

GREATER NUWARA ELIYA DEVELOPMENT PLAN

2022- 2032



Urban Development Authority
Ministry of Urban Development and Housing



Greater Nuwara Eliya Development Plan

The Paradise of Misty Hill

Create Nuwara Eliya as the proper living area and touring area for all users by protecting the endemic and hereditary environment as well as unique build form of the area.



Urban Development Authority
Ministry of Urban Development and Housing



Greater Nuwara Eliya Development Plan 2022-2032

Greater Nuwara Eliya Development Plan 2022 - 2032

© Urban Development Authority – Sri Lanka 2022

All Right Reserved. This publication is published by the Urban Development Authority. Duplication, Trade, Distribution, Copying or otherwise without the prior consent of the Authority, either entirely or partially or transmitted without the prior consent of the Authority, either entirely or partially or transmitted without written permission, or for the dissemination or commercialization of such a publication through modern techniques.

Published by

Urban Development Authority – Sri Lanka

6th, 7th & 9th floors, “Sethsiripaya Stage I”, Battaramulla, Sri Lanka

Website – www.uda.gov.lk

Email – info@uda.gov.lk

Telephone - +94112873637

Published date – 2022, July

Greater Nuwara Eliya Development Plan 2022 – 2032 mainly consists of three parts as Part I, II and III. The Part I consists of the background study, preliminary studies, the need of the plan, the planning framework, the SWOT analysis and the plan. The Part II consists of the Planning and Building Regulations and Zoning Regulations pertaining to the planning boundary for the period of 2022 – 2032. The part III consists of the zoning boundaries with the coordinates and all the annexures.

Greater Nuwara Eliya Development Plan 2022 – 2032 has been prepared by the Nuwara Eliya District Office

Supervision

Major General (Retd) Udaya Nanayakkara, Chairman – UDA, Plnr. N.P.K.Ranaweera, Director General – UDA, Arct. Plnr. Mahinda Wiithanaarachchi, Additional Director General – UDA, Plnr. M.P.Ranatunga, Deputy Director General (Planning) I – UDA, Plnr. B.H.M. Ranjith Bandara Central Province– UDA, Attorney at Law C. Jayawardena, Consultant (Legal) – UDA, Plnr. Priyani Nawarathne, Director (Strategic Planning) – UDA



Planning Team

Plnr. J.M.Upali Saman Kumara	- Officer in Charge, N'Eliya District Office- UDA
Ms. P.G.C. Pushpakumari	- Enforcemnt Planner, N'Eliya District Office- UDA
Plnr. M.H.Pavithra Madushani	- Town Planner N'Eliya District Office- UDA
Plnr. W.V.K.Gunapala	- Town Planner N'Eliya District Office- UDA
Ms. Y. A. A. Chandani	- Enforcement Officer N'Eliya District Office- UDA
Ms. W.B.M.D.Hansamala	-Ast. Planning Officer N'Eliya District Office- UDA
All staff members	- Nuwara Eliya District Office- UDA

Supportive divisions of the UDA

- Strategic Planning Division – UDA (Supervision, monitoring and gazetting)
- Environment and Landscape Division – UDA (Preparation of the PORs, DRR, Conservation, Cultural & Heritage Plans)
- GIS Division – UDA (Providing Arc GIS Spatial data layer & technical assistants)
- Research and Development Division – UDA (Conduct awareness programs to introduce new techniques)



Acknowledgement

The Nuwara Eliya District Office has taken the lead to provide the supervision for the preparation of the Greater Nuwara Eliya Development Plan 2022– 2032 . The objective of this plan is to create better sustainable environment for all stakeholder's by preserving sensitive nature and form unique build environment with the vision of 'The Paradise of Misty Hill' The vision of the Nuwara Eliya Development Plan 2022 – 2032 is in line with the 'Vistas of Prosperity and splendour' the government policy.

It is our proud privilege to Honourable Prasanna Ranatunga subject Minister of Urban Development & Housing for approving the Greater Nuwara Eliya Development Plan 2022 – 2032 under the provision of Urban Development Authority Act No. 41 of 1978 as amended by the Act No. 04 of 1982. Further, it is our privilege to the Secretary to Ministry of Urban Development & Housing for their guidance and supports in this process.

Special gratitude offered on behalf of the planning team and the UDA, to the Mayor, of the Nuwara Eliya Municipal Council and Chairman of Nuwara Eliya Pradeshiya Sabha and members of the MC and PS and the staff. Secretary of Nuwara Eliya Divisional Secretariat and the staff for their generous support given for the successful completion of this development plan.

Also, special appreciation on behalf of the UDA offered Nuwara Eliya District Secretariat, all government and private institutions as well as individual resource persons who has provided the relevant data, other support and directives required for the preparation of this plan.

Appreciatively thankful to Chairman of UDA, Major General (Retd) Udaya Nanayakkara, Director General of UDA Plnr. N.P.K. Ranaweera, Additional Director General of UDA Arct. Plnr. Mahinda Wiithanaarachchi, Deputy Director General (Planning) of UDA Plnr. M.P.Ranatunga, Plnr. B. H. M.Ranjith Bandara Director, Central Province of UDA, Consultant (Legal) of UDA Attorney at Law C. Jayawardena, Director (Strategic Planning) of UDA Plnr. Priyani Nawarathne on behalf of the planning team for their incomparable courage, guidance and welcoming support.

In the end, Director – Environment & Landscape division L.Arct. C.K.E. Kalupahana and the staff of the division and Director - Geographical Information System & ITS Plnr. J.P.S. Somasekara and the staff of the division and of all divisions are gratefully appreciate on behalf of the planning team for their support to the successful completion of this task.



Hon. Minister's forward



The present government's manifesto; 'Vistas of Prosperity & Splendor' advocates that the physical space of our country should be utilized in an optimum manner and be facilitated equitably to achieve sustainable sustainable development.

The Urban Development Authority (UDA) implements and enforces the urban development plans, taking into account the disparities between districts in the same province as well as between towns in the same district due to the unequalled development in the urbanization process in the country.

Accordingly, the Urban Development Authority has already published Urban Development Plans for identified 26 towns and is currently in the process of preparing development plans for another 50 towns within this year. The Maharagama Urban Development Plan is one of those plans. By 2024, more than 130 Urban Development Plans are planned to be planned.

The priority of the Nuwara Eliya Urban Development Plan is to provide services to the residents of Nuwara Eliya and its surrounding town area and its residents. Further, there is potential for further development as a service center. The plan identifies the natural ecosystem of the area as well as areas of economic value that can be systematically utilized for the benefit of the urban population.

In the process of preparing this plan, the views and suggestions of professionals, experts, stakeholders and the community were taken into account and approaches were developed to develop this plan through modern analytical strategies and technologies.

Accordingly, I commend the Chairman, the Director General, the planning team and all the officers of the Urban Development Authority who assisted in making this work a success in various ways. I further hope that the successful implementation of the Greater Nuwara Eliya Development Plan (2022-2032) will be facilitated with the support and contribution of the relevant Local Government Institutions, Public and Private Sector Institutions and the general public.

Prasanna Ranatunga
Minister of Urban Development and Housing



Hon. Chairman's forward – Urban Development Authority



The Urban Development Authority (UDA) is the apex planning and implementation body in Sri Lanka that is responsible for managing the urban areas of the country. The Authority was established in 1978 with the objective of introducing integrated planning and implementation in order to promote and regulate the developments of the aforementioned areas.

Under the Amendment Act No. 4 of 1982; [Part II Section 8A (1)] the UDA has been mandated to prepare Development Plans for the Urban Development Areas declared by the Minister-in-charge. Accordingly, the Development Plan for Greater Nuwara Eliya has been prepared considering physical, economic, social and environmental aspects of the area.

The development plan for the Greater Nuwara Eliya Area has been prepared for the period 2022 – 2032, using modern planning tools and methodologies equipped by UDA. The Greater Nuwara Eliya Development Plan has adopted strategic approach to address prevailing issues and enhance the potentials to ensure a progressive growth of the area. Therefore, all stakeholders and public are requested to follow this plan and contribute for realization of its vision in order to fulfil the public interest.

I take this opportunity to extend my sincere gratitude to the planning team of the UDA who have supported and contributed with various means to successfully complete this plan within the given period. And also, I would like to thank all the stakeholders and citizens for their assistance and cooperation extended for successful completion of this task. I hope all of them will continue to extend their fullest support towards successful implementation of the plan.

Major General (Retd) Udaya Nanayakkara
Chairman
URBAN DEVELOPMENT AUTHORITY



Forward of the Mayor- Nuwara Eliya Municipal Council



Nuwara Eliya is a city situated in the central hills with natural beauty and with its unique environment. The significance in Nuwara Eliya, comparing to other cities is the high elevation and the cool climate condition with a long history of the British ruling this city has developed to a great extent.

High altitude city is surrounded by the mountains with green vegetation and colorful flowers, adding more glamour to the surrounding.

Due to the above reason, tourist attraction to this city gives more prominence. At present tourism has become the more important sector of income to the Nuwara Eliya people. It is the fact that the Nuwara Eliya city to the commercial hub of Nuwara Eliya districts therefor the prominence should be given to develop the city to its maximum.

As I mentioned above I am grateful to Hon. Minister of Minister of Urban Development & Housing and state minister of Urban Development, and also UDA staff for giving priority to uplift the development in Nuwara Eliya and giving to the people of Nuwara Eliya.

Giving consideration to the “Greater Nuwara Eliya Development Plan” proposed by the Urban Development Authority. I found that the Economic, Social Environmental and Tourism benefits which focus for next 10 years booming the Nuwara Eliya City as a touristic city of the paradise island.

I wish all the very best and the fullest co-operation will be given by the Municipal Council, Nuwara Eliya to make the projects a success.

Deshamanya P.D.Chandana Lal Karunaratne,
Hon.Mayor of Nuwara Eliya Municipal Council



Forward of the Chairman - Nuwara Eliya Pradeshiya Sabha



Nuwara Eliya is a natural attraction for both local and foreign tourists. Centrally located in the central highlands, this region has its own unique peculiarities and environmental features. High altitude location the high land area is characterized by a forested area, a unique land use pattern with upland tea and upland vegetable cultivation.

With the commencement of the popularization of the Nuwara Eliya region which was identified during the British period, infrastructure facilities have been developed and the Nuwara Eliya area is further enhanced by the plantation economy of the Kandyan tea plantation. Therefore, the area is currently looking for economic, environmental and social improvements. Nuwara Eliya is also an important administrative center.

As a result, I am pleased to be the Chairman of the Nuwara Eliya Pradeshiya Sabha for the future Nuwara Eliya Development Plan, which will be prepared by the Urban Development Authority under the aegis of the Ministry of Urban Development & Housing.

We have studied this plan and hope to develop the economic, social, and environmental and tourism sector of the area.

I wish the Nuwara Eliya area to become a paradise in the Sitha Mountains within the next 10 years and I hope that this plan can be successfully implemented and will continue to contribute fully as a Nuwara Eliya Pradeshiya Sabha.

Vely Jogaraj

Hon. Chairman- Nuwara Eliya Pradeshiya Sabha



This development plan has been completed for the Nuwara Eliya Municipality council area and part of Nuwara Eliya Pradeshiya Sabha area with comprising 21 no of Grama Niladari Divisions for next 10 years period. The Nuwara Eliya which is the capital of the Nuwara Eliya District is situated on a plateau between two erosion scraps slightly above 6000 ft. MSL. Also narrow mountain slopes, Low rounded hills, crests; foot hills, dissected plateaus and a valley make a unique landscape within and around the town, the climatic condition and greenery of the area is increase the beauty of this geographic pattern. As a reasons that it is become a most tourist attractive town in Sri Lanka.

Currently Nuwara Eliya Municipal council area has about 35,000 of resident population and it will 52,000 for greater Nuwara Eliya plan area. Annual 950,000 of local tourist are arrival and foreign tourist are about 135,000. The economy is mainly based on Tourist and Agricultural sectors. Tea estate sector also contribute some part to the economic development.

A Tourism Development Master Plan (TDMP) has been prepared for Nuwara Eliya tourism area by the Urban Development Authority and Sri Lanka Tourism Development Authority. This plan covers the entire Nuwara Eliya Pradeshiya Sabha area which goes beyond the planning boundary of the Nuwara Eliya Development Plan. Preparation of the Nuwara Eliya TDMP was undertaken parallel to the preparation of Nuwara Eliya Development Plan considering their cross impacts and the proposals of Nuwara Eliya TDMP which fall within the limits of Nuwara Eliya Development Plan have been fully incorporated into the Development Plan.

The main objective of this development plan is to achieve sustainable development while preserving the environment sensitiveness. These plans have laid out the vision, objectives and strategies for the next 10 years while safeguarding the economic development and environmental beauty of the tourism and agriculture sector

In addition the plan is in line with the present government manifesto as well. Especially the government focuses to work out a program of action consisting of ten key policies aimed at achieving fourfold outcome which are a productive citizenry, a happy family, a disciplined society and a prosperous nation. Thus, the Nuwara Eliya Development plan aims to achieve the urban development coordinating with the main outcomes of the above manifesto. Essentially about five key policies fulfill through the plan such as Productive citizenry and a vibrant human resource, people centric economic development, technology based society, development of physical resources and sustainable environmental management. The planning and building regulations have being prepared by achieving the above policies as well.



**APPROVAL OF THE DEVELOPMENT PLAN FOR THE URBAN DEVELOPMENT AREA OF
MUNICIPAL COUNCIL OF NUWARA-ELIYA AND PART OF THE PRADESHIYA SABHA
LIMIT OF NUWARA-ELIYA**

I, Prasanna Ranathunga, Minister of Urban Development and Housing do hereby approve the Development Plan for the Urban Development Area of Municipal Council of Nuwara-Eliya and part of the Pradeshiya Sabha limit of Nuwara-Eliya, after consideration of recommendation made by the Board of Management of the Urban Development Authority on 24th September, 2020 by virtue of the powers vested in me under section 8(F) of the Urban Development Authority (Amendment) Act No. 4 of 1982.

Prasanna Ranathunga (M.P)
Minister of Urban Development & Housing

Ministry of Urban Development & Housing,
17th and 18th Floors,
"Sukurupaya",
Sobhanthipura Road,
Battaramulla.

01st August 2022



ශ්‍රී ලංකා ප්‍රජාතාන්ත්‍රික සමාජවාදී ජනරජයේ ගැසට් පත්‍රය
අති විශේෂ
The Gazette of the Democratic Socialist Republic of Sri Lanka
EXTRAORDINARY

අංක 2291/07 - 2022 අඟෝමතු මස 01 වැනි සඳුදා - 2022.08.01
No. 2291/07 - MONDAY, AUGUST 01, 2022

(Published by Authority)

PART I : SECTION (I) — GENERAL
Government Notifications

**APPROVAL OF THE DEVELOPMENT PLAN FOR THE URBAN DEVELOPMENT AREA OF
MUNICIPAL COUNCIL OF NUWARA-ELIYA AND PART OF THE PRADESHIYA SABHA LIMIT
OF NUWARA-ELIYA**

I, Prasanna Ranathunga, Minister of Urban Development and Housing do hereby approve the Development Plan for the Urban Development Area of Municipal Council of Nuwara-eliya and part of the Pradeshiya Sabha limit of Nuwara-eliya, after consideration of recommendation made by the Board of Management of the Urban Development Authority on 24th September, 2020 by virtue of the powers vested in me under Section 8(F) of the Urban Development Authority (Amendment) Act, No. 4 of 1982.

PRASANNA RANATHUNGA (M.P.),
Minister of Urban Development and Housing.

Ministry of Urban Development and Housing,
17th and 18th Floors,
"Suhurupaya",
Subhuthipura Road,
Battaramulla,
01st August 2022.



LA- G 37150 - 46 (08/2022)

This Gazette Extraordinary can be downloaded from www.documents.gov.lk



2A Tමාසය (II) කලාප - II ලංකා ප්‍රජාතාන්ත්‍රික සමාජවාදී ජනරජයේ අති විශේෂ ගැටළු පත්‍රය - 2022.08.01
Part I: Sec. (I) - GAZETTE EXTRAORDINARY OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA - 01.08.2022

**NOTICE OF APPROVAL OF THE DEVELOPMENT PLAN FOR THE URBAN DEVELOPMENT
AREA OF MUNICIPAL COUNCIL OF NUWARA-ELIYA AND PART OF THE PRADESHIYA SABHA
LIMIT OF NUWARA-ELIYA**

NOTICE is hereby given to the General Public of the Democratic Socialist Republic of Sri Lanka under Section 8 (G) of the Urban Development Authority Law No. 41 of 1978 as amended by the Act, No. 4 of 1982 that I, Prasanna Ranathunga, the Minister in Charge of the subject of Urban Development and Housing, by virtue of the powers vested in me under section 8(F) of the said Act, No. 4 of 1982 have approved the Development Plan for the Urban Development Area of Municipal Council of Nuwara-eliya and part of the Pradeshiya Sabha limit of Nuwara-eliya, prepared under Section 8 (A) of the said Act on the day of 01st August 2022.

PRASANNA RANATHUNGA (M.P.),
Minister of Urban Development and Housing.

Ministry of Urban Development and Housing,
17th and 18th Floors,
"Suhurupaya",
Subhuthipura Road,
Battaramulla,
01st August 2022.

**APPROVAL OF THE DEVELOPMENT PLAN FOR THE URBAN DEVELOPMENT AREA OF
MUNICIPAL COUNCIL OF NUWARA-ELIYA AND PART OF THE PRADESHIYA SABHA LIMIT
OF NUWARA-ELIYA**

PUBLIC are hereby informed that the Development Plan Prepared for the Urban Development Area of Municipal Council of Nuwara-eliya and part of the Pradeshiya Sabha limit of Nuwara-eliya under Section 8 (A) of the Urban Development Authority Law, No. 41 of 1978 as amended by the Act, No. 4 of 1982, has been approved on 01st August 2022, by Hon. Prasanna Ranathunga, Minister of Urban Development and Housing, by virtue of powers vested on him under Section (F) of the said Act.

MAJOR GENERAL (Retd. UDAYA NAGARAJAKARA),
Chairman,
Urban Development Authority.

01st August 2022.

EOG 08 - 0012

PRINTED AT THE DEPARTMENT OF GOVERNMENT PRINTING, SRI LANKA.



Table of Content

Greater Nuwara Eliya Development Plan 2022 - 2032	ii
Acknowledgement	iv
Hon. Minister's forward	v
Hon. Chairman's forward – Urban Development Authority	vi
Forward of the Mayor- Nuwara Eliya Municipal Council	vii
Forward of the Chairman - Nuwara Eliya Pradeshiya Sabha	viii
Preface	ix
Gazette Notification	xi
CHAPTER 01- INTRODUCTION	1
1.1 Introduction	1
1.2 Planning Team.....	2
1.2.1 Main Consultancy institutes	2
1.2.2. Other stakeholders	2
1.3 Scope of the Work	3
1.4 The Planning Process	4
CHAPTER 02-PRELIMINARY STUDY	5
2.1. Study Area.....	5
2.2. Planning context and situational analysis.....	7
2.2.1 Historical Evolution	7
2.2.2) Planning interventions on Nuwara Eliya.....	10
National Physical Plan 2015-2030	10
National Physical Plan 2050	10
2.2.3) National and Regional Linkages	17
2.2.4) Geographical and Topographical Setting.....	23
2.2.5) Climatic Conditions	25
2.2.6) Land Use Pattern.....	27
2.2.6) Water Resources.....	29
2.2.7) Demographic Characteristics	31
2.2.8) Housing Characteristics	34
2.2.9) Employment Characteristics	36
2.2.12) Infrastructure Facilities	40



Tourists arrivals in Nuwara Eliya	46
• Duration of stay in Nuwara Eliya.....	48
3.4.3 Types of tourists.....	48
3.4.4 Accommodation facilities.....	49
3.4.5. Attractions in Nuwara Eliya.....	51
• Queen Victoria Park	53
• Galway's Forest.....	53
• Single Tree Hill.....	54
• Moon Plains	54
• Shanthipura – City viewing point	55
• Piduruthalagala Mountain	55
Golf Club - Nuwara Eliya.....	57
Seetha Amman Hindu Temple	57
Hakgala Botanical Garden	58
Lovers Leap Fall	59
International Buddhist Center	59
2.3. Delineation of the Planning Boundary	61
CHAPTER 03- NEED OF THE DEVELOPMENT PLAN.....	66
3.1. Need of the Development Plan.....	66
3.2. Identification of problems	66
3.2.1.Prioritize the problems	67
1. Gradual diminishing of the Inherited City Image with emerging Haphazard Development	67
3.3. Detailed study in basic problems	1
3.3.1. Gradual diminishing of the Inherited City Image with emerging Haphazard Development	1
3.3.2. Quality and Quantity Issues on Surface and Drinking Water Sources which create less assurance of Accessibility to Safe Drinking Water and Unpleasant Environment.....	13
3.3.4. Low facility houses, slum and shanties.....	22
3.3.5. Road conditions are not up to standards.....	93
3..3.6 Inadequate Infrastructure Facilities Disturbing the Smooth Function of Tourism Activities	95
CHAPTER 04- PLANNING FRAME WORK	104
4.1.Greater Nuwara Eliya 2021 – 2030 Vision	104
4.2.Vision statement	104
4.3. Goals.....	104



4.4.Objectives.....	105
CHAPTER 05- 'SWOT ANALYSIS'	107
05. SWOT Analysis.....	107
5.1. To ensure that the natural assets and sensitive areas of Nuwara Eliya remain fully protected and the city is disaster resilient.	109
5.1.1 Strengths	109
01. Existing water sources system. (Nanuoya, Waterfield drive, Greogory lake, Barrack plain, Glenfall, Loversleap)	109
.....	110
02. High elevated mountain range	111
There are mountains which more than 2000m elevated in the planning area and therefore its most important due to bring uniqueness with environment features and forest cover for the Greater Nuwara Eliya area. Specially,Piduruthalagala, Single Tree, Kalapura, Shanthipura, Kikiliyamanna, Magastota and Bambarakele mountains situate within the area and also the scenic beauty of those highlighted with viewing fully Piduruthalagala mountain range to the town. Height of the Piduruthalagala mountain is 2524m, Kikiliyamana -2037m and Haggala is 2169m from MSL.Also the lowest level of the area is 1890m and mediumheight of the area is 1950m from MSL.....	111
.....	111
.....	112
.....	112
5.1.2. Weaknesses.....	114
5.1.3. Opportunities	119
5.1.4. Threats	119
5.2. To rebrand the unique character of Nuwara Eliya.....	121
5.2.1. Strengths	121
5.2.2. Weakness	126
5.2.3. Opportunities	130
5.2.4. Threats	131
.....	139
5.3.4. Threats	140
.....	142
CHAPTER 06- THE PLAN	142
6.1. Concept Plan	142
6.1.1. Introduction	142
6.2 Proposed Land Use Plan.....	144
6.3. Economic Development Strategies.....	147



6.3.1. Introduction	147
6.3.2 Present status of the tourism and other economic activities in Nuwara Eliya	147
6.3.3) Tourism Development	148
6.3.4.	155
Strengthen the economy through the upcountry vegetable cultivation.....	155
6.3.5. Commercial service development.	155
6.4.Strategies for environmental sustainability.	157
6.4.1.Environmental Preservation Strategies.	157
6.4.2 Landscape and beautification plan.	163
6.4.3 Disaster Management Plan.....	165
6.5 Social and physical infrastructure strategies	170
6.5.1. Service plan	170
1. Direct housing projects.	171
01.Scrub estate UDA land houses 80	171
02.Proposed middle income housing land-Hawaeliya.....	171
6.5.1 (C). Health services.	174
III.Develop the main parking area of the hospital.	174
6.5.2 Transportation	177
6.5.3 Drinking water supply	181
6.5.4 Electricity and Telecommunication facilities	184
6.5.5 Storm water drainage, sewage and sewerage plan.....	185
6.5.6 Solid waste and waste water management.....	186
6.6 Strategies for the common open spaces.....	188
6.6.1 Introduction	188
6.6.2 Strategies.	190
6.7. Cultural and Historical locations development strategies.....	190
6.7.1. Historical and Architectural valued buildings	191
Nuwaraeliya Municipal council area – 2002.....	191
6.7.2. Identified Street Wise Preserved Buildings Distribution.	194
6.8. New Project List	0
6.8.1. Centralize Drinking Water Purification Center- Nuwara Eliya	4
6.8.2. Nuwara Eliya Theme Park	7
6.8.3. Construction of lovers leap reservoir.....	9



6.8.4. High Altitude Race Course Play Ground- Nuwara Eliya	12
6.8.5. Construction of recreational area at Barrack Plain Reservoir.....	14
6.8.6.	18
Nuwara Eliya Glainfall Sub Road Expansion Project.	18
6.8.7. Development of Nuwara Eliya Bus Stand– Stage II.....	20
6.8.8. Public ground improvement at Lake Gregory- Nuwara Eliya.....	22
6.8.9. Nuwara Eliya Bambarakele PWD Housing Development	25
6.8.10. Pedestrians walk ways And Foot cycle ways construction	27
6.8.11. Create footpaths along the forest margins.....	31
.....	35
CHAPTER 07- LAND AND BUILDING DEVELOPMENT STRATEGY AND REGULATIONS.....	35
7.1. Background of the Zoning Plan.	35
7.1.1. Zoning Plan.....	36
7.2. Zoning Factor	0
7.2.1. Form 01- Table of Permissible Floor Area Ratio for zones.....	0
7.2.2. Form 02 - Number of Floors for 03m & 4.5m Wide Roads	2
Table 7. 0.4: Form C - Setbacks & Open Spaces.....	3
7.3. Zoning & Common Guidelines	0
7.3.1. Architectural Standards and specification Applicable for all zone	0
7.3.2. Endemic Trees of Nuwara Eliya which Suitable for Planting	1
.....	2
CHAPTER 08- ZONING GUIDELINES FOR SPECIFIC ZONES.....	2
8.1. Zone 01 (Agricultural based Low Density Zone 1/2/3)	2
8.1.1. Zoning Guidelines.....	3
(a.).....	3
Zoning Definition	3
Preserve endemic up country agricultural use in Nuwara Eliya.	3
(b.).....	3
Zone boundaries (Coordinates)	3
Noted Under Annexure	3
(c.).....	3
Zoning Factor	3
0.5	3



(d.).....	3
Approved height limits	3
(e.).....	3
Approved plots coverage	3
20%	3
Limited by the conditions specified in the zoning factor.	3
(f.)	3
General Terms Related to the Zone	3
8.1.2 Permissible uses.....	4
.....	5
8.2. Zone 02 (Forest 1/2/3/4/5/6/7/8)	5
.....	7
.....	7
.....	8
8.2.1 Zoning Guidelines.....	9
(a.).....	9
Zoning Definition	9
(b.).....	9
Zone boundaries (Coordinates)	9
Noted Under Annexure	9
(c.).....	9
Zoning Factor	9
0.0	9
(d.).....	9
Approved height limits	9
(e.).....	9
Approved plots coverage's	9
0	9
Limited by the conditions specified in the zoning factor.	9
(f.)	9
General Terms Related to the Zone	9
8.2.2. Permissible uses.....	9
8.3 Zone 03 (High Density Mix Development Zone)	10



8.3.1 Zoning Guidelines.....	10
(a.).....	10
Zoning Definition	10
Main Zone for providing infrastructure facilities for Residential and Commuting People	10
(b.).....	10
Zone boundaries (Coordinates)	10
Noted Under Annexure	10
(c.).....	10
Zoning Factor	10
1.5	10
(d.).....	10
(e.).....	11
Approved plots coverage's	11
(f.)	11
General Terms Related to the Zone	11
8.3.2 Permissible uses.....	11
8.4	13
Zone 04 (High Density Tourism Zone).....	13
8.4.1 Zoning Guidelins.....	14
(a.)	14
Zoning Definition	14
Tourism infrastructure facility development activities.	14
(b.).....	14
Zone boundaries (Coordinates)	14
Noted Under Annexure	14
(c.)	14
Zoning Factor	14
01	14
(d.).....	14
Approved height limits	14
(e.)	15
Approved plots coverage	15
50%	15



(Limited by the conditions specified in the zoning factor.)	15
(f.)	15
General Terms Related to the Zone	15
8.4.2 Permissible uses	16
8..5. Zone 05 (Low Density Residential Zone-1,2,3,4,5,6,7,8,9)	17
8..5.1 Zoning Guidelines.....	21
(a.).....	21
Zoning Definition	21
(b.).....	21
Zone boundaries (Coordinates)	21
Noted Under Annexure	21
(c.)	21
Zoning Factor	21
0.5	21
(d.).....	21
Approved height limits	21
(e.)	21
Approved plots coverage	21
40%	21
(Limited by the conditions specified in the zoning factor.)	21
(f.)	21
General Terms Related to the Zone	21
8..5.2 Permissible uses	22
8.6. Zone 06 (Middle Density Mix Zone-1,2,3,4,5,6,7).....	23
.....	24
.....	24
.....	25
.....	25
.....	25
.....	25
8..6.1 Zoning Guidelines.....	26
(a.).....	26
Zoning Definition	26



(b.).....	26
Zone boundaries (Coordinates)	26
Noted Under Annexure	26
(c.).....	26
Zoning Factor	26
0.7	26
(d.).....	26
Approved height limits	26
(e.).....	27
Approved plots coverage's	27
50%.....	27
(Limited by the conditions specified in the zoning factor.)	27
(f.)	27
General Terms Related to the Zone	27
8.6.2 Permissible uses.....	28
8.7 Zone 07 (Middle Density Special Zone).....	29
8.7.1 Zoning Guidelines.....	29
(a.).....	29
Zoning Definition	29
(b.).....	29
Zone boundaries (Coordinates)	29
Noted Under Annexure	29
(c.).....	29
Zoning Factor	29
0.5	29
(d.).....	29
Approved height limits	29
(e.).....	29
Approved plots coverage	29
50%	29
(Limited by the conditions specified in the zoning factor.)	29
(f.)	29
General Terms Related to the Zone	29



8.7.2 Permissible uses	29
8.8. Zone 8 (Middle density tourism)	30
8.8.1 Zoning regulations	30
(a.)	30
Zoning Definition	30
(b.)	30
Zone boundaries (Coordinates)	30
Noted Under Annexure	30
(c.)	30
Zoning Factor	30
0.7	30
(d.)	30
Approved height limits	30
(e.)	30
Approved plots coverage	30
50%	30
(Limited by the conditions specified in the zoning factor)	30
(f.)	30
General Terms Related to the Zone	30
8.8.2 Permissible uses	31
8.9. Zone 09 (Entertainment zone 01/02)	32
8.9.1 Zoning Guidelines	32
(a.)	32
Zoning Definition	32
(b.)	32
Zone boundaries (Coordinates)	32
Noted Under Annexure	32
(c.)	32
Zoning Factor	32
0	32
(d.)	32
Approved height limits	32
(e.)	32



Approved plots coverage	32
0	32
(f.)	32
General Terms Related to the Zone	32
8..9.2 Permissible uses	32
8	33
.10. Zone 10 (Entertainment Zone- 03, 04)	33
8.10.1 Zoning Guidelines.....	33
(a.)	33
Zoning Definition	33
(b.)	33
Zone boundaries (Coordinates)	33
Noted Under Annexure	33
(c.)	33
Zoning Factor	33
0.0	33
(d.)	33
Approved height limits	33
(e.)	33
Approved plots coverage	33
0	33
(f.)	33
General Terms Related to the Zone	33
8..10.2 Permissible uses	33
8.11. Zone 11 (Entertainment zone 05)	34
8.11.1 Zoning Guidelines.....	34
(a.)	34
Zoning Definition	34
(b.)	34
Zone boundaries (Coordinates)	34
Noted Under Annexure	34
(c.)	34
Zoning Factor	34



0	34
(d.).....	34
Approved height limits	34
(e.)	34
Approved plots coverage	34
0	34
(f.)	34
General Terms Related to the Zone	34
8..11.2 Permissible uses	34
8.12. Zone 12 (Sensitive Zone 1,2,3,4)	35
8.12.1 Zoning Guidelines.....	35
(a.).....	35
Zoning Definition	35
(b.).....	35
Zone boundaries (Coordinates)	35
Noted Under Annexure	35
(c.)	35
Zoning Factor	35
0.0	35
(d.).....	35
Approved height limits	35
(e.)	35
Approved plots coverage	35
0	35
(f.)	35
General Terms Related to the Zone	35
8.12.2. Permissible uses	35
8.13. Zone 13 (Sensitive zone5/6).....	36
8.13.1. Zoning Guidelines.....	36
(a.).....	36
Zoning Definition	36
(b.).....	36
Zone boundaries (Coordinates)	36



Noted Under Annexure	36
(c.)	36
Zoning Factor	36
0	36
(d.)	36
Approved height limits	36
(e.)	36
Approved plots coverage	36
0	36
(f.)	36
General Terms Related to the Zone	36
8.13.2. Permissible uses	36
8.14. Zone 14 (Sensitive zones 7,8)	37
8.14.1 Zoning Guidelines	37
(a.)	37
Zoning Definition	37
With (b.)	37
Zone boundaries (Coordinates)	37
Noted Under Annexure	37
(c.)	37
Zoning Factor	37
0	37
(d.)	37
Approved height limits	37
(e.)	37
Approved plots coverage	37
-	37
(f.)	37
General Terms Related to the Zone	37
8.14.2. Permissible uses	37
8.15. Zone 15 (Sensitive zones 9/10)	38
8.15.1 Zoning Guidelines	38
(a.)	38



Zoning Definition	38
(b.).....	38
Zone boundaries (Coordinates)	38
Noted Under Annexure	38
(c.)	38
Zoning Factor	38
0	38
(d.).....	38
Approved height limits	38
(e.)	38
Approved plots coverage	38
0	38
(f.)	38
General Terms Related to the Zone	38
8.15.2 Permissible uses	38
8.16. Zone 16 (Sensitive zone11)	39
8.16.1 Zoning Guidelines.....	39
(a.).....	39
Zoning Definition	39
(b.).....	39
Zone boundaries (Coordinates)	39
Noted Under Annexure	39
(c.)	39
Zoning Factor	39
0.3	39
(d.).....	39
Approved height limits	39
(e.)	39
Approved plots coverage	39
-	39
(f.)	39
General Terms Related to the Zone	39
8.16.2. Permissible uses	39



8.17. Zone 17 (Tea 1,2,3,4,5,6,7,8,9,10)	40
8.17.1 Zoning Guidelines.....	40
(a.).....	40
Zoning Definition	40
(b.).....	40
Zone boundaries (Coordinates)	40
Noted Under Chapter 03	40
(c.).....	40
Zoning Factor	40
0.3	40
(d.).....	40
Approved height limits	40
(e.).....	40
Approved plots coverage's	40
-	40
(f.)	40
General Terms Related to the Zone	40
8.17.2. Permissible uses.....	40
CHAPTER 09- ROADS WIDTH, BUILDING LINE/ ROAD RESERVATIONS	0
9.1. Building Line / Street Line	0
9.1.1.	0
The building line of the following roads shall not be less than 15 meters.....	0
9.1.2. Minimum width of the roads is more than10m.....	0
9.1.3. Minimum width of the roads is more than 08 m.....	1
9.1.4. Minimum width of the roads more than 07 m	2
9.2. Reservation for water bodies.....	4
9.3. Permissible height limits according to the view analysis.....	5
9.3.1. Objectives of protecting visibility zones	5
Table of Maps.....	ii
Environment sensitivity study	ix
Livability Analysis	xi
Development Potential Analysis	xiii





PART 1



CHAPTER 01- INTRODUCTION

1.1 Introduction

Attention is focus towards physical environmental cultural political economic and social sectors to prepare development plan for urban area for next period of time within the declared urban development area. Solidness of the planning framework and planning procedure of the planning texture depends on the SOWT analysis of its physical and social areas

Urban development authority can be identified as main regulatory institute as town and their suburb development in Sri Lanka. Urban development authority act No 41 of 1978 gives powers to UDA to urban planning in Sri Lanka. Clause No 8 of urban development authority amendment act No 4 of 1982 gives urban development authority to regulatory powers to enforcement and planning regulations within the area of identified urban areas under the act.

