

## Towards the Ecotourism Development: Opportunities and Challenges in Delft Island, Jaffna District- Sri Lanka

*Ke arah Pembangunan Ekopelancongan: Peluang dan Cabaran di Pulau Delft, Daerah Jaffna, Sri Lanka*

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**ABSTRACT** *Delft Island is one of the seven inhabited Islands of the Jaffna Peninsula. It has been prioritized for ecotourism development after the postwar scenario. Delft Island has unique features to promote ecotourism. However, there are several challenges faced by the relevant authorities during the development process. This study explores to identify the opportunities and challenges in the context of ecotourism development. In-depth semi-structured interviews among the executive level of a government officer, focus group discussions from the community-based organization, and field visits have been carried out to collect primary data. Thematic and qualitative descriptive analysis methods have been used to analyze the data. The result reveals that the government policies, physical and biological features, history, culture and income generation as the opportunities and administrative mechanism, while shortcoming of environmental conservation, improper usage of resources, lack of community awareness, and infrastructure facilities as challenges. This study suggests that, while preparing an integrated plan for ecotourism development, a proper planning process should be adopted with interdepartmental coordination. The intensive training programme should be arranged to involve the local community because ecotourism development is novel to the societies living in this area. Thus, Delft can be promoted as an eco-friendly Tourism Island through concerted effort among all stakeholders.*

**Keywords:** Ecotourism, challenges, opportunities, stakeholder, development.

**ABSTRAK** *Pulau Delft adalah satu daripada tujuh buah pulau yang dihuni di Semenanjung Jaffna. Ia telah diberi keutamaan untuk pembangunan ekopelancongan selepas senario pasca perang. Pulau Delft mempunyai ciri-ciri unik untuk mempromosikan ekopelancongan. Walaupun begitu, terdapat beberapa cabaran yang dihadapi oleh pihak berkuasa semasa proses pembangunan. Kajian ini mengenal pasti peluang dan cabaran dalam konteks pembangunan ekopelancongan. Temubual mendalam separa berstruktur dengan pegawai kerajaan dari peringkat eksekutif, perbincangan kumpulan fokus dengan organisasi berasaskan masyarakat,*

*dan lawatan lapangan telah dilakukan untuk mengumpulkan data primer. Kaedah deskriptif tematik dan kualitatif telah digunakan untuk menganalisis data. Hasilnya menunjukkan bahawa dasar kerajaan, ciri-ciri fizikal dan biologi, sejarah, budaya dan penjanaaan pendapatan merupakan peluang dan mekanisme pentadbiran; manakala kekurangan dalam usaha pemuliharaan alam sekitar, penggunaan sumber yang tidak betul, kurangnya kesedaran masyarakat dan kemudahan infrastruktur, sebagai cabaran. Kajian ini menunjukkan bahawa, ketika menyiapkan rancangan bersepadu untuk membangunkan ekopelancongan, proses perancangan yang tepat harus dilakukan melalui koordinasi antara jabatan. Program latihan intensif harus diatur untuk melibatkan masyarakat setempat. Hal ini kerana pembangunan ekopelancongan adalah baharu bagi masyarakat yang tinggal di kawasan ini. Pulau pelancongan yang mesra alam dapat dipromosikan melalui usaha bersama antara semua pihak yang berkepentingan.*

**Kata kunci:** Ekopelancongan, cabaran, peluang, pihak berkepentingan, pembangunan

## 1. INTRODUCTION

Tourism is one of the fastest-growing sectors around the world. It generates 10.4% of the world GDP (WTTC, 2019). Expansion of this industry has generated socio-economic benefits in many related sectors. This mass tourism development brought adverse effects on the natural environment. As a result, the "Sustainable tourism concept" has been promoted by the United Nations World Tourism Organization (UNWTO, 2015). Accordingly, ecotourism is considered a sub-category of sustainable tourism. Presently, most countries are trying to develop ecotourism to protect the environmental condition and enhance the socio-economic status of the local community.

