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# The Contribution of Physical Factors and Cultural Reinforcement Activities in the Tourism Industry of Nuwara Eliya

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**Abstract:** *The tourism industry is one of the major sources of income in the world. Thus, Sri Lanka is a pearl of the Indian Ocean that excels in the field of tourism. Sri Lanka is an island nation surrounded by the sea, blended with natural forest ecosystems and rich biodiversity. Nuwara Eliya is one of the most important tourist destinations in Sri Lanka, located amidst the central hill mass of the island. The research titled “The Contribution of Physical Factors and Cultural Reinforcement Activities in the Tourism Industry of Nuwara Eliya” is fully focused on the contribution of physical properties and cultural strengthening activities in the tourism industry of Nuwara Eliya. The objectives of the study are to identify the importance of physical factors in the tourism industry in Nuwara-Eliya and to present the cultural and reinforcement measures to be taken to promote tourism in the study area. Quantitative and qualitative data for the study area have been systematically obtained and the data were analyzed comprehensively using the compilation and inference methods. Secondary data were obtained from previous research, published articles, unpublished books and satellite images. Spatial and attribute data were analyzed using Arc GIS 10.3 and MS-Excel 2016 software, in order to find out the physical properties that contribute Nuwara Eliya tourism industry. As well the study further highlights tourism development through cultural reinforcement activities.*

**Keywords:** *Bio-Diversity, Cultural Reinforcement, Nuwara Eliya, Physical Features, Sustainability, Tourism.*

## **1. INTRODUCTION**

The tourism industry is one of the major sources of income in the World. Individuals become tourists when they voluntarily leave their normal surroundings, where they reside, to visit another environment (Camilleri, 2018). Tourism is one of the major income-generating sectors in the world. The tourism sector operates under five main sectors namely the transport sector, food sector, accommodation, leisure and entertainment and tourism services. In the post-war period, tourist arrivals have steadily increased. Sri Lanka is known as “*Little England*” in the tourism industry. Nuwara Eliya is one of the most important tourist destinations in Sri Lanka. It is located in the central highlands of the island. Nuwara-Eliya district plays a vital role in attracting and motivating the tourism industry in Sri Lanka (Jayasinhe, 2015). Thus, Sri Lanka is the pearl of the Indian Ocean that excels in tourism. Sri Lanka is an island surrounded by sea and coupled with natural forest ecosystems and rich biological diversity. According to Harshani (2019), Nuwara Eliya has the best climate in the world after Switzerland and California. In that sense, Nuwara Eliya attracts local and foreign tourists with its own specific nature.

Especially the historic cities of Sri Lanka such as Anuradhapura and Polonnaruwa are tourist destinations based mostly on cultural features such as ancient historical buildings, sculptures, temples and ponds. However, the study area of Nuwara Eliya is an ideal tourist destination mainly based on its physical characteristics. Based on that, the physical characteristics of the region such as topography, climate, soil type, water resources, biodiversity, and plant diversity play an important role in making this region one of the best tourist destinations in Sri Lanka. In addition, just like the physical features, the cultural aspects of a region have a great influence on the development of tourism in a region.

The places that attract tourists to Nuwara Eliya are Lake Gregory, Golf Ground, Galways Park, Victoria Park, Horton Plains, Moon Plains, Seethaeliya Temple, Ambewela Farm, Labukale Tea Factory, Kuda Oya, Boralanda Tea Factory. Lover’s Leap Falls, colonial architecture and flower Farms are also considered major tourist attraction destinations. Cultural features fulfil all the needs of tourists who come to discover the physical features of Nuwara Eliya. For instance, the houses and buildings; hotels, restaurants, infrastructural facilities and communication facilities which are located all the way from the tourist route network make their tourism more satisfying. Therefore, the physical features and cultural features of the area have a great influence in promoting tourism. As far as Nuwara Eliya District is concerned, there is a need to strengthen the cultural aspects focusing on the tourism sector. Thus, by strengthening more facilities the tourism industry in the region can be further developed. This study explores and analyzes the contribution of physical characteristics of the region in the tourism sector of Nuwara Eliya district and clearly presents the cultural strengthening measures to be taken to improve tourism in the region.

## 2. MATERIAL AND METHODS

### Study area

The study area, Nuwara Eliya District is located in the Central Province. Nuwara Eliya is a major city in Sri Lanka's scenic beauty. This district is located at an altitude of 200 meters. North latitude is located between  $60^{\circ} 58' 14$  and East longitude is between  $80^{\circ} 46'$ . The average temperature is between  $14^{\circ} \text{C} - 18^{\circ} \text{C}$  at the same time, the annual average rainfall is between 1900 mm – 2500 mm. This city is one of the major and famous tourist cities in Sri Lanka.

