

ASSESSMENT OF PROSPECTS AND CONSTRAINTS OF SUSTAINABLE ECOTOURISM: EVIDENCE FROM BATTICALOA DISTRICT

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Abstract

Ecotourism has the potential to be the fastest-growing segment of the global tourism industry. Tourism is a primary economic generating activity in Sri Lanka, which represents more than 12% of the country's GDP (Gross Domestic Product) and gives the third highest foreign exchange. Batticaloa district is a dramatically well-improved tourism place in the Eastern part of Sri Lanka. Although, the purpose of the study was to assess the prospects and constraints of the Sustainability of Eco-tourism in Batticaloa District. The study takes an integrated approach to ecotourism development by identifying ecotourism prospects and constrains and developing a model to assess ecotourism sustainability by matching the factors evaluation. However, an interview-based survey used to identify the perception of field related people (Community people, tourist, hotelier, tourism planners, etc.) which is helpful to find out the prospect and constrain of the sustainable ecotourism development in Batticaloa District. The findings of this study may only apply to the current state of ecotourism and future development of ecotourism in the Batticaloa district. Finally, the implement activities of the selected ecotourism suitable sites must be recommended so the study proposed some strategic recommendation to develop ecotourism activity and reduce the constraints in the study area.

Keywords: Ecotourism, sustainability, prospect and constraints, Batticaloa

1.0 Introduction

Ecotourism has the potential to be the fastest-growing segment of the global tourism industry. Tourism is a primary economic generating activity in Sri Lanka, which represents more than 12% of the country's GDP (Gross Domestic Product) and gives the third highest foreign exchange. Batticaloa district is a dramatically well-improved tourism place in the Eastern part of Sri Lanka. The study area has great potential for tourism development because of the conducive environment and its natural resource (Nuskiya & Kaldeen, 2019). Accordingly, the Study area highly developing by the tourism prospects, as well as some constraints are negatively impacting the development. Based on this study will identify the prospects and constraints of the development of sustainable eco-tourism and the result of this study will promote the development strategy for sustainable eco-tourism development in the Batticaloa district.

Sustainable tourism is heavily emphasized in eco-tourism. Sustainability is dependent on the relationship between tourism and, by extension, the environment. These were dubbed "nature tourism," "soft tourism," "responsible tourism," "green tourism," and "ecotourism," but they were all viewed as alternatives to mass tourism. Among these various labels, the term "eco-tourism" has gained prominence, though no single definition can be found, even among academics (Schaller, 1999). Many academics now agree that eco-tourism necessitates a two-way relationship between tourism and environmental conservation (Cater, 1994). The perceived potential of ecotourism as an effective tool for sustainable development is the primary reason why developing countries are now embracing economic development and conservation strategies. Tourism will be a powerful tool for both local and national economic development (Mufeeth & Kaldeen, 2022). In this regard, ecotourism evaluation should be regarded as a critical tool for the long-term development of tourism in any area (Cruz et al., 2005). As global warming and other natural phenomena affect people's living standards around the world, developing ecologically sustainable tourism will be the most effective solution (Ars and Bohanec, 2010). Ecotourism is the fastest-growing sector of one of the world's largest industries, tourism, and is recognized as a sustainable method of developing regions with abundant tourism resources (Zhang and Lei, 2012).

Appropriate development for sustainable ecotourism is critical for conserving and maintaining the realm's biological richness as well as economic upliftment of the local people and community (Kaldeen & Mufeeth, 2020). Furthermore, ecotourism will be defined as opportunities to promote values within the study area's protected environment. As a result, ecotourism should meet several criteria, including the conservation of biological and cultural diversity through ecosystem protection and the promotion of sustainable use of biodiversity with minimal environmental impact as a primary concern.

Accordingly, the study revealed the event prospects and constraints of Sustainable Eco-tourism and identified the acceptable eco-tourism sites in the study area mapping by using the GIS technique. Tourism development has to be sustainable from economic, environmental, cultural and political standpoints. Consideration of prospects and constraints of various natural and socio-economic factors that affect ecotourism development is essentially facilitated. The main objective of the study is to assess the prospects and constraints of the Sustainability of Eco-tourism in Batticaloa District.

2.0 Literature Review

Several empirical studies on Sri Lankan ecotourism have been conducted. Gunasinghe (2011) used descriptive research and secondary sources to determine the significance of biodiversity conservation and the sustainability of Sri Lanka's tourism industry. He discovered that the future of Sri Lankan tourism, as well as its contribution to the livelihood of a large number of people involved in tourism, is dependent on the country's biodiversity, which is its most valuable asset, being protected and wisely managed. He also concluded that tourism should be regarded as a natural resource-dependent industry, and that poorly controlled tourism contributed to bio-diversity loss, which harmed the tourism industry. In Sri Lanka, there can be seen several ecotourism destinations (Sharmini & Bandusena, 2020).