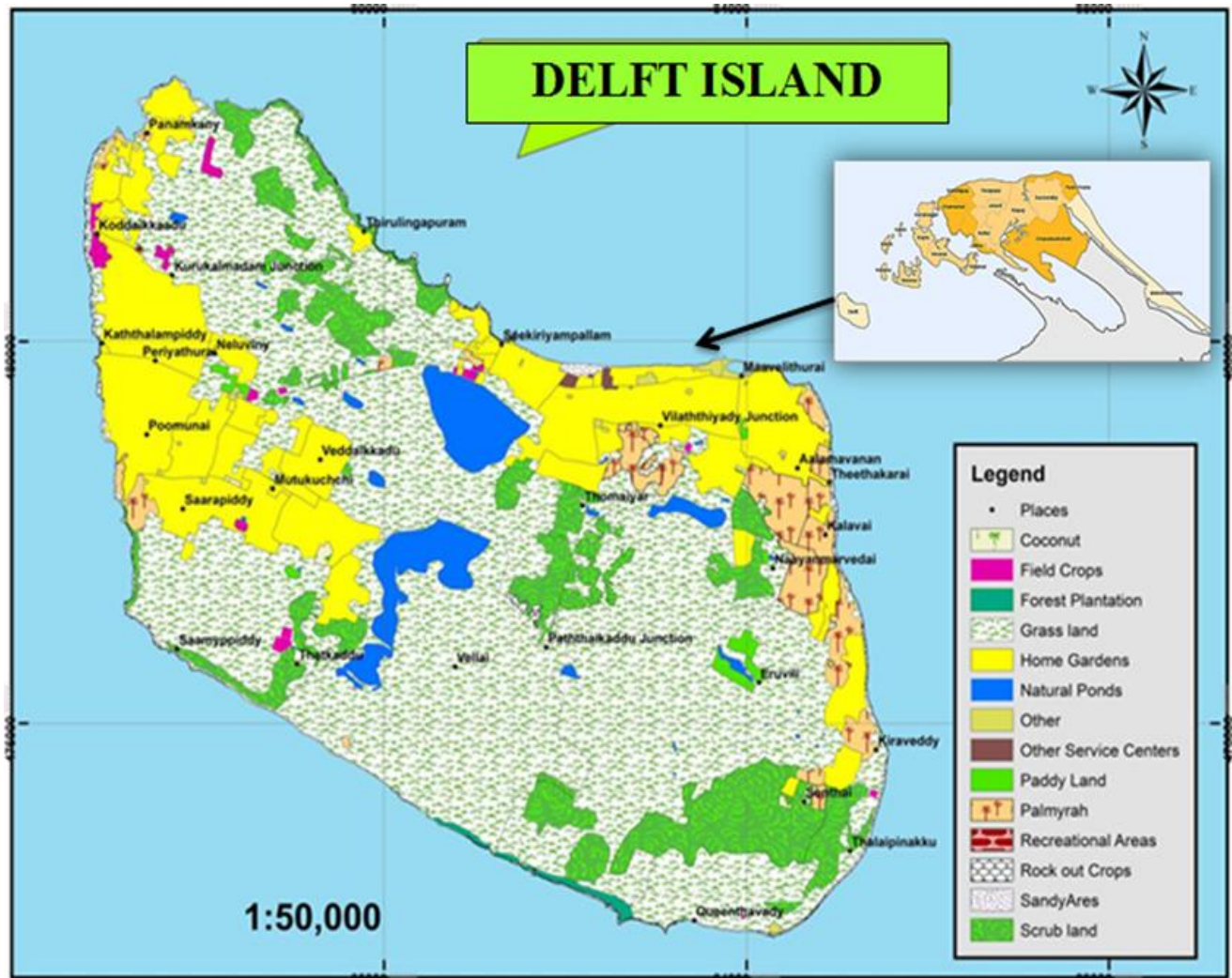
The tourism sector in Sri Lanka is famous among international tourists, and it plays a vital role in the economy. During the past decades, the growth of this industry fluctuated due to the prolonged war that lasted for about 30 years. Since the war ended in 2009, the tourism sector has grown exponentially until 2019 (CentralBank, 2019). It stagnated from April 2019 because of the Easter attack by the terrorist and the COVID-19 pandemic. The Government tries to promote the tourism sector in many ways and creates popularity among international tourists with the slogan: "Wonder of Asia" (SLTDA, 2019). SriLanka Tourism Development Authority (SLTDA) is the pioneer institution attached under the Ministry of Tourism to formulate strategic plans and regulate the tourism development initiatives at the national level. Tourism strategic plans have been prepared from time to time by the SLTDA. As a result, tourism-related development reached the saturated level along with the central and southern parts of the Country. Even though there are many opportunities to develop ecotourism sites such as rainforests, pristine beaches, national parks, protected areas, and small Islands, it has failed to gain benefit from these resources. Presently ecotourism is still at the stage of tourism with a particular interest (Gurusinghe, 2006) and the Government faces many challenges to promote ecotourism (Fernando &

