

Ella

#theMountain  Gallery

Tourism Development Master Plan
2020-2030

Volume I- Part A



Research & Development Division
Urban Development Authority

Ella

Tourism Development Master Plan 2020-2030

Consultancy Assignment on Preparation of Tourism Development Master Plans for
Seven Tourism Areas Identified by Sri Lanka Tourism Development Authority

Final Report

August, 2020

Submitted by



Urban Development Authority
Sri Lanka

Ella Tourism Development Master Plan

2020-2030 Final Report

Consultancy Assignment	Preparation of Tourism Development Master Plans for Seven Tourism Areas Identified by Sri Lanka Tourism Development Authority
Client	Sri Lanka Tourism Development Authority 
Consultant	Urban Development Authority of Sri Lanka 
Project No. 02	Preparation of Ella Tourism Development Master Plan
Submission	Final Report
Submission Date	20 th August, 2020

Planning Team

Overall Supervision by: Plnr M.P. Ranathunga - **Deputy Director General (Planning) - UDA**

Team Leader – Plnr. Janak Ranaweera **Director (Southern Province) - UDA**

Deputy Team Leader - Plnr. D.M. Sisira Dissanayake **Director (Uva Province) - UDA**

Plnr. Priyani Nawaratne – **Director (Research and Development) - UDA**

Plnr. Nirmala Kulatunga – **Deputy Director (Planning) - Research and Development Division, UDA**

Plnr Thushani De Alwis – **Real Estate Consultant - Director (Strategic Planning) - UDA**

Prof. Jagath Manathunga – **Environment & Infrastructure Consultant**

Prof. Rangajeewa Rathnayake – **Socio-economic Consultant**

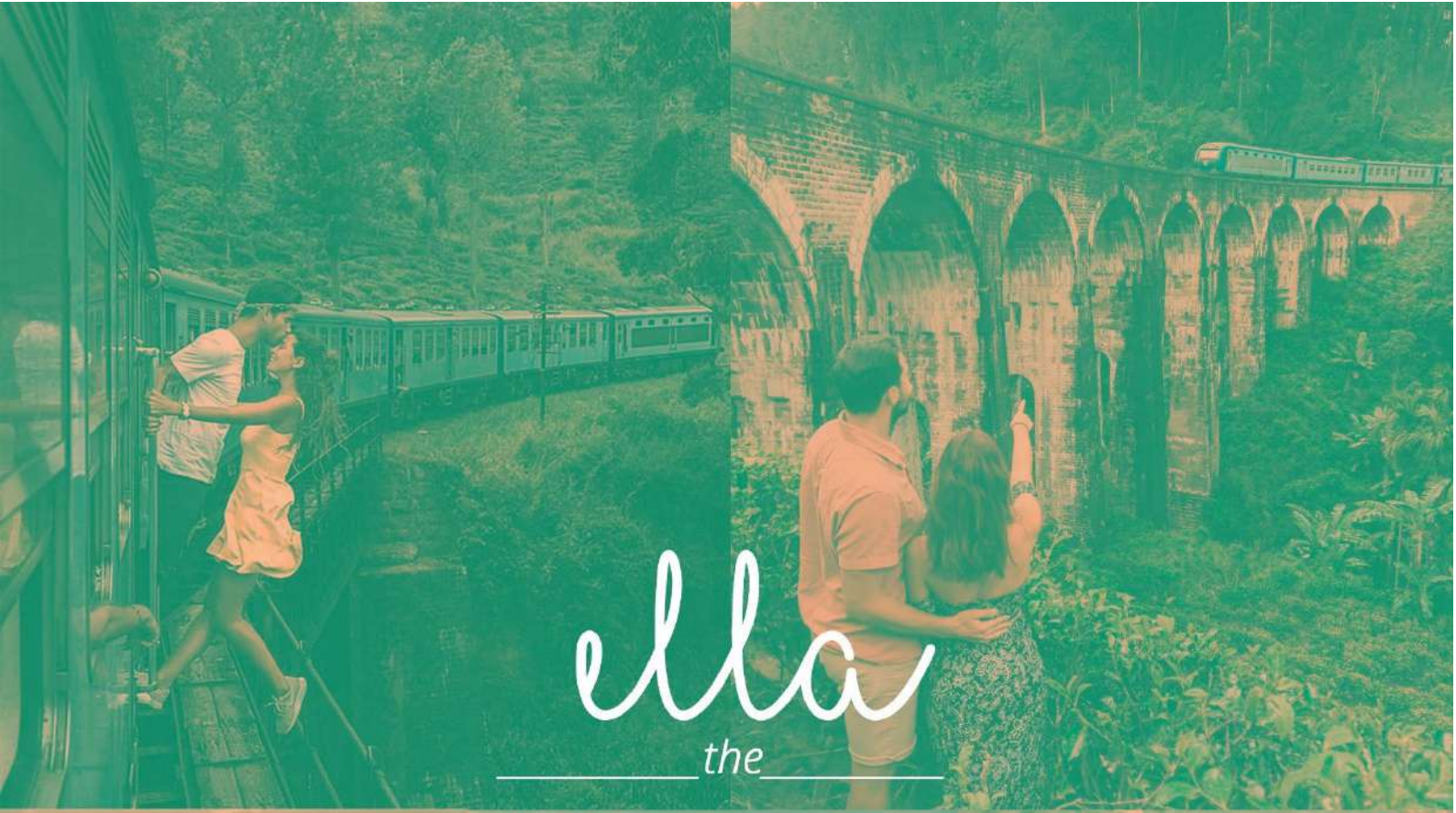
Eng. R.A. Sudath – **Transport Consultant**

Mr. M.N.L. Lantra – **Tourism Consultant**

Plnr. I.S. Biyanwila – **Town Planner**

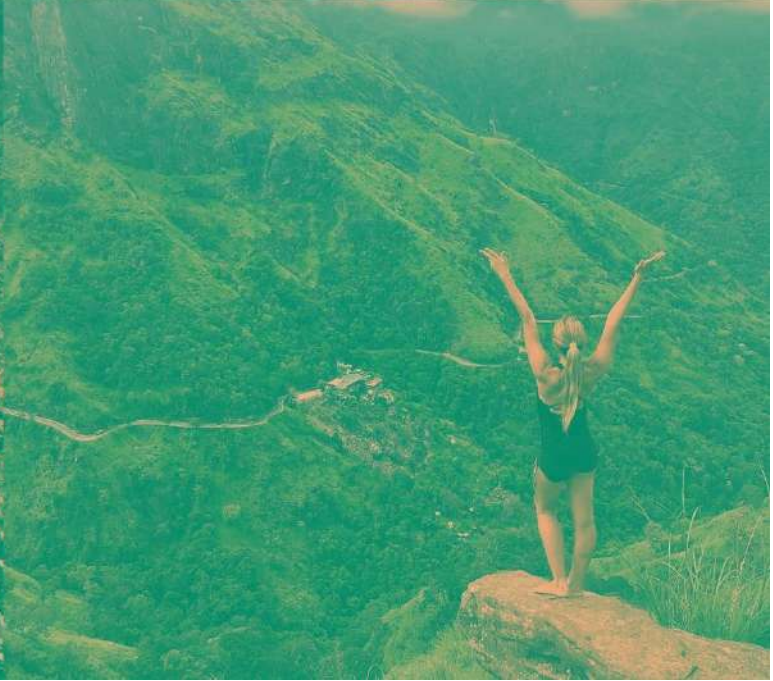
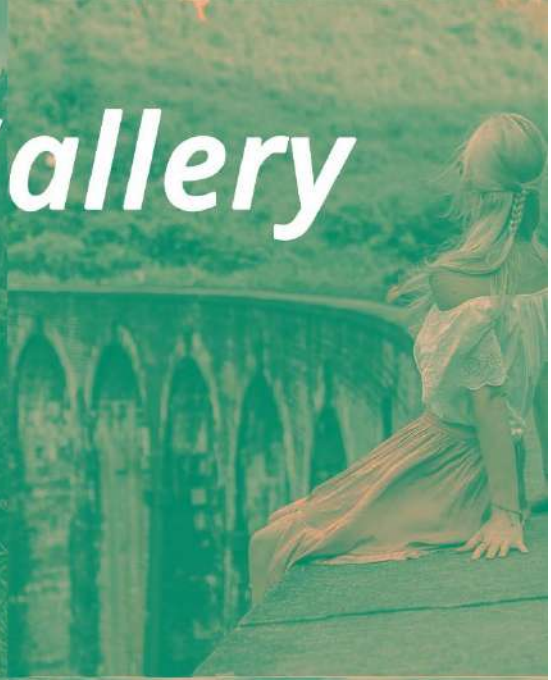
Junior Town Planners/ GIS Assistants

Plnr. Nishamani Abeyrathna – **Assistant Director (Planning) – Kandy District Office**, Plnr. Lakshan Dissanayake – **Town Planner - R&D Division**, Plnr. Sukhitha Ranasinghe – **Town Planner - R&D Division**, Plnr. Madhuka Thamarasi – **Town Planner - R&D Division**, Plnr. M.M. Riswan **Town Planner R&D - Division**, Plnr. J. Nadeesha Karunasena – **Town Planner - R&D Division**, Mr. Vichithra Sampath – **Town Planner - R&D Division**, Plnr. Uditha Jayampath – **Town Planner - R&D Division**, Plnr. Chulesha Geeganage – **Town Planner - R&D Division**, Ms. Sathya Meepagala **Town Planner - R&D Division**, Ms. Aloka Fraser **Town Planner - R&D Division**, Ms. Monali Rupasinghe **Town Planner - R&D Division**, Mr. Kasun Chathuranga **Town Planner - R&D Division**, Mr. R. M. S Rajapaksha **Enforcement Planner – Badulla District Office**, Ms. A. H. A. O Thusara **Town Planner – Badulla District Office**



ella
the

#Mountain_Gallery





Nil Diya Pokuna



Nine Arch



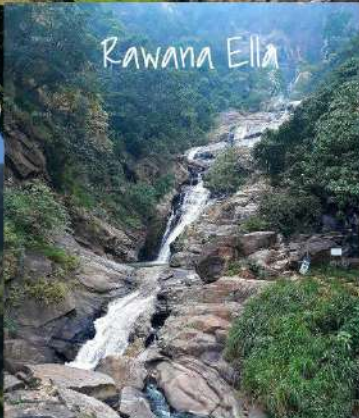
Ella Rock and Road



Rakkhiththakanda Raja Maha Viharaya



Ella Gap



Ravana Ella



CHILL RESTAURANT



98 ACRES RESORT AND SPA



DOWA TEMPLE



Kurullamala





Acknowledgment

The Ella Tourism Development Master Plan (Ella TDMP) is a part of the Consultancy Assignment undertaken by the Urban Development Authority under the title, Preparation of Tourism Development Master Plans for Seven Tourism Areas identified by the Sri Lanka Tourism Development Authority. The Ella TDMP was prepared under the supervision and encouragement of many individuals and institutions.

The Minister of Tourism, is highly appreciated for his kind guidance to make this initiative a success. The advices and support given by the Secretary to the Ministry of Tourism and fellow staff are also highly appreciated.

Special thanks is extended to the Minister of Urban Development and Housing for his directions and support in completing this assignment. The Secretary to the Ministry of Urban Development and Housing and the fellow staff are also remembered with gratitude.

The Ella TDMP greatly benefitted from the contribution of Chairmen and Divisional Secretaries of Ella Pradeshiya Sabha and

DSD. Thus, special gratitude is extended to all of them. The valuable contribution and support extended by the Sri Lanka Tourism Development Authority are remarked with great appreciation at this point.

Ella TDMP team is grateful to all hoteliers in Ella Tourism Planning Area, Central Environmental Authority, Forest Department, Department of Wildlife Conservation, Road Development Authority and other relevant agencies for their immense contribution, stimulating suggestions and encouragement.

The Chairman and Director General of Urban Development Authority are recalled with great appreciation for continuous guidance and encouragement given throughout in preparing the Ella TDMP.

Furthermore, the staff members of Badulla UDA Office, Research & Development Division and all who contributed towards Ella TDMP in numerous ways are acknowledged with much appreciation for enabling the successful completion of the assignment.

Contents

Chapter 01

1. Introduction to the Project Preparation of Ella Tourism Development Master Plan..... 1

- 1.1 Project Inception..... 1
- 1.2 Ella Tourism Planning Area 2
- 1.3 Statutory Provisions for planning Ella 4
- 1.4 Objective of the Ella TDMP 4
- 1.5 Scope of the “Ella” Tourism Development Master Plan 4
 - 1.5.1 Geographic Scope..... 4
 - 1.5.2 Scope in terms of Effective Time Period 5
- 1.6 Planning Approach & Methodology 5
 - 1.6.1 Strategic Planning Process – First Phase 6
- 1.7 Key Stakeholders of Ella TDMP 8

2. Tourism in the International and Sri Lankan Contexts..... 11

- 2.1 “Tourism” 11
- 2.2 World Tourism Trends 12
 - 2.2.1 Tourism as a Trending Industry.. 12
 - 2.2.2 Trending Tourism Types and Concepts 18
 - 2.2.3 Travel Trends 19
- 2.3 Tourism in Sri Lanka..... 20

- 2.3.1 Sri Lanka in World Tourism Rankings 21
- 2.3.2 Sri Lanka’s best Tourism Products..... 22
- 2.3.3 Tourism as a Growing Industry in Sri Lanka 26
- 2.3.4 Source Markets of Sri Lanka’s Tourism Industry 27
- 2.3.5 Seasonality in Sri Lanka’s Tourism..... 28
- 2.3.6 Booking & Travel Trends 28
- 2.3.7 Future of Sri Lanka’s 28

3. Tourism in Ella 33

- 3.1 Ella as one of the Best Destinations in the World for Nature Lovers 33
 - 3.1.1 Climate of Ella 33
 - 3.1.2 Climate and the Unique Vegetation Character of Ella ... 35
 - 3.1.3 Natural Landscape of Ella 36
 - 3.1.4 Popular Places to visit in Ella .. 38
- 3.2 Emergence of Ella as a Tourism Destination 46
 - 3.2.1 Ella in Stone Age 46
 - 3.2.2 Ella in 7000BC 47
 - 3.2.3 Ella in King Walgamba Period . 48
 - 3.2.4 Ella during Colonial Period..... 49
 - 3.2.5 Ella as Tourism Destination 49
- 3.3 Previous Planning Attempts..... 49
- 3.4 Present Tourism Functional Pattern in Ella 55
 - 3.4.1 Tourism Cluster of Ella 55
- 3.5 Tourist Arrivals at Ella 61
 - 3.5.1 Volume of Tourists 61
 - 3.5.2 Types of Tourists 62
 - 3.5.3 Duration of Stay in Ella 63
- 3.6 Land Use and Tourism in Ella 64

3.7	How Infrastructure facilitates the Tourism Industry in Ella	68
3.7.1	Transport	68
3.7.2	Water Supply	73
3.7.3	Electricity Supply	75
3.7.4	Drainage Network	76
3.7.5	Sewage system	78
3.7.6	Solid Waste Disposal	78
3.8	Community and Tourism in Ella .	79

4. The need of Ella Tourism Development

Master Plan.....83

4.1	Incompatible Development with Environmental Sensitivity	83
4.2	Depletion of the Sense of the Place connected with Tourism	92
4.3	Exceed the Carrying Capacity of Ella	94

5. The Plan 103

5.1	Vision	103
5.2	Vision Statement of Ella	103
5.3	Goals	103
5.4	SWOT Analysis.....	105
5.5	Concept	110

List of Figures

Figure 1: Strategic Planning Process.....	7
Figure 2: International Tourist Arrivals in 2010, share %.....	13
Figure 3: International Tourist Arrivals in 2030, share %.....	13
Figure 4: Purpose of Tourist Arrivals.....	22
Figure 5" Occupancy Rate in 07 Major tourist Destinations.....	22
Figure 6: Continuously increasing International Tourist Arrivals.....	26
Figure 7: Continuously increasing International Tourist Receipts (US\$).....	26
Figure 8: Number of tourist arrivals.....	27
Figure 9: Number of tourist arrivals in 2017/2018.....	28
Figure 10: Use of Travel Packages by international tourists.....	28
Figure 11: Travel type (Group/Solo).....	28
Figure 12: Sri Lankan Tourism Industry currently being positioned along the continuum from exploration to development.....	29
Figure 13: Climate zones in Sri Lanka.....	33
Figure 14: Rainfall patterns in Ella.....	34
Figure 15: The graph of average rainy days per month in Ella.....	34
Figure 16: The location of Ella in temperature distribution maps of Sri Lanka.....	34
Figure 17: Temperature variation over the year in Ella.....	34
Figure 18: Most Popular months to visit Ella....	35
Figure 19: Purpose to visit Ella.....	39
Figure 20: Significant speleological cave sites in Sri Lanka.....	46
Figure 21: Places regarding the Ravana & Sita Story.....	47
Figure 22: Ravana's kingdom with airports and tunnel network.....	47
Figure 23: Ella, Before 1815.....	48
Figure 24: Ella, in British Period (1815-1796)...	49
Figure 25: National Physical Plan 2015-2030..	50
Figure 26: National Physical Plan 2019-2050..	52
Figure 27: Tourism Promotional Areas (NPP 2019-2030).....	53
Figure 28: Grand Tour Map (SLTDA).....	54
Figure 29: Terrain.....	56
Figure 30: Tourist Hotels, Restaurants & Lodges in Ella.....	59
Figure 31: Popular Accommodation Type of Ella ...	60
Figure 32: Tourist Arrivals of Ella.....	61
Figure 33: Categorization of tourist by country	62
Figure 34: Categorization by age.....	62
Figure 35: Duration of Stay.....	63
Figure 36: Connectivity- National level major Tourist Destinations.....	72
Figure 37: Electricity Supply.....	75
Figure 38: Personal interest of travelling.....	92

List of Tables

Table 1: Basic Project Details	2
Table 2: Key economic indicators of Travel & Tourism Industry in Sri Lanka.....	26
Table 3: Trend of Tourist Arrival	27
Table 4: Distance and Time for Tourist attraction points in Ella.....	56
Table 5: Probability of visiting tourist attraction points of Ella.....	58
Table 6: Accommodation Facilities.....	59
Table 7: Land use distribution	65
Table 8: Land Values	67
Table 9: Land ownership classification.....	67
Table 10: Time schedules (Trains).....	70
Table 11: Commuter Population	73
Table 12: Power consumption- Ella	76
Table 13: figures of daily waste discharge	78
Table 14: Criteria for the Environment Sensitivity	83
Table 15: Levels of environmental sensitivity	88
Table 16: Criteria of Development Pressure Analysis.....	88
Table 17: Threat of development pressure on Environmental Sensitive areas.....	89
Table 18: Stream order classification	95
Table 19: Slope classification	95
Table 20: Viewshed area for selected view points	96
Table 21: Ella gap- area of extent.....	97
Table 22: Montane landscape of Ella	97
Table 23: Carrying capacity in terms of visiting places.....	100

List of Maps

Map 1: Location- Ella.....	3
Map 2: Mountainous character-Ella.....	37
Map 3: Tourist Attraction Points	55
Map 4: Accessibility Potential- Ella.....	57
Map 5: Tourist Flow Intensity.....	58
Map 6: Land Use	64
Map 7: Building Density- Ella.....	66
Map 8: Accessibility- Ella	71
Map 9: Pipe borne water supply	74
Map 10: Pipe-Borne Water Supply	74
Map 11: Natural Drainage Network- Ella	77
Map 12: Vegetation Classification.....	84
Map 13: Slope Variation	85
Map 14: Natural Drainage Reservation	86
Map 15: Sensitivity Analysis Ella.....	87
Map 16: Building Density	88
Map 17: Road Density	88
Map 18: Population Density- 2019.....	89
Map 19: Population Growth Rate.....	89
Map 20: Development pressure analysis	90
Map 21: Environmentally threatened areas by development.....	91
Map 22: NDVI analysis-2012.....	93
Map 23: NDVI analysis -2019.....	93
Map 24: Land use compatibility for development	95
Map 25: Compatibility of the slope for development.....	95
Map 26: Natural drainage reservation	96
Map 27: Viewshed constraint for development.	96
Map 28: Montane landscape of Ella	97
Map 29: Ella gap area.....	97

Map 30: Developable land area - Ella 98

*Map 31: Developable land area considering
accessibility constraint 99*

Map 32: Developable land area composite 100



CHAPTER 01

1. Introduction to the Project Preparation of *Ella* Tourism Development Master Plan

1.1 Project Inception

Sri Lanka is endowed with a diverse collection of landscapes, climate and natural features. It fascinates an unbelievable experience for almost everyone, and holds enough diversity to keep a vacation interesting. The central highlands with emerald tea plantations and misty views, the cultural triangle with ancient architecture, majestic art and amusing engineering, the east of the island with lush paddy fields, national parks, ports, harbors and spectacular sunrises, the north of the island with vibrant blend of essences, with a unique flavor and culture and the golden beaches around the island nurtures the inherited character it holds.

It is evident that tourist arrivals to Sri Lanka have experienced a significant growth since the conquering of civil war in 2009. Accordingly, various tourism related activities have bloomed in around popular tourist destinations in response to the rapid rise in tourist arrivals experienced in the past ten years. Yet, most of these activities are developed in a haphazard manner at the absence of tourism development plans to guide the activities in identified tourism areas earmarked and statutorily declared by

the Sri Lanka Tourism Development Authority.

Considering this situation, Sri Lanka Tourism Development Authority (SLTDA) invited Urban Development Authority (UDA) to undertake the Consultancy Assignment on Preparation of Tourism Development Master Plans for Seven Tourism Areas; Arugam Bay, Ella, Nuwara Eliya, Kalpitiya, Beruwala, Hikkaduwa and Pinnawala identified by the SLTDA. UDA is the state organization which holds statutory powers to regulate physical developments in the areas declared under the provisions of Urban Development Authority Act No. 41 of 1978. Further, this particular law provides provisions to prepare planning schemes on behalf of any government agency and provide technical planning services for government agencies.

The Memorandum of Understanding pertaining to the consultancy assignment was signed in between SLTDA and UDA on 13th February 2019 at the SLTDA. As per the agreed Terms of Reference of the consultancy assignment, the basic details of the assignment are as follows.

1.2 Ella Tourism Planning Area

Ella can be identified as a small town located in Badulla District of Uva Province of Sri Lanka at the local coordinates, N 6°52'0.33 and E 81° 2'48.02. Hali-Ela, Bandarawela and Passara act as the immediate peripheral town centers for Ella. Ella is approximately 200 kilometers east of Colombo and is situated at an elevation of 1,041 meters above sea level where it is considered to be the as extreme sensitive area of national highlands which comprise of rich biodiversity and scenic beauty in misty valley. Geographic formation of Ella itself demarcate the natural boundary as a small valley surrounded by high sensitive mountainous areas. Ella has become a top ranked tourist destination of Sri Lanka during the last ten years.

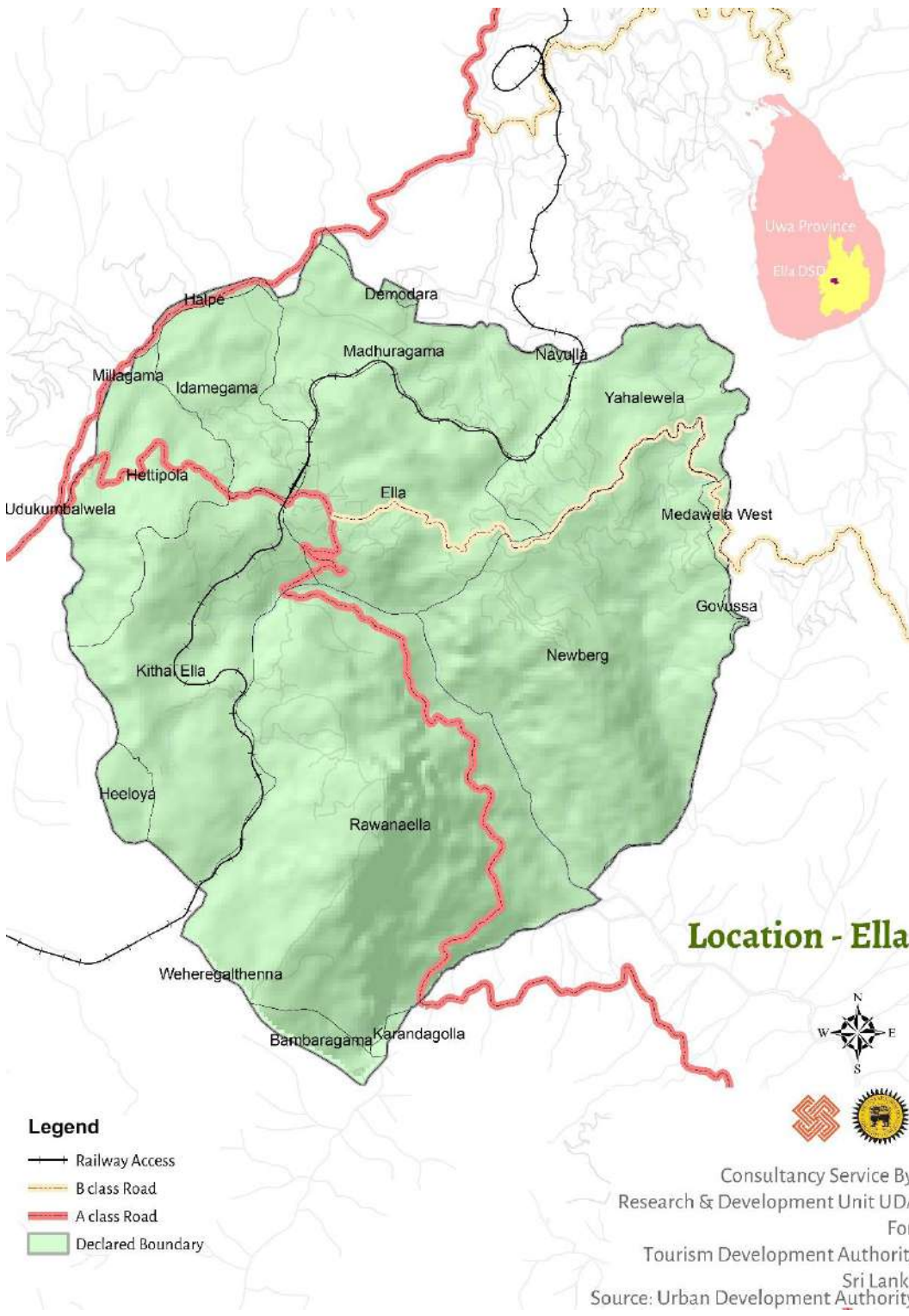
The fascinating views blessed with green valleys, mountains, waterfalls and tea estates of Ella misty valley has resulted 6% of foreign tourist attraction out of total tourist arrivals in Sri Lanka. Little Adam's Peak, Ella Rock, Diyaluma Falls, Ravana Waterfall, Dowa Temple, Demodara Nine Arch Bridge and Ravana Caves are the most attractive tourist attractions of this green misty valley. On the other hand, the train from Ella to Nanu Oya, higher up in the mountains, is known to be one of the most scenic train rides in the world. Ella is quite occupied by foreign tourists of European countries who are fascinated with rock climbing and nature loving. During July – September and November - February an approximate number of 450 visitors daily visit Ella town while, 280- 300 visitors trot in the area during January - June and October- November. France, Germany, Australia, China and India are the main source markets of Ella tourism industry. Key asset of the area is scenic beauty and the climate that greatly support nature and eco based tourism. Generally, Ella is a renowned backpacker's paradise

GNDs falling with the boundary limits of Ella Tourism Planning Area are as follows.

Preparation of Tourism Development Master Plans for Seven Tourism Areas identified by the Sri Lanka Tourism Development Authority	
Assignment Duration	18 months
Tourism Planning Areas	Phase I- Arugam Bay Ella Nuwara Eliya Kalpitiya Phase II- Beruwala Hikkaduwa Pinnawala
Time allocation for each Tourism Master Plan	06 Months (Initiation of each Tourism Master Plan keeps a lapse of two months and continues for the next six months while the work of two or three master plans are being carried out simultaneously)
Planning Team	<ul style="list-style-type: none"> • The Planning Team consists of several thematic field experts such as; • Team Leader/Town Planning & Real Estate Expert • Tourism Planning Expert • Environment & Infrastructure Expert • Transport Expert • Socio-Economic Expert • Architect • GIS Expert • Junior Town Planner

Table 1: Basic Project Details

As per the agreed Terms of Reference of the Consultancy Assignment, the second tourism plan to be prepared is the Ella Tourism Development Master Plan.



Map 1: Location- Ella

1.3 Statutory Provisions for planning Ella

As explained in the section 1.1 above, preparation of Ella TDMP is carried out by the Urban Development Authority as a sub project under the Consultancy Assignment; Preparation of Tourism Development Master Plans for Seven Tourism Areas identified by the Sri Lanka Tourism Development Authority.

As per the Tourism Act No. 38 of 2005, Sri Lanka Tourism Development Authority has legal provisions to regulate and monitor tourism activities and economic activities in declared 'Tourism Development Areas'. Accordingly, several tourism areas and areas with potentials to develop as tourism areas in different parts of the island have been declared as 'Tourism Development Areas' by the SLTDA.

On the other hand, as per the Urban Development Authority Act No. 41 of 1978, UDA is the apex planning and plan implementation body in Sri Lanka responsible for managing the state of the urban environments of the island. Identifying the rapid urbanization occurring parallel to the tourism development, Part of Ella divisional secretariat division had been declared as 'Urban Areas' by the gazette notification no. 1554/5 by the UDA. Accordingly, UDA is responsible for promoting and regulating physical developments in eight GN divisions including Ella Pradeshiya Sabha areas while ensuring its social and economic development and sustainable environment management.

Tourism development of a particular destination cannot be achieved solely by managing its tourism and related economic activities but should be integrated with

overall physical, social and economic development. Recognizing the importance of this fact, UDA has been invited by SLTDA to provide consultancy services to prepare tourism development plans for identified seven tourism areas including Ella and enforce them by publishing through gazette notifications under the provisions of UDA Act No. 41 of 1978. Consequently, tourism activities of the area are expected to be further regulated and promoted as identified by the Ella TDMP under the provisions of Tourism Act No. 38 of 2005.

1.4 Objective of the Ella TDMP

Objective of the Ella TDMP is to prepare a comprehensive Tourism Development Master Plan for Ella and its surrounding tourism functional area by integrating tourism development aspect with overall physical, social and economic development and environmental management aspects in order to promote Ella as a sustainable tourism destination.

1.5 Scope of the "Ella" Tourism Development Master Plan

1.5.1 Geographic Scope

Geographic scope of the Ella TDMP is the Ella tourism area and its surrounding tourism functional area. Considering the administrative boundary limits, the geographic scope of the Ella TDMP has been selected including 8 GNDS of Ella DSD. However, the study scope of the assignment shall include the role of Ella in the national tourism industry and its national and regional connectivity.

Even though the geographic scope includes a wider area which does not limit to the selected 8 GNDs of Ella tourism areas but also includes surrounding attraction sites, a structure plan will be prepared focusing on geographical and functional linkages in between different attractions while detailed level layout plans will be prepared for identified major tourist attraction sites.

1.5.2 Scope in terms of Effective Time Period

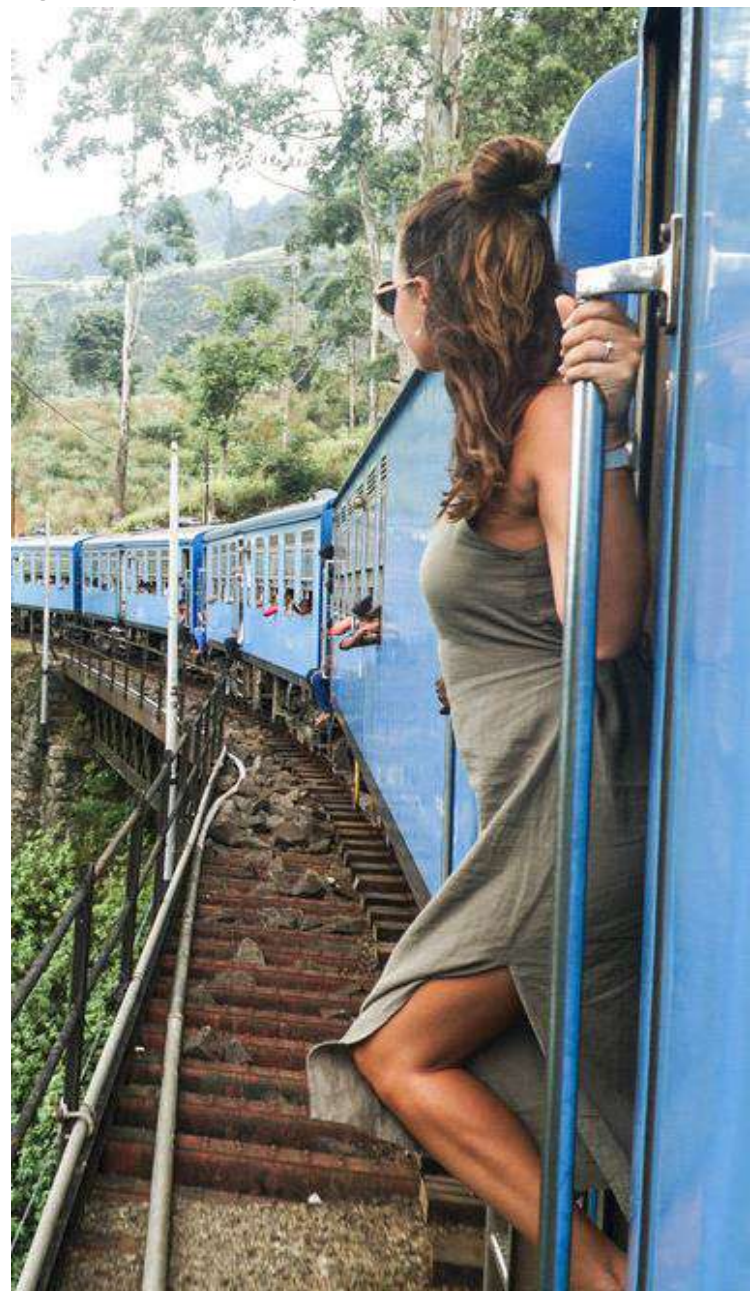
The Development Plans prepared by UDA are in effect for a period of 10 years. Accordingly, Ella TDMP shall also be prepared for a period of ten (10) years for convenient execution as they are required to be legalized through gazette notifications along with the Development Plans of the relevant local authority areas.

1.6 Planning Approach & Methodology

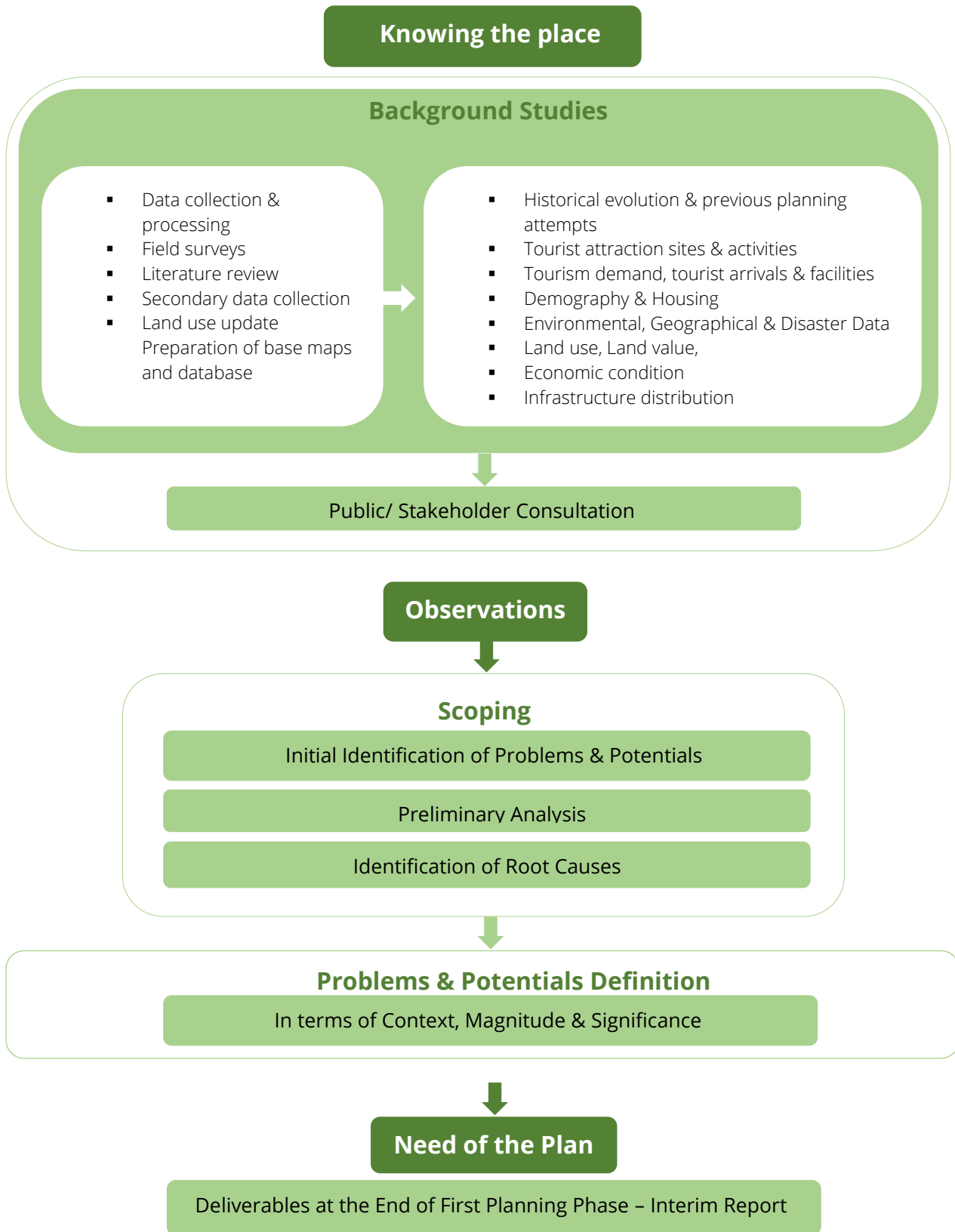
Ella TDMP will be prepared following the strategic planning approach and adopting several advanced technologies and methodologies for evaluation of existing tourism industry and its functional patterns, diagnosis of prevailing issues, identification of the most appropriate visionary paths and development solutions and for the planning of strategic paths to achieve the anticipated transformations.

