

# Economic and Environmental Impact of Tourism on Coastal Areas Based on Mirissa

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## ABSTRACT

Coastal tourism in Sri Lanka is a popular typology among the locals and the international tourists. The Southern coastal line from Beruwala to Tangalle is the most popular coastal line of the country. Mirissa is a popular tourism destination as an attraction which offers options like coconut tree hills and secret beach and activities like whale watching, snorkeling, surfing and partying. The objective of the study is to identify the economic and environmental impact of coastal areas based on Mirissa. The study is conducted using an exploratory approach and the data is drawn from Sri Lanka Tourism Development Authority (SLTDA) website, different publications, newspaper articles, websites and newspapers. The number of tourists arrived at Sri Lanka and the foreign exchange earning along with the percentage of arrivals for different typologies of tourism have been taken from the yearly report of the SLTDA. The positive and the negative economic and environmental impact have been identified using the secondary sources such as from the journal articles, websites and newspapers. Tourists spending will be high when more tourists attracted to Mirissa coastal area. With the increase of spending of tourists, the disposable income of the community members increases, and new employment opportunities raises which impact on income distribution leading to the increasing of their living standards. Mirissa which is known as the “whale watching capital of Sri Lanka” is facing currently over tourism due to the expeditions like whale watching which attracts lot of tourists resulting in negative environmental impacts. The finding of the study manifests that the implementation of the online booking systems is mandatory in order to avoid overcrowding in the expeditions. Awareness program and constant monitoring system is required to establish to minimize the negative environmental impact and a competent authority need to take initiatives to develop the informal sector entrepreneurs to make formal by regulating them and offering subsidies to grow their business and escalate their living standard in to a much better level.

**Keywords:** Economic impact; Environmental impact; Living standards; Coastal tourism; Business

## INTRODUCTION

Sri Lanka is an Island enriched with natural beauties. There's a high demand from the tourists who seek for island destinations to travel to. The coastal line around the country further enhances the beauty of the country along with all-natural forests, flora and fauna, waterfalls, rivers, lakes, mountain peaks and other thousands of attractions. A coastal line is simply a narrow land line area which is in between the sea and the land. These coastal lines are comprised with sand, sea, shells and different minerals. These coast lines usually differ from one another based

on their location. There is a high demand for these coast lines or beaches from the tourists due to their natural beauty and activities bound with beach areas such as water sports, leisure activities, relaxation etc [1].

At present, the tourism industry has been massively developed based on coastal environments in the world. As Sri Lanka has a beautiful sandy coastline, both local and foreign tourists daily visit the beach areas of the country. In that case, the coastline has been subjected to decline because of these tourists and the local entrepreneurs and vendors who come to cater for these

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tourists in order to fulfill their needs and wants [2]. Yet, it should be stressed that both human activities and natural incidents cause for the decline of coastal areas. Sea level rising due to global warming, storms, cyclones, hurricanes, flooding conditions, excessive rainfall, under water earthquakes etc. can be taken as natural causes and on the other hand, sewage, industry chemical toxins, land run off, ocean mining, littering, coral mining, dynamite fishing etc. can be taken as human activities which affect to the degradation of coastal areas and their marine biodiversity. When considering, waste accumulation in estuaries and lagoons, there are major 103 rivers which meet the sea at the end, starting from central highlands. The dwellers and the industries associated, from starting places of these rivers to the end of the estuaries or lagoons, are releasing waste matter and number of other stuffs to the waters of and all those waste matter get accumulated in the coastal areas causing the degradation of coastal environment [3]. Both foreign and local tourists, host communities, entities associated such as hotels, individual vendors release a huge amount of waste such as polythene, plastics and other types of garbage causing a huge disruption to the marine ecosystems. Furthermore, addition of oil and other chemicals to the sea; the different types of oil leaking from ships, fishing boats, military boats, cruise ships, passenger boats and as such and oil leaking from anchored water vehicles in ports pollute the sea and the beach. At the same time, addition of agricultural chemicals such as weedicides, pesticides, insecticides to the sea water pollute and damage the whole marine ecosystem. The natural plants, shrubs, and trees which avoid the beach erosion will be ex rooted and removed in order to build, fences, and guest houses, resorts and hotels. That will also cause beach erosions [4].