Shariff, 2013). Sri Lanka has been famous among international tourists. However, the Jaffna district is in the initial stage of tourism development. After the ethnic conflict came to an end, it has got the opportunities to promote the tourism sector (Balasuntharampillai, 2019). At present, in the rehabilitation phase, various plans have been proposed to enhance the socio-economic condition of the war-affected region. According to the tourism development plan of both National and provincial governments, Delft Island in the Jaffna district has been prioritized for ecotourism development. It has many opportunities to develop ecotourism. Even though various challenges are faced by the relevant authorities during the development process. At this juncture, this study has been carried out to identify the opportunities and challenges in developing ecotourism in Delft Island. Preparing a proper plan for ecotourism development, will give the opportunities to carry out the environmental conservation measures and find out the way for livelihood development of the local community as well as regional development.

The study area is Delft Island, located approximately 10 km off the Jaffna mainland (46 km from the Jaffna City center), with about 47.5 km<sup>2</sup>. The maximum length and width of Delft Island are 8 km and 6 km, respectively. West and Southern boundaries are the Indian Ocean. North and Eastern sides are Velanai Divisional Secretariat administrative border. Delft Divisional Secretariat is divided into Six Grama Niladhari Divisions for its administrative purposes. The Island is well known by its Dutch name, "Delft." It had a population of around 12,000 in the 1960, which declined to around 6,200 in 1981. During the 1990s, there was a peak time of ethnic conflict. Many people were displaced from the Island, and they were resettled in 2007. At present 4,587 persons, belonging to 1,441 families are living in this region. In the rehabilitation phase, the Government plans to develop the agriculture, livestock, and tourism sectors on Delft Island (Divisional Secretariat-Delft, 2019). Geologically, Delft Island consists of deposits during the Eocene, Upper Miocene, and Pliocene eras and over 2000 feet thick.

The Island is separated from the rest of the Jaffna by a channel approximately 12 m deep (Cooray, 1984). The magnitude of the tide level is relatively low around the coastline of this Island compared to the rest of the beaches in Sri Lanka (Swarn, 1983). The shoreline stretches to approximately 30 km. The surface of the Island is covered mainly with coral reef rubble, interspersed with other marine deposits such as Calcareous, mudstone, siltstone, and sandstone. The plant life of the Island is vulnerable to water shortages and can be affected by draughts easily due to the shallow depth of the soil (Goonatilake, et al., 2013) The Island is located within the dry zone. Semi-arid tropical vegetation cover is dominated by Palmyra palms, thorny shrubs, and grasses that grow on the porous coralline soil of the Island. It receives a mean annual rainfall of 750 mm. The temperature ranges from 26<sup>o</sup> C to 33<sup>o</sup> C. Agriculture, livestock, and fishery is the primary sources of livelihood. More than half of the people depend on fishing. Archaeological remains from the Island indicate that humans have been inhabited in the study area since ancient times. Baobab trees and the feral Delft ponies were introduced by peoples who migrated from the other

regions. The Island has a history of occupation by various foreign invaders from time to time. A few remnants from its colonial past, such as ancient buildings, are believed to be from the South Indian Chola Dynasty and the ruins of a Portuguese fort, which can still be seen along the western coast of the Island (Divisional Secretariat-Delft, 2019)The following Figure 1.1 shows the Study Area.



**Figure 1.1:** Study Area- Delft Island  
(Source: Divisional Secretariat, Delft, 2019)

## 2. LITERATURE REVIEW

Ecotourism is one of the sustainable tourism categories. Worldwide conservationists have promoted ecotourism as a tool for conserving natural resources (Das & Chatterjee, 2005), (Mondino & Beery, 2019). It is considered the model for future tourism development to minimize the environmental impact (García, Orellana, & Araujo, 2013) and provide simultaneous ecological and economic benefits (Newsome, et al., 2002). Ecotourism has been defined in different ways. Seven characteristics of authentic ecotourism have been proposed by (Honey, 1999). Accordingly, travel to the natural destination minimizes the impact, biodiversity conservation and local people involvement have been emphasized. The tourism-related organization has been given priority to conserve the natural resources during the ecotourism development. Consequently, natural resource conservation practices are carried out via protected area management. Protected areas provide a suitable physical setting for ecotourism development. 90 % of ecotourism operations carried out in protected areas (Kinnaird & Obraien, 1996), (Li, et al., 2018). Both developed and developing countries have declared protected areas to conserve biodiversity through ecotourism development. For Instance, Russia is creating a plan to preserve nature via ecotourism. Rwanda is promoting ecotourism to support domestic outdoor recreation. Croatia is developing ecotourism in the Lastovo Islands. Jordan takes initiatives for regional development through ecotourism. 80% of Chinese nature reserves employ ecotourism as a tool for economic growth (Feyers, Tolbert, & Altmann, 2017).