Ella TDMP shall be prepared in two phases following the strategic planning process. The first phase shall include background studies of the planning area, scoping and identification of problems & potentials through observations and stakeholder consultation and defining the need of the plan. The key focus of this phase shall be the defining of the need of a plan in terms of specific issues and potentials of the area. The prevailing issues and potentials of the area shall be defined in terms of their context,

magnitude and significance relevant to the Ella's tourism industry. The second phase shall comprise of visioning including detail analysis & formulation of objectives, formulation of strategies, identification of strategic projects, preparation of detail layout plans and formulation of planning and building regulations. The key products of the Ella TDMP shall be the Tourism Promotion, Tourism Facilitation and Sustainable Tourism Strategies, Strategic Projects, Special Tourism Area Layout Plans, Tourism Planning Guidelines, Planning and Building Regulations and the Implementation Plan.



1.6.1 Strategic Planning Process – First Phase



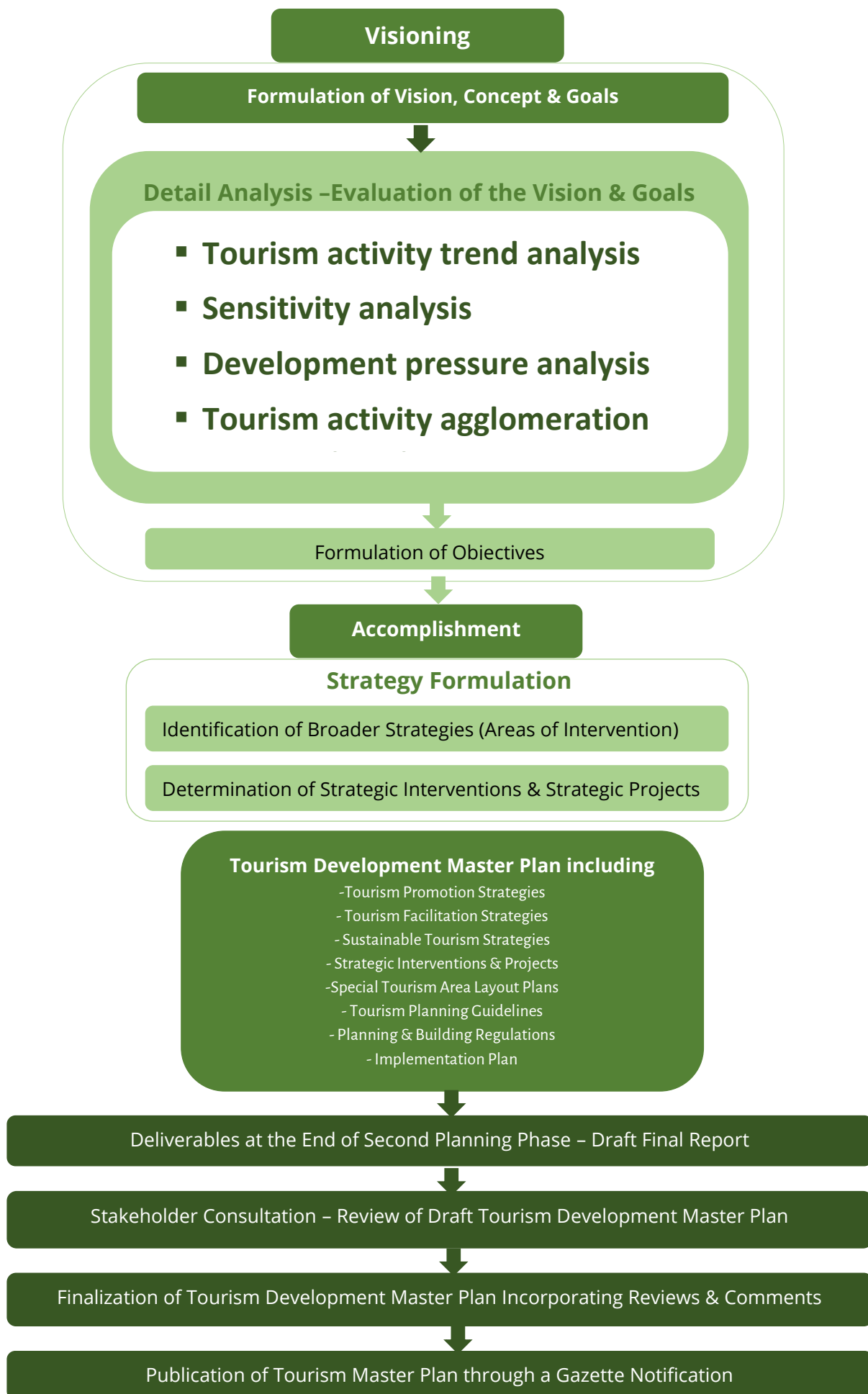


Figure 1: Strategic Planning Process

1.7 Key Stakeholders of Ella TDMP

'Planning is for people' and people are a part of the plan who contribute for its design, implementation and feedback and it is by them the ultimate effect of the plan is experienced. Thus, stakeholder consultations will be carried out at different stages of the planning process to capture the ideas of people, development agencies, citizen organizations, etc., who are considered as an essential partaker of the Ella Tourism Development Master Plan.

The co-implementation authorities such as the Local Authorities; Ella Pradeshiya Sabha, Ella Divisional Secretariat Division, Badulla District Secretariat Division, Sri Lanka Tourism Development Authority, Department of Forest and Wildlife Conservation, Central Environmental Authority (CEA), Sri Lanka Land Reclamation & Development Corporation (SLLRDC), Road Development Authority (RDA), Provincial Road Development Authority (PRDA) and etc. will be consulted throughout the planning process. The ideas of several other stakeholders including the state agencies, private sector organizations and the general public will be gathered by means of CAP workshops, stakeholder meetings, community and tourist perception surveys, focused group discussions and on-line surveys etc.

It is scheduled to carry out stakeholder consultation at two stages;

- **Initial stakeholder consultation at the stage of Background Studies**

To obtain different stakeholder perspectives on existing situation of Ella tourism industry, related issues, suggestions for enhancing its potentials, ongoing and proposed interventions and especially their

aspirations for future development of Ella

- **Secondary stakeholder consultation after the completion of draft report**

To obtain comments and suggestions for the draft plan

*Beauty of
Ella Gap*





CHAPTER 02

Tourism in the International and Sri Lankan Contexts

2.1 "Tourism"

Tourism industry is considered as one of the world's largest industries, which has extended its branches over numerous sectors. Thus, it is not relaxed to deliver a strong and all-inclusive definition for tourism. However, the World Tourism Organization defines Tourism as "the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes". Further it elaborates; "Tourism is a 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 traveling away from home".

In essence tourism industry is interrelated with all other sectors: economic, social, cultural, environmental, and political. In view of spatial distribution, tourism is a highly fragmented activity which is located in specific environments and destinations, where there is a variety of environmental, cultural, social and physical attractions. Hence the finest method to understand the functionality of tourism industry is to interrelate tourism activities with its spatial distribution. However, tourism activities are dynamic as those could be re-formed by new tourism trends and concepts.

TOURISM is the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes. – UNWTO, 2008

A VISITOR is a traveler taking a trip to a main destination outside his/her usual environment, for less than a year, for any main purpose (business, leisure or other personal purpose) other than to be employed in the country or place visited. – UNWTO, 2008

A TOURIST is a visitor if his/her trip includes an overnight stay; otherwise, a visitor is classified as a same-day visitor (or excursionist). – UNWTO, 2008

2.2 World Tourism Trends

Since Ella is a world-famous tourist destination, it is also a part of global tourism industry and is highly influenced by contemporary world tourism trends.

Therefore, knowledge on existing situation of global tourism industry and its contemporary trends is essential to place Ella in the world tourism context and to link Ella with global opportunities for tourism development.

2.2.1 Tourism as a Trending Industry

International tourist arrivals will increase by 43 million (3.3%) a year on average between 2010 and 2030

43M

Steady Growth of
World Tourism Industry

International tourist arrivals will reach 1.8 billion by 2030

1.8B

Travel & Tourism sector is shown to account for 10.2% of global GDP and 292 million jobs, equivalent to 1 in 10 jobs, in 2016 & 10.4% of global GDP and 313 million jobs, or 9.9% of total employment, in 2017

313M

NEW Arrivals

Future arrivals will be spread more widely across the globe; **the share of international tourism to emerging economies will surpass that to advanced ones**, and many of the new arrivals will be to destinations in Asia, Latin America, Central and Eastern Europe, Africa and the Middle East.

1B

From 2015 emerging economies will receive more international tourist arrivals than advanced economies and will surpass 1 billion arrivals by 2030.

Higher Tourist Arrivals to be expected in **Asia & the Pacific** by 2030

535M

International tourist arrivals to Asia and the Pacific are projected to increase by 331 million in two decades, from 204 million in 2010 to 535 million in 2030

+6%

South Asia will be the fastest growing sub-region in relative terms (+6.0% a year).

Sources: *Tourism Towards 2030 – Global Overview*; UNWTO, 2011 & *OECD Tourism Trends and Policies 2018*; OECD, 2018

International Tourism by Region of Destination

International Tourist Arrivals in 2010, share %

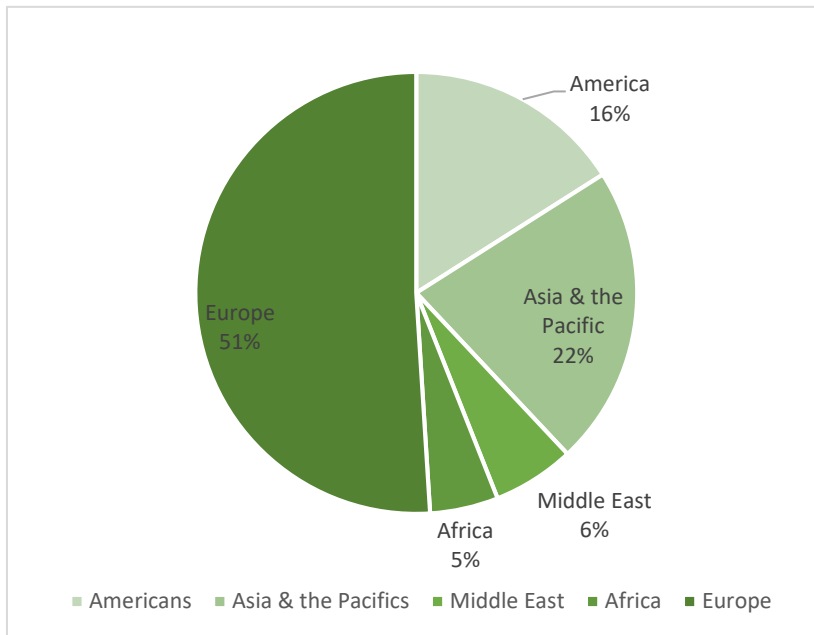


Figure 2: International Tourist Arrivals in 2010, share %

Inbound tourism by Region of Destination

International Tourist Arrivals in 2030, share %

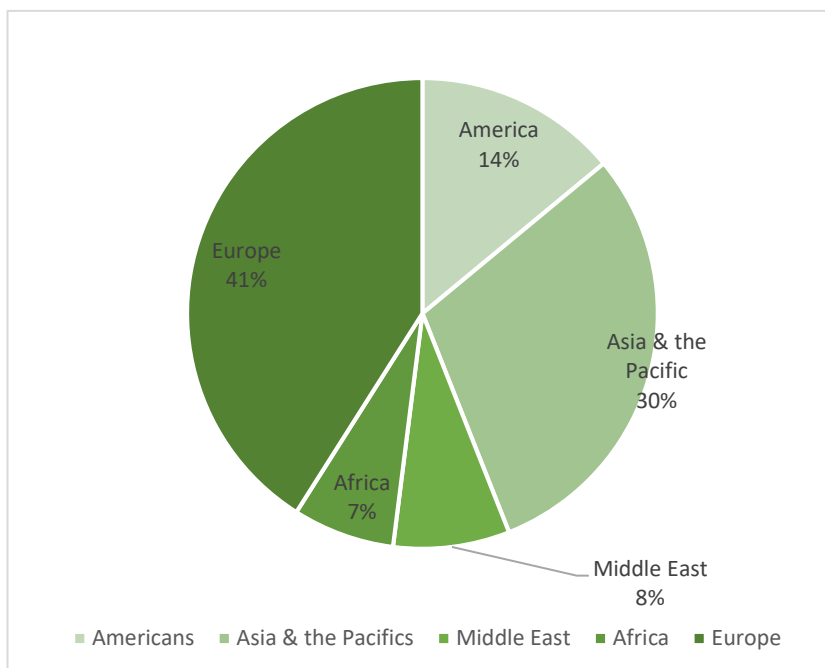


Figure 3: International Tourist Arrivals in 2030, share %

Source: World Tourism Organization

The world tourism industry has undergone some significant changes in recent years. The tourists of western countries used to dominate in worldwide travelling and mostly visited Europe, America and some parts in Asia (such as Thailand) and the Caribbean islands. However, over the last fifteen years, China has significantly developed in tourism while being the largest source market of many other countries such as Hong Kong, Japan, Macau, Russia, Singapore, South Korea and Thailand. As it is recorded in China National Tourism Administration for the year 2017, more than 130 million outbound trips to the rest of the world were made by Chinese (Wee, 2017).

As stated by OECD in its report; OECD Tourism Trends and Policies 2018, the driving forces behind these observed changes in world tourism industry are the megatrends related to i) evolving visitor demand, ii) sustainable tourism growth, iii) enabling technologies and iv) travel mobility

I. Evolving Visitor Demand due to demographics changes

Rapidly increasing middle class population of the world

It has been estimated that the world is only a few years away from the **majority of the world's population being considered middle class** (Kharas, 2017)

At the end of 2016, there were approximately 3.2 billion people considered to be in the middle classes around the world. Annually, approximately 150 million people are joining this demographic group, with the majority of those (an estimated 88%) residing in Asia (Kharas, 2017).

“As the middle class grows in developing economies, these parts of the world are going to play an increasingly important role as source markets for global tourism”





Increasing elderly population of the world

The share of people in the global population over 60 years of age is expected to nearly double over the next 35 years, with some regions experiencing more significant growth than others

The United Nations (UN) has projected that by 2050, nearly all regions of the world will have almost a quarter of their population aged 60 or older. This demographic group is currently growing at a rate of about 3% per year, and is expected to reach 1.4 billion people in 2030 and 2.1 billion by 2050 (UN, 2017).

“Research indicates that tourism is one of the major areas that will benefit from an aging population that is increasingly more inclined to pursue leisure-oriented experiences & medical tourism”

Emerging Generation Z and Millennials

Generation Z (born in the late-1990s to early-2010s) and Millennials (born in the early-1980s to mid-1990s) will both represent important market opportunities in the tourism sector by 2040.

Meanwhile, the generation that follows Millennials – Generation Z – will also be a major force in the tourism market and labour force by 2040, ranging between the ages of 30 and 45. By as early as 2020, this demographic group will make up the largest share of the global population at 2.6 billion, projected to overtake Millennials who are estimated to be number 2.3 billion (Weinswig, 2016).

“Millennials take more trips annually compared to other generations – at four or more per year. (Globetrender, 2017). Furthermore, they are more likely to pick travel experiences that they consider to be “authentic” – preferring to head off the beaten track and “live like a local” (Future Foundation, 2016)”

II. Sustainable Tourism Growth

Sustainable Tourism as a key trending concept

Tourism is widely recognized as a human activity that is dependent on natural resources, while at the same time contributing to the depletion of these same resources. In light of negative consequences due to high carbon emissions, climate change, exploitation of natural resources and environmental damages, contemporary tourism trends and concepts are more oriented towards promoting sustainable tourism.

Tourism can play a key role in driving the transition to a low-carbon and resource efficient economy.

Due to its cross-cutting nature and close connections to numerous sectors, even small improvements will have important impacts.

Sustainable Tourism

"Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities"

UNWTO, 2005

III. Enabling Technologies

Influences of Advancing Technologies

From the sharing economy to the Internet of Things, to autonomous vehicles and artificial intelligence, and block chain technology to big data analytics, a range of new and emerging innovations are promising to unlock more opportunities for people around world.

Digital platforms are often used to inform travel decisions and their impact is likely to grow in coming decades.

Advancing technologies make travel more affordable, efficient and accessible to many people.

*80% of Booking.com customers do researching, booking and planning of entire trip by only using smartphones and further, 70% of travelers use mobile phones during their trip - **Booking.com***

*Last minute travel booking search ups of mobile phones have grown over 150% for over the past two years – **Google Data, 2017***

*'Personalization' in customer booking process is one of the trending facts in tourism. According to the search results of Google's data 2017, the customers personalize their trips based on personal experiences, preferences & behaviors and further it could be described that 36% of customers are willing to pay more for personalized trips **(Google/Phocuswright, 2019).***

TripAdvisor and Airbnb are the commonly used travel guide sites where others share their local experience and knowledge by reviewing local food and places during their visits.

Sixty percent of the travelers intend to post photos, videos and live updates on social media each day during their stay.



Modern Improvements in Transportation

Transport is an essential component of the tourism system and plays a vital role in moving tourists efficiently from their place of residence to their final destination and on to various attractions. Modern improvements in transportation

Air passenger traffic in particular is expected to nearly double between now and 2035, expanding from 3.8 billion to 7.2 billion passengers (IATA, 2016).

The ITF has also forecast strong growth in global road and rail passenger travel to 2050, with estimates ranging from 120% to 230%, depending on future fuel prices and urban transport policies.

Over the ten years 2004/2014 demand for cruising worldwide increased from 13.1 million to 22 million passengers (+68%) with 3.4% growth achieved in 2014. In 2018 global passengers are expected to exceed 25 million before reaching 30 million in 2024 (CLIA, 2015).

Managed effectively, transport and tourism synergies can improve visitor mobility to and within destinations, enhance visitor satisfaction, and help to secure the economic viability of local transport systems and services by servicing both residents and tourists.

2.2.2 Trending Tourism Types and Concepts

The characteristics of tourism are dynamic due to new tourism concepts arisen in the world which are followed by travelers. Apart from the conventional tourism concepts, these trending tourism concepts are more towards experimental tourism and being shaped according to the requirements of travelers. Heritage tourism, cultural tourism, educational tourism, health tourism, ancestry tourism can be identified as the conventional tourism concepts. Though, as the trending tourism concepts following are popular among tourists.

Eco-tourism- more towards sustainable tourism which visits fragile, pristine, and relatively undisturbed natural areas while intending low impact to the environment.

Eg: wildlife safaris, hiking, rainforest, national parks

Adventure Tourism- 'Getting off the beaten track' is the most common interpretation for adventure tourism. However, this refers to the travel in rugged regions or adventure sports such as mountaineering sailing, diving, surfing and hiking.

Perpetual Tourism- the wealthy community always try to be on vacations for the mind relaxations and to get rid from their busy lifestyle. Apart from that this wealthy community make trips to avoid tax issues and being resident in any country.

Dark Tourism- these travel sites associate with death and suffering

Niche Tourism - a type of specialty tourism that focuses on a specific concept or topic is called as niche tourism. This can be food, sports, sex, and war or wildlife tourism.

Agri Tourism

Heritage Tourism

Pleasure Tourism

Business Tourism

Honeymoon Tourism

Recreation Tourism

City Tourism

Literary Tourism

Religious Tourism

Culinary Tourism

Medical Tourism

Rural Tourism

Cultural Tourism

MICE Tourism

Sports Tourism

Disaster Tourism

Music Tourism

Wellness Tourism

Fashion Tourism

Nature Tourism

War Tourism

2.2.3 Travel Trends

Family travel, solo travel, business travel and wellness travel are the new travel trends emerged among travelers. However, still group travel is more preferred for budgeting and has a bigger increase of 21% to 25%.

Family travel- tour operators offer different packages focusing on family travel. According to the intrepid index 2019 Vietnam is the top family destination followed by Malaysia, Thailand, India, Sri Lanka, Cambodia, Japan, South Africa, China and Egypt. Apart from this trend, in the year 2018, tours specifically for single parent families have introduced to the world. Hence the kids of single parent families could travel around the world with the company of other families and support of a local tour leaders. (Intrepid Travel, 2019)

Solo travel- as stated in Google searches 'travel alone' or 'solo travel' are commonly surfed terms which is about 40% increase. Searches for "solo female travel" grew by 52% between 2016 and 2017. Specifically, the younger generation has high interest on adventure travelling where one in four people say they will travel solo in 2018. (Solo Traveler, 2019)

Business travel- a new study from Expedia Media Solutions and Luth Research has identified that the international business travels increases imperceptibly. Nowadays these business travels are converting to Bleisure trips by 40%. Usually these Bleisure travelers tend to be frequent business travelers. As it is mentioned in the study 21% of frequent business travelers said they travel more days for leisure element than business purpose since Bleisure trips are great opportunity to cover travel.



2.3 Tourism in Sri Lanka

Sri Lanka is located in a strategic spot in the Indian Ocean which supports to create paths and links to enter the international tourism arena. This island country's geo-positioning as well as geography are equally important to make herself as a popular tourist destination. Sri Lanka is blessed with natural assets in diverse landscapes for instance, blue sea with sandy beaches, misty green mountains, waterfalls, natural grasslands, forests and wildlife. Apart from these natural assets, from past to present the country has enriched by an amazing cascade system, plantations and culture & heritage. Accordingly, these factors are proven that Sri Lanka has the capability to stand as a tourism hot spot in the world.

Sri Lanka entered to the international tourism arena in 1960s. Since then the country's economy has gradually sustained with tourism industry. Nevertheless, few drawbacks mainly, security situation prevailed in the country and Tsunami catastrophe were directly impact to tourism sector. By now the country is again on the track to develop it as a must visit tourism destination in the world.



2.3.1 Sri Lanka in World Tourism Rankings



Sri Lanka being ranked the
No. 01 in Top Countries to Visit in the
World

Lonely Planet

Sri Lanka being ranked the
No. 07 in Top 20 Adventure Travel
Destinations in the World

Intrepid Index 2019 - Australia

Sri Lanka being ranked the
No. 05 in Top 10 Family Travel Destinations
in the World

Intrepid Index 2019 - Australia

Sri Lanka being ranked the
No. 09 in Solo Travel Destinations in the
World

Intrepid Index 2019 - Australia

**Note – Intrepid Travel Index – 2009 is based on a survey of 1,000 Australian Travelers*

2.3.2 Sri Lanka's best Tourism Products

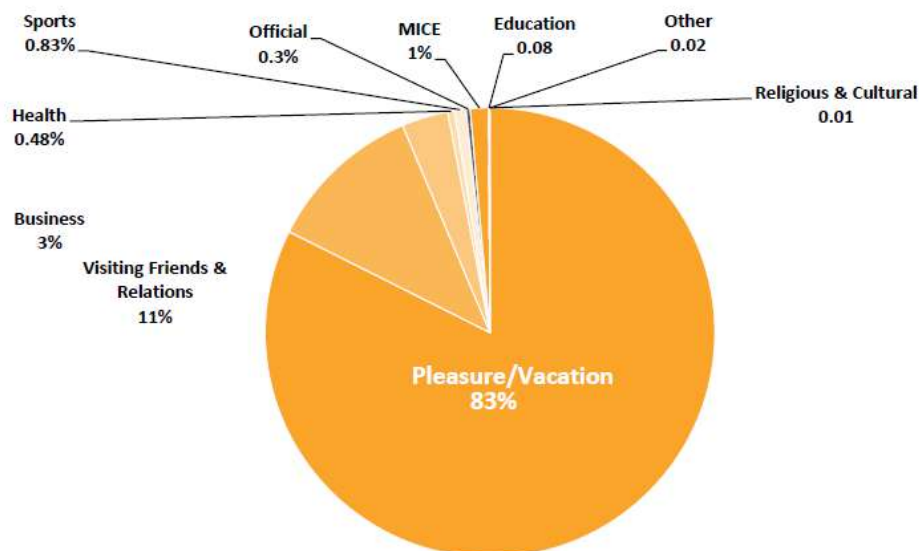
Annual Statistical Reports published by Sri Lanka Tourism Development Authority, provide concise data on Sri Lanka's tourism industry which is beneficial to understand trending tourism products and characteristics of inbound tourism and growth of travel and tourism of the country. Further, tourism demands and trends have been tracked by an airport survey of departing foreign tourists from Sri Lanka in 2017 which was conducted by Tourism Development Authority, Sri Lanka. The sample size of the survey is 6,559 departing foreign tourists and accordingly below statistics related to Sri Lanka's tourism products have been identified.

Resort Region		Occupancy Rate	
		2016	2017
	Colombo City	76.75%	75.31%
	Greater Colombo	75.18%	73.14%
	South Coast	74.24%	72.38%
	East Coast	74.92%	72.95%
	Hill Country	75.24%	73.55%
	Ancient Cities	75.46%	73.85%
	Northern Region	69.58%	70.98%

Source: Occupancy as reported to SLTDA

Figure 5" Occupancy Rate in 07 Major tourist Destinations

07 Major Tourist Destination Regions in Sri Lanka



Source: Department of Immigration & Emigration

Figure 4: Purpose of Tourist Arrivals

83% of tourists visit Sri Lanka for Pleasure & Vacation



Most preferred reasons to select Sri Lanka as a place for holiday

Sun & Beach – 29%
Sightseeing – 23%

Popular places of attractions in Sri Lanka

Kandy as the most popular place of attraction – 71%
Colombo City – 62%
South/ West Coast Beaches – 56%
Sigiriya – 52%
Dambulla – 40%
Wildlife Parks – 38%
Hill Country – 32%

Most outstanding attractions within Sri Lanka for foreign tourists

Beaches – 17%
Nature – 16%

Most preferred activities by international tourists

Sea bathing as the most popular activity – 63%
Sightseeing & excursions – 61%
Visiting Historical Sites – 59%
Shopping – 52%

62% of international tourists departing Sri Lanka intend to visit Sri Lanka again

International tourists' feedback on their stay in Sri Lanka

66% were delighted
33% were satisfied

Sun & Beach

Unawatuna, Negombo, Beruwala, Bentota, Weligama, Nilaveli, Batticaloa, Arugam Bay, Kalpitiya

Wild Life

Wilpattu National Park, Minneriya, Kumana National Park, Yala National Park, Bundala National Park, Sinharaja

Culture & Heritage

Kandy, Anuradhapura, Polonnaruwa, Dambulla, Sigiriya, Jaffna, Galle, Trincomalee, Ratnapura

Hill Country/ Nature/ Hiking

Nuwara Eliya, Horton Plains, Adam's Peak, Ella, Knuckles Range

Fashion, MICE & Culinary

Colombo



International tourists' feedback on their stay in Sri Lanka

66% were delighted
33% were satisfied

“ 62% of international tourists departing Sri Lanka intend to visit Sri Lanka again ”



2.3.3 Tourism as a Growing Industry in Sri Lanka

The economic sector of Sri Lanka is contingent on 'Travel and Tourism' as it creates jobs, drives exports, and generates prosperity to the country. According to the report of Travel & Tourism Economic Impact 2018 of Sri Lanka by the World Travel and Tourism Council, the country's travel & tourism's direct contribution to GDP is recorded as 4.4 US\$bn where country ranked in 59th place. The travel and tourism sector is shown to account for 10.4% of global GDP and 9.9 percent of global employment is generated through this sector. (World Travel & Tourism Council, 2018)

Continuously increasing International Tourist Arrivals

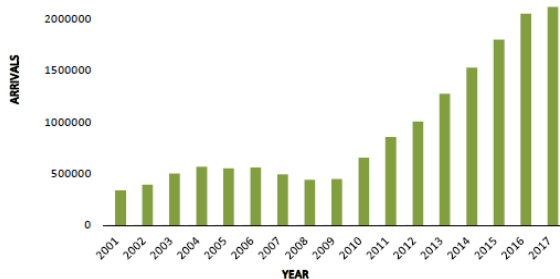


Figure 6: Continuously increasing International Tourist Arrivals

Continuously increasing International Tourist Receipts (US\$)

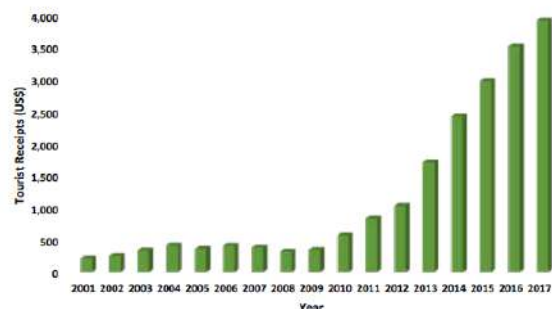


Figure 7: Continuously increasing International Tourist Receipts (US\$)

Key economic indicators of Travel & Tourism Industry in Sri Lanka

Indicator	2016		2017	
	LKR	%	LKR	%
Direct GDP Contribution of Travel & Tourism	631.8 Bn	5.1% of total GDP	687.4 Bn	5.3% of total GDP
Total GDP Contribution of Travel & Tourism	1,405.4 Bn	11.4% of total GDP	1,518.8 Bn	11.6% of total GDP
Direct Employment Contribution of Travel & Tourism	406,000	4.8% of total employment	404,000	5.1% of total employment
Total Employment Contribution (including indirect employment supported by tourism) of Travel & Tourism	894,500	10.7% of total employment	875,000	11.0% of total employment
Tourism Investments	129.4 Bn	4.0% of total investments	144.3 Bn	4.1% of total investments
Foreign Exchange (FE) Earnings	512.6 Bn	14.2% of total FE Earnings	598.4 Bn	14.8% of total FE Earnings

Table 2: Key economic indicators of Travel & Tourism Industry in Sri Lanka

Source: Travel & Tourism, Economic Impact 2017- Sri Lanka; World Travel & Tourism Council

Average daily spending of an international tourist

Package Tour – US\$ 188

Non-package Tour – US\$ 170

Average length of a stay of an international tourist in Sri Lanka is 11 nights

2.3.4 Source Markets of Sri Lanka's Tourism Industry

India continues to be the leading tourist generator to the country with a share of 18.2 percent of the total tourist arrivals. China comes second followed by Germany, France, Australia, Maldives, Russia, United States of America and Netherlands respectively. Year-on-Year analysis of top source markets

reveals that Australia, USA and United Kingdom recorded the highest percentage changes for the year 2018/17. The top ten markets accounted for 68.2% of the total tourist traffic to the country in 2018. The table below gives a listing of the ten major source markets in 2017 and 2018.

India and China as the largest source markets of Sri Lanka's Tourism Industry

Country	Tourist Arrivals		% of Increase	Share in 2018
	2017	2018		
India	384,628	424,887	10.5	18.2
China	268,952	265,965	(1.1)	11.4
United Kingdom	201,879	254,176	25.9	10.9
Germany	130,227	156,888	20.5	6.7
Australia	81,281	110,928	36.5	4.8
France	97,282	106,449	9.4	4.6
Maldives	79,371	76,108	(4.1)	3.3
USA	57,479	75,308	31.0	3.2
Russia	59,191	64,497	9.0	2.8
Netherlands	51,148	57,160	11.8	2.4
Sub total	1,411,438	1,592,366	12.8	68.2
Others	704,969	741,430	5.2	31.8
Grand Total	2,116,407	2,333,796	10.3	100.0

Table 3: Trend of Tourist Arrival

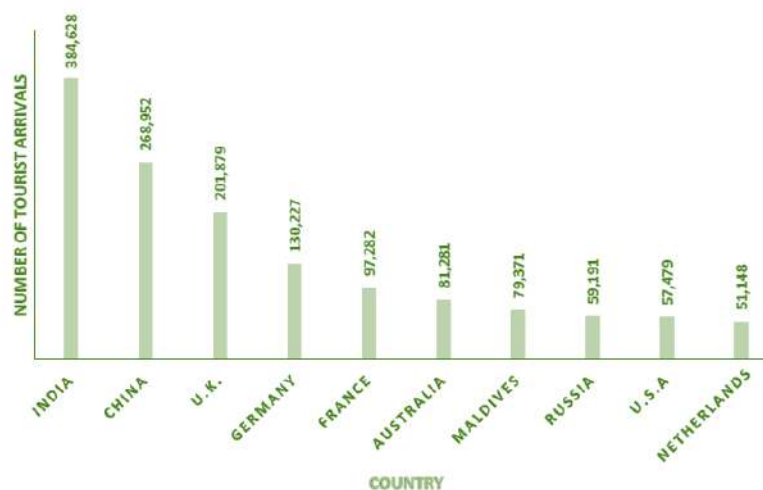


Figure 8: Number of tourist arrivals

2.3.5 Seasonality in Sri Lanka's Tourism

The general seasonal tourism pattern in Sri Lanka is a high season during the months of January to March and December with a mini peak during July and August due to the Kandy Perahera. This general pattern is entirely different for the Ella planning area.

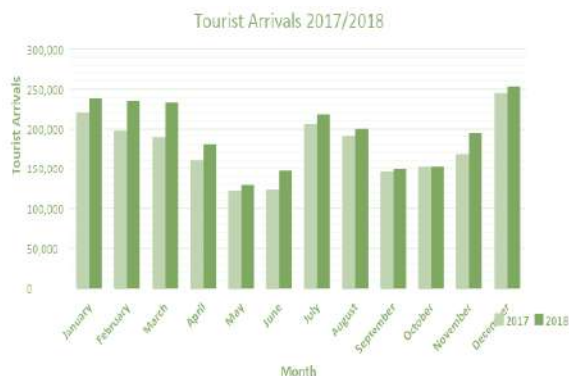


Figure 9: Number of tourist arrivals in 2017/2018
Source: Annual Statistics Report of SLTDA - 2017

2.3.6 Booking & Travel Trends

Booking and travel trends have been identified using the Airport Survey results and it indicates that nearly 40.2% had gone for own arrangements while 36.9% of the respondents had arranged their trip online. Among the respondents who had arranged their stay via online, 78.2% had done the payment by using credit cards while others (13.9%) had used bank transfers. However, the respondents who had paid through a travel operator in the country of residence and in Sri Lanka are 17% and 4% respectively. These facts show that majority of the tourists tend to personalize their stay by planning travel arrangements on their own and via internet. Further, they consider making own arrangements are more accountable than seeking assistance from travel operators.

