government and the different donors that complement each other.

Oil Pollution while not a prominent threat at present because of its inconspicuous nature, is nonetheless an issue that needs to be addressed with concern. Sea transportation being the main mode of transport in the country, waste oil and oily water disposal, both accidental and deliberate is an issue that should be investigated. In addition to this, the risk of an oil spill is also a big threat to the country owing to the location in one of the major oil tanker routes.

Mari culture is expected to become a more significant source of marine pollution over the next few years as more and more effort is diverted into moving away from natural resource exploitation towards Mari culture of target species. With this development, the issue of water quality will become more important and appropriate legislation will need to be effectively implemented to combat marine pollution.

3.8 MALDIVES WILDLIFE AT MARINE LIFE

Even though in recent years wildlife oriented tourism has increased our understanding of tourism effects on wildlife is limited. Liu et al. (1987) showed that Hawaiian residents failed to agree with statements that the economic gains of tourism were more important than the protection of the environment, and that tourism had not contributed to a decline in the ecological environment. Vickerman (1988) observed that most researchers looking at the impact of tourism on wildlife has generally focused on a limited number of larger mammals and birds in natural
environments. For some species, parks and preserves are now the only sanctuary. Unfortunately, for species that require large territories or engage in migratory behaviors, these relatively small areas of protected land are not enough. An inquiry of Hawaiian students revealed that the majority of the sample did not agree that tourism conserves the natural environment (Brayley et al., 1989).

Maldives is believed to be based on an underwater mountain range, rising from its depths. This mountain range acts as a base for the coral reefs surrounding each island of Maldives. Coral reefs of about 70 different species and in almost every colour decorate the waters surrounding these islands.

Over 700 species of ‘fishes' have found their home among the reefs here. An important role is played by the water currents in the gathering of the big fish species. Some of the interesting fish species found here are Trevally's, Dogtooth Tuna, Tuna, Jacks, Sweetlips, Butterfly fish, Wahoo and Fusiliers. Mating octopus and an occasional giant Napoleon wrasse are some of the other interesting sights.

Large pelagic or fishes that live in open water are found in the lagoons where the tides, moves in and out huge amounts of water. Sharks, turtles, anemones, schools of sweetlips, eels, octopus and rays abound in the waters of the Indian Ocean. In the late summer and during the fall, you can also see mantas and whale sharks which are a very impressive and interesting sight.

The marine life in Maldives can be described as a city underwater with the aquatic plants and coral reefs decorating the place and providing home for schools of fish, sharks and other types of marine life.
3.9 ECONOMIC IMPACTS

Tourism development has both positive and negative impacts on the economy of coastal cities as well as on their countries as a whole. There is no doubt that tourism has a most important effect on the economies of destinations areas. Tourism appeared as a clean industry associated with a higher economic multiplier as a service sector. It is for this reason that development of tourist facilities and recreational opportunities has normally been viewed as a positive contribution to the national balance of payments (Mathieson, A., and Wall, G. 1982). One of the main effects of mass tourism is the over dependence of tourist destinations on tourism (case of Majorca). This is dangerous because tourism is volatile and highly susceptible to changes from inside (e.g. price, changing fashions etc.) and outside (e.g. global economic trends, political situations…) the industry (Mathieson, A., and Wall, G. 1982). Some destinations have made themselves vulnerable to changes in tourist demand because they have become over dependent on tourism, they have adapted all their resources to tourism without realizing that some factors such as the political situation of a country, the economy, a war or the terrorism are the most important points at the time of choosing a holiday destination. There is no doubt that when there is an unstable situation in a certain country, it affects as well, People do not go on holiday to a country where there is war like conflicts or even in countries with a political situation of instability. Tourism then naturally decreases. The economic impacts of tourism on an area can be understood at two different levels - the national level and the local level. At national level the most publicized effect of foreign tourism is its ability to generate foreign exchange and thus contribute positively to the country’s balance of payment. At a local level, job creation or the reduction of unemployment has been identified
as one of the most prominent benefits of tourism development. Economic gain, an increased standard of living (Milman & Pizam, 1988), income redistribution for hosts and government the price of goods and service the cost of land and housing the cost of living, the development and maintenance of the infrastructure and resources are other examples of the economic impacts of tourism development.