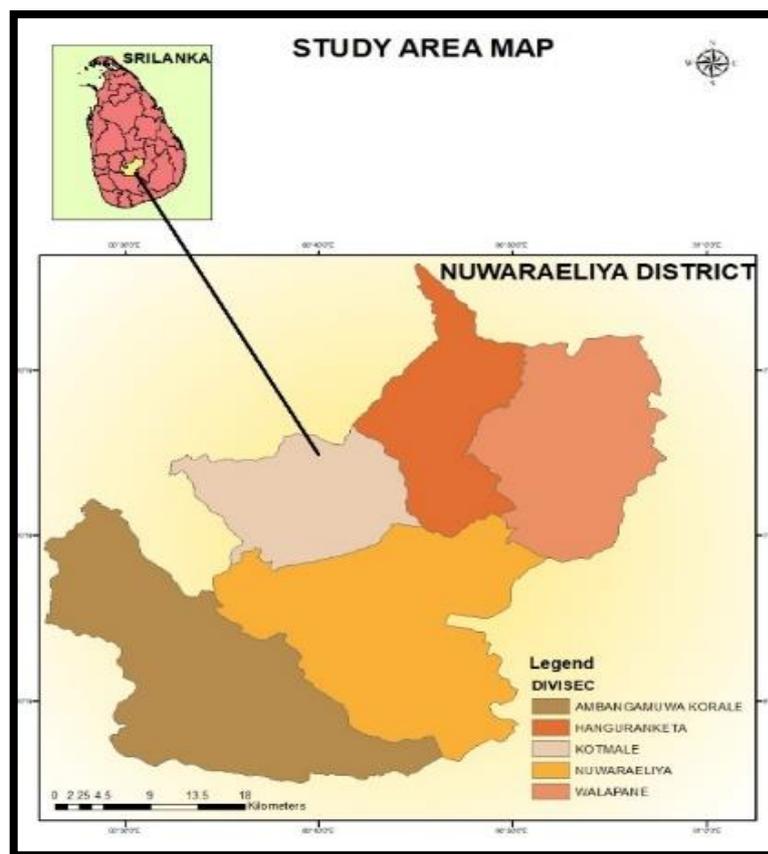


Figure 1: Study Area

Source: Retrieved using ArcGIS 10.3

### Objectives

- To identify the importance of physical factors of the tourism industry in Nuwara-Eliya.
- To propose cultural reinforcement measures to be taken to improve the tourism sector in Nuwara-Eliya district

### Methodology

Results have been obtained by collecting and analyzing through qualitative and quantitative methods. Here the data is obtained from secondary sources. Annual Tourism Reports, Nuwara Eliya City Council Handbooks, Climate Reports, Divisional Council's City Development Plan

Reports, Statistics, Tables, Charts and Newspapers, and Website Statistics have been obtained for this study. As the data collected for the purpose of the study includes both qualitative and quantitative data and qualitative data is analyzed logically while quantitative data is analyzed using MS Excel. Also, the data describing the physical features of the Nuwara Eliya district was analyzed and described based on the GIS software. The qualitative data are presented descriptively and qualitative data are explained by numerical statistics in the form of tables and graphs.

### 3. RESULTS AND DISCUSSION

Physical features such as topography, climate, soil and water resources, and plant biodiversity play a major role in the tourism industry of Nuwara Eliya.