2.3.7 Future of Sri Lanka's

Use of Travel Packages by International Tourists

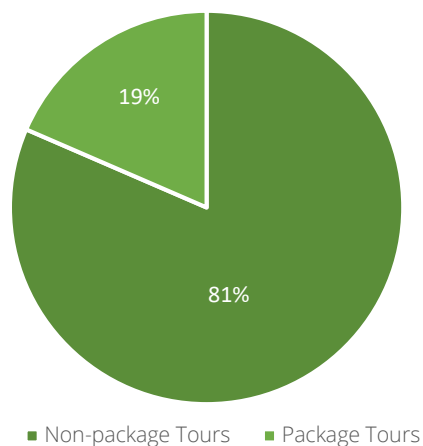


Figure 10: Use of Travel Packages by international tourists

Travel Type (Group/Solo)

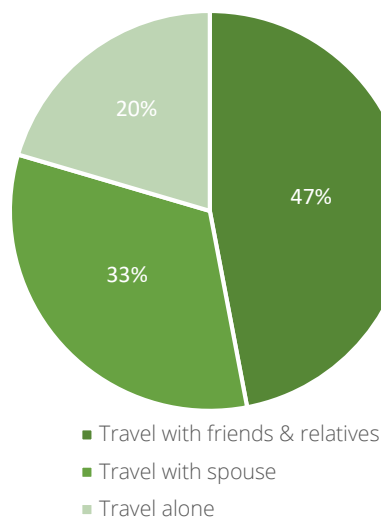


Figure 11: Travel type (Group/Solo)
Source: Airport Survey - 2017; SLTDA

'Sri Lanka's tourism industry today lies along the continuum from exploration to development, depending on the destination.' (Sri Lanka Tourism Strategic Plan 2017-2020) However, Sri Lanka Tourism Development Authority has observed the current status of Sri Lankan tourism industry as an untapped potential that has taken place predominantly

organically, without a definite vision and without coordinated planning. Considering this fact, the SLTDA has set out several planning and policy interventions to transform Sri Lanka's tourism industry to make the island competitive in the global travel market

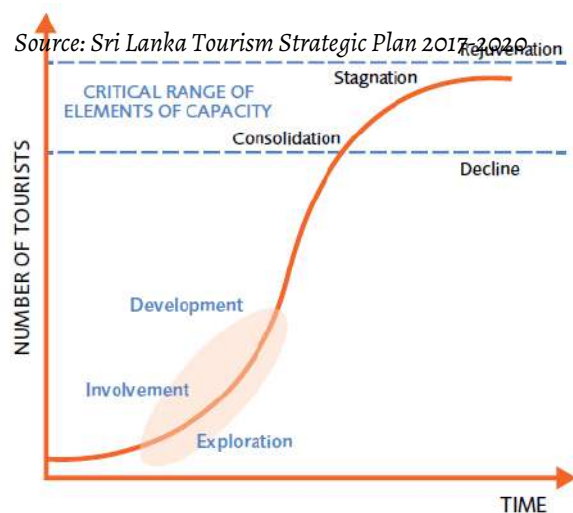


Figure 12: Sri Lankan Tourism Industry currently being positioned along the continuum from exploration to development

The current national scale tourism policy is based on Sri Lanka Tourism Vision 2025 and the Sri Lanka Tourism Strategic Plan 2017-2020. However, several tourism planning attempts have been made throughout the past decades since 1966. The highlights of these past tourism planning attempts will be discussed further with relevance to Ella Tourism Area in Chapter 04.

a) Sri Lanka Tourism Vision 2025

Sri Lanka's tourism sector has been growing exponentially since the end of civil war in 2010. It is benefitted from being perceived as a safe and secure country and wider international interest. This was further enhanced by significant direct investment by the private sector and by overseas investors, as well as positive steps taken by other key stakeholders in recent years. Nevertheless,

to date, tourism in Sri Lanka has been unable to capture its full growth potential. Hence the Sri Lanka's Tourism Vision 2025 strives to address this.

Sri Lanka Tourism Vision 2025;

“To be recognized as the world's finest island for memorable, authentic and diverse experiences”

[Made in Sri Lanka]

Sri Lanka's Roots Philosophy which is underlined within the Sri Lanka Tourism Vision 2025 is as follows

Sri Lanka's Roots Philosophy

- Celebrate Sri Lanka
- Tourism is rooted in the people, places, heritage, and values of the country
- Tourism can promote a sense of place and belonging and a voice for every community
- Tourism should be used as an income generator to protect, conserve and enhance Sri Lanka's natural environment as well as the tangible and intangible cultural and historic assets
- This Roots Philosophy should govern policy, planning and development to build economic, social, environmental and local capital
- Visitors, both domestic and international, are guests in the country

The Tourism Vision 2025 is not an operational plan for a national brand, marketing strategy, advertising campaign, country slogan or action plan. Rather it is a strategic positioning of Sri Lanka in the international tourism market, which sets the foundations from which the sector can build. It is a catalyst to transform the tourism industry to become a leading employer and driver of economic growth. It provides the foundation with which all stakeholders can rally together to transform the tourism sector as well as the platform to communicate Sri Lanka's tourism values to the rest of the world.

It is expected that the Tourism Vision 2025 will transit Sri Lanka into a higher value tourism destination by capturing its full growth potential, whilst safeguarding and prioritizing the sustainability of its natural and cultural assets. The implementation of the vision is defined by detailed strategies and action plans elaborated in the Sri Lanka Tourism Strategic Plan 2017-2020.

b) Sri Lanka Tourism Strategic Plan 2017-2020

The National Tourism Strategy (NTS) of Sri Lanka has been developed aligned with the Sri Lanka Tourism Vision 2025 which sets a new course for Sri Lanka to adopt the new tourism strategy where the guiding philosophy, visitor demand and supply-side experiences are associated. The new strategy will aim to address gaps in planning, regulation, value addition, market research, stakeholder coordination, skills development, investment attraction and sustainable natural resource management. Accordingly, the country's potentials will be counted in the journey of transforming the island as a well-known tourism destination.

Following the National Tourism Vision 2025, following mission and objectives have been

formulated to set the path towards the anticipated vision

Mission of the Sri Lanka Tourism Strategic Plan 2017-2020

To be a high-value destination offering extraordinary experiences that reflect Sri Lanka's natural and cultural heritage, are socially inclusive and environmentally responsible, and provide economic benefits to communities and the country.

The National Tourism Strategy 2017-2020 follows by six transformative themes namely; 'Improving Governance and Regulation', 'Understanding Visitors', 'Marketing and Communicating Effectively', 'Developing Sustainable Destinations', 'Lifting Industry Standards' and 'Engaging the Workforce and Communities' with corresponding core strategies.

The year 2017, United Nations has declared as the "International Year of Sustainable Tourism for Development". Aside from that, among 17 Sustainable Development Goals of UN, three SDGs with strong tourism features namely, 'SDG8: Promote sustained, inclusive, and sustainable economic growth; full and productive employment; and decent work for all', 'SDG12: Sustainable consumption and production patterns' and 'SDG14: Conserve

and use the oceans, seas, and marine resources for sustainable development' are accommodated by NTS.

Based on the national economic objectives and the UN SDGs, seven guiding principles for Sri Lanka's tourism industry have been identified. (Ministry of Tourism Development, 2017)

- I. Capturing the benefits of tourism for Sri Lanka
- II. Democratization of economic participation
- III. Conservation and world-class management of assets
- IV. Local community involvement
- V. Memorable experiences rooted in heritage
- VI. Responsible destination marketing
- VII. Safety and security for all

High Level Objectives of Sri Lanka Tourism Strategic Plan 2017-2020

- I. Tourism to be Sri Lanka's #3 net foreign exchange earner, with a target of us\$ 7 billion earned in 2021- in 2018. (Tourism was the #3 foreign exchange earner, at US\$ 4.4 billion.)
- II. Tourism and its supporting industries to employ 600,000 Sri Lanka's, with women accounting for 10% of the workforce- in 2018, 388,436 people were employed in the tourism sector.
- III. To increase daily spending per visitor to us\$210- in 2018, the daily spend was us\$174.





CHAPTER 03

Tourism in *Ella*

3.1 Ella as one of the Best Destinations in the World for Nature Lovers

Ella is a place to breathe the pure fragrance of nature while exploring the legendary history hidden in the range of misty greenery mountains and experiencing the unique village culture blended with tea plantation, paddy and crop cultivations.

The natural environment of Ella is defined by its climate, vegetation type and character and natural setting formed by mountains and valley.

3.1.1 Climate of Ella

Ella inherits its own natural clement climate due to its special location between up country wet zone (Nuwara Eliya) and low country dry zone (Wellawaya). This unique clement climate has caused Ella to be one of the most popular ecological tourist destinations in Sri Lanka.

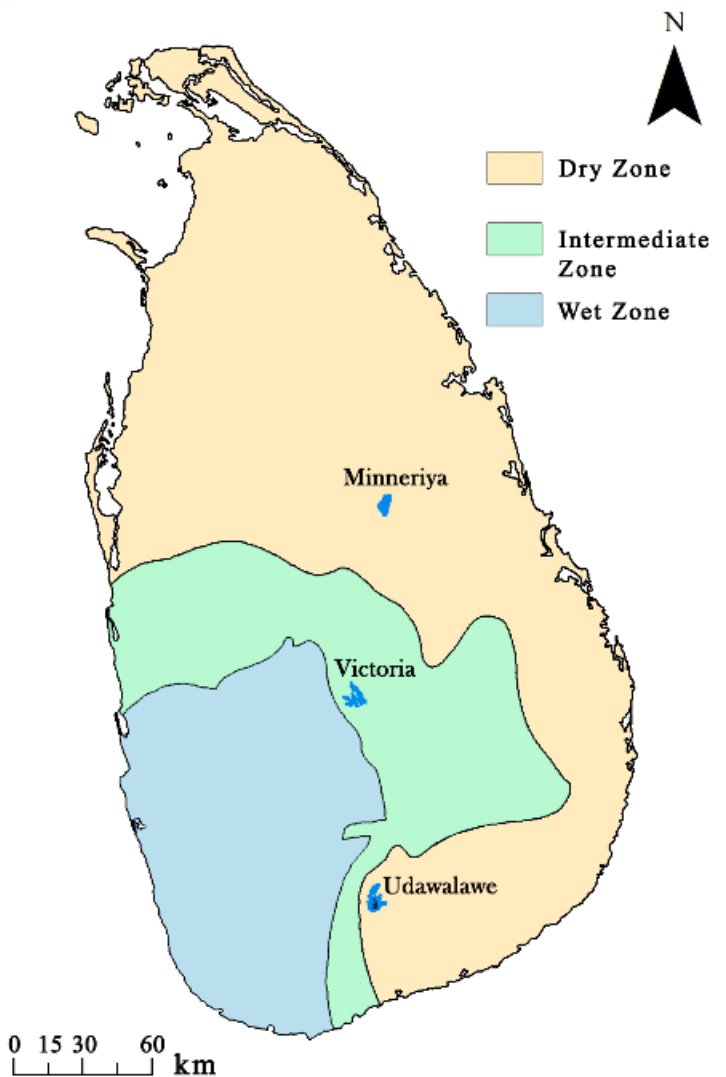


Figure 13: Climate zones in Sri Lanka

Source: Climate Change Secretariat Sri Lanka, Ministry of Mahaweli Development & Environment

Rainfall patterns in Ella

Average annual rainfall of Ella is recorded between 1500mm to 2000mm and highest rainfall intensities are recorded during North East monsoon months, October – December. However, month of April is highlighted as the month of highest rainfall intensity in Ella during the intermediate monsoon period. Rainfall intensity range of the area varies between 50 mm per hour to 250 mm per hour. Average temperature varies between 16°C to 25°C. Humidity level of the project area is recorded as 74%.

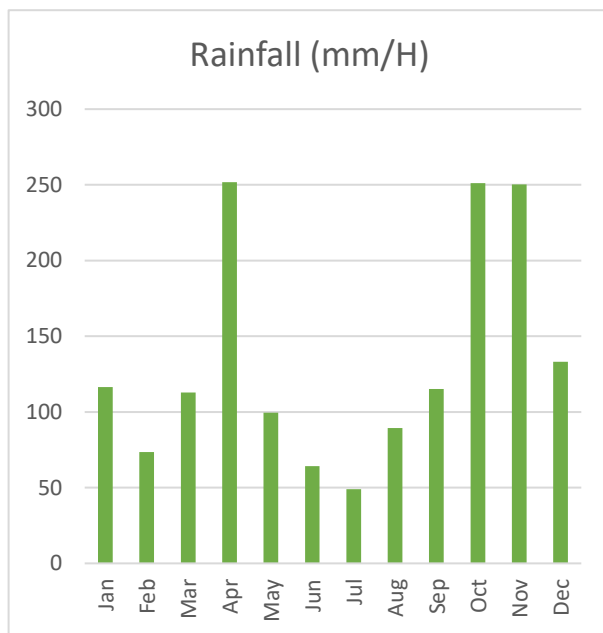


Figure 14: Rainfall patterns in Ella

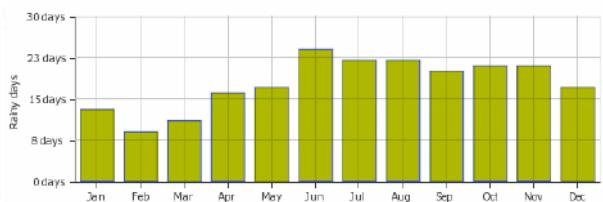


Figure 15: The graph of average rainy days per month in Ella

Temperature variation in Ella

Temperature variation of Ella is between 16°C - 25°C. Because of the geographic location of Ella, it is exposed to both dry and wet winds of dry zone and central highlands respectively. It is this special location and wind pattern that has resulted a quite clement climate preferred by most of the tourists in Ella. Wind speed of Ella is recorded between 2 – 3 km/h.

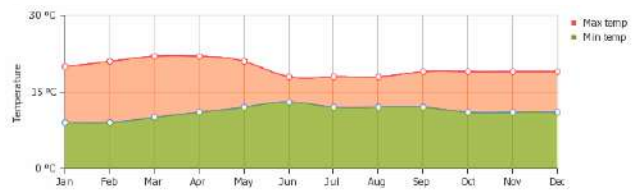
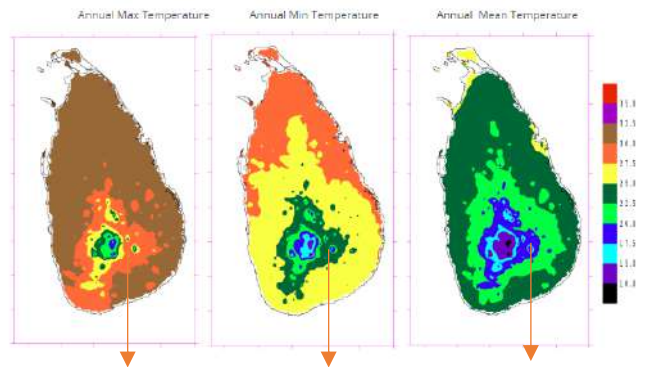


Figure 17: Temperature variation over the year in Ella

Relative humidity of the area arranges in between 60 - 74%. This value is comparatively high due to elevation levels and wind pattern behaviors of the area.



Ella indicates low and moderate levels of temperature as per the Sri Lanka's annual average temperature distribution as it is placed in a unique location in between dry and wet climate regions.

Figure 16: The location of Ella in temperature distribution maps of Sri Lanka

Experience of Ella in different seasons

The different climatic conditions which vary throughout the year has resulted following seasonal experiences in Ella.

- **Spring (March to May)**

Humidity and relatively high temperatures together make this season feel warm. High temperatures range from 86.7°F (30.4°C) and 81.2°F (27.3°C) with warmer temperatures in the later months. Rain is somewhat common with 7 to 13 days of significant precipitation per month. Spring is the season with the least number of foreign tourists which make it a popular season for local tourists due to discounted offers and deals.

- **Summer (June to August)**

The middle-year months have very comfortable weather with high temperatures that are quite warm. These months experience the least precipitation with 3 to 4 days of precipitation per month. June – August is the busiest season for tourism in Ella, so lodging and other accommodations may cost more than usual.

- **Fall (September to November)**

Fall daily temperatures range from 87.1°F (30.6°C) and 78.2°F (25.7°C), which will create a clement experience given the humidity and wind. It rains for about 6 to 16 days per month. Tourism is fairly slow during these months due to the weather, so hotels may be lower priced.

- **Winter (December to February)**

Weather is perfect this time of the year in Ella to be enjoyable for warm weather travelers in the world. The average high temperature of this season vary between 81.2°F (27.3°C) and 74.6°F (23.7°C). On average, it rains a great amount; 8 to 17 times per month. This

time of the year is the second busiest tourism season in Ella.

Source: Champion Traveler. 2019. The Best Time to Visit Ella, Sri Lanka for Weather, Safety, & Tourism. [ONLINE] Available at: <https://championtraveler.com/dates/best-time-to-visit-ella-1k/>. [Accessed 17 September 2019]

As per the same source most popular months of Ella tourism distinguished as January, July and August which represent people visiting Ella, interest in winter and summer seasons of Ella.

Most Popular Months to Visit

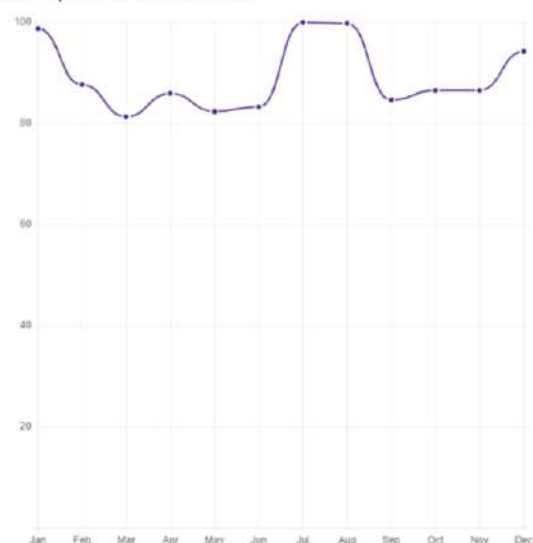


Figure 18: Most Popular months to visit Ella

3.1.2 Climate and the Unique Vegetation Character of Ella

Unique climatic condition in Ella has formed an inimitable environmental setting creating peerless natural views with range of green which is nowhere to be found. As Ella is located in-between dry and wet zone, it is able to find,

- montane forest
- dry ever green forest
- low land forest
- grasslands, and
- tea plantation

which are unique to dry and wet zone vegetation characters

Montane Rain Forest



The montane rain forests are an eco-region found above 1000m in the central highlands of Sri Lanka. Owing to their rich biodiversity, This region is considered as super-hotspot within the endemism hotspots. Total Montane Forest coverage of Sri Lanka is 68,891ha and Ella covers 6709 ha of total coverage. (9.7% of Montane Forest is within Ella Area.)

Dry Ever Green Forest



The dry-zone dry evergreen forests are a tropical dry broadleaf forest eco-region in the island. These are made up mostly of evergreen trees, which distinguish them from the deciduous trees that characterize most other tropical dry broadleaf forest eco-regions. The dry-zone dry evergreen forests most closely resemble the East Deccan dry

evergreen forests of India's southeast coast. Approximately 1625 ha of dry ever green forest can be found in Ella.

Low Land Rainforest

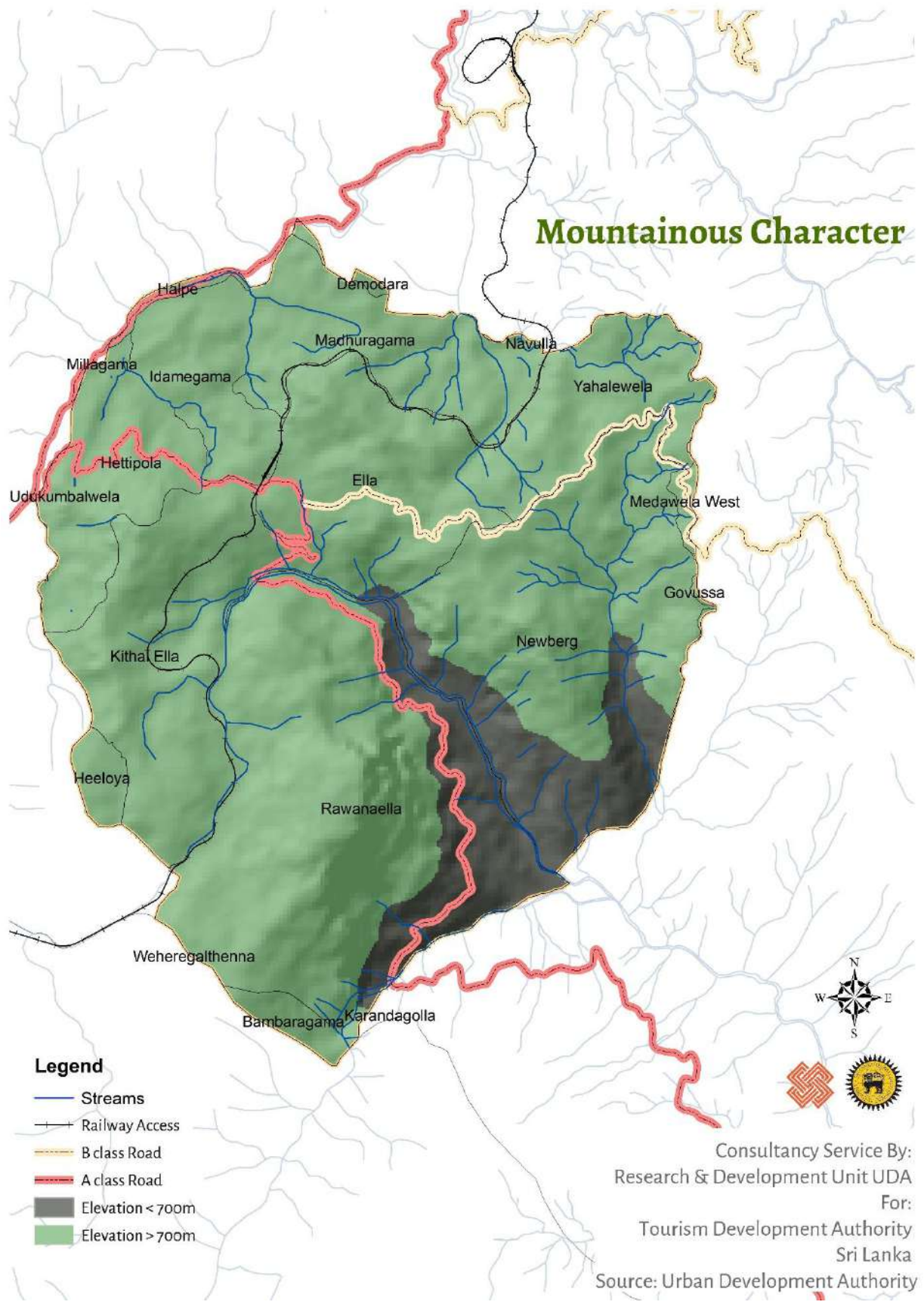


The lowland rain forests represent Sri Lanka's tropical rainforests below 1,000 m (3,281 ft) in elevation in the south-western part of the island. The year-around warm, wet climate together with a vast range of plants and animal species that can only be found in the area has made Ella unique and beautiful. Out of 124,340ha of low land rainforest of Sri Lanka, 2590ha area is within Ella boundaries.

Tea planation, grasslands, and crop cultivation in Ella would be discussed in below chapters:

3.1.3 Natural Landscape of Ella

Natural landscape of Ella is formed with mountain ranges, steep lands and valleys. 1768ha of land fall within the category of mountain character located 700m above mean sea level. An area of more than 540ha holds the montane mountain character which is 1000m above mean sea level. With this character many steep lands are found in Ella. Moreover, there are 1571ha of land area which are steep lands with a 30-degree angle, 371ha of land area with 30 to 45-degree slope, and 85ha of land area with a slope angle of more than 45-degree. Ella Gap is a unique area visible in Ella which is of more than a 50 degree angle.



Map 2: Mountainous character-Ella

Mountain Range



Ella is located in the southeastern mountainous terrain of Sri Lanka which hosts a unique geographical and environmental setting. Physio-graphically the natural setting of the project area is a combination of diverse landform features such as mountain ranges, mountain summits, parallel ranges, valleys and steep slopes. The elevation of Ella area ranges from 300m to 2000m above mean sea level. Highest mountain range identified in Ella area is Namunukula Mountain range which is 2000m above the mean sea level.

Slope and Ella Gap

The relatively wet higher slopes are characterized prominently by Red-Yellow Podzolic Soil and lower slopes consist of Lateritic Reddish Brown Soils while the drier lower areas are combined with red earths and brown loams.

Ella Gap is a unique landscape feature which can be found in the planning area. 3km long valley with 59degree angle slope create an amazing view nature.



3.1.4 Popular Places to visit in Ella

Ella has become a vibrant tourist destination for the activities connected with its natural setting as discussed in sections (3.1.1), (3.1.2.), and (3.1.3). Specially, Ella is famous destination among nature lovers who love to enjoy scenic views of misty green valleys while touching clouds which drift through the mountains.

Things to enjoy in Ella

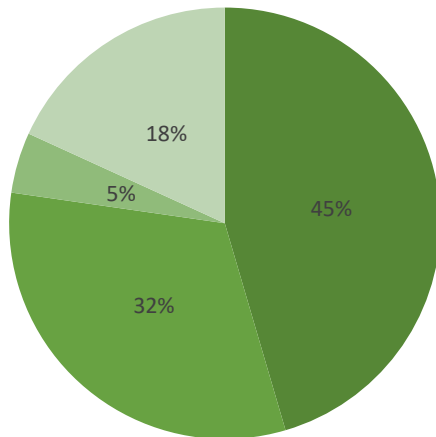
- Hiking and camping - Ella rock and little Adams peak
- Exploring Ravana history - Rawana cave and tunnel mouths
- Waterfall watching – Rawana Ella
- Experience rural culture – Villages in Ella
- Enjoy fascinating natural landscape of Valley - Ella rock and little Adams peak view points
- Adventurous activities - Flying Ravana
- Enjoy atmospheric Freshness - Ella Rock
- Explore and enjoy railway architecture –Demodara Railway Loop and Nine Arch Bridge
- Experience tea estate-based cultures and views

According to the responses of the survey conducted in October 2019, 45% of tourists arrived Ella to enjoy the natural view with unique climatic condition while 32% of them had visited Ella in order to take a break from their busy life and relax. It is known that Ella apart from his magnificent views has pure air to offer its visitors. Hence, one could definitely leave their hectic lifestyles away and enjoy the serenity and cleanliness of the natural environment.

The reason behind some Europeans' visit to Ella was to enjoy the Sri Lankan culture while most of Indians' interest was to explore and experience the legend of Ravana. However,

Ella is famous for hiking and trekking among the locals in the country.

Purpose to visit Ella



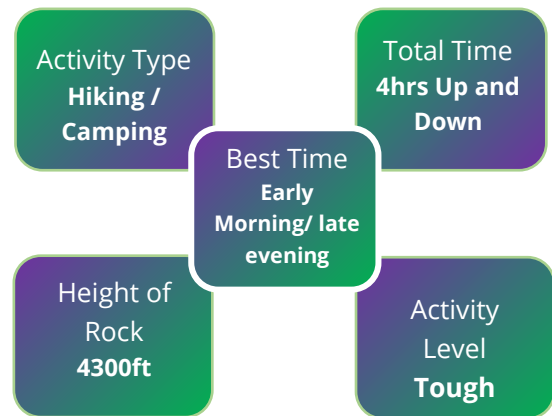
- Nature exploration
- Relaxation/Vacation/Leisure
- Culture
- Adventure

Figure 19: Purpose to visit Ella

Attractions for Hiking

Ella Rock

Ella Rock offers one of the best hiking experiences with splendid views wrapped in serenity. The salubrious breeze makes this magnificent rock amidst the hill country more inviting and charming.

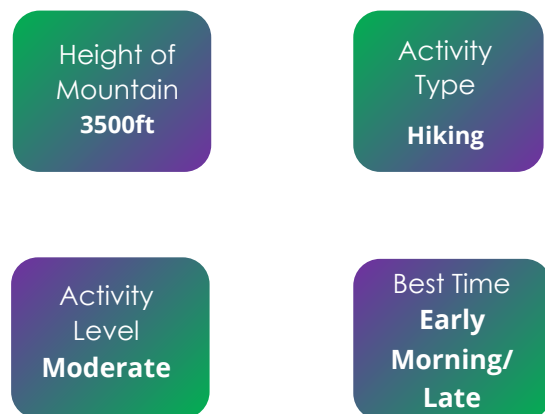


Source:

Mini Adams Peak | Ella, Sri Lanka. 2019. Mini Adams Peak | Ella, Sri Lanka. [ONLINE] Available at: <https://www.visitella.com/things-to-do/mini-adams-peak>. [Accessed on 18th September 2019]

Mini Adams Peak

Mini Adams peak is the closest and easiest hike in Ella. The Mini Adam`s Peak got it`s named after, the holy mountain Adam`s Peak, because of the similar shape.



Source:

Mini Adams Peak | Ella, Sri Lanka. 2019. Mini Adams Peak | Ella, Sri Lanka. [ONLINE] Available at: <https://www.visitella.com/things-to-do/mini-adams-peak>. [Accessed on 18th September 2019]

Ravana Cave

Ravana Cave is located 2.8 Km away from the Ella Railway Station (from Ella – Wellawaya A23 Road). It is quite a small cave, approximately 50ft wide, 150ft long and 60ft high. The cave lies 1,370m (4,490ft) above sea

level close to Maha Ravana Viharaya which is 1km away. There is a steep path that leads towards the cave.

The cave is enrolled with the legendary 'Ravana'. According to the legendary, the cave had been used by King Ravana to hide Princess Sita.

An archaeological finding of a human skull dating back to 20,000 BC has made the cave an important archaeological site to study the pre - historic period in Sri Lanka.

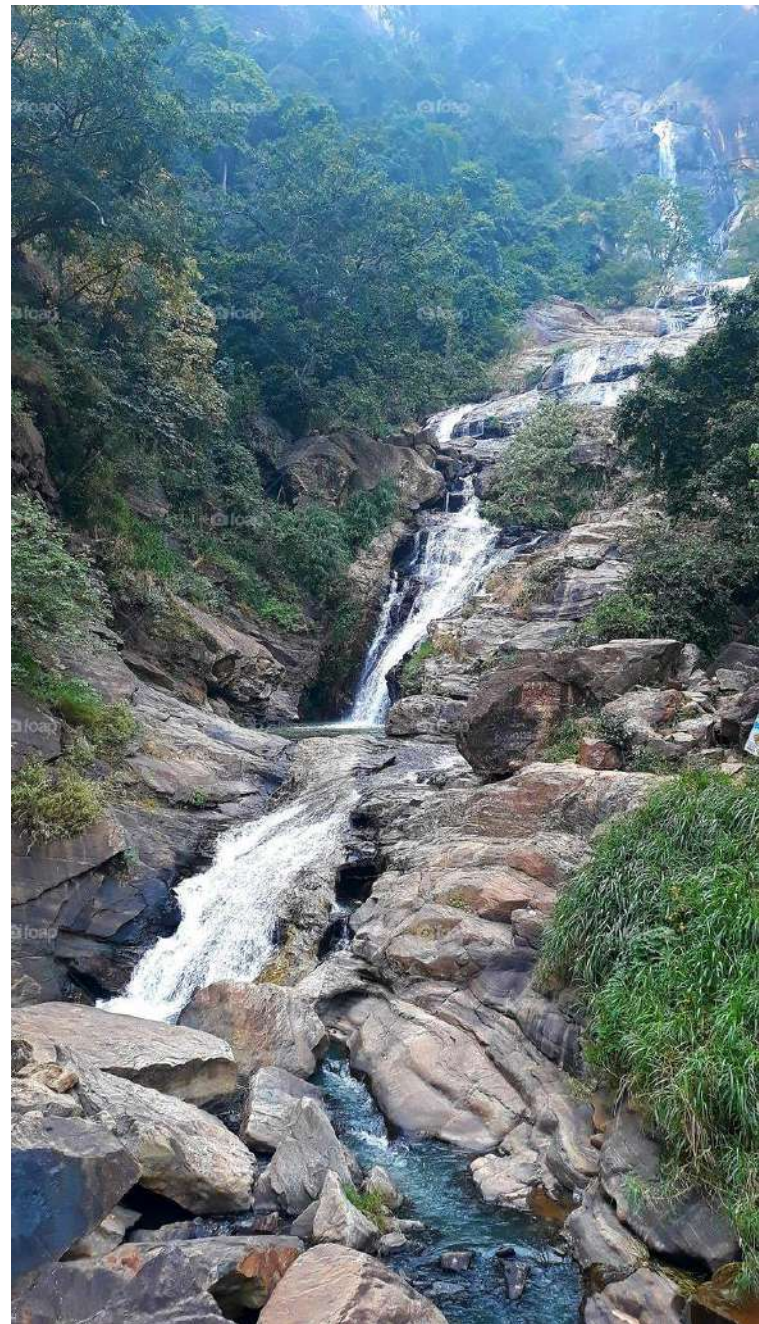
On the other hand, the cave is connected with the history belonged to King Walagamba too. As for the historical records, King Walagamba had escaped from the hill country and got ready in this area to battle with the invaders in Anuradhapura Kingdom. The tunnel network connecting to the Dowa Temple in Bandarawela from Ravana cave makes evidence to such incidents. However, the caves and tunnel network are said to be linked with the Ravana Legend too.

Attractions to experience Graceful Waterfalls

Ravana Waterfall

The falls have been named after the legendary king Ravana, which is connected to the famous Indian epic, the Ramayana. According to legend, it is said that Ravana who was the king of Sri Lanka at the time had kidnapped princess Sita, and had hidden her in the caves behind this waterfall, now simply known as the Ravana Ella Cave. It is also believed that Rama's queen bathed in a pool that accumulated the water falling from this waterfall. They believed that Ravana had played the Ravanahatha over here. This waterfall measures approximately 25 m (82ft) in height which is one of widest waterfalls in Sri Lanka. During the local wet season, the waterfall turns into what is said to resemble an Areca flower with withering petals. But during the dry season, the flow of

water reduces dramatically. The falls form from a part of the Ravana Ella Wildlife Sanctuary.



Total
Distance
6km
Distance
from Ella
station

Best Time
All day

Kithal Ella Water fall



Kithal Ella is a water fall located 3.5km away from the Ella Railway Station. It locates very close to the Kithal Ella Railway Station. From the point of Kithal Ella Railway Station, tourists should walk to kithal Ella. Height of Kithal Ella is approximately 23m. Kithal Ella is located on the way to Ella Rock. This attraction is one reason for tourists to hike the Ella Rock.

Places to explore the History

Dowa Temple

It is believed that Dowa Temple was built by King Walagamba in first century BC. Dowa Rock Temple is located a few kilometers away from the Ella Town on the Ella - Bandarawela Road. This is one of the temples built by the king while taking refuge in the Uva Province after an Indian invasion. The temple has gained popularity mainly due to its massive 38 feet Buddha Statue carved in the granite rock. But this temple also hides some secrets that time has forgotten. The incomplete image of the Buddha is carved out of a granite boulder. At the top of the boulder is a small stupa. This stupa is on the same level as the road and it is the only indication of a temple to a traveler on the road.

At the rear of the image house is a small stupa inside a cave. Behind this stupa, is a tunnel called the Ravana Cave. This 11 km

long tunnel is said to be connecting the Ravana Maha Viharaya and the Bogoda Raja Maha Viharaya. It is said that the king disappeared from the area overnight using the tunnels.



Activity
Type
Sightseeing

Activity
Level
Easy

Total time
**15min from
Railway
station**

Best Time
All Day

Rakkitha Kanda Raja Maha Viharaya



Rakkitha Kanda Raja Maha Viharaya is located 15Km away from the Ella Railway Station. The history of the temple goes to King Walagamba's period which reveals that he had built it. There is a Brahmin inscription within the cave in the temple. Its paintings show the influence of both of Kandyan and British era characteristics.

Comparatively, there is a less average tourist arrival for this temple premises. However, the temple has a panoramic view towards southern part of the country. In recent past,

rock climbing to Kurulangala which is located in a few distance and meditation in the premises have gained attention of tourists.

Bogoda Bridge and Temple

Bogoda bridge is located 24Km away from Ella Railway Station.

The Bogoda Wooden Bridge was built in the 16th century during the Dambadeniya era. The bridge is the oldest surviving wooden bridge in Sri Lanka. The bridge crosses the Gallanda Oya, which said that linked Badulla and kandy on an ancient time.

Bogoda temple is an ancient temple situated beside the Bogoda Wooden Bridge. It is a cave temple and the history of the cave goes to 01st century BC. There is a Brahmin scripture in the cave which reveals the temple had been donated to a Buddhist monk by a provincial leader in Badulla in that era. The paintings of the cave depict the influence of Kandyan era.