Impact studies emerged in the 1960s with much emphasis on economic growth as a form of national development, measured in terms of "Gross National Product (GNP),” rate of employment, and the multiplier effect (Krannich, Berry & Greider, 1989). Moreover, tourism seems to be more effective than other industries in generating employment and income. International tourism is an invisible export and creates a flow of foreign currency that contributes directly in the balance of payments. This flow has an influence into the economy of a destination country. As other export industries, this inflow creates business turnover, household income, government profits and employment. Domestic tourism has also an economic effect upon the host regions of a country. Whereas, international tourism brings a flow of foreign currency into a country, domestic tourism redistributes domestic currency inside the boundaries of a country. From the point of view of a tourist region, domestic tourism is a form of invisible export as well (Archer, B. and Cooper, C. 1994). Tourism offers opportunities for the development of leisure activities, cultural awareness and international exchanges as well as providing employment and income in the coastal towns (Coccossis & Nijkamp, 1995). In addition, the positive economic impact of tourism may contribute towards, or even provide much needed funds for preserving the historic and/or natural environment and the cultural heritage of the local environments.
The early research in this area focused on identifying the various perceived impacts of tourism development (Belisle & Hoy, 1980; Liu, Sheldon, & Var, 1987; Liu & Var, 1986; Perdue, Long, & Allen, 1987; Ross, 1992; Sheldon & Var, 1984). The major impacts and variables have been identified, methodological approaches developed, and problems and research needs delineated. Generally, residents recognized the positive economic impact of tourism development, but were concerned with potentially negative social and environmental impacts such as traffic congestion, crime, public safety issues, and pollution.

Negative economic impacts caused by an increase in the price of goods and services have been perceived by residents in several surveys (Belisle & Hoy, 1980; Keogh, 1989; Pizam, 1978; Tosun, 2002; Weaver & Lawton, 2001). Sheldon and Var (1984) found only moderate agreement with a statement which suggested that increases in tourism were the cause of increased prices of goods and services.

Tourism can cause the price of land to rise rapidly, as noted by Lundburg (1990), who found that the cost of land for new hotel construction rose from 1 percent to nearly 20 percent as the site was being developed. An early study by Pizam (1978) found that residents viewed the cost of land and housing as a negative effect of tourism. More than 70% of the respondents in a Turkish study agreed that tourism increases property value and housing prices (Tosun, 2002; Weaver & Lawton, 2001). However, other studies found more neutral attitudes. For example, Belisle and Hoy (1980) determined that approximately 90% of respondents described the effect of tourism on the cost of land and housing as neutral. About half of the respondents agreed with the statement that tourism unfairly increases real estate costs, while, in a study of Colorado residents, the other half disagreed (Perdue et al., 1987). These mixed
findings suggest that, even though dramatic real estate change has commonly been associated with tourism development, the perception of the effect of these changes on residents is mixed and irregular.

Tourism is a complex industry. It provides employment opportunities and tax revenues and supports economic diversity. It has very different impacts, both positive and negative, or even mixed ones. However, from a national, regional or local planning point of view, tourism should support the development of the quality of life of residents too (Puczko & Smith, 2001). However, tourism may create undesired negative effects such as over-dependence on the tourism sector, increased inflation and higher values, increased amount of import (labor or goods), seasonality of production and so low rate of return on investment and creation of other costs such as garbage collection and disposal (UN, 2001).

3.10 SOCIO-CULTURAL IMPACTS OF TOURISM

Among the three impacts of tourism namely, the economic, socio-cultural and environmental, the economic impact has undoubtedly played a dominant role in tourism literature and policy making till 1960s. With the focus on the economic benefits obtained by the areas due to the development of tourism, the adverse impacts on socio-cultural and environmental domains are totally ignored. Environmental costs continued to be neglected because of the prevalent belief of the nature being inexhaustible and renewable. This led to an indiscriminate and unplanned growth of tourism infrastructure in many countries and soon the negative effects in the form of social and environmental degradation started emerging.

The growth of tourism has also its impacts on social environment of the tourist place. The socio-cultural impacts are often highly qualitative and
subjective in nature (Cooper et al., 1998). According to Gartner (1996), most jobs which are available for local people in the tourist industry, such as servants, housemaids, waiters, gardeners and other menial work may make people feel inferior. In addition to this, the inhabitants may lose their jobs on account of the seasonality of such works in these areas. Tourism also creates cultural exchange opportunities and more recreational facilities, but it can also cause disruption to various quality of life factors. In other words, tourism creates opportunity for locals to learn and share the cultural traditions and aspects of the tourist’s indigenous culture and heritage, whilst also giving rise for concern. As has already been stated, information gathered from the literature, reveals and confirms that tourism can lead to the improvement of local public services (Keogh, 1990), increased cultural activity (McCool & Martin, 1994), and the alteration to some aspects of traditional culture (Akis et al., 1996). Conversely, careful and monitored tourism can also leads to the recreation and preservation of the identity of local culture (Liu and Var, 1986). However, the social and cultural impacts of tourism development could negatively affect the perception of residents (Jurowski et al., 1997; Liu & Var, 1986; Milman & Pizam, 1988; Perdue et al., 1987). In addition to this, the influence of tourists can cause young people to become involved in bad habits, to get involved in different crimes. It can also create a degree of apathy between tourists and locals as a result of different and perhaps unexpected behaviour and the obvious wealth of the tourists (Doxey, 1975).