### Economic impacts

Tourism industry consists of numerous advantages, especially for a developing country like Sri Lanka. It is stated that tourism economy represents 5% of the world GDP while international tourism ranks fourth (after fuel, chemicals, automotive products) in global exports. As well as it is mentioned that tourism accounts for 30% of the world's exports of commercial service and in over 150 countries, tourism is one of the five top export earners [5]. Further, it is said that tourism industry is valued US\$ 1 trillion a year. Prior to the COVID-19 pandemic, tourism and hospitality industry (including its direct, indirect and induced impacts) accounted for 1 in 4 of all new occupation opportunities created across the world, 10.6% of all jobs (334 million), and 10.4% of global GDP (US\$9.2 trillion). At the same time, the international visitor spending amounted to US \$1.7 trillion in 2019 (6.8% of total exports, 27.4% of global services exports). Foreign exchange earnings are an important indicator. According to the WTO a total number of 7633 million international tourists' traffic in 2004 which is 10.58% higher than the previous year and earned US\$ 623 billion which shows an increase of 18.89% over 2003 [6]. Tourism generates more income in the economy as a result of the multiplier effect of tourist expenditure tourism multiplier represents the economic significance of tourism to a particular destination, the level of diversification of the economy, the strength of the inter-sectoral linkages, the prosperity to import goods and services

and the nature of tourism product. Tourism contributes to government revenue, which helps mitigating budget deficit in developing countries. Such as tax on tourism products, airport and accommodation taxes, sales taxes and custom duties. One important factor which contributes to economic development of a country is employment rate. Tourism industry generates both direct and indirect jobs. Directly created jobs are, jobs at hotels, restaurants, airport, cruise lines, tour operators etc. Indirectly created jobs are jobs at construction industry, food suppliers, handicraft suppliers etc. The extreme poor, downtrodden people, especially residing near beach areas have come to an upper level when it comes to their standard of life; basically because of the help of the tourists. These local communities earn revenue by selling homemade food to the restaurants and to other food and beverage outlets, as tourists are always showing an interest for such homemade authentic food. Furthermore, the local communities who provide boat services, entertainment services such as traditional dances, events and such other items, tuk tuk and taxi services earn revenue by providing such services to the tourists. Regional development is one important positive impact in the development of tourism industry. Quality of life of residents is improved with the development of infrastructure facilities, telecommunication facilities, transport etc. Meanwhile there are economically negative impacts as well. The fluctuations of profits or revenues earned, and unemployment can be seen because of the seasonality factor in tourism sector [7]. During the off-season lot of guest houses and resorts are kept closed, so, the unemployment rate of the country shows a higher figure during the phase of off season, the level of inflation is increased due to the growing demand for land and tourism related goods.

### Cultural and social impacts

On the other hand, there are some harmful social and cultural effects as well. For instance, drug addiction, illicit hooch dealers, increase of prostitution. Furthermore, illegal spas, brothels and such other businesses could be potentially possible there with the development of tourism and especially the children, women and teenage boys and girls would be the victims of such illegal practices and it would also help to the spreading of STD such as AIDS and other such socially transmitted diseases. So, that is a dangerous and a pathetic situation. There is a tendency of decline of culture and customs and traditions of our country due to increased interaction with the foreigners [8].

### Environmental impacts

Tourism industry cause huge impact on the environment. coastal erosion, pollution of sea water, blocking of internal water passages or canals, wastes from the hotels and guest houses to the sea is a threat to all of the creatures living in the sea and, collecting sea plants and corals like things by tourists as souvenirs made out of endangered and other animal body parts such as tiger and python skins, tusks, turtle/tortoise shells has also become a major problem which destroys the environment and its ecological balance.

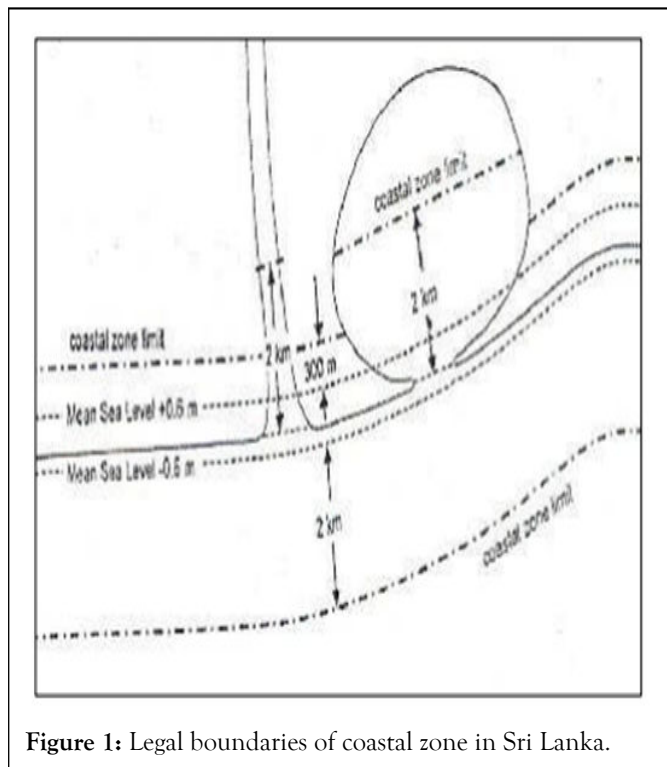
Disruption to aquatic creatures because of the boat services available for whale watching, dolphin watching, coral reef

watching and as well as from the oil leakages and high sounds of motorboats [9].