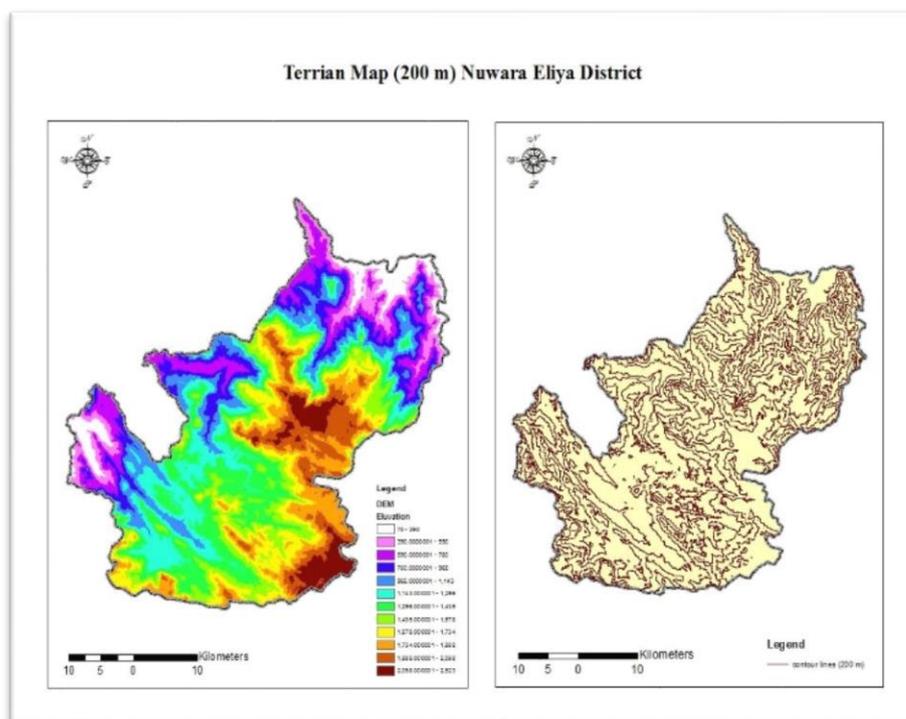


Figure 2: Terrain Map of Nuwara-Eliya  
Source: Retrieved using ArcGIS 10.3 by Author

#### Topography

The mountain ranges at an altitude of 200 meters further enhance the aesthetics of Nuwara Eliya. The major attractions in this region are Pithuruthalakala, Kikiliyamanna, and Hakala Hills. Tea and natural forests are found on the top of the hills. Hence it assists in enhancing the natural beauty of the area. The topography plays a vital role in attracting tourists here. Camping in the high mountains, camping, and spending the night with fires are the major leisure activities for tourists.

### Climate

The average temperature of Nuwara Eliya is 20°C. As this region is located at an altitude of more than 200 meters above sea level, the region has a favorable climate due to the lapse rate. Additionally, people enjoy visiting this tourist attraction because of the excessive humidity in this area. The climate of Nuwara Eliya is unmatched by any other city in South Asia. Between the months of April and December, a lot of people go from various regions of Sri Lanka to this area. All of these are for the local climate.

Table 1: Annual Rainfall and Temperature

Year	Annual average high temperature	Annual average low temperature	Annual average temperature
2016	20.5	11.76	147.6
2017	19.9	12.08	179.8
2018	20.2	12.32	154.8
2019	20.5	12.30	168.4
2020	20.6	12.39	94.8

Source: Department of Meteorology, 2021

### Drainage features

The river network in Nuwara Eliya includes Nanu Oya Stream, Water Field Drive, Gregory Lake, Barrack Plain, Glainfall, Lover's Leap and many other water resources that maintain the uniqueness of the region. About 2m of Nuwara Eliya's total land area is covered by water.

Water resources such as waterfalls, streams and lakes are considered the most valuable asset in achieving the goal of Nuwara Eliya's unique environment. This region receives 200 days of rainfall in a year. Gregory Lake was created by Sir William Gregory, the Governor of Sri Lanka during the British period (1872-1877). Nuwara Eliya district is the source of major rivers Uma Oya, Kothmalai Oya and Mahavali Ganga. As such excellent drainage features are located in a way that attracts tourists, it contributes greatly to the development of the tourism sector and reinforces the sustainability of the tourism sector.