Tourism comes in many shapes and forms such as social, cultural, economic and environmental (Godfrey & Clarke, 2000). Tourism has been a source of social-economic change in many developing countries. According to the World Tourism Organization (2009), tourism is one of
the world’s fastest growing industries and is one of the global engines of development. The tourism industry is an important economic activity involving different groups of community. Tourism is a multi-sector, and as a means of economic, social and cultural exchange, it has many aspects, types and also has many social consequences (Mowforth & Munt, 2003).

Tourism increases traffic congestion and crowdedness in the public area, and brings social problems. Tourism also contributes to social ills such as begging, gambling, drug trafficking, and prostitution, as well as the uprooting of traditional society, and causes deterioration of the traditional culture and customs of host countries (Ahmed & Krohn, 1992). Tourism contributes to an undesirable increase in the consumption of alcohol, increased traffic congestion, and overcrowding because of visitors (Backman & Backman, 1997). However, tourism brings more opportunities to upgrade facilities such as outdoor recreation facilities, parks, and roads, but brings crowdedness in theaters, movies, concerts, and athletic events (Lankford & Howard, 1994; Liu & Var, 1986).

3.11 SUSTAINABLE TOURISM AND SUSTAINABLE DEVELOPMENT

According to opinion of the Inter-organization committee (1994), there are consensus on the types of impacts that need to be considered (social, cultural, demographic, economic, social psychological). Tourism is one of the least regulated industries in the world which leads to serious implications for ecosystems, communities and cultures around the world. By statistics it is shown that international tourism has increased dramatically during the second half of the twentieth century, from 25 million arrivals in 1950 to 698 million in 2000 (Bowden, 2003). As said
by Eric Cohen (as quoted in Cavlek, 2002): “Tourism, like any other industry contributes in the long term to the destruction of the environment”. It is when the concentration of tourists in particular sites is getting too large that it results in overuse and exploitation of natural resources of the area, that the tourists’ attendance will be damaging to the environment.

In order for tourism to remain over time, it has to be sustainable, which means that the specific sites have to retain the historical and recreational values without changing its natural character (Gunce, 2003). Weaver and Lawton (2006) argue that clean, scenic settings are desirable assets for attracting tourists in most places, which again lead to the motivation to protect and enhance the environmental assets at destinations. On the other hand, Weaver and Lawton (2006) also press that the tourism industry has in the latter half of the twentieth century demonstrated a capacity to intrude on different kinds of natural environments. An example of this is tourism facilities that want to locate as close as possible to nature-based attractions, but they do not realize that this development damages the vulnerable environment.

If the tourism stakeholders do not participate in the protection of the attraction or destination, there is a danger of overuse by tourists and the attraction will eventually be destroyed (Weaver & Lawton, 2006). However, it is still important to recognize that tourism, if well planned and controlled, can help maintain and improve the environment in various ways. In addition to protecting the environment, proper tourism management can also result in positive economic consequences since the destinations or attractions will be preserved for tourists in the future (Inskeep, 1991). A number of stakeholders are involved in the tourism industry and the fact that tourism products are produced by the
contribution of various industries makes it complicated to achieve sustainability. Through literature in the tourism field there has been a lack of research on whether tourism can be sustainable at all. Another question is how this is possible to measure (McNamara & Gibson, 2008; Cavlek, 2002). However, it is stated by Milne (1998) that truly sustainable tourism can almost certainly never be achieved, but there is a need to act as sustainable as possible. Even though it seems to be a tendency that tourists are getting more concerned about the environment and starting to think and act “sustainable” (Cavlek, 2002), it is unknown how willing the tourists are to adopt the changes required for the achievement of more sustainable forms of tourism development. To understand this, it is necessary to examine who of the tourists are genuinely concerned about the environment when travelling. (Milne, 1998)