When comparing the ecotourism potential of two study sites and the WTO/UNEP system, Rathnayake (2014) calculated the ecotourism potential of Sri Lanka's Horton Plains (HPNP) and Kaudulla (KNP) National Parks using two catalogues and the Wilcoxon Signed rank Test (WSR) proposed by Wilcoxon (1945). (1992). He came to the conclusion that the ecotourism potential at HPNP and KNP was not the same because their scores were 83 and 79 out of 110 points, respectively. There may be inherent ecotourism potential despite the

stark differences in these two sites' topographies, climates, and geographies. Additionally, that potential might be helpful in designing the recreational activities in these national parks.

Rangana Sri Shalika Wadippuli Arachchi (2015) examined the construction of the context of the eco-resort definition by Sri Lankan eco-resort hoteliers, as well as the gaps between the Sri Lankan eco-resort hoteliers' understanding and the international norm, using a qualitative research approach that included interviews and observations. Through their research, they discovered that the eco-resort concept had been exploited by Sri Lankan hoteliers. They were unable to categorize eco-tourists or define the business and consumer groups specifically.

Daminda Sumanapala, *et al.* (2012) used primary data to perform a preliminary investigation into the essence of ecotourism in Sri Lanka to enhance its effectiveness at the local level. They discovered a major issue that all of these organizations face, namely a lack of awareness about ecotourism and its various aspects. They also concluded that certain agencies have a lot of ability to do or assist with ecotourism, but they hadn't gone any further.

Kumari *et al.* (2010) classified and prioritized potential ecotourism sites in the West District of Sikkim, India, using secondary sources. Five indicator indices were used: the wildlife distribution index (WDI), the ecological value index (EVI), the ecotourism attractiveness index (EAI), the environmental resiliency index (ERI), and the ecotourism diversity index (EDI). Using an objective hierarchical method and a geographic information system, they were successful in identifying potential ecotourism sites (PES). Among the primary variables used to generate various indices, tourism attraction features, and infrastructure facilities were landform, elevation, land use/forest cover, vegetation diversity, density, and endemism, and wildlife diversity (primarily birds and butterflies), density, and endemism. Finally, they concluded that by implementing an ecosystem approach to ecotourism production, tourism could be used to protect the environment and, as a result, biodiversity could be preserved.

Using primary and secondary sources, Assenov and Ratnayake (2007) sought to identify policy challenges to ecotourism development and propose improvements to existing ecotourism policy, regulations, and practices in Sri Lanka. They came up with realistic solutions for policy formulation and execution, as well as positioning Sri Lanka as an ecotourism destination, by defining policy problems and proposing practical solutions.

Manu, *et al.* (2012) Using primary and secondary data to investigate the livelihood enhancement opportunities brought about by ecotourism growth in Sirigu, Ghana. They concluded that the Sirigu community-based ecotourism project had achieved considerable success and posed challenges for other community-based ecotourism destinations because it had a relatively strong infrastructural base and diversified tourism-related income-generating activities that were provided as a package to tourists and from which revenue was generated to improve the project's sustainability.

Sudusingha Liyanage Jothirathna Fernando and Noresah Mohd Shariff (2013) used extensive and detailed literature reviews on ecotourism to analyze and describe the potentiality of ecotourism growth in the coastal wetlands of Sri Lanka's southern coastal belt, as well as the issues and challenges of ecotourism development in Sri Lanka's coastal wetlands. They concluded that while Sri Lanka's ecotourism had a lot of promise, it was also beset by several issues and challenges that threatened its long-term viability. Undoubtedly, environmental issues were the most crucial of these challenges given the peculiarity of Sri Lanka's geographical location in a tsunami risk zone.

3.0 Methodology

The research area of Batticaloa district located at latitude 7°42'36.72" north, longitude 81°41'32".64 east, which is a central part of Eastern province. There are 14 DS divisions and 48 GN divisions within the Batticaloa district. Batticaloa district covers approximately a land area of 2,403.91 sq. km (91.31%) and internal waterways of 229.01 sq. km (8.69%) total land utilization are 2,633.90km.