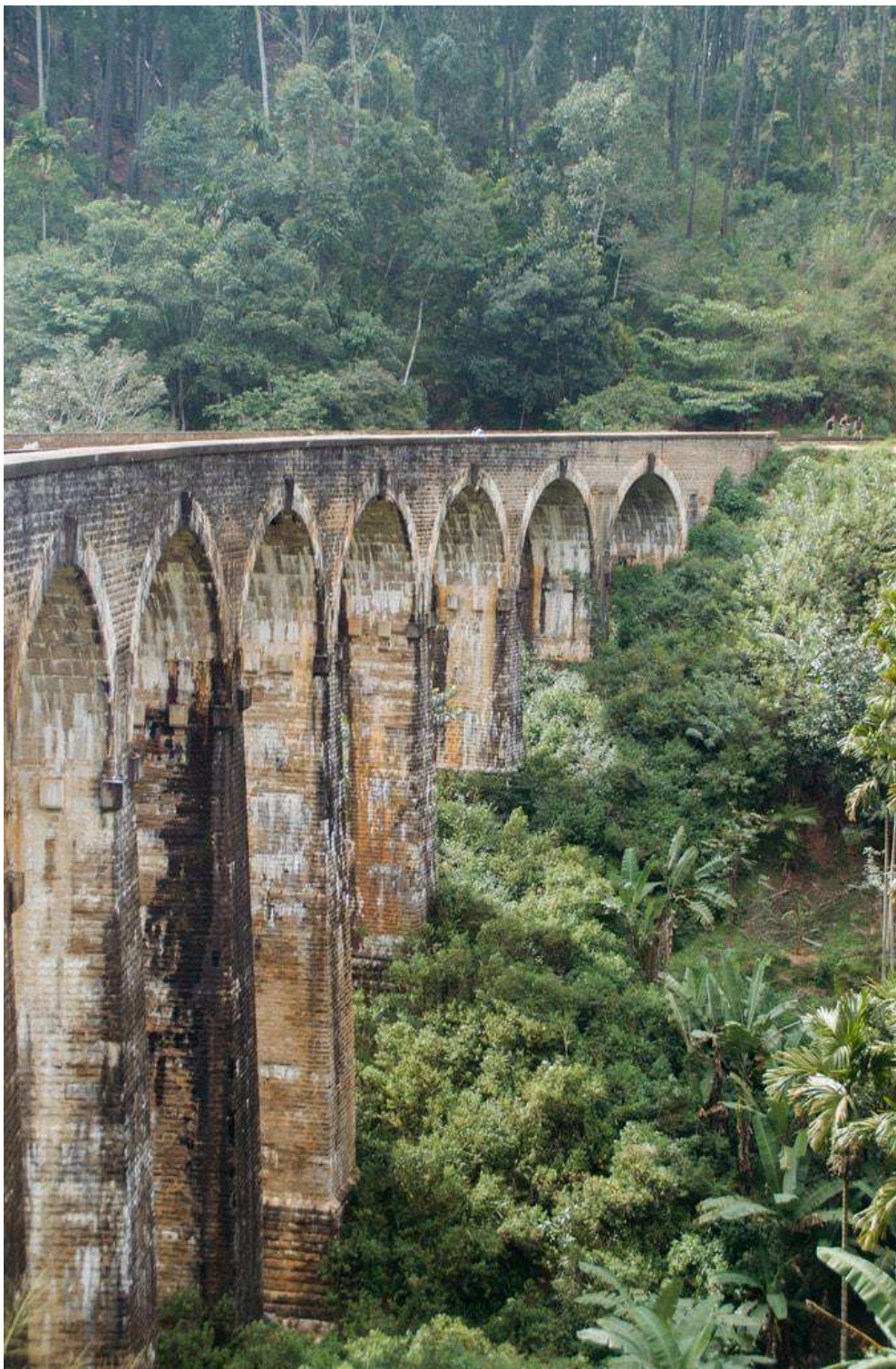
It can be said that this attraction gradually grabs the attention of the tourists who visit Ella.



Nine Arch Bridge

The Nine Arch Bridge also called the Bridge in the Sky is one of the best examples of colonial-era railway construction in the country. The construction of the bridge is generally attributed to a local Ceylonese builder, P. K. Appuhami, in consultation with British engineers.

Total length : 91 m
Height : 24 m
Width : 7.62 m
End of Construction : 1921



Activity
Type
Sightseeing

Activity
Level
Easy

Total time **30-45min** from
Railway
station

Best Time
All day
specially when
train passes

Attractions to experience Adventure

Flying Ravana

Flying Ravana is known to be Sri Lanka's first zip-line, located amidst the green estates of Ella, starting from Mini Adams Peak. The two-wire zip-line stretches for more than half a kilometer, slides at 80kmph and offers a bird's-eye view of the beautiful hills of Ella.

It is exclusively designed for adventure enthusiasts who seek adventure in their touring.

Activity
Type
Zip Line

Activity
Level
Tough

Total time
(Speed)
80kmph

Best Time
**Morning to
Evening**



Attractions on Rolling Wheels

Train Trip Ella – Kandy

It is known to be, the train from Kandy to Ella, higher up in the mountains is one of the most scenic train rides in the world. Thus, it has grasped the attention of many local and foreign travelers and is undoubtedly a popular trend to capture moments during this exciting ride.



3.2 Emergence of Ella as a Tourism Destination

Ella is one of the cities that inherit a great history.

3.2.1 Ella in Stone Age

Ella is identified as a place with pre historic settlements which are associated with cave and mountain based living cultures. It has been proved in archaeological excavations, primitive hunter gathers had lived in this valley, 25000 years back in the history. In recent years it has been discovered human skulls near Ravana cave, dating back to 20,000 BC.



- 1 Kongrayan-kulum Cave
- 2 Tantrimala Cave
- 3 Billawa Cave 01
- 4 Andiyagala Cave
- 5 Billawa Cave 02
- 6 Dimbulagala Cave
- 7 Arangodagala Cave
- 8 Lenama Cave
- 9 Mahalena Eliya Cave
- 10 Ethgale ge Cave
- 11 Dorawaka Cave
- 12 Gonagolla Cave
- 13 Ganagama Cave
- 14 Belilana Cave
- 15 Maniyangama cave
- 16 Punchi Kiriamma Galge Cave
- 17 Bogoda Cave
- 18 Sthripura Cave
- 19 Alugalge Cave
- 20 Batadomba Lena Cave
- 21 Batathota Lena Cave
- 22 Fa-hien Cave
- 23 Ravana Cave
- 24 Andire Lena Cave
- 25 Kuragala cave
- 26 Buduruwa Gala Cave
- 27 Pannila Kanda Cave
- 28 Waulpane Cave

Figure 20: Significant speleological cave sites in Sri Lanka

Source- Sri Lankan seals

3.2.2 Ella in 7000BC

After the prehistoric age, Ella had been a vibrant settlement during 7000 BC. Great King Ravana which is still plopping between myth and the reality believed to have lived in this area. Ravana was considered as a mighty king who ruled Sri Lanka back in the history. He is said to be known as a king who invented great technologies still untouched by modern world. Ella is considered as one of the locations where he used to shelter kidnapped queen Sita who was the queen of Rama of India. Places of Ella were named with his name based on stories and incidents of Rama-Ravana war. Ravana cave, Ravana Falls and Ravana Ella Forest Reserve are entangled with the stories of Ravana.

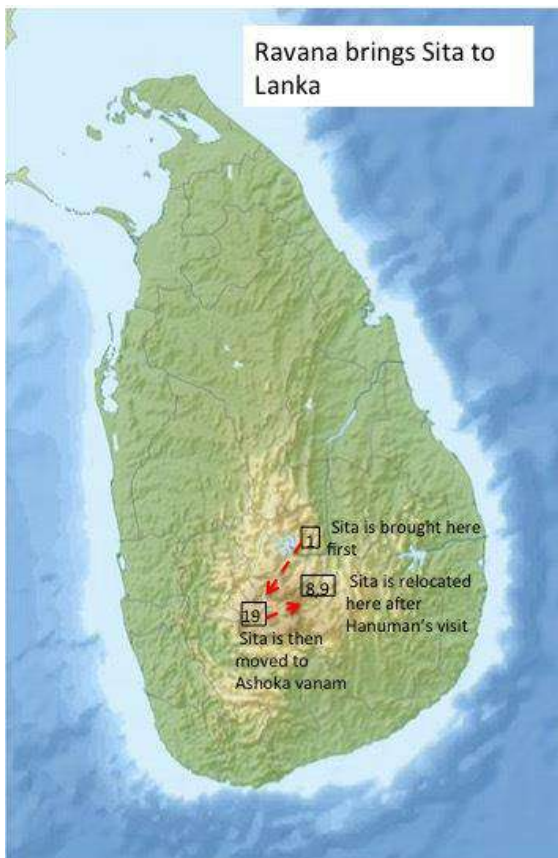


Figure 21: Places regarding the Ravana & Sita Story

History of Tunnel Network of Sri Lanka

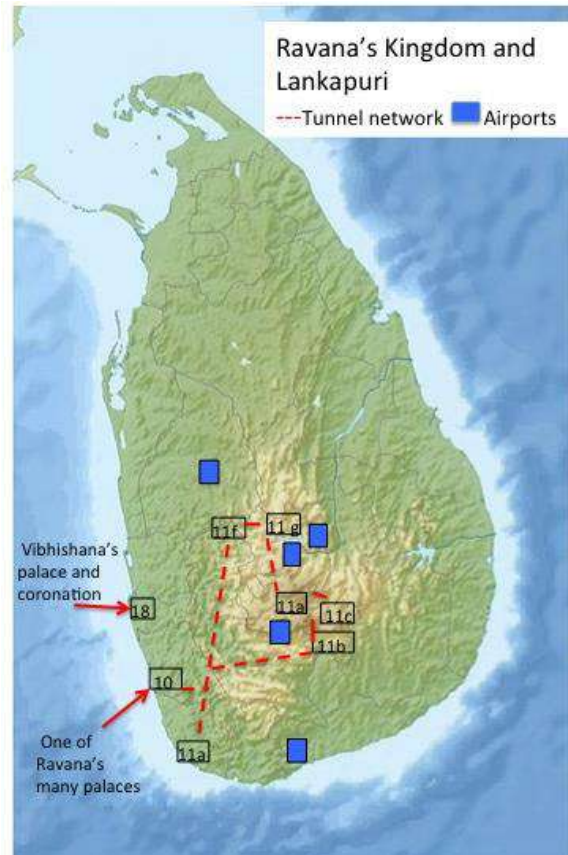


Figure 22: Ravana's kingdom with airports and tunnel network

Tunnel network which is to be believed as ancient man-made structures to travel through underground during king Ravana's period in enemy invasions were found. Existing tunnels mouths are situated in Ishtripura at Welimada, Ravana cave at Ella, Senapitiya at Halagala, Ramboda, Labookellie, Wariyapola, Matale and Sitakotuwa Hasalaka

Recently by a set of workers, who worked in the Uma Oya project discovered an underground tunnel network, believed to be constructed by King Ravana. This tunnel with 15ft height and 5ft width might have been constructed through Ravana Ella creating an underground passage from Ella, Wellawaya to Dowa temple in Bandarawela.

Scientific research has not been carried out on the tunnels and other sources related to King Ravana legend. Beyond the truth and

lies, these tunnel networks which fall through mountains of Ella and other sources have been capable to prove the brilliance of local engineering that strike against natural setting. Hence, this legend has attracted the attention of a massive number of tourists and history lovers around the world.

3.2.3 Ella in King Walgamba Period

The written millstone history of Ella is considered from King Waalgamba's period. During his period country was invaded by a group of Indian princes called as 'Shad Drawida'. The history reveals that the king escaped and hid in varied places for around eleven years. During this period, he was capable enough to form an army with the help of Kuppikala Maha Thissa Thero in order to battle against the invaders. Dowa Temple, Bogoda temple, Rakkitha Kanda Raja Maha Viharaya are considered places the king took refuge and set his forces. The connected tunnel network between those temples seems to have made a great contribution to escape during a threat. Thus, it confirms the natural setting of Ella is unbeatable and it is one of the best hide-out cities in the country.

Emergence of Ella as Small village

Before colonial era, Ella remained as a small hamlet associated with small tributaries of Badulu Oya. Badulla and Wellawaya were not directly connected to Ella through road networks. Hence, small settlements of Ella were isolated from other main settlements of the country. Hence it had covered from thick cover of forest and a range of mountains. As a result, Ella may have not performed as a well-connected settlement with any kingdom of Sri Lanka due to its geographical setting.

Before 1815

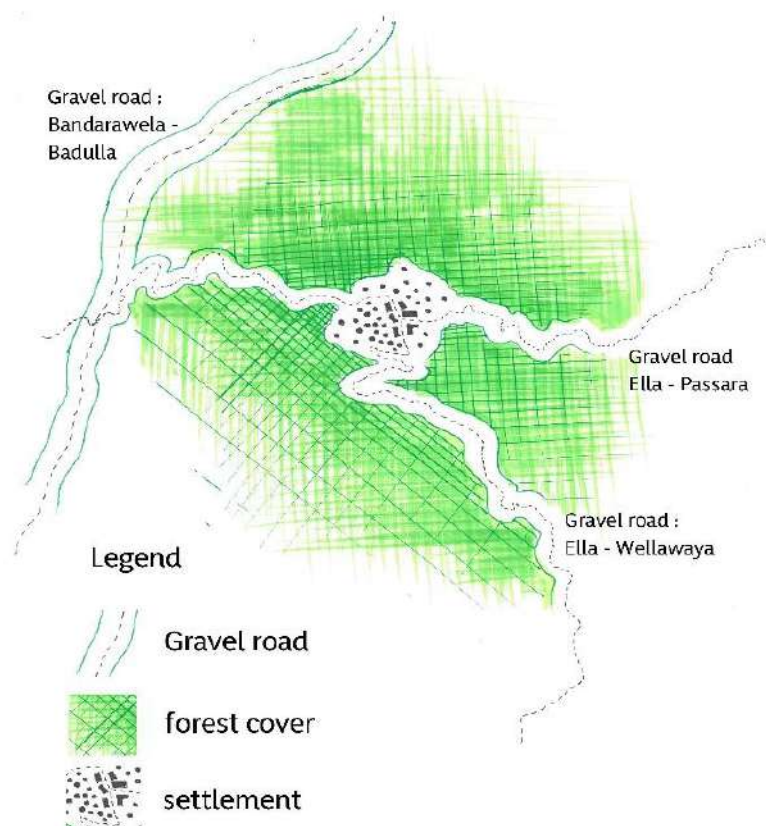


Figure 23: Ella, Before 1815

3.2.4 Ella during Colonial Period

Plantation economy played the main role to develop infrastructure in Ella.

British Period (1815 - 1796)

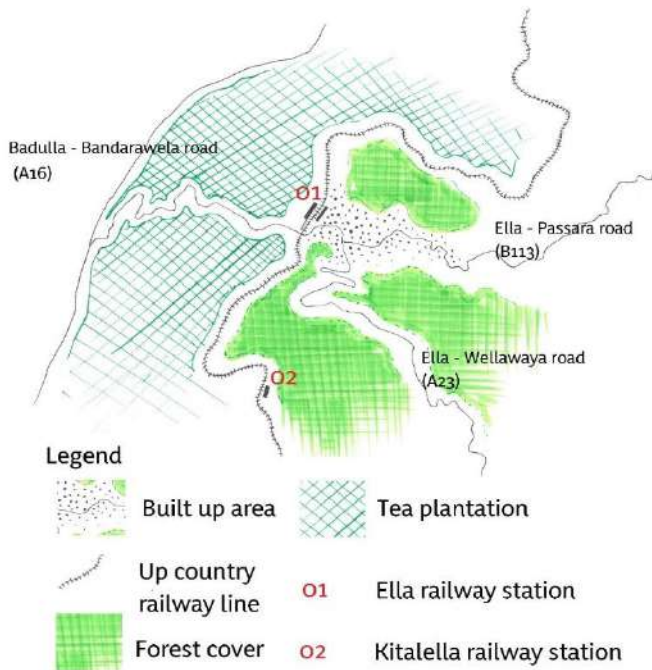


Figure 24: Ella, in British Period (1815-1796)

Ella starts its emergence with colonial activities by British. Development of Railway system placed Ella in plantation economy. Railway line was established in 1883 and still remain as one of the most scenic railway journey paths of the world. This can be identified as the key juncture of Ella history where Ella positioned in Sri Lanka's road and rail map for the first time and pave out connectivity barriers alone geographical setting.

Tea Estate based settlements were developed by British and multi ethnic living cultures were introduced around tea states.

Ella kept continuing its living and economic culture which was shaped by British influence. In 1970s Ella was connected with Wellawaya and down-south areas through Ella-Wellawaya Road development.

3.2.5 Ella as Tourism Destination

As for the coastal belt damage which took place to Tsunami tragedy in 2004, the trend of tourism shifted in a way where tourists sought inland tourist hotspots to travel. As a result, Ella began to grow as a key tourist destination after 2008 which is considered Sri Lanka's renaissance period after Tsunami. Based on this change, Ella diverted its local economic priorities beyond plantation.

3.3 Previous Planning Attempts

Before 2004, Sri Lanka's tourism destinations were aligned with south costal belt, central highlands around Kandy and North central historical cities. However, hidden inland places inevitably came in to tourism discourse after Tsunami tragedy and the civil war. Parts of central highlands were exposed to tourists' attention with safety and other concerns. As a result, Ella emerged as a vibrant tourism destination. It is noticed that Ella is surrounded with most active tourist destinations inland such as Kandy, Nuwara Eliya and Badulla that align with eco-tourism uses.

National Physical Plan 2015-2030

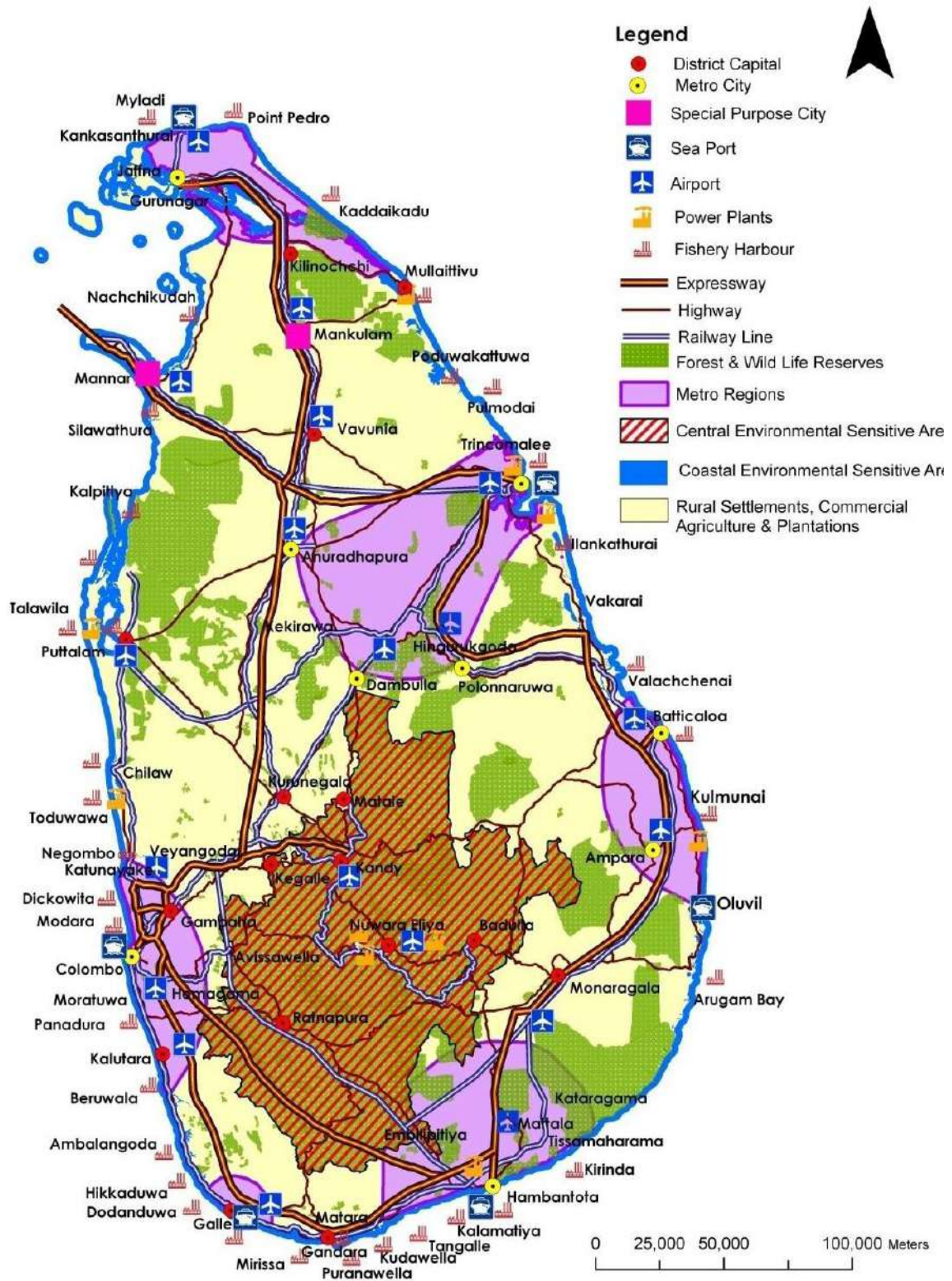


Figure 25: National Physical Plan 2015-2030

As per the previous National Physical Structure Plan proposed for the 2015-2030, Ella falls within Central Environment Sensitive Area regards against the development. Planed scenario for 2030 facilitates Ella with the Expressway network through Monaragala parallel to railway expansion. Since Ella is situated in central fragile area, national attention is to protect the area under sharpened environmental regulations.

Accordingly, peripheral hinterland of Ella belongs to promoted area for rural settlement, commercial and agricultural development.

However, it can be noticed that national development priorities do not stretch to Ella as its natural environment would discourage high level development vice versa.

National Physical Plan 2050

National Physical Plan - 2050 has following key National planning interventions which would directly affect on Ella development;

- Proposed expressway network from Buttala to Polonnaruwa.
- Proposed domestic airport at Wellawaya
- Proposed eclectic railway line parallel to proposed express network

Further, the tourism development strategies in the National Physical Plan-2050 has identified Ella as one of the tourist development areas and to be promoted based on eco-tourism concepts, with controlled development since it inherits highly environmental sensitive area.

Figure 5.1: The Proposed Spatial Structure -2050



Figure 26: National Physical Plan 2019-2050

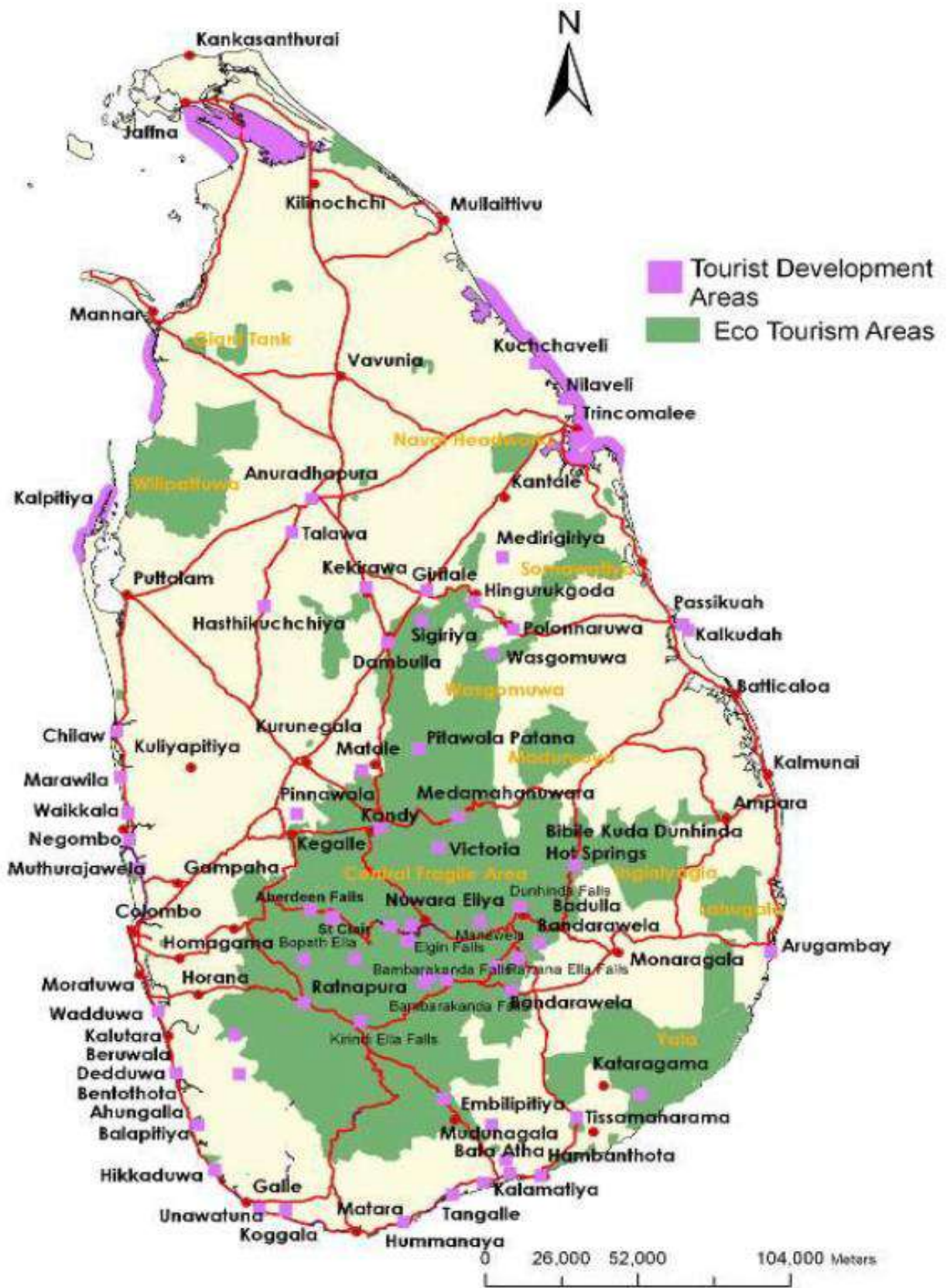


Figure 27: Tourism Promotional Areas (NPP 2019-2050)

Sri Lankan Tourism Strategic Plan 2017-2020

According to the Tourism Strategic plan, Ella was identified as one of the destinations in grand tour path which connect Colombo, Galle, Mirissa and Yala from the south corridor. Then it extends to Hortain Plains, Polonnaruwa and Sigiriya.

In recent years Ella caught the attention of many and as a result, a consistent growth in tourists' arrival took place. Moreover, the numbers are expected to reach considerable growth levels with the development of Greater Hambanthota including the efficient activation of Mattala Airport and Hambanthota Port. Based on these scenarios Ella is to be developed as a main tourist zone in Uva Province. Planning priorities were to develop Ella in an environment-friendly manner.



Figure 28: Grand Tour Map (SLTDA)

Ella Development Plan 2019-2030

Urban Development Authority of Uva Province has developed a Development Plan for Ella, consisting eight Grama Niladari Divisions as Ella, Idamegama, Kithalella, Maduragama, Newburg, Rawanaella, and Yahalwela. Vision of the plan is to combine environmental conservation and development with necessary infrastructure for tourism to protect and develop the aesthetic environment which makes the city as a natural tourist city. In order to achieve the identified vision, it has proposed Infrastructure, economic and environment strategies. Infrastructure Strategy has emphasized water distribution systems, road improvement, alleyways development, nature trail development, parking improvements, and waste disposal mechanism to the area. Economic Strategy of the plan has highlighted commercial and financial development to facilitate tourists and the Environmental Strategy of the plan has proposed landscape management, disaster risk management, and open space management to maintain the unique character of the area.

3.4 Present Tourism Functional Pattern in Ella

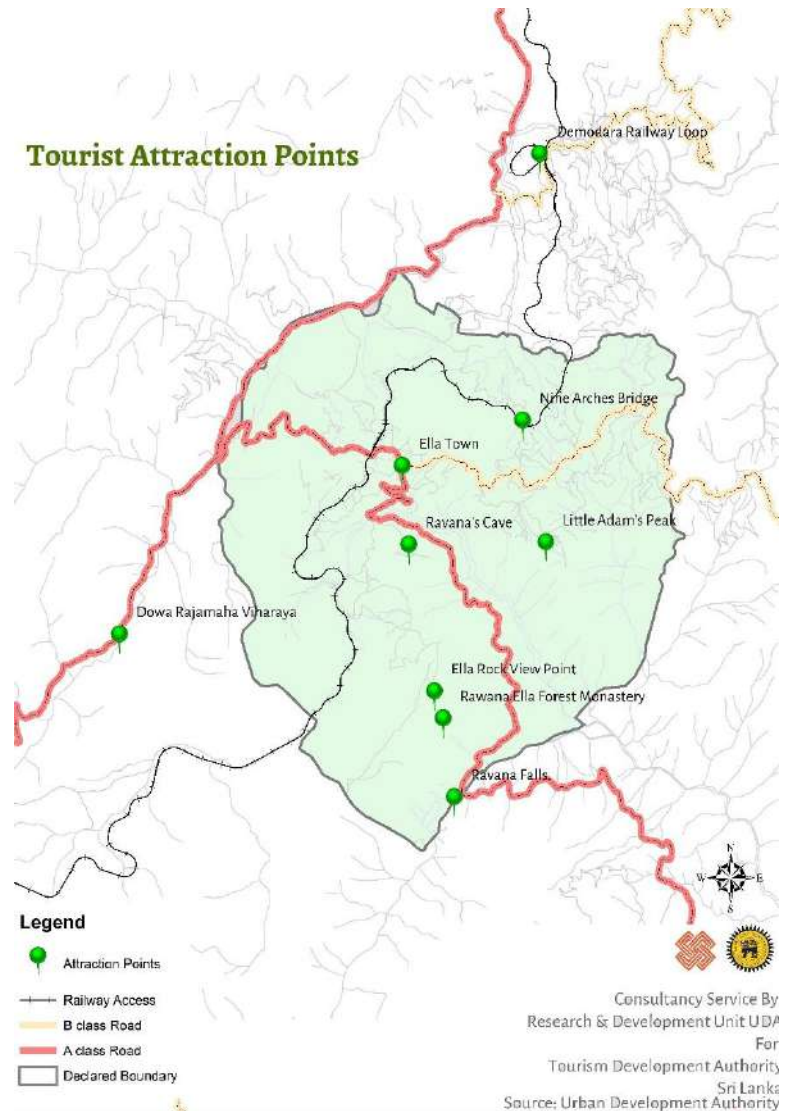
The considered area for Ella tourism planning is 25.35 Km² in extent and it includes natural areas such as mountains, grasslands, wild sanctuaries, waterfalls, caves and Small Township with rural villages. When preparing the Ella TDMP, it is important to identify the tourism functional boundary including the special tourism activity sites and tourism trails on which tourists' daily travel between different tourism sites. Similarly, it is important to understand the functional relationship between the tourism areas with other land uses and activities in the area.

3.4.1 Tourism Cluster of Ella

The active tourism clusters in Ella can be identified by studying the locations of tourist attraction places and concentration of tourism related services and facilities such as accommodation facilities, food & restaurants, shopping areas and tourism related service products.

a) Distribution of Tourism attraction points

The different types of tourist attractions places located within the boundary limits of Ella Planning Area were explained in the previous sections (3.1.2) as natural attractions, historical and archeological sites.



Map 3: Tourist Attraction Points



b) Terrain

To serve the tourists who come to those sites needs a service area. Current Ella town with a buffer of 500m evolve as the tourist service center due to the reason that this is the only valley of the area where building can be concentrated.



Figure 29: Terrain

c) Attractions and Tourist Travel Patterns

“Higher the accessibility greater the potential” is the key norm of Town Planning. Even though there is a wide range of choices of attractions to visit Ella, not all of them are popular and frequently visited due to relative distance among attractions, level of accessibility and preferences. As summarized in previous sections, the attraction points of Ella can be classified as historic sites and nature sites.

Below table indicates the distance to those attractions from Ella Town.

Depending on the distance and travel time, the tourist attractions in Ella can be zoned as shown in below map.

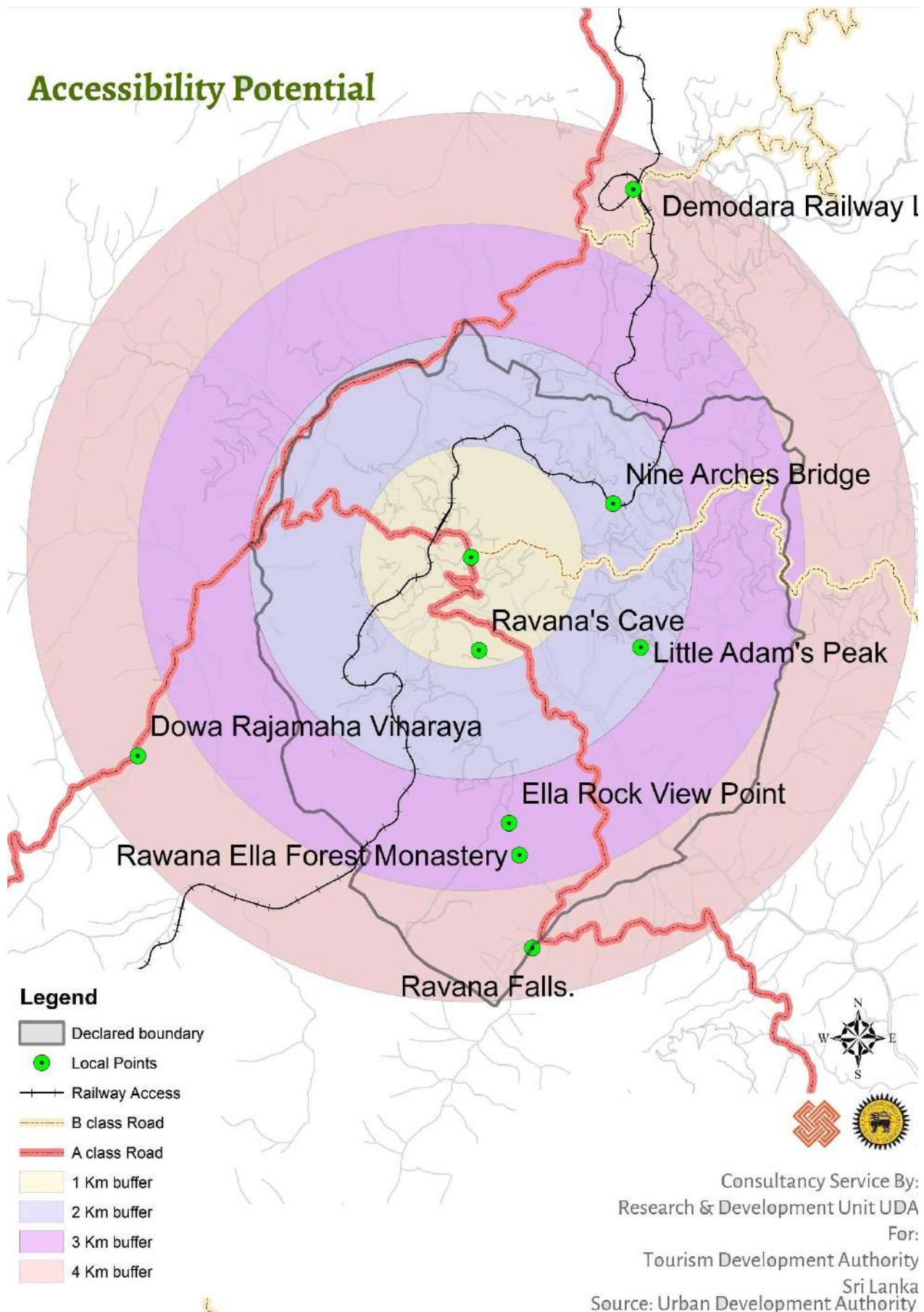
The probability of visiting different attractions in Ella has been estimated using survey data, online reviews, direct observations and secondary observatory data obtained from local

No	Name of the Tourist Attraction	Distance	Time
01	Ella Rock Starting Point	1.9km	4min
02	Ravana Ella	5km	9 min
03	Ravana Cave	500m	9 min by foot
04	Mini Adams Peak	5.6km	20min
05	Nine Arch Bridge	4km	14min
06	Dowa Temple	7.2km	16min

Table 4: Distance and Time for Tourist attraction points in Ella



Accessibility Potential



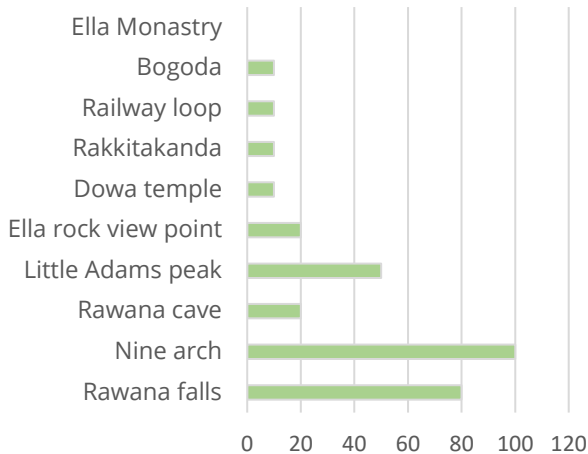
Map 4: Accessibility Potential- Ella

Probability of visiting tourist attraction points of Ella

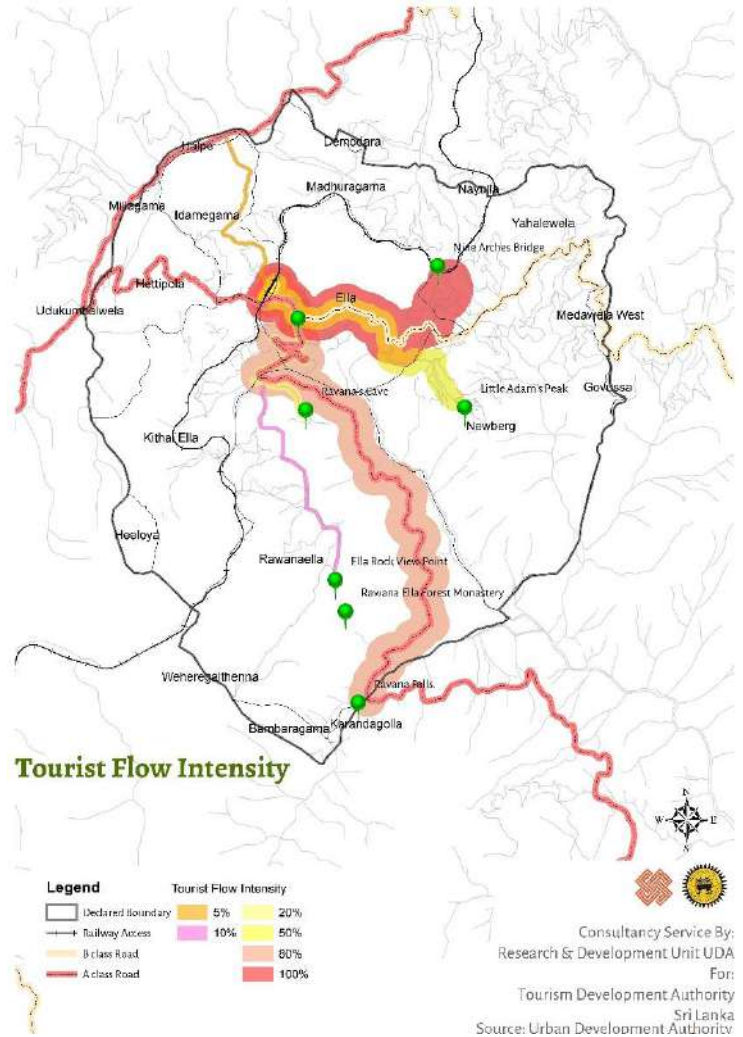
Rawana falls	80%
Nine arch	100%
Rawana cave	20%
Little Adams peak	50%
Ella rock view point	20%
Dowa temple	10%
Rakkitakanda	10%
Railway loop	10%
Bogoda	10%

Table 5: Probability of visiting tourist attraction points of Ella

Visiting Intensity



Further the following flow pattern and flow densities were identified based on the probability of tourists visiting different tourism attractions



d) Distribution of Tourism Related Services and Facilities in Ella

There are different types of tourism related services and facilities. Among them, accommodation facilities, restaurants and food stalls, shopping places and complementary services such as Ayurvedic spa, yoga classes, and renting places are the main categories of services that can be observed within Ella Tourism Planning Area.