According to above legal form the UDA study social economical political cultural environmental and physical situations of the urban development areas and identifies set of urban areas tendencies and potentials and their weakness threats and their proper management of made development plan for next definite time to definite vision. Development plan prepared all counterpart development including commuters and town population. This development plan prepared to help for future development of area population and commuting population.

According to the gazette notification of No 38/16 dated 01st of June 1979 under UDA act 1978, limits of the municipal council Nuwara Eliya declared as development area. As well as Nuwara Eliya Pradeshiya Sabha area also gazzetted No 4/1546 dated 8th September 1998.

According, to the above factors, prepared development plan for the Nuwara Eliya Municipal Council area in 2004 expired on 2022. Hence it is needed to prepare new development plan for next 10 years of time to Nuwara Eliya Municipal Council area including its adjoining 5 Grama Niladari divisions within the Nuwara Eliya Pradeshiya Sabha area.

New development regulation and new development strategies are introduced in this new development plan.



1.2 Planning Team

1.2.1 Main Consultancy institutes

1. Nuwara Eliya Municipal Council
2. Nuwara Eliya Pradeshiya Sabha

1.2.2. Other stakeholders

Other Stakeholders

- | | |
|---------------------------------------------|---------------------------------------------|
| 1. All Religious Dignitaries | 2. Sri Lanka Transport Board |
| 3. Central Environmental Authority | 4. Provincial Passenger Transport Authority |
| 5. Forest Department | 6. National Physical Planning Department |
| 7. Road Development Authority | 8. Non-Governmental Organization |
| 9. Sri Lanka Tourist Development Authority | 10. Hotel Union of Nuwara Eliya |
| 11. Nuwara Eliya District Secretariat | 12. Tourist Guide Union Of Nuwara Eliya |
| 13. Nuwara Eliya Divisional Secretariat | 14. Motor Racing Society Of Nuwara Eliya |
| 15. National Building Research Organization | 16. Traders Union Of Nuwara Eliya |
| 17. Agricultural Department | 18. Tourism Hotel Union of Nuwara Eliya |
| 19. Department of Agrarian Services | 20. Ceylon Electricity Board |
| 21. Irrigation Department | 22. Sri Lanka Telecom |
| 23. Railway Department | 24. Guest House Union of Nuwara Eliya |
| 25. Education Department | 26. 4 x 4 Motor Cares Union of Nuwara Eliya |
| 27. Health Department | 28. Sports Society of Nuwara Eliya |



1.3 Scope of the Work

Nuwara Eliya is a unique city in the Central Province of Sri Lanka. This city is relatively physical and environmental diversified compared to other cities in Sri Lanka. The region is characterized by high sensitive ecological zones and unique climatic features. This region can be identified as a major catchment area which feeds the major rivers of the island

Due to this situation, the Nuwara Eliya area has been identified as a High Sensitive area under the National Physical Plan of Sri Lanka. According to the National Physical Plan 2050, the Nuwara Eliya Zone belongs to the Central Hyperventilation Zone, with a population limit of 100,000 by 2050, and the population of the Greater Nuwara Eliya region is projected to be 59,000 by 2030 in this development plan.

This development plan has been prepared considering and overcome the shortcomings of the Nuwara Eliya Development Plan 2004-2017 gazed on 2004.04.23 under no of 1337/16.

As this development plan is bounded, it is highly considered Haggala Forest Reserve which is specifically designated as a protected area in accordance with the Flora Ordinance No. 2 of 1937 and subsequent amendments. Similarly it is considered the piduthalagala forest conservation area gazette on 2007.12.14 no 1527/22 and Kandapola and Seetha Eliya forest conservation areas gazetted on 2018.07.22 no of 1559/12. Also considered the Kikiliyamana – single tree Forest area Forest Conservation (Amendment) Act No 65 of 2009.

In addition, under the National Environmental Act No. 47 of 1980 No. 1487/10 and the regulatory restrictions on the Gregory Lake Environmental Protection Zone gazetted on 05th March 2007 were considered.

Also considered the rules and regulation coming under the gazette no 1487/10 dated 2007 .03.05 for the Gregory Lake conservation area. Similarly, the boundaries for the Galways Land National Sanctuary, which was gazetted under Ordinance 1405/18 of the Forest and Flora Ordinance, were considered.

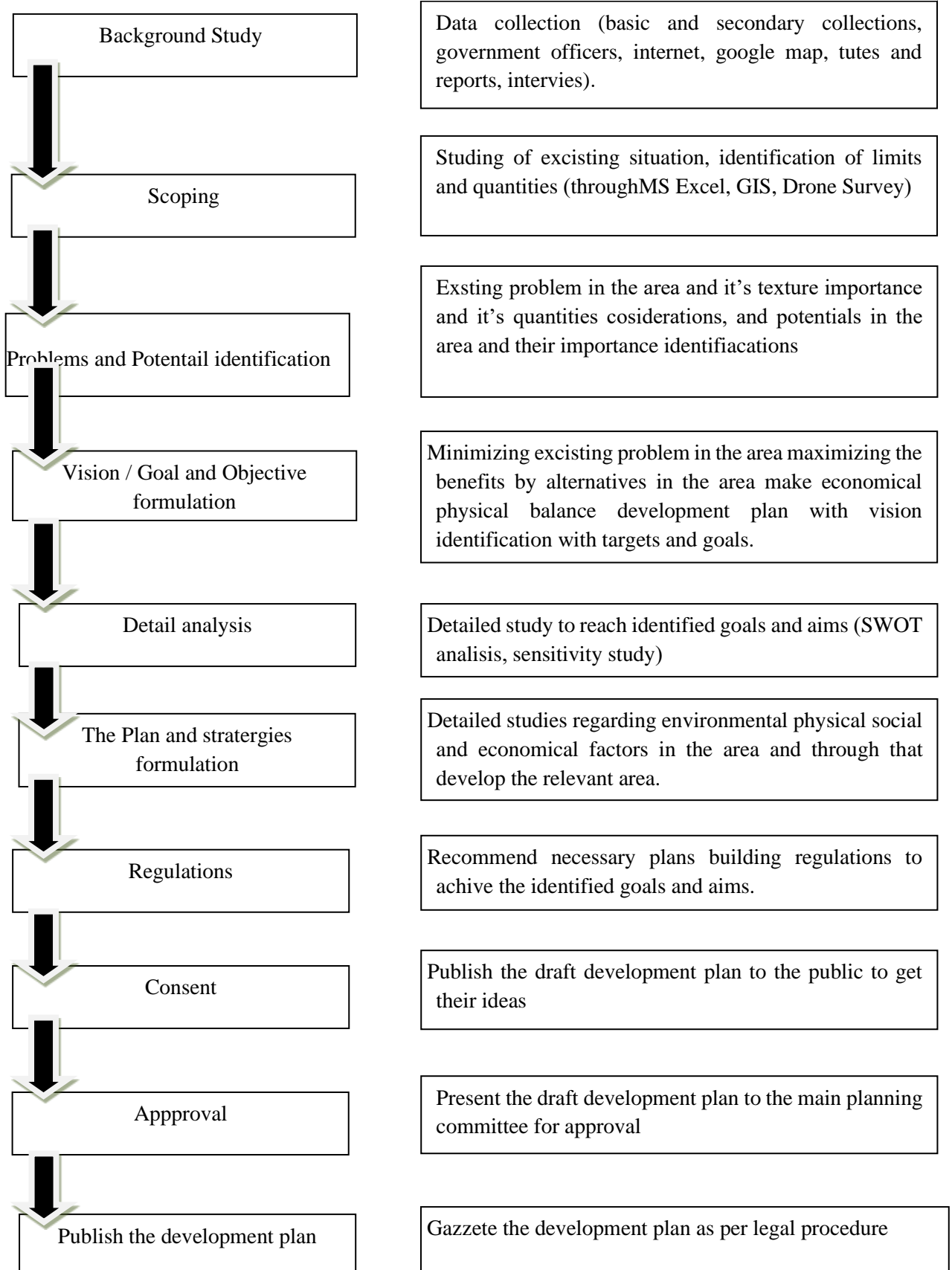
The regulations for the Buildings to be Conserved in the City of Nuwara Eliya as per the Gazette No. 1486 dated 23.02.2007 by the Department of Archeology in accordance with the Archaeological Ordinance and rules and regulations which regulated for identified buildings with unique architectural features of the area has been studied for the Greater Nuwara Eliya Development Plan.

Also the plan focuses on the environmental sensitivity of the area, which is aimed at the provision of tourism development with nature and well-managed economic, social and environmental development with protecting unique architectural features.



1.4 The Planning Process

Figure 1.0.1: The Planning Process



CHAPTER 02-PRELIMINARY STUDY

2.1. Study Area

Nuwara eliya town is unique climatic and scenic beauty area in the central hills of srilanka. This area can be identified as main water spring catchment area of major rivers in the basic mountain ranges of piduruthalagala, kikiliyamana, singal tree and haggala. Also Uma and Kothmale tributaries of Mahawali River can be identified as catchment area

Nuwaraeliya town was declared as urban municipal council area in 1948 and also it was declared as urban development authority area by the gazette notification of No 38/16 on 01 st of June 1979. After that Nuwara Eliya Pradeshiya Sabha area was declared as Urban Development Authority area by the gazette No 154644 on 01 st of September 1998.

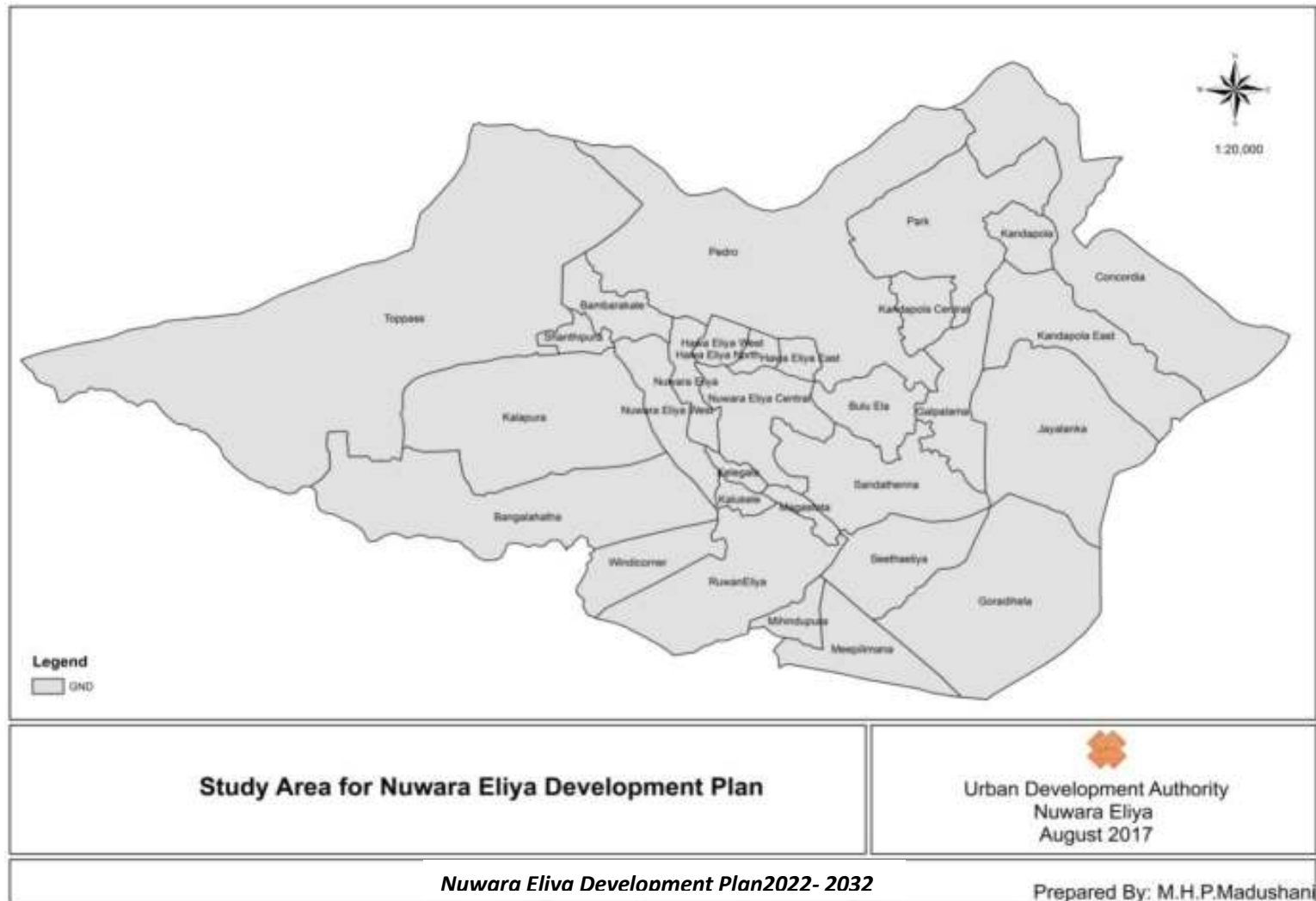
Nuwara Eliya Municipal Council boundry and part of Nuwara Eliya Pradeshiya Sabha area included to this greater Nuwara Eliya Development Plan study area. According to that 12 grama niladari division in the Nuwaraeliya municipal council area and 18 grama niladari divisions in the Nuwaraeliya pradeshiya sabha area are identified as study area. (Table No 2.1/ Map No 2.1) totalexent of the area is 138 squre kilometers

Table 2.0.1: Study Area

	Grama Niladari Division	Division No		Grama Niladari Division	Division No
1	Bambarakale	535K	16	Kalegala	535C
2	Bangalahatha	476C	17	Magasthota	535A
3	Buluale	535I	19	Meepilimana	476H
4	Konkodiya	534F	19	Mihindupura	476G
5	Galpalama	534A	20	Nuwaraeliya	535
6	Gorandihela	478	21	Nuwaraelliya central	535D
7	Hawaeliya east	535H	22	Nuwaraeliya west	535L
8	Hawaelliya North	535G	23	Park	534P
9	Hawaeliya west	535F	24	Pedroue	534H
10	Jayalanka	534B	25	Ruwaneliya	476D
11	Kalapura	535N	26	Sandathanne	535E
12	Kalukale	535B	27	Seethaeliya	478A
13	Kanadapola	534	28	Shanthipura	535M
14	Kandapola central	534C	29	Toppass	535J
15	Kandapola east	534D	30	Windyconer	476E



Map 2.0-1: Study Area



2.2. Planning context and situational analysis

2.2.1 Historical Evolution

Ancient History of Nuwara Eliya

It is believed that history of Nuwara-Eliya runs beyond the 10th century as for the reason that an old 'Stone letter' which belongs to the 10th century was found in Thalaga Oya. If the exploring of history is taken a step forward, it reveals some fascinating happenings to chat about. As for the folklore, Ramayana, the king of Lanka, Rawana abducted Sitha who was Indian King Rama's beautiful wife and kept her captive in Sita Eliya, a location in Nuwara Eliya. Today, The Sitha Amman Temple stands in Sita Eliya with such recalls.

The epic continues to say that a troop of monkeys came to save Sitha but King Rawana punished Hanuman, the leader of the troop by setting his tail on fire. It is said that Hanuman burned the entire Nuwara Eliya City which had been the Capital during King Rawana's era. The black soil, which forms the top layer of Nuwara Eliya, is believed to have formed of the ashes of the city of Rawana, burnt down by Hanuman.

Another legend tangled with Nuwara Eliya City runs back to Anuradhapura Era where prince Gamunu, the son of King Kavantissa who ruled Ruhuna took refuge to set forces against King Ealara. However, the legends go silent and a very little is heard of this area till the Kandyan Era.

When the history is kindled further, it is noted that the ancient kings who ruled the island were not aware of the economic value of Nuwara Eliya but considered that it was the location where pure water flowed. Thus, it was treasured with much care to keep its natural beauty as it was. May be for this reason they did not build any kingdoms or palaces in the city.

Figure 2.0.1: Nuwara Eliya Colonial Period



The modern history of Nuwara Eliya is said to be rejuvenated in 1818 when a British Surgeon Dr. John Davy rediscovered this unique area with a similar climate as England filled with fauna and a massive number of wild animals for hunting. Today known as 'Oliphant Estate' is the old 'Elephant Plane', the place which so many elephants lived.



Sir Edward Barnes, the Governor of Ceylon during the period 1824-1831 constructed roads and shelters in Nuwara-Eliya. His holiday home 'Barnes Hall' in Nuwara-Eliya is known to be the very famous Grand Hotel today. St. Andrews Hotel, Keena Hotel and Carlton Hotel are some of the other constructions that took place in his period. The success of the island's planting enterprise is also attributed to him as he who constructed the network of roads linking the hill country to the coast which is a vital prerequisite for development. Notwithstanding his role as Governor of Ceylon, Barnes took a personal interest in the coffee industry but failed some time later with botanical virus.

Sir William Hortain the Governor from 1831-1837 was the editor of 'Colombo Journal' newspaper. His articles to the paper on Nuwara Eliya depict the interest he had on this beautiful surrounding.

Sir Samuel Baker's arrival in Ceylon (Sri Lanka today) during Sir Hortain's period is concerned special as he was one of the first Englishmen to popularize Nuwara Eliya. He set a farm in Nuwara Eliya bringing English colonists to work in it. Some of the English vegetables he introduced to Nuwara Eliya are popular throughout the country even today. He was so in love with this beautiful island and explained it could only be equaled by his affection for Old England. In his book "Eight Years in Ceylon" Samuel Baker wrote about Nuwara Eliya which shows his beloved enthusiasm.

Among his massive contributions towards making Nuwara Eliya thriving, the 'Baker's Ward' which was built in Nuwara Eliya Base Hospital in memory of his brothers who passed away while travelling to Nuwara Eliya is a sentimental icon. Even though he failed in many of his experiments in this island he is said to be a distinguished character in the Lanka history. His name is perpetuated to this day in Baker's fall.

Sir William Gregory who became the Governor in 1872 (1872-1877) had the vision of making Nuwara Eliya the Capital city of Sri Lanka. He forwarded many proposals to develop Nuwara-Eliya. He drained a swamp and converted it into a lake by making a dam across the Nanu-Oya, which is today a prime attraction in the city known as 'Gregory Lake'. His enthusiasm towards this unique city with a luxury cool climate, fine lands for cultivation and animal farming and lands with treasured gem made him attract a considerable number of foreign merchants to the city.

Figure 2..0.2: Old Nuwara Eliya



In 1877 Sir Robert London became the Governor. Concerning Sir William Gregory's advice, he involved in building the railway track from Peradeniya to Nawalapitiya and then from there to Hatton and Nanu Oya.

In early years, the city population was mostly British as the Europeans competed with each other to settle down in the most picturesque places in the city. However, the local population devoid of money and generally not quite in agreement with its cold climate did not find comfort in such surroundings. For this reason, only a few Sinhalese, Tamils and Moors inhabited the Nuwara Eliya city. Nevertheless, the growth of the city as a main center for plantation and commercial activities attracted a more varied population. It is also said that, in later part of the British Era, to be more specific, by the end of World War I in 1918 more Sri Lankans bought land and built houses in Nuwara Eliya.

When colonized Ceylon (Sri Lanka Today) is recalled, Great Britain's influence is the most noticeable, having been the last colonizer before the island's independence. The dramatic transformation in Sri Lankan society, through government interventions and economic expansion during the British Era is remarkable. From plantation and agriculture the influence spread to almost every part including transportation, administration, educational system, etc. which could be argued favorable or unfavorable. However, many Sri Lankans still live and practice British customs to some extent may be for the reason that the affections are yet too strong to eradicate completely from the society.

129 buildings built at that time were identified as conserved building in Nuwaraeliya and they were included into the development plan prepared for 2004 – 2008 period.

Contemporary History of Nuwara Eliya

After the independence, migration towards Nuwaraeliya area gradually increased and settlement development took place in the area. Upcountry vegetable cultivation and pears cultivation were in the area at the first part of the 20th century. Potato cultivation started in Nuwaraeliya in 1969. Nuwaraeliya experienced gradual development towards the latter part of the 20th century due to construction of the hotels in the view points of the area. The main factor which drove development of Nuwaraeliya was the settling of families related to cultivation areas in 1970 and 1980 two decades and land development taken place after the destruction of property in the town central area after civil commotion in 1983.



2.2.2) Planning interventions on Nuwara Eliya

National Physical Plan 2015-2030

As per the plan, Nuwara Eliya was identified as a District Capital connecting Highways and railway network. The targeted population in Nuwara Eliya for 2030 was approximately 47,000. The city was categorized under the 'Central Environmental Sensitive Area' which restricted further developments in the area. The city was further included in the 'Central Fragile Region' under the Proposed Protected Area Network in order to conserve the water sources of the country. By this, Nuwara Eliya was to continue to exist but its development and expansion to be controlled and restricted. The city was also identified as an Eco-Tourism Area and Potential Archeological Tourism Development Area.

The National Projects those were to influence Nuwara Eliya included provision of facilities and amenities for eco-tourism activities, including hotels, access roads, information centers etc. and implementation of forest replanting programs in the areas in Nuwara Eliya (15870 ha) that were under cultivation, had slopes with a gradient of over 60% and been identified by the NBRO. It was also proposed to establish a wind power generation plant and IT park in the city.

National Physical Plan 2050

As for the revised National Physical Plan 2050 Nuwara Eliya falls under 'Central Fragile Area' which is the geographic entity that consists of the lands with sensitive natural ecosystems, highly vulnerable to landslides and play a crucial role in sustaining water resources.

Moreover, Nuwara Eliya has been identified as a 'Main City' which is a relatively larger concentration of economic activities, urban facilities and residential population, and serves as the higher order service Centre to a reasonably larger land area. Within this policy, a 'Main City' shall be defined as an area with a minimum population of 100,000, and a net residential population density between 100 - 500 persons per square kilometer. Hence, Nuwara Eliya is proposed to be developed as an independent medium scale urban facility location with a population varying between one and two hundred thousand (100,000-200,000). However, the plan emphasizes that out of the identified 'Main Cities' Nuwara Eliya may need to divert its excess population into elsewhere in future due to its fragile environmental conditions.

Tourism Development Strategies of the plan has identified Nuwara Eliya as one of the Tourist Development Areas to be promoted based on eco-tourism concepts, with controlled development since it inherits highly environmental sensitive area.



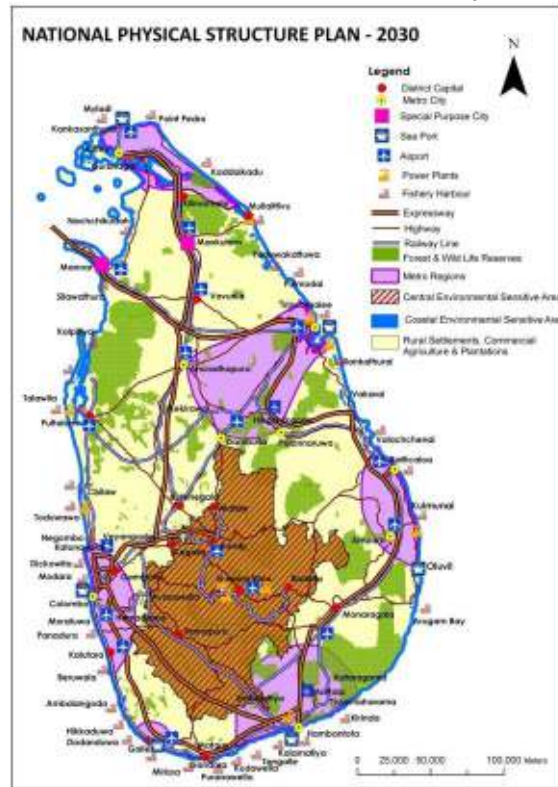


Figure 2.0.4: National Physical Struture Plan 2030

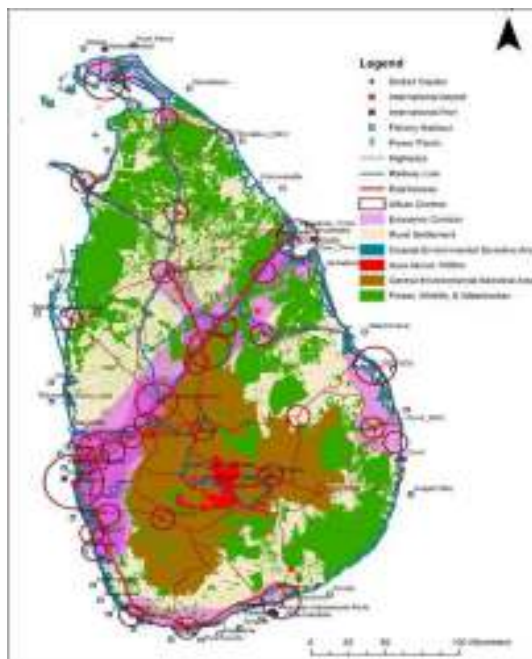


Figure 2.4: National Physical Structure Plan 2050



Figure 0.5: Tourist Areas-National Physical Structure Plan – 2050



Sri Lankan Tourism Strategic Plan 2017-2020

The Tourism Strategic Plan has identified Nuwara Eliya as a one of the destinations in the Grand Tour Path which connects Colombo, Galle, Mirissa and Yala from south corridor and thereafter extends to Hortain Plains, Polonnaruwa and Sigiriya.



Nuwara Eliya categorized as an 'Emerging Hub' in the Plan is expected to perform as a center of significance or emerging tourism as an attraction, center of accommodation, or both. It is also expected to rely on the Major Hub Kandy for support services and maintain connectivity through Touring Routes.

It has also been proposed to collaboratively involve with the private sector to launch express luxury coach services to Tourism Hubs during peak seasons. Nuwara Eliya is one of the Tourism Hubs identified.

Figure 2.0.6: The Tourist Tour Trails in Sri Lanka





Figure 2.0.7: Tour Map- Sri Lankan Tourism Strategic Plan

Development Plan for Nuwara Eliya has been prepared by the Urban Development Authority for the boundaries of Nuwara Eliya Municipal Council and a part of Nuwara Eliya Pradeshiya Sabha area. Accordingly, 12 Grama Niladari Divisions of the Nuwara Eliya Municipal Council and 18 Grama Niladari Divisions of the Nuwara Eliya Pradeshiya Sabha are considered in the Plan.

The vision of the Plan is to priorities sustainable development goals while protecting the endemic and hereditary environment of the city and make it a proper residential area and a tourism destination. Accordingly, the goals are to;

- Preserve the natural environment and improve water quality of the city
- Enhance the endemic and hereditary features in order to protect the city image and
- Create a Vibrant Wealthy Zone

Many strategies have been proposed under infrastructure, economic and environment to lead towards the set vision.

Nuwara Eliya Tourism Development Master Plan - 2032

Nuwara Eliya Tourism Development Master Plan (TDMP) is prepared by the Urban Development Authority as a part of a consultancy assignment undertaken by the UDA for the Sri Lanka Tourism Development Authority (SLTDA).

Preparation of the Nuwara Eliya Tourism Development Master Plan (TDMP) was undertaken parallel to the preparation of Nuwara Eliya Development Plan considering their cross impacts. The planning boundary of the Nuwara Eliya TDMP is the Nuwara Eliya Pradeshiya Sabha area.



The Concept Plan of the Nuwara Eliya TDMP

The Concept Plan of the Nuwara Eliya TDMP has been formulated considering the geographical setting of the area and the key tourism attractions.



Figure 2.0.8: Geographic Setting of the Area

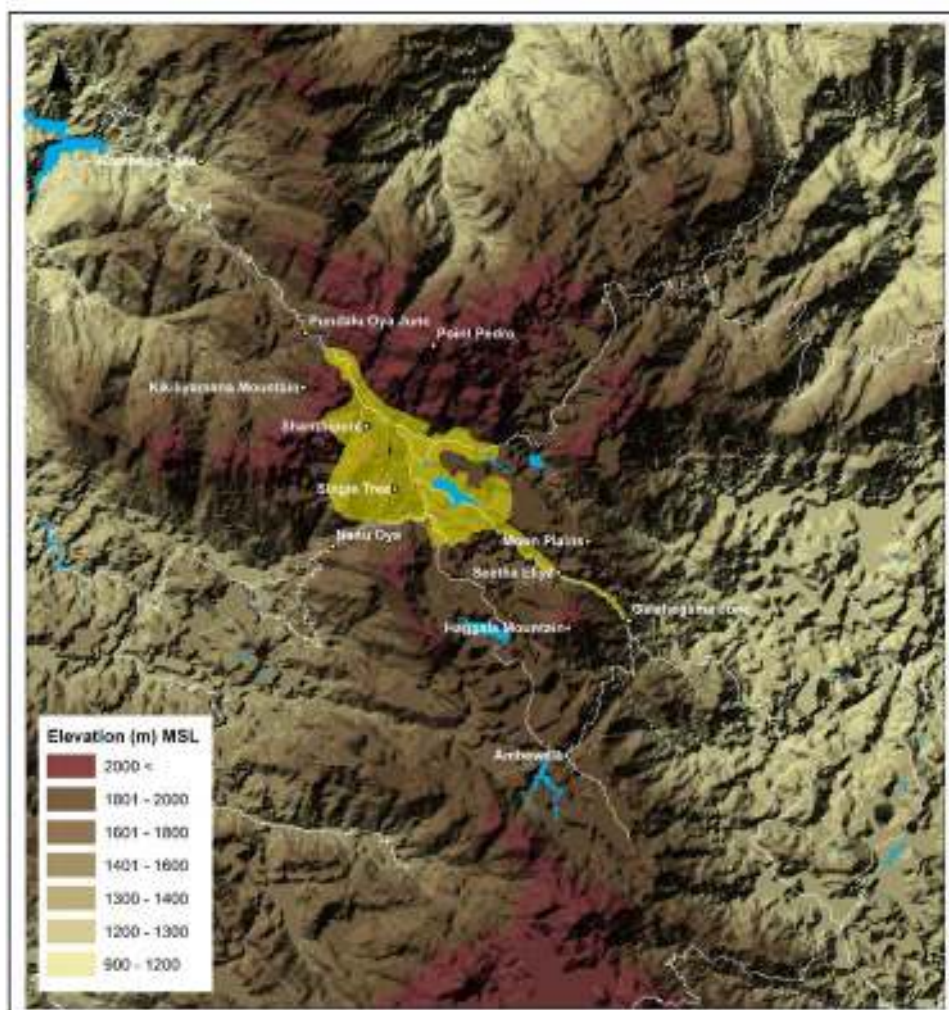


Figure 2.0.9: Geographic Setting of the Area



Nuwara Eliya city centre is a basin city which is at 150 MSL surrounded by a range of mountains namely Piduruthagala, Kandapola, Haggala Mountain, Concical Hill and Single Tree hill.

The entire Nuwara Eliya TDMP area has been divided in to 5 corridors/ clusters as shown in the below map.

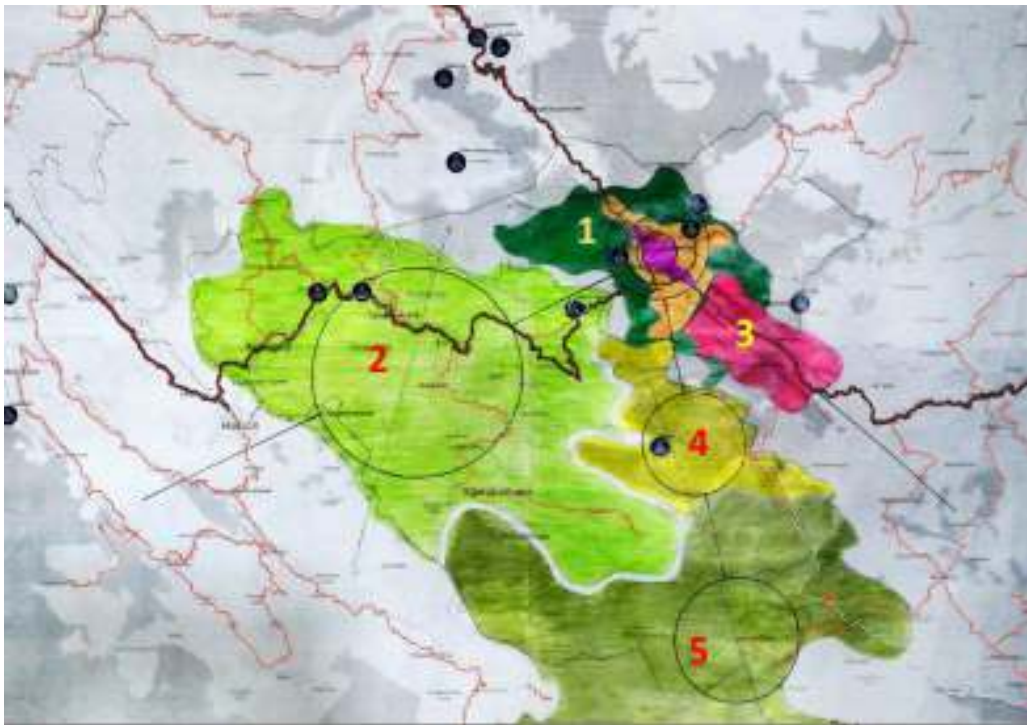


Figure 2.0.10: Concept of the Tourism Plan



Table 2.0.2: Cnncept of the Tourism Development Plan

Zone	Key Characteristics	Covered Areas
Zone 1 – Nuwara Eliya Central Tourism Area	This area mainly covers the central city area based on the Gregory Lake, Victoria Park, Racecourse and the city area. This area has been identified as the central tourism facilitation area having standard accommodation, commercial and tourism services activities. In addition, the area surrounding the Gregory Lake, Victoria Park has been identified as a recreational area.	Gregory Lake, Victoria Park, City Centre. The boundary of this area is the high-elevated mountain range surrounding the city center.
Zone 2 – Tea Tourism Cluster	The tea estates ranging from a part of Hatton, Thalawakele, and Agarapathana areas are taken for this zone. These areas have relatively mid-rise human scale mountain ranges and are utilized as tea-estates. This cluster is based on the Hatton – Nuwara Eliya Road.	The tea estates ranging from a part of Hatton, Thalawakele, Agarapathana areas.
Zone 3 – Haggala Flower & Vegetable Corridor	This cluster is located at the either sides of the Nuwara Eliya – Welimada road. This cluster has relatively descending elevation compared to the Nuwara eliya city centre area. These areas are largely occupied for vegetable, fruits and flowr cultivation. Haggala garden is the famous tourism attraction located in this area.	Seethaeliya, Haggala & Moon plains
Zone 4 – Diary & Fruits Framing Area	This cluster is located based on the Nuwara Eliya Hortain Plains road and has unique beautiful sceneries. These area has many attractions and diverse landscape characteristics. The most sought world famous Hortain Plains is met by the end of this cluster. Also there are renowned railway stations namely Ambewela, Pattipola and Ohiya. Kande ela reservoir and Black pool lake area also key attractions in this area. This cluster is one of the most visited areas due to the existence of famous diary, and strawberry farms.	Meepilimana, Kande Ela, Ambewela, Pattipola
Zone 5 – Hortain Plains	Hortain Plains is considered as a separate cluster due to its high sensitivity, special character and the high tourism attraction	Hortain Plains, Ohiya



The Nuwara Eliya TDMP has been developed on the above five clusters and the two tourism trails;

- Waterfall tour trail – water fall tour trail has been proposed based on the locations of more than 20 number of waterfalls located in and around Nuwara Eliya TDMP area. Among these total waterfalls, several number of waterfalls fall within the Nuwara Eliya DP area.
- Railway tour trail – Railway tour trail has been proposed connecting the Nanu Oya, Ambewela, Pattipola and Ohiya Railway Stations. Although none of these railway stations located within the Nuwara Eliya DP area, it has impact when connecting these stations with the city center.