After the popularized tourism environment relationship, most countries shifted to ecotourism development and prepared ecotourism policy. For Instance, Costa Rica, Galapagos, Trinidad, Kenya, South Africa, and Colombia (Honey, 2008). Australia is the first region to be presented, given its status as a world leader in ecotourism policy and planning (Fennel, Buckley, & Weaver, 2001). The tourism policy of Kenya has a limited understanding of environmental issues. Due to this reason, it faces challenges on ecological aspects (Kitheka & Backman, 2016). Therefore, the collaborative approach emphasized building consensus between the stakeholders (Sheppard & Fennell, 2018), (Kenawy & Shaw, 2014). While developing the ecotourism site, it is essential to assess tourism potential, the value of attraction, facility management, environmental concern, and local people attitude. Otherwise will create challenges in ecotourism initiatives (Tseng, et al., 2019). In some countries experience, ecotourism initiatives faced challenges due to the absence of strict environmental management activities (Hong & Chan, 2010), not adequately regulated community participation (Azcarate, 2010), (Tekalign, et al., 2018), (Mozumder, et al., 2018), (Adom, 2019), lack of proper environmental education and awareness (Mondio & Beery, 2019), and lack of infrastructure facilities (Hvenegaard & Dearden, 1998). In 2010, the countries that form the Amazon basin faced more significant challenges in preserving forest resources. Therefore, Program for Ecotourism (PRO ECOTOUR) was designed under three phases to minimize the obstacles, such as identifying the potentials, studying the feasibility, and strengthening activities (Jesus,

2010). Presently, coastal regions face various environmental challenges due to the increasing attraction of tourists worldwide (Lacueva, Clave, & Saladie, 2017). Alteration of coastal habitats such as construct Jetties, marinas, and shoreline protection methods disrupt marine habitat and coastal processes (Cooper & Renard, 2012). The Maldives is well-known islands for coastal tourism. It has 1190 islands and 26 coral atolls. During the first decade of tourism development, there was no specially planned development. Due to this reason, it faces various challenges. Considering these issues, a 10-year zoning plan (1991-2000) was prepared to assess the environmental impact. As a result, they encourage architectural and design control to protect the dynamic coastline (Saeed, 1998). In India-Goa coast have traditional villages along the beach, and it has become very tourist-oriented.

Villagers shifted away from their regular occupation. In addition, unscientific fishing practices and the introduction of anthropogenic materials caused severe environmental damages. Accordingly, the suggestion was put forwarded to adapt systematic study of environmental impact to ensure ecological regulation (Sawkar, et al., 1998), (Jamaliah & Powell, 2018). Climate change is an essential driver of biodiversity loss. The United Nations alarmed that Coastal tourism faces critical challenges by climate change (UNEP, 2009). There are barriers to deal with climate change because of the lack of available information at the local and regional levels (Lacueva, Clave, & Saladie, 2017). Malaysia has several coral Islands along the eastern coast. It gives snorkeling, round island trip, and diving activities (Jaafar & Maideen, 2011). These destinations face significant challenges by climate change, particularly severe environmental degradation due to lack of conservation and poor enforcement (Chan, 2009). In Fiji, Mamanuca Island is highly vulnerable to cyclones and rising sea levels (Bagul, 2013). (Saverimuttu & Varua, 2014) Insisted that financial support is vital for strategic decision-making, especially in dealing with climate change and exploring different adaptation options. Concerning environmental issues, the eco or green concept has been promoted, and environmentally friendly products and services have gained more attention in ecotourism initiatives. Eco-friendly energy sources are encouraged in the tourism sector by various environmental organizations to reduce the environmental impact (Mbaiwa, et al., 2018). Consequently, the eco-lodge design is becoming famous among ecotourism service providers, for instance, luxury African tents, alpine huts, Tea houses in Nepal, and Rustic lean-tos in Brazil (Faith, 2018). Many stories highlighted that the lack of community awareness and participation would lead to conflict between government authorities and local people in ecotourism initiatives. It can be observed in the Ria- Celestan Biosphere reserve –Mexico. Ecotourism still fails to be a real development. Because the Lancheros local community did not get the benefit from ecotourism and they argued that "if the Ria reserve is closed for fishing, it is closed for tourism too."This incident shows that community involvement has not been appropriately regulated (Azcarate, 2010). The same scenario has been observed in park management in Ethiopia (Tekalign, et al., 2018). An eco-development committee with local people has been established in Bitarkanika wildlife sanctuary- India. However, these efforts have not been