- Accommodation Facilities**

There are different types of accommodation facilities located within the boundary limits of

Ella Tourism Planning Area such as hotels, guest houses, private cottages; villas, bungalows & cabanas, tourist hostels, homestay and camping etc.

However, most of the accommodation facilities in Ella Tourism Planning Area are concentrated within 500m distance to the Ella - Wallawaya Road and 500m distance to the Passara Road.

There are approximately 400 hotels and 860 rooms in Ella Planning Area. The facilities to accommodate per day tourist arrival are sufficient as it vary between 250 - 500. But accommodation issue arises with the increase of nights tourists spend during the peak season.

GND	No of Hotels	No of Rooms
Ella	169	510
Kithal Ella	193	215
Rawana Ella	6	37
Yahalawela	13	29
Hettipola	9	26
New Burge	2	27
Idamagama	1	15
Maduragama	4	8
Total	393	859

Table 6: Accommodation Facilities

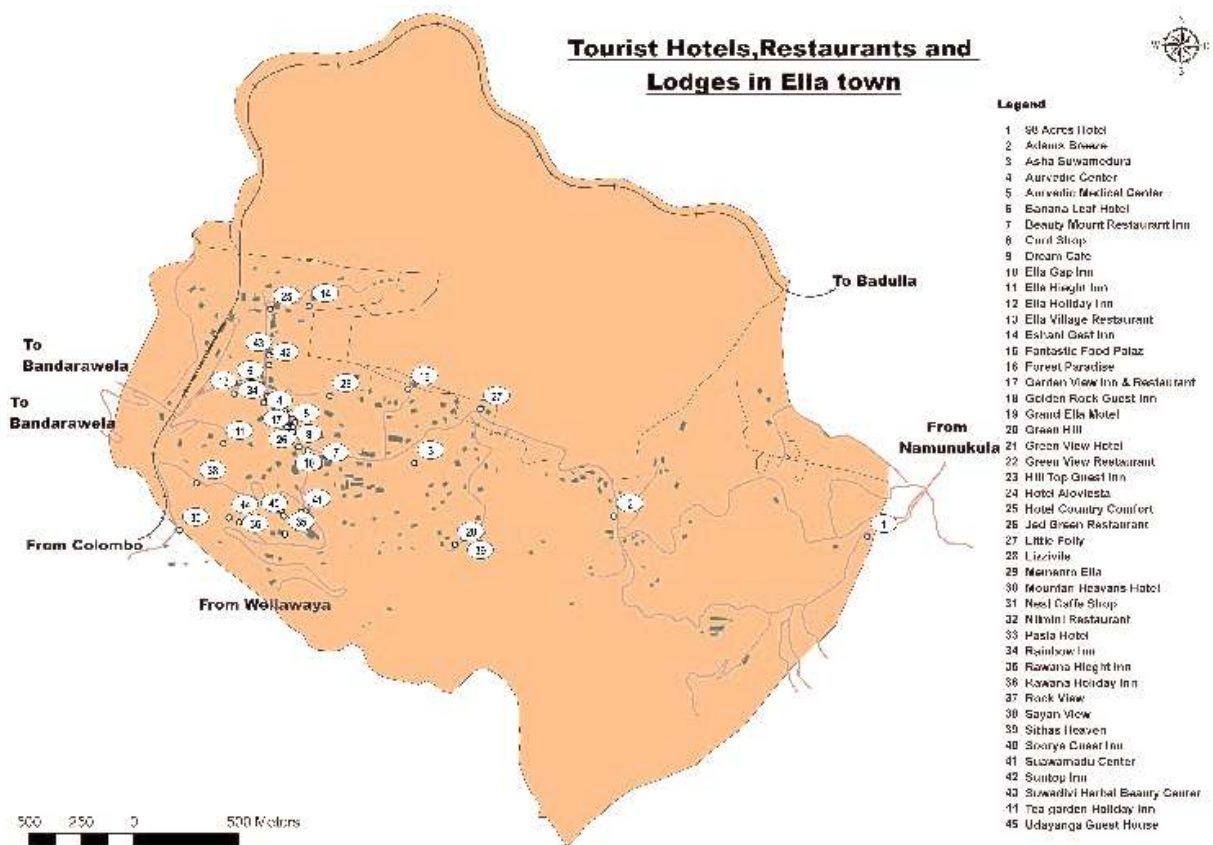


Figure 30: Tourist Hotels, Restaurants & Lodges in Ella

Tourists' Choices of Accommodation Facilities

From the field survey conducted in the month of October, 2019, the tourists' preferences of accommodation places could be identified as follows. As per the given graph, it can be identified that the majority (67%) of the tourists interviewed had stayed in Budget Hotels whereas 14% of tourists had preferred Homestay.

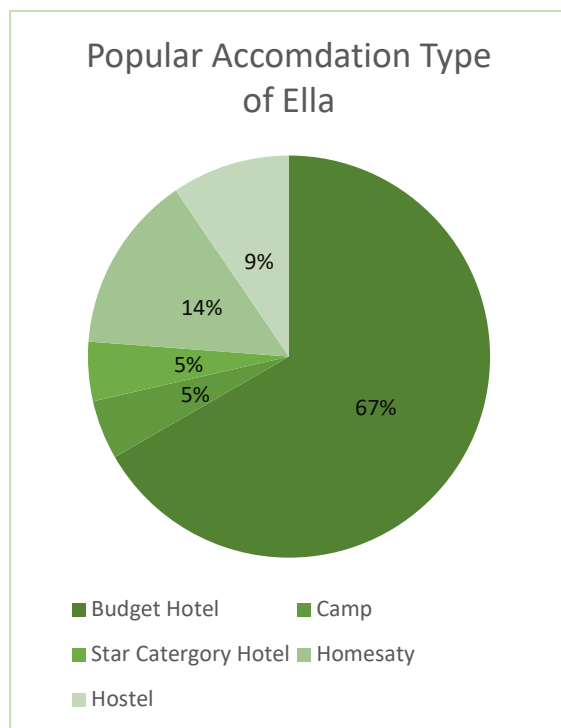


Figure 31: Popular Accommodation Type of Ella

- **Price Range of Accommodation Facilities**

Usually the price range of accommodation facilities in Ella varies from LKR 1000 (US\$ 5.5) – 50,000 (US\$ 332) depending on the class, standards of the facilities and the location. The double room rates of around 40% of the units are below Rs. 5000 (US\$30) while around 10% charge over Rs. 20,000 (US\$ 120). The most popular range appears to be Rs. 2,000 to 3,000 with around 20% belonging to this category.

Food & Restaurants

The main food and restaurants area serving the tourists in Ella is along the Ella Wallawaya and Passara Road. There are a number of restaurants and food stalls which offer different types of menus including Sri Lankan and international dishes. There are a variety of food serving places including hotel restaurants & bars, food restaurants, pubs, bars & lounges and café etc. The price of food varies from LKR 500 (US\$ 2.77) to LKR 2000 (US\$ 11) per person depending on the menu selected and the place chosen to eat.

Ella town becomes a very attractive and interactive place in the evening with unique style of lighting which highlight each restaurant's classy designs of walls, facades, furniture and overall interior and exterior spaces.

Besides the Ella town area, some food & restaurant areas placed only near the little Adams's peak and small-scale boutique and grocery shops can be seen nearby Rawana Ella and Rawana Caves.



- **Shopping**

The main shopping items in Ella are the clothes, jewelries, ornaments and arts & crafts and these are also predominantly located along the Ella Wellawaya and Passara strip of Ella. Just as the restaurants & cafes, there are nearly 5 to 10 number of clothes, jewelries and arts & crafts shops located within the Ella Town. The prices of the products at these shops are bit expensive when compared to the local market products as its target market is the international tourists rather than the locals.

- **Tourism functional Area of Ella**

Identification of the Ella Tourism Functional Area was done considering the following criteria.

- Distribution of tourism attractions
- Tourism travel patterns and flow densities
- Distribution of tourism related services and facilities

Accordingly, it was identified that the Ella Tourism Functional Area extends from Ella towards north up to Nine Arch Bridge and towards south up to Rawana Falls. Also, it extends towards west up to Edge of Town Center and towards east up to Little Adams Peak.

Ella Tourism Functional Area is formed of few tourism activities with different characteristics and functions.

3.5 Tourist Arrivals at Ella

As explained in the previous section, Ella Tourism Functional Area expands over the wide geographical area due to existence of variety of tourism attractions and clusters functionally linked with main Ella tourism destination. Due to the variety of different attractions, there are nearly four tourism

types blended together with the main type of Nature view. This variety also attracts a variety of both local and international tourists to the Ella Tourism Planning Area.

3.5.1 Volume of Tourists

As per the records of Ella Development Plan (2019-2030) prepared by Urban Development Authority, Uva Province, the volume of tourists arrived at Ella from 2012 to 2018.

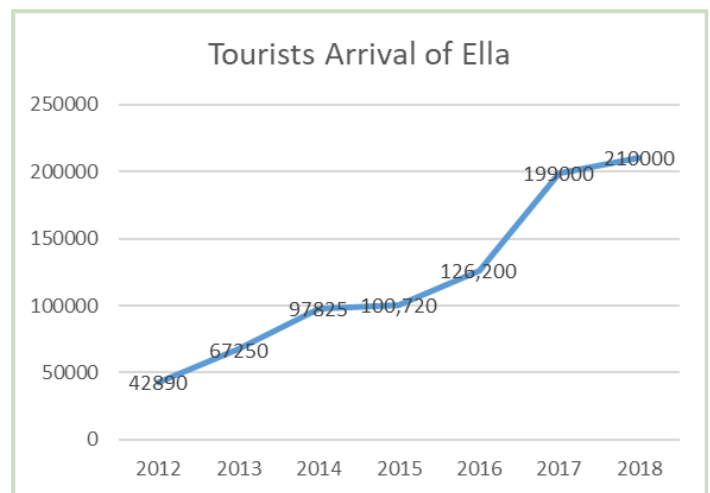


Figure 32: Tourist Arrivals of Ella

Trend of tourism arrival for the last Seven years

- The annual tourist arrived at Ella in 2012 -42890
- The annual tourist arrived at Ella in 2013 - 67250
- The annual tourist arrived at Ella in 2014 -97825
- The annual tourist arrived at Ella in 2015 -100720
- The annual tourist arrived at Ella in 2016 -126200
- The annual tourist arrived at Ella in 2017-199000
- The annual tourist arrived at Ella in 2018-210000

Ella has experienced a significant growth of tourist arrivals since 2008. The annual average growth rate is recorded to be 26% from 2012 to 2018. As per the business as

usual scenario (by using exponential growth model) expected tourist volume for the Ella by 2030 is expected to reach 2400000.

3.5.2 Types of Tourists

Categorization of tourists by country

8% of the tourists visiting Ella found to be local tourists during the field survey conducted in Ella Tourism Planning Area in October, 2019. Most of the local tourists visit Ella to enjoy hiking as well as experiencing cultural and heritage sites.

When categorizing is done based on country of the tourists, the majority of the tourists visiting Ella are from developed countries such as Israel, Australia, England, Germany, China and France, Switzerland, Ireland as depicted below,

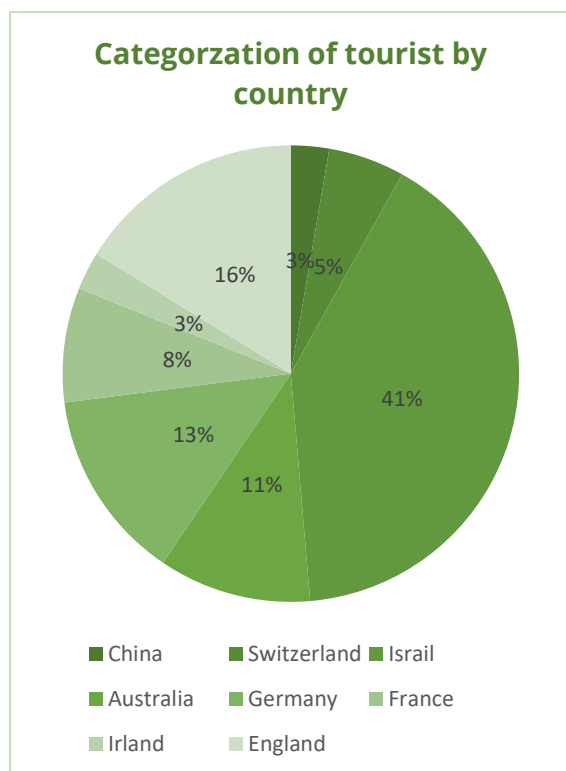


Figure 33: Categorization of tourist by country

Categorization by age

The topmost of the age groups visiting Ella is recorded by young tourists who are between the age 20 and 25 (59%). Moreover, the group between the 26 and 30 years (23%)

responded that they had come with their partners to enjoy the nature and atmosphere of Ella. On the other hand, most of the local tourists select Ella as a honeymoon destination. Hence, it can be concluded that Ella is popular among the young generation around the world.

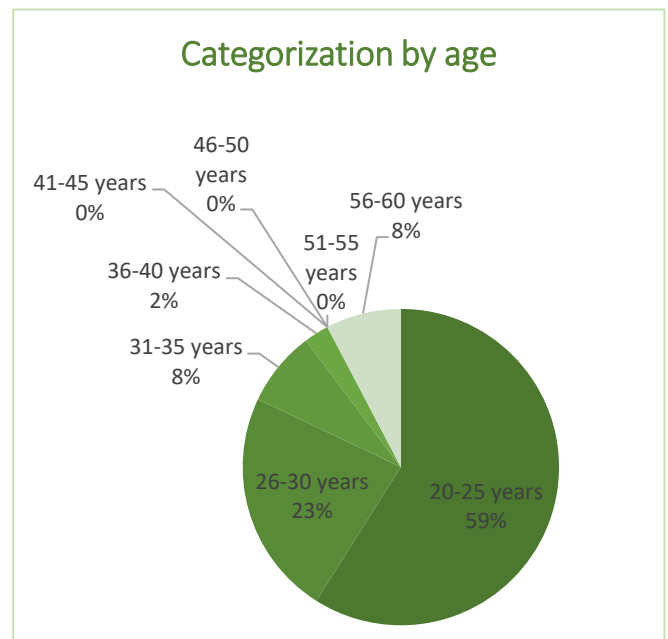


Figure 34: Categorization by age

Categorization by Occupation

When considering the occupation of the tourists who visit Ella, even though majority of them are young travelers who are between the age category 20 to 29, they are engaged in reputed occupations namely, businessmen, educationists and professionals. The usual assumption is that tourists who arrive in Ella are backpackers. Through the survey, it was understood that Ella is visited by a majority of backpackers (90%) who have completed their higher studies or engaged in higher studies.

3.5.3 Duration of Stay in Ella

The most frequent average duration of stay in Ella was recorded to be 3 nights whereas the second most frequent stay was 2 days with the expectation to enjoy the natural view, local culture and special tourist activities at the destination such as hiking, zip line etc., within the relatively short period of time.

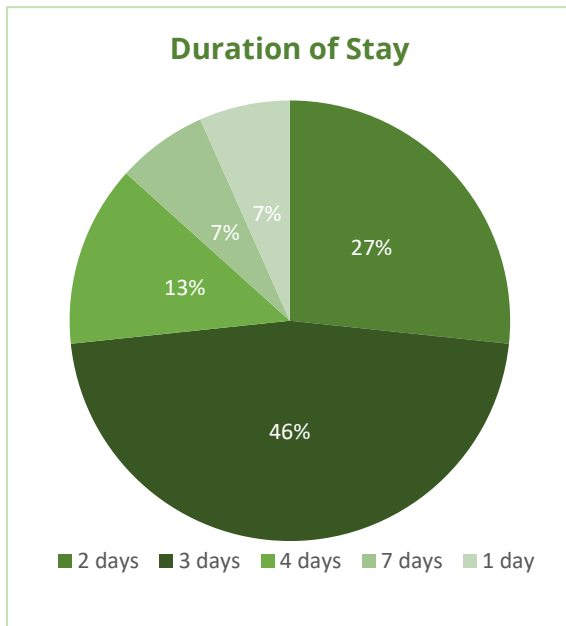
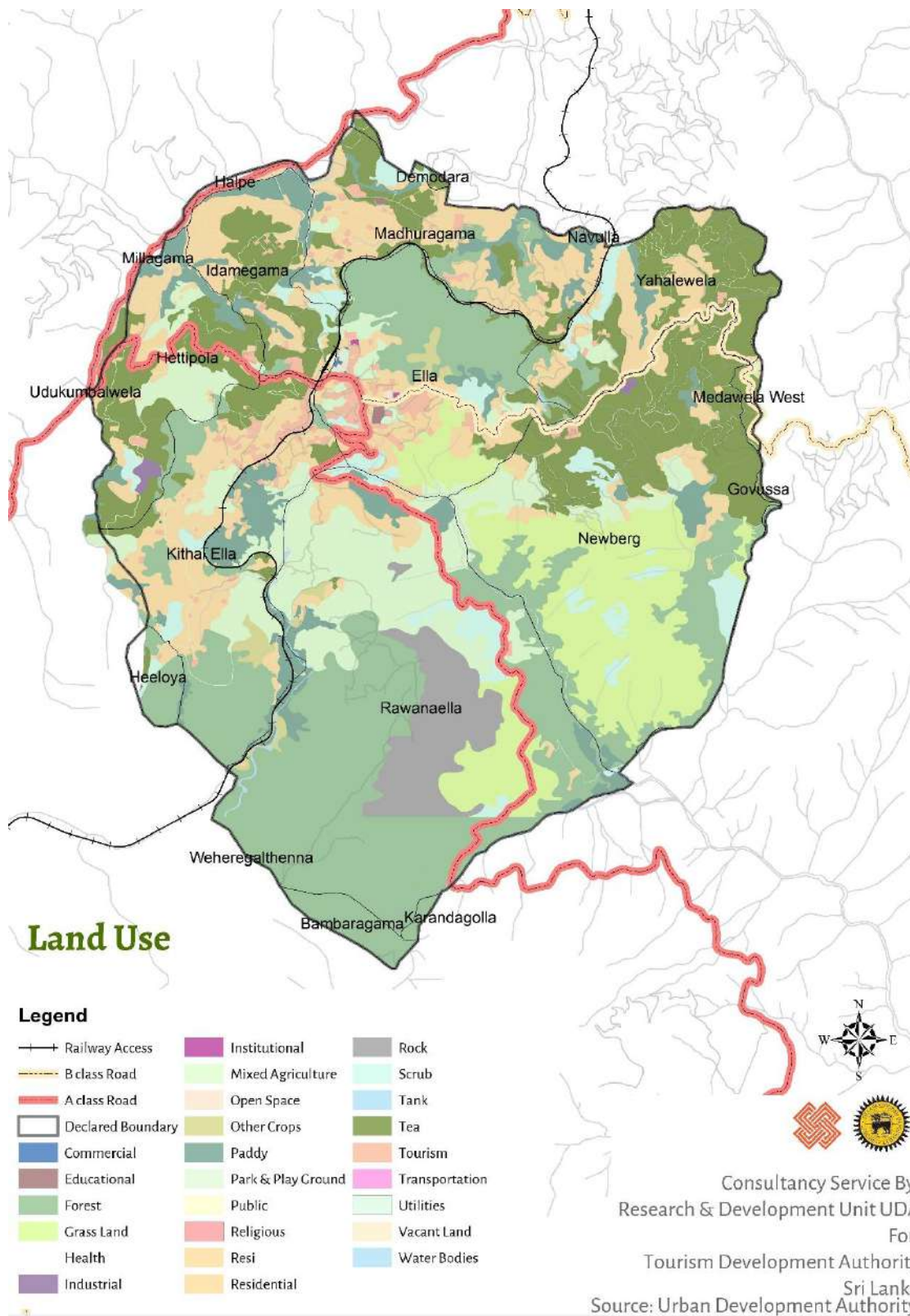


Figure 35: Duration of Stay

'Ella is not just a place to experience the natural beauty. But a place to enjoy the climax of spiritual relaxation with your loved ones'



3.6 Land Use and Tourism in Ella



Map 6: Land Use

Land Use Type	%
Water Bodies	0.271
Forest	25.502
Grass Land	10.680
Health	0.004
Industrial	0.180
Institutional	0.023
Mixed Agriculture	12.505
Open Space	0.018
Other Crops	0.683
Paddy	6.351
Park & Play Ground	0.045
Public	0.035
Religious	0.014
Residential	15.682
Rock	3.432
Scrub	3.858
Tank	0.019
Tea	17.612
Tourism	2.150
Transportation	0.003
Utilities	0.017
Vacant Land	0.017
Abandon Paddy	0.07
Commercial	0.108
Educational	0.070

Table 7: Land use distribution

Ella tourism is based on its natural environment and natural landscape setting. According to the above chart, it is evidently proved that more than 70% of land use of current Ella encourage tourist to visit Ella to experience its unique natural view. But unfortunately, there is a huge threat for the natural setting of Ella with the growth of tourism. People have started converting forest and tea plantations into tourism

hotels, lodges, commercial and residential properties.

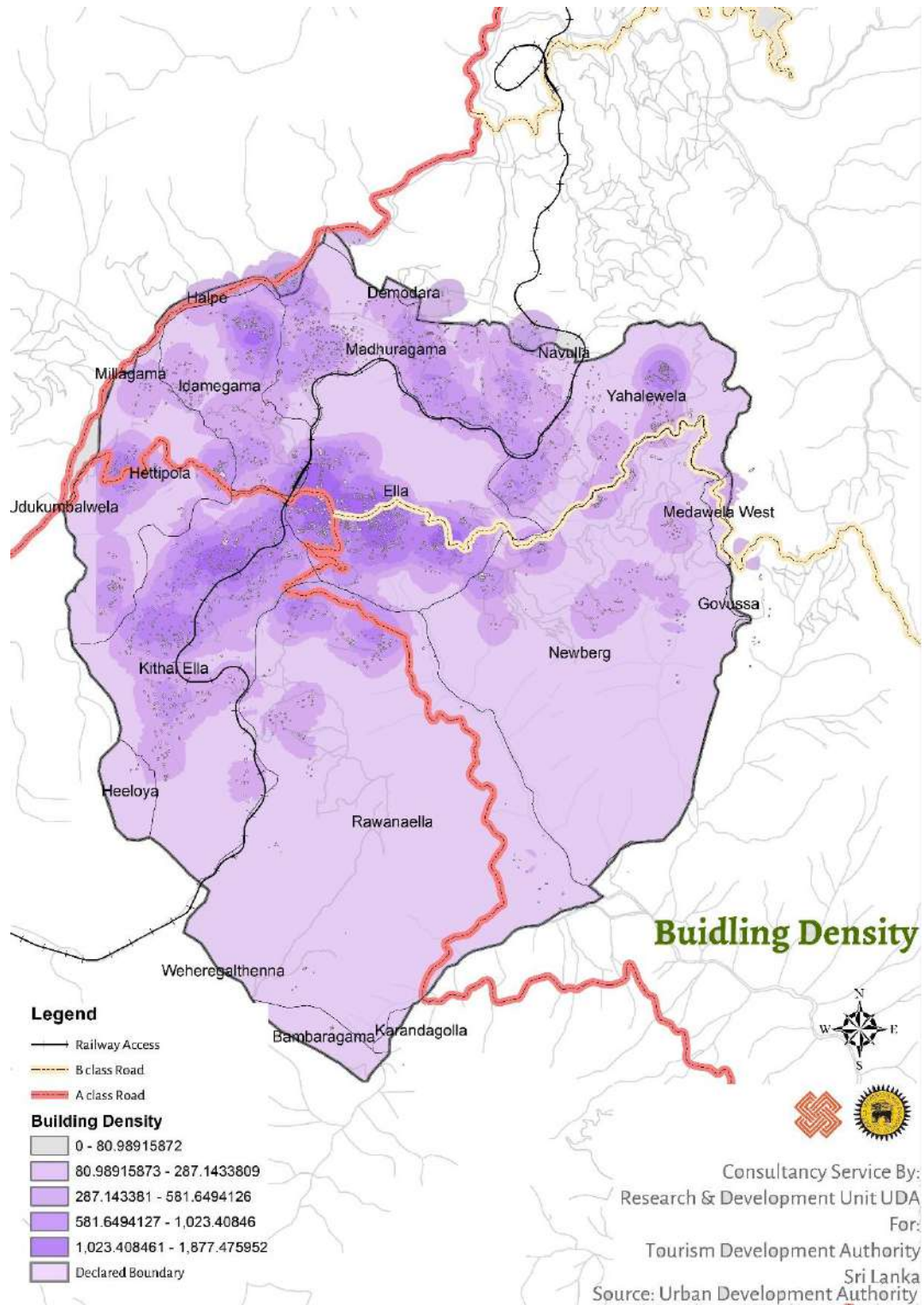
The land use maps prepared by the Survey Department of Sri Lanka in 1999 and the Urban Development Authority 2017 were used to analyze the land use pattern of the planning area. Accordingly, to such, it was noticed that land use pattern has become more complex with the rapid changes that had taken place within the last 18 years.

When the forest use pattern from 1999 to 2017 is considered, the area of forest has decreased gradually. In figures it is a reduction from 1000 acres to nearly 300 acres. The reason behind the gradual decline of forest is conversion of forest to tea and other plantations. Further, rise of residential population has also been a reason to clear the forests areas to construct housing and lodge units. Another reason is the gradual transformation of forest into grasslands. In

1999, the total tea cultivation extent of the area was recorded as 800 acres but in 2017 the land area figure was only 350 acres. This is believed to have taken place due to the changing use of tea cultivation to other plantations and residential uses. Extent of paddy fields has also gradually declined. In the year 1999, the recorded land area figure was approximately 170 acres but at present it has gone down up to about 80 to 90 acres. This is said to be due to the conversion of paddy lands to other crops while transformation them to grasslands. The meadowlands have also declined during the last 18 years with the conversion of those lands for residential purposes and cultivations. In figures it is from 600acres to 240 acres.

The use of commercial land, limited to Ella Junction seems to have increased rapidly from 2017 onwards, as for the conversion of residential properties to lodges with the rapid rise of tourist arrivals. It should be concerned that this conversion has massively damage the natural environment of Ella.

As a conclusion, it can be pointed out that the overall changing pattern of land use from natural to the built ups have ultimately become a threat to the serene environment as well as positive trend of tourism in Ella.



Map 7: Building Density- Ella

Land Value and Ownership in Ella

As Ella is gradually developing into a tourist destination since year 2008, land prices also have gradually increased with high demand for tourism related activities. Other than the scenic view and infrastructure availability, ownership of land is one of the key factors in determining land prices at Ella. Following are the land values and land ownership classification in Ella Planning Area.

Place	Minimum Value Rs. (Per Perch)	Maximum Value Rs. (Per perch)
Ella Town	1450,000.00	2000,000.00
Passara Road	525,000.00	1500,000.00
Kithal ella Road	1250,000.00	210,000.00
Ella – Wallawaya Road	225,000.00	800,000.00
Ella to Kumbalwela Road	220,000.00	290,000.00

Table 8: Land Values

GND	Government Own lands	Lands grant by government to private sector	Forest Land	Lands of Land Reform Commission	Freehold Lands	Encroachments	Jaya Bhumi, Swarna Bhumi, Bim Sawiya and Permits
Yahalawela	02 Acres	120 Acres	06 Acres	05 Acres	20 Acres	02	25 Acres
Idamegama	-	-	-	-	138 Acres	-	26 Acres
Kithalella	03Roots	-	120 Ha	-	152 Acres	01	140 Acres
Hettipola	01 Acres	200 Acres	05 Acres	30 Acres	12 Acres	02	15 Acres
Maduragama	08 Acres	10 Acres	08 Acres		30 Acres	02	365 Acres
New Burg	-	350 Acres	280 Acres		295 Acres	02	05 Acres
Ella	43 Acres	13 Acres	255 Acres		99 Acres	05	78 Acres
Ravana Ella	-	-	1200 Acres		200 Acres	400	300 Acres
Total	54.7	693	2050	35	946	414	954

Table 9: Land ownership classification

3.7 How Infrastructure facilitates the Tourism Industry in Ella

Infrastructure is an intrinsic part of tourism. Following are some evidence proved by scholars that tourism is a key element of tourism industry. Gearing et al (1974) study on the case of Turkey as a tourist destination found that infrastructure (comprising roads, water, electricity, safety services, health services, communications and public transportation) is a key determinant explaining tourist arrivals. Tang and Rochananond (1990) concluded that infrastructure is an important element in promoting Thailand as a tourist destination country. Kim, (2000) in discussing the case of Sun Lost City, South Africa, and McElroy (2003) in discussing small islands highlight the importance of infrastructure, particularly government financed infrastructure, in the success of a destination. Similarly, there are many researches which have proved the importance of infrastructure to promote the tourism industry. For that reason, it is important to understand the relationship between infrastructure and tourism industry in Ella.