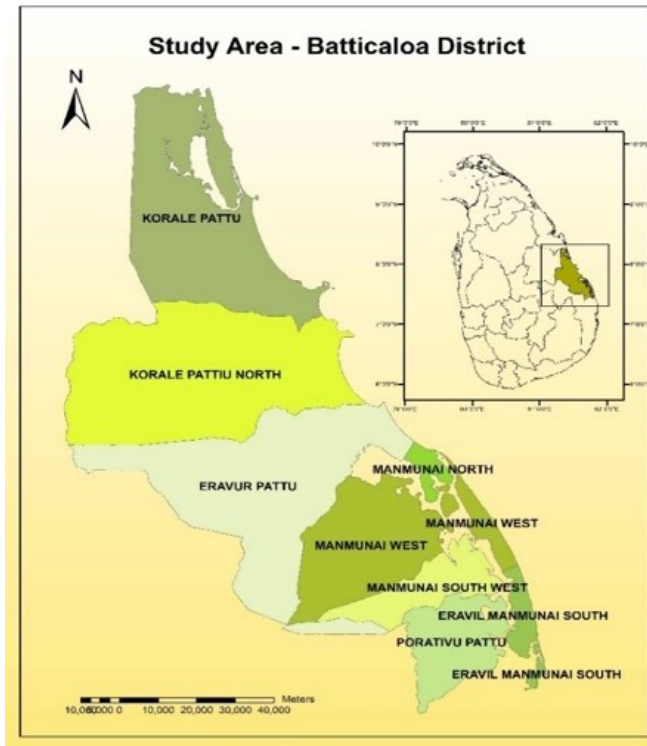


Figure 3.1: Spatial location of Study Area

The study area obtains rain from North East monsoons during November-February. The annual rainfall varies from 864 mm to 3081 mm (50-year data). Therefore, for beach tourism in the Batticaloa, the best period is from March to October.

The Eastern province consists of three districts: Trincomalee, Batticaloa, and Ampara. Batticaloa District located in the central part of Eastern province, which is bounded in the North by Verugal River, and on the East by the Bay of Bengal. The Southern and Western boundaries are along Ampara and Pollonnaruwa Districts. 75 percent of the land is flat terrain comprising of lagoons, villus, forests, isolated hillocks, streams and rivers.

Data collected through the interview method of conversing between two or more people in order to obtain information relevant to the research; thus, it has specific content and objectives (Veal, 2011). Because it is a tool commonly used to investigate specific interactions, interviewing reflects the theme. Interviews can be conducted in a structured or semi-structured manner using various techniques. Semi-structured interviews and open-ended (highly structured) interviews were used in this study to gather information about the concept of ecotourism and its development as perceived by enterprising hoteliers, managers, community members, and tourism authorities in the study area.

The interview guide or instrument is one of the most important parts of the interview process because it provides an outline of the discussions to be held during the interviews (Yin, 2003). The research problem and themes abstracted from the literature review were

used to develop topics and questions. As a result, the current study structured questions under the topics that reflected the major constructs related to: ecotourism, prospects and constraints of ecotourism development, factor/criteria influencing ecotourism development (to determine influencing level), tourism resources and attractions development, destination competitive strategies and community participation, and sustainable ecotourism development.

Sampling: The semi-structured interviews used in this study were designed to capture the perspectives of various tourism industry organizations, planners, and local community members (e.g., foreign tour operators, hoteliers, local and regional authorities, managers of small and medium tourism enterprises) on the concept of ecotourism and gain insight into their understanding of ecotourism development. As a result, the stratified random sampling method was used to select the study population for qualitative data collection.

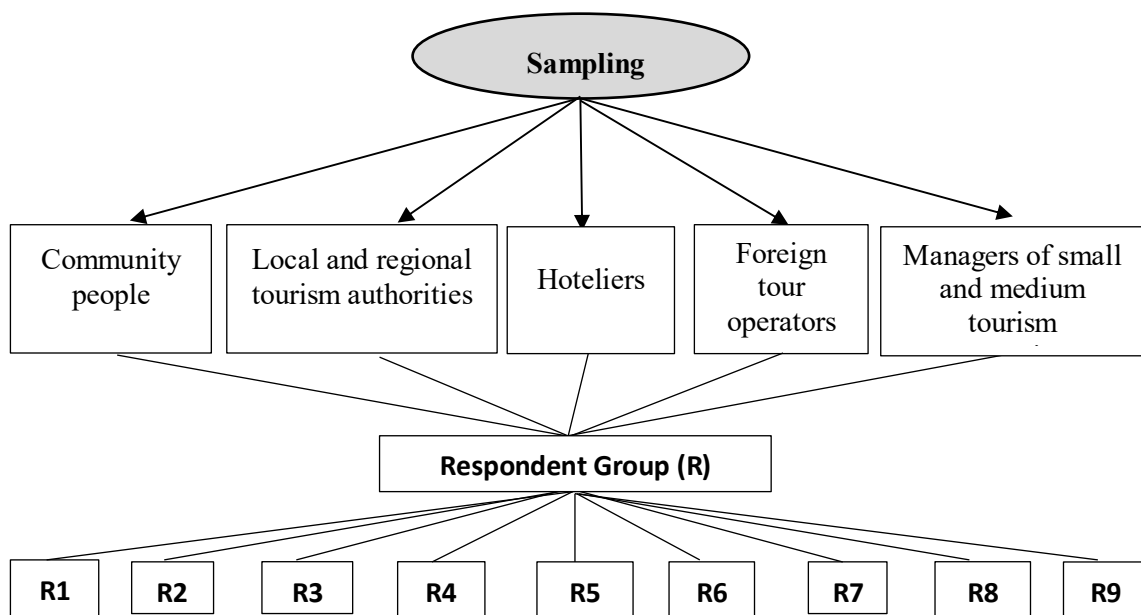


Figure 3.2: Sampling process

The Snowball Sampling technique was used to select five different groups, including foreign tour operators, hoteliers, local and regional authorities, and managers of small and medium tourism enterprises. Group participants were chosen based on their position, influence over decision-making processes, experience, and involvement in the goal setting and strategy making of tourism planning and development in Batticaloa. Each sample group collects responses from 90 respondents (9 Group of respondents).