expected to empower local people because of their lack of education and skill (Das & Chatterjee, 2005). The challenges have been identified in Conserving Tanoboase Sacred natural sites in Ghana (Adom, 2019) and Kwazulu protected area in South Africa (Adeleke, 2015) due to inadequately regulated community participation, unaware of ecotourism, and ill literacy of community. The suggestions were put forwarded to implement the co-management approach, professional training with NGO's help, and offer financial aid to start-up capital for local people to establish the small-scale enterprises. Meanwhile, most of the countries gained success in ecotourism development through actively involved community participation and awareness. The community forest program in Tumani Tenda mangrove edge tributary village in the Gambia has achieved the expected outcome (Jones, 2005). Luang Namtha ecotourism project in Laos was the model of rural livelihood development and forest conservation (Roche, 2009). Trinidad Villagers have more excellent knowledge of natural resources and awareness of conservation issues. They showed more attention and support for turtle conservation of the ecotourism site of Grande River. By this effort, households are directly benefited from ecotourism (Waylen, et al., 2009). Chip hat Community-based ecotourism project was established in Cardamom Mountain with the help of an Australia-based NGO and IUCN. This project also succeeded by actively involving the local community (Reimer & Walter, 2012).

### 3. METHODOLOGY

This study is based on a synthesis of primary and secondary data. Focus group discussion, In-depth interview, field observation methods have been used to collect primary data. Documents from Delft Divisional Secretariat, Jaffna District Secretariat, Northern Province Tourism Bureau, Sri Lanka Tourism Development Authority, and literature have been used as secondary sources of information.

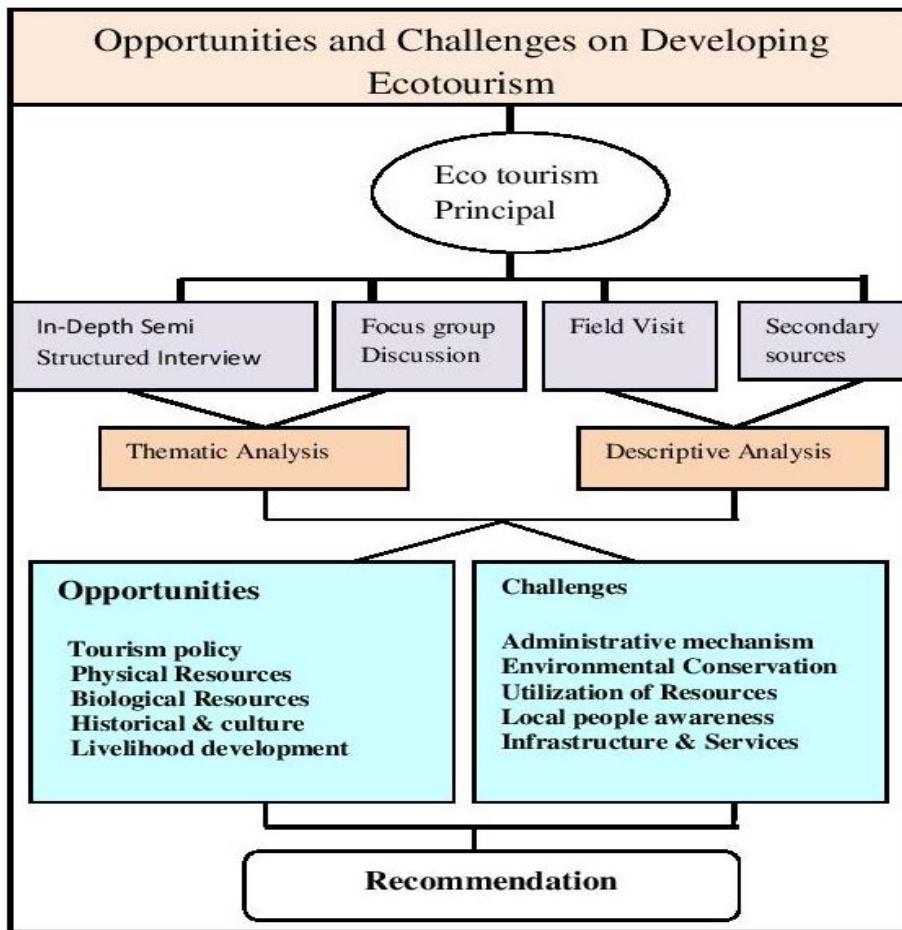
**3.1 Focus Group Discussion (FGD)** has engaged from the community-based organization. Five focus groups have been selected for the discussion during the first phase of the field visit with the help of Grama Niladari at Delft Island. The necessary introductory information has been provided by the researcher who participated in the discussion. Fisher societies (02) and women development society (01), Agriculture society (01), and community center (01) have been included for these purposes. The information related to local community awareness, willingness, expectation, and obstacles in participating in ecotourism development has been gathered from focus groups.