Source:<https://www.ukessays.com/essays/tourism/tourism-infrastructure-and-tourism-development-tourism-essay.php>

3.7.1 Transport

Rail Transport

Colombo – Ella

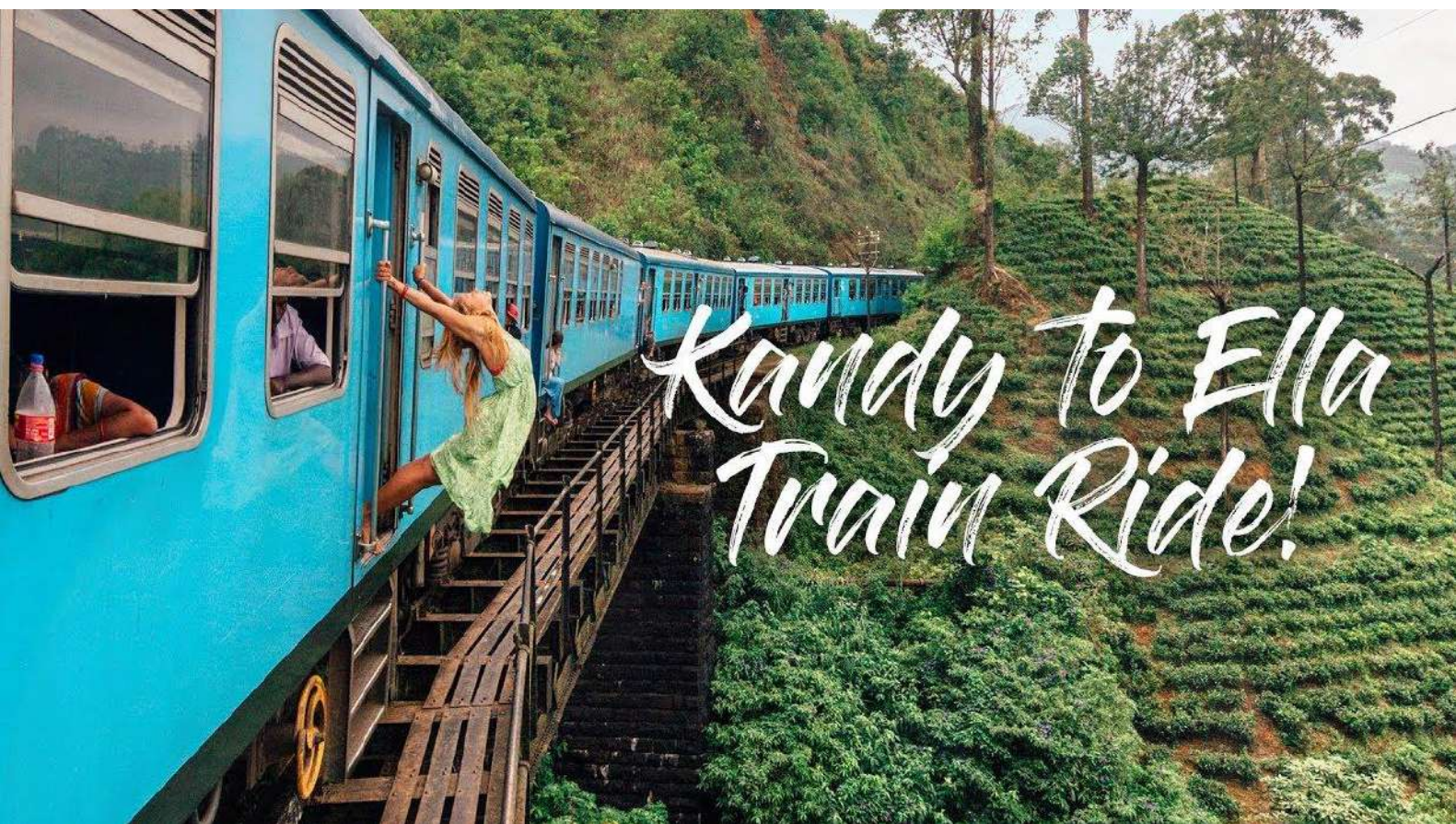
Train Detail	Departure Time	Arrival Time	Frequency
Podi Menike Train No : 1005 Express Train	05.55 a.m	15.14 p.m	Daily
Udarata Menike Train No: 1015 Express Train	08.30a.m	17.27 p.m.	Daily
1007 Train No : 1007 Express Train	09.45a.m.	18.22 p.m	Daily
Night Mail Train No: 1045 Night Mail Train	20.00p.m	06.05 a.m	Daily

Peradeniya-Ella

<i>Train Detail</i>	<i>Departure Time</i>	<i>Arrival Time</i>	<i>Frequency</i>
<i>Train No: 1126</i> <i>Long Distance</i>	03.47 a.m	13.24 p.m	Daily
<i>Podi Menike</i> <i>Train No: 1005</i> <i>Express Train</i>	08.57 a.m	15.14 p.m	Daily
<i>Uderata Menike</i> <i>Train No: 1015</i> <i>Express Train</i>	11.19 a.m	17.27 p.m	Daily
<i>1007</i> <i>Train No : 1007</i> <i>Express Train</i>	12.31 p.m	18.22 p.m	Daily
<i>Night Mail</i> <i>Train No: 1045</i> <i>Night Mail Train</i>	23.06 p.m.	6.05 a.m	Daily

Kandy - Ella

<i>Train Detail</i>	<i>Departure Time</i>	<i>Arrival Time</i>	<i>Frequency</i>
<i>Train No: 1126</i> <i>Long Distance</i>	03.30 a.m	13.24 p.m	Daily
<i>Podi Menike</i> <i>Train No: 1005</i> <i>Express Train</i>	08.47 a.m	15.14 p.m	Daily
<i>Uderata Menike</i> <i>Train No: 1015</i> <i>Express Train</i>	11.10 a.m	17.27 p.m	Daily

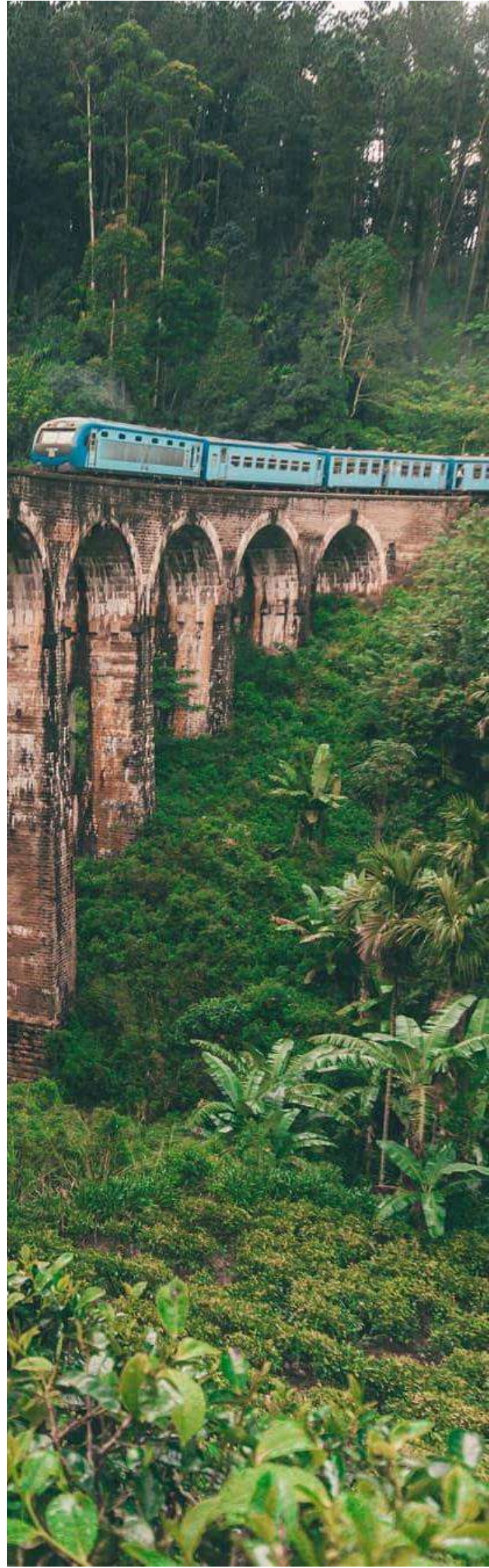


Nanu Oya - Ella

<i>Train Detail</i>	<i>Departure Time</i>	<i>Arrival Time</i>	<i>Frequency</i>
Night Mail Train No: 1045 Night Mail Train	03.11 a.m	06.05 p.m	Daily
Train No: 1126 Long Distance	09.30 a.m	13.24 p.m	Daily
Podi Menike Train No: 1005 Express Train	12.45 a.m	15.14 p.m	Daily
Uderata Menike Train No: 1015 Express Train	11.19 a.m	17.27 p.m	Daily
1007 Train No : 1007 Express Train	15.01 p.m	18.22 p.m	Daily

Table 10: Time schedules (Trains)

Source: <https://www.visitella.com/train-times>



Road Network

Ella city is regionally connected via following primary road network of Ella - Wallawaya Road (A23) which is 14 km, Colombo - Badulla Road (A16) 12 km, and Ella - Passara Road (B113) 27km.



Map 8: Accessibility- Ella

Connectivity

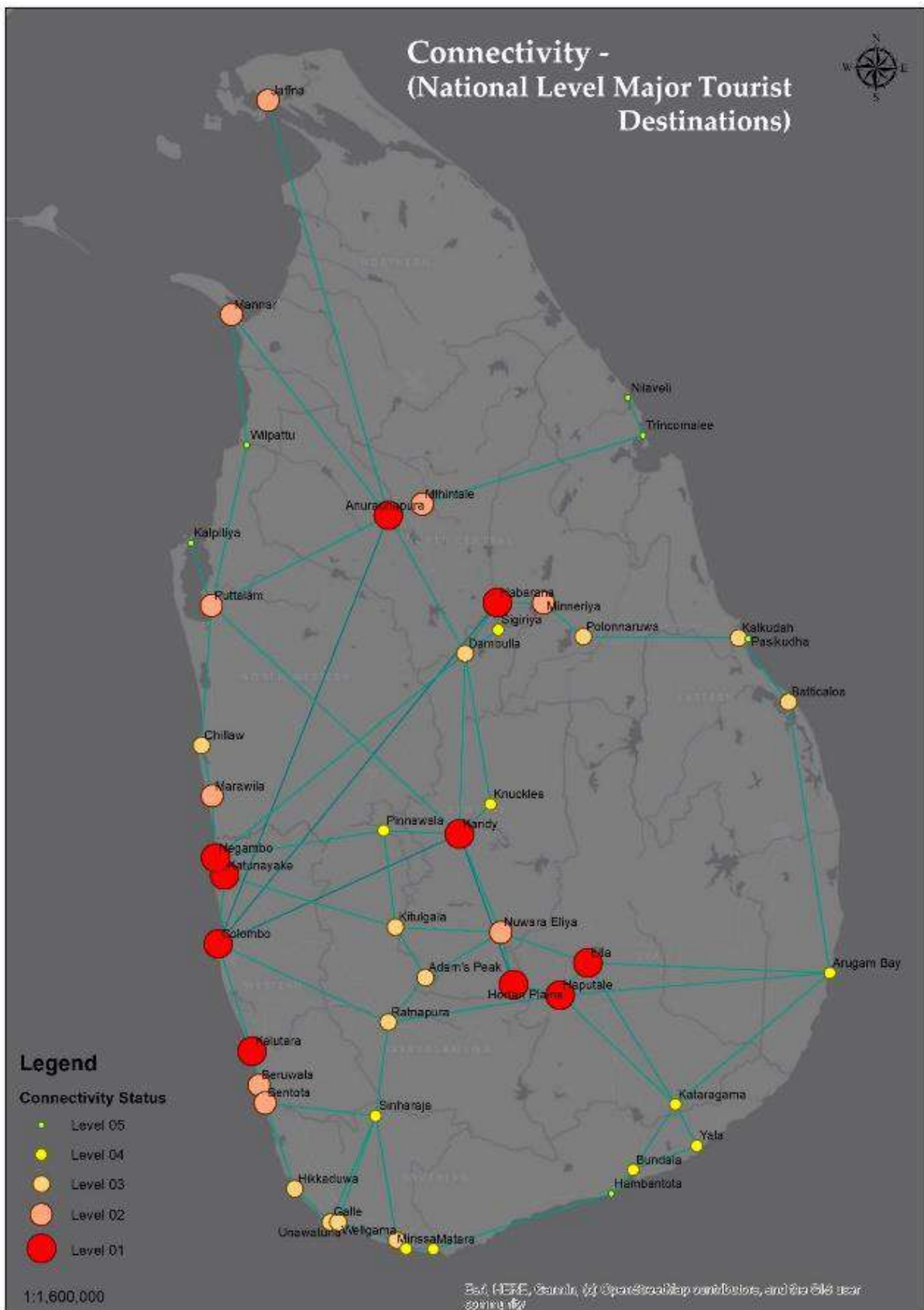


Figure 36: Connectivity- National level major Tourist Destinations

Ella is a well-connected city. As per the Connectivity Analysis it was identified that Ella is a first order city when the most popular 47 tourists' destinations of Sri Lanka are considered. On the other hand, according to the Regional and Local Connectivity Analysis, Ella is identified as a First Order City.

Accordingly, there are 165 long and short distance buses passing through Ella while 97 of them are short distance and 68 of them are long distance buses. The total number of vehicles passing through Ella is 3602 per day and out of it 1916 enter and 1686 leave the city.

During the month of June 2017, a vehicle survey was conducted at three locations in Ella by the Urban Development Authority of Uva Province in order to gather information on schedule time framework pattern as follow,

Location	Total Entrance (Daily)	Total Departures (Daily)
Close to the Tunnel in Ella (Ella – Walawaya Road)	894	781
Ella – Passara Road	394	386
Close to the Ella Bus Stand	544	723

Table 11: Commuter Population

Per day Tourists' Arrival

Approximately it is recorded that 450 tourists visit Ella by train during the seasons July to September and November to February. During the non-seasonal months which are from March to June and October to November, the daily tourist arrival by train varies between 280 - 300.

3.7.2 Water Supply

Water Demand in Ella

Calculated water demand per day (within the season) - 1862 m³

Residential Demand (per day) - 960 m³

Demand for commercial use (per day) (During the peak season) - 898m³

Demand for institutional use (per day) - 3.5 m³

Annual water demand (during Off Season) -869.48m³

Water Supply in Ella

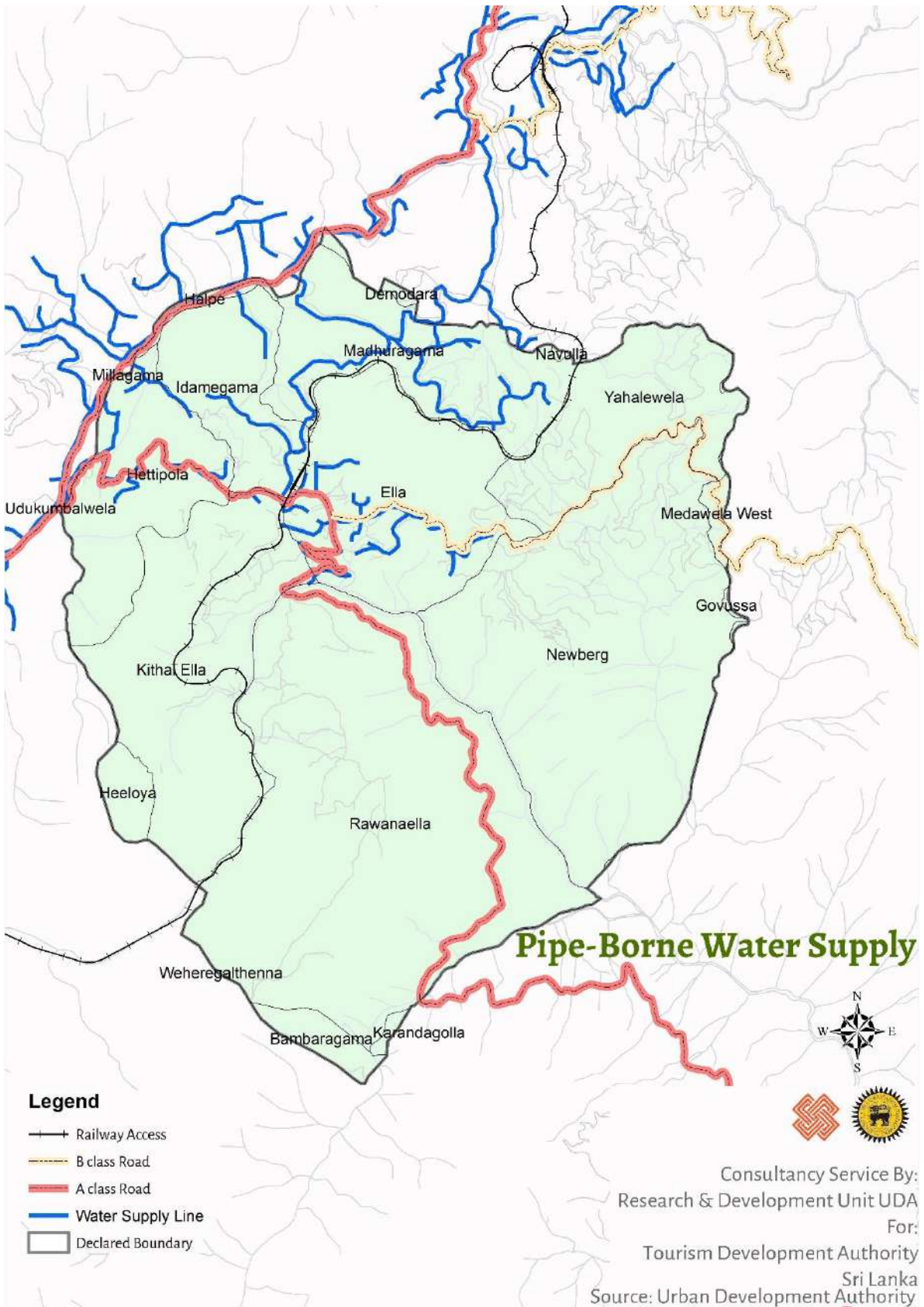
Ella Pradeshiya Sabha (per day) - 51 m³

National Water Supply & Drainage Board (per day) - 850 m³

Well water (per day) - 16.5 m³

Total water supply per day - 917.5m³

Irrespective of tourism seasonal changes, the estimated gross water shortage of Ella is **929.83 m³** per day.



Map 9: Pipe borne water supply

3.7.3 Electricity Supply

The National Electricity Board provided 132 watts to Ella and the electricity network distribution over the entire area is as below,

Following is on the electricity consumption in Ella.

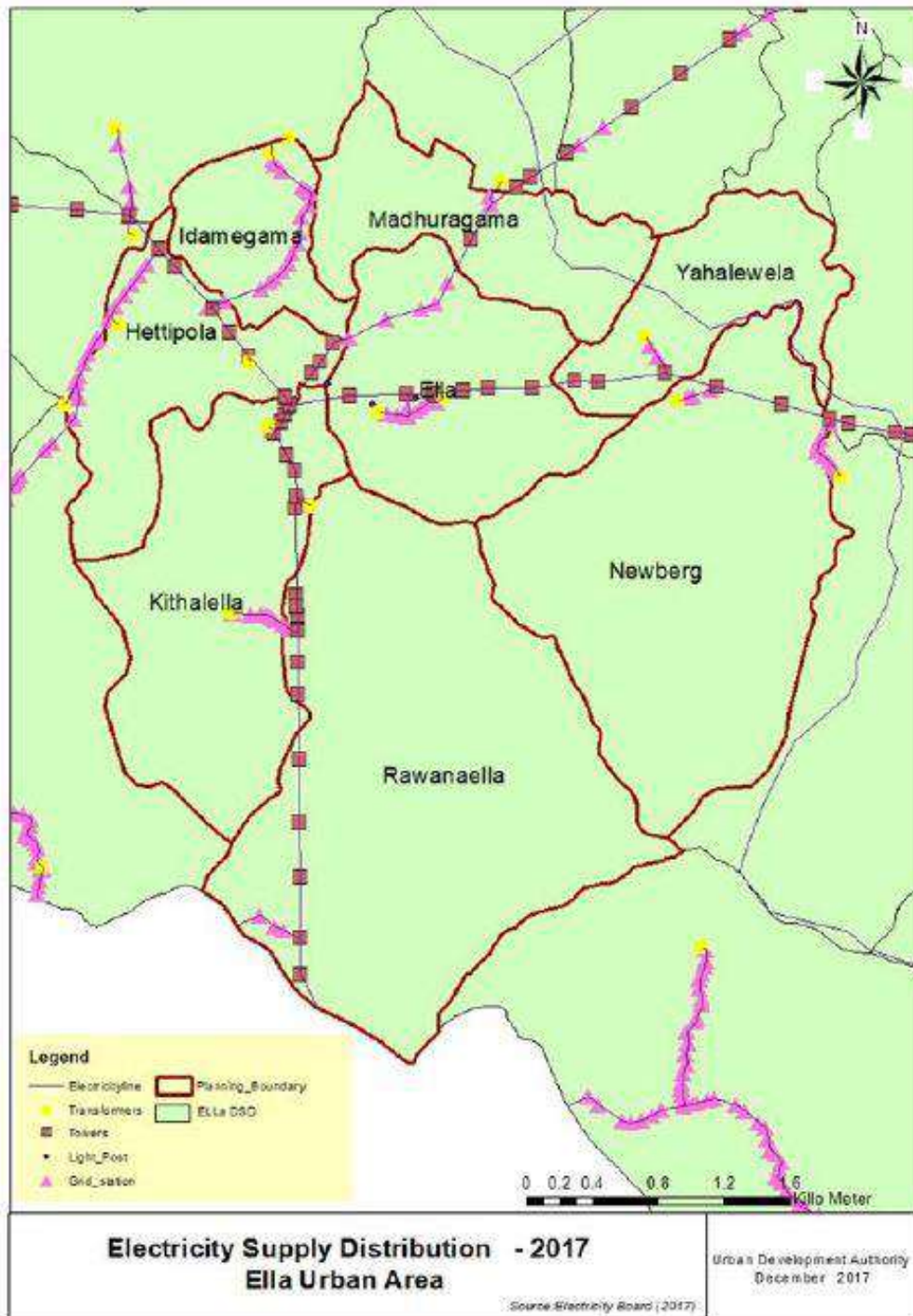


Figure 37: Electricity Supply

GND	Electricity supply by National electricity board (No of Houses)	Solar Power	Bio Gas	Other
Yahalawela	268	-	-	-
New Burg	207	1	-	-
Maduragama	324	-	-	-
Idamagama	141	-	-	-
Hettipola	312	-	-	-
Kithal Ella	350	-	-	-
Rawana Ella	100	-	-	-

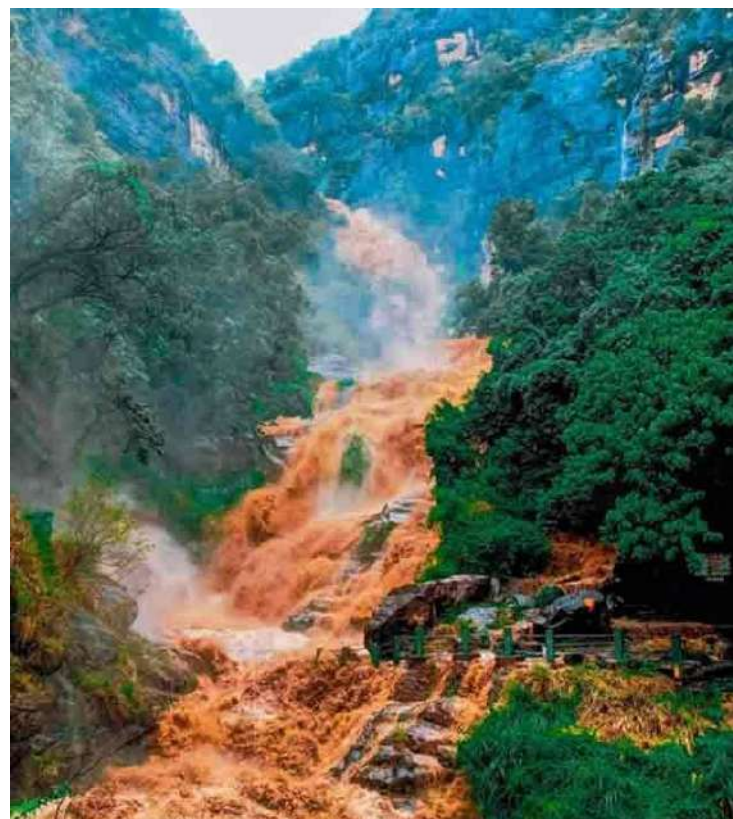
Table 12: Power consumption- Ella

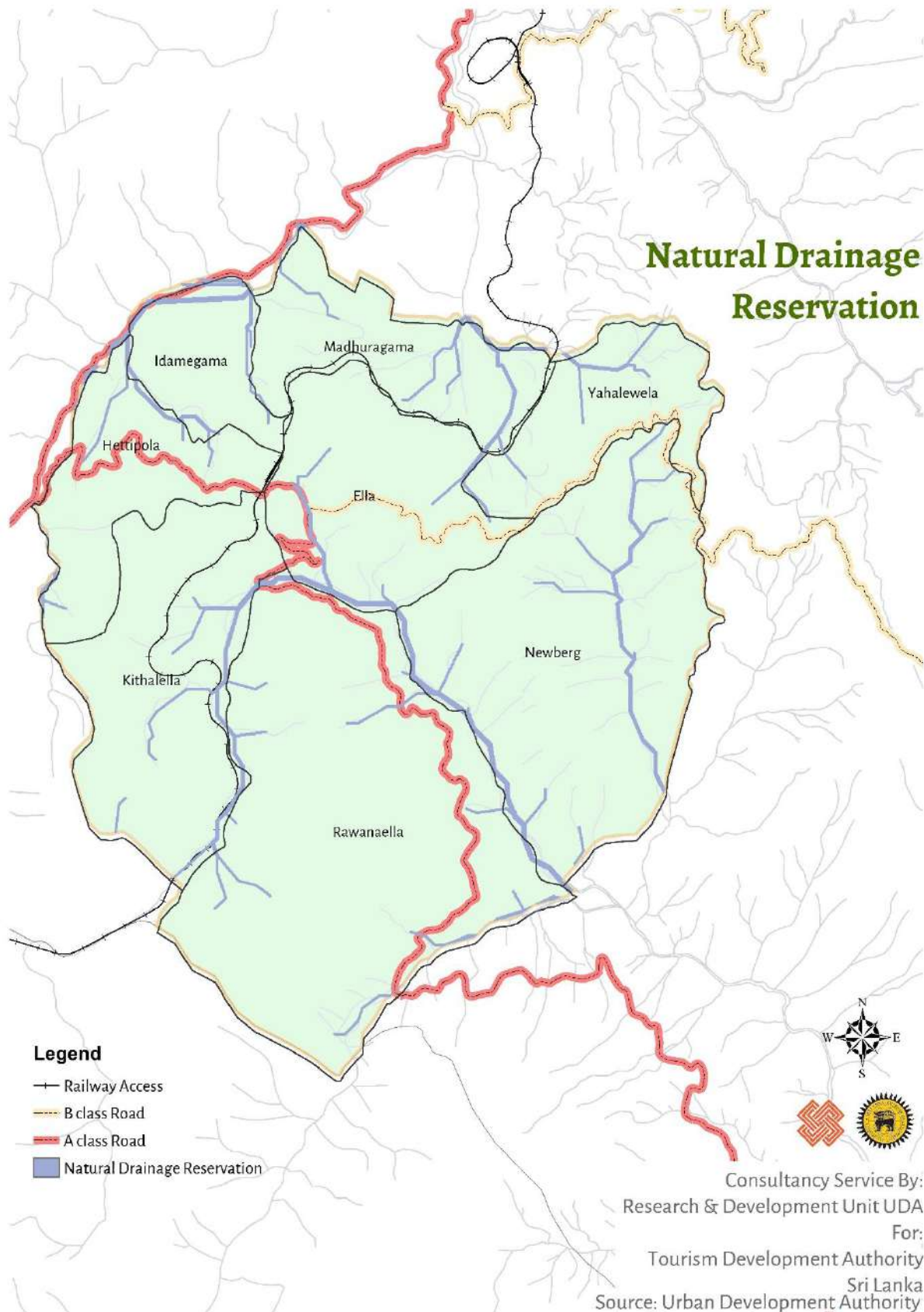


3.7.4 Drainage Network

Natural Drainage System in Ella

Natural drainage was identified using 'The Elevation Model' in Ella to examine the compatibility of existing development against natural drainage pattern. Ella falls within a sub basin of Kirindi oya and some of head water lines of Kirindi Oya and Badulu Oya start from mountain clips of Ella. Most of the natural drainage lines have been obstructed by the development patterns in Ella during last period of 5 years.





Map 11: Natural Drainage Network- Ella

Constructed Drainage System in Ella

Drainage network in Ella is limited to its city strip which begins from the Entrance Tunnel along the city facade. Apart from that, the road which leads to the Ella Police Station is also facilitated with a constructed drainage network. Total length of the drainage network is approximately 500m. However, it is not well connected with natural drainage pattern of the city. As a result, the open drainage network has been unable to manage the city runoff during rainy seasons. This disorganized situation has caused great disappointments among the foreign tourists and local tourists as well. Moreover, waste water outlets of hotels have been directed towards the existing drainage and it has caused drainage blocking and hygiene problems. This has directly influenced the daily routines and raised the risk of health diseases. Most tragically found incident is that, this drainage network connects to the tributary of Kirindi oya which creates a massive impact on water pollution.



3.7.5 Sewage system

At present, there is no sewage system in Ella. But as the city is gradually developing into a tourism destination, there is a need for a systematic sewage system in and around Ella. It is also proved by the amount of waste water discharged per day. The figures of daily waste discharge is depicted below,

Calculated waste water discharges	Season	Non season
Waste water discharge by business party	45m ³	30 m ³
Waste water discharge by residents	97 m ³	97 m ³
Total waste water discharge of Ella	142 m ³	127 m ³

Table 13: figures of daily waste discharge

3.7.6 Solid Waste Disposal

The Ella Pradeshiya Sabha collects about 6 tons of garbage per day and disposes it in an open dumping yard in Kithal Ella. The extent of open dumping yard is around 10-15 perches with a capacity of 4.5 tons owned by a private owner. But total waste generation of the area is 6 tons.

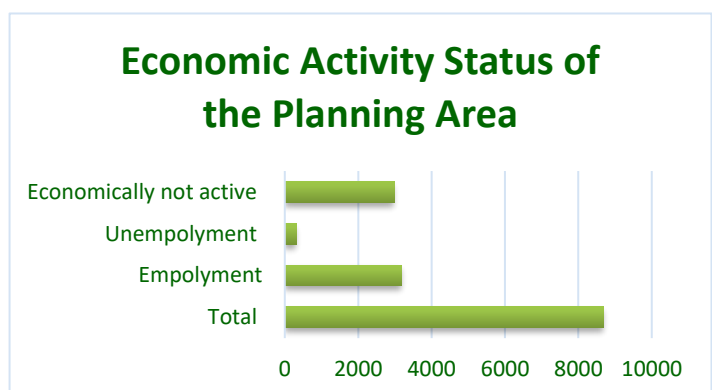
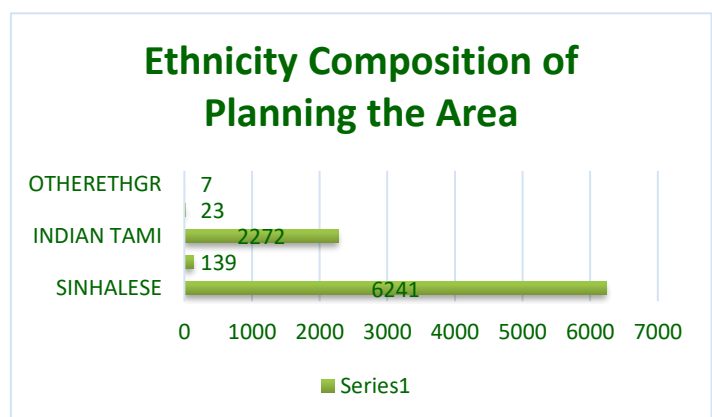
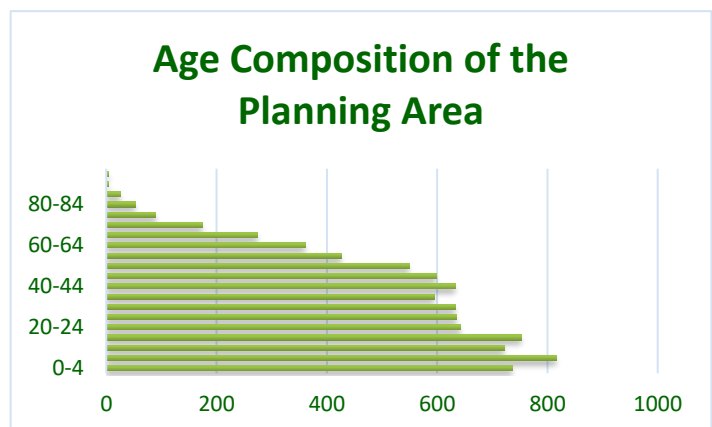
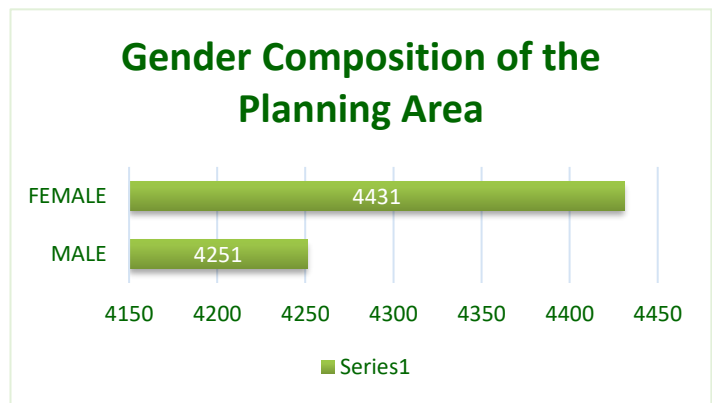
Ella Pradeshiya Saba collects the solid waste from Ella Town to Demodara, 2km distance along Kithal Ella Road, 6km distance along Ella-Wallawaya Road, and up to Bora Wewa Junction along Ballaketuwa Road.

3.8 Community and Tourism in Ella

According to the Census and Statistics data 2011, the total population of the planning boundary was recorded as 8682 of which 4251 were male and 4431 females. The lowest population density which is identified as 89 persons per square kilometers is recorded from Rawanaella GND while the highest density of 945 persons per square kilometers is recorded from Hettipola and Yahalawela GNDs. In the year 2019 midyear population estimate was made to recognize the current population of the area. According to the estimation, the total population records 9000 with a growth rate of 0.4 %.

Economic characteristics in terms of population are identified by using two criteria; labour force and occupation structure. As for the Department of Census and Statistics, all individuals of age 15 years and above of either gender are considered as the working population which comprises economically active and economically inactive in the area. Accordingly, total working population of the planning area is 3481 which indicates 40% of total population. are capable of engaged in an occupation. The Economically active category consists of two sub categories as employed and unemployed. They are 34% and 3.5% of the total population respectively. According to the findings, the majority of the population in planning area is engaged in own account worker category (33%) and private sector category (36%).

The composition of population according to the gender, age, ethnicity, and economical characteristics are given in below figures;



Source: Census and Static Department 2011

Columns of Ella Tourism

Holistic tourism of Ella fabricated upon five columns as,

- Climate -
- Unique Vegetation -
- Natural Landscape -
- 7000 dated history -
- Rural Experience -

Therefore, it is necessary to conserve these five components to protect and promote tourism in Ella.





CHAPTER 04

4. The *Need* of Ella Tourism Development Master Plan

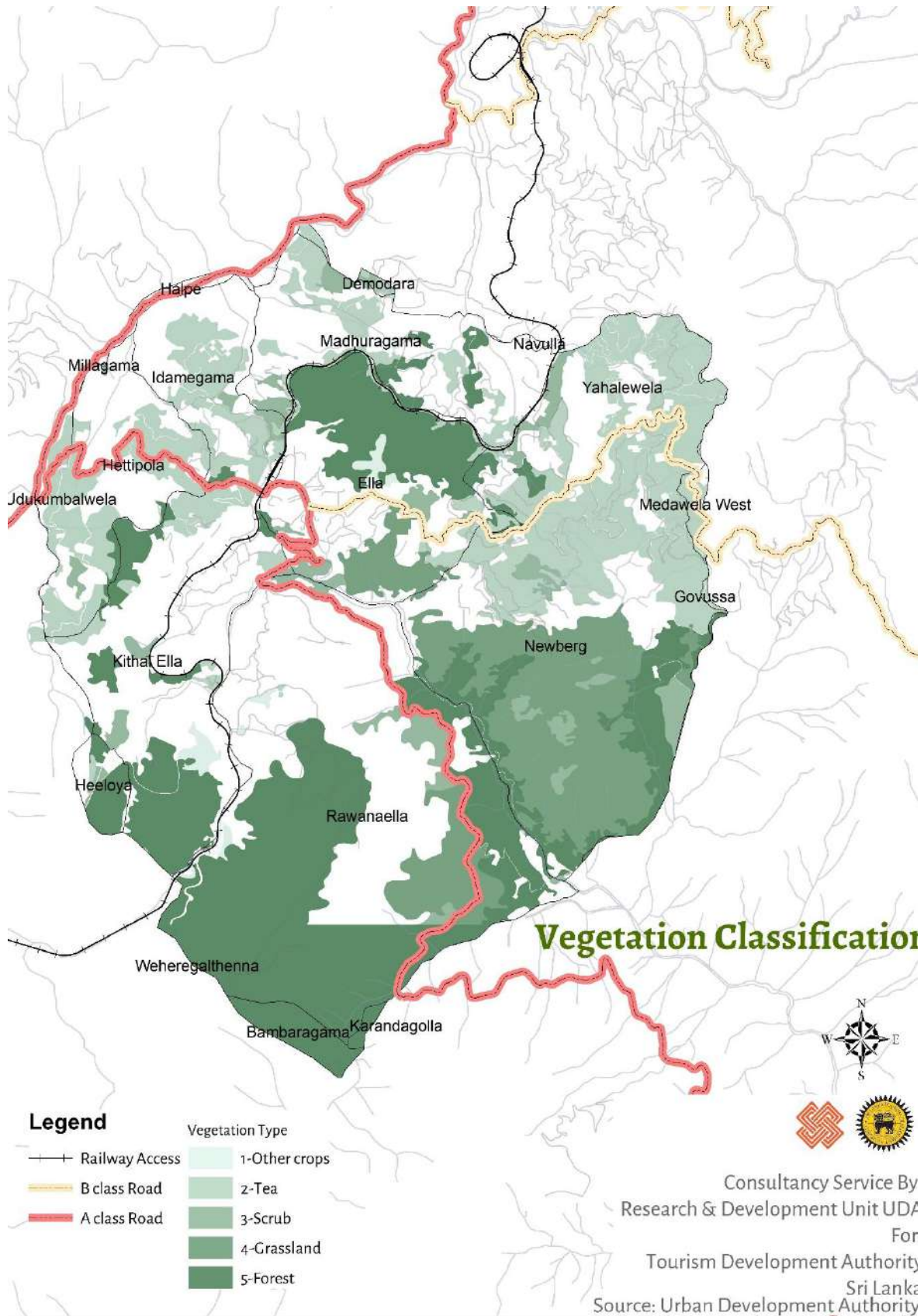
4.1 Incompatible Development with Environmental Sensitivity

Sensitivity Analysis

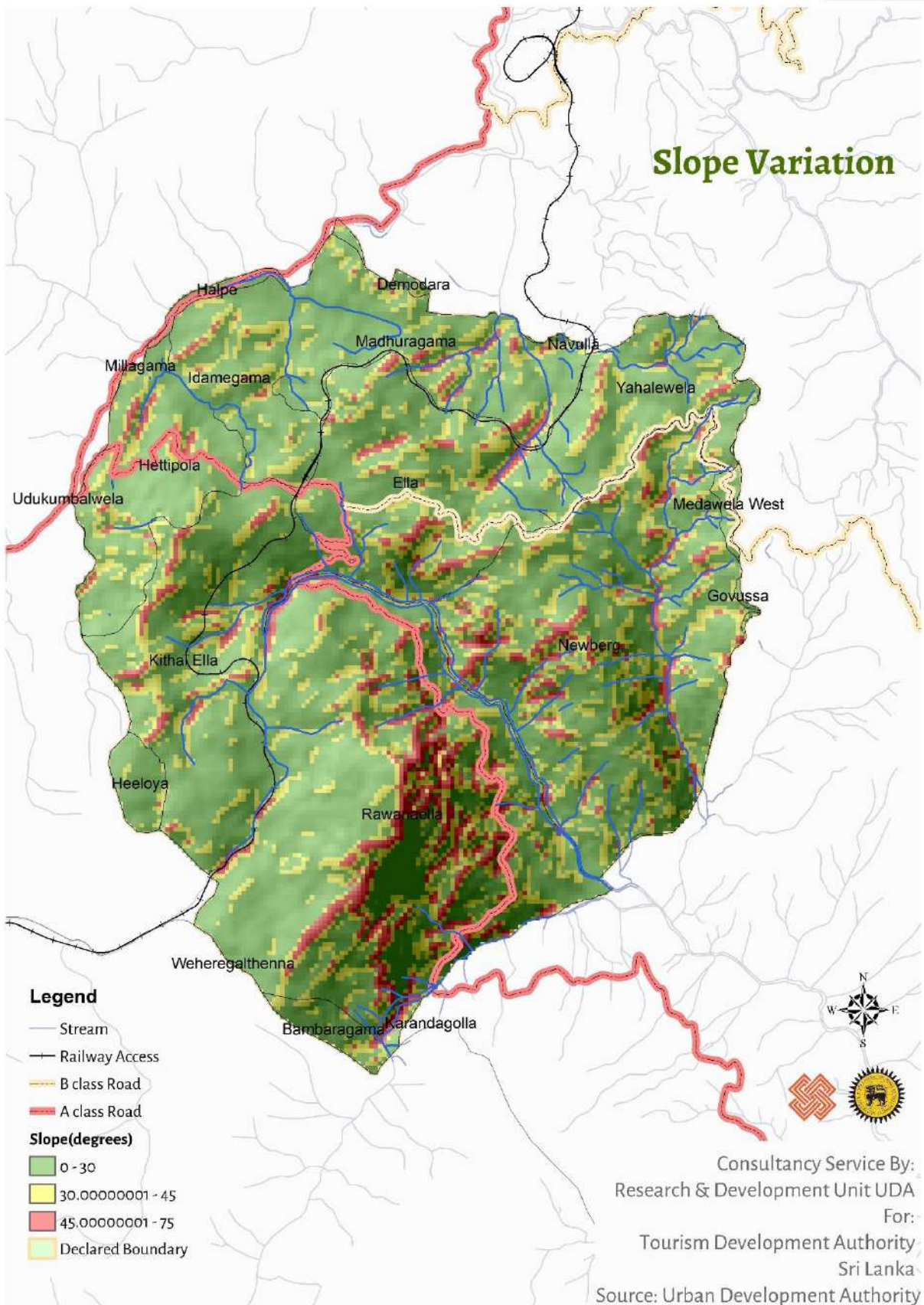
As per the National Physical Development Plan, Ella is identified as a Central Environmental Fragile Area of Sri Lanka. Hence, special focus is given for the identification of relationship between environment sensitivity and development trends in Ella. Accordingly, to recognize the environmental sensitive areas of Ella following criteria have been used.