2.2.3) National and Regional Linkages

Connectivity or the accessibility is the fundamental of any destination which allows to link with local scale to global scale. In spatial planning generally it concerns that higher the accessibility is greater the potential to development. Accordingly, when it consider about the connectivity of Nuwara Eliya via differentiate transports modes it seems a moderate level of connectivity when it evaluate the rail and road network transport connections (Figure 72). Apart from these common ground based transport networks, currently there is a potential for sea plane circulation as well. Though Castlereagh reservoir in Hatton and Lake Gregory is currently being used for sea plane functions still there is possibility at Barrack Plain and Kande Ela reservoirs in middle of Nuwara Eliya.



Figure 2.0.11: National scale connectivity

- **Rail Transport Linkages**

The famous up country train ride which is starting from Kandy to Ella leads via Nanu Oya station which is consider as the closest rail destination to Nuwara Eliya. The travel distance from Nanu Oya station to Nuwara Eliya town is approximately 9 km along the Colombo – Batticaloa (A7) highway. Current rail network runs through Nanu Oya leads Ella along the Pattipola which is consider as the highest railway station (6204 ft) established in the country. The line was initially built for the requirement of travel and transportation of plantation products grown in up country.

The connection line which was built between Nanu Oya and Udupussellawa suggested by British Governor Sir West Ridgeway was built in year 1900 and its 1st phase commenced functioning in 1903 which started from Nanu oya and leads up to Nuwara Eliya. During 1940s said line was totally shut down by British management and so far it is a neglected connection which has remains only its skeletons.

Currently Nanu Oya act as the prominent rail entrance to Nuwara Eliya. There is default time table for the train trips which is passing Nanu Oya station and specially scheduled trips which is oriented to facilitate both local and foreign passengers who pass Nanu Oya in their vacations. The existing trips serves to Nanu Oya station are as follows.



Table 2.0.3: Scheduled train via Nanu Oya

Colombo Fort to Nanu Oya			
Train	Departure	Arrival (to Nanu Oya)	Frequency
Podi Menike - Express (Train #: 1005)	05:55	12:56	Daily
Denuwara Menike – Intercity (Train #: 1001)	06:45	12:17	Daily
Udarata Menike – Express (Train #: 1015)	08:30	14:45	Daily
(Train #: 1007)- Express	09:45	15:59	Daily
Night Mail (Train #: 1045)	20.00	03:03	
Badulla to Nanu Oya			
Udarata Menike – Express (Train #: 1016)	05:45	09:16	Daily
Podi Menike – Express (Train #:1006)	08:30	11:59	Daily
(Train #: 1008) – Express	11:00	14:51	Daily
(Train #: 1596) – Local	11:45	17:08	Daily
Night Mail (Train #: 1046)	17:50	22.08	Daily
Ella to Nanu Oya			
Udarata Menike – Express (Train #: 1016)	06:40	09:16	Daily
(Train #: 1001) – Special	08:16	10:38	School vacation special
Podi Menike – Express (Train #: 1006)	09:24	11:58	Daily
(Train #: 1008) – Express	11:57	14:35	Daily
Night Mail - Express (Train #: 1046)	18:51	22:08	Daily
(Train #: 2007) – Special	20:46	23:01	August School vacation special
Kandy to Nanu Oya			
(Train #: 1126)	03:30	09:02	Daily
Podi Menike – Express (Train #: 1005)	09:05	12:56	Daily
Udarata Menike – Express (Train #: 1015)	11:10	14:45	Daily





Figure 2.0.12: Rail Transportation Linkages

Road Transport Linkages

Nuwara-Eliya being centrally located in the island is conveniently reachable through five directions as, from Kandy in North (A5), from Kandapola in Northeast (B332), from Welimada via Rendapola in East (A5), Ohiya from South (Ambewela Road) and Hatton from West (B381). Northern and Western connections are considered as most popular road access towards Nuwara Eliya. North connection that connect with Kandy via A5 road leads through Peradeniya, Gampola and Ramboda. It takes 2 hours and 30 minutes to travel 76 km distance of this connection. The road leads from Nawalapitiya via Kotmale connect with this A5 road at Thawalantenna. The second famous connection that leads from Colombo via Avissawella to Hatton road (A7) links to Hatton - Nuwara Eliya road (B831) and it takes approximately 5 hours to travel this 175 km distance.

Existing road network currently facilitates for public transport bus services in regional and local context. Accordingly, Nuwara Eliya comprise with 8 no of directly connected regional bus routes, 4 no of passing through regional bus routes and 8 no of locally connected bus routes.



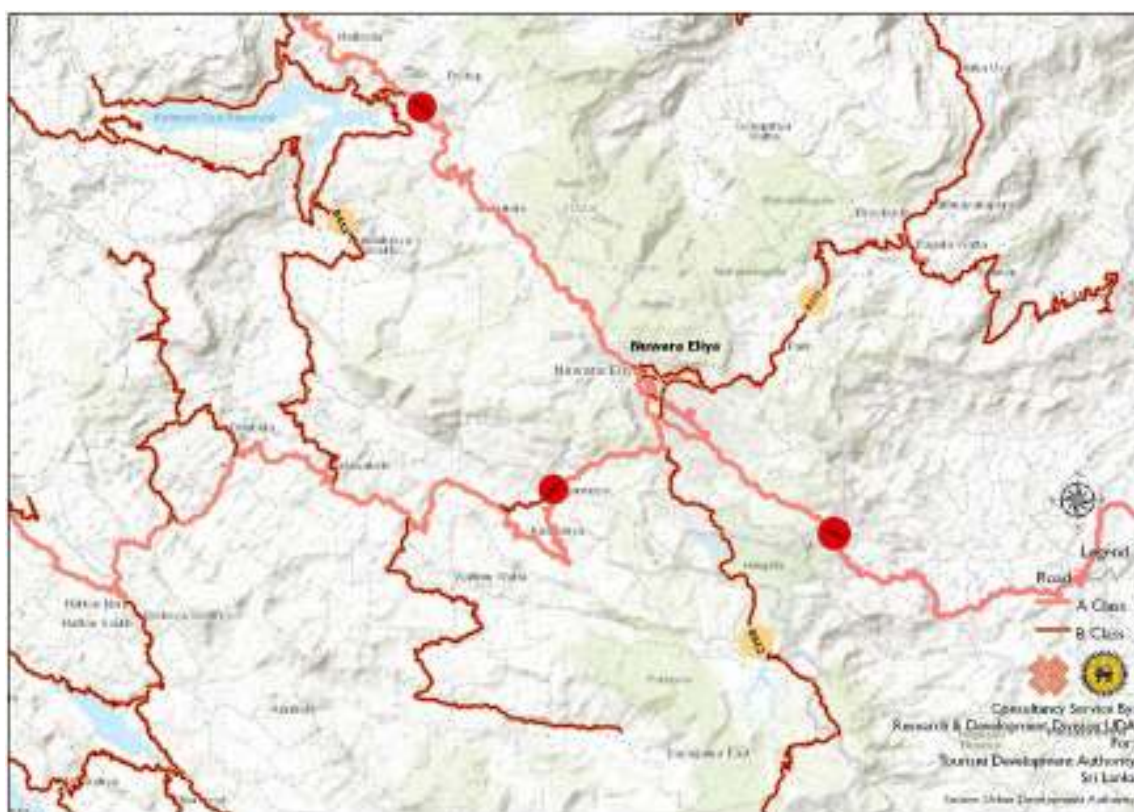


Figure 2.13: Major road connection to Nuwara Eliya

- **Air Transport Linkages**

Domestic air transportation is a trending traveling mode in the country. There are many domestic air ports and sea plane ports functioning in significant destinations distributes within country to facilitate this trend. In future it will be further benefit the proposal made through government manifesto for the development of domestic airports and passenger terminals which is focused to enable internal transportation, tourism and movement of people.

Sri Lankan Airlines offer special Air Taxi services from Colombo to several cities and vice versa on daily basis. These scheduled flights are operated by a private codeshare partner and reservations for scheduled flights offered could be made through Sri Lankan Airlines offices. Air taxis fly from Colombo to Nuwara Eliya twice daily. It is an ideal option for transportation as air transfer saves 85% of the time compared to surface travel. Moreover, this creates a unique and exciting journey with mind-blowing vistas and sceneries.

Even though the Castlereagh at Hatton act as the closest domestic sea port to Nuwara Eliya and facilitate the transport services, still there is potential at Barrack Plain and Kande Ela reservoirs in middle of Nuwara Eliya for circulation of sea planes. The possibility of this proposal will be further discussed in final report. The Figure 3.15 illustrate the available air taxi services providing domestic airports and sea port landing sites within country.



Conceiving the travel duration for several destinations (Figure 3.15) it is clearly evident that air based transportation is the most time efficient way to travel within destinations. Hence, there is possibility of promoting the mode among the tourists who aims to be the destination rather spending time along their way.



Figure 2.0.14: travel duration for several



	Nuwara Eliya		Kandy		Sigiriya		Bentota		Koggala		Dikwella		Mattala	
From Colombo	6 hrs	25 mnts	4 hrs	22 mnts	5 hrs	35 mnts	2 hrs	25 mnts	3 hrs	35 mnts	6 hrs	40 mnts	7 hrs	45 mnts
From Kandy							6 hrs	30 mnts	6 hrs	35 mnts	7 hrs	40 mnts	7 hrs	40 mnts
	Arugam Bay		Trincomalee		Jaffna		Vavuniya		Kalpitiya		Battaramulla		 	
From Colombo	9 hrs	50 mnts	7 hrs	50 mnts	11 hrs	65 mnts	6 hrs	45 mnts	4 hrs	25 mnts	1 hr	10 mnts		
From Kandy											5 hrs	25 mnts		

Table 2.0.4: Travel Durations



2.2.4) Geographical and Topographical Setting

The Nuwara Eliya City is geographically located in the highest peneplain of the country which has a combination of highly variable landform units and topography. It is a complex of massifs, mountain ranges, plateaus, basins, valleys and escarpments. The city is located in a monocentric valley with a flat arrangement surrounded by the mountains. Thus, the landform is a major contributor to the character of Nuwara Eliya. It provides a picturesque and scenic landscape. They are the major element of visual definition ranges.

The Southern margin of Nuwara Eliya's peneplain stretches for more than 80 km from Adam's Peak (2,443 m) on the west and rise from around 1,000ft to more than 5,000ft at Horton Plains. From the center of the Southern margin, the highest plateau regions and the high plains stretching from Kirigalpoththa (2,395 m) to Pidurutalagala (2,527 m) run towards north.

There are four gaps to access the Nuwara Eliya plains through surrounding hills. The gap at North-East leads to Kotmale Valley, the South-East gap leads to Uva Basin, the West gap to Dimbula Valley and the East gap to Kandapola and Udupussellawa. Some other important mountains and places around Nuwara Eliya are Kikilimana (2,239 m) 1.6 km away along North West of Nuwara Eliya, Kudugala (2,319 m), Totupola (2,361 m), Kirigalpotta (2,387 m), Lover's Leap (2,163 m) 3.2 km away along East of Nuwara Eliya and Single Tree Hill (2,104 m) 1.6 km away along South of Nuwara Eliya.

Most of major rivers and perennial streams of the country originate in the catchment of these central mountain chain and flow outwards. At present all of these streams are used as a source of water supply or to irrigate agricultural lands.

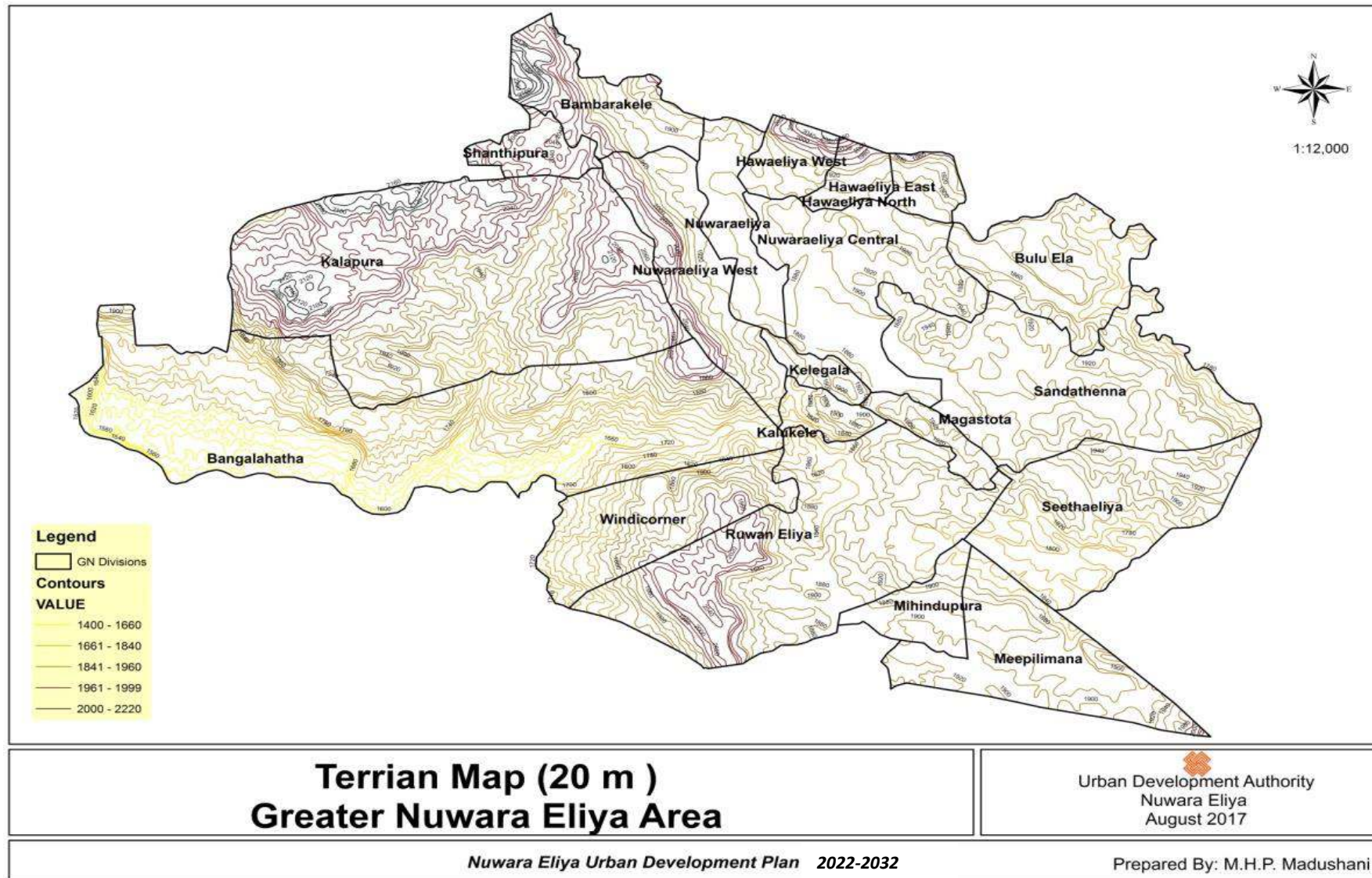
According to the land use data of the census department in 2012, it reveals that 55% of forest area covers 76 sq. km of total area of 138 sq. km. Considering the study area within the surrounding boundary limitation of Pidurutalagala, Kikiliyamaana, Single tree and Haggala mountain ranges, highest point of the area is 2400 meters along the mean sea level and lowest level is 1500 meters along the mean sea level.



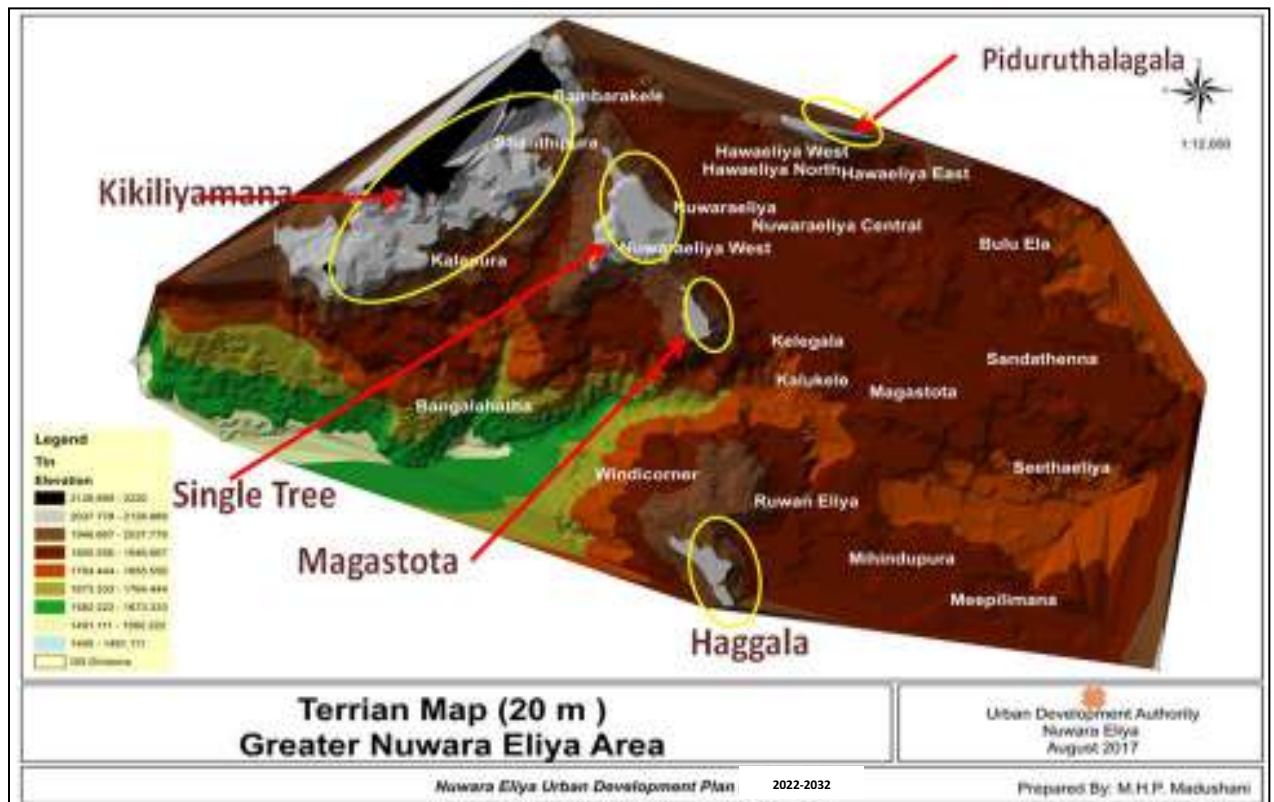
Figure 2.0.15: Topographical formation in and around of Nuwara Eliya planning area



Map 2-0-2: Geo Diversification



Map 2-0-3: Mountain Ranges



2.2.5) Climatic Conditions

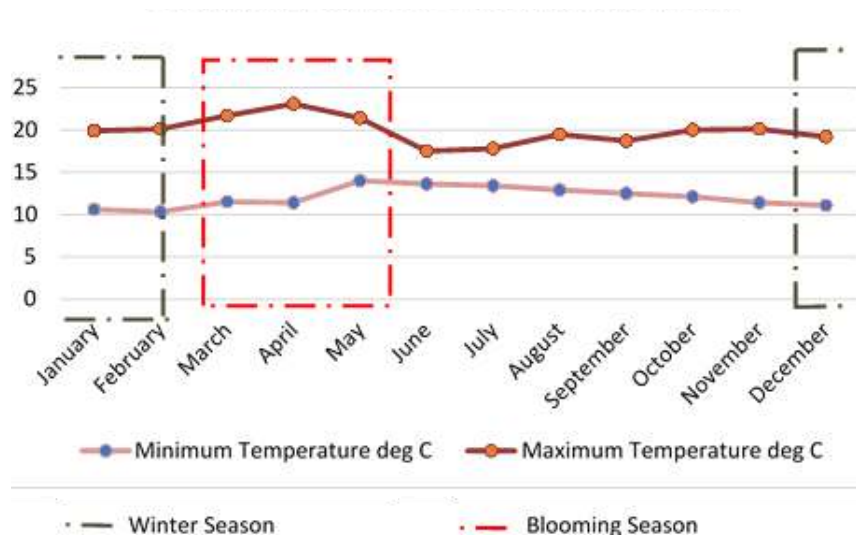
‘Little England’, adorn in salubrious temperature calls tourists throughout the year by its favorable temperature. The blooming season from March to May which are the warmest months, attracts more and more tourists by its beauty while the winter months from November to February attracts more to chill. A noticeable extent of this hill country lays within wet climate zone whereas a small portion belongs to intermediate zone. The significance of Nuwara Eliya district is that it records the highest rainfall and the lowest temperature of the country. Almost every year Watawala receives the highest annual rainfall exceeding 5,588 mm. Nuwara Eliya usually experiences the lowest temperature of about 7.2 °C (Feb) and occasionally falls below freezing point (0 °C). Annual average temperature is about 20 Celsius and high temperature is going up to 21 Celsius (in January, February, March months) temperature is experience low down to 9 Celsius in the month of December.

- **Temperature Pattern**

The mean annual temperature of Nuwara Eliya is about 15.9 C⁰ at 1,800m sea level and average maximum temperature for year 2018 is recorded as 23.1 °C in month of April (highest) while the average minimum temperature was recoded as 10.3 °C in February. Figure 2.16 depicts the monthly average minimum and maximum air temperature variation in year 2018 as per the records from the observation stations of Nuwara Eliya set by the Department of Meteorology.

Generally, it is considered the months between December to February as colder months and months between March to May as warmer months. This unique feature is one main fascination to make the city a tourist attraction.

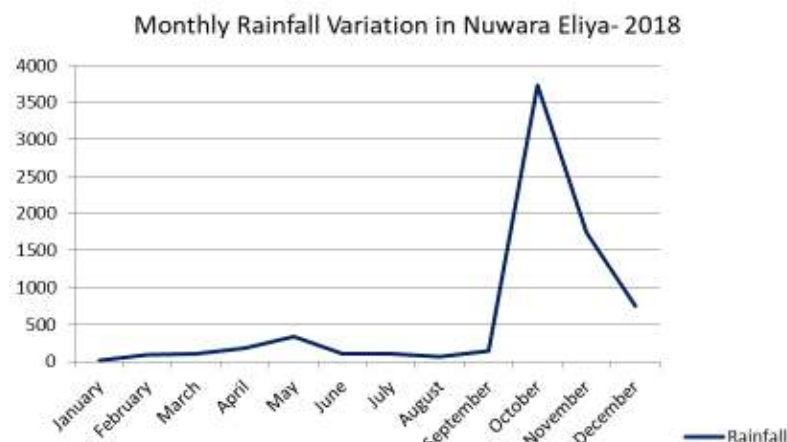
Graph 2.0.1: Monthly air temperature variations in Nuwara Eliya



Source: Metrology Department (2018)

Rainfall Pattern

Nuwara Eliya has an average yearly rainfall or precipitation of 1,900 mm (1968-2012 data) and denotes a monthly rainfall range between 70-225 mm. The average annual rainfall in Nuwara Eliya is recorded as 2,173 mm in the year 2018. The maximum rainfall is generally recorded in October and the minimum rainfall in March. The highest rainfall received annually is also recorded from the Nuwara Eliya District as areas such as Ginigathhena (3,267 mm), Watawala (3,252 mm) and Norton (3,121 mm) reach the peak values compared to other areas. Dry climate can be seen in January - April months.



Graph 2.0.2: Monthly rain fall variation in Nuwara Eliya - 2018

Source: <https://www.worldweatheronline.com/nuwara-eliya-weather-averages/central/lk.aspx>



Daily drawing capacity of the rainy season is 18773 cubic meters. It goes down to 3830 cubic meter in the dry season. Water resource volume is change 19673 cubic meters to 4730 cubic meter.

- **Relative Humidity**

The mean relative humidity is low during the dry months of the year. (January, February and March) in other months it reaches as high as 90% causing discomfort and heavy sweating for those who working/traveling outdoors during the sunny weather. During the year it has a relative humidity between 65%-87%.

- **Solar Radiation**

Generally, because of the sunny conditions which prevail in the both cities, the solar Radiation for the months of February and March in Nuwara-Eliya equal that of Colombo. However, cloud cover is higher in Nuwara-Eliya than in Colombo for the months of April through to January. As for these features Nuwara Eliya is known to be a unique city which attracts visitors from around the world.

2.2.6) Land Use Pattern

The planning area contain with various land uses and almost all these uses are formed with the context of facilitating for plantation, agriculture, tourism and day to day living of human being. As per the land use distribution composition, it seems natural forest, tea and other plantation records the higher extent of land use distribution. Percentage land use distribution is given in the Table 2.4 and shown on the Map 2.4.



Table 2.0.5: Land Use

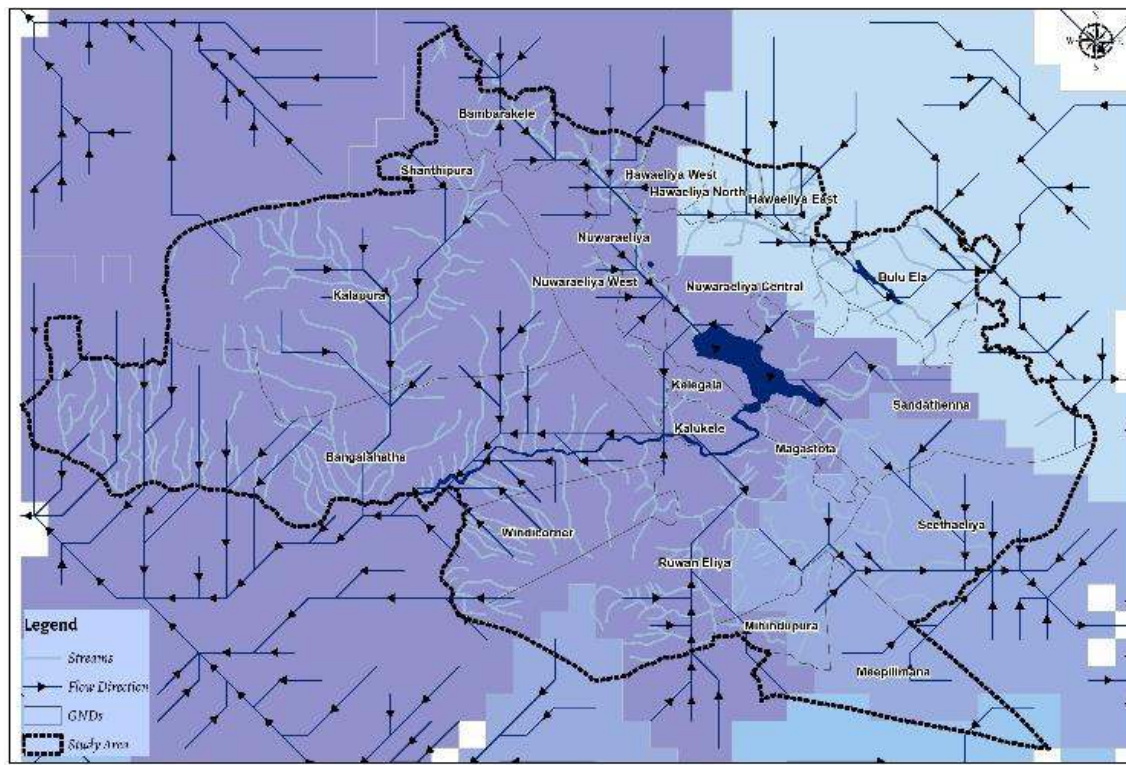
Use	Extent (sq.k.m.)	Percentage %
Agriculture	8.542094	16.14
Homesteads	0.435727	0.82
Grasslands	0.536586	1.01
Open lands	0.001245	-
Scrubs	0.61077	1.15
Others	13.323327	25.17
Forests	18.303947	34.58
Vacant lands	.051038	0.1
Reservoirs, Rivers, Waterways	.570771	1.08
Cemeteries	0.014599	.03
Roads	1.118242	2.11
Garden vegetable lands	5.419658	10.24
Residential	0.809755	1.58
Tourism	0.513177	1
Estate houses	0.396977	0.75
Commercial	0.171573	0.32
Education	0.155151	0.29
Industries	0.149338	0.28
Institutions	0.151008	0.29
Playgrounds	0.372297	0.7
Health	0.025226	0.05
Govt. Quarters	0.11222	0.02
Religious places	0.045664	0.09
Gardens	0.236061	0.44
Total	52.06	100

Sources – Urban Development Authority



2.2.6) Water Resources

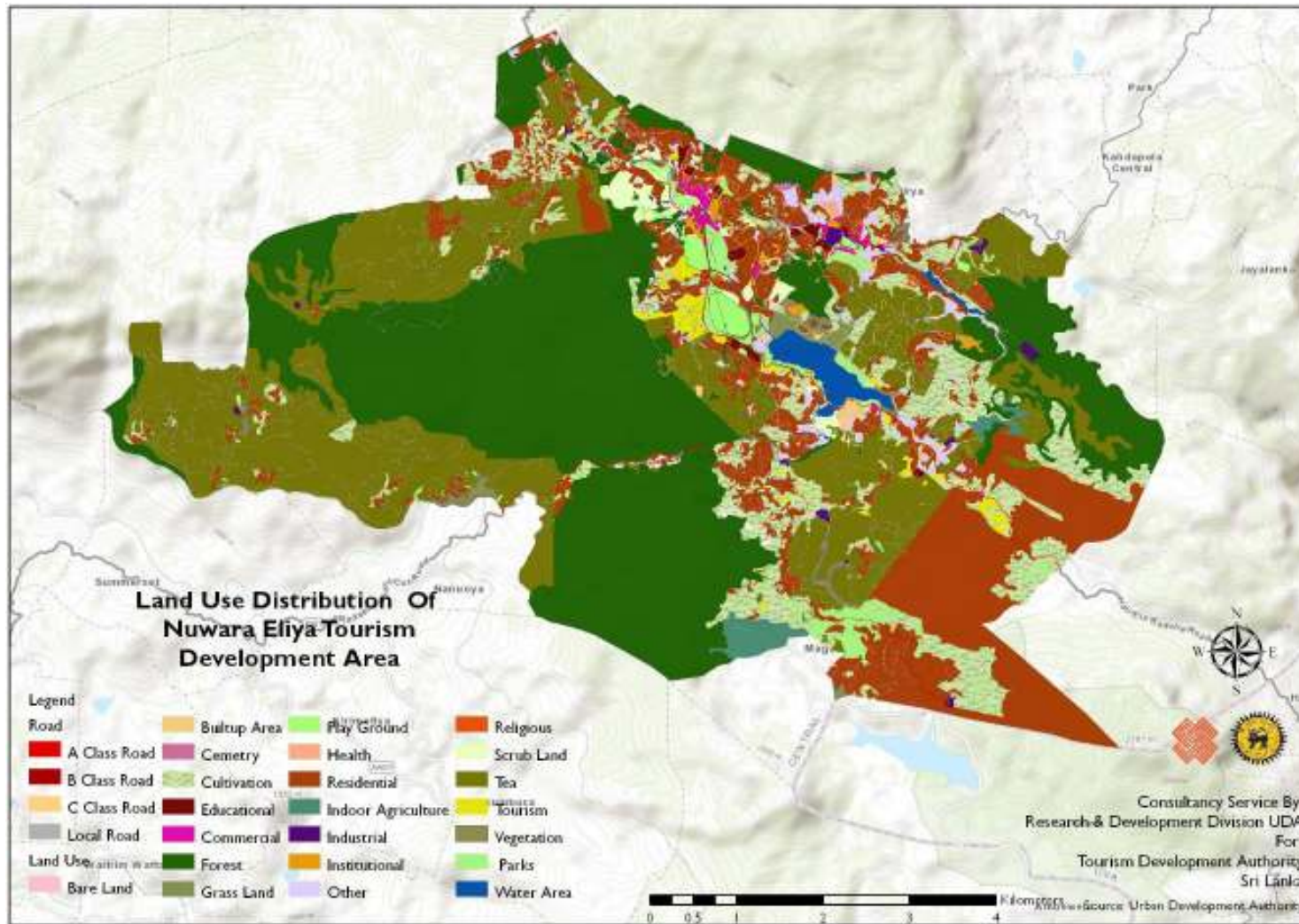
Figure 2.0.16: Water Bodies



Existence of water resource system based on the mountain ranges concurrent with the forest system in specific coexistence in the central hills. Nanu Oya ela and its by streams, Barrack Plain Ela, Katumana Ela are the other water bodies. Those water ways covers 1.08% of the total land area. Nanu Oya which is a main water way it stretches 8 km long, and the lake of Gregory covers 90 hectares area while Barrack Plain reservoir covers 40 hectares area. (Map No2.4).



Map 0-4: Land Use Pattern



2.2.7) Demographic Characteristics

- Population Distribution and growth

Nuwara Eliya town is the district capital of Nuwara Eliya district and the administrative town as well. In addition to that it is a tourism center and an environmentally sensitive nationally important town in Sri Lanka. When studying the population in town history it was reported that the oldest data in 1881 population as 1791 and houses reported number was 264. Population distribution in Nuwara Eliya municipal council area is shown in Table No 2.3. Also, the Grama Niladari Division wise population distribution and growth in the greater Nuwara Eliya study area is shown in the Table No 3.4.

Table 2.0.6: Population Distribution in Nuwara Eliya Municipal Council Area

Year	Population	Population growth	Population Density	Year	Population	Population Growth	Population Density
1871	1291			1931	7823	.4	5
1881	1791	1.5	1	1946	10823	2.5	7
1891	2726	5.2	2	1953	14405	4.7	10
1901	5026	8.4	3	1963	15482	.7	10
1911	7406	4.7	5	1971	17880	1.5	11
1921	7525	.76	5	1981	20471	1.8	14

Sources - 2004-2018 Nuwara Eliya Development Plan

Accordingly, it can be observed that the Nuwara Eliya Municipal Council area population growth was minus growth rate comparative to 2002 and 2012 two years, and it was certain extent high in the 2017 year (to -0.035).