**3.2 In-Depth Semi-Structured Interview:** Totally ten officers have been approached from various government departments attached to tourism-related planning or decision making. While choosing the interviewers, officer-level grade staff have been selected as stakeholder representatives to collect institutional related actions concerning ecotourism development.

The length of the interview was 30-45 minutes. The selection of participants was based on the Judgment Sampling method. Accordingly, opportunities and challenges regarding ecotourism development have been collected through this method.

**3.3 Field Visit** has been conducted to observe the potential site such as a protected area for wild horses, coastal zones, cultural and historical sites, and bird watching sites. In addition, tourist activities, infrastructure and service facilities, and local community participation have been observed during the field visit. The above said primary data collection method has been conducted from August 2019- March 2020.

**3.4 Data Analysis:** Thematic analysis method has employed to analyze data collected via In-Depth semi-structured interviews and focus group discussion. The following steps have been included in this analysis. Typically, the interview and discussion have been recorded, and the data were transcribed in English. Then coding method has been done. Accordingly, sub-themes have been categorized under two main themes. Data collected from field visits and secondary sources have been analyzed using the descriptive analysis method. The following figure 3.1 shows the methodological framework of this study.



**Figure 3.1:** Methodological framework



### 3. FINDING AND DISCUSSION

#### 3.1 Opportunities

##### 3.1.1 Tourism Plans

National Tourism Strategic Plan is being prepared by the Sri Lanka Tourism Development Authority (SLTDA) from time to time. In this context, Delft Island has been prioritized to develop ecotourism in Jaffna District for the first time in the National Tourism Strategic plan prepared in 2017. It is important to note that the Jaffna District has not been included in the previous plans due to the internal war. At present, National Tourism Strategic Plan (2017), Northern Provincial Tourism Strategic Plan (2018), and Jaffna District Sustainable Tourism Development Plan (2018-2022) have been prepared to promote the tourism sector by the SLTDA, Northern Provincial Council, and Jaffna District Secretariat respectively. At this juncture, the study area has been identified as a potential region in all three tourism developmental plans. This is an important phase and seemed to be a milestone in tourism development. It is one of the significant opportunities to promote ecotourism in Delft Island.

##### 3.1.2 Biological and Physical Resources

The biodiversity intrinsic to this area is also helpful to the prospects of ecotourism. According to the study of IUCN, the study area itself has about 209 flowering plants and 146 animal species-including 101 bird species that have been identified on this Island. Out of the 101 bird species, 37 species are migratory birds. This Island seemed to be the resting place for migratory birds which fly across the Palk straight. These birds can be observed during February- March along the southern coastal belt of the study area (Goonatilake et al., 2013). This creates an opportunity for bird watching in this region.

Delft Island is the only habitat where wild horses are living in Sri Lanka. This is one of the important tourist sites on this Island and had a chance to develop ecotourism. The gazettelement of a national park is the first initiative to preserve the biodiversity in the study area. As a result, the region of wild horses has been declared (1920/3) as a National park on 2015.06.22. It covers around 1864 ha. This is an excellent opportunity to promote ecotourism based on the national park. In addition, several herbs are spread on this Island that can be used for Ayurveda medicines. Mainly, naturally grown Aloe Vera is abundantly spread along the coastal side. This is widely used for natural treatment and beauty culture. This kind of product can attract ecotourism. Another unique feature is the giant Baobab tree (*Adansoniadigitata*) which is not native to this area and considered to be brought for horse feeding by the Arabic merchant long ago. This is one of the historical remnants of the study area. Further, the Banyan tree (*Ficus benghalensis*) is considered a distinctive feature –grown up to 20-25 meter height, with its canopy spreading to almost one hectare. It functions as a roof for the underlying area. Presently, both these sites are attracting the tourist. Another vital resource is Palmyra trees which are widely spread in

Delft Island. Most traditional foods and nonfood products are prepared from Palmyra, which is now gaining popularity among tourists in Jaffna. Even though a lot of resources are available in this region, there is a shortage of supply. While optimally utilizing this resource, there are possibilities to develop the cottage industries as well as produce eco-friendly products. Furthermore, fishing resources are abundantly available. Conventional fishing methods are used to catch fish along the coast of this Island. 50% of the people in the total population engaged in fishing-related activities, thus providing the opportunity to incorporate the local people in the coastal tourism development. Tourism plans are also targeted to promote ecotourism by utilizing the local resources in Delft Island. In addition, notable physical features of the study area attract visitors. Mainly, a pristine white sand coastal area with shallow water makes this Island an attraction for local and foreign tourists. Significantly, the beach on the northern coastline is suitable for sea bathing and boating.