Vegetation Character	Weight
Forest	5
Grasslands	4
Tea	3
Plantation	2
Slope category	Weight
0 – 30'	3
30' – 60'	4
60'above	5
Natural Drainage system	Weight
Stream order with 10 m buffer	5
Stream order with 15 m buffer	4
Stream order with 20m buffer	3

Table 14: Criteria for the Environment Sensitivity



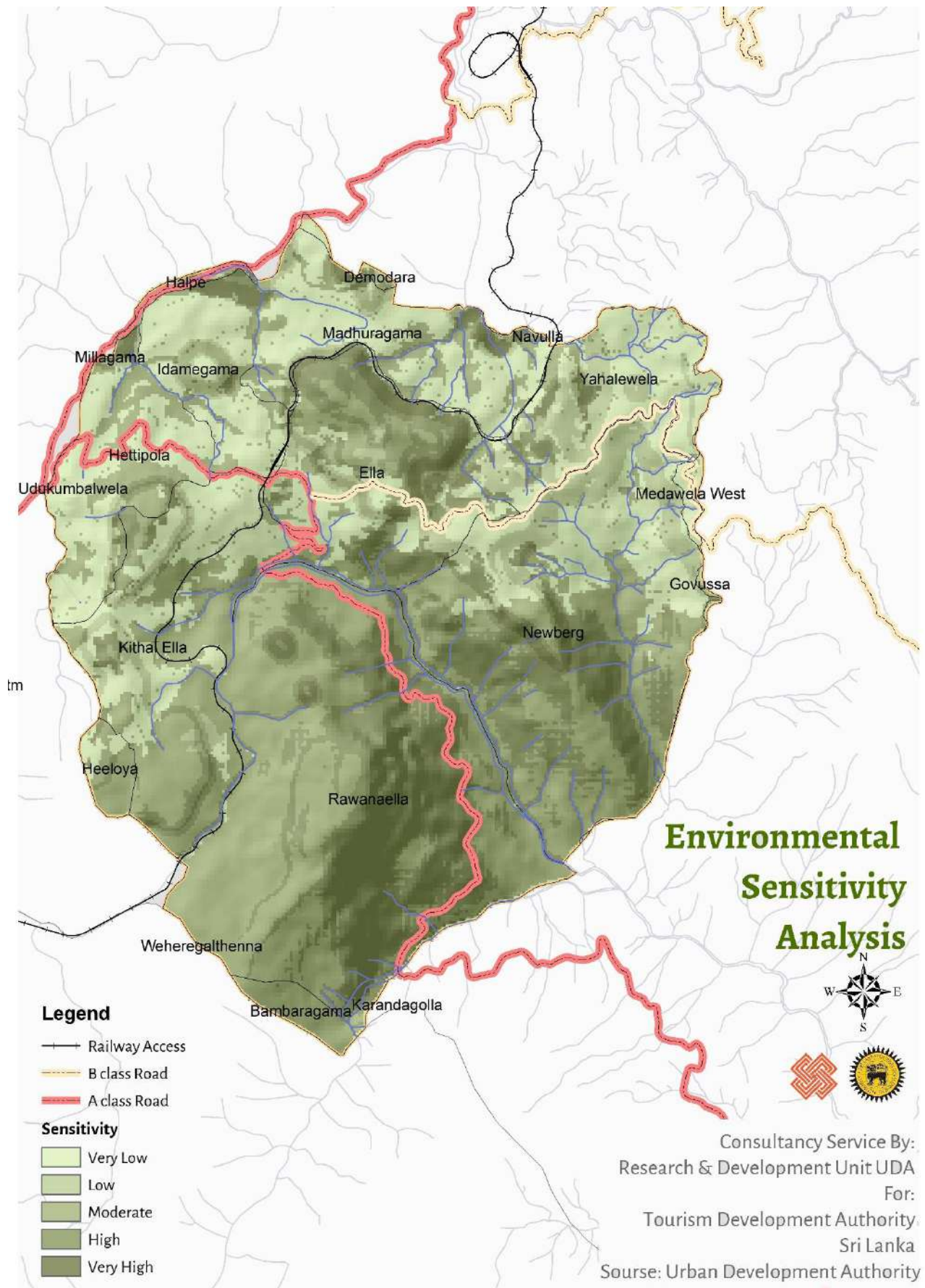
Map 12: Vegetation Classification



Map 13: Slope Variation



Map 14: Natural Drainage Reservation



Map 15: Sensitivity Analysis Ella

Sensitivity analysis of Ella indicates that 33% of total area within the High Environmental Sensitive Area with the Ravana Reservation Area, Ella Gap along Ella – Wallawaya Road and Along Kithal Ella Road.

Level of Environmental Sensitivity	Percentage
Level 01 – Low Environmental Sensitive	22%
Level 02 – Moderate Environmental Sensitive	45%
Level 03 – High Environmental Sensitive	33%

Table 15: Levels of environmental sensitivity

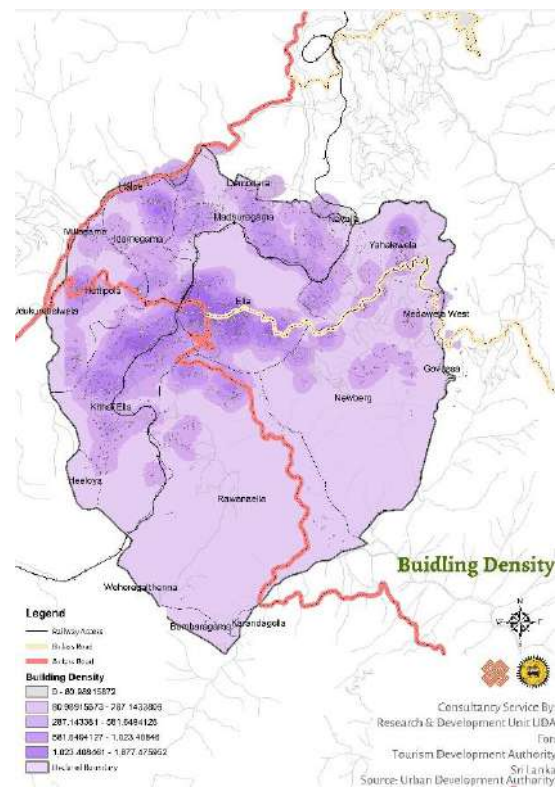
Development pressure Analysis

Development Pressure Analysis for Ella has been done to identify the spatial development pattern of Ella by using below aspects. Thus, current trends of Ella grow towards the northern low land areas of its declared area. In addition to that Kithalella area is tend to be occupied by new development in future.

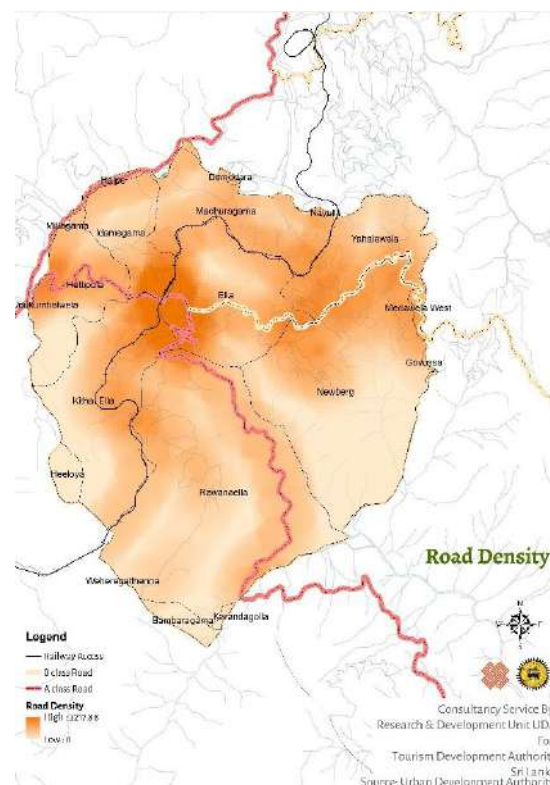
land use	weight
Built up	5
Crop	3
Tea	2
Forest	1
Road Density	weight
500-1500	5
1500-1700	4
1700-2200	3
2200-2600	2
2600-3400	1
Population Density	weight
8-10	5
7	4
6-3	3
2	2
1	1
Population Growth Rate	weight
-0.59	5
-0.59- (-0.23)	4

-0.23-0.44	3
0.44-0.72	2
0.72-1.26	1

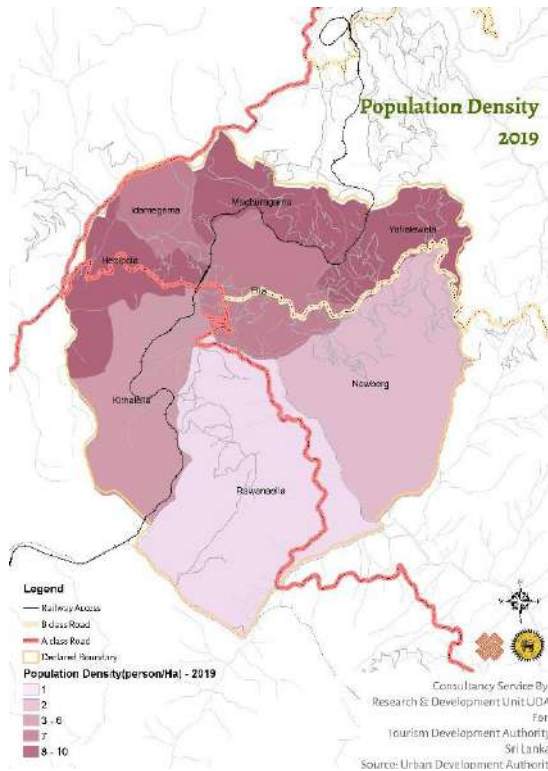
Table 16: Criteria of Development Pressure Analysis



Map 16: Building Density

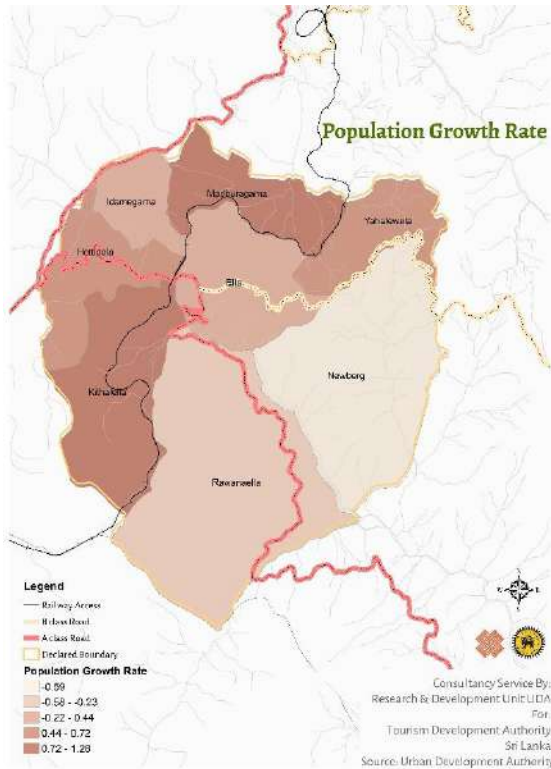


Map 17: Road Density



Map 18: Population Density- 2019

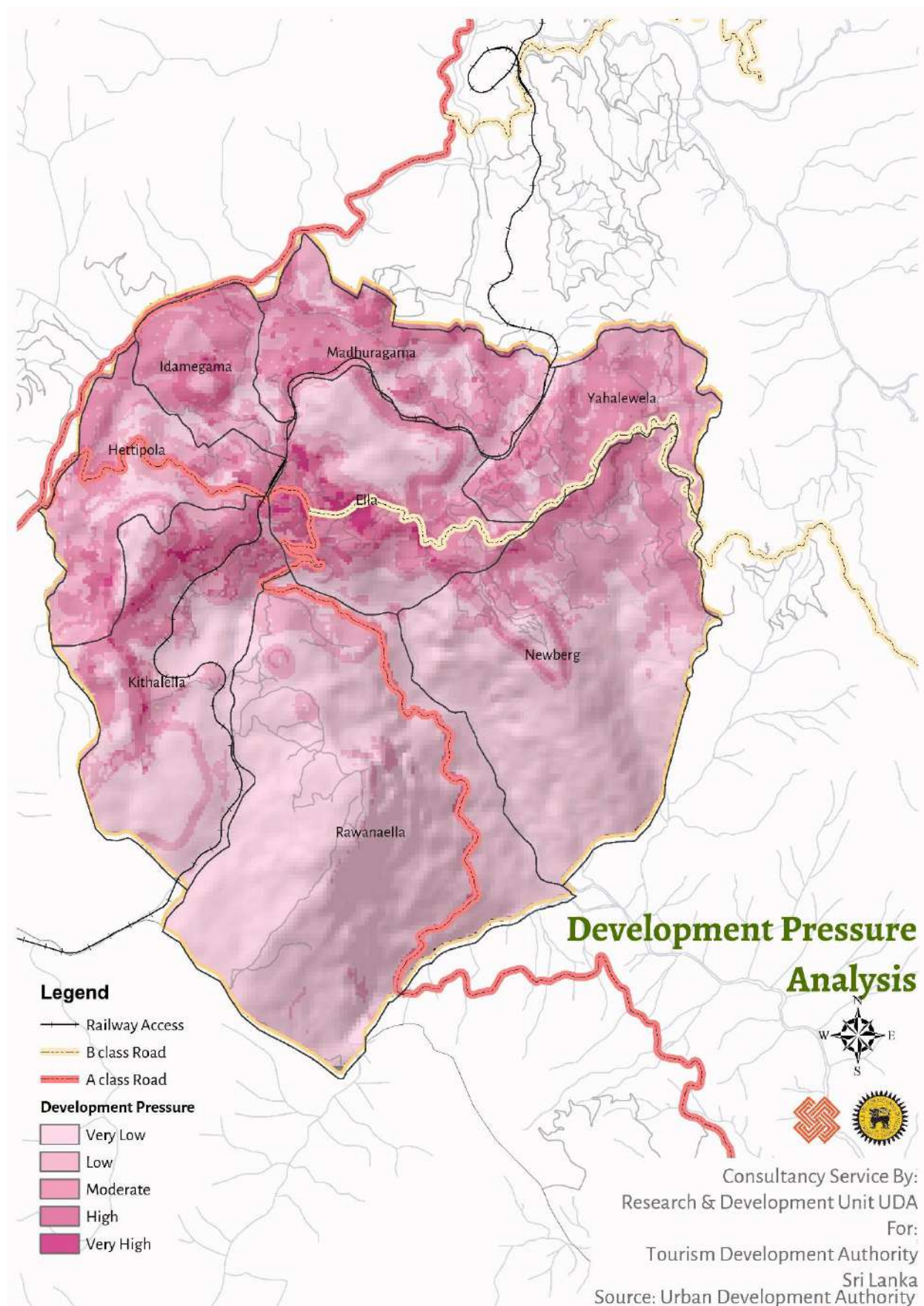
Weighted Overlay of Development Pressure and Environmental Sensitivity Analysis used to recognize the threat of development towards the sensitive areas of Ella. As per the results, 30% of total planning area is within the high threat area due to the developments of last 11 years. If same scenario continues for the next ten years, it would damage 60% of the total area of Ella. It would also affect the threshold or the people who depend wholly on Kiridi Oya and Badulu Oya Basin. Hence, it is essential to guide the future development trends which emerge with tourism. As for the reason that, this negative situation would not only affect the sensitivity of the area but also affect the sense of the area.



Map 19: Population Growth Rate

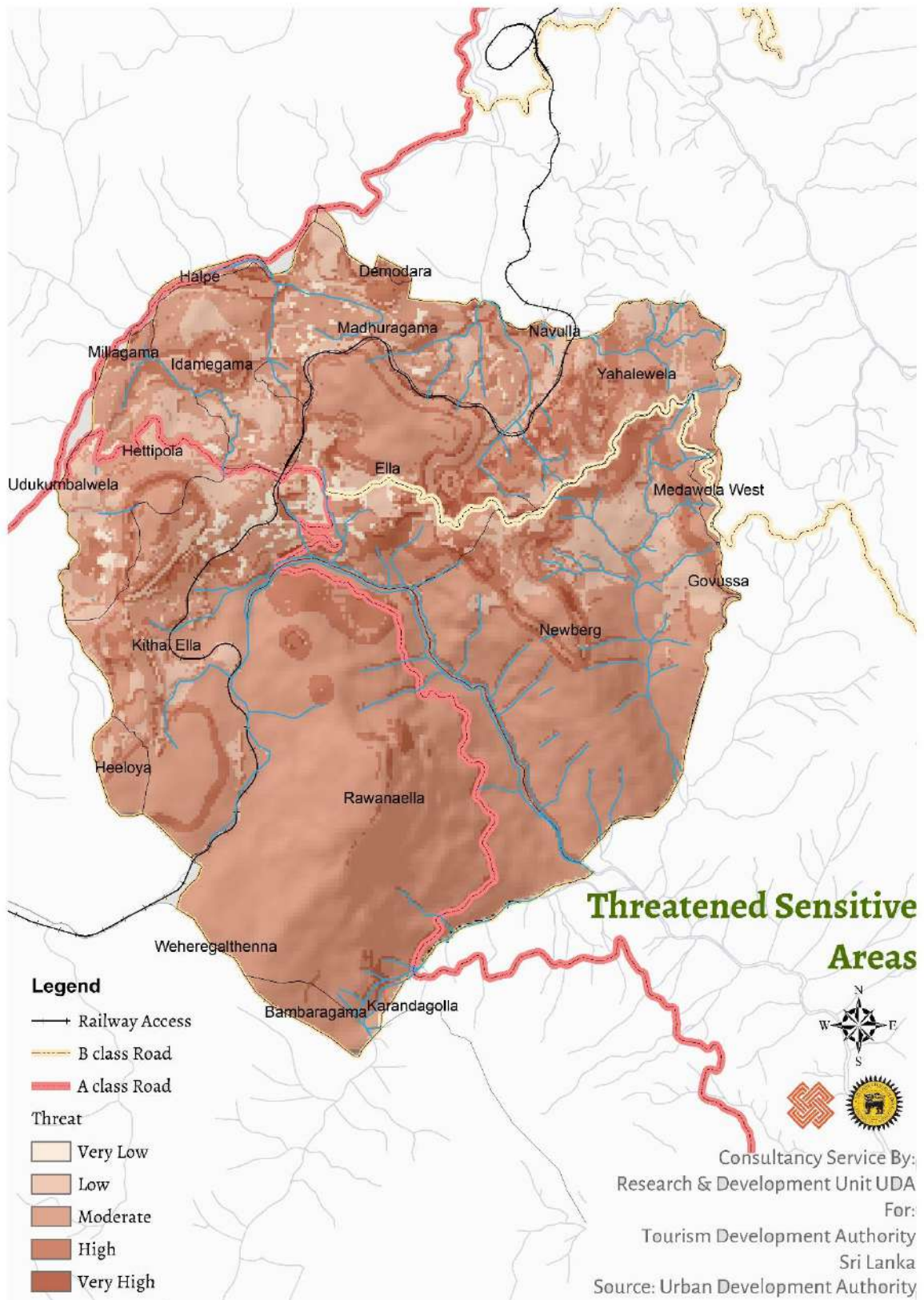
Threat of development pressure on Environmental Sensitivity	Percentage (from total planning area)
Low threat area	26%
Moderate threat area	44%
High threat area	30%

Table 17: Threat of development pressure on Environmental Sensitive areas



Map 20: Development pressure analysis

Environmentally threatened Areas from Development Pressure



Map 21: Environmentally threatened areas by development

4.2 Depletion of the Sense of the Place connected with Tourism

A sense of place is a unique collection of qualities and characteristics – visual, cultural, social, and environmental – that provides meaning to a location. Sense of place is what makes one city or town different from another, but sense of place is also what makes our physical surroundings worth caring about (The Distinctive City, By Edward T. McMahon. April 4, 201201). It is a distinctive feature that some geographic places have and some do not have. It makes a place special or unique.

According to the definitions, visual, cultural, social, environmental phenomena provide a meaning (sense) to a location. Ella which consists of a unique natural landscape, unique climate, green coverage with historical background contribute to add identity to itself. ‘Sense of the place’ can be used for ‘place branding’ and it is a most important part of the tourism marketing in Ella.

According to the survey conducted in Ella in October 2019, more than 50% tourists’ responses brought forward their interest in experiencing the environment in Ella. Further, analysis of the (total number of reviews; 100) tourist google reviews, which has published in <https://www.tripadvisor.com>, 74% of tourists clearly has stated about the attractive views of the mountain range and green cover using the terms likes “**Breath taking scenery, amazing view of mountain range**”. Therefore, the sense and branding of Ella clearly depends on its nature.

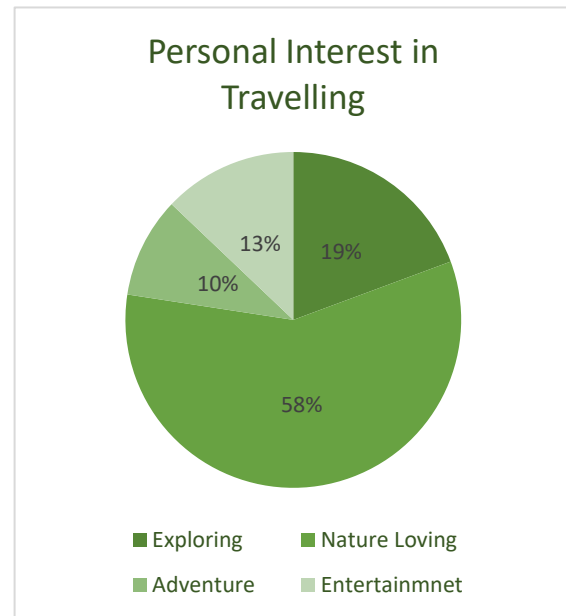
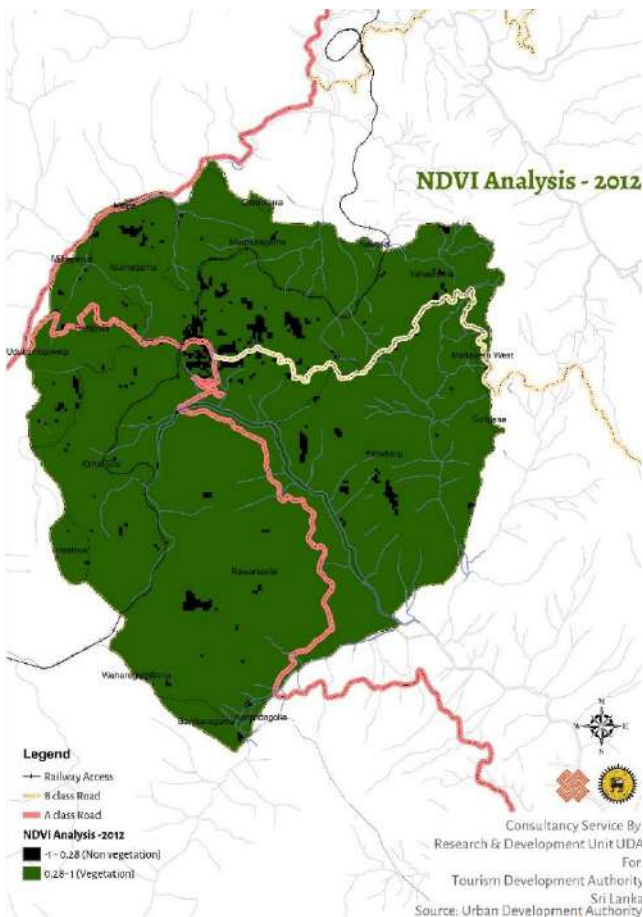


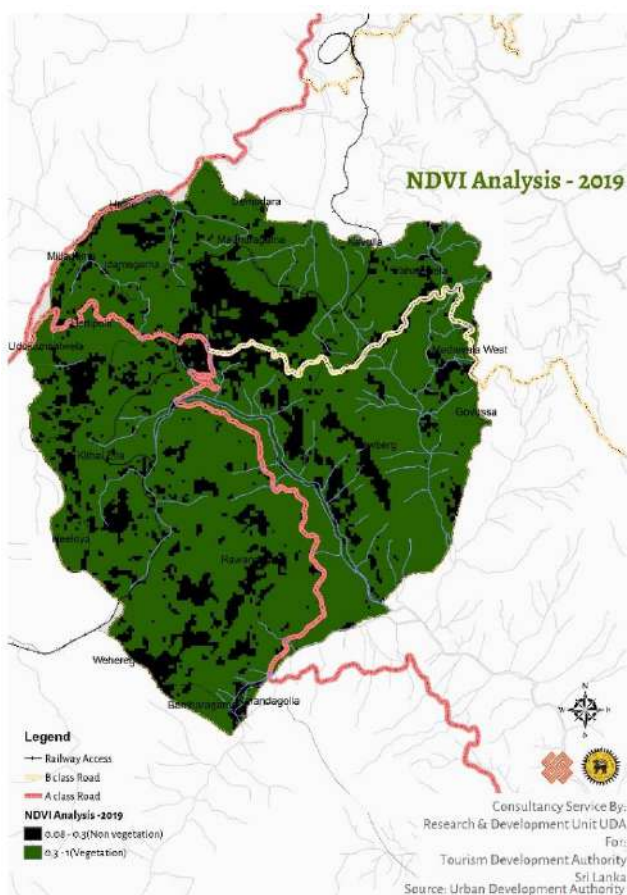
Figure 38: Personal interest of travelling

Total Planning Area of Ella TDMP is 25sqKm which comprise of 8 GNDs as Rawana Ella, Yahalawela, Newburge, Idamagama, Hettipola, Maduragama, Kithal Ella, and Ella. **Out of the total land area more than 70% is** covered by different vegetation types such as forest, grasslands, crops, tea, and paddy. But there is huge threat for the vegetation cover with the increment of tourism industry as discussed in section (3.4.2).

Further, the reduction of vegetation pattern study using NDVI Analysis identified 1996ha of green coverage in 2012 has reduced to 1654 ha by the year 2019 with the rise of development as shown below;



Map 22: NDVI analysis-2012



Map 23: NDVI analysis -2019

Other than vegetation, natural landscape is also one of the significant factors of nature which tourists admire. But with the trend of tourism industry, haphazard development invades the mountain range distracting the natural beauty. Following are some of the examples which show how visibility points have got distracted. As per the findings, Ella is all about its natural environment, without this unique natural beauty there wouldn't be any tourism. Thus, this is high time to address this issue.

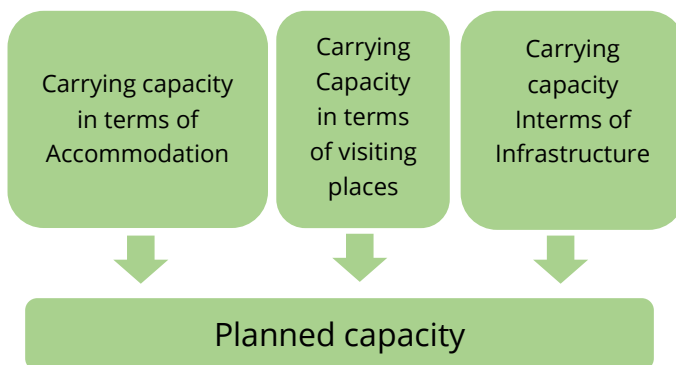


4.3 Exceed the Carrying Capacity of Ella

Ella is to be considered as one of the most environmental sensitive areas which planning intervention should be undertaken with the understanding of system carrying capacity in-terms of its sensitive aspects. This analysis examines the maximum number of tourists that can be served in Ella in a sustainable manner where it protects its environmental resources without damaging its core environmental pillars of tourism.

Basic three aspects which are taken into consideration in order to identify the tourist carrying capacity of the system are as follows;

- Tourist carrying capacity in terms of possible accommodation capacity
- Tourist carrying capacity in terms of space availability of visiting places
- Tourist carrying capacity in terms of water availability



Tourist carrying capacity in terms of possible accommodation capacity

Possible maximum units for accommodation facilities were examined by considering environmentally feasible developable area of Ella.

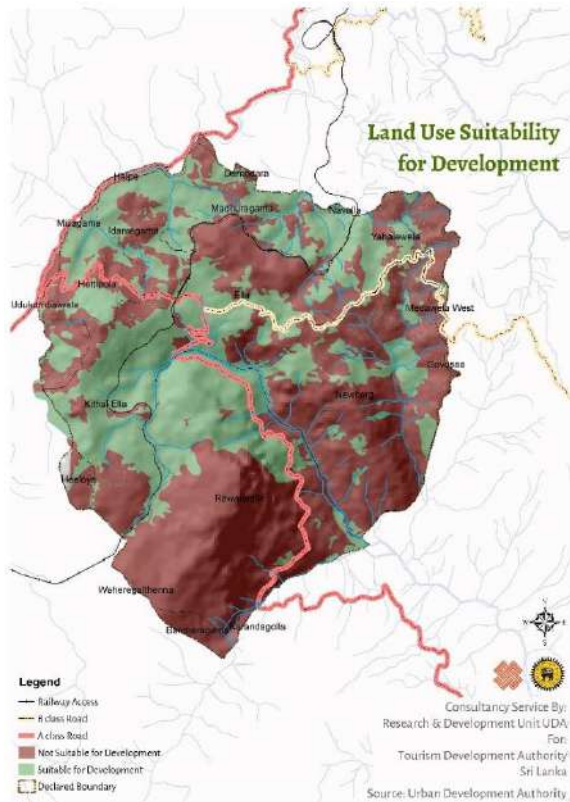
Deriving the possible developable area extraction following criteria has been considered;

- Land use compatibility for new development
- Compatibility of the slope for the development
- Environmental sensitivity against the development
- Natural drainage pattern preservation against the development
- View shed conservation against the development
- Disaster vulnerability against the development
- Accessibility concern for the development
- Montane landscape and valley character against development

Land Use Compatibility for New Development

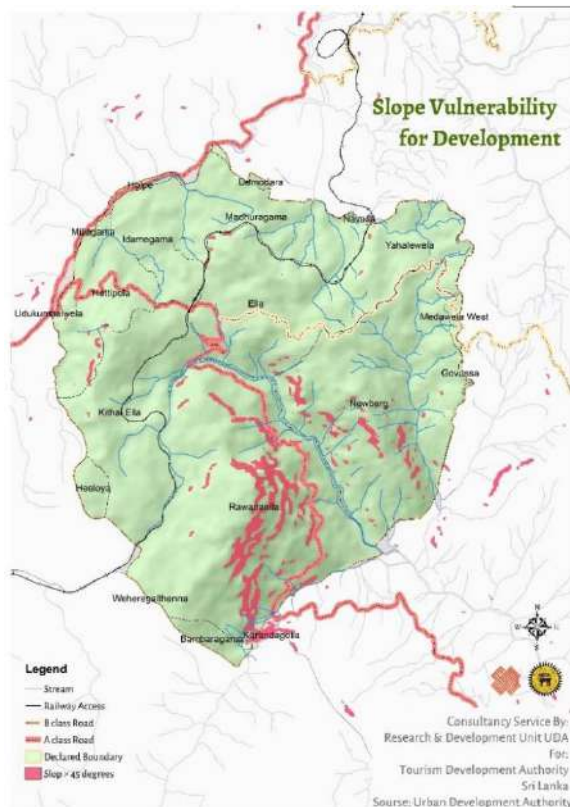
Existing land use and its compatibility for new development was examined under this parameter. Land use types which are compatible with future development without having significant impact to natural character of Ella was considered as developable areas based on Land use Weighting Method. Tourism in Ella totally depends on the natural green character of the system. In order to conserve this green environment, selected land use categories are assigned as incompatible for new development.

Land use compatibility remains as one of the parameters to derive developable area.



Map 24: Land use compatibility for development

Compatibility of the slope for the development



Map 25: Compatibility of the slope for development

Classification	Area	Development Status
Slope < 30	.1571Ha	Compatible
30. < Slope < 45	371Ha	Compatible
Slope > 45.	85Ha	Incompatible

Table 19: Slope classification

Inherent landscape of Ella is the key driver which position Ella in world mountain cities. However, development of Ella has to be restricted based on the slope vulnerability. According to the practices of NBRO, following slope classification is used to derive developable area;

4% of declared area consists of steep areas which exceed 45 degrees. These areas are considered as non-developable area in terms of slope. Most of incompatible areas are located along the Ella Gap

Natural Drainage Pattern Preservation against the Development

Natural drainage system in Ella plays a unique role to manage its runoff and environmental balance. Ella falls within the Kirindi Oya Sub water Basin.

Natural drainage pattern of the area is considered as a key concern in the process of identifying developable lands in Ella. Based on the modeled topographical data, stream order of the basin was identified and based on priority concerns, none developable land area was demarcated natural drainage pattern.

Stream order	Concerned buffer	Development status
1st, 2nd ,3rd Order	20m	incompatible
4th Order	15m	incompatible
5th Order	10m	incompatible

Table 18: Stream order classification

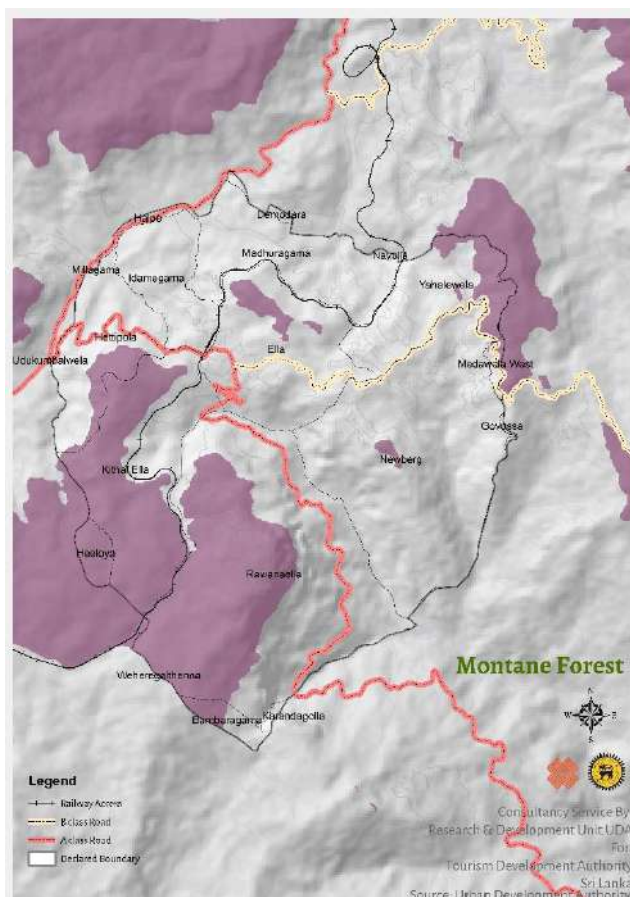
Montane Landscape and Valley Character against Development

Montane landscape is a significant character that inherits in Ella. It consists of a very sensitive mountain environment above 1000m from mean sea level. Bio diversity which derives micro climatic condition of Ella area hides among this montane landscaped area.

Development over this montane area would cause severe degradation of water quality and air quality in the area.

Current pattern of development in Kithal Ella area seems to be encroaching montane landscape of the area.

In present context, 26% of declared area is inherited with the montane landscape character. This includes a part Ella rock, little Adam's peak and Rawana forest.



Map 28: Montane landscape of Ella

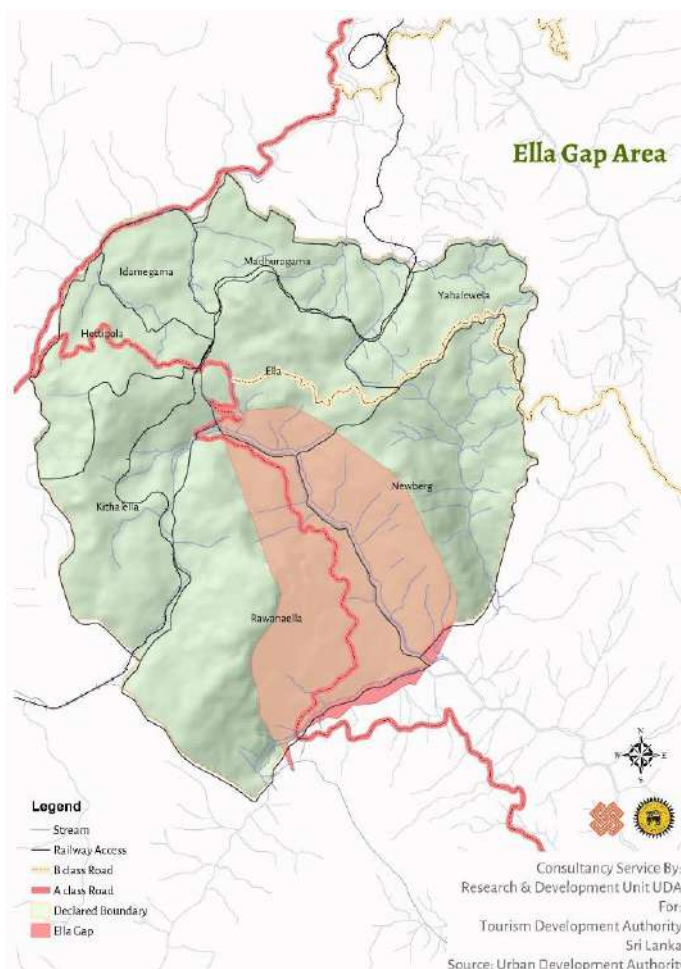
Name of the area	Area	Development status
Montane Landscape	540Ha	incompatible

Table 22: Montane landscape of Ella

Ella Gap Area as a Development Incompatible Area

Ella Gap Area is considered as the climax of Ella attractiveness. 21 % of the declared area is covered by the Ella Gap and the land area is more than 500 Ha.

Due to scenic view, most of hoteliers are eager to develop their hotels in this area to market the view.

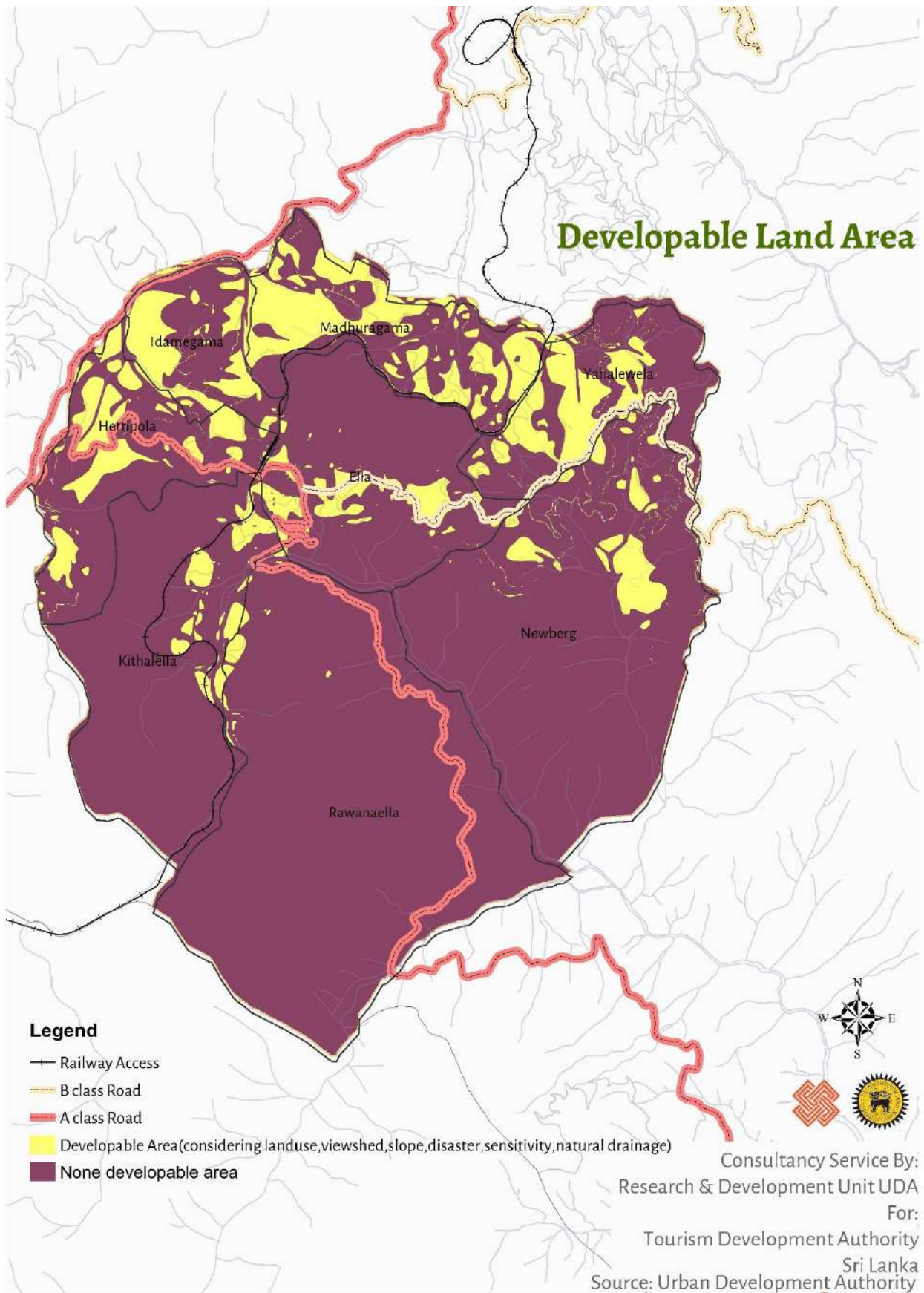


Map 29: Ella gap area

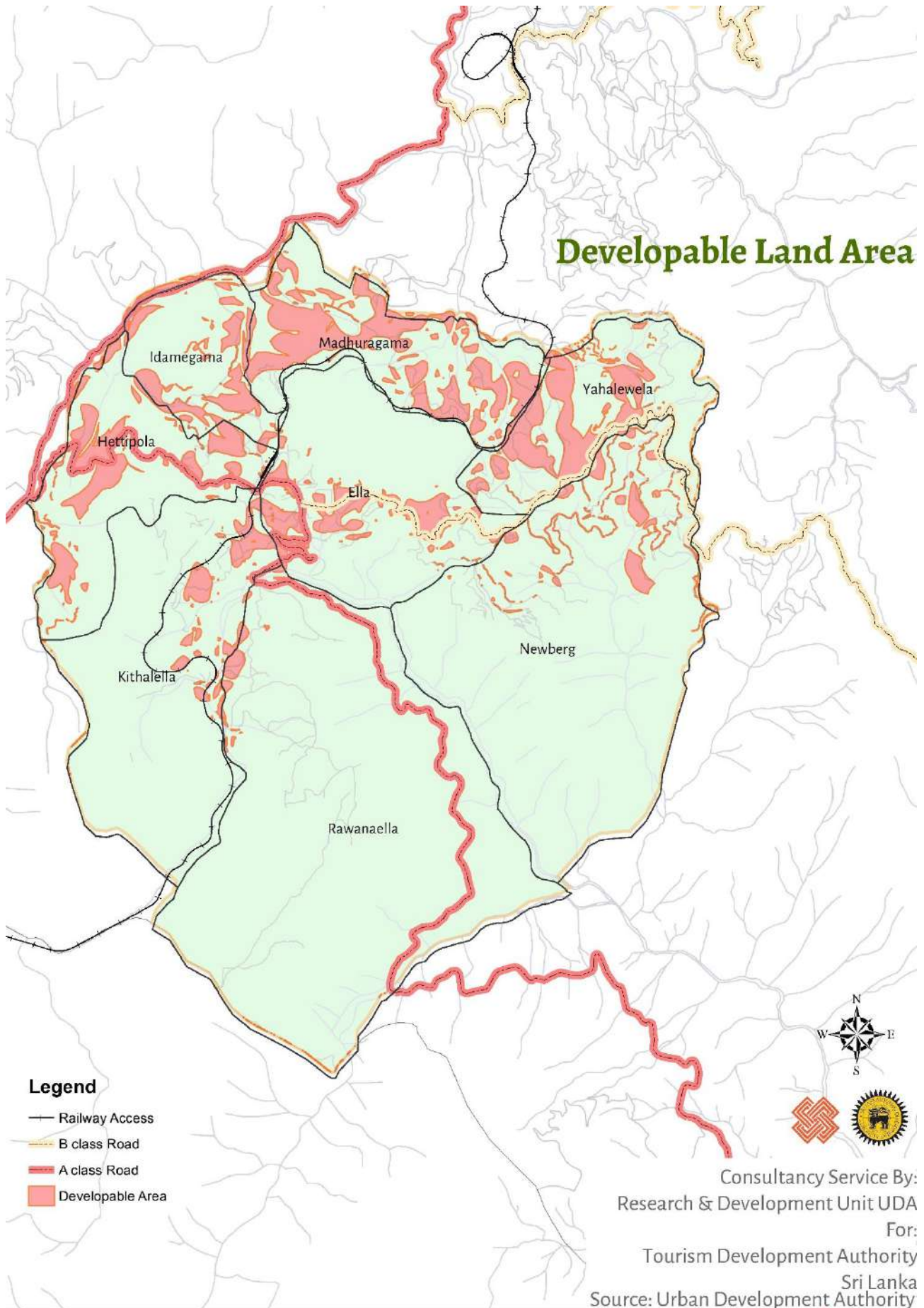
Name of the area	Area	Development status
Ella gap	427 Ha	incompatible

Table 21: Ella gap- area of extent

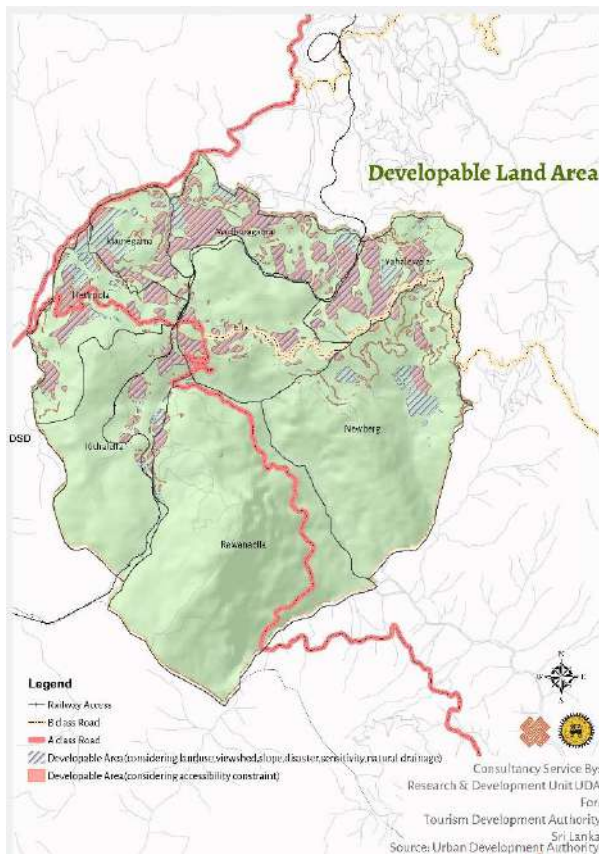
Developable area of Ella



Map 30: Developable land area - Ella



Map 31: Developable land area considering accessibility constraint



Map 32: Developable land area composite

Tourist Carrying Capacity in terms of Space availability in visiting places

Tourism carrying capacity in terms of visiting places has been carried out to identify the capacity available in visiting places with no disturbance to enjoy the view. For such, seven popular places in Ella Planning Area namely, Ravana Ella, Ravana Rock, Little Adams Peak, Nine Arch Bridge, Kithal Ella, Kinel Tea Estate were taken into concern. Further, the period used by an individual to enjoy the view, accessible time period of the place, maximum time period taken by an individual to experience the place based on the field observation. Accordingly, it is identified that 1083 tourists could enjoy the view per day in Ella.

Destination	Available space for tourist (Sq.M)	Required Area for tourist (Sq.M)	Max. No. per one time	Accessible time period for tourist (hours)	Time Period of tourist required (hours)	Maximum trip times	Maximum No. of tourist per day
Ravana Ella	75	5	15	10	1	10	150
Ravana Cave	400	5	80	10	2	5	400
Little Adams Peak	250	5	50	11	3	4	183.333
Ravana Rock	500	5	100	9	3	3	300
Nine Arch Bridge	200	5	40	9	2	5	180
Kital Ella	25	5	5	8	1	8	40
Kinel Tea Estate	750	5	150	8	3.5	2	343
Total							1596

Table 23: Carrying capacity in terms of visiting places

Tourist carrying capacity in terms of Infrastructure availability

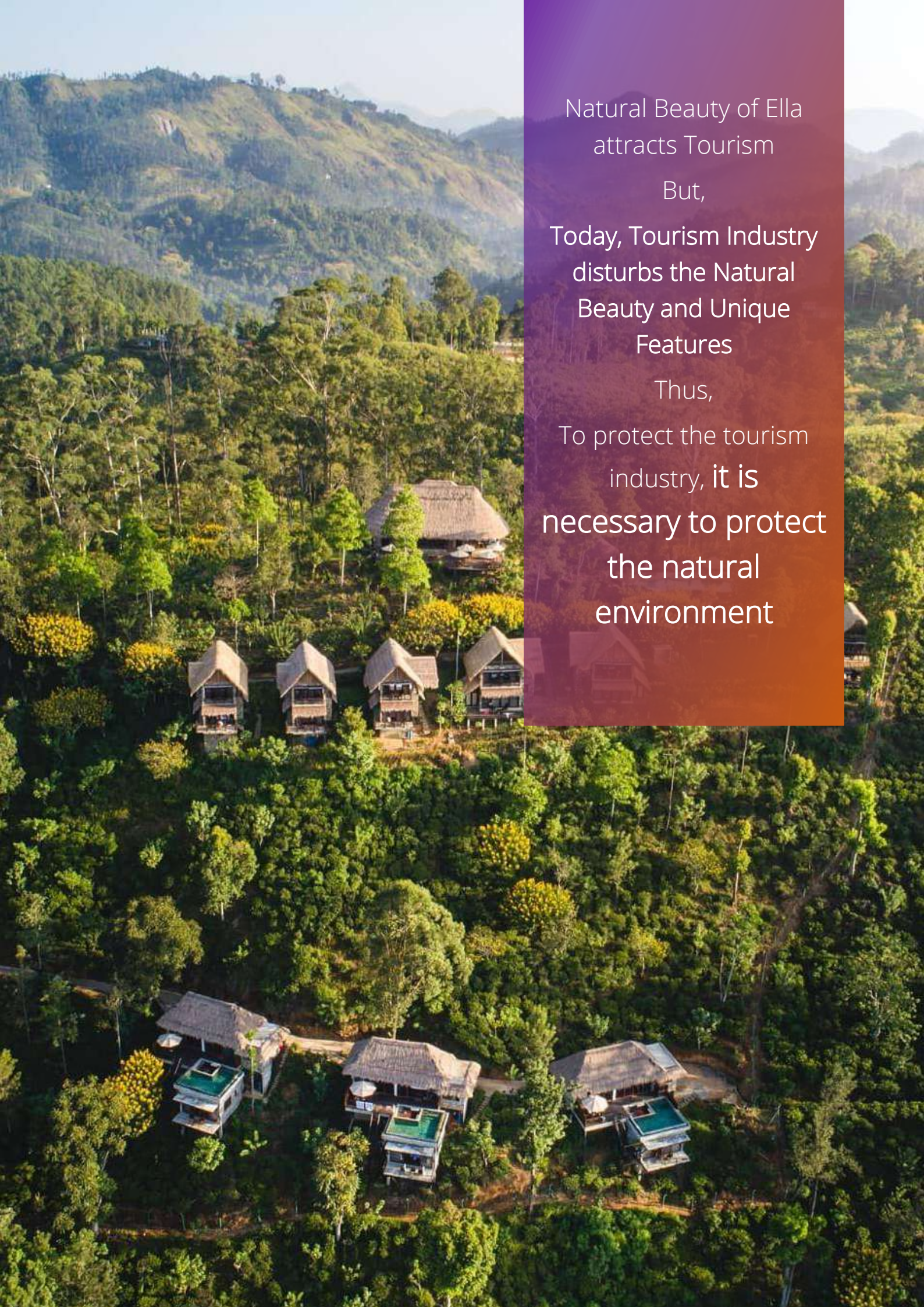
As discussed in Chapter (3.7.2), (3.7.3), (3.7.4), and (3.7.5), it is identified that there is a considerable issue in water supply, waste water discharge, solid waste discharge and disturbance to the natural drainage system.

Summary of the Carrying capacity Analysis

According to the 'Business as Usual Scenario' calculated using current growth rate (25%) of tourism arrival in Ella, it is expected the tourists per day would reach 8500 by 2030. But as identified in this section;

- According to the capacity of accommodation indication, only 5000 tourists could accommodate Ella with no damages to the natural system of the area.
- According to the capacity of space availability in visiting places indication, only 1596 people could be facilitated.
- According to the infrastructure availability, the capacity of Ella to accommodate Ella has reached its maximum limits.

Accordingly, it is necessary to have a tourism plan for Ella in order to promote and manage the tourism trend within the capacity available in the area.



Natural Beauty of Ella
attracts Tourism

But,

Today, Tourism Industry
disturbs the Natural
Beauty and Unique
Features

Thus,

To protect the tourism
industry, it is
necessary to protect
the natural
environment



CHAPTER 05

5. The Plan *Plan*

5.1 Vision

Ella: the #Mountain_Gallery

The Ella hamlet, to be the secured picturesque destination in the world which offers diverse collection of virgin landscapes in misty hills.

The best picturesque mountain scrim of the South Asia by 2030

5.2 Vision Statement of Ella

The safe, resilient mountain scape photographic tourism destination sought by voyagers who treasure the intimacy of a small-scale destination and wish to make pictorial memories while capturing the picturesque virgin landscapes and relaxing breeze

Objectives:

- To protect best mountain sceneries through selected visibility points by 2025.
- To develop three identified routs as the picture capturing corridors while conserving inherent landscape by 2025.
- To conserve unique green spectrum of the Ella by 2030.
- To ensure the continuation of natural drainage system of the Kiridi Oya water catchment of the planning area 2025.
- To introduce the urban form compatible with natural landscape of the Ella by 2030.

5.3 Goals

Goals:

- G1** The best picturesque mountain scrim of the South Asia by 2030
- G2** The best mountain tourism infrastructure facilitated town of the South Asia by 2030
- G3** The best secured mountain tourism town of the South Asia by 2030
- G4** A sustainable tourism economy within a Smooth, Sensed and Responsible tourism space in Hill country of Sri Lanka

Goal 02

The best mountain tourism infrastructure facilitated town of the South Asia by 2030

Objectives:

- To develop center of Ella as smart tourism town hidden in green mountain range by 2030.
- To ensure 100% of the tourism complementary infrastructure

Goal 01

facilities for identified 09 potential tourist attractions places 2030.

- To zero the negative impacts of solid waste and waste water disposal in Ella by 2025.
- To establish smooth connectivity between identified 09 tourist attraction places with unique landscape by 2030.

Goal 03

The best secured mountain tourism town of the South Asia by 2030

Objective:

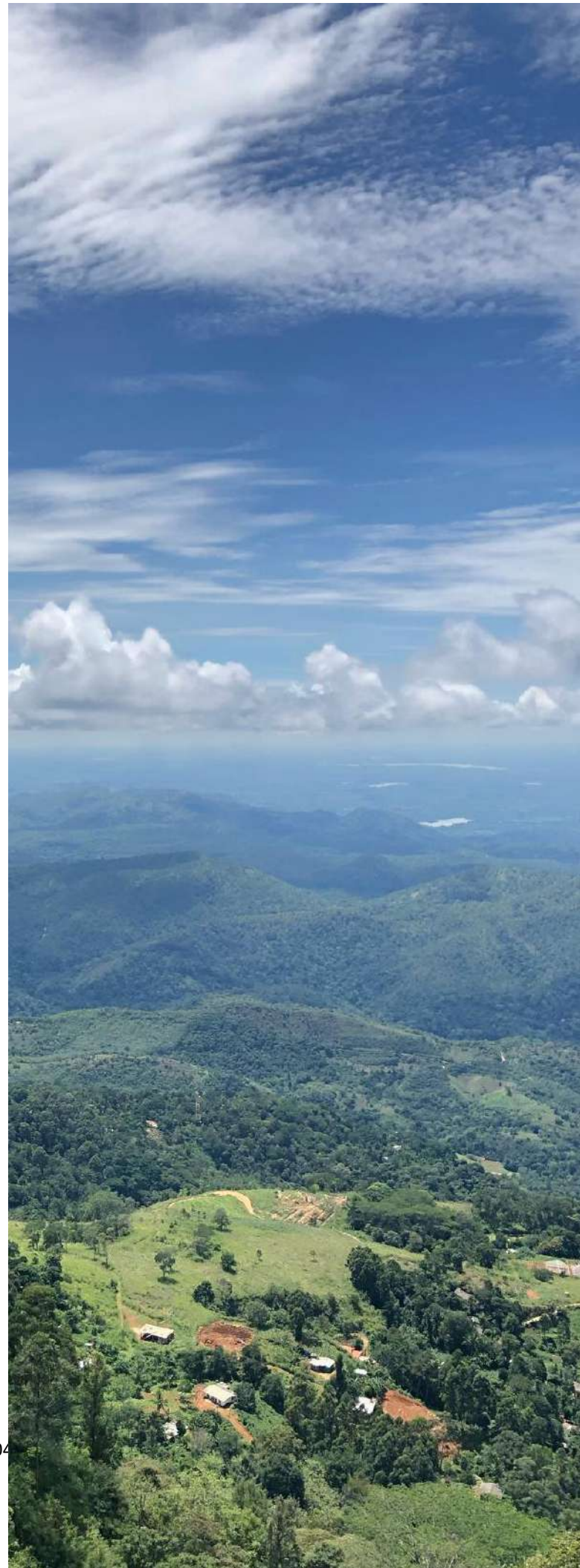
- To reduce the Co₂ emission to mitigate the air pollution of the Ella by 2030
- To change the spatial setting to make sure the sense of secured by 2030
- To control 100% development with in landslide prone areas

Goal 04

A sustainable tourism economy within a Smooth, Sensed and Responsible tourism space in Hill country of Sri Lanka

Objective:

- To promote new trends of tourism activities by 2025
- To increase the per day expenditure of a tourist by 30% 2030



5.4 SWOT Analysis

Goal 01: "The best picturesque mountain scrim of the South Asia by 2030"

- The unique clement climatic condition with mist and clouds of Ella is one of the significant criteria which attract the most of tourists.
 - *Average annual rainfall of Ella denotes between 1500mm to 2000mm.*
 - *Temperature variation of Ella lays between 16-25C°.*
 - *Relative humidity of the area arranges in between 60% -74%.*
 - *Ella exposes to both dry and wet winds of dry zone and central highlands respectively.*
 - Significant natural landscape made Ella as a unique mountain city.
 - *Existing Geomorphological Character of the area.*
 - Slope <30-degree angle - 1571ha
 - Slope <30-45> degree angle- 371ha
 - Slope>45-degree angle- 85ha
 - *Valley area - 265ha*
 - *Mountain range -1768ha*
 - *Mountain range above 1000m - 540ha*
 - Momentous Natural vegetation and plantation had created range of green spectrum that nowhere can be found.
 - *9.7% of Montane Rain Forest of Sri Lanka is within the Ella.*
 - *2% of Low Land Rain Forest of Sri Lanka is within the Ella.*
 - *1% of Dry Ever Green Forest of Sri Lanka is within the Ella.*
 - *8.4% of Ella area covered by grasslands.*
 - *19% of Ella area covered by Tea plantation.*
- Tourists can enjoy the view of natural setting of Ella while travelling along the 3km by Railway and 3km along the Ella -Wallawaya road.
 - Existing conserved natural assets. (*i.e Ravana Reservation*)
 - Ella area has been Identified as Central fragile area by the National Physical Development Plan prepared for the year 2050.
 - National Physical plan has been identified Ella as one of the tourist development areas and is to be promoted based on eco-tourism concepts, with controlled development since it inherits with highly environmental sensitive area.
 - Viral publicity created by travelers who visited Ella as a best nature loving destination and also as a best photo location.
 - Social media the Ella trending place for stunning photos. (i.e Instagram, Facebook trending place as best scrim for photos)
 - Already NBRO practices the special guild lines to mitigate impacts of landslide within the Ella area.
 - Already NBRO identified and announced possible landslide areas

Strength

Opportunities

Weakness

- Haphazard development has polluted the 18% of view shed area.
- 30% of development is within the highly sensitive areas.
- 34% of built up area within Ella town identified as unauthorized construction by Urban development authority of Uva province.
- 28% of total authorized constructions are hotels and restaurants.
- 10% of approved uses have been illegally change later.
- Reduction of 17% of green coverage during last 07 years due to several human interventions.
- exposing to landslides and it effects on local people
- Annual forest fire destroys Green character of the area.
- Destroyed 28 ha of Ravana Sanctuary belongs to the Department of Wild life.
- Destroyed 2ha of eucalyptus planation belongs to the Department of Forest.

Threats

- As per the research studies identified that area is naturally intermediate zone character is converting to the wet zone character.
- Uma Oya project has been impacted on destruction of ground water table of Ella area.
- Existence of Other competing tourist mountain cities within South Asia as,

Sagada in the Philippines: Best of Filipino Highland Culture

Mae Hong Son in Thailand: Mountain Adventures Aplenty

Tana Toraja in Indonesia: Glorious Funerary Culture

Phongsaly, Laos: On the Border of Laos and China

Sapa, Vietnam: The Country's Highest Point

Goal 02: "The best mountain tourism infrastructure facilitated town of the South Asia by 2030"

Strength

- Ella identified as *first order city* in terms of connectivity according to the connectivity analysis.
 - *First order city when considered with tourism destinations of Sri Lanka.*
 - *First order city when considered with provincial capitals of Sri Lanka.*
 - *First order city when considered with local level nodes of Ella.*
- *100% electricity supply* has been provided to Ella planning area.
- Availability of accommodation facilities to cater per day tourist arrivals of Ella at present.
 - *(Availability of 4000 (Approx.) of Rooms for 500 Per day tourist arrival)*
- Having adequate developable space for tourism related activities.
- *Existence of 1.35 Km² of area as Developable space excluding sensitive areas.*

Opportunities

- Identified Transport Projects of Proposed National Physical Plan of 2019-2050.
 - Proposed expressway network from Buttala to Polonnaruwa.
 - Proposed domestic airport at Wellawaya.
 - Proposed Eclectic railway line parallel to proposed express network.
- Kaushima Solid Waste Management Project with a capacity of 50 metric tons proposed by the financial support from the Japanese Government with Technical aid and advise from KAWASHIMA COMPANY in Japan and locally supervised by Japan

Weakness

- International Co-operation Agency (JICA) donated to the Sri Lanka Government.
- Do not have adequate water supply for the area,
 - *Calculated water demand per day (within the season)-1861.86m³*
 - *Annual water demand (during Non-seasonal period) -869.48m³*
 - *Total water supply per day - 917.5 m*
 - *Irrespective of tourism seasonal changes, the estimated gross water shortage of Ella is 929.83 m³ per day.*
- Do not have adequate sold waste facility for the area,
 - *Capacity of current open dumping yard is only 4.5 tons.*
 - *Solid waste generation of the area is 6 tons.*
- Do not have sewerage system for the area to discharge waste water.
- Land slips occurred beside the Ella - Wallawaya Road during 2019.

Threats

- National and regional infrastructure provisioning priorities much focused on Badulla and Nuwara Eliya beyond Ella.

Goal 03: "The best secured mountain tourism town of the South Asia by 2030"

Strength

- Minus population growth rates in disaster vulnerable areas during year 2012 to up to now.
- Structural landslide mitigationary measures taken places by the NBRO to secure Ella access ways.

Opportunities

- Proposed Environmental conservation and preservation strategies which proposed by the Ella Development Plan 2019 – 2030 prepared by the Urban Development Authority to overcome disaster vulnerability.

Weakness

- Inadequate pedestrian walkways which leads to risk of road accidents.
- Blocking natural runoff by development that creates unexpected circumstances of sudden water flow increments in streams and waterfalls.
(Encroachment and Blocking of exiting canal which flows within the City limits.)

Threats

- Increment of motorized vehicles that access Ella town which leads to depreciation of air quality.
(2000 of Per day Vehicle entrance which leads to depreciate the air Quality of the area)

Goal 04: "A sustainable tourism economy within a Smooth, Sensed and Responsible tourism space in Hill country of Sri Lanka"

Strength

- Potential of compatible land and functional uses which can be used to promote community-based tourism.
 - *Tea cultivation for Agro tourism - 19% of Ella area covered by Tea plantation*
 - *Village and rural character-based environment*
- Existing trend of home stay industry – *14% from total accommodation capacity.*
- Existing subculture of cooking in many places by the tourists which can be used to generate tourism income.
- Existence of smooth Railway network which functions daily to the Ella used by approximately 400 number of tourists to visit Ella.

Opportunities

- Sustainable economic development strategies which proposed by the Ella development plan 2019 – 2030 prepared by the Urban Development Authority to develop and promote homestay-based accommodation industry within the planning area.

Weakness

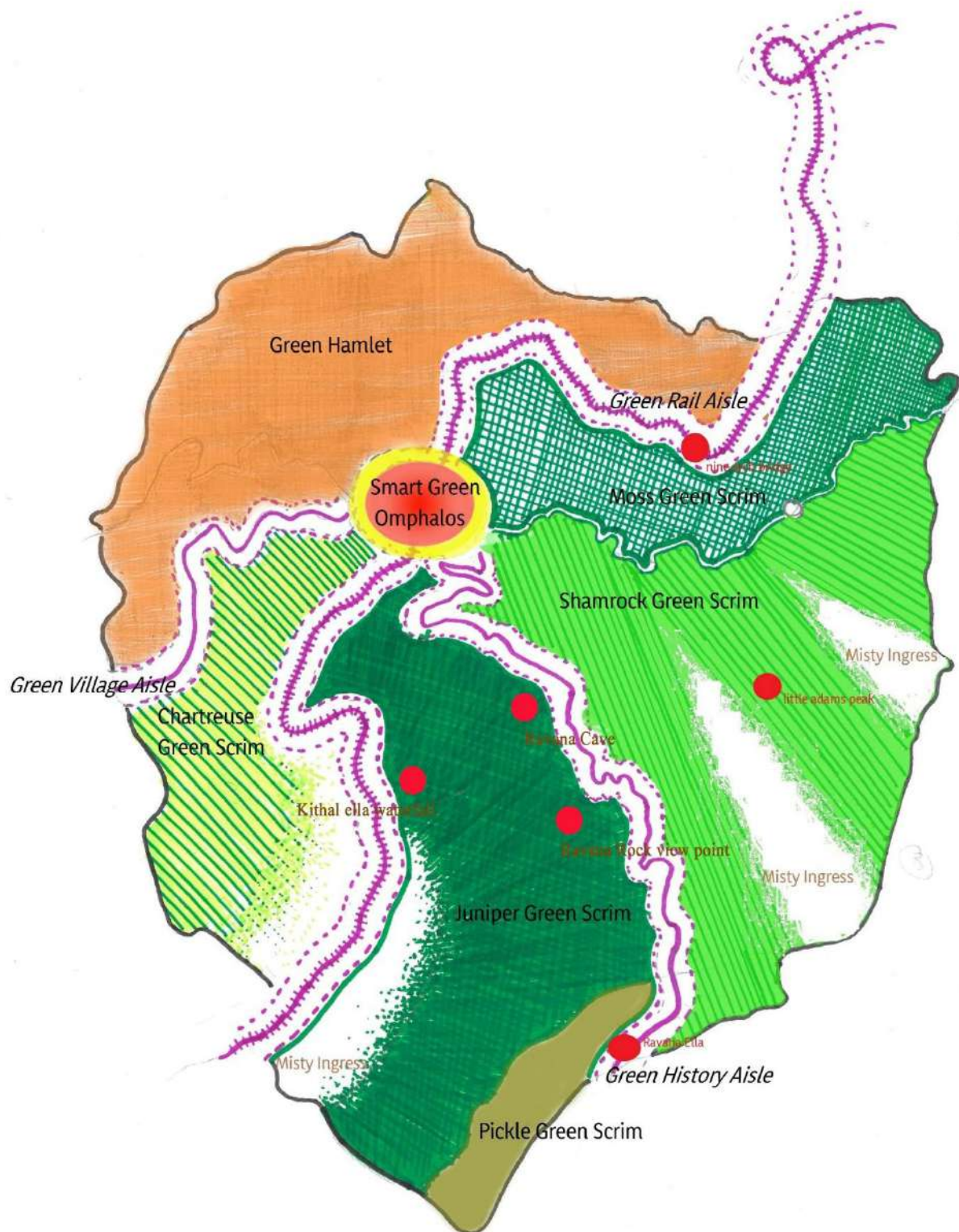
- Attitude of local people which tent to leave Ella for job opportunities that lead to lack of skilled labor.
- Language barrier of local people to engage in tourism industry.
- Inadequate water supply to support local community to link with tourism industry.
- Considerably high female population who are naturally reluctant to engage in tourism industry.

Threats

- Influence of drug dealing activities which are infests from adjoining local areas like Wellawaya.



5.5 Concept





Research & Development Division
Urban Development Authority