As previously stated, data for this study were gathered from a variety of sources, including foreign tour operators, hoteliers, local and regional governments, and managers of small and medium-sized tourism businesses. As a selection tool, I used participants' perceptions and opinions, as well as their decision-making power, regarding tourism planning and development and competitiveness strategies. The interviews focused on exploring the concept of ecotourism and its developments as perceived by the aforementioned groups in order to better understand their perceptions of ecotourism and its development. Secondary data such as books, reports, journals, publications, articles and internet sources have been used in the study.

4. Result and Discussion

4.1 Ecotourism hotspot in Batticaloa District

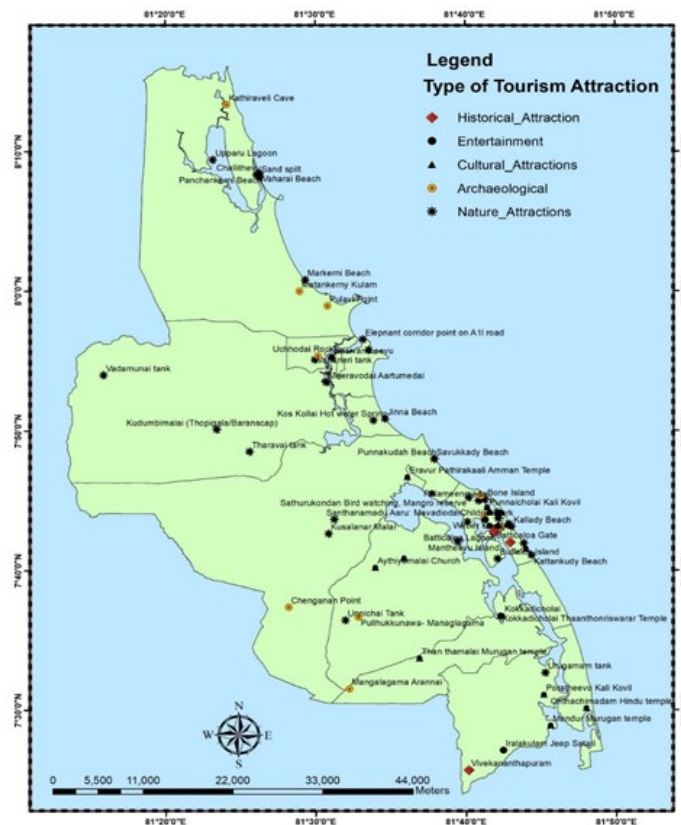
The study find outs some ecotourism hotspots according to the type of attraction, the bellow table 4.1 indicated that spatial coordinate and location information of ecotourism potential site in Batticaloa district in Eastern part of Sri Lanka.

Table 4.1: Ecotourism hotspot in Batticaloa District

| No | Place | Latitude | Longitude | DS_Division | Type of Attraction |
|-----|---|----------|-----------|---------------------|--------------------|
| 1. | Batticaloa Lagoon | 7.5667 | 81.6833 | Manmunai North | Nature |
| 2. | Bone Island | 7.7511 | 81.6900 | Manmunai North | Nature |
| 3. | Buffalo Island | 7.6833 | 81.7000 | Manmunai North | Nature |
| 4. | Butterfly Garden | 7.7244 | 81.6707 | Manmunai North | Nature |
| 5. | Mantheevu Island | 7.7017 | 81.6597 | Manmunai North | Nature |
| 6. | Nawalady Beach | 7.735652 | 81.703543 | Manmunai North | Nature |
| 7. | Poonochimunai Beach | 7.69792 | 81.728608 | Manmunai North | Nature |
| 8. | Sathurukondan Bird watching, Mangro reserve | 7.753202 | 81.671247 | Manmunai North | Nature |
| 9. | Singing Fish Listening Point | 7.7192 | 81.7071 | Manmunai North | Nature |
| 10. | Kallady Beach | 7.7187 | 81.7189 | Manmunai North | Nature |
| 11. | Palameenmadu | 7.7500 | 81.6829 | Manmunai North | Nature |
| 12. | Meeravodai Aartumedai | 7.890481 | 81.510266 | Koralai pattu West | Nature |
| 13. | Kudumbimalai (Thopigala/Barans cap) | 7.8350 | 81.3924 | Koralai pattu South | Nature |
| 14. | Tharavai tank | 7.808480 | 81.428599 | Koralai pattu South | Nature |
| 15. | Vadamunai tank | 7.9000 | 81.2667 | Koralai pattu South | Nature |
| 16. | Vahaneri tank | 7.9265 | 81.4828 | Koralai pattu South | Nature |
| 17. | Markerni Beach | 8.011696 | 81.486371 | Koralai pattu North | Nature |
| 18. | Matankerny Kulam | 8.162371 | 81.465120 | Koralai pattu North | Nature |
| 19. | Panchankerni Beach | 8.138506 | 81.431102 | Koralai pattu North | Nature |
| 20. | Challithevu | 8.139184 | 81.436788 | Koralai pattu North | Nature |
| 21. | Sand spilt | 8.137620 | 81.439529 | Koralai pattu North | Nature |
| 22. | Upparu Lagoon | 8.156893 | 81.388433 | Koralai pattu North | Nature |
| 23. | Vaharai Beach | 8.1369 | 81.4341 | Koralai pattu North | Nature |
| 24. | Nasivantheevu | 7.9216 | 81.5237 | Koralai pattu | Nature |
| 25. | Passikudah Beach | 7.9300 | 81.5612 | Koralai pattu | Nature |