Furthermore, there is a potentiality for windsurfing, kite surfing, snorkeling, and water sports along the southern coastal belt (Wijayawardene, Witharanage, & Fahim, 2015). Coral and limestone features are the uniqueness of this region. Boundary walls made of coral, giant footprints, and growing stones are the attraction of the tourist. Apart from these, the sensational sun setting view on this Island is exciting and mind soothing.

### **3.1.3 Livelihood Development**

The priority is given by the tourism authorities to utilize the available local resources with the help of the local community because this Island lacks resources for large-scale development. In this context, activities can regulate to promote homestay in rural setup. It will help to improve the income of the local people. In addition, the women development societies of the study area are interested in developing the cottage industries. Especially the Palmyra-based cottage industries, which can provide both food and nonfood-based products. This resource is abundantly available on this Island.

Further, this Island is relatively far away from the mainland. Therefore, most of the people depend on the natural resources within the study area for their livelihood. After the resettlement, 4,587 persons belonging to 1,441 families are living in the study area. One-third of the total population (496 families) is below the poverty line, and there are also 225 women headed families. As a result, there are opportunities to absorb the local people into the tourism sector, and it will create the opportunity to promote their livelihood.

### **3.1.4 History and Culture**

Besides the natural features, Delft Island boasts several historical and archeological important sites (remnant of the colonial period) compared with another part of Jaffna District such as Pigeon's nest, Queen Tower, Meekman Dutch fort, Horse stable, VEDIYARASAN fort, Ancient rural court, Old Chola Hindu temple, Dutch hospital and old church. These historically significant places in this region have been declared a

conservation area to protect the monuments by the Archaeological department in 2007, 2011, 2013, and 2014. This added the opportunity to attract tourists.

In addition, it is a crucial opportunity to note that the distinctive local culture and the traditional aesthetic value of the local communities also enrich the value of ecotourism on this Island. The people of the study area still follow the traditional culture. They are interested in Naddu Kuthu, Sinthu style drama, musical play, Villisai and Kummi. These are the opportunities to promote Cultural tourism by incorporating local people in Delft Island.

## **3.2 Challenges**

### **3.2.1 Administrative Mechanism**

Both Central and provincial government institutions are working with tourism development activities. The Sri Lanka Tourism Development Authority, which comes under the administration of the central Government, is preparing a strategic tourism plan for the whole of Sri Lanka. Northern Province Tourism Bureau functioning under the Provincial council administration, is preparing the plan for Northern Province tourism development at regional levels. At this juncture, non-consensus between these "two-tier" systems may lead to many difficulties in establishing the essential infrastructure and service facilities for tourists. Even though most of the officers highlighted the importance of establishing a tourist comfort zone at Delft Island, there is a delay in getting this proposal materialized. During the interview with government officers, it can be identified that there is a lack of interdepartmental coordination among the government institutions in carrying out the eco-tourism initiatives. Coordinated actions are very essential to implement the ecotourism projects successfully. Particularly Divisional Secretariat, Local authority, Central Environmental Authority, Coastal Conservation Department, Wildlife Conservation Department, Land use planning division, Fisheries department, Palmyrah Development Board, Sri Lanka Tourism Development Authority, and Northern Province Tourism Bureau are the essential institutions that work together in this regard.

### **3.2.2 Environmental Conservation**

The major part of Delft Island has been declared as the national park for the conservation of wild horses. However, one-third of the total area of the Island has come under this National park boundary, including the sites that are meant for their developmental activities. This demarcation was done without proper consultation of stakeholders. It has created an adverse situation among the government officers as well as the public regarding this matter. This led to a negative impact and hindered in gaining local people participation in environmental conservation efforts. This creates a panic situation among the local people, and they feel that their land will encroach. The same problem can observe in other

protected areas of the Jaffna District. This is the major challenge to be solved to manage the national parks. The area of wild horses considers as an essential ecotourism site in the study area. Though the wildlife conservation department maintained this area, there is a scarcity of feed for horses, and it seems to be a significant problem in drought seasons. The small tanks are filled with water during drought seasons. However, it is also not enough for horses, and the death of horses has been reported during acute drought seasons. So far, there are no action plans for the sustainability of the habitat and supply of enough feeding during the adverse seasons. It is also indicated that these horses are genetically changing to adapt to climate change impact.