**Background of the study, significance, research problem and objectives**

The coastal and marine environment of Sri Lanka, with its varied habits and resources, play a dominant role in the economy of the country. The resources of the coastal region include the land, minerals, surface and ground water, flora and fauna and other natural habitats which include coral reefs, mangroves, sea grass beds, lagoons, tidal flats (Salt marshes), sand dunes, beaches and spits and the coastal waters. About a decade back, the coastal region has contributed 40% of national GDP and it could be more today, considering the economic development that had taken place within the coastal region since then, compared to the rest of the country.

Sri Lanka coastal zone is defined in the coastal conservation act number 57 1981 as “the area lying within a limit of three hundred meters landwards of the mean high water line and limit of two kilometers seawards of the mean low waterline and in the case of rivers, streams, lagoons, or any other body of water connected to the sea either permanently or periodically, the landward boundary shall extend to a limit of two kilometers measured perpendicularly to the straight baseline drawn between the natural entrance points thereof and shall include the waters of such rivers, streams, and lagoons or any other body of water so connected to the sea” (Figures 1 and 2) [10].



**Figure 1:** Legal boundaries of coastal zone in Sri Lanka.



**Figure 2:** Coastal belt in Sri Lanka.

This area defined for management purposes as the coastal region comprises all of the 74 administrative divisions (divisional secretariats) with a coastal boundary and also this area extends 50 km inland from the coast and contains about,

- 23% of island’s 65 610 Km<sup>2</sup> land area and approximately one fourth of population, including 65% of total urban population.

Furthermore, in particular, the coastal zone includes.

- 62% of industrial units.
- 70% of the tourist infrastructure facilities including hotels and resorts.
- The coastal seas provide nearby 65% of marine fish production of the country.
- Rich mineral resources such as limestone and monazite bearing beach sands, silica sands, miocene, limestone, kaolin, china clays, copper, magnetite, and peat.

So, when considering tourism industry, about 80% of the industry has been spread within the coastal region and about a total of 4.5 million populations also live within and nearby the coastal region.

When considering the impacts of tourism on coastal regions, some tourism practices have been affected nearly on most of the coastal regions of the world, ruining the natural beauty and resources of the coastal belt.

Sri Lanka has gotten mangrove forests, lagoons, estuaries, coral reefs, marshy lands, sand heaps, and such things in the coastal belt which has spread for about 1600 km around Sri Lanka. Because of these resources the beauty of the coastal belt has been increased and so that there has been high demand from tourists towards the coastal belt area.

So, in that case, the coastal region has been declining over the time with the pressure caused on the coastal environment because of tourism practices. Furthermore, the places with cultural value surrounded in these coastal areas have also been threatened.

Likewise, in this Mirissa beach area in Mathara district also, there has been lot of such threats being created with the extreme development of tourism industry. So, at present, most of the hotel owners have captured the beach areas. The beauty of the beach has been declining over the years as these hotel owners and other entrepreneurs have brought their business stands, stalls, restaurants, tents and all other such kind of things towards the beach.

Furthermore, the unauthorized building constructions, walls and other such improper building constructions are also being a threat to the coastal area. So, those things imply that there aren't sustainability and proper planning there, in tourism industry. So, the expectation of the study is to study about the impact of tourism industry on Mirissa beach and then to make suggestions on sustainable planning and other potential strategies in order to get rid of, or to minimize negative impacts and to maximize positive impacts.

### Significance of the study

When considering beach, it is not only a place which is limited to the tourism practices, but also fishing, recreational activities, business activities, transportation and such kind of several activities are there. But at present, this tourism industry has thrived and spread in a wider range being one of the most important economic activities bound to coastal areas such as beaches, with the development of population and cater for the demand of the people.

So, how this development or the hike in tourism industry been a threat the coastal area's sustainable persistence would be studied through this research and there it is important to study the factors which affect to the decline of the Mirissa coastal area. So, other researchers, scientists, environmentalists, university students, school students, local communities living in the Mirissa area, tourism entrepreneurs, etc. can get a wide knowledge from this study.