| | | | | | |
|-----|--|----------|-----------|----------------------------|--------|
| 26. | Elephant corridor point on A11 road | 7.942569 | 81.554934 | Koralai South | Nature |
| 27. | Kattankudy Beach | 7.6845 | 81.7418 | Kattankudy | Nature |
| 28. | Punnakudah Beach | 7.797885 | 81.615233 | Eravurpattu | Nature |
| 29. | Jinna Beach | 7.8475 | 81.5787 | Eravurpattu | Nature |
| 30. | Kos Kollai Hot water Spring | 7.847421 | 81.558731 | Eravurpattu | Nature |
| 31. | Kusalanar Malai | 7.710671 | 81.516388 | Eravurpattu | Nature |
| 32. | Santhanamadu Aaru: Mavadiodai | 8.0411 | 81.4683 | Eravurpattu | Nature |
| 33. | Savukkady Beach | 7.7997 | 81.6339 | Eravurpattu | Nature |
| 34. | Urugamam lank | 7.5440 | 81.7573 | Eravurpattu | Nature |
| 35. | Iralakulam Jeep Satari | 7.4121 | 81.7567 | Eravurpattu | Nature |
| 36. | Unnichai Tank | 7.6073 | 81.5350 | Manmunai West | Nature |
| 37. | Kallaru Muhathuwaram (Barmouth) and Lagoon | 7.728735 | 81.704903 | Manmunai South Eruvilpattu | Nature |
| 38. | Palamunai Beach | 7.721897 | 81.716650 | Manmunai pattu | Nature |

Figure 4.1 Identified Tourist attraction in



Above figure 4.1 shown identified tourist attraction in the Batticaloa district grouped according to the type as nature, entertainment, historical, cultural, and archaeological. The Batticaloa district is endowed with a wide range of attractions for domestic and international tourists. The most striking attraction of the district is the long stretches of the wide sandy beaches with bluish warm waters and the longest lagoon in the country. There are many religious places and annual festivals attract a large number of tourists. For example, the annual "Paatha Yathra" of Kataragama in July is through the Batticaloa district.

4.2 Assessment of prospects to the development of ecotourism in the study area

According to the field analysis the 89% of respondents pointed out that, study area have suitable climate for tourism in the Batticaloa district from March to November and the tourist season for the East Coast is during the rainy season on the west coast, the temperature is between 25⁰ C and 30⁰ C.

Batticaloa has beautiful islands, some of these islands includes Puliyantheevu, Buffaloo Island, Bone Island, Challitheevu etc. which are embedded with many tourist attractions; Eg. Bird watching, self-fishing, boating etc. There are many sandy and flat beaches suitable for sea bathing and ocean-based activities. Eg. Passikudah is a bay protected from the ocean by corals. Therefore the community people in the study area particularly consider, the lagoons in the Batticaloa district are very unique and considered to be some of the best in Sri Lanka having high potential for ecotourism development. The district has three major Lagoons namely Batticaloa Lagoon, Valaichchenai Lagoon, and Vakari (Panichchankerni) Lagoon. Batticaloa Lagoon is the largest lagoon in the district with 73 km long, extending from Pankudaweli in North and Kalmunai in South. Batticaloa Lagoon is famous for its 'Singing Fish'. During the period April to September, on full moon days in the nights, a faint but distinct musical sound resembling a plucked guitar rises from the lagoon waters in the area along the Kallady Bridge, a couple of kilometres from the town Centre of Batticaloa. The mysterious music is attributed to a noise emanated from some form of marine life found in the lagoon.

Batticaloa district has many potential sites for bird-watching, namely Manmunai, Thirukkandimadu Tank/Valachchenai, Pasikkudah/Kalkudah, Vakaneri Tank (Valachchenai to Pollanaruwe), Punani Tank, Mankeni Marsh, Vakarei/ Kattumaran Road, Thrikonamadu, Nukarni, Panichchankerni and Sittankudi.