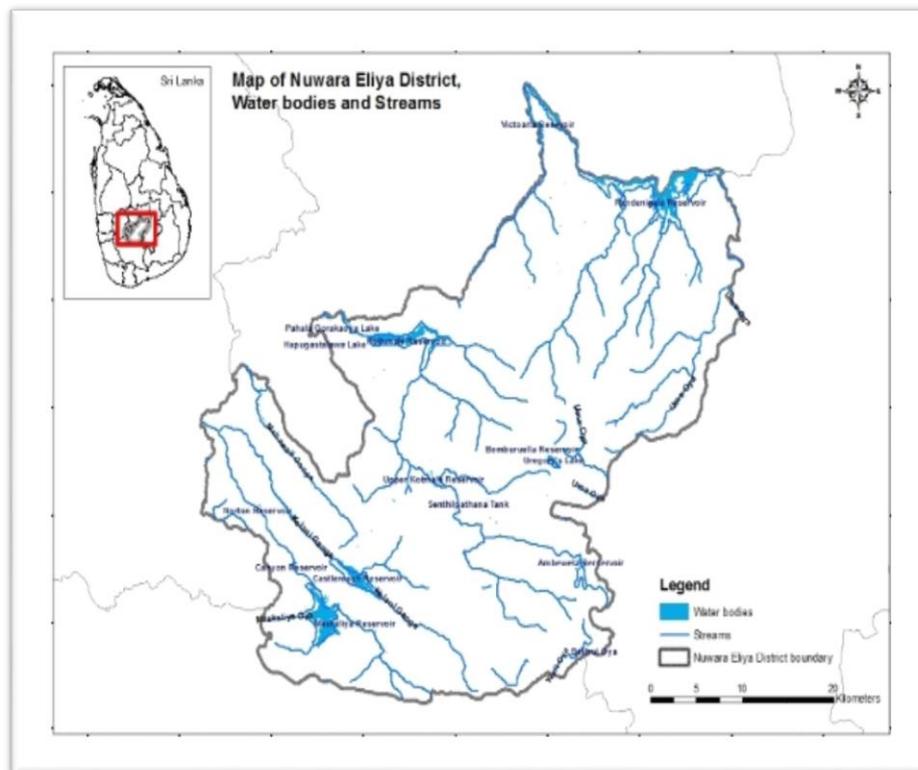


Figure 3: drainage system of Nuwara-Eliya  
Source: Retrieved using ArcGIS 10.3 by Author

### Forest cover

The existing forest area is a very special feature when considering the unique tourist attraction of Nuwara-Eliya. In that manner, Pethuruthalagala Mountains, and Hakkala Forests are the more special features with greenery. Nearly 34 m of land areas are covered with forest. Many people visit this region to stay in these forests and spend their leisure time with nature.

### Plant diversity

Native flowers and horticultural flowers are abundant in this area. The Eye-catching variety of flowers is a major attraction for tourists. Also, during spring, thousands of tourists visit this region to see the flower exhibitions.

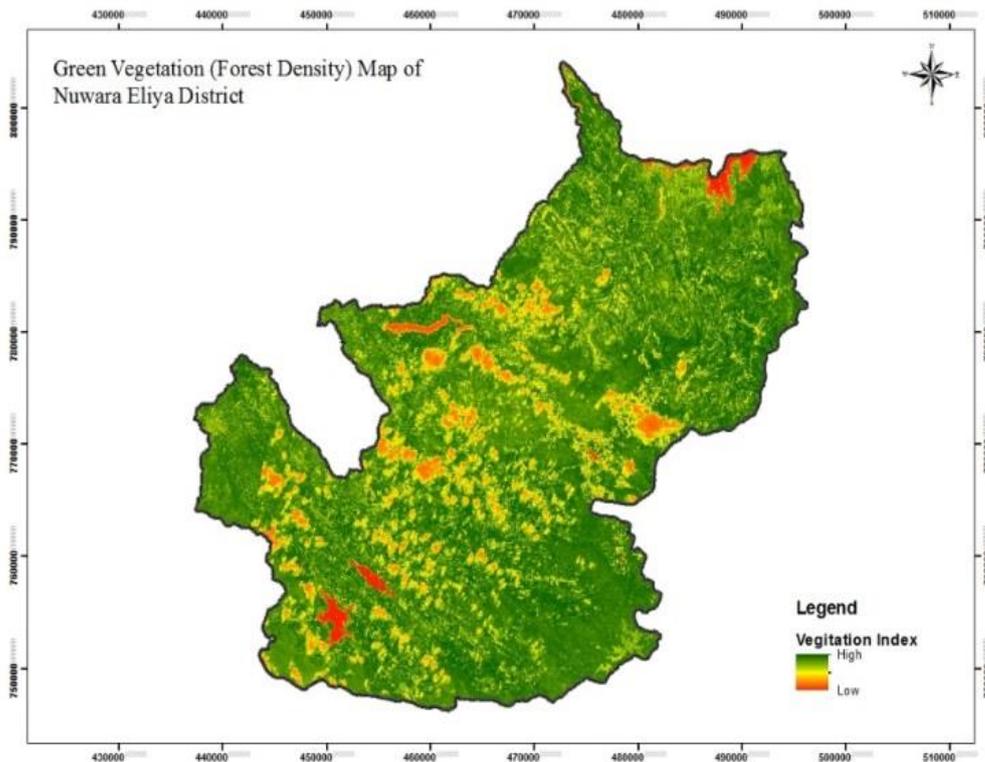


Figure 4: Vegetation cover of Nuwara-Eliya  
Source: Retrieved using ArcGIS 10.3 by Author