The entrepreneurs of the tourism industry have the ability to identify the economic value that can be generated out of the tourism businesses in the Mirissa area and how it will impact on increasing the standards of their living.

Furthermore, the relevant authorities and institutions bound to coastal area can information from this study in order to make their decisions, strategies to conserve this Mirissa beach area and also this study would equally be important to the tourists, the tourism service providers and such other stakeholders, residents of the area and such parties on how they should act and do their tasks in order to minimize negative impacts, being responsible and sustainable.

### Research problem

At present, the negative impacts to the coastal environments are being increased with globalization and urbanization. Currently, both local and international tourists are visiting day by day to the Mirissa beach in Mathara district to experience the beauty of the sea, surrounding and the beach. But, at present, this coastal area, the environment, the dwellers and other communities living closer to this area are exposed to several threats, problems and negative effects with the gradual development of the tourism industry in the area and with certain human acts and practices. The unauthorized improper constructions, waste discarded by the visitors and nearby hotels, resorts, restaurants and other business institutions and adding of those waste matter with sea waters causing threat on fish and other animals and creatures in the sea, removal of plants, shrubs and other natural sources which are available in order to provide protection to the beach naturally; by unauthorized constructions and developments, building of improper walls or fences which cause to the change of directions of ocean waves and its potential ocean decays and erosions, ocean mining due to constructions or developments, loss of habitats of the sea creatures have made disruptions top the sustainable persistence of coastal environment of the area. So, these problems will be studied and discussed through this research.

Mirissa is considered as the "whale watching capital of Sri Lanka" and huge number of international and local tourists is visiting here for the expeditions and for accommodation because of the beauty of the destination. Due to the increase of numbers of the tourists the income distribution is occurring between the community members it has not yet been identified properly.

### Research questions

- Has tourism caused damage to the coastal eco system of Mirissa beach?
- Has there being a change in coastal line over past 15 years?
- How to minimize the negative effects caused to the beach environment?
- What is the economic impact of Mirissa?

### Objective of the research

- Identifying the economic and environmental impact of tourism on coastal areas based on Mirissa.



## Review of the study

A summary of researches and studies done by different local and foreign scholars and academics related to the topic "The impacts of tourism on beach areas" will be discussed in this chapter.

There have environmental, economic, political and sociocultural changes bound with beach area been resulted with the development of tourism sector. So, various studies had been conducted by number of scholars and several such studies have been discussed here.

## Theoretical background

The tourism industry, beginning of tourism industry and its development, the environmental, economic, socio cultural background of tourism industry, and an introduction of coastal areas have been introduced in this section.

## What is tourism

Travelling has been in existence for thousand years where it had been a simple thing as just travelling from one place to another, but it has now become far more complicated and complexed thing, developing up to a separate industry in the modern world.

If we look in to the etymology of the word "tourism", we are able to understand how it has originated first in the world.

As per the research paper of MR. Maximiliano Korstanje of pontifical catholic university of Argentina, he has mainly mentioned about 3 opinions under etymological discussion section.

In the first opinion, it is said that the roots of the word "Tourism" comes from the old Saxon term "Torn" (England) and it has mentioned that this word extends to 'Torn us' (what gives us) and 'torn are' (to give turns) too.

So, as per the article, it says that the meaning of the word "torn" can roughly be translated as 'departure with the intension of returning' and there it has further mentioned that "in practice, it is referred to the rest (vacation) trips taken by peasants during the 12<sup>th</sup> century, by the middle of 18<sup>th</sup> century, the English elites used the term 'turn' to refer to the trips undertaken for education, search and culture exploration".

Here, it has also mentioned as, in reality, the purpose of these Elites' trips to the different parts of the kingdom was to acquire knowledge that was useful for governing those areas.

Furthermore, it has also mentioned that "the genesis of 'grand tour' lies in the early tours taken by the nobility and the term 'turn' is abandoned in favor of the 'tour', which is a French influence".

In this article he has further mentioned that "in Saxon, the nouns of the original verbs are denominated with the suffixer (writer, speaker, etc.) and it is believed that during the 12<sup>th</sup> century an Elite or a nobleman who goes on a trip and returns to his/her place of departure would be called a "turner". Then it has further mentioned, during the era of the Bourgeoise (18<sup>th</sup> and 19<sup>th</sup> centuries) the term, "er" was substituted by Latin "iste"

and Greek "isme". So, during the 20<sup>th</sup> century, the term "tourist" and the act of touring "tourism" are conceived. It says, that these terms have widely adapted in Spain.