Real potential for agro-tourism. Out of its total land of 269,390 ha, Batticaloa district has nearly 48% of agricultural land which includes about 21% of paddy cultivation land. Batticaloa also consists of 22,899 ha of water bodies (nearly 9% of the total land) which in addition to other sources, are used for aquatic fisheries. This land-use pattern inherently gives an agricultural outlook and motivation to the visitors to experience agro-tourism.

Easy road access from Batticaloa to other districts in Sri Lanka. The construction of bridges made Batticaloa direct accessible via Vakari. Ongoing development and planned investments on road development in the district and the Eastern provinces thereby improved mobility and access will benefit travelers and investors.

Batticaloa is rich in forest reserves, coastal resources and national parks; the total forest reserve and proposed reserve in Batticaloa is about 63,857.7 ha constituting 21% of the total forest reserve of the province. The main forest reserve of Batticaloa includes Kudmpimallai of Koralaipattu South (37,397.1 ha). Further, Batticaloa has 44,115 ha of state forest that makes up 23% of the total state forest of the province.

Increasing concern over the coastal resources; Central Government and provincial and local authorizes have passed various legislation, statutes and regulations to control sand and

other coastal resource mining and extractions. Maritime Zones Law, The Coast Conservation Act, The Marine Pollution Prevention Act, Fisheries and Aquatic Resources Act, etc are some of the legislations on Marine and Coastal Ecosystems of Sri Lanka.

Ongoing pace of growth and development in auxiliary service sector; E.g. various national and international banks and financial service institution have opened their branches and introduced tailored financial services for Batticaloa citizen and entrepreneurs. The prevailing scale of tourism activities in the district provides an opportunity to carefully design and implement a new paradigm of tourism in the district. For example, planned urban township and infrastructure development may be feasible at this early stage of Batticaloa ecotourism.

Batticaloa is having a relatively higher proportion of homestay locations; Homestay locations makes up about 32% of the total accommodation sector in Batticaloa tourism. This indicates the participation of the locals and creates an opportunity for community-based tourism and recreations.

Integrated approaches on nature tourism/ecotourism resource conservation using relevant Departments including the Department of Wildlife Conservation (DWLC), the Department of Archaeology and the Coast Conservation Department (CCD).

4.3 Assessment of constraints to the development of ecotourism in the study area

Tourists are still unaware of the tourist attractions in the districts. There is a need to have tourist literature and websites providing information on tourist sites.

Climate Change including changes in the weather pattern, increase in severity of storms and rise in sea level and temperature; Batticaloa recorded 3,581.3 Millimeters of rainfall in 2011 which is the highest rain fall of the year on the island. The number of annual rainy days has increased from 94 in 2010 to 117 in 2011 which is about a 24% increase. Therefore, the sensitivity of Batticaloa tourism to such natural phenomena as tsunami, cyclone etc.

The cultural, economic and entertainment freedom of locals tends to be affected through the increasing scale of tourism. Increasing tourism activities and infrastructure in and around the beaches, lagoon and other inland water resources of Batticaloa tend to affect the livelihoods of the local fishing community and creates positional conflict with locals for access to the shore for beach and fishing.

Risk of spreading of AIDS and other diseases among the locals; Total number of HIV/AIDS reported cases in Batticaloa in the year 2009 is 15 and 40 in the East and the year 2011 it is 53 in the East. However, the risk of cultural hazards foreign tourist tends to their own cultures and many unacceptable and detrimental behaviors.

Lack of participation of the local community in planning and implementation of tourism development projects. Most of the homestay location in Batticaloa offer only physical space rather than taking care of visitor's food, drink requirements etc. during the stay of visitors. About 60 % of the homestay locations sell only physical space for visitors. Exclusion of local communities from tourism livelihoods through "enclave" tourism developments and use of imported' labour.

Comparatively very small units of tourist enterprises in the Batticaloa and the adjacent districts; E.g. accommodation capacity (Rooms) in the Eastern province in graded establishments is 238 which is only 0.62% of the total national capacity thereof. Due to lack of knowledge and uncertainty, there are inadequate involvements of the local community and the private sector of Batticaloa district in developing the district as a unique tourism destination. Lack of investments by locals in tourism enterprises. Most of the graded hotels in Batticaloa are owned by outside investors.

There is no comprehensive tour package designed for foreign and local tourists visiting Batticaloa; Tour packages that are available at present seems to be more centric on very few attractions of Batticaloa. Rather, it should enable the visitors to explore and experience more about the Batticaloa at one visit.

Inadequate capacity and lack of awareness of local authorities and provincial systems in planning and executing integrated and coherent tourism developments in Batticaloa district.

Lack of outdoor entertainment, fun & leisure operators in Batticaloa ditrict. For example musical clubs, musical shows, cultural exhibition, and leisure shopping etc that can attract and retain visitors.

Lack of infrastructure facilities drinking water, electricity, sewage, sanitation and solid waste collection and recycling For example; uninformed and frequent electricity failure, poor hygienic environment in public places and alongside the access roads etc.