The International Union has conducted studies about the biodiversity of this region for the conservation of nature. But no measures have been taken in this regard so far. The impact of climate change around the Indian Ocean countries at varying degrees. There is an urgent need to implement mitigation measures for climate change impact on this Island. It will indeed affect the physical and biological environment as well as the initiatives of sustainable ecotourism development.

### **3.2.3 Utilization of Resources**

The main target of the tourism development of Delft Island is to utilize the coastal resources by involving the fishing community. But, the fishing community is not interested in reaping the potentiality. Fishing around this Island has been exploited by the people coming from other parts of Jaffna and India. The illegal poaching over Sri Lankan waters by Indian trawlers makes the scarcity of fish resources. Focus group discussion reveals that the fishing community members hesitate to make them ready to be involved in tourism development and cite various reasons. They feel that they can earn the income only during the seasons and not throughout the whole year regularly. This seems to be a significant challenge in cooperating with the local community. Another essential resource is Palmyra and has high demand among tourists. If these resources are utilized properly, it will attract the tourist to this Island with different experiences.

### **3.2.4 Infrastructure and Service Facilities**

The flow of tourists is increasing gradually year by year to the study area. The sea route facilities from "Kurikadduvan" to Delft Island and road transport within the Island are not suitable. At present, tourists travel by the local boat service. This caused inconvenience and insecurity for them. It has been observed during the field visit.

In addition, there is conflict among administrators in co-coordinating the boat service for the convenience of tourists. Further, for a long time, the internal roads have not been constructed due to the war. This is the main barrier to development. The main mode of transport within the Island is by three-wheelers, motorbikes, and bicycles. Most of the tourists prefer cycling as an eco-friendly transport. This is a suitable mode of

transportation within the Island (Island length is 8 km, width 6 km). But, internal roads are not ideal for this kind of transport right now.

Another important issue is the absence of well-trained guides, and communication barriers are the major drawbacks to provide valuable guides on this Island. Most of the tourists come with guides from the Southern part of the Country. Whether these guides who are not well-versed with the Northern region could provide proper guidance regarding the Island is the question in the mind of the people concerned. At this juncture, it is essential to have even a small number of trained guides within the Island.

### **3.2.5 Local People Awareness and Participation**

The local community in this region has griped within the long-term ethnic war. Therefore, they have lack of awareness and understanding in participating in ecotourism development activities. During the interview, most of the officers (8 officers) also have mentioned that the most critical challenge is the lack of awareness and participation among the local community in tourism-related projects. Further, it can be identified that the traditional value and culture of the local people affect in providing satisfactory services with ecotourism development. During the internal war, most of the people had fled from the Island and settled in other parts of the Country. Presently, they have started to resettle on the Island. The population of this region is very small (1441 families, 4687 people), and they are getting various kinds of livelihood assistance for their rehabilitation. In addition, one-third of the population receives assistance from "Samurthi," which is provided to the people living below the poverty line. Only 245 families have government jobs. The remaining are engaging in self-employment within the Island, even though they are not ready to move up in their lives with changing scenarios and lack of awareness regarding the potentialities of tourism development.

## **4. CONCLUSION**

This study indicates several opportunities to realize ecotourism development in Delft Island. However, challenges also have been highlighted in different aspects. Priority has been given to promote ecotourism in Delft Island by the National and Provincial Government. But the process goes very slowly. Even though the number of tourists visiting the Island is increasing, the lack of environmental conservation measures, basic infrastructure and service facilities, awareness, and involvement of the local community may negatively impact the minds of the tourists. It will affect tourist arrival in the future. It should be pointed out that activities should be carried out to study the ecotourism potential, environmental concern, facility management and the attitude of local people in the initial stage of ecotourism development. Though it is very conducive to promote ecotourism in Delft Island, it should be in harmony with the local culture, tradition and

preserve the intrinsic nature of the Island. People should also come out of the traditional social fabric and get acclimatized to the changing social norms to keep pace with the changing world. It is essential to conduct intensive training programs to strengthen the local community and provide various assistance to encourage the local people in the initial stage of development. There is the possibility to develop as an "eco-friendly" tourism Island with the concerted effort among all stakeholders.

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