The second opinion is from Arthur Houlot, it is mentioned that he had told that the term "tourism" is not derived from Latin language, but the old Aramaic language. So, according to Arthur Houlot, in old Aramaic, the term "tur" was used for trip exploration and movement of people. So, this word has used for the 1<sup>st</sup> time when Moses had begun his journey to the lands of Canaan.

Therefore, in Houlot's opinion, he argues that the term "tur" has become widely adopted, almost at a similar time period by the Latin European languages and Saxon.

The 3<sup>rd</sup> opinion or else the thought mentioned in the article of Mr. Maximiliano Korstanje are called onomastic school. There in that thought of school, it is considered that the origin of the concept is not from a linguistic perspective but it says that, it rather links to the last name of French aristocracy Della tour.

So, according to this, after Carlos the 5<sup>th</sup> signed a treaty with England, in 1516, in celebration of that event, the future king gives the Della tour family exclusive rights to conduct commercial transport and related businesses. So, this article further mentions that Leiper has started that his family had organized the first trips of English merchants to continental Europe. So, in this case, it is said that tourism refers to an activity linked to commercial displacement. Furthermore, lots of people and institutions also have provided definitions to the "tourism". Some of those are as follows.

Definition by UNWTO, "tourism comprises the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes".

Definition by Austrian Economist Herman von Schullard in 1910, "sum of total of operations, mainly of an economic nature, which directly relate to the entry, stay and movement of foreigners inside and outside of a certain country, city or region".

Definition by Tourism society of England in 1976, "tourism is the temporary, short term movement of people to destination outside the places where they normally live and work and their activities during the stay at each destination".

Definition by international association of scientific experts in tourism, "particular activities selected by choice and undertaken outside the home environment".

Definition by Mathieson and wall, "the temporary movement of people to destinations outside their normal places of work and residence, the activities undertaken during their stay in those destinations, and the facilities created to cater their needs".

Definition by Macintosh and Goeldner, "collection of activities, services and industries which deliver a travel experience comprising transportation, accommodation, eating and drinking establishments, retail shops, entertainment businesses, and other hospitality services provided for individuals or groups travelling away from home".

“The overall impacts of the sector are the sum of the direct, indirect and induced effects:

**Direct impacts:** Represents the GDP generated by activities that directly deal with tourism such as hotels, travel agents, airlines and tour operators as well as restaurants and other activities that cater to tourists. Indirect Impacts, impacts which accrue due to the activities undertaken by the sector, and are a function of three different factors:

- **Capital investment in tourism:** Includes capital investment within all sectors that are directly involved in the tourism industry as well as spending by enterprises in other sectors on tourism assets such as transport or accommodation.
- **Government spending for tourism:** Government spending to support the tourism sector, which can include both national and local spending. Activities include tourism promotion, visitor services, administration etc.
- **Supply chain effects:** These represent the purchase of domestic goods and services, as inputs to the production of their final outputs, by enterprises within the tourism sector.

**Induced impacts:** Represents the wider contribution of tourism through the expenditures of those who are directly or indirectly employed by the tourism sector”

“Steck explains that the direct impacts of tourism affect the wider economy through six main channels:

- **Employment creation:** Tourism activities generate employment through a number of avenues *i.e.* hotel staff, tour operators, cooks etc.
- **Supply of goods and services:** Local or national enterprises can supply goods and services to tourism businesses, such as food or furniture, however these items may also be imported if the local provision does not satisfy demand in either terms of cost, quality or quantity.
- **Direct sales of goods and services:** Retailers in tourist destinations can sell their products and services directly to tourists (*i.e.* souvenirs or food), directly capturing the monetary gains of tourist activity.
- **Establishment of tourism enterprises:** High (or increasing) levels of tourism activity can lead to the establishment of new tourism enterprises, creating new employment opportunities etc.”

Turner and Sears state that the travel and tourism sector is a leading creator of employment throughout the world, directly employing more than 98 million people and representing around 3% of total world employment, and indirectly creating one out of every eleven jobs. WTTC estimates of the total contribution to employment (both direct and indirect) place the sector’s contribution at around 266 million jobs in 2013.

The seasonality of tourism could also play a part in the sector’s income distribution. During peak tourism season, income inequality (within the sector) tends to decrease whilst during low seasons, income inequality tends to increase. Where the tourism sector offers a greater variety of products, income inequality tends to be lower than where the sectors offers more limited products. In contrast, research by Perez-Dacal, argues that seasonality may not have such large income impacts on tourism wages but the specialisation of tourism activities may actually have a positive impact on wages.

A study looking at tourism multiplier effects, showed that tourism had varied impacts on incomes across different countries *i.e.* in Australia, tourism had a 25% greater effect on incomes than in Turkey (in the same year), whilst in 1990, tourism’s effect on incomes in Bermuda were twice as large as in Samoa. This suggests that income effects vary across countries.