Risk of forgoing real rural outlook and rural experiences in the district unplanned township, urbanization, uncoordinated studies and investments might damage aesthetic and rural outlook of tourism locations, in particular, the district at large.

Depletion of natural resources through sand mining, deforestation, etc. Commencement of a large number of domestic and commercial construction projects in the contexts of the old post-war situation ultimately results in depletion of coastal resources and loss of forest resources.

Uncoordinated and incoherent development activities causing duplications of works and investment isolation thereby several resource wastages and unsustainable development. Different government and many agencies have involved in various studies and in the preparation of tourism development plans which are never or very rarely coordinated creating a risk of shortsighted/unsustainable tourism development Though there are more planning efforts, the district and the province do not have to implement the mechanism.

Cultural resistance and negative perception on tourism amongst local community leaders and the community at large.

4.4 Overview of recent development activities/ key Infrastructure Development in study area

Listed below are some of the capital development projects which will have an impacts on upgrading tourism development in Batticaloa district.

Table 4. 2: Key infrastructure development in Batticaloa District

| Sector | Projects | DS Division |
|------------------|---|---------------------|
| Tourism | Beatification of urban council | Manmunai North |
| | Beatification of Kallady Bridge | Manmunai North |
| | Construction of Pedestrian path along the lagoon site, cleaning & beatification of the lagoon | Manmunai North |
| | Beatification and landscaping Pasikudah tourist spots | Koralaipattu |
| | Weber stadium upgrading | Manmunai North |
| | Renovation of drainage to beach road | Manmunai North |
| Human Settlement | Providing water supply to Kanthinagar | Manmunai West |
| | Rural water supply Scheme | Manmunai South West |
| | Rural water supply Scheme | Manmunai South West |

| | | |
|-----------------------|---|---------------------|
| | Rural water supply Scheme | Koralaipattu North |
| | Rural water supply Scheme | Koralaipattu North |
| | Augmentation of Unnichchai Tank | Manmunai West |
| Transport | New Kallady Bridge | Manmunai North |
| | Kalkudah Road (Nasiva Pillaiyar Road) | Manmunai West |
| | Manmunai Bridge Construction | Manmunai South West |
| | Batticaloa Airport | Manmunai North |
| | Kalkudah and Pasikudah Road Development | Koralaipattu |
| Social Infrastructure | Construction of children park | Koralaipattu West |
| | Construction of children park | Koralaipattu |

Source: District Secretariat

4.5 Sustainable Ecotourism planning

The concept of sustainable development has received widespread support from all researchers who have studied it. The realization that environmental issues have transnational implications, emphasizing the need to better understand human-nature interactions. And it has been established as one of the main policies in tourist developing areas, in order to reap the economic benefits of tourism development while also managing local resources in such a way that cultural integrity, essential ecological processes, biological diversity, and life support systems are preserved through sustainable ecotourism planning.

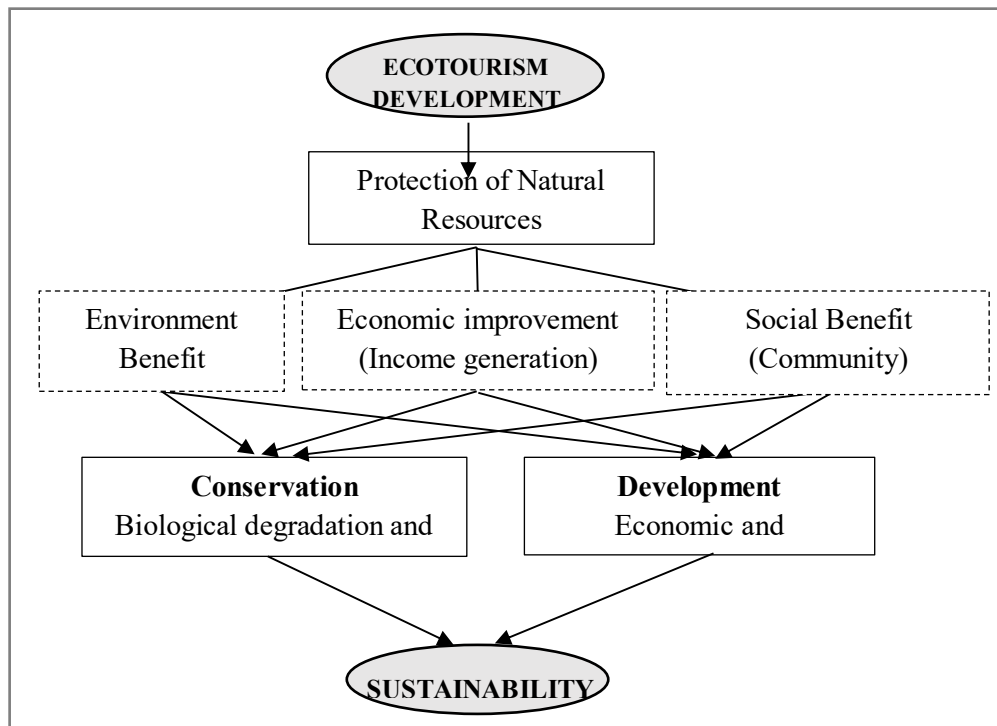
However, there is a clear overlap between the key principles of ecotourism and sustainable development. The two have become so intertwined that they should no longer be thought of as separate ontological areas. Almost every piece of ecotourism literature mentions sustainability, whether it is economic, social, environmental, or all three combined.