Table 2: Tourist details to visit Nuwara-Eliya – 2018  
Source: Urban Development Authority, 2019

Places	Foreign Tourists	Local Tourists
<u>Haggala</u>	29192	956815
Horton Plains	131670	319999
<u>Galways</u>	198	3345
Gregory Park	61622	721495

Flower species such as Gebara, Deasy, Babandesiya, Kaneshan, Krishanthimum, Asthemeriya, Lilly, Roses, and Hydringia are widely found in this region. Also, various species of Butterflies, beetles and bees are found around these flowers. Ornamental flower cultivation is carried out for the arrival of tourists in places such as Mipilimanna, Wajirapura, Lover’s Leap, Shanthipura, and Kande Ela. Cultural strengthening activities when it comes to the cultural features that promote tourism in Nuwara Eliya, the tribes mainly fall into four categories.

**Cultural Reinforcement Activities**

Table 3: The most prominent aspects of Nuwara Eliya

Physical Resources	Cultural Events	Services	Lows and Administrations
Hotel Restaurants Accommodations Transport Media Facilities Water supply Electricity Parks Health Facilities	Cultural activities Ceremonies Historical Features Music Rhythmic dances	Banks Insurance Guides Tourist Agents	Lows Administrative Regulations on immigration and migration Lows

Source: Urban Development Authority, 2019

Thus, the region's tourism sector can be improved further by strengthening the cultural features found in this way. Based on that, some of the prominent buildings found in Nuwara Eliya were built during the British colonial rule and these belong to Victorian, Georgian, and British architectural elements. These antiquity buildings now belong to this district thus they have a great influence on the tourism sector because of their architectural style. On the other hand, these buildings excel in their beauty.



Grand Hotel



The Queen's Cottage



The Hill Club

The substandard low-quality housing is also found in this area plays a major role in Nuwara Eliya's deterrent to tourism. For instance, Bambarakale, Bangalahatta, Hawa Eliya Kalapura, Ruwayeliya, Seetheliya and Chandrapura are low-quality range houses here. Upgrading these can increase the economy of the area through the arrival of tourists.

Table 4 : Types of the houses

Source: Census and Statistics Department, 2018

	Scurrility of Houses	1 Floor houses	2 Floor houses	Houses with more than 2 floors	Attached houses	Flats	Twin houses	Lime Houses	shanties
Total	224	6861	791	71	483	19	231	2184	144
As a percentage of the existing total houses	2.1	63.6	7.3	0.7	4.5	0.2	2.1	20.3	1.3

Organizing seasonal festivals is an important aspect to be strengthened to promote tourism in Nuwara Eliya. A seasonal festival is held in April every annum. Every year, the celebrations/festivals draw 100,000–200,000 local tourists. However, the number of people may be expanded and drawn, and tourism can be further improved, by developing numerous events throughout the year. As this study area is located near the upcountry’s railway tract, tourists make their tourism experience much better by means of railway transport. The majority of travelers, tourists and visitors are interested in taking the railway due to the upcountry's stunning scenery, particularly that of Nuwara Eliya. Therefore, through advancing rail transportation, the goal may be accomplished. Because the roads become slick during monsoons, further increasing the road network, providing highway roads, and improving transportation services also improves the manner in which tourist generates cash. Therefore, building good, secure roads and assessing and setting up electric land posts on both sides of the roadways may help enhance tourism. In terms of vegetable farming, Nuwara Eliya is a leading region in the world. For the beautiful vistas of the gardens, many people travel great distances to visit. Therefore, by enhancing cultivation via the use of modern technology, agriculture development plans may also benefit the agricultural sector.

#### 4. CONCLUSION

One of the main industries in the globe that generates revenue is tourism. A significant industry in many nations is tourism. As a result, the Nuwara Eliya area is regarded as a significant district in Sri Lanka's tourism industry that draws more visitors/ tourists and generates more revenue. The district's physical characteristics and natural beauty are the primary factors in its popularity with tourists and its ability to draw both domestic and international visitors in great numbers. The district's provision of cultural amenities for visitors is the primary cause. However, the region's tourism industry may be further grown and Sri Lanka's economy can significantly improve by increasing these cultural components in accordance with the demands of visitors and their comfort.

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