Research carried out through the UNWTO in Costa Rica, Tanzania and the Maldives showed that in all three countries there was a reduction in tourism employment as a result of the 2007 global financial crisis. In all three cases, there were negative repercussions on employment in the sector as tourism enterprises restructured their services in order to meet declining demand. In all three cases, unskilled (*i.e.* poorer) employees tended to suffer the greatest losses in employment. Hence, even though the data may only cover these three case studies, in each one there were clear negative impacts on employment in tourism due to economic shocks to the sector.

A 2009 World Bank study on the economic impacts of tourism in Panama found that the tourism sector had a greater effect on incomes than almost all other sectors within the country *i.e.* employment in tourism would bring greater household income benefits than employment in other sectors. Lee and Kang demonstrate that the tourism sector helps create a moderate equal distribution of earnings and is more likely to improve the living standards of people in lower incomes than employment in the services or manufacturing sector. The sector can also potentially tourism impacts: Evidence of impacts on employment, gender, income 10 provide greater opportunities for income growth *i.e.* where people join the tourism sector there seems to be higher upward mobility in employment skills and in wages than in other sectors.

Tourism can also negatively effect of biodiversity, especially in coastal areas (such as coral reefs or coastal wetlands), rainforests as well as arid and semi-arid regions and mountainous areas. Trekking, over-fishing, the construction of tourism resorts etc. can all contribute negatively to the biodiversity of these areas which can in-turn negatively affect the attractiveness of such areas for tourism activities. Trekking tourists in Nepal, for example, can use up to 5 kg of wood (each) per day during treks, which compounds the effects of deforestation, which are already severe in Nepal.

Tourist destinations are subject to four main types of climate change impacts:

- **Direct climate impacts:** Changes in weather patterns can have important impacts on tourism in destinations that depend on particular weather patterns (*i.e.* sunshine in beach destinations or snowfall in winter tourism destinations). Any changes in weather patterns could shift the competitive advantage certain destinations have over others, threatening established tourism industries.
- **Indirect environmental change impacts:** Changes in environmental conditions (*i.e.* agricultural productivity, water availability or biodiversity) will impact tourism. Any changes to the environment are potentially going to be negative in terms of their impact, especially for areas that base their tourism activities on environments that are considered to be particularly sensitive (such as coral reefs).
- **Impacts of climate mitigation policies:** Climate change mitigation policies (at the national or international level) may impact

international tourist flows, through changes in transportation costs or attitudinal changes by tourists who could change travel patterns with the aim of reducing environmental impacts (i.e. by taking less long-haul flights).

- **Indirect societal change impacts:** Climate change may impact long-term development prospects by impacting growth trajectories i.e. reducing rural livelihoods through reduced crop growth.

### Evolution of tourism

Rome, Greece like countries have used tourism in order to get their intelligence and practical knowledge developed. But at present tourism has become one of the main ways of earnings in most of the countries.

In 17<sup>th</sup> century, British elites travelled to their colonial countries for education. Then during 19<sup>th</sup> century, the tourism industry has started to get developed further with the industrialization. So, this travelling, or else tourism which had been limited only to the Elites in the past have gradually spread to the common public by the 20<sup>th</sup> century with the industrialization.

Therefore, Britain had been the pioneer in tourism sector and the other countries had then made plans and strategies to develop tourism in their countries by following Britain. Now a days, travelling from developed countries to the developing countries occurs more commonly than that of travelling from developing countries to developed countries.

## MATERIALS AND METHODS

The research design of a study consists of theoretical framework, conceptual framework and operationalization. The theories based on tourism, the economic impact of tourism and the environmental impact of tourism were discussed in the literature review of the study. In order to see the economic impact, the disposable income, income distribution, employment opportunities and living standards are taken into consideration. The environmental impact is measured by taking into consideration about environmental changes, coastal decline, coastal increase and ecological changes.

The study is conducted using an exploratory approach and the data is drawn from Sri Lanka Tourism Development Authority (SLTDA) website, different publications, newspaper articles, websites and newspapers regarding coastal areas, environmental impact and economic impact. In order to collect the data secondary sources are used; tourism act no 38, 2005, SLTDA annual statistical report of 2019, vistas prosperity and splendor Sri Lanka, national physical planning policy and several websites and research papers. The tourism act, vistas prosperity and splendor Sri Lanka, national physical planning policy are used to elaborate on the policies and procedures that the government of Sri Lanka has taken in order to prevent the negative environmental impact, the strategies implemented to mitigate the existing negative environmental impact etc. Websites are used to elaborate on the destination Mirissa; the expeditions and the attractions available for the tourists to visit. The annual statistical report 2019 of SLTDA are used to show the number of tourists visited Sri Lanka in 2019, the percentage of tourists visited Sri Lanka for the purpose of leisure and pleasure and the foreign exchange earning out of the business. The analysis of the

study manifests that the implementation of the online booking systems are mandatory in order to avoid overcrowding in the expeditions to avoid negative environmental impact and for the economic development of the local communities, awareness sessions and training sessions regarding initiating business ideas and starting up their own businesses to increase the standards of their living should happen (Figure 3).