The management strategy of meeting economic goals without sacrificing an equal or higher quality of life for future generations is referred to as sustainability. Ecotourism has been recognized as a means of specifically integrating conservation and development, as well as demonstrating sustainability in general.

As a result, ecotourism is frequently viewed as a potential strategy for supporting natural ecosystem conservation while also promoting sustainable local development. According to the definitions above, the introduction of ecotourism has resulted in a symbiotic relationship between natural areas and local populations. Ecotourism can thus be viewed as a means of protecting natural areas by generating revenue, environmental education, and involving local communities in decision making and benefit sharing. As a result, ecotourism is an important means of promoting conservation and development in a sustainable manner.

Batticaloa district has a variety of attractions for both domestic and international tourists. Although sustainable tourism development meets the needs of current tourists and host regions while also protecting and improving opportunities for the Batticaloa district's future. It is envisioned as leading to resource management that meets economic, social, and aesthetic needs while preserving cultural integrity, essential ecological processes, biological diversity, and life support systems. In its purest form, ecotourism is based on the same philosophy as sustainable development and sustainable tourism. It is critical to consider sustainability not only as a goal for ecotourism, but also as a means of achieving that goal. In this context, a key consideration in ecotourism development is sustainability.

Figure 4.2: Linking ecotourism to sustainability



5. Conclusion & Recommendations

The current study looked into the Batticaloa district in order to prepare ecotourism plans for the region's long-term development. The findings of this study may only be applicable to the current state of ecotourism in the Batticaloa district. However, the same concepts can apply in other situations. Implement activities of the selected ecotourism suitable sites must be recommended and proposed some strategically recommendation to develop ecotourism activity and reduce the constraints through the present study. Based on the study some important suggestions are recommended as follows:

- Improve tourist attractions and have guided tours to get different experience.
- Ecotourism based on the natural resources available, four type of tourism namely Agro tourism, Lagoon based soft adventure tourism, coastal tourism, mangrove/wetland based tourism are proposed in this region
- Ecosystem protection will get first priority in the ecotourism planning in this region.
- Batticaloa lagoon based soft- adventure and entertainment tourism is an ideal for young & mature explorers, adventurous experience seeker, young couples, families, group parties. The lagoon has potential required to provide exclusive tourist attractions.
- Nature thrives in mangrove forest reserves, bird sanctuaries, sandy beaches with shining coastlines green pastures, attractive sceneries of green paddy field and other productive agricultural lands eventually provide calm environment for pleasure and relaxation.
- More especially such environment is highly attractive for local tourists who need to avoid their routine urban life of the concrete jungles in cities encourage them through the advertisement with the help of social media in this region.

- Encourage local, national authority and stakeholders support (E.g: SLTDA-Sri Lanka Tourism Development Authority, Tourism Ministry of other provincial, Provincial ministry of tourism, NGOs & INGOs in Batticaloa District, Batticaloa Hotels and tourism operators/ Association and local authorities).
- Improve Proper Waste Management system.
- Local people's interest must be involved in planning and organize tours in the village and other nearby tourist sites such as the lagoon, Unnichchi water tank, Mantheevu Island etc.
- Promote local and other indigenous medical treatment packages.
- Provide opportunities for tourists to experience the village life and culture (e.g. village traditional cooking).
- Improve Beach tourism (E.g: Kattankudi, Pasikudah, Kalladi, Vakarai, Mankeni, Panchchenkeni, Kayankeney, Kaluvankeni, Navaladi) related activity. Proposed development activity: Diving at Navalady beach, Wind Sailing, Banana boating/ water skiing/jet skiing, Eco- resort tourism nature based tourist (Vakarai beach), preparing beach food.
- A joint effective management within all responsible departments (Forest, Tourism, Environment & Local govt.) required for monitoring, evolution and development.
- Improve and update Information and education center for both international and domestic visitor and National information portal based on web pages.
- Batticaloa district highly potential for wetland therefore establishment of a Mangrove Interpretation and Visitor Centre in varies place within the Batticaloa district.
- Government can help interested tour operators organization (Provide easy license, Low interest loan, Training and guidelines)
- Product promotions for national and international tourist o Published photography books Wildlife videos and environmental awareness issues.
- Identification and promotion of local craft products from micro-enterprises of the impact zone in study area.
- Developed environmental friendly ecotourism related safety journey.

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