Table 2.0.7: Population Distribution in the Study Area

No.	Local Authority area	Grama Niladari division	GN division No.	Population (2002)	Population (2012)	2012 Population Growth	Population (2017)	2017 Population Growth related to 2002
01	Nuwara Eliya Municipal Council	Bambarakale	535K	355	3143	-1.23	3340	-0.42
02		HawaellivaE	535H	233	2273	-0.24	2416	0.24
03		HawaeliavN	535G	268	2216	-1.94	2355	-0.88
04		HawaeliyaW	535F	188	2072	0.93	2202	1.03
05		Kalukale	535B	113	1093	-0.35	1162	0.18
06		Kalegaala	535C	187	1829	-0.25	1944	0.24
07		Maagasthota	535A	157	1408	-0.75	1496	-0.10
08		NuwaraEliya	535	187	1290	-3.69	1371	-2.08
09		NuwaraEliya	535D	471	4292	-0.93	4561	-0.22



Greater Nuwara Eliya Development Plan 2022-2032

10	Nuwara Eliya Pradeshiya Sabha	NuwaraEliya	535L	454	2481	-0.24	4637	0.24
11		Sandathanne	535E	280	2816	0	2993	0.43
12		Kalapura	535N	321	3465	0.77	3682	0.92
13		Bangalahatha	476C	316	3333	0.5	3542	0.75
14		Buluale	535I	167	1751	0.4	18691	0.70
15		Konkodiva	534F	355	3758	0.56	3994	0.78
16		Galpaalama	534A	122	1272	0.39	1299	0.04
17		Goradihela	478	140	1352	-0.42	1432	0.13
18		Javalanka	534B	142	1431	0.02	1521	0.42
19		Kandapola	534	161	1426	-1.27	1515	-0.45
20		Kandapola C	534C	254	2853	1.14	3032	1.17
21		KandapolaE	534D	956	887	-.75	943	-0.10
22		Meepilimaan	476H	189	2012	0.6	2138	0.80
23		Mihindupura	476G	123	1226	-0.09	2303	0.35
24		Park	534P	448	4463	-0.05	4743	0.37
25		Peedrua	534H	311	3316	0.64	3524	0.82
26		Ruwan eliya	476D	267	2972	1.05	3158	1.11
27		Seetha eliya	478A	153	1815	1.69	1929	1.53
28		Shanthipura	535M	131	1408	0.65	1496	0.84
29		Toppas	535J	256	2757	0.71	2930	
30	Windvconer	476E	161	1667	0.33	1672	1.62	
		Total	77364	98467		-	102451	

Source – Census and Statistic Department

Population growth in minus value shows in Bambarakele (-1.23) Hawaeliya west (-1.91) and Nuwaraeliya (-3.65) grama niladari divisions when compared to 2012 year – 2002 year data. However population growth rate minus value transfer into favourable condition reducing minus value in the Hawaeliya east , Hawaeliya west, Kalapura, Kalukale, kalegala, Nuwaraeliya west and Sandathanne grama niladari divisional area population growth converted into plus value in 2017. But further the minusvalue of population growth was excisted in the Grama Niladari divisions of Nuwara Eliya East, Nuwara Eliya, Bambarakale, Nuwara Eliya central in the year of 2017. Specially, the areas of the tourism, commercial, Residential uses are the factor reasons to this situation. Relatively decreases of population growth rate for whole area got minus value from 2012 year to 2017 year as 0.0353.

When considering the based population within the 17 Grama Niladari divisions to preparation of the town development plan, it shows the different picture due this situation. It shows considerable population growth in the said Grama Niladari division when comparing the 2012 population to 2002 population and the population growth increases from 0.3388 to 0.5955 to 2017 year. Population growth takes minus value in the Mihindupura, Gorandihela, Kandapola, Kandapola south Grama Niladari division while other Grama Niladari divisions shows plus growth rate. Population growth of the grama niladari division of Seethaeliya (1.69) Kandapola central (1.14) and Ruwaneliya (1.05) are the areas highlighted Grama Niladari division out of other Grama Niladari divisions. Kandapola and Kandapola east Grama Niladari divisional population growth takes minus value when compared to the years of 2017 to 2002 years.



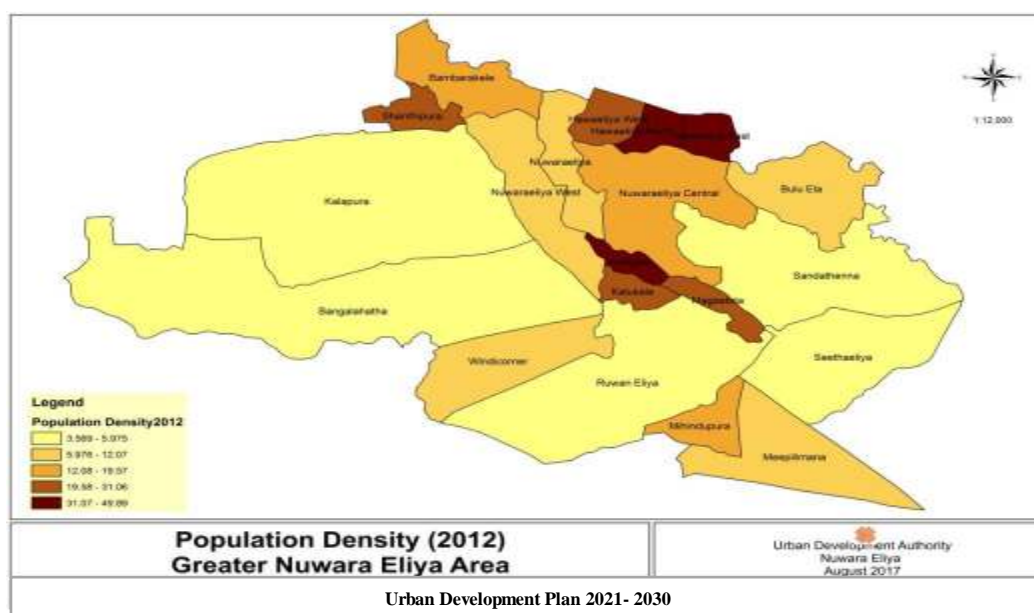
Further study it shows that the plus population growth rate in the Grama Niladari divisions near the municipal council area. Residential growth in the town takes minus value and population growth in the adjoining Grama Niladari divisions of the Pradeshiya Sabha area was indicated high demand to uses of commercial and tourism uses and adjoining areas than residential uses demand. Study area of 30 Grama Niladari division population growth rate is 2017 was 72294 population. It was nearly 10% of the population within the divisional secretariat area population.

- Population Density

When considering the population density of the study area, it is evident that the high population density in the areas of Grama Niladari divisions of Bambarakale, Shanthipura

Nuwara Eliya North, Hawa Eliya East, Kandapola, Kalukale and Kandapola Central. Population density of the above Grama Niladari divisions were 1000 population per 1 hectare while low density that below 400 population was reported in the Grama Niladari divisions of Kandapola east, Toppass, Pedro, Jayalanaka and Gorandihela. (map No2.6)

Map 2-0-5: Population Density 2012

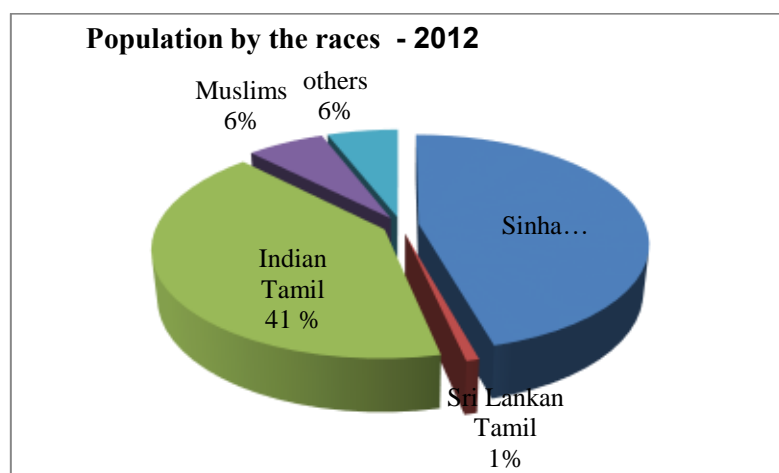


Sources – Census and Statistics Department

Ethnic Profile

Population structure by the races of population was 46% Sinhalese, 41% Tamils, 6% Muslims. And 40% of whole population was estate population. (Diagram 2.1).

Diagram 2.0.1: Ethnic Composition



Sources – Census and Statistics Department

2.2.8) Housing Characteristics

According to available data, it is evident that the population of 11008 people is living in 10784 housing units in the year of 2012. According to that it is indicated 224 housing units were in the 2012 year. Main factor influence for this situation was high population living in low income housing areas related estimated housing stock. Another significant factor in this figures shows that 20% of population were living in line houses. Especially estate labors houses coming under this category while they have very low facilities and the 144 houses were shanties is considerable fact.



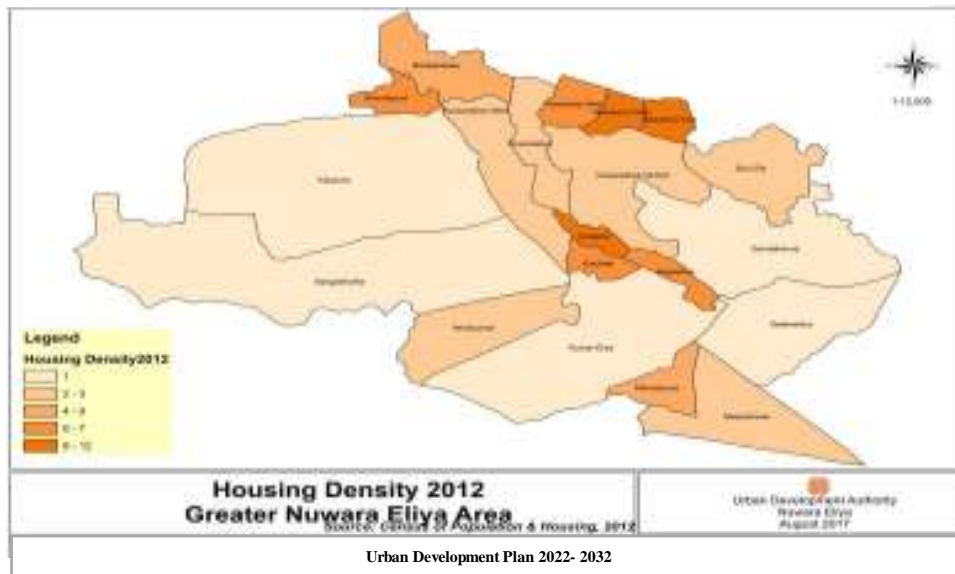
Table 2.0.8: Housing Condition 2012

Grama Niladari Division	No of Families	No of houses	Scarcity of houses	One floor houses	2 floor houses	Houses with more than 2 floors	Attached houses	Flats	Twin houses	Lime houses	Shanties
Bambarakale	787	773	14	445	78	17	32	1	15	175	10
Bangalahatha	816	799	17	285	50	8	17	0	24	412	3
Buluale	429	415	14	326	37	1	27	0	2	21	1
Hawa EliyaE	580	561	19	439	51	1	15	0	1	51	3
Hawa EliyaN	542	537	5	365	58	5	59	0	28	19	3
HawaeliyaW	490	488	2	322	67	4	34	4	0	57	0
Kalapura	840	832	8	380	5	0	24	0	13	407	3
Kalukale	289	287	2	265	13	1	0	0	3	0	5
Kalegaala	453	442	11	231	39	4	19	0	64	85	0
Maagasthota	377	373	4	320	28	2	0	4	10	4	5
Meepilimana	537	523	14	498	15	1	7	0	0	2	0
Mihindupura	319	312	7	292	17	0	3	0	0	0	0
Nuwara Eliya	272	264	8	109	54	0	16	5	12	68	0
Nuwara Eliya C	1017	993	24	625	123	6	63	0	17	137	22
Nuwara EliyaW	578	569	9	198	51	11	57	1	8	232	11
Ruwan Eliya	733	714	19	360	20	0	40	4	22	267	1
Sandathanne	683	668	15	318	34	1	3	0	10	230	72
Seetha eliya	469	453	16	384	28	9	20	0	2	6	4
Shanthipura	357	351	6	335	7	0	9	0	0	0	0
Winyconer	440	430	10	364	16	0	38	0	0	11	1
Total	11008	10784	224	6861	791	71	483	19	231	2184	144
Total percentage of existing houses			2.1	63.6	7.3	0.7	4.5	0.2	2.1	20.3	1.3

When considering the housing density within the municipal council area, it shows in this Map No 2.6 that the housing density is higher than other areas in NuwaraEliya comparing to other municipal council areas.



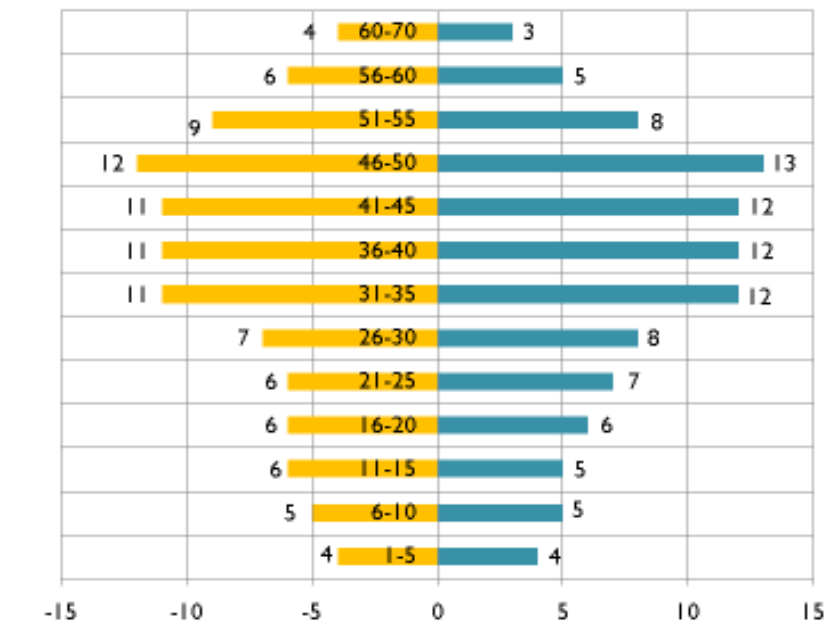
Map 2-0-6: Housing Density 2012



2.2.9) Employment Characteristics

According to the population pyramid shows in the Graph No 2.1 it is noted that 73% of population are in labor force in study area. Male works force more than the female work force and it is 78% of total male population and the percentage of female population is 67%.

Graph 2.0.3: Work Force

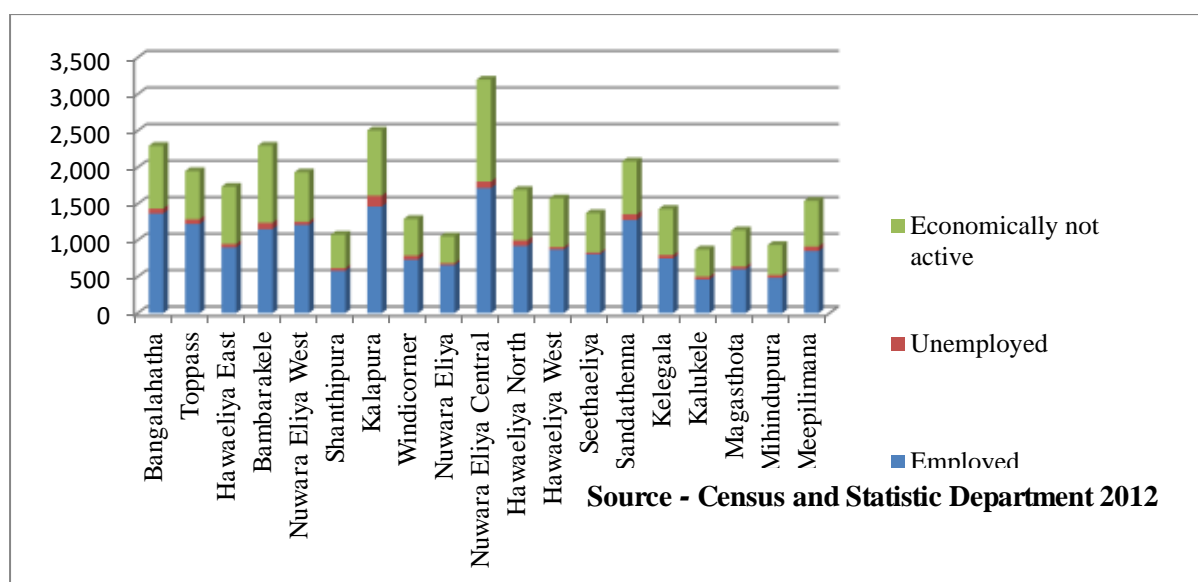


Source – Census and Statistic Department



When considering occupied work force in the area, it is noted that 56% of population are employed and 3% of population unemployed population. According to population censuses in 2012, it denotes that the 41% of population is most engaged in unfruitful economic activity.

Graph 2.0.4: Work Force 2012



When considering the employed economic activities of the people (graph 2.7) in the area of grama niladari division of Bangalahatha, Kalapura, Meepilimana, Sandathanne Ruwaneliya and Seetha eliya, it shows that the 40% of population engaged in agricultural field and the employees of Nuwara Eliya Central, Nuwara Eliya east, NuwaraEliya West, Hawa Eliya West, Hawa Eliya East and Bambarakale Grama Niladari divisions, are most of people of the total population were engaged in tourism and financial services in the area. Within the Municipal Council area employees mostly engaged in tourism and related services and Grama Niladari divisions of NuwaraEliya Pradeshhiya Sabha area mostly engaged in agricultural sector. In whole nearly 25% of population in agriculture, 18% and 14% are respectively engaged in tourism and tourism related services.

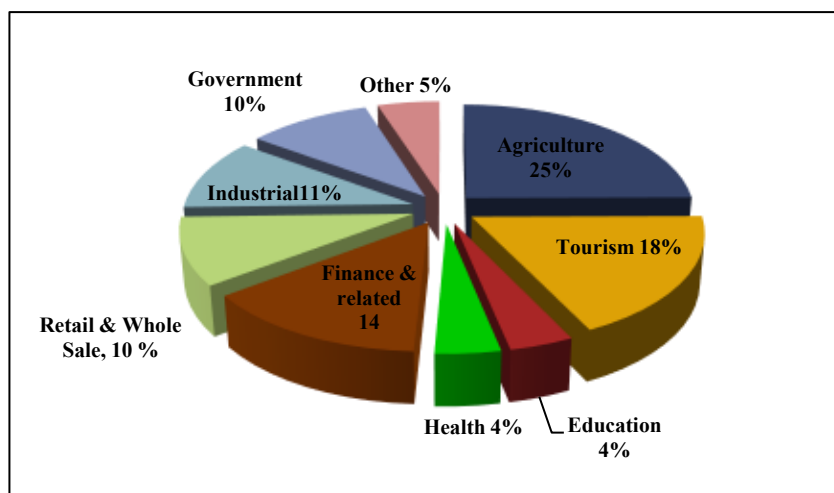
As per the records in 2012 the ratio between non- dependent to dependent was 16 to 09 within the study area. Means there is a higher amount of population who can actively participate for the economic generation within planning area. Nuwara Eliya as an entire District, comprise with 53.5 percent of state sector working population who is economically directly contributes to the plantation agriculture sector activities.

As a major tea plantation and up country vegetable growing district in the country the planning area also consist with majority of agricultural sector employees that noted as 25% from whole



employees. Tourism as second economic contributing sector comprise with 18% of total employees within planning area and remarked as one of major economic pillar.

Graph 2.0.5: Categories according to occupied sectors - 2012



Source -Census and Statistic Department 2012

2.2.10) Education Characteristics

When considering the educational situation in the study area, comparing the other districts of the island passes in the study area results of G.C.E. (O/L) and G.C.E. (A/L) took low value in the island. Though the G.C.E. (O/L) results shows the average increase, it shows about 50% when compared to other educational zone of the district, it takes low value in the greater NuwaraEliya study area for great town area. Though the islandwide results of the G.C.E. (O/L) 71% and the G.C.E. (A/L) 70% pass in the stand the result of this zone took the state of results is respectively 53% and 35%, student population in this area is 8600 students G.C.E. (O/L) and G.C.E. (A/L) with 14 schools.

Table 2.0.9: Educational Situations G.C.E. (O/L)

Average of G.C.E. (O/L) results						
Average results	2011	2012	2013	2014	2015	2016
Sinhala medium	42	34	40	45	51	54
Tamil medium	34	25	16	56	32	52
Average of both medium	38	30	28	51	42	53

Sources – Zonal Educational Office, Nuwara Eliya

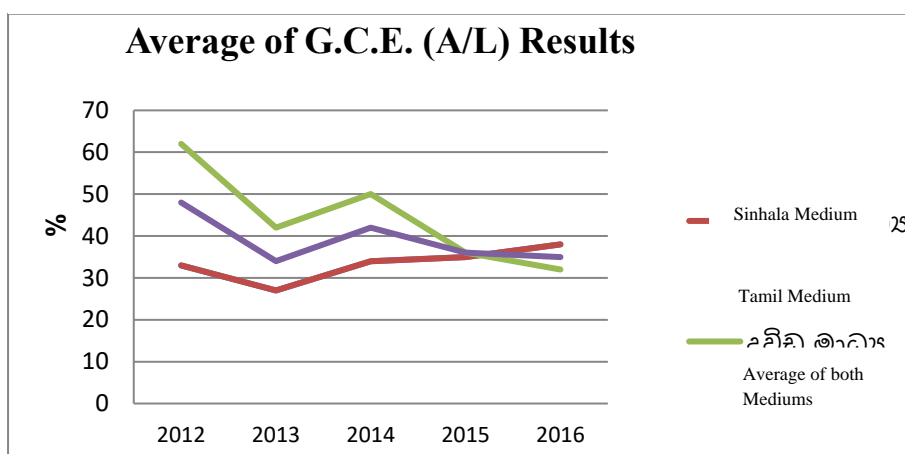


Table 2.0.10: Educational Situations G.C.E. (A/L)

Average of G.C.E. (A/L) results					
	Year				
Average results	2012	2013	2014	2015	2016
Sinhala medium	33	27	34	35	38
Tamil medium	62	42	50	36	32
Average of both medium	48	34	42	36	35

Sources – Zonal Educational Office, Nuwara Eliya

Graph 2.0.6: G.C.E. (A/L) Results Average



Sources – Zonal Educational Office, Nuwara Eliya



2.2.12) Infrastructure Facilities

- **Drinking water supply**

Drinking water distribution within municipal council area is doing by the municipal council. Out of total population 35,000 of persons supplied of water facility by residential or commercial no. of 6977 connections distributed by municipal council. Total connections can be categorized as residential connections 3950, economical 411, nonresidential 950 and institutional and others 245. Daily water volume demand in the area is almost 4500 cu.m. And uses can be categorized as, 72% water supply is residential 18% commercial and tourism and 10% government and private institutions.

All those water connections were supplied water from 9 natural water spring stream sources and the water volume distributed at 15 intake locations to the 7 distribution zones in the town. Water distribution will be done by other excess 9 tube wells within the dry season due to without happen water supply interruption. Needed water volume in the dry season will be supplied from water resources were 3500 cubic meter and other needed water supply of 1000 cubic meter from the tube wells.

Haddon hill is the highest water consumption zone of 70% of total water supply and its main water supply sources are from Pedro and Top Pass water springs sources. And also it covers the town main residential, tourism and commercial zones. Water supply to this area is done by the 5 storage tanks.

Hawa Eliya hospital area and the Mahinda Mawatha residential area are covered by the lovers leap and lower area zones are daily supplied water volume is 1750 cu.m. said above water catchment area supply water to the high density housing areas of Hawa Eliya and hospital area.

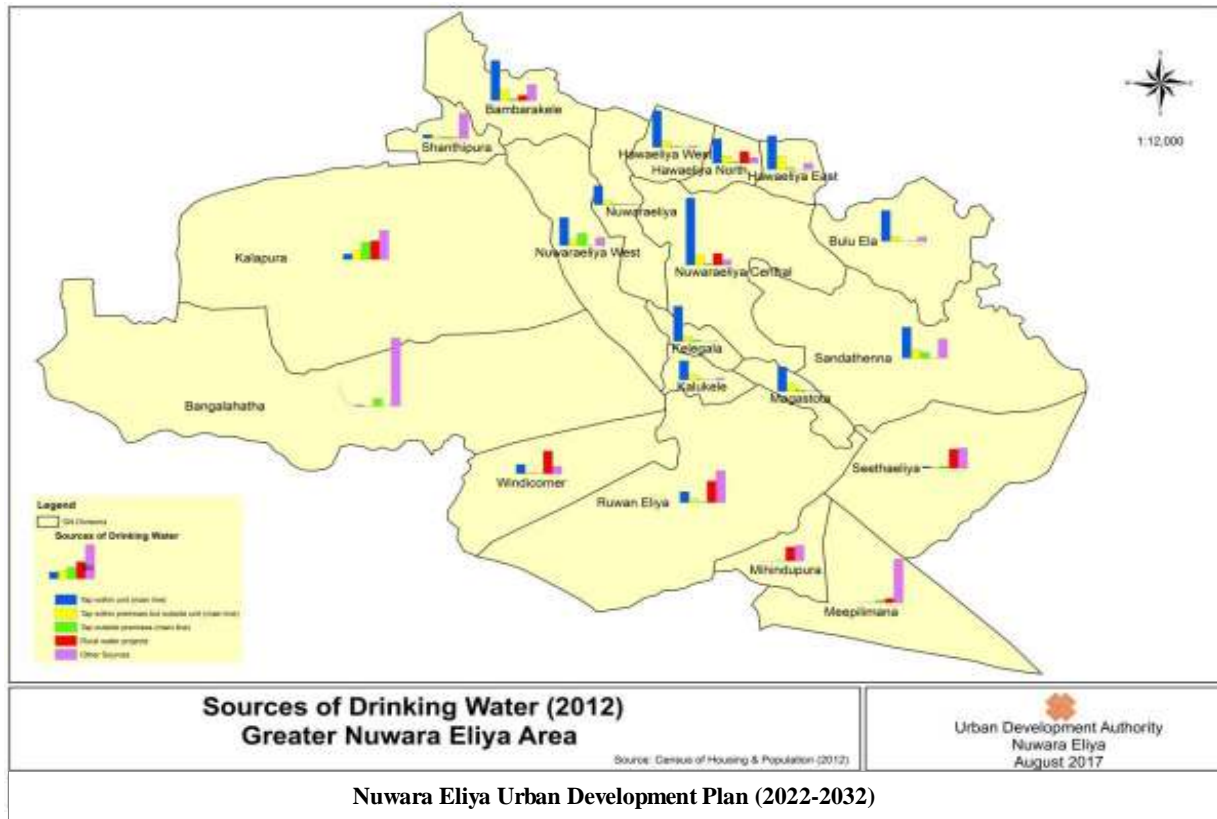
However in the dry season during January to April water capacity reduced to 900 cubic meters. And at that time water supply distribution will be done by the tube well H1, H2, H3, H4 in Nuwara Eliya.

However in dry season during the time from December to April the daily water volume of the storage tanks reduced down to 3500 cubic meters and that time demand to the water volume goes up to 5500 cubic meters. The reason to increase of water demand is the increase of the tourism arrival to the town.

Rural and divisional water supply systems implemented in the Pradeshiya Sabha to supply water to Ruwanpura, Meepilimana, Katumana, Blackpool and Shanthipura Grama Niladari areas. But the Pradeshiya Sabha has no proper water supply system to solve this problem.



Map 2-0-7: Drinking Water Reservoirs



2.2.14) Nuwara Eliya as a Tourism Destination

The legacy of Nuwara Eliya leads from its colonization era which established from 1,800s with the influences of British government. As a result, the existence of reputable British architectural features through the unique climate in the isle, made Nuwara Eliya city as a unique paradise to both local and foreign visitors. More than hundreds of historically significant buildings listed by the department of archeology for the conservation purpose and its further justifies the magnitude of protect the city's inherited morphology even during its evolution towards modern urbanization.

Nuwara Eliya has become a most popular travel destination among the local travelers since its capability of feeling geographic and climatic variation within a short travel. Further it plays a vital role in the up country region, being as a host destination for number of significant attractions distributed in and around the area. Nevertheless, it seems that there are more untapped potentials that is possible to promote among the visitors of Nuwara Eliya. Such capabilities will be further discussed in forthcoming chapters. The best part of the year to visit Nuwara Eliya is considered as its blooming season which is recorded during March to May. This phase of a year presumed as the warmth period and it makes entire flora community in



the region fresh and decorate with enormous of blossomed flowers. Such amazing environment within these non-rainy dry months attracts the highest amount of visitors to area and remarked as the peak period of tourism.

- **Tourism season**

The city of Nuwara Eliya becomes excessively busy during the peak period in the month of April. This special season has evolved gradually to its current formality since independence. Although it was initially the British and the exclusive locals who visited Nuwara Eliya, over the years this destination became a more casual, social relaxed atmosphere. Thus, whoever prefers this pleasant climate, cool nights and gorgeous flora reach it to enjoy.

During the boom season, the city expects thousands of holidaymakers. It benefits the economy of the city while uplifting the earnings of the tourism sector as well as the business community and the local community. The leading star class hotels, guesthouses, private bungalows and other holiday homes are fully occupied by both local and foreign visitors during this season. During this period, various parties organize many social events including the Carnival, Garden Competition, Art Exhibition, Classic Car Rally, Radella Hill Climb, Tennis Tournament, Open Stage Musical Show, Golf Tournaments, Horse Races, Fashion Show, 4 x 4 Races, Flower Shows, Film Festivals, Badminton Tournaments, Motor Racing, Stage Drama and New Year Festivals .Moreover, the fresh vegetables and fruits grown and enchanting flowers blossomed make the city glamorous and appealing during the boom.

Even though there is no nightlife during the rest of the year, Nuwara-Eliya comes alive in a carnival atmosphere during the season. Thus, making it vibrant to enjoy to the fullest.

Figure 2.0.17: Seasonal Programs



Source: Internet

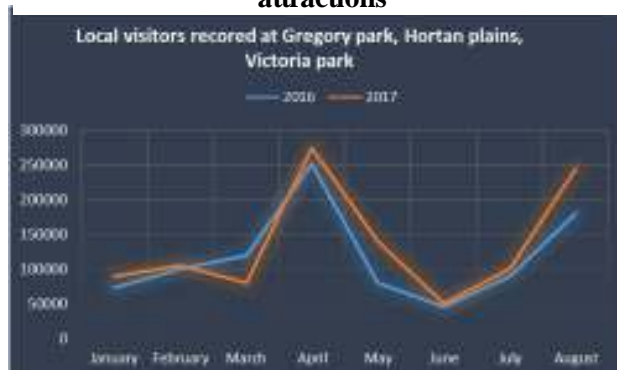
Table 2.0.11: Seasonal Program Calendar

April:01 Season Art exhibition	April:02 Art exhibition & competition @ Victoria hall	April:03 Garden Competition conduct by NEMC Art & craft exhibition @ Victoria hall	April:04 
April:05 Garden Competition conduct by NEMC Health baby competition: NEMC Classic car rally: conduct by CMSC	April:06 Magastota hill climb: by Motor racing club Everesting in Sri Lanka International Cycle event @ Radella Classic car exhibition @ Gregory stage IV: by SMSC Mayor's cup football competition	April:07 	April:08 SLKC mobile karting track @ Gregory stage IV Army food court @ Gregory stage IV Radella hill climb
April:09 Carnival @ Municipal ground Tennis: Hill club	April:10 Tennis: Hill club	April:11 Super cross Carnival @ Municipal ground	April:12  Sandy Perking
April:13 Carnival Hill club Tennis tournament SLKC mobile karting track Musical show	April:14 Carnival President prize : Golf match	April:15 Carnival Horse SLKC mobile karting track Largest potato halva lunch @ Grand hotel Musical show Army food court	April:16 Carniv Super cross SLKC mobile karting track Largest potato halva lunch @ Grand hotel Musical show Army food court
April:17 Carnival SLKC mobile karting track Potato halva lunch Food court Musical show	April:18 Carnival Potato halva lunch Flower show @ Victoria Park	April:19 Carnival SLKC mobile karting track Musical show Theru perahera Army food court	April:20 Carnival Potato halva lunch Musical show Flower show
April:21 Carnival Food court Flower show Film festival SLKC mobile karting track Musical show	April:22 	April:23 N/Eliya hill run	April:24  Horse race
April:25 Badminton tournament @ indoor stadium: 	April:26 Awurudu Uthsawaya By NEMC	April:27 Conduct by C P badminton association Perahera : by NEMC Road Monthly medal: Golf match	April:28 Road Stage drama @ New town hall
April:29 Badminton tournament @ indoor stadium Stage drama @ New town hall	April:30	** NEMC : Nuwara Eliya Municipal Council CMSC : Ceylon Motor Sports Club 	



During the noted festival period it remarked massive amount of local visitors in Nuwara Eliya. According to the records of Nuwara Eliya MC the daily local tourist arrivals within 10th to 20th April is about 100,000 – 150, 000. Facilitation capacity requirement for such dramatic population is a temporal issue which is mainly face by relevant authorities within the peak of the tourism season.

Graph 2.0.7: Local visitors recorded at prominent attractions



Source: Nuwara Eliya Municipal Council/ Development Plan 2030
(UDA- Nuwara Eliya)

- **Types of tourism in Nuwara Eliya**

Except the activities in season, Nuwara Eliya as the most beautiful hill station in Sri Lanka holds many fascinating amazements in terms of natural beauty, top attractions, ancient temples, delightful cuisine, and many more. Be it natural environment, places to visit, happenings, people, or food, Nuwara Eliya has ample variety in all aspects to keep travelers hooked to this place.



Figure 2.0.18: Types of Tourism



Tourists arrivals in Nuwara Eliya

As explained in the previous section, Nuwara Eliya Tourism functional area expands over a wide geographical area with the existence of range of tourism attractions. The salubrious climate and the scenic atmosphere have steered to attract tourists to the area. Being situated in the Environmental Sensitive Zone has also led to promote environmental tourism activities.

Table 2.0.12: Foreign tourist's arrival to Sri Lanka

	Total foreign arrivals	Up country visitors (6% from total)
2014	1527,153	91,630
2015	1798,380	107,900
2016	2,050,832	123,050
2017	2,116,407	126,985

Source: Department of immigration and emigration, analysis by SLTDA

Table 2.0.13: Tourists arrival of famous attractions in Nuwara Eliya

	2012	2013	2014	2015	2016
Foreign Tourists					
Hakgala Garden	12,489	14,713	18,071	74,188	79,392
Hortain plains	39,173	34,065	69,979	87,960	131,670
Galway's forest	82	29	84	49	198
Gregory Park					61,622
Victoria Park					47,294
Moon Plains					8,673
Local Tourists					
Hakgala Garden	587,749	511,879	578,825	742,133	956,815
Hortain plains	184,744	46,511	198,374	228,858	319,999
Galway's forest	1,521	1,084	1,669	2,047	3,345
Gregory Park					771,495
Victoria Park					643,725

Source: UDA Nuwara Eliya (2019)

As reported in the Tourism Statistical Report of Sri Lanka Tourism Development Authority it is said that six percent (6%) from the total arrivals to Island, visit upcountry which exist major tourism destination such as Nuwara Eliya, Ella, Kandy, etc. Accordingly, the statistics in Table 4 represent the average amount of total arrival of tourists of Sri Lanka and up country separately.

However, since there is not having a reliable record about the no of local and foreign tourists in Nuwara Eliya, the entry data of most popular tourism attractions have been taken into consideration for further calculations. Accordingly, the visitor's arrival data at Hakgala garden,



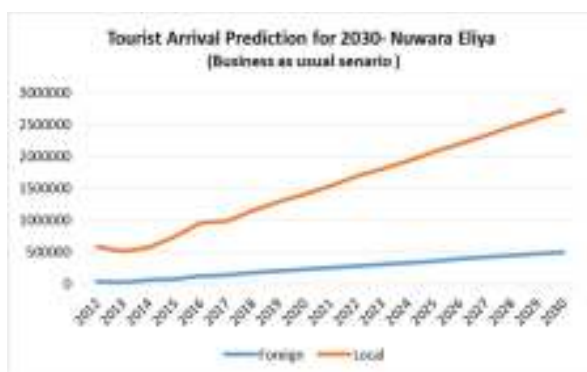
Hortain plains, Gregory lake park, Victoria park and Galways park been considered for past several years (Table 5). As depicted it can be noticed that the majority of foreign tourists visit Hortain plains where a greater number of local tourists visit Hakgala botanical garden. Hence as per the assumption of almost all locals visit Hakgala garden and almost all foreigners visit Hortain plains, it is capable of justifying annually there are approximately 132,000 foreigners and 1 Million of locals visit Nuwara Eliya.

The statistics represent a positive regular growth in trend of visiting Nuwara Eliya for both local and foreign categories. Means Nuwara Eliya has already established as a prominent tourist destination in Sri Lanka. Therefore, there is no doubt that the demand of global and national travelers will be increased for this masterpiece of highland in Sri Lanka except if there will not have any common threaten as occurred during couple of years such as less security conditions with terrorism attacks and global pandemic situation (Covid-19).

- **Future scenario of tourist's arrival in Nuwara Eliya**

Since the particular plan objectives to facilitate the conditions up to 2030 it is obvious to obtain a sense of future scenario of visitor's arrival. Accordingly, it has forecasted the annual amount of visitors using the statistics in Table 5. According to the performed geometric trend analysis with the assumption of, current tendency of visiting Nuwara Eliya will continues in future by following same scenario with no external positive or negative impact, the expected visitors will be recorded as approximately 2,727,000 locals and 505,000 foreigners in year 2030 (Table 2.0.15 and Graph 2.0.8).

Graph 2.0.9: Trend of tourists' arrival prediction for Nuwara Eliya in 2030



(As per the business as usual scenario)

Table 2.0.14: Tourists arrival prediction for Nuwara Eliya in 2030

	Year	Locals	Foreigners
Precise count	2012	587,749	39,123
	2013	511,879	34,065
	2014	578,825	69,979
	2015	742,133	87,962
	2016	956,815	131,670
	2017	982,473	144,257
Projection	2018	1,148,114	178,209
	2019	1,294,990	204,242
	2020	1,416,130	232,998
	2021	1,531,599	257,067
	2022	1,684,775	287,478
	2023	1,808,053	313,408
	2024	1,935,581	340,882
	2025	2,069,911	367,999
	2026	2,204,316	395,947
	2027	2,330,831	422,601
	2028	2,464,028	450,203
	2029	2,596,282	477,500
	2030	2,726,814	504,827

(As per the business as usual scenario)



- **Duration of stay in Nuwara Eliya**

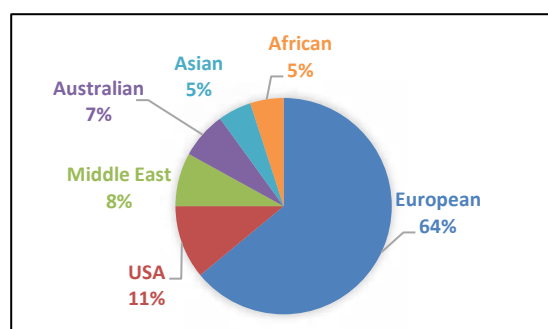
According to Greater Nuwara Eliya development plan done by UDA, has identified the most frequent average duration of stay in Nuwara Eliya as two (02) nights and the fact has been further confirmed by the casual interviews held with hoteliers. Both local and foreign visitors stay Nuwara Eliya with the expectation to enjoy the natural view, pleasant climate, atmosphere, and special tourist activities such as hiking, site seeing, refreshing in botanical gardens, perform water sports at lake Gregory, conduct religious rituals, participate in special events and festivals etc.

3.4.3 Types of tourists

As per the recorded data in Table 6, it's justify 10% of the tourists visiting Nuwara Eliya found to be foreign tourists whereas 90% recorded as local visitors. Most of the local community as families visit Nuwara Eliya to enjoy its unique climate, charming views and special events held during the peak period of tourism from March to May. It is especially identifiable that most of educational visits Organized by schools all over the country select Nuwara Eliya as their destination and has become a trend and famous for such educational travels.

Where it conceives the origin of foreign visitors, majority were recorded who travels from the best economic countries in USA, Europe and Middle East. As a percen tage it comprises 83% from overall foreign visitors. Apart from that, Asian, and Australian and African country's visitor's preference also ranked at a higher level (Figure 24).

Diagram 2.0.2: Nuwara Eliya foreign visitor's composition by country of origin



Source: Social and demographic features of tourists visitis
Nuwwar Eliya, Harshani (2019)

- **Categorization of Tourists by Age**

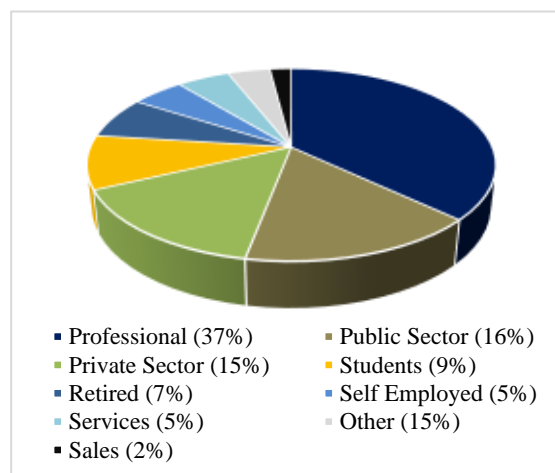
The topmost of the foreigner's age group who visit Nuwara Eliya is recorded by young tourists who are between the age 20 and 29 category. It is about 45% from overall composition. The age group between 30 to 39 years include 36% from the total composition and this category is seeming that mostly travel with their families to enjoy the nature and atmosphere of Nuwara Eliya. The statistics and the perception of the hoteliers concluded that Nuwara Eliya is popular among the young generations accompanied as families and friends in both local and foreign contexts.



- **Categorization of Tourists by Occupation**

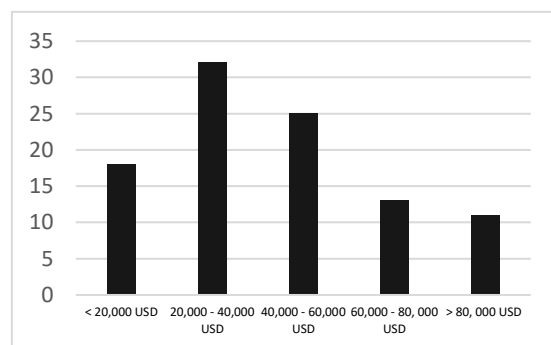
When considering the tourist's occupations who visits Nuwar Eliya it seems that majority of visitors are engaged in reputed occupations. As statistics it records majority are professionals (37%) and others includes in few percentages as illustrated in Diagram 2.0.4.

Diagram 2.0.3: Annual income of foreign visitors of Nuwara Eliya



Source: Social and demographic features of tourists visits Nuwwar Eliya, Harshani (2019)

Graph 2.0.10: Annual income of foreign visitors of Nuwara Eliya



Source: Social and demographic features of tourists visits Nuwara Eliya, (2019)

Further, it has found 92% of foreign visitors of Nuwara Eliya are graduates and post graduates whereas 70% having an income between 20,000 to 60,000 USD per annually (Figure 25). Hence it is obvious that majority of the visitors of Nuwara Eliya are affluent comparatively with other destination within hill country.

3.4.4 Accommodation facilities

There are different types of accommodation facilities located within the boundary limits of Nuwara Eliya tourism functional area varied from tourist hostels, city hotels, guest houses, private cottages, villas, bungalows, to homestay and etc. It seems that most of the accommodation facilities in whole Nuwara Eliya tourism functional area are concentrated within an area of 24 km² which covers by the municipal council (MC) area of Nuwara Eliya and little beyond of NEMC.



As per the records of UDA development plan (2020- 2030) the accommodation facilities available within the tourism facilitation area, within city is, approximately 1,800 no of rooms altogether with star hotels to homestay. As per the statistics of SLTDA 2019 first quarter report there are only 09 hotel projects obtained the approval of SLTDA within Nuwara Eliya District and facilitate accommodation with 714 no of rooms which provides standardized facilities.

- **Tourists' Choices of Accommodation Facilities**

According to the Airport KIOSK self-survey statistics in SLTDA report (2019) noted that generally majority of foreign travelers (65%) visits Sri Lanka preferred to stay in hotels. The interviews had with hoteliers at Nuwara Eliya, evident that most of foreign visitors prefers to stay at tourist hotels whereas most of local visitors prefer to stay at circuit bungalows, cottages and homestays.

- **Price Range of Accommodation Facilities**

Usually the price range of accommodation facilities in Nuwara Eliya varies from 2,000 LKR to 60,000 LKR depending on the class, standards of the facilities, location and view. As per the interviews with hoteliers noted that, price of accommodation dramatically increases during the peak season as the demand rapidly rises. Moreover, the accommodation prices inversely vary with the distance from the city center which means the prices of accommodation in the city area are greater than of which located in remote areas.

- **Food & Restaurants**

Nuwara Eliya has ample variety in all aspects to attract both local and foreign travelers to this place. In fact, there is considerable number of great restaurants, cafes, bakeries, diners, bars & lounges located on the way to and within Nuwara Eliya to satisfy and provide one of the best dining experiences in the country offering everything from Sri Lankan cuisine to well-known international cravings. The average price ranges from LKR 500 to LKR 3,500 per person concerning the food menus they prefer.

The classy designs of facades, furniture and overall interior and exterior spaces with British architectural character make these spots unique and inviting. During the peak season, a great number of temporary stalls and huts set within the city limits and banks of Lake Gregory provide a variety of food items to its visitors. Nevertheless, it is recorded less no of SLTDA registered restaurant as 5 in count within entire district. (SLTDA 2019 – first quarter report). As well as where it refers the feedback of visitors regarding the quality of foods delivering within area some times without doubt it should have to make pay the attention of relevant authorities to solve the issues arise in this topic. The negativities of delivering proper foods and accommodation facilities will be further discussed in next chapter under the issues in tourism facilitation.



- **Shopping**

Since Nuwara Eliya performs as the main administrative city of the district, it consists of almost every kind of government and private sector institutions. Hence, to facilitate for the commuters of these institutions there is well established retail market that can use for day to day requirements. This condition positively benefits for both local and foreign visitors. Nevertheless, as a major tourism destination in Sri Lanka it is still requires a qualitative and innovative marketing strategy improvement to be carried out to provide a remarkable shopping experience for its visitors.

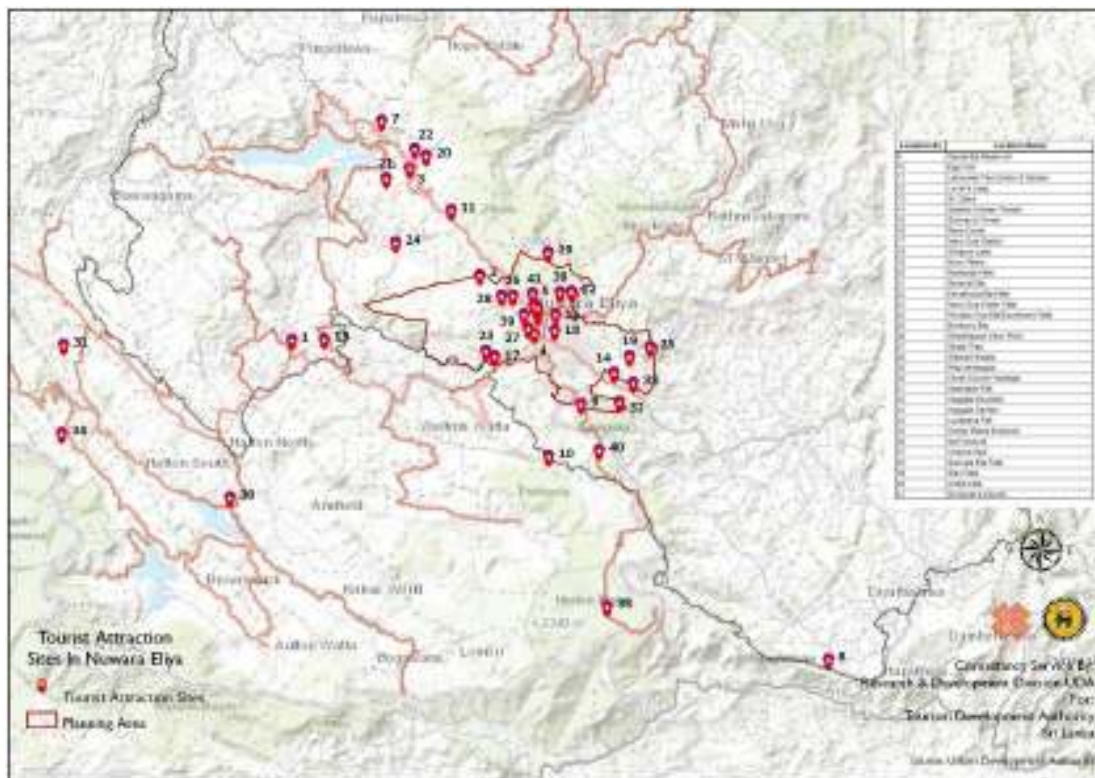
3.4.5. Attractions in Nuwara Eliya

Except family 's or friend's celebrations and activities arranged for adrenaline junkies in the April which is calling the spring festival season of Nuwara Eliya, there are numerous of naturally formed breathtaking sites are opened to visitors all around the year. If you are a person who don't take rain as an obstacle to your visit, of course Nuwara Eliya is an year round paradise in earth to feel the magnificent beauty what the nature has produce. If you supposed to enjoy the inherited architecture of Nuwara Eliya along its streets, drink hot cup of tea after exploring well managed tea garden, or a warm visit to water fall, urban forest, hike to a peak and feel the almighty of horizon then you better choose a no rainy season for your visit.

Anyway there are many of tourist attractions scattered in and around the Nuwara Eliya city which comes under the categories of religious and mythical, gardening, forest, mountain trekking, hiking, plantation, chasing waterfall, relaxing and refreshing, etc., Accordingly, by conceiving the capability of visiting attraction sites keeping Nuwara Eliya as host destination following attraction sites has been identified as most popular and potential destinations in Nuwara Eliya tourism functional area.



Map 2-0-8: Tourist's attractions in Nuwara Eliya



- **Gregory Lake**



Figure 2.0.19: Gregory Lake - Nuwara

Set in the center of Nuwara Eliya City, The Gregory Lake area attracts almost every visitor of the city. It is sort of a lake park with many recreational activities. With the lush greens around it offers the visitors an ancient British era tradition of picnicking on the shore of the lake along with modern activities such as boat rides, pony rides along the shore, water walking balls, water sports such as jet skis, windsurfing and many more activities. Thus, Gregory Lake is a fun filled family friendly location which offers great experience.

Gregory Lake was built by Governor William Gregory during the British era for the main purpose of providing electricity. However, it has been used for leisure and recreational



activities throughout the history and become one of the most prominent attractions in the city in the present.

- **Queen Victoria Park**

The Queen Victoria Park of Nuwara Eliya is said to be named to commemorate the 60th Jubilee Coronation of Queen Victoria in the year 1897. With an area of 27 acres in size, the park is home to a large variety of trees and plants including many foreign species of trees. The lakes that flow along the park enhance its beauty.

The park is a frequently-visited attraction of birdwatchers as the serene atmosphere offers the opportunity to observe a large number of rare birds. Moreover, the fresh mountain air and picture worth sights make it a place to relax and enjoy. The park comes alive with the flowers bloomed in the month of April. It is also preferable to visit the park in March, May, August and September.



Figure 2.0.20: Queen Victoria Park - Nuwara Eliya

- **Galway's Forest**

Galway's Land Bird Sanctuary located within the city limits of Nuwara Eliya is heaven for nature lovers and bird watchers as it houses many rare migrant bird species and native species. According to the Field Ornithology Group of Sri Lanka, it is considered one of the most significant birding sites in Sri Lanka.



Figure 2.0.21: Galway's Forest - Nuwara Eliya

It was declared as a wild life sanctuary in 1938 and upgraded as a national park in 2006 to conserve the montane eco system. This attraction is great to adore the diversity of avifauna and flora. A walk along the paths in this lush green environment offers beautiful vicinity. The tumbling waterfalls and mist shrouded mountains too add colour to this beautiful place. The arrival of migratory birds happens during the north-east monsoon season. Hence, visitors are advised to visit the sanctuary during this time.



- **Single Tree Hill**

‘Single Tree Hill’ is a pinnacle which creates brilliant panoramas of the entire Nuwara Eliya City and grandeur mountain ranges lying across the skyline. A clear summer day conveys the views of Lovers Leap, Piduruthalagala Mountain, Lake Gregory, the northern valley and the southern valley of Adam’s Peak, Seven Virgin Hills, Conical Hill and Uda-Radella mountains.

For trekkers who reach the top of The Single Tree Hill which is known to be the seventh highest mountain located 6890 feet above the sea level, it offers the vistas of the best cloud formation and also the reflection of the mountain through Gregory Lake. Moreover, for whoever reaches the pinnacle early in the morning, the sunrise creates brilliant panoramas that are perfect for any photograph.



Figure 2.0.22: View from Single Tree Hill - Nuwara Eliya

- **Moon Plains**

The beautifully created Moon Plains is an attraction located just off the Nuwara Eliya city with an altitude of 6,200 feet above mean sea level. The major interest of its visitors is the viewpoint of the ‘Mini World’s End’ which is located on the apex of a sharply dropping cliff, that gives a spectacular 360° unique picturesque view of the surrounding landscape including the mountain ranges such as Pidurutalaga, Single Tree Mountain, Kikiliyamana Mountain, Great Western Mountain, Konical Hill Mountain, Kirigalpoththa Mountain, Thotupola Mountain, Hakgala Mountain and Namunukula Mountain. At times Moon Plains is also referred to as "The second world's end".



Figure 2.0.23: Moon Plains - Sandathenna

It was once a dump zone but now been cleaned, reconditioned and classified as an Agricultural and Environmental Tourism Zone. It is surrounded by cloud forests and unique diversity of flora and fauna that has similar characteristics to that of Horton Plains. Moreover, it is well recognized for rich bio diversity, its flora to high level of endemism.



Moon Plain covered in a verdant carpet of healthy grass makes an ideal place for a hike or a cycling tour, with beautiful landscapes spread along a large area. Mornings and evening excursions are the ideal time to visit this attraction. This photo-worthy location is not to be missed by anyone who visits Nuwara Eliya.

- **Shanthipura – City viewing point**

This spectacular point to view the entire Nuwara-Eliya city is located at an altitude of 7339 feet in the highest village in the entire island, on the slopes of the splendid Kikiliyamana, the fifth highest mountain in Sri Lanka.



Figure 2.0.24: Shanthipura City Viewing Point

The charming Buddhist pagoda is the centerpiece of this highest village to greet its visitors and shower blessings over the entire island. Spectacular views of Pidurutalagala Mountain, Adam's Peak, Gregory's Lake, Hakgala Mountain, Nuwara Eliya City and Kikiliyamana Mountain are assured from the observation deck set in Shanthipura. Apart from the spectacular views of provided, the villagers' houses around this attraction spot let its visitors experience the villagers' lifestyles and the fascinating methods they use to farm on the slopes. Hence, it offers a unique experience as well as pictures to make a lifetime worth memories.

- **Pidurutalagala Mountain**

The Pidurutalagala Mountain, the tallest mountain in the island also known as the Mount Pedro is situated north – north east to the Nuwara Eliya city at an elevation of 8292 feet according to the Survey Department. It is known to be the only ultra-prominent peak in the country and one of the 1515 ultra-prominent peaks identified around the world (An ultra-prominent peak is a mountain summit with a topographic prominence of 1,500 metres).

The mountain of Pidurutalagala has a forest reserve surrounding it. The area of the mountain and forest reserve has been designated an ultra-high security zone due to the summit being used to house the communications array of the Sri Lankan Government and the Armed Forces of the country.

The journey of 12km along this trekking mountain is a unique experience with magnificent vistas created by the misty mountain tops and mountain ranges in vicinity. The mountain is residence for a variety of animals, plants, birds and flowers including endemic and non-



endemic. Thus, this is a place brimmed with a wide range of wild life activities which anyone could enjoy.



Figure 2.0.25: Piduruthalagala Mountain - Nuwara Eliya

The peak is not open to the public on most of the months. However, permission is offered to drive to the top during certain periods of time. Trekking is strictly restricted in the area and vehicles which enter the zone need to be driven from the base point to the upper point without stopping for security reasons. The visit to the site early in the morning will avoid the rush while giving some spectacular views.

Race Corse - Nuwara Eliya



Figure 2.0.26: Race Corse - Nuwara Eliya

Set in the middle of Nuwara Eliya City amidst the magnificent mountain ranges, Race Course reminisces of the fashionable venues in British era back in the date. It is said that John Baker introduced horse racing to the hill country and built the training course in the 1840s for his imported English horses of the thoroughbred breed.

It is noticed that the current race course was laid out in 1900s and it is the only race track in the country used for the purpose of horse racing to date. Currently, five horse racing meets are held during the April season and the most notable and prestigious race, the Governor's Cup, a furlong race for Class I thoroughbreds is held during this time. Meets are also held in August and December.



Golf Club - Nuwara Eliya

Located in the heart of Nuwara Eliya, Golf Club maintains an exclusive space with colonial past customs and traditions to this day. Founded in late 18th century, the Nuwara Eliya Golf Club is one of Asia's oldest golf clubs, and perhaps the world. This elegant combination of old-world superiority and revolutionary conveniences with sensible essence has made it an appealing place.

The 18-hole course, 6,399 yards long, is a testing par 71 and is made up of long, narrow fairways, bordered by rows of tall eucalyptus trees and cypresses, held together by thick acacia shrubbery. The course terrain offers the professional golfers a series of challenging

obstacles, with a series of wavy dales, hills and water hazards. On the other hand, despite its natural difficulties it is also capable to offer the best to an enthusiastic amateur. The weather could be quite misty during the winter season, making it challenging to play hence, it is better to play during the summer season.



Figure 2.0.27: Golf Club - Nuwara Eliya

Seetha Amman Hindu Temple

Located on the way to Hakgala Gardens, Hindu Sitha Amman Temple at Sita Eliya reminds of a well-known epic which runs back to the history. As for the epic, this temple is said to mark the spot where Sitha was held captive by king Ravana and where she prayed daily for Rama to come and rescue her.

The Sitha Amman Temple is dedicated to Sitha, and is regarded by Hindus with everlasting reverence. Devotees of this place claim the temple bears signs of the feet of Lord Hanuman as he rested here after the battle to save Sitha from Ravana. Some believe these signs are of king Ravana's elephant. People also think on the opposite bank of the river there is a rock where Sitha sat and meditated. During her stay, it is believed the stream that runs from the hill had supposedly gratified for Sitha's needs.

Three idols were discovered in the stream about a century ago, one of them being that of Sitha. Thus, for centuries the idols are believed to have been worshipped at this spot. Visitors thronged enthusiastically to this spot where Sitha supposedly had bathed, the stone on which she stood and where she spent time in prayer. Devotees are persuaded that this episode of the



epic Ramayana has traditionally taken place here, and the site is becoming increasingly important as a tourist destination.

The temple opening hours vary upon the sunrise, and it is open for visitors till sunset. It remains closed for an hour in the afternoon. Whoever wish to attend the rituals, could visit the temple in the morning or evening.



Figure 2.0.28: Seetha Amman Hindu Temple - Seetha Eliya

Hakgala Botanical Garden

Hakgala Botanical Garden situated on the Nuwara Eliya - Badulla A5 Highway with an altitude of 5,400 feet above the sea level, is believed to be one of the highest set botanical gardens in the world.

This botanical garden was established in the British era (1861) for cultivation of the medicinal crop Cinchona. Afterwards, the history records that it was used for Tea cultivation. Today, Hakgala Botanical Garden positions firmly on its beauty with over thousands of species of flora including famous species of Orchids and Roses. The British influenced gardens, trees that splendour in real green, the flowers that flame in shades and foster well by the cool climate and uncommon birds among the greenery make Hakgala one of the most pleasant attractions found in the Island. The period in the months of April and May is the best for a visit to this floral paradise.



Figure 2.0.29: Hakgala Botanical Garden - Haggala

Hakgala Botanical Garden adds variety to the visitors' experience. Thus, it is undoubtedly a fascinating attraction which attracts a massive number of visitors annually in the country.



Lovers Leap Fall

Lovers Leap as for its name itself explicates, has its own tragic tale to let the world know. The folk story on how the fall got its name is from a prince who fell in love with the beautiful damsel who rescued him when he had lost his way while hunting in the jungle. Their inseparable love amidst the mismatches with royalty made them decide to immortalize their love by leaping from the top of the fall to their death. May be for this reason, it seems as it has its own mysterious charm. Even today, superstitious villagers avoid the fall at night.

This impressive fall lies in close proximity (3km approximately) to Nuwara Eliya City with a height of 30m. It emerges from the streams and brooks of Sri Lanka's highest mountain, the Pidurutalagala. It flows over hard granite ledges and the water is collected in a tank and used for drinking. During the dry season the fall flows languidly whereas it becomes spluttering during the wet season.

The adventurous efforts to reach this enchanting attraction through the winding roads, gravel paths, foot-only tracks along the tea estates and steep climbs are absolutely worth as they lead to one of the most picturesque sites in the island.



Figure 2.0.30: Lovers Leap Fall - Nuwara Eliya

International Buddhist Center

Located right in the center of this vibrant city these lovely white pagoda emblems the Buddhist culture and heritage of the country. Almost everyone who visits the Nuwara Eliya City should probably pass by this place. It certainly offers the ambience of peace amidst the busy streets of this crowded city.



**Figure 2.0.31: International Buddhist Center
Nuwara Eliya**



Post Office Building

This prominent public service office located right in the heart of the city of Nuwara Eliya certainly stands out among the famous colonial buildings as an iconic landmark. The vibrancy it creates with its charming exterior makes it unique and complements the city to bring back memories of Colonial British Ceylon.

The Post Office of Nuwara Eliya was built by the British back in the year 1894. It is therefore one of the oldest post offices in Sri Lanka. The building characteristically resembles architectural features which belonged to the British era in early Sri Lanka. This majestic Tudor-style two storey building cannot be missed while one is on the streets of Nuwara Eliya. The clock tower which spirals from one side of the building, the brilliant red coloured bricks, stripes as well as the roof have brought a distinctive edge to this remnant. It is now an archaeological protected monument, declared by a government gazette notification published on 23 February 2007.



**Figure 2.0.32: Post Office Building Nuwara
Eliya**



2.3. Delineation of the Planning Boundary

1) It was considered 30 Grama Niladari division to identify the study area of the greater NuwaraEliya development planning area as mentioned in the above chapter 3.1 .Study was done in the field of economic and social and environmental areas within the limits of administrative area with considering physical and geographical features in the area so as to identify the planning boundary of the Greater NuwaraEliya development plan area. Development plan prepared for NuwaraEliya town for 2004 – 2017 period, that is presently implementing also identified its planning boundary as administrative limit as same as the municipal council limit as its planning boundary. This area included 12 Grama Niladari areas.

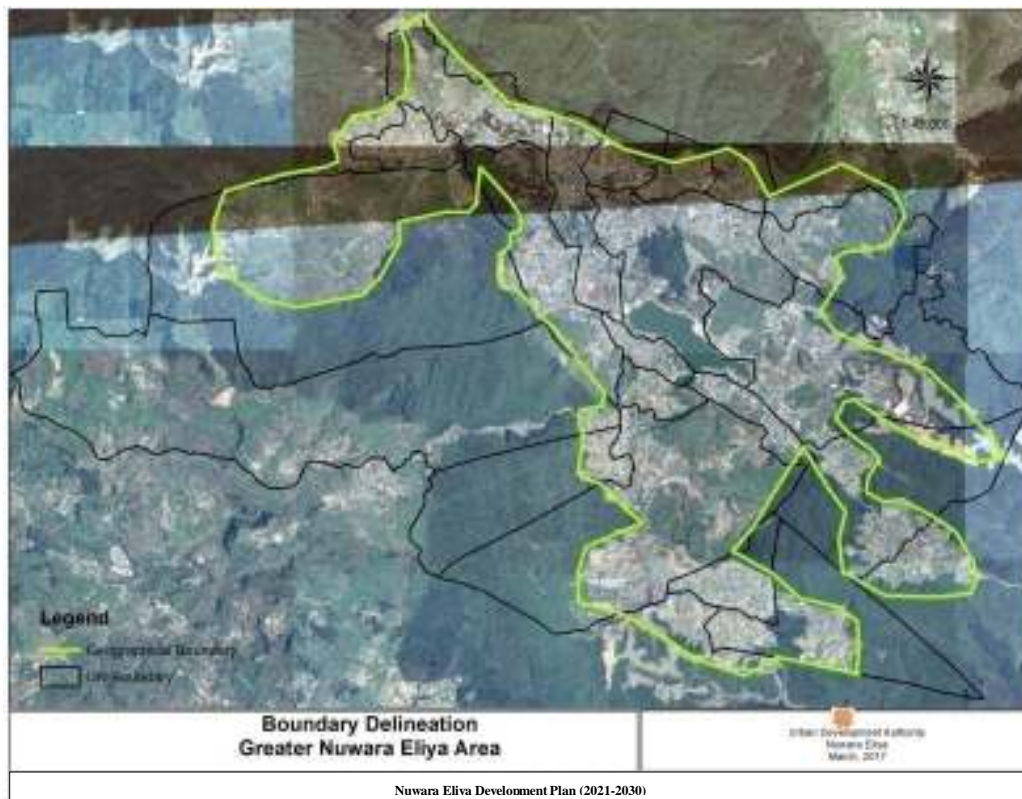
Map 2-0-9: Nuwara Eliya Municipal Council Limit



2) According to the existing physical environmental background of the area, considering main 4 mountain ranges, decided as boundary limits of their municipal council area as a town limit. Accordingly Piduruthalagala, Single tree, Kikiliyamana, Haggala 4 mountain ranges and their forest area can be considered as physical boundary of the area. Also it is considered the Parts of the forest areas in the Grama Niladari divisions of toppass, Kalapura, Bangalahatha, Windyconer, Ruwaneliya, Gorandihela and Jayalanka forests areas are the limits of planning area.



Map 2-0-10: Physical Boundaries



1. Functional boundary limits

Detailed study was done to identify the most suitable tendency developable planning areas with the idea of planning point of view. Using criteria and weightages as shown in Table No 2.8 using multiple analysis criteria and weightages in to it, identify the most developable tendency area and as well as environmental sensitive protection areas as shown in Table No 2.9. By that analysis identified the most suitable developable area for the development plan within the 30 Grama Niladari divisions. According to that identified the considerable indexes. When deciding the indexes, considered the achieving development goals environmental sustainability in the Nuwara Eliya town and adjoining areas.

Accordingly based indexes and put weightages deciding the developable planning area shown in tables below.

Applying above weightage method through multiple criteria analysis system identified most development tendency area of 20 Grama Niladari divisions as development planning area possessed with most development tendencies. Accordingly, below Grama Niladari divisions identified as new development planning areas.

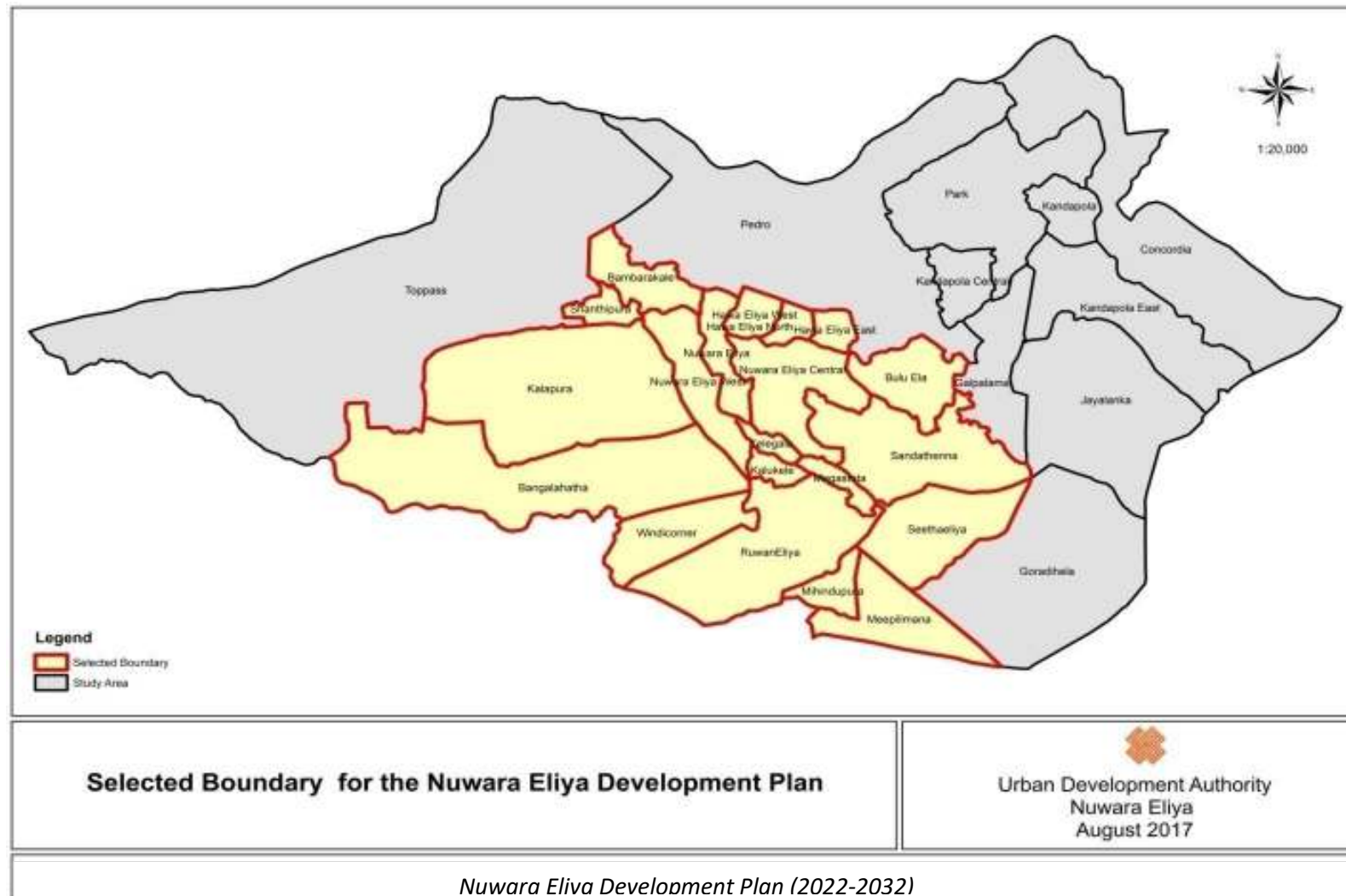


Table2.0.16: Based Indexes for Functional Boundaries

	Index	Place	weightage
01	Tourist hotels/guest houses	1	10
02	Situations of buildings	2	9
03	Water sources/Water systems	2	9
04	Forest area reducing trends	2	8
05	Tourist attracting priority	3	7
06	Infrastructure facilities	4	6
07	Population density	5	5
08	Establishment of distress zones	6	4
09	Development criteria (Approval of development plans and permits)	7	3
10	Annual population growth rate	8	2
11	Density of service activities	9	1



Map 2-0-11: Planning Area



When considering environmental situation within this study area, it belongs main mountain ranges like Kikiliyamana, Piduruthalagala, Single tree and Haggala as its boundary. Highest level is 2400 m. mean sea level and lowest level 1500 m mean sea level are the area heights within the study area. Main water ways of nanuoya Ela, Barrack Plain Ela are the tributaries within the area and they are catchment area of Mahaweli River.

To prepare the Greater Nuwara Eliya development plan for 2022–2032, it was considered active boundary is the most suitable area for the development planning area as planning point of view.

However considering the convenience to preparation of action plans, enforcement, feedbacks, selected nearest adjoining Grama Niladary boundary limits as the development planning area boundary. Accordingly considered based Grama Niladary divisions to preparation of greater Nuwara Eliya development planning area for 2019-2030 as shown in below Table 2.0.17 as follows.

Table 2.0.18: Development Plan Area

	Grama Niladary division	Division No
1	Bambarakale	535K
2	Bangalahatha	476C
3	Buluala	535I
4	HawaeliyaE	535H
5	HawaeliyaN	535G
6	HawaeliyaW	535F
7	Kalapura	535N
8	Kalukale	535B
9	Kalegala	535C
10	Magasthota	535A
11	Meepilimana	476H
12	Mihindupura	476G
13	Nuwaraeliya	535
14	Nuwaraeliya C	535D
15	NuwaraeliyaW	535L
16	Ruwan eliya	476D
17	Sandathanne	535E
18	Seetha eliya	478A
19	Shanthipura	535M
20	Toppass	535J
21	Windyconer	476E



CHAPTER 03- NEED OF THE DEVELOPMENT PLAN

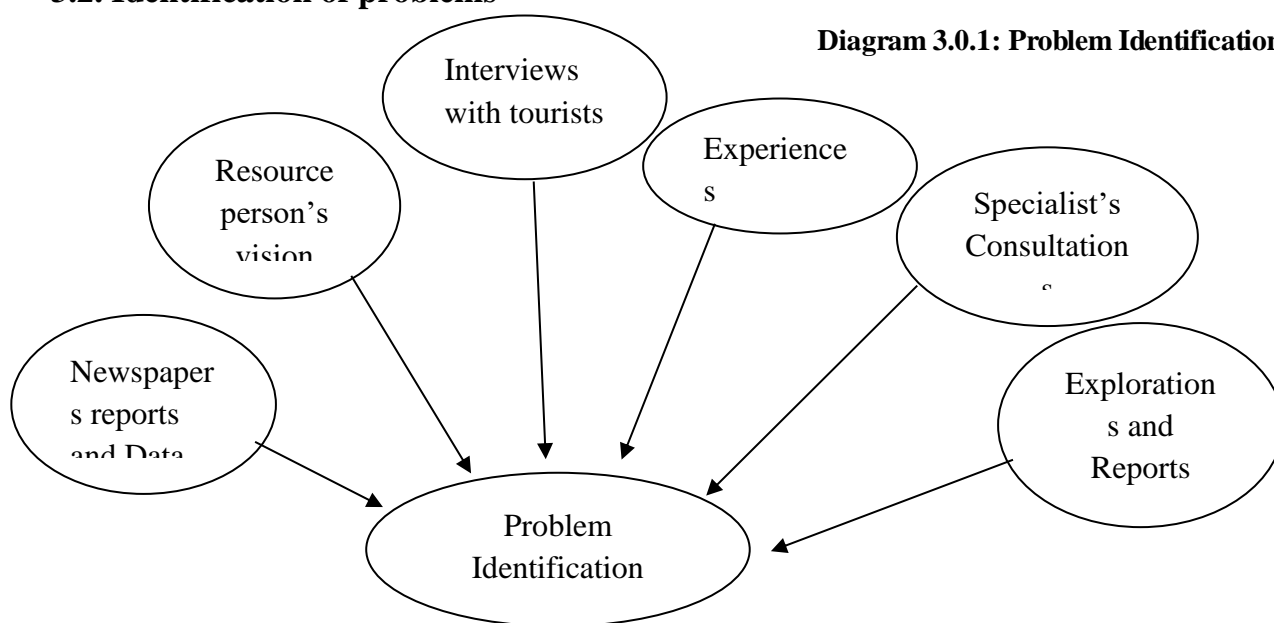
3.1. Need of the Development Plan

It is considered that the presently neediness of the developed town in this chapter. Nuwara Eliya town development should be done to achieve plans targets by most seriously adjusting with protecting the environmental sensitivity and environmental scenic beauty as its location specially is in the high altitude area.

1. Prepared development plan by the Urban Development Authority expired after 2022 year; therefore need arise to prepare new development plan for next 10 years of period.
2. Nuwara Eliya town development trend stretches towards its out limit of west direction can be considered as main factor when considering development demand and its development tendencies. Nuwara Eliya new development trend can be seen in the above chapter 3.
3. No proper guidance to future development challenges, no identified weaknesses and solutions as identified in this chapter through the presently implementing development plan.
4. Specially identified many main issues arise in the area.

3.2. Identification of problems

Diagram 3.0.1: Problem Identification



In the process of problem identification, 6 areas of data and detail collected from the resource persons were summarized. In the diagram above shows the different areas of resource persons and institutions were participated the workshop to express their ideas. And study was done with the collected details, regarding the existing problems in the area.



Basically 16 problems were identified by the resource persons and institutions looking into problems with different angles. Resource personal seminar was held on 17thDec. 2017 at the Nuwara Eliya Municipal Council. Six problems were given priority out of 16 problems.

01. Sensitive land encroachment
02. Drinking water pollution
03. Water source system pollution
04. Water source reservation and catchment area encroachment
05. Lack of proper facilities in roads
06. Scarcity of water when dry seasons
07. Changing the image of Nuwara Eliya town
08. Building construction obstructing view points
09. Reducing forest areas
10. Changing the land uses.
11. Mix the drainage water to the water sources
12. Lack of basic facilities to tourists
13. Changing the architectural features hereditary to Nuwara Eliya
14. Lack of landscaping in the town
15. Lack of walking facilities to pedestrians

All the problems identified were categorized under the six areas

3.2.1. Prioritize the problems

- 1. Gradual diminishing of the Inherited City Image with emerging Haphazard Development**
- 2. Quality and Quantity Issues on Surface and Drinking Water Sources which create less assurance of Accessibility to Safe Drinking Water and Unpleasant Environment.**
- 3. Low facility houses, slum and shanties**
- 4. Road conditions are not up to standards.
Inadequate Infrastructure Facilities Disturbing the Smooth Function of Tourism Activities**
- 5. State land are not directing to suitable development.**



3.3. Detailed study in basic problems

3.3.1. Gradual diminishing of the Inherited City Image with emerging Haphazard Development

Cities are perceived and lived by millions of people thus, there is a two-way interaction between people and cities. Even though the city experience differs from person to person based on personal experiences, attachments and memories, yet there is an overall mental image shared by all. (Lynch, 1960). The meaning of town image is a “thought, memory or sight is in one’s mind regarding a image or mental picture of a town or of an area according to the book written by veteran town planner Mr. Kevin Lynch. Physical environment and its features are themost influenced factor to themental picture in one’s mind.

As per the Perception Survey carried out by the planning team, Nuwara Eliya seems to have lost its healthy image that existed back in time. The findings brought forward that the built environment obstacle on scenic view, context incompatible architectural characters, distribution of underserved settlements and declining trend on vegetation cover have led the city towards being less attractive.

Nuwara Eliya may have a delightful climate and be surrounded by lovely tea fields but the town center itself is run down and ugly. Victoria Park and Golf course are attractive. There are few old English style buildings but, in general the town is dilapidated.

Member TripAdvisor – Austria
February 2017





Physical environment and its features pictures deposited one's mind are level power to attractive that town. According to that there are few physical and environmental features are that are deposited one's mind with the very beautiful and with environment very scenic Nuwara Eliya are follows,

- A high altitude system
- Cool and rainy environment system.
- Natural landscaping features those are flowers, waterfalls, clean water resources.
- Architectural features that were colonization period.
- Upcountry vegetable cultivation.
- Pears and strawberry cultivation.
- Tea cultivation.

But, due to the human activities, this Nuwara Eliya image is degrading gradually. But the way it can be identified that the attitude of the people regarding Nuwara Eliya town decreases and destroying. Specially land encroachments, dirty surface water sources, view point covered by buildings, changing the building features, sensitive landscapes destroying, changing the land uses, reducing the forest cover, land encroaching in the water resources, waterfalls covering by constructions due to said factors, one idea regarding the changed image of Nuwara Eliya. Due to that reasons persons image attitude to attractive to Nuwara Eliya decreased. That reason affected harmful to tourism economy and attraction to Nuwara Eliya. At last it is severely affected to build harm to the economy.



- **Built Environment Obstacle on Scenic View**

Visual quality of a city plays an important part with regard to the mental image of a city, as what is being seen (visual experience) largely contributes to build up a mental image. However, it is significantly noticed that the natural scenic landscapes around the Nuwara Eliya city have been obstructed by the physical features such as vivid colored buildings, boundary walls, service towers, service lines etc. As a result, a traveler could hardly find attractiveness within built area. This has negatively affected the tourism economy in the city as it is incapable to offer the unique and pleasant sense of the place.

- Covering the landscaping sceneries

Town image or mental imagination in regards to the town to person who travel through the town does not view the landscape sceneries of the locations of mountain ranges as well as tea states and due to constructing of building covering landscape view of waterfalls is a problem. Specially mountain range of Magasthota, Nasby estate, Single tree mountain range, Uniqueview mountain range, Piduruthalagala mountain range, Glain fall waterfall, Loversleap waterfall are covered by building can be shown in following pictures.

Figure 3.0.1: Inappropriate construction obstructed the natural scenic view of the mountain ranges



Captured by – Mr. Nilantha Paranagama 2017

August 2017 අගස්තු 2017



- Drying of waterfalls

The catchment areas of waterfalls are dried due to unauthorized cultivation and encroachment of water sources. Glainfall is the major `water fall which is currently inactivated due to the above reasons.

Figure 3.0.2: Drying the waterfalls



According to that it is evident that the sceneries of waterfalls and mountain ranges that are unique to NuwaraEliya are obstructed by irregular human activities. This is main reason to change the image of NuwaraEliya.

- Encroachment to water resources and water line reservations.

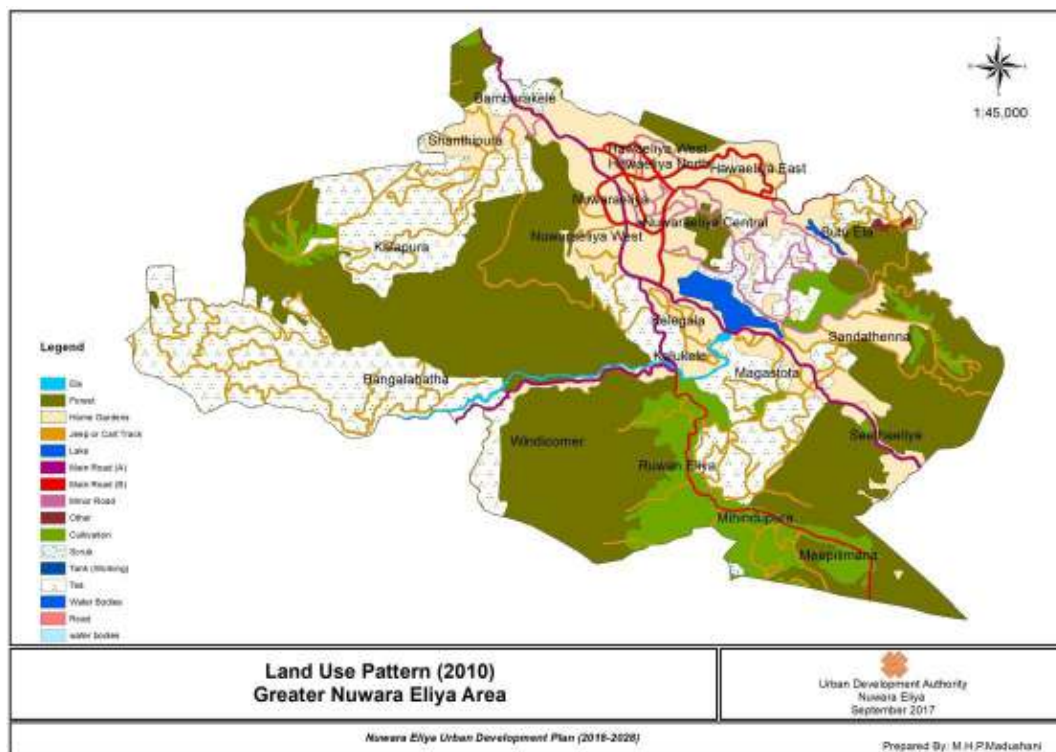
Disturbances for the major water sources and its purification Encroachment of main water reservations and water line distribution system of NuwaraEliya town is directly affects to the major water sources and its purifications. Because,are not having proper understanding about the water quality of the area by most of the people of the area and commuters

According to Map No 3.1 it shows the invasion to main problems and the gramaniladari divisions of Bambarakale, Hawa Eliya east, Hawa Eliya west, Nuwara Eliya central, Sandathanne, Ruwan Eliya, Windyconer, NuwaraEliya are the area where most of encroachment of reservations occurred and its percentage 5%.

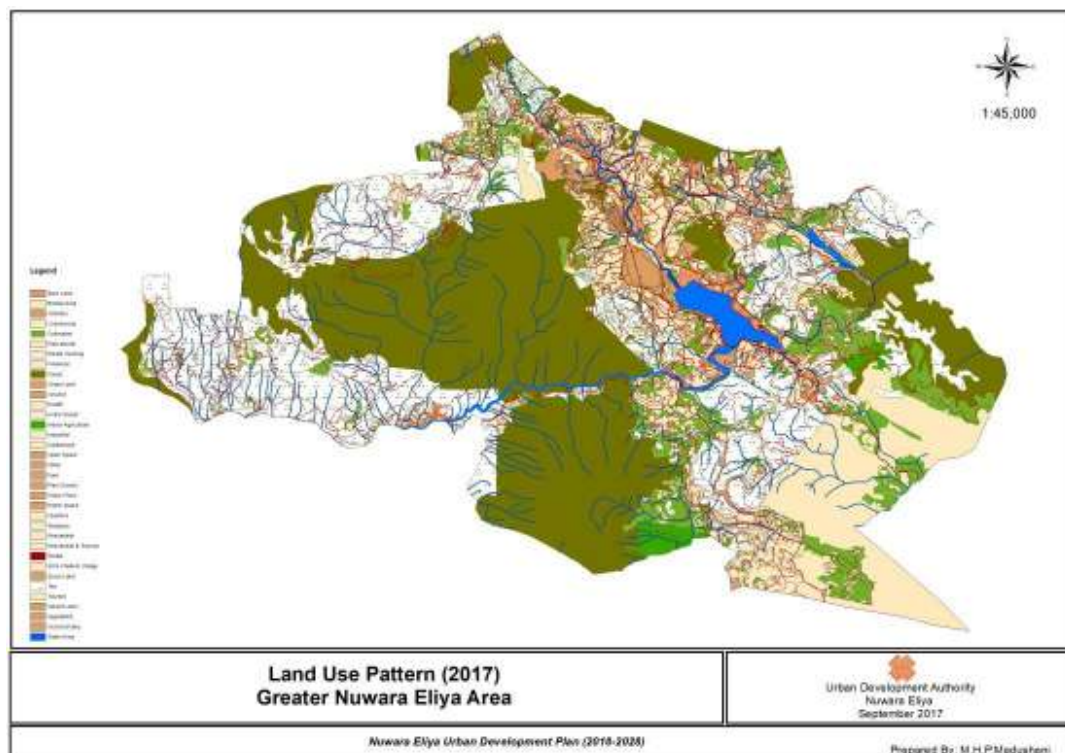




Map 3.0-2:- Forest area(40% 55.1 Sq.k.m.)2010



Map 3.3: Forest area(40% 55.1 Sq.k.m.)2017



Since the volume of ground water is decided by the density of vegetation cover on the surface, the hill country plays a vital role as it is the heart of the country's water catchment. Accordingly, the natural vegetation cover which consists of inborn flora community actively engages in concentration and circulation of ground water sources in the area and helps to keep-up the pleasant climate condition and scenic beauty. Nevertheless, the trend of urban sprawl has become the reason for the gradual decline of vegetation cover distribution in the upcountry. Unplanned tourism sector developments, tea plantations and housing distribution directly influence this situation.

Considering the systematic analysis done on this regard is further used to detect the future scenarios which seems to be hazardous. Accordingly, the Normalized Difference Vegetation Index (NDVI) Analysis performed covering the whole study area (NEPS) for the years 2001 and 2019 show only a minimal change (3%) in vegetation declining. However, if the ratio between built up area (ha) to green space area (ha) continue as it is for the next ten years, there will be a significant environmental change as noticed in the given Table 3.1.

Table 3.0.1: Ratio between built up and green space area distribution within NEMC

Year	Built up area (ha) : Green Space area(ha)
2001	1 : 27
2019	1 : 14
2030	1 : 7

The NDVI Analysis (Figure 82) which covers the boundary of Nuwara Eliya Municipal Council shows a worse situation compared to the Pradeshiya Sabha area. As shown in Table 11 the declining percentage of vegetation in the NEMC area is 13% for a period of 20 years. Recorded 71% of green space in year 2019 within MC area will reduce up to 64% by the year 2030 if the same built-up trend continues. Accordingly, it can be predicted that the Built-up area to Green space ratio would further reduce if the same development trend continues in future as well (Table 11).

Table 3.0.2: Green space and built-up area distribution within Nuwara Eliya MC

	2001	2019	2030
Green space area	1267 ha	1070 ha	
Built up area	254 ha	456 ha	
Total green space in MC area (%)	84%	71%	
Total built-up space in MC area (%)	16%	29%	
Built up area (ha) : Green Space area (ha)	1:5	1:2	1: 0.5



Map 3.0-4: Spatial distribution of NDVI analysis: 2001



Map 3.0-4: Spatial distribution of NDVI analysis: 2019

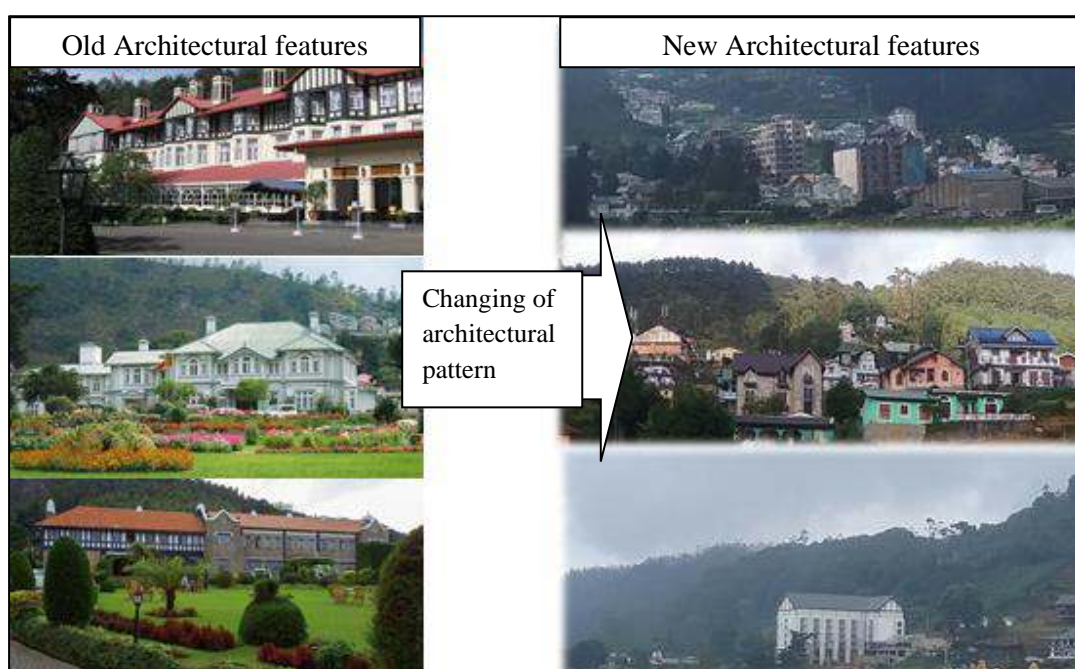


- Change of hereditary of architectural features of Nuwara Eliya.

Presently being construction of building which is contrasting architectural features of Georgian type and British Victorian type mixed building architectural pattern of unique to NuwaraEliya town.

This is a cause to weaken the image of NuwaraEliya.

Figure 3.0.3: Changing of Architectural Pattern



Captured by – Mr. Nilantha Paranagama , March 2017

- **Spreading of Context Incompatible Development**

According to the public perception in the local area it has identified several unique buildings which is possible to justify that it represents the original architectural type inherited to Nuwara Eliya. All those buildings have been built during the British period and some have been renovated in the recent past. However, they have been capable to protect these buildings in their original form. For example;

- Grand Hotel
- Post Office Building
- Hill Club
- Hill Station Bungalow



- Railway Station
- Holy Trinity Church
- Mock Tudor House
- Nuwara Eliya Stores
- Queen's Cottage
- Superintendent of Police Office Nuwara Eliya
- Pedro Hotel
- Hotel Glendower
- Princes Nuwara Eliya
- St Xavier's Church

Doersch et al (2015) has identified several key elements in British Architectural structures after studying 03 countries and it has further defined that few changes had been made to these elements on country wise during different eras. Nevertheless, given below have been key detailing elements of the British architecture at all times.

- Roof color and angle
- Railings
- Street lamps
- Pattern windows
- Doors
- Windows
- Arcade
- Window balustrades

When features of the buildings nominated by the local community are examined (Figure 77), they verify that unique character of Nuwara Eliya is instilled in the built environment with the noted key elements. However, at present, it is questionable whether Nuwara Eliya still consists more of the real British character since the trend of compact commercial developments in the city core area seems to have neglected almost all the inherited architectural characteristics. Context incompatible scales, building materials, billboards, roof slabs, etc., have already transformed the city core character and construction of boundary walls, establishment of hard landscape instead of natural/soft landscapes have impacted the character of periphery (Figure 2). If this trend continues, Nuwara Eliya city will be another general city in future which can be found anywhere in the country.



Figure 3.0.4: Inherited British architectural buildings at Nuwara Eliya identified by local people



Figure 3.0.5: Context incompatible development in Nuwara Eliya



3.3.2. Quality and Quantity Issues on Surface and Drinking Water Sources which create less assurance of Accessibility to Safe Drinking Water and Unpleasant Environment.

Location of environmental sensitive areas at highest levels in forest areas and its related water resource system; As heart of town in Gregory lake, Nanu Oya ale, Thalagala Ela, Water field drive, Barak plan ale, Glain fall Ela, Kande Ela, Bulu Ela are the main water resources in the greater Nuwara Eliya town area. Those water resources can be divided in to two parts.

01. Quality Issues of Surface Water
02. Qualitative and quantitative issues of drinking water

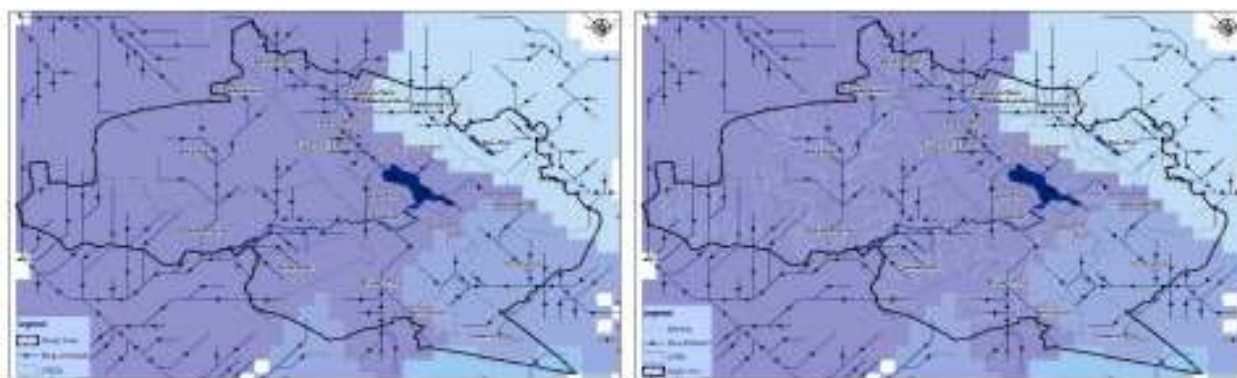
(a) Quality Issues of Surface Water

The surface water has obtained significant value in creating a beautiful environment in the Nuwara Eliya city. Gregory Lake stands as the prominent surface water source in the area which spreads along 91 ha and there are other surface water sources such as Nanu Oya ela, Thalagala ela, Water-field drive, Barrack Plain ela, Glenfall ela, Knande ela and Bulu ela. The total area covered by surface water is about 57 ha within the planning boundary.

While issues on surface water are analysed, it has been verified that there is a better alignment between stream network and flow direction as shown in the Figure 83. Hence, it is confirmed that there are no geographical barriers on surface water flow. Nevertheless, it seems that due to concentration of higher population density and related discharges have greatly caused surface water pollution within the planning area. As per the Figure 84 the prime two catchments (o1 and 02) shows the highest population density. Gregory Lake, Bulu Ela, Barrack Plain and part of Nanu oya Ela located within catchment 01 and 02 are exposed directly to nearby high dense grama niladhari divisions. However, entire MC area and almost all commercial built environment established within these two catchments bear the responsibility of surface water pollution.

On the other hand, discharge of human and domestic waste and chemicals from agricultural lands cause surface water pollution of the area. According to the existing condition, catchment of Gregory Lake is overtaken by intensive vegetable cultivation and high population density.

Figure 3.0.7: Flow direction and streamline network in Nuwara Eliya



Therefore, high amount of urban wastewater and sediments come through runoff (Amarathunga et al., 2010). The fertile sediments which is resulted by soil erosion of vegetable fields carried from the tributaries of the Gregory Lake encourage dramatic aquatic plant growth as a result of nutrification which is considered as a negative circumstance in aquatic environment. According to a water quality assessment carried out by Nuwara Eliya MC for the Lake Gregory with water samples collected from five locations of the Lake denote that some of chemical parameters of surface water has been exceeded its standard level.

According to the outcomes of the assessment noted in the given Table 12 it seems that turbidity, pH value, Chloride (Cl), Alkanlinity (CaCO_3), Free Ammonia (NH_3), Albuminoid Aluminum (Al) and COD levels has been exceeded its standard levels. The studies done by the Department of Irrigation on Lake Gregory, Barrack Plain and Katumana Ela further verified that the contamination of Lake Gregory has continued with showing a grown pattern from 2016 to 2017.

Lake Gregory as a town centered wetland eco system which is enriched with high bio-diversity and natural beauty was a major visitor attraction location. Same time it has been used as a major source for agricultural activities. Nevertheless, the current trend on surface water contamination in the area has been negatively impacted for such uses obtained so far.

Figure 3.0.8: Population density distribution along with flow direction

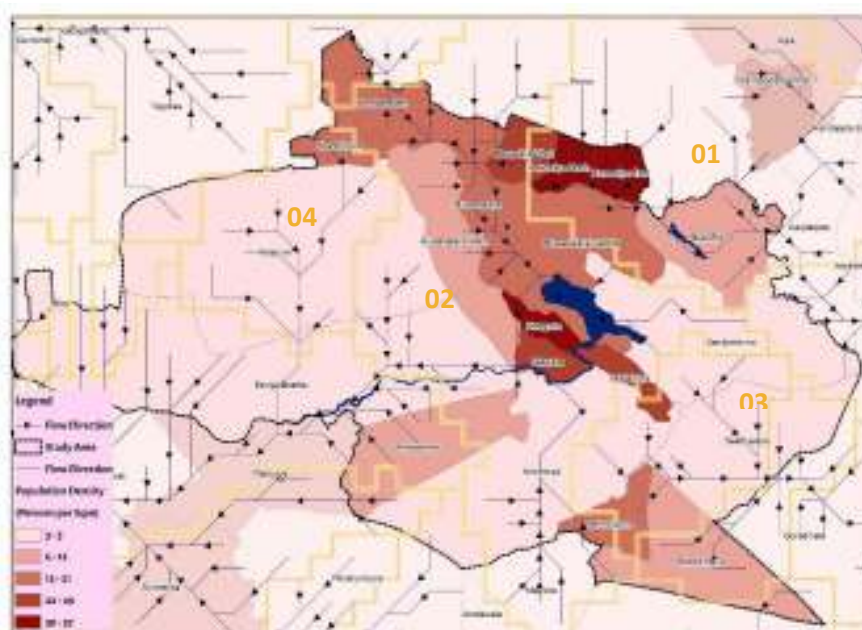


Table No 3.1 shows the confirmed data taken from the investigation done by theMunicipal Council Nuwara Eliya regarding the water quality of the Gregory Lake.



Table 3.0.3: Water quality situation of the Gregory Lake

Test	Unit	Method	SLS 614: 2013	Results					L.O.D	E.U % (K=2)
				Lake Gregory Inlet	Lake Gregory Mid-Point	Lake Gregory near the School	Lake Gregory near the Bridge	Lake Gregory near the Sluice		
Odour	-	CML1		Objec *	Objec *	Objec *	Objec *	Objec *	-	-
# Turbidity	NTU	APHA 213 D B	2	138	222	98.6	50.4	123	-	20
# pH at 25° C	-	APHA 4500 - H ⁺ B	6.5-8.5	7.62	8.21	8.26	8.22	8.32	-	-
# Chloride (as Cl)	Mg/L	APHA 4500 Cl - B	250	22	22	22	22	22	-	4
# Total Alkalinity (as CaCO ₃)	Mg/L	APHA 2320 B	200	43	46	47	43	46	-	4
Free Ammonia (as NH ₃)	Mg/L	SLS 614: 2013, Appendix A	0.06	2.4	2.4	2.0	1.6	2.4	-	-
Albuminoid Ammonia ((as NH ₃))	Mg/L	SLS 614: 2013 Appendix A	0.15	3.8	3.8	0.80	2.4	2.0	-	-
Nitrate (as NH ₃)	Mg/L	CML/MM/02/02/019/V 1.2	50	5.0	5.0	4.8	5.3	4.8	-	-
# Nitrite (as NH ₃)	Mg/L	APHA 4500- NO ₂ B	3	0.11	0.09	0.20	0.06	0.04	-	34
# Fluoride (as F)	Mg/L	APHA 4500-F C	1.0	0.37	0.36	0.36	0.50	0.36	-	6
# Total Phosphates (as PO ₄)	Mg/L	APHA 4500 - P B & C	2.0	1.4	1.5	1.1	1.4	1.5	-	30
# Total Dissolved Solids	Mg/L	APHA 2540 C	500	140	101	146	130	131	-	5
# Total Hardness (as CaCO ₃)	Mg/L	APHA 2340 C	250	45	49	51	45	44	-	4
Sulfate (as SO ₄)	Mg/L	Modified APHA 4500 SO ₄ - 2	250	ND	ND	16	ND	ND	10	-
Calcium (as Ca)	Mg/L	APHA 3500 Ca - D	300	14.5	15.7	16.9	15.1	14.9	-	-
Magnesium (as Mg)	Mg/L	APHA 2340 C & 3500 Ca - D	30	2.0	2.4	3.4	1.8	1.7	-	-
Cyanide (as CN)	Mg/L	CML 18	0.05	ND	ND	ND	ND	ND	0.05	-
Sodium (as Na)	Mg/L	USEPA -200.8	200	9	9	8	9	8	-	-
Iron (as Fe)	Mg/L		0.3	0.75	0.46	0.66	0.80	0.50	-	-
Copper (as Cu)	Mg/L		1.0	ND	ND	ND	ND	ND	0.05	-
Manganese (as Mn)	Mg/L		0.1	0.08	0.08	0.11	0.11	0.10	-	-
Zinc (as Zn)	Mg/L		3.0	0.09	ND	ND	ND	ND	0.02	-
Aluminum (as Al)	Mg/L		0.2	0.84	0.65	0.94	0.93	0.53	-	-
Chromium (as Cr)	Mg/L		0.05	ND	ND	ND	ND	ND	0.05	-
Nickel (as Ni)	Mg/L		0.02	ND	ND	ND	ND	ND	0.02	-
Arsenic (as As)	Mg/L		0.01	ND	ND	ND	ND	ND	0.001	-
Cadmium (as Cd)	Mg/L		0.003	ND	ND	ND	ND	ND	0.001	-
Lead (as Pb)	Mg/L		0.01	ND	ND	ND	ND	ND	0.01	-
Selenium (as Se)	Mg/L		0.01	ND	ND	ND	ND	ND	0.001	-
Mercury (as Hg)	Mg/L		0.001	ND	ND	ND	ND	ND	0.001	-
# COD	Mg/L	Modified APHA 5220 D	10	130	130	85	100	105	-	4
Phenolic compounds (as C ₆ H ₅ OH)	Mg/L	APHA 5530 B & D	0.001	ND	ND	ND	ND	ND	0.1	-
Oil & Grease	Mg/L	APHA 5520 B	0.2	ND	ND	ND	ND	ND	2	-

Source: NEMC

An according to the above table, it shows the water quality situation in Gregory lake, Katumana Ela, Barrack Plain reservoir water quality situation in the investigation report done by the irrigation department. It was evident that the water contamination developed badly in 2016 and 2017. Especially concentration value of water qualities of the COD, BOD, DO, COLIFERM, PH stranded were high in Lake Gregory in 2017.

Water in the Katumana Lake, out flow of its spills and Barrack plain reservoir were high phosphorus concentration value reported when comparing to 2016 for 2017 values.

According to the research thesis written by ex. Director general Dr. Sarath Amarasiri of agricultural department it says that the farmers in Nuwara Eliya are paying over 8 times cost for fertilizers. It is identified most fertilizers were phosphorus and according to the thesis out of 1600 samples 50% were included phosphorus elements in the fertilizers as well.

According to the irrigation department investigation, the reasons identified to water pollution and its increases are the fertilizers use for cultivation and mixing pesticides to water.



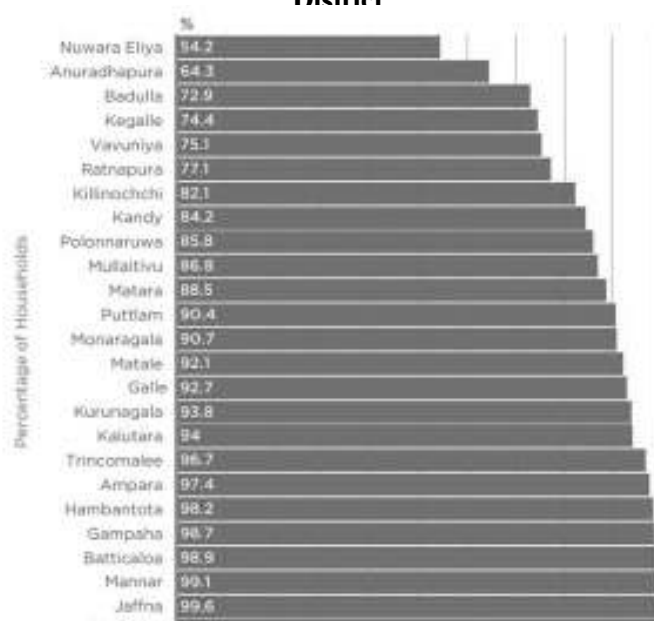
Drainage water and waste water dispose to drains from the residential, commercial and tourism activities are the other reason to water pollution as well.

(b) Qualitative and quantitative issues of drinking water

The central hill, being the peak of country it is considered as the prominent water catchment of the isle. Nevertheless, it seems that Nuwara Eliya has lost its advantage on having safe and clean drinking water due to several factors that cause to contaminate the surface and ground water within region. Numerous of studies has evident this situation which is appears and caught during the field observation and the interviews had with stakeholders. A human development indexes survey conducted by Department of census and statistics (2016) has confirmed this situation by noticing Nuwara Eliya as the top most district of the country which has the least access to safe drinking water (Figure 85.).

Conceiving the drinking water source records produced by DSD resource profile (2015), 15% of drinking water comes from ground and shallow wells whereas 84% of consumers uses pipe borne source and small percentage from community (0.03%) uses packaged water (Figure. 86). However, the UDA development plan (2019) stated that generally 70% of water supply within MC being fulfill by piped line whereas 70% of water supply at PS area fulfill by wells.

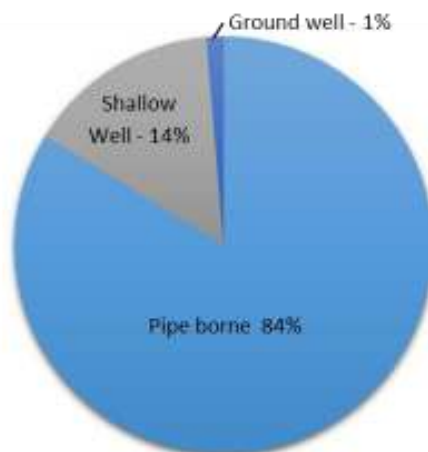
Figure 3.0.9: Access to safe drinking water in 2016 by District



Source: Household income and expenditure survey 2016,
Department of census and statistics



Diagram 3.0.2: Access to Drinking Water



Source: Nuwara Eliya DSD resource profile (2015)

As whole even majority of community uses piped water it seems that the supply provides by the Nuwara Eliya MC is not meets the standard parameters allocated for safe drinking water. According to an assessment done by Nuwara Eliya MC to assess the coliform bacteria level of piped water has confirmed that majority of the samples (63%) taken from different 19 locations within Nuwara Eliya MC exceeds the standard level of coliform level in drinking water. Further clarification on reasons for this situation done by Nuwara Eliya urban development authority (2019) verified that the outflows of sewage network as the main cause for this. Since the old water distribution line contain with many leaking points, poor management and purification techniques has made the drinking water issue more critical in Nuwara Eliya. Hence such within the community of Nuwara Eliya who are depending on pipe borne water are having a high risk of spreading diseases such as diarrhea. The fact has further confirmed with a research conducted by Ministry of Health by denoting that Nuwara Eliya stands as the 4th trending city in Sri Lanka which is vulnerable for spreading diarrhea.

Conceiving about the quantity of piped water supply, the overall town area which includes 7 no of water distribution zones being facilitates by 13 no of water pumps. Haddon Hill pumping station which is bearing capacity of approximately 3,500 m³ contributes to full fill 75% of total drinking water requirement in Nuwara Eliya MC. During the dry months of the year entire supply network of Nuwara Eliya produces only 3,500 m³ and as a result it is being unable to meet the required volume of water which stands as 5,500 m³. In case the excess requirement of portable water being extract by shallow and ground wells which is considered as scare resource during the dry season.



Ground and shallow wells located within Nuwara Eliya DSD contributes about 15% of total portable water requirement. There are numerous of scientific assessment has been done for to analyze the quality of these well water and has notified that 45% of such drinking water sources are located less than 10 m distance from the vegetable fields which is categorized as vulnerable for contamination (Hengama et al., 2013). Since Nuwara Eliya is rich with agricultural lands, well springs are severely vulnerable for getting contaminated with the fertilizers which are being used for the crops.

When notifying about the chemical composition of ground springs according to Rajakaruna et al. (2005) and Sarathchandra et al., (2017) there were high levels of nitrate (32 ppm) and basic cautions in well-water in crop fields comparatively with the forest areas in Nuwara Eliya. It has evidently proved that rapid increase of applying fertilizer and pesticides along last few decades in Nuwara Eliya has increased the toxic heavy metal concentration in the soil. As per the findings of Amarasiri (2017) the phosphorus (P) concentration of some potato cultivated lands records as 400 parts per million (ppm) whereas uncultivated lands noted the amount as 10 ppm. Further it says that such a dramatic value hardly been reported from any other country. Since, exotic vegetables grows at Nuwara Eliya are highly P demanding (Amarasekara, et al., 2013) farmers used to apply Triple Super Phosphate as the major P source for their vegetable cultivations (Sarathchandra et al., 2017). The high electrical conductivity (EC) recorded in cultivated land is most likely due to the application of fertilizer (Amarasekara et al., 2013) Addition of soil amendments such as Dolomite (CaCO_3) has been the reason for higher pH value recorded in agricultural area's shallow water .

Figure 3.0.10: influence on determining quality of portable water

Land use representation	EC (dS/m)	pH	Nitrate (ppm)	Phosphorus (ppm)
Forest	29	6.1	2.41	1.17
Mix of natural and agricultural land use in middle catena	151	7	0.75	1.12
Shallow ground water in an agricultural land	0.31	6.4	32.89	1.09
Drain in agricultural land	146	6.8	8.43	1.1
Mixed land use (Agriculture and natural land use in lower catena)	45	7	1.96	1.12

As per the Figure and given Table could be used to determine the overall cultivation sector's and built up land use's influence on determining quality of portable water. As elaborated water catchment zone 01, 03 and 04 that locates within Nuwara Eliya PS, bears cultivation as prominent land use whereas catchment zone 02 which covers the Nuwara Eliya MC contains built up and other as the prominent land use. Hence such the findings noted above further verified that the water contamination of Nuwara Eliya PS area occurs due to agricultural activities whereas man made urban activities reasons to water contamination within MC area.

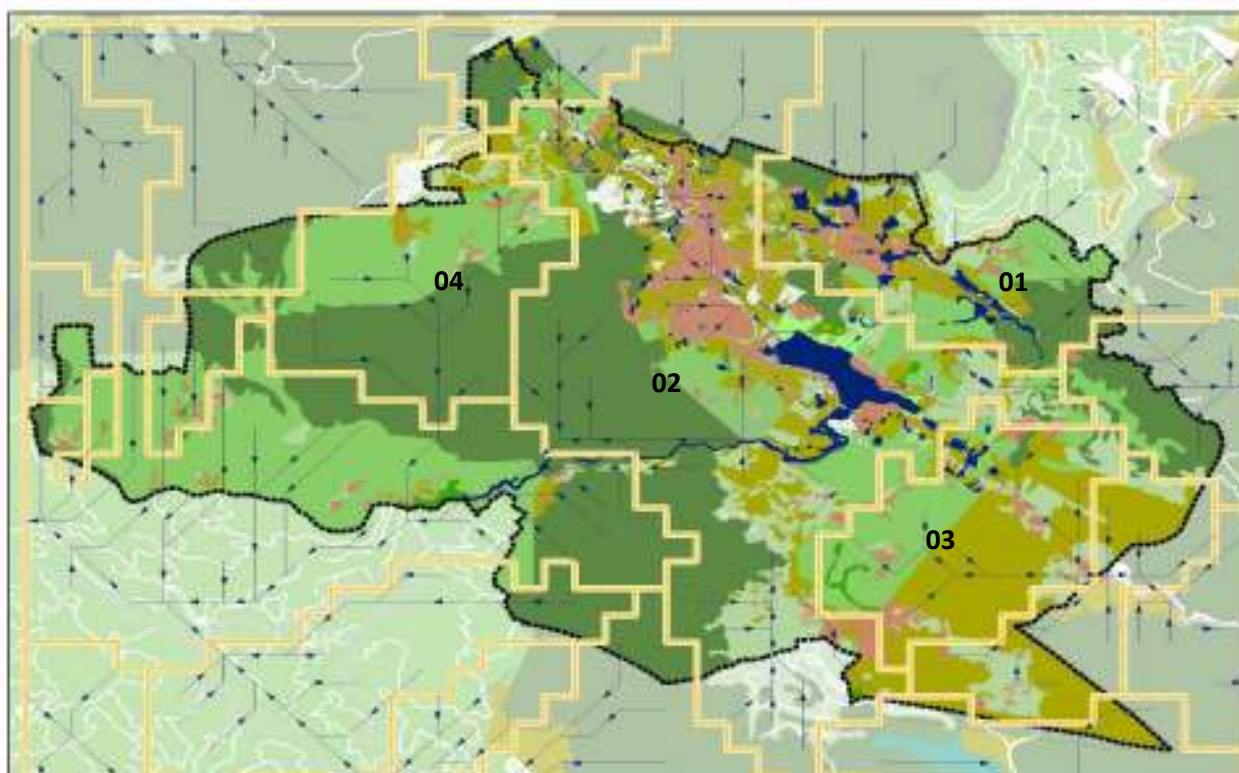


Table 3.0.4: Land uses distribution within each catchments

Land use	Catchment			
	1	2	3	4
Cul tiva tion	60 %	15 %	93 %	45%
Bui lt up	7%	5%	3%	2%
For est	23 %	39 %	3%	53%
Oth er	10 %	41 %	2%	



Figure 3.0.12: Land use distribution within water catchments



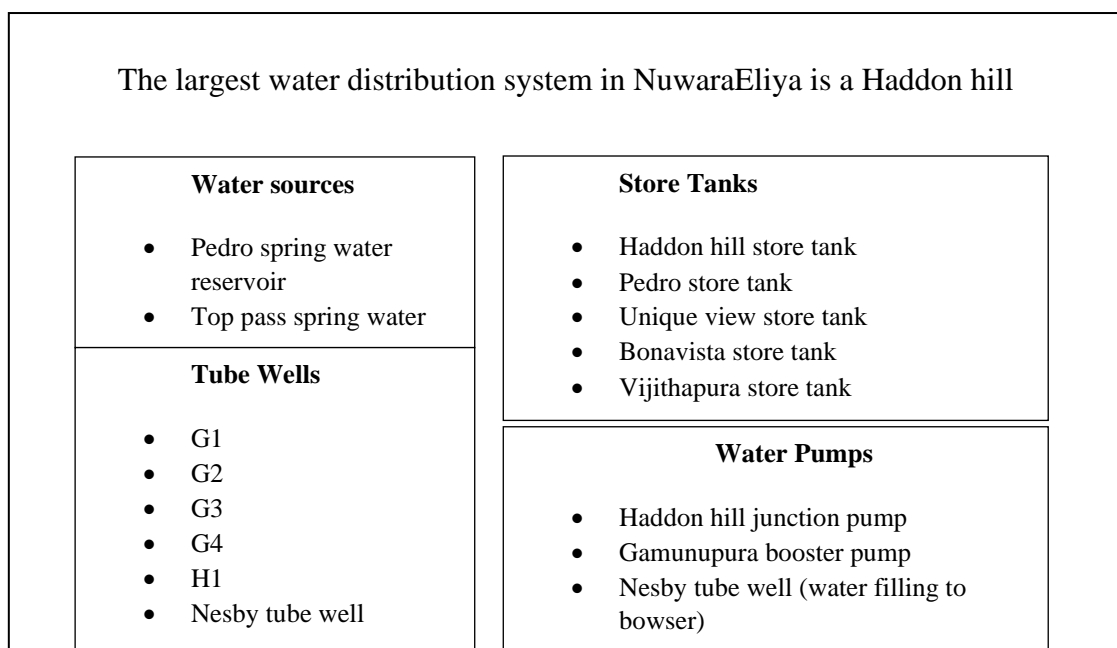
Though this is a water catchment area, drinking water scarcity in Nuwara Eliya area is a problem. And non-availability of pure drinking water to the public is a main problem as well. Water supply is mainly being done by the Nuwara Eliya municipal council water distribution in 7 zones of municipal council area of that 75% of distribution of drinking water supply (3350 cubic meter) is doing from Haddon hill water pumping tank.

Figure 3.0.13: Diagram No 3.4 Water Distribution Zones



Sources – Nuwara Eliya Municipal Council

Diagram 3.0.3 :The largest water distribution system in NuwaraEliya is a Haddon hill :



In the dry season in Nuwara Eliya area water demand goes up and to 5500 cu.meters and water supply goes down to 3500 cu.meters. Reduced water supply in water sources, increase the tourism arrival to the town and use the tube well water to the vegetable cultivation, are the reason to high demand of water demand to water supply in the dry season. Water supply will be done 9 tube wells in this season. In the water sample investigation done by the municipal council of Nuwara Eliya it is revealed that 12 out of 19 locations were included coliform bacteria with high value percentage. (Table No.3.2)

This is an exceeded value to the standard coliform value to be in the water. The reason is to this situation was mixing of toilet drainage water to the drinking water. After 2017 the municipal council has taken a action to recover this situation and temporary they got the required water quality.

Table 3.0.5:–Quality of Drinking Water

Sample Places within NEMC	Total coliform Bacteria in 35 .C (100ml)		Total coliform Bacteria in 44 .C (100ml)
	Pipe	born water- 02 Other 10	
Pedro (spring water)	→	38	→ 4
Toppass (spring water)	→	68	→ 10
Hevan Seven Hotel (Haddon Hill Rd)		10	No
Post Box junction, Gamunu Mawatha	→	72	→ 8
Tank near to Pedro Tank	→	52	→ 2
Technical College		No	No
Haddon Hill Pump House (Outside Pipe)		No	No
Haddon hill Stock Tank	→	48	No
Near to Kadireshan Kovil- Nanuoya Rd	→	12	No
Tap- Gregory Lake Stage III		4	No
Mr. A.L.A.P. Udayakantha, Kalukele		No	No
Himaluwa Hotel, Magastota	→	38	→ 8
Vegetable Estate- Sandathenna junction	→	18	→ 2
"Sunil" Shop- Wijithapura junction		10	No
Magastota		No	No
Badulla Rd	→	60	→ 14
Vajiraknana Vidyalaya, Ledy Machlam Rd, N'Eliya	→	368	→ 240
Kandy Rd, Bambarakele	→	120	→ 54
Nuwara Eliya MC Office	→	710	→ 480

Sources – Nuwara Eliya Municipal council

Similarly sample survey done by the agriculture post graduate students of University of Peradeniya named Mr.H.P.Henegama, Mr.N.D.K.Dayawansha, Salinda silva in regards to 50 housing units situation the area of municipal council and Pradeshiya Sabha area limit, It reveal that 55% out of 50 housing units are located their drinking water wells near the vegetable cultivation lands.

Also it reveals that the 70% of families within municipal council area limit are supplied pipe line water connections while 70% of families living within Pradeshiya Sabha limits are supplied drinking water by their wells.



Meanwhile that the 4th level of standard got in the trend to disperse diarrhea disease in NuwaraEliya area. The human development report of 2012, it says that the lowest protecting drinking water in Sri Lanka is the area of NuwaraEliya region.

3.3.4. Low facility houses, slum and shanties

Table 0.6: Type of the houses

Out of 20% of housing stock of the Nuwara Eliya town limit and its outer area were attached houses, lime houses and slum and shanties. In Table No 3.4 it shows that the data regarding the number of living families and housing situation within the 21 Grama Niladari divisions based to prepare the greater NuwaraEliya development plan. In addition to that there are 3331 population were in 638 families in 590 slums within the municipal council limit of NuwaraEliya there is 7.5% of population of NuwaraEliya Municipal Council limit. When considering the poverty level of the area, it was reported low standard houses and high poverty level in the Grama Niladari divisions of Bambarakele, Bangalahatha, Hawa Eliya east, Kalapura, Ruwaneliya, Seethaeliya and Shanthipura this shows in Table No 3.5 and No 3.5 pictures. This is hindrance to the economic development and NuwaraEliya town image.

Table 3.0.7: Type of the houses

	No of families	No of houses	Scurrlity of houses	01 floor houses	2 floor houses	Houses with more than 2 floors	Attached houses	Flats	Twin houses	Lime houses	shanties
Total	11008	10784	224	6861	791	71	483	19	231	2184	144
As a percentage to the existing total houses			2.1	63.6	7.3	0.7	4.5	0.2	2.1	20.3	1.3

Sources Δ Census and Statistic Department

Out of 21% of total housing unit were the low income houses within Greater Nuwara Eliya development planning area were low income houses and they were slums, Shanties, lime houses and state houses 5300 population are living these houses. 630 low income families living within municipal council limits due to this reason poverty level is high in this area



Table 3.0.8: Table No 3.5 –Low income houses with municipal council limit

Location	Population	Families	Houses	Land extent	Land ownership
Race Course Ground Road	240	56	48	1 Acre	Sports Ministry
Unique View	222	52	33	1.5 Acres	Private
James Street	65	15	14	40 Perches	Golf club
Municipal council lands	826	225	120	3 Acres	Municipal council
Bambarakale Estate	1676	207	306	4 Acres	L. R. C
Bambarakale P.W.D. lands	166	52	42	-	N.H.D.A
Samagi Uyana (Under bank)	49	12	12	-	Divisional Secretariat
Upper Lake Road	72	19	15	-	Private
Total	3316	638	590	-	-

Sources Δ Nuwara Eliya Municipal council.

Figure 3.0.14: Low Facility Houses



Captured by – Mr. Nilantha Paranagama March 2017



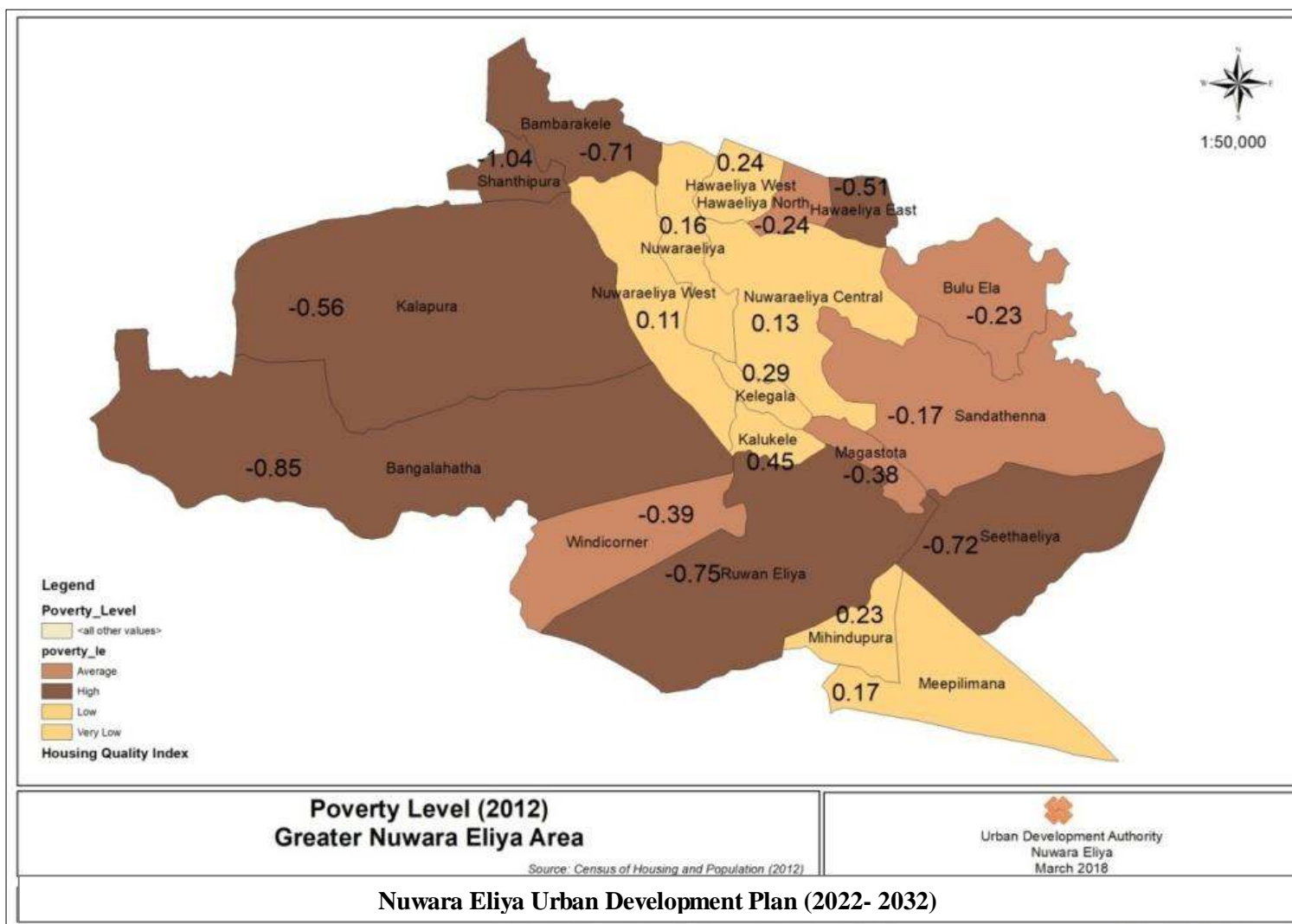
Table 3.0.9: Poverty level

Grama Niladari Division	Housing Quality Index	Housing Situation	Poverty Level
Bambarakale	-0.71	Low	High
Bangalahatha	-0.85	Low	High
Buluale	-0.23	Normal	Normal
HawaEliya - East	-0.51	Low	High
HawaEliya- North	-0.24	Normal	Normal
HawaEliya - West	0.24	High	Low
Kalapura	-0.56	Low	High
Kalukale	0.45	Very high	Very Illow
Kalegala	0.29	High	Low
Magasthota	-0.38	Normal	Normal
Meepilimana	0.17	High	Low
Mihindupura	0.23	High	Low
NuwaraEliya-Central	0.16	High	Low
NuwaraEliya-West	0.13	High	Low
NuwaraEliya	0.11	High	Low
RuwanEliya	-0.75	Low	High
Sandathanne	-0.17	Normal	Normal
SeethaEliya	-0.72	Low	High
Shanthipura	-1.04	Low	High
Windyconer	-0.39		

Sources – Census and Statistic Department



Map 3.0-5: Poverty level



It has been recorded that typical tea estate labour population is settled in the mentioned housing units. These dwellers bear the lowest quality of living. Considering their living condition, it seems that they suffer as they are incapable of meeting even the basic needs related to sanitary, safe drinking water and electricity. The Resource Profile 2015 by District Secretariat Division records that 3454 houses in the DSD boundary (Tourism master plan study area) don't have electricity and 6398 houses don't have basic toilets. Even though Nuwara Eliya is famous around the world as a key tea production city in Sri Lanka, the living condition of the base level stakeholders in the sector are not in a position to meet a satisfied living condition. As a major tourist attraction city in the island, the noted conditions negatively impact the tourism industry in the area. Distribution of such underserved settlements harm the reputation of the area and cause negative impact on social stratifications as well.

3.3.5. Road conditions are not up to standards.

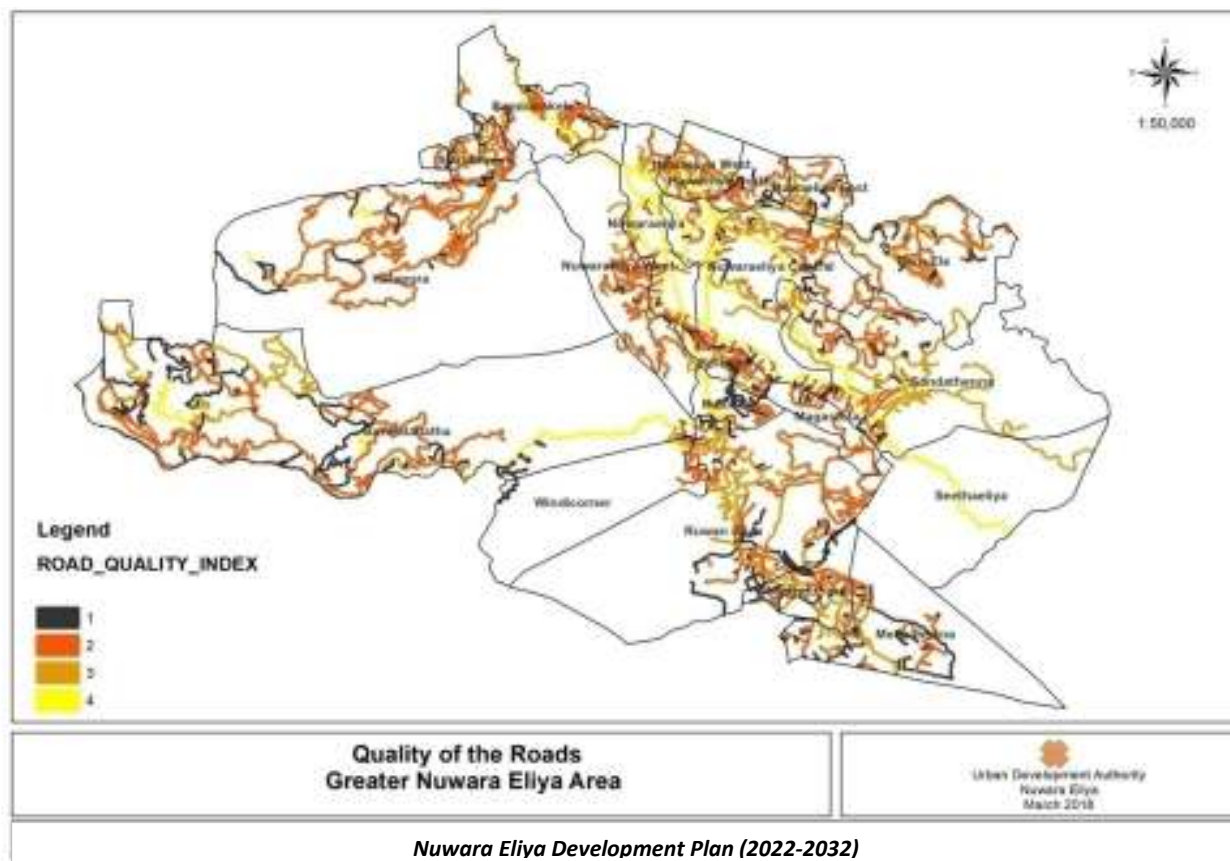
Six criteria were used to study quality of the condition of roads within the municipal council limits and adjoining area of NuwaraEliya town. According to that map no.3.5 shows the quality of the roads. Within the NuwaraEliya town area the road condition were in a certain standard of quality though out town limit adjoining area the road quality standard were low condition. (Map No.3.5)This less physical development is impacted to economic development of the area.

Table 3.0.10: Road Condition

Criteria	Weightage
Adequate Road Width	6
Pedestrian Road Ways	5
Surface Condition	4
Storm water Drains	3
Pedestrians payments	2
Circular Road end	1



Map 3.0-6: Quality of Roads



3..3.6 Inadequate Infrastructure Facilities Disturbing the Smooth Function of Tourism Activities

NuwaraEliya urban area identified as main tourist attraction town. There is a cool and temperate climate is in NuwaraEliya. Compare to other area of Sri Lanka and be suitable environmental sensitive zone are the especially helpful reason for environmental tourism activities. Tourists arrival to Sri Lanka is 2016 is about two million and according to the progress report of tourist board in 2016, it says that 6% of tourists are touring central upcountry mountain area of the country.

Most of the foreign tourist arrived to Sri Lanka for environmental activities. It was in 2015 in 66% while 23% in 2016. However there was no figure of calculation of foreign and local tourist to NuwaraEliya town. Though there was no figure regarding to the tourist arrivals, it can be calculated by using the data to tourist attractive locations in the NuwaraEliya.

Table 3.0.11: Tourist Arrivals

	2012		2013	2014	2015	2016
Foreign Tourists						
Haggala	12489		14713	18071	24188	29192
Horton plain	39123		34065	69979	87962	131670
Galways	82		29	84	49	198
Gregory park						61622
Victoria park						47294
Sandathanne						8673
Local tourists						
Haggala	587749		511879	578825	742133	956815
Horton plain	184744		46511	198374	228858	319999
Galways	1521		1084	1669	2047	3345
Gregory park						721495
Victoria park						643725

Source :NEMC

According to that there is most tourist attractive location were the Haggala Park, Horton plain, Gregory Park, Victoria park and Galway Park tourist arrivals shows in the Table.



According to that average local tourist arrival in 2016 in 950,000 and foreign tourist 135,000 but facilities for existing and future development are not adequate is a problem.

Quantity of total rooms in almost 1800 and average staying nights are two nights, therefore study done for the tourist field to identify the facilities available and specially, physical and social infrastructure facilities for tourists can be divided into 4 parts.

Accordingly urban development authority has done a problem identification survey in 2017 regarding to tourism facilities. Then it reveals the fact that the tourism facilities were in a minimized level in Nuwara Eliya. As tourists themselves show the existing facilities to tourism, while it shows the scarcity of their social and physical infrastructure facilities to tourism hindrance to the development of tourism.

Table 3.0.12: Infrastructure in Tourism Sector

Physical resources	Cultural events	Services	Laws and administrations
Hotel, restaurants, Accommodation, Transport, Media facilities, water, Electricity, parks, Health facilities	Cultural activities, Ceremonies, Historical features and statues, Music, Rhythmic dances	Banks, Insurance, Guides, Tourist Agents	Laws, Administrative regulations immigration and migration laws

Infrastructure in tourism sector comprises an extensive theme to be discussed. Numerous scholars have produced their findings in relation with real ground practices of tourism infrastructure provisions in many categorical ways. In the sector of tourism, 'destinations' are the fundamental. Destinations are the places where basically attract visitors, where the delivery of tourism takes place, where the business is based and tourism product is consumed (Stanford, 2017). Accordingly available infrastructure facilities for a defined destination to improve the living conditions of both visitors and local residents reflect the ability of smooth function of tourism.

Thus, it has become crucial for the destinations to ensure that the infrastructure provided to facilitate visitors is of high standard.

Among many of different categorizations of tourism infrastructure Haneef's (2017) study on tourism infrastructure has identified four attributes namely, Attractions, Accommodation, Accessibility and Amenities as vital sectors to be developed in an effective destination.

If a destination fails to adequately provide high standards of these attributes, it may lose its visitors and long-term reputation.



(a) Quality issues on safe and convenient travel for both pedestrians and motorists

National scale geographical positioning and regional geomorphology constraints has prominently influenced on accessibility to and within Nuwara Eliya. The basic physical structure of Nuwara Eliya defined itself by the mono-centric urban area which facilitate by radially formed road network. Through the chronological expansion, the sprawl development of centric urban area seems to be distribute along the main arterials showing a linear development.

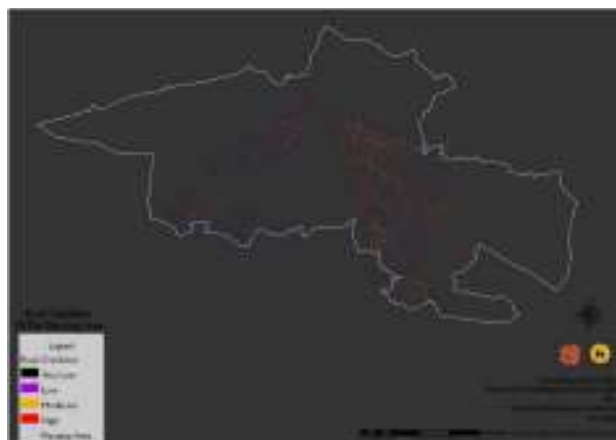
Conceiving about the accessibility to Nuwara Eliya as discussed in above section 3.9.1, it has national scale railway, main highway and domestic sea plane route access as well. The level of connectivity of these three parameters indicates a moderate level in national scale (Figure.72), means the accessibility to Nuwara Eliya in National context may not a burden issue for the movement. Nevertheless, where it investigate the local area context or the accessibility within Nuwara Eliya as the destination, seems that there are numerous of issues relates to road and transport services. Basically, aforesaid city form and road network being incapable of facilitating the huge amount of visitors arrives in the peak of tourism season is the main reason behind this context.

Accordingly, the ‘road quality index assessment’ done by UDA Nuwara Eliya (2020 - 2030) elaborates the level of quality in local area road network. The criteria considered for the analysis are follows.

- Adequate road width
- Availability of pedestrian ways
- Surface condition
- Availability of storm water drains
- Availability of Pedestrian safeguard
- Road corner splaying

The outcome of the analysis express a higher level of quality within the road network of MC area while some parts of the NEPS shows a lower level of quality. Accordingly, under the process of particular tourism plan preparation it should focus on develop the noted criteria.

Figure 3.0.15: Road condition assessment of Nuwara Eliya tourism facilitation area



(b) Minor facilities at bus terminal and railway station

Nuwara Eliya directly connect with national highway network via Colombo - Badulla (A5) highway. As well as the railway network which connect with Nanu Oya act as the main railway connection to Nuwara Eliya. Since the availability of these networks and related transport services most of local and foreign visitors tend to use public transport to visit Nuwara Eliya. Sometimes it seems that Nuwara Eliya act as a pass through destination of visitors who travels to Ella, Haputale and etc;. Hence such the existing national scale bus terminal and the rail station act as major hubs to facilitate the commuters of Nuwara Eliya. Nevertheless, where it consider the conditions and facilities exist at these places seems that not meets the satisfactory level as much as a national level tourism destination.

• **Bus terminal**

Nuwara Eliya regional bus terminal which is located at center of the city (lat: 6.971848°, long: 80.767348°) facilitate for both Sri Lanka Transport Board (SLTB) government buses and National Transport Commission's (NTC) private buses as well. The total no of bus parking capacity within the terminal is __ and there are __ of functioning routes as below.

Regional direct contact

- Nuwara Eliya - Udugama 18/48
- NuwarA Eliya – Kalutara/ Colombo 79
- Nuwara Eliya –Galle/Matara/Ambalangoda 31
- Nuwara Eliya – Kandy/ Kurunegala 47
- Nuwara Eliya – Badulla 311
- Nuwara Eliya – Welimada 311/2
- Nuwara Eliya – Bandarawela 311/310
- Nuwara Eliya – Ampara 77

Regional Passing through

- o Colombo – Badulla/ Weilimada 79/1
- o Kandy – Welimada 47/3
- o Kandy – Bandarawela 47/1
- o Kandy – Lunuwatta 47-3/328

Local direct contact

- o Nuwara Eliya - High Forest/ Gonapitiya 746/1
- o Nuwara Eliya – Nanu Oya 715
- o Nuwara Eliya – Ragala 743/4
- o Nuwara Eliya – Kandapola/ Hatton 715
- o Nuwara Eliya – Mandaram Nuwara
- o Nuwara Eliya – Meepilimana 749



- Nuwara Eliya – Boralanda
- Nuwara Eliya – Hanguranketha

Within a regular day there are ___ no of total trips start at Nuwara Eliya and ___ no of trips ends at Nuwara Eliya. Total trips circulates within a day get vary in the tourism season and remarked as total ___ of trips in and out. According to the trips data it is possible to develop an approximate calculation about the no of passengers who use the Nuwara Eliya bus terminal and it's approximately ___ of passengers per a regular day and ___ of passengers per a day in tourism season. Existing bus terminal building which stand as a two storied building with multi-purpose commercial spaces is established is not in a position of facilitate for all of these passengers in a qualitative manner even it located at the heart of a famous tourism destination.

There is only limited space allocated for provide sanitary facilities which is contain with _ no of lavatories and _ wash basins. The unpleasant environment of the place express the low maintenance taken place. Even the communal portable water supply is there, it's not seems to be as a reliable source to drink directly. Furthermore, the capacity and quality of provided sanitary facilities are certainly not meet with the requirement of tourism season.

The facilities provided within bus terminal area for both commuters and visitors are generally not in a satisfactory level. Proper resting places, well maintained waiting areas, information and navigation guides, planned landscape inputs, safety and cleanliness are seems to be lack within the existing bus terminal.

• **Railway Station**

Nanu Oya Rail station which is located 206.9 km away from Colombo along the main line was initially built in 1885. Currently there are regularly scheduled daily and holiday special train trips that starting from Colombo, Kandy, Ella and Badulla functions across Nanu Oya. Average no of trips per day passes Nanu Oya recorded as approximately 17. According to the ticket counts of a regular day there are ___ of average passengers begins their travel from Nanu Oya daily. In tourism season the station gets busiest with the highest amount of foreign visitors arrive and average amount of foreign visitors who begins the journey from Nanu Oya recorded as 500 per day.

Since, the famous up country train tour which leads towards Badulla becomes more fascinating afterward Nanu Oya, it has already acquired the attention of both local and foreign visitors. Hence such within the peak of tourism season it seems lots of foreign visitors gathering and waiting at Nanu Oya station for their trains to visit Ella and Badulla. According to the ticket counts at Nanu Oya rail station defines ___% from overall passenger movements includes to visit Ella. Accordingly it make a sense about Nanu Oya station as a transit station to Ella for foreign visitors in their up



country visit. As such even the Nanu Oya station plays a significant role in tourism functioning it seems a lack of quality and quantity of facilities provided within its premises. Accordingly, identified infrastructure issues within station premises are,

- Limited capacity of private vehicle parking not meets the requirement and disturbs to smooth circulation within station premises.
- Limited amenities provided for waiting area not meet the requirement
- Existing rest room not in a position of providing quality and satisfactory services

(C) Minimally available qualitative communal facilities

Qualitative communal facilities is a significant factor to determine the smooth function of a sustainable tourism destination. Because such amenities which includes vehicle parking, way finding displays, information centers, public gathering places, resting areas, sanitary facilities, portable water sources, market, health and security services are accountable to produce a safe and convenient experience to visitors. Accordingly, within planning area it has observed generally a negative condition in relation with quality of noted communal facilities.

• Way finding displays

Apart from the Road development Authority's city and road direction displays, as a whole there is no any unique or systematic way of displaying way findings to attraction places. Since it consider easy access is a must component of a sustainable tourism destination a regular mechanism of providing navigational information is a valued component to be established. According to the current situation of attraction site's way finding displays seems an irregular pattern and most of the sites such as Galway's forest, Lovers leap, Glen fall, Nanu Oya fall, etc; not even guided by navigational signs.

• Information displays

Self-guidance is a new trend developing within global tourism. Hence such, having a regular way of displaying site specific information also a valued component to be established within each sites to express the significant and unique characters. Currently there are limited no of places has this component which has been established by Department of Archeology and Forest department on the sites which is under their authority. Nevertheless, historically and environmentally significant attractions such as Gregory lake, Victoria park, Seetha Amman temple etc; are still requires a proper way to display site specific information.

• Information center

Even authorized and responsible central information centers is a must component in tourism marketing it is still a lacking part of almost all the tourism destination in Sri Lanka. Such establishment in capable with provisioning accurate route guidance, security instructions, price instructions, information on accommodation, site specific info and activities for both local and



foreign visitors. Therefore, having proper information center to Nuwara Eliya would be a considerable tourism promotional component for the future wellbeing of the destination.

- **Public gathering places/ resting areas**

Though its natural environment in Nuwara Eliya lush with green, cool and fascinating the built environment and its maintenance within city itself not perfectly compatible with its context. As a focal tourism destination, public gathering places and the resting places is especial elements to be maintained. Accordingly, conceiving the existing condition of public gathering and resting areas in Nuwara Eliya, it's true that there is not much places allocated as such. Even with the slight allocation made in urban squares and market premises consist with issues such as lesser maintenance, inadequacy of allocated space, issues related with garbage disposal, not having proper street lighting and furniture, etc.;. Having a pleasant environment is being considering as an advantage for attract more visitors the lack of public gathering and resting areas as a communal facility is an essential for Nuwara Eliya.

- **Sanitary facilities**

Provisioning of sanitary facility as a communal service is a good practice of urban management. Nuwara Eliya as a city which attract regularly thousands of commuters per day and more on tourism season should maintain a proper way of provisioning sanitary facilities. So far there were one and only public sanitary facility center located at the bus terminal and during the season MC involves to provide mobile service to cater the requirement of higher amount of population attract. Even though the destination is more popular among the foreign visitors it seems that the provided communal sanitary facilities not compatible with their customs. Therefore, the quantitative insufficiency, less service and quality of provided communal sanitary facilities has been captured within the process of tourism plan preparation.

- **Attraction Site's Specific Minimal Facilitation**

Attractions are the fundamental elements of a tourist destination. Site specific infrastructure is an essential for remark an effective operation of an attraction place. Favorable, pleasant and safe attraction is capable of attract more tourists to certain locations. Conceiving about the site specific infrastructure for 28 no of given attraction sites shown in table it seems that there is predominant absence in dry sanitary facilities allocated for foreign visitors and tourist police service.

Regarding the accessibility of each sites it seems several water falls do not have recorded an easy access. Even it recorded an uneasy access up to St Clair's and Devon can be neglect since the noted water falls are having great visual access from Avissawella – Nuwara Eliya (A4) road. Nevertheless, regarding the access to Glen fall, Nanu Oya fall, Elgin fall and Gerandi ella seems



more difficult with least maintained road network. As a negative impact of less accessibility it has obviously produce the issue of proper vehicle parking near the noted locations.

According to the outcome observational study on site specific infrastructure has detected the general requirement of parking, sanitary facility, information center, navigation / information displays, drinking water and street light in site basis consequence.

Table 3.0.13: Attraction Site's Specific Minimal Facilitation

	Attraction	Easy access to entrance point	Parking availability	Sanitary facilities		Information center	Info/warning displays	Navigational signs	Tourist police	Availability of caretaker/management	Safe drinking Water	Street lights
				dry (for foreigners)	wet (for locals)							
1	Haggala Botanical Garden	Yes	Yes_60	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
2	Ambewela Farm/ Shopping pram	Yes	Yes_30	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes
3	Gregory Lake	Yes	Yes_350	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes
4	Shanthipura City viewing point	Yes	Yes	No	No	No	No	Yes	No	No	No	Yes
5	Single Tree	Yes	Yes	No	No	No	No	No	No	No	No	No
6	Pidurutalagala	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
7	Oliphant Estate	Yes	Yes	No	No	No	No	No	No	No	No	No
8	Horaton Plains	Yes	Yes	No	yes	Yes	Yes	Yes	No	Yes	Yes	No
9	Galway's forest	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes
10	Queen Victoria park	Yes	Yes_20	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
11	Bomburu Ella	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	No
12	Kande Ella Reservoir	Yes	Yes	No	No	No	No	No	No	No	No	Yes
13	Moon Plains	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	No
14	Devon Falls	No	Yes	No	No	No	No	Yes	No	No	No	Yes
15	St Clairs	No	Yes	No	No	No	No	Yes	No	No	No	Yes
16	Pundalu Oya/dunsinane fall	Yes	No	No	No	No	No	No	No	No	No	No
17	kikiliyama mountain	Yes	Yes	No	No	No	Yes	Yes	No	No	No	No
18	lover's Leap	Yes	No	No	No	No	No	No	No	No	No	No
19	Seetha Amman Temple	Yes	Yes	No	Yes	No	No	Yes	No	Yes	Yes	Yes
20	Sri Bhaktha Hanuman Temple	Yes	Yes	No	Yes	Yes	No	No	No	Yes	Yes	No
21	Glen Fall	No	No	No	No	No	No	No	No	No	No	No
22	Nanu Oya fall	No	No	No	No	No	No	No	No	No	No	No
23	Elgin Fall	No	No	No	No	No	No	No	No	No	No	No
24	Rase corse	Yes	Yes	No	Yes	No	No	Yes	No	Yes	Yes	Yes
25	Golf club	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
26	Ramboda Falls	Yes	No	No	No	No	No	No	No	No	No	Yes
27	Gerandi Ella	No	No	No	No	No	No	No	No	No	No	No
28	Labookele tea state	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No

(c)Existence of limited amount of standardized accommodation /restaurants facilitie

• Accommodation

As denoted in the section 3.4.4, majority of accommodation facilities concentrated within Nuwara Eliya MC and there are approximately 1,800 no of rooms available which varied from star hotels to homestay. According to the statistics report produced by SLTDA 2019 there is only 09 hotel projects that has been granted the approval of SLTDA. Hence, it is obviously note that the amount of overall and standardized accommodation facilities within tourism core area is not in a satisfactory level.

When it consider the amount of current and forecast of tourists arrivals (Table 6), the average local tourists' arrival in 2017 has been approximately 945,000 while the arrival of foreign tourists recorded approximately 144,000. This implies that the existing accommodation is inadequate even



for the current arrivals as well as the future predicted number of visitors to the city. The recorded number of total rooms (1,800) with an average stay of two nights should be improved to an acceptable level. However, the problem then arises as the existing core area is unable to facilitate further developments on the base of environmental conservation. Thus, the need of expanding the developments to the periphery should be a given concern. For this, developable lands with least environmental sensitivity should be identified within the periphery area.

- **Restaurants**

Food and beverage is a defined tourism promotional tool. Most of foreign visitors expect to experience the local cuisine during their stays as a part of experience of their whole visit. Hence such the ideology of food tourism has rapidly established in most of tourism destinations in worldwide. Conceiving about this context a proper place which is established for deliver reliable quality of food and beverages within a tidy environment is a must component to adhere with. As per the international cases studied, even the scale being vary from star hotel, boutique hotel, large restaurants to small cafeteria or a street food stall, there is a promising market to function food tourism activities. Nevertheless, it is still requires to have clean and tidy environment, pleasant service and marketing strategies, quality foods and beverages, local recipes, eco-friendly processing mechanism and reasonable price range to accomplish a success in food tourism sector.

Where it examine the current condition of restaurants within Nuwara Eliya planning area, as noted in section 3.4.4, there is only 5 no of SLTDA approved restaurants which is apart from the approved 9 hotels located. The comments raised regarding on this particular is not seems to be much positive. The negative reputation established on majority of restaurants and other shops within area were observed even in the field visit made during the preparation of plan.

As such, it can be identified several prominent issues that impact to tourism sector in Nuwara Eliya. Considering the consequences of these issues there are special project proposals already identified by various governmental and non-governmental institutions. The recently prepared and gazette UDA development plan for greater Nuwara Eliya 2020- 2030 also identified these issues and has proposed multiple proposals to accommodate particular issues in time basis.

Nuwara Eliya as a prominent tourism destination in the country and on the other hand as a city located in central fragile area, it requires a proper attention where it having physical planning interventions. As a major tourism destination it is anticipated 3.2 Million of annual tourists arrival in year 2030 including both local and foreign categories. Except the visitors the anticipated residential population will be approximately 47,000 in year 2030. Henceforth where it prepares the tourism plan for 2030 it should accommodate the facilities for all these crowd and as well as the issues identified within the chapter.



CHAPTER 04- PLANNING FRAME WORK

4.1. Greater Nuwara Eliya 2021 – 2030 Vision

The vision of the plan is most important to the image of Nuwara Eliya town to next 10 years' time. To that it is need to consider the above discussed details and the unique and endemic environmental and culturally valued built structures and the potentials available in the town. Also should be considered the residence populations, community populations, tourist (local, foreign), vendors, service providers, public and private institutes and staff as stake holders.

“The Paradise of Misty Hill”

4.2. Vision statement

Misty hills—as Nuwara Eliya town located at the high altitude location is the island it's natural climatic and weather condition is with “Misty with Hills” prioritizing the sustainable development goals through

Paradise—protecting the endemic and hereditary environment of the Nuwara Eliya, approach the proper living area and touring area for people

4.3. Goals

- 1) To rebrand the unique character of Nuwara Eliya.
- 2) To ensure that the natural assets and sensitive areas of Nuwara Eliya remain fully protected and the city is disaster resilient.
- 3) To enable Sustainable people centric vibrant economic development within the area.



4.4.Objectives

Goal 1: To ensure that the natural assets and sensitive areas of Nuwara Eliya remain fully protected and the city is disaster resilient.

1. To Bring the surface water quality of Lake Gregory, Nanu oya and other streams, up to permissible level which is PH-6.5-8.5/Turbidity – 08ntu/BoD – <smg/1/COD – 10MG/1 , Fe – 0.3mg /l
2. To make the total extent of 5 hectare of reservations of waterfalls and water bodies free of encroachment.
3. To preserve the 1782 Ha of existing forest reservation and maintain 34% of forest cover.
4. To ensure good agriculture practice for 500 ha of agriculture land which are the catchments of Lake Gregory and Barrack Plain Lake 2025.

Goal 2: To rebrand the unique character of Nuwara Eliya.

1. To conserve archaeologically significant buildings (protected monuments) bearing British architectural characteristics located within the area by 2025.
2. To brand Nuwara Eliya as the best flower destination with hereditary, endemic features at the entering points of the Black Pool, Top Pass and Katumana road.
3. To maintain the international tourist arrival growth rate in Nuwara Eliya as 30% and to increase local tourist arrival growth rate by 5% by 2030
4. To ensure that 12% of total tourists arriving in Sri Lanka visit Nuwara Eliya.
5. To remedy the visual disturbances blocking the natural scenic beauty of the Nuwara Eliya city centre specially, Piduruthalagala, Unique View, Glenfall, Galway"s, Lovers Leap and tea estates, by 2025 and to conserve the natural scenic beauty within the planning area through strict enforcement of regulations.
6. To have more than 200 acres of land dedicated for sports activities, recreational and adventurous activities by 2025.



7. To brand Nuwara Eliya as the tourism destination which offers the best upcountry vegetable and fruits experience especially in Katumana, Sandathenna, Meepilimana, Mihindupura and Bulu Ela.
8. To promote cultural and entertainment activities targeting foreign tourists in the quarters of January - March, May-July and September-November and targeting local tourists in the months of April, August and December.

Goal 3: To enable Sustainable people centric vibrant economic development within the area.

1. To Ensure 100% pure drinking water supply to full fill the estimate demand of. 9,500cu m. per day for 59,500 of resident population and 77,000 no. of commuters.
2. To introduce Green transport modes within the city limits by 2030.
3. To reduce substandard houses within Nuwara Eliya planning area to fall below 10% by 2030.
4. To increase homestay tourism operators by 20% in 2025
5. To have all the tourism related facilities be in compliance with the standards of SLTDA and relevant international standards by 2032.
6. To maintain the existing percentage of 17% of agricultural land in future as well.
7. To bring 50 hectares of underutilized state lands to optimum use by 2032.



CHAPTER 05- 'SWOT ANALYSIS'

05. SWOT Analysis

To achieve the above goals the strength, weakness, Opportunity and thread (**SWOT**) Analysis were considered as follows.



Strengths S W Weaknesses

1. Existing water sources system (Nanuoya ale, Waterfield drive, Gregory lake, Barreck plain, Glenfall, Loversleap)
2. high altitude mountain ranges(Piduruthalagala, Single tree, Kikiliyamana, Loversleap)
3. Healthy climatic condition (Rainfall, Humidity and temperature)
4. existing forest areas (Galways, Piduruthalagala, Haggala)

1. Impurity water sources.
2. Impurity Drinking water.
3. Excess uses of chemicals and fertilizers to vegetable cultivation.
4. Reducing forest areas and encroachments of reservations.

5.1.To ensure that the natural assets and sensitive areas of Nuwara Eliya remain fully protected and the city is disaster resilient.

1. Government policies -
 - * National physical plan.
 - * Tourism protection plan of srilanka.
2. High demand to non-chemical used vegetables.
3. Proposed new waste water drainage project.
4. Sustainable development index (SDG - 2030)

1. Advertizing for pesticides and chemicals to use by the production and imported companies of chemicals.

Oppotunities O T Threats



5.1.1 To ensure that the natural assets and sensitive areas of Nuwara Eliya remain fully protected and the city is disaster resilient.

5.1.1 Strengths

01. Existing water sources system.(Nanuoya, Waterfield drive, Greogory lake, Barrack plain, Glenfall, Loversleap)

Map 5.0-1: Water Source System

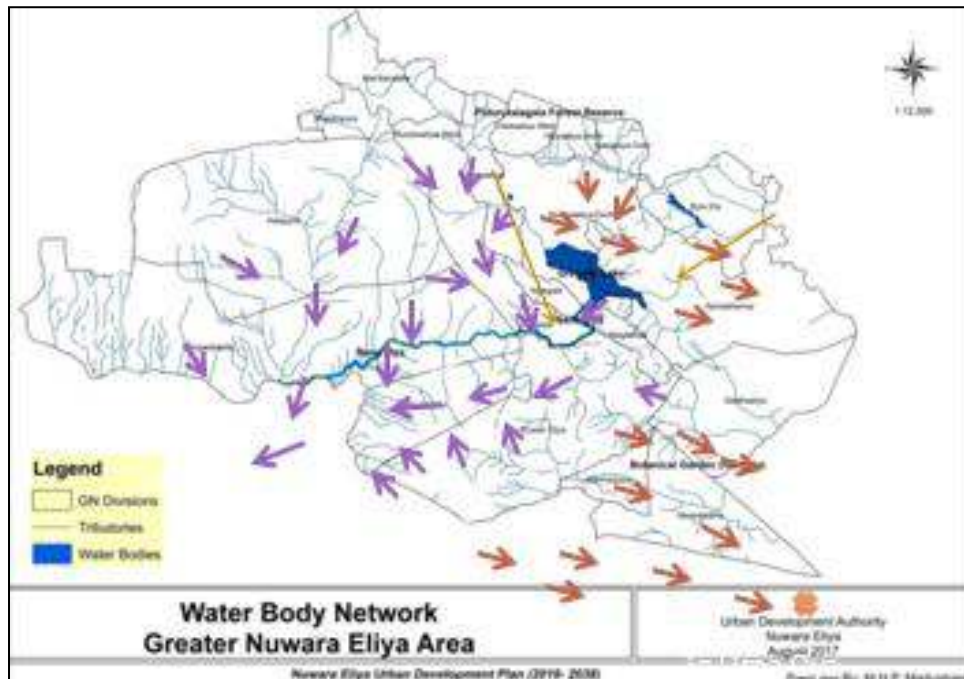


Figure 5.0.1: Existing water sources system



Photography-Mr. Nilantha Paranagama-2017 March

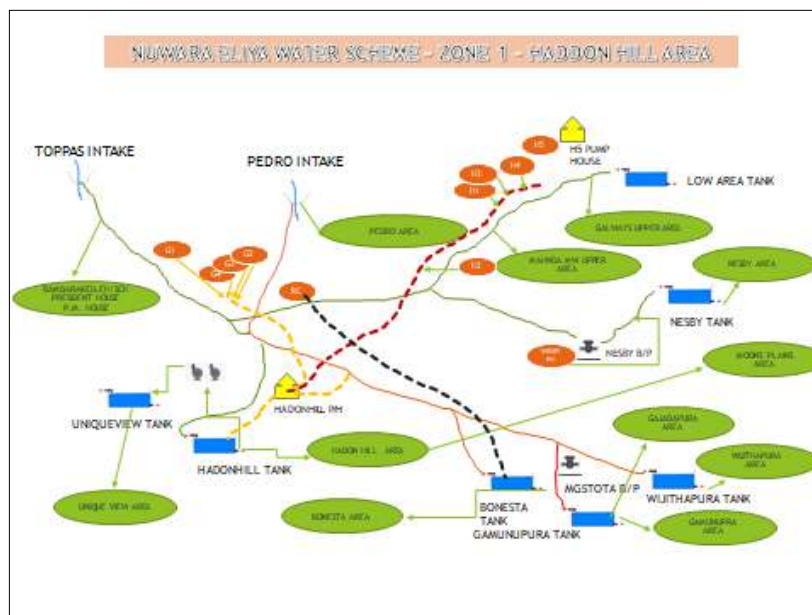


The greater Nuwara Eliya Plan area has continual water resource within entire year as a sensitive environment system. The area has significant rainfall within 200 days of a year and it is reason to have balance environment system.

Out of the total land area of greater nuwara eliya development planning area that's 58 hectares covered by the water surface is 1.08%. Main water sources are Most attractive place in the Gregory lake is covered 90 hectare area. It was built on Sir William Gregory the governor of Sri Lanka under British ruling period (1872-1877). The maximum depth is 3m and it is fed by 20 no of streams and channels which length of 17.75km. Main Water source is Nanu Oya stream and it is about 8km distance. Another water resource is a bareck plain and it is comprise about 40 hac and it is feed by the 7 streams having 3.21 km distance. Also Ktumana lack and Magasthota pond contribute to manage the water system of the area. These water sources are help to full fill the second goal of "Preserve the natural environment and improve the water quality"

Drinking water sources – 9 Spring water sources and 9 tube wells were supply as drinking water to the town.

Figure 5.0.2: Nuwara Eliya Water Distribution System



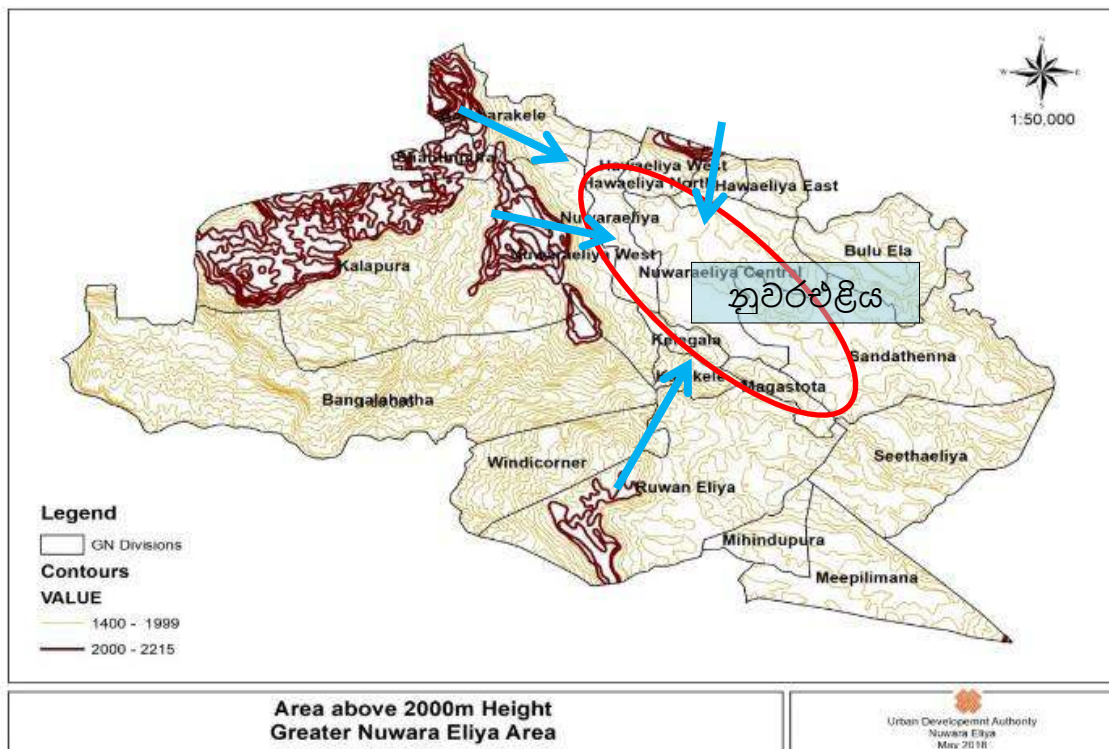
Sources – Nuwara Eliya Municipal Council



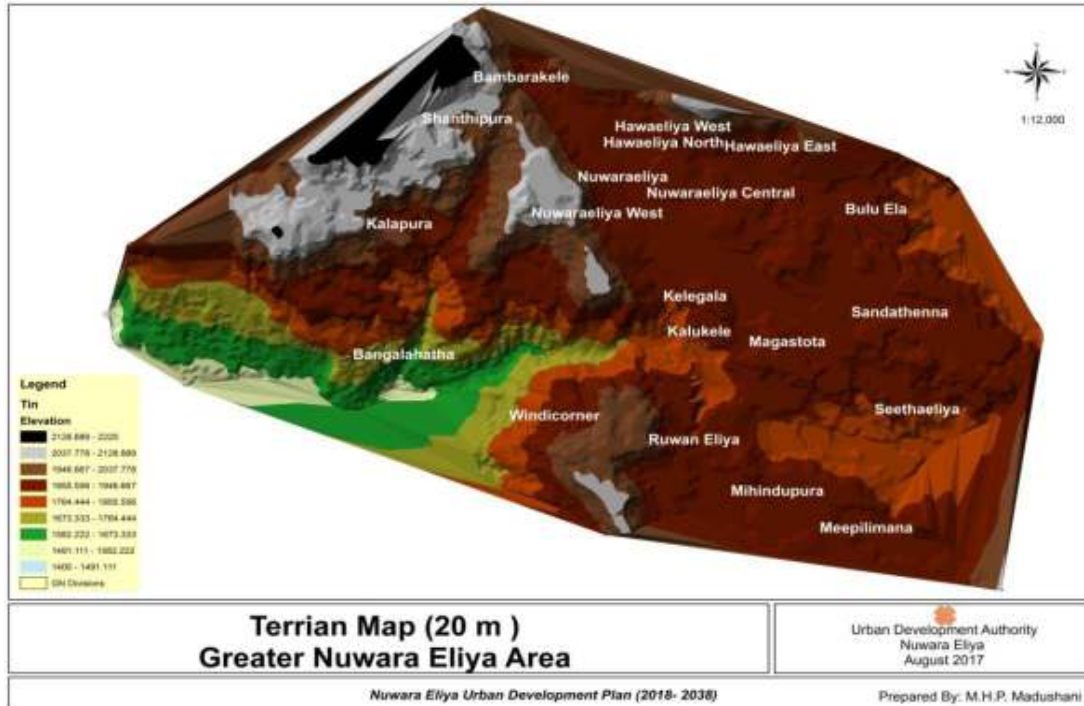
02. High elevated mountain range

There are mountains which more than 2000m elevated in the planning area and therefore its most important due to bring uniqueness with environment features and forest cover for the Greater Nuwara Eliya area. Specially, Piduruthalagala, Single Tree, Kalapura, Shanthipura, Kikiliyamanna, Magastota and Bambarakele mountains situate within the area and also the scenic beauty of those highlighted with viewing fully Piduruthalagala mountain range to the town. Height of the Piduruthalagala mountain is 2524m, Kikiliyamanna -2037m and Haggala is 2169m from MSL. Also the lowest level of the area is 1890m and medium height of the area is 1950m from MSL.

Map 5.0-2: Geographical Locations



Map 5.0-3: Mountain Ranges



03. Salubrious Climatic Condition

Having more tourism attraction to Nuwara Eliya is depend due to the factors like cool climatic condition, high rainfall pattern within most part of the year and evergreen environmental pattern. Lowest temperature of Sri Lanka records from Nuwara Eliya and when considering the last 10 years, the average temperature is 20 ' C. Also, lowest temperature records as 4 ' C.

Average annual rainfall is 180 inches and lowest annual rainfall is not fall than 140 inches

Graph 5.0.1: - Annual Temperature and Rainfall

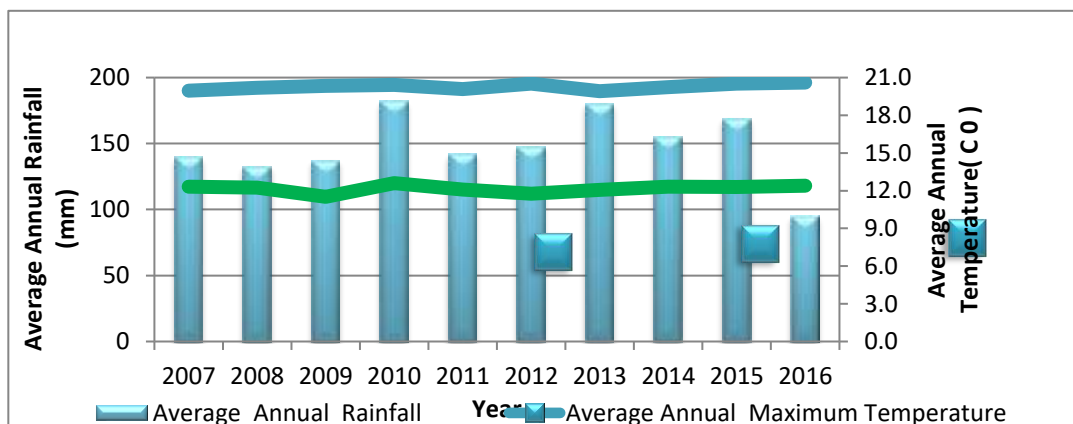


Table 5.0.1: Annual temperature and Rainfall

Year	Average Annual Maximum Temperature	Average Annual Rainfall	Average Annual Minimum Temperature
2007	20.0	139.6	12.32
2008	20.2	132.2	12.24
2009	20.3	136.7	11.51
2010	20.4	181.9	12.60
2011	20.1	141.6	12.08
2012	20.5	147.6	11.76
2013	19.9	179.8	12.08
2014	20.2	154.8	12.32
2015	20.5	168.4	12.30
2016	20.6	94.8	12.39

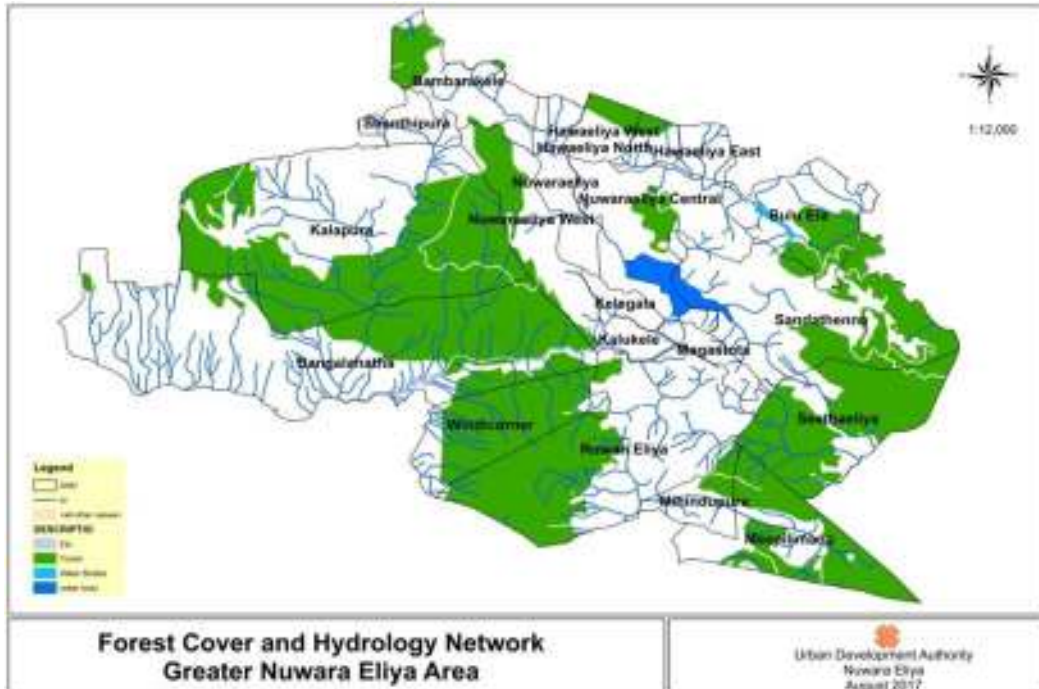
Source: Department of Meteorology, Sri Lanka

04. Existing Forest Coverage

There is 1782 Ha of forest cover can be identified with in the selected Greater Nuwara Eliya area and it's 34.8% from the total land uses. It can be recognized as most important factor to achieve the goal of 'Preserve the natural environment and improve the water quality'. The forest consists with indigenous animals and plants especially within Single Tree, Piduruthalagala, Haggala, Barrack Plain and surroundings.



Map 5.0-4: Forest Coverage



5.1.2. Weaknesses

01. Decreased the quality of drinking water

This is the main weakness which affected to achieve the goal of ‘preserve the environment and improve the water quality’. Specially, Gregory Lake and Nanu Oya stream, Barrack Plain stream and its surrounding streams are polluting day by day. The water quality testing reports of year 2016 and 2017, shown that, the water quality was very low below to the standard levels of the Gregory Lake, Katumanna Lake, and Barrack Plain especially in Turbidity, BoD, Fe, CoD, and DO levels. The situation emerged due to collected sewage, chemicals and fertilizer which use for the agriculture lands to the water bodies of the area. Especially the Gregory Lake pollution happened due to polluting the sub streams of the Lake. The above mentioned circumstances area directly affect to our goals achievements.



Figure 5.0.3: Water quality Reports – 2017

ලංකා විද්‍යා මණ්ඩලය - මධ්‍යම කලාපය
OFFICE OF THE ZONAL DIRECTOR OF IRRIGATION - CENTRAL ZONE

ලේකම්: මහාමාත්‍යවරයා
 ලේකම්: මහාමාත්‍යවරයා
 ලේකම්: මහාමාත්‍යවරයා

ලේකම්: මහාමාත්‍යවරයා
 ලේකම්: මහාමාත්‍යවරයා
 ලේකම්: මහාමාත්‍යවරයා

LABORATORY REPORT OF WATER QUALITY MONITORING UNIT

Name of the Division: Nuwara Eliya
 Name of the Tester: Mr. Rathnayake, Mr. Panchikawa
 Date of sample collection: 20.03.2017
 Weather condition: Dry Weather

	Gregory Lake	Katunna Lake	Katunna Lake	Katunna Lake	Katunna Lake	Katunna Lake
pH	7.98	7.98	6.64	6.75	6.65	6.65
Temperature	23	23	23	23	23	23
Conductivity	191.6	215.7	225.4	200.1	210	250 µS/cm
Turbidity	17.5	17.0	6.55	3.38	41.6	10 NTU
Hardness (as CaCO ₃)	25	70	61	53	65	250 mg/l
DO	5.5	2.9	1.0	7.2	10	10 mg/l
DO	8.41	6.51	6.97	4.22	6.63	10 mg/l
Alkalinity/NO ₃	1.6	6.0	2.1	1.1	2.6	10 mg/l
Phosphate/PO ₄	1.02	0.22	1.55	1.78	0.62	2.0 mg/l
Sulfate/SO ₄	12	11	11	10	10	10 mg/l
CA	0.0154	0.002098	0.00108	0.005086	0.0022	0.00 mg/l
Fe	3	0	4	5	10	0.5 mg/l

Remarks: Turbidity, DO and Fe concentrations are greater than the permissible level.

Prepared By: M. Rathnayake
 Checked By: M. Rathnayake
 Approved By: M. Rathnayake

Managing Rain Water - Make Sri Lanka Prosperous

Figure 5.0.4: Water quality Reports – 2016

ලංකා විද්‍යා මණ්ඩලය - මධ්‍යම කලාපය
OFFICE OF THE ZONAL DIRECTOR OF IRRIGATION - CENTRAL ZONE

ලේකම්: මහාමාත්‍යවරයා
 ලේකම්: මහාමාත්‍යවරයා
 ලේකම්: මහාමාත්‍යවරයා

ලේකම්: මහාමාත්‍යවරයා
 ලේකම්: මහාමාත්‍යවරයා
 ලේකම්: මහාමාත්‍යවරයා

LABORATORY REPORT OF WATER QUALITY MONITORING UNIT

Division: Nuwara Eliya
 Name of the Tester: Mr. Rathnayake, Mr. Panchikawa
 Date of sample collection: 30.12.2016 Time of sample collection: 10.00 am to 12.00 pm
 Weather condition: Dry Weather

	Barekplain Exit	Barekplain Entry	Katunna Exit	Katunna Entry	Katunna Entry	Permissible level
pH	6.42	6.54	6.47	6.65	6.32	6.5-8.5
Temperature	19	19	19	19	19	25°C
Conductivity	306	303	309	305	304	250 µS/cm
Turbidity	24	16.9	6.84	9.42	5.54	10 NTU
Hardness (as CaCO ₃)