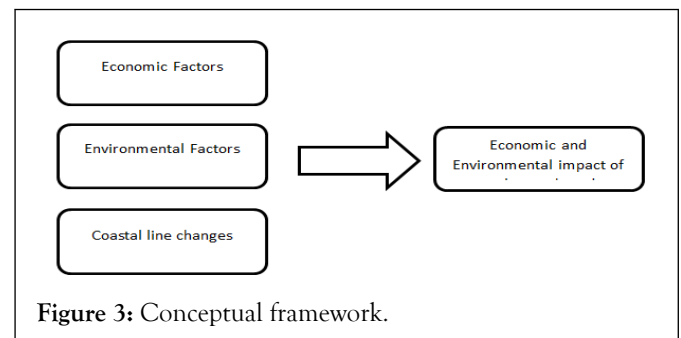


Figure 3: Conceptual framework.

## RESULTS AND DISCUSSION

Sri Lanka consists of 1000 miles of diversified coastal resources around the country creating a huge potential to conduct tourism business. In the year 2019 Sri Lanka has received 83.20% of tourists for the purposes of leisure and pleasure. The Southern coastal line from Beruwala to Tangalle is renowned as one of the fastest, growing popular tourism destination. Due to the high demand of tourism activities occur in the coastal belt of Sri Lanka majority of the planning and development policies, rules and regulations have been imposed to safeguard the system starting from the tourism act, no. 38 of 2005. In order to protect the coastal areas, it is implied that no permeant infrastructure can be built in the vegetation line. If there is going to be any infrastructure in the vegetation line, they should be impermanent. It is suggested for the developers to build their infrastructure 100 m away from the coastal vegetation line. The national policy framework of vistas prosperity and splendor has given focus on the areas safeguarding the coastal areas and marine environment, protect the coastal erosion. The national physical planning policy 2025 has declared the coastal line of Sri Lanka under the areas of “critical” and “unique” which are highly sensitive and fragile.

According to Weerasekara, Y.N. and Amarawickrama, S. Mirissa is one of the most attractive tourism destinations in Sri Lanka coastal region which has been proposed as a suitable area for the tourism development purposes. Mirissa is an iconic tourism destination having lot of attractions like coconut tree hills and secret beach and activities like snorkeling with turtles, surfing, and whale watching and partying.

The potential of Mirissa to serve as a rich tourism destination consisting of varieties of attractions and activities, have created the path to develop tourism by bringing down vast amount of economic benefits to the country and the community. The massive number of people visited Sri Lanka; 1.9 million in 2019 have contributed to the foreign exchange earning which is US \$ 3606 million. The growth of a country starts from the scratch,

from the development of the people. The development and the promotion of Mirissa area as a tourism attraction open paths for the local community members to start small medium enterprises which can be souvenir shops, restaurants, home stays etc. These establishments can be formal establishments as well as informal establishments. The starting up their own businesses in the area and the factor of earning money out of their business by selling the goods and services to tourists is boosting their economy which directs to an increase of the living standards of the people and increases the quality of life. As stated by Mathew, P.V. and Sreejesh, S., one of the most salient factors of quality of life is the material wellbeing which consists of increase of family income, increase of employment opportunities, increase of opportunities of business, increase house prices and increase land value. The employment factor is another significant factor which helps to boost the economy, direct jobs and indirect jobs. Most of the people in the communities lack jobs due to the lack of education, lack of knowledge etc. With the emerging industries like tourism, the people have the ability to get jobs suiting to their skills and abilities which ultimately helps to boost the economy and increase the living standards of the people. When the living standards of the people increase their purchasing power and the disposable income increases which make them rise economically.

Considering about the environmental factor, more than the positive impact, due to the massive developments taking place without proper planning in the environmental sensitive areas and in vegetation lines, negative environmental impact is visible. There had been unauthorized constructions in the area during the time period from 2010 to 2018 and those unauthorized constructions have been decreased up to a considerable amount after the government has removed most of such unauthorized constructions in 2019. Unauthorized constructions, such as unstructured temporary hotels, outside walls, huts and such other things nearby the beach area have been one of the major threats to the decline of the coastal area and it has been a huge environmental threat over time. As per the analysis of maps, the density of vegetation/green covering has been increased in 2010 compared to 2005 as the Tsunami disaster occurred in 2004. Furthermore, unauthorized constructions have been slightly decreased by the year 2018, compared to the year 2015. This occurred due to imposing of rules and regulations by Sri Lanka Tourism Development Authority (SLTDA) in order to minimize the number of the informal tourism establishments in the country to provide the tourists with a memorable, outstanding hospitality service as one service provider. But it seems that there has been a considerable decrease there in the vegetation/green covering from 2005 to 2019 due to the new developments occurred within the region. Moving forward with the concepts like sustainability, the people have become more concerned about the usage of the resources. Sustainability is the use of natural resources while preserving them for the future generations use as well. Along with the sustainability and as a marketing tactic the hotels have started to engage with Corporate Social Responsibilities (CSR). Beach cleaning is one of the massive yet most common type of project that occurs. Discarding of waste materials to the sea, improper waste management, improper drainage systems have been a huge

disruption to the biodiversity and the beauty of the beach. Improper coverings of beach area using coconut leaves, metal roofing sheet materials are a disturbance to the beauty of the beach environment. There is no proper procedure to protect sensitive environments in the area. So, lacking of such a protective/conservative procedure to protect coral reefs, mangrove forests and other valuable and highly sensitive eco systems is a huge risk and as a result of that, these sensitive eco systems in the area are declining due to detrimental impacts of tourism. The beach area has gotten narrowed and limited as most of the constructions are constructed very close to the beach. The increasing of number of hotels, resorts, shops and such other buildings and narrow roads in the area due to the result of this hike in number of building constructions have resulted in traffic congestion in the area and it has also been a threat to the environment. As stated by Wijesiri the tourism activity overall in the coastal region should be conducted in a sustainable manner complying four factors; satisfied visitors the visitors should be fully satisfied beyond their expectation levels when they leave the country after the tour and they should have an urge in their mindsets to revisit Sri Lanka again, profitable businesses the small medium enterprises, restaurants, hotels and all the businesses should be able to earn profits out of their businesses while providing the maximum satisfaction to their tourists and by investing in the business and expand them in the future, a nurtured environment; the tourism development should take place in the region after proper planning. The environmental sensitivity should be kept along with the development in the area, participation of the community; the community members in the area should be able to participate with the tourism activities in the area which will increase their standard of living.

## CONCLUSION

Tourism is the third largest foreign exchange earner to Sri Lanka. Sri Lanka is a diversified country due to the different attractions, activities, climates, regions, and nations exist. The coastal areas-based tourism industry is quite popular among 99% of the tourists arriving here. 83.2% of the tourists arriving to Sri Lanka are on the purpose of leisure and pleasure. The higher demand and the higher number of tourists visiting Mirissa area are contributing to the economic factor. When the tourists are coming down the foreign exchange earnings and the gross domestic production will increase which will ultimately boost the economy of the country. When the tourism is developing in an area lot of business ventures are starting and the community members have the ability to get formal or informal job opportunities. The people who are capable enough can start their own small-scale businesses. By commencing the aforementioned the economy of the people can be developed. Focusing on the environmental impact, since more and more development is taking place before planning the deterioration of the environment can be seen. In order to prevent that from happening the sustainable practices should be followed, the value of the environment should be understood, and the developments should take place without destroying it.



## RECOMMENDATION

In order to increase the standard of the living of the community members in Mirissa area concepts like pro poor tourism can be conducted. Since the main income of the majority of the community members is fishing in that area the hoteliers in Mirissa can get together and identify the people who are in need of help in order to earn a living for the survival. The hoteliers can purchase boats for these people and train them on doing fishing and ultimately after these people bring fish the hotels can purchase from these fishermen. Not everyone would be able to fit in formal or informal jobs in tourism and not everyone would prefer that. For the people who prefer to continue in what they have been doing for the past decade, they can be provided with assistance in order to build up their economy.

In order for the community members to develop, they can be provided with necessary training and development programs, advisory programs in order to provide guidance on what kind of businesses to start in the area, how to run the tourism businesses, the rules and regulations pertaining to running accommodation etc. This can help the people to develop themselves and create paths to develop different businesses.

For the conservation of the environment the business developers can plan the infrastructure and the land before developing. The adhering to the imposed rules and regulations of the Sri Lanka tourism development authority and the coastal conservation department should be done. Since most of the destruction in the environment occurs from the informal establishments, the government authorities should always make sure that the license and the registering of the establishments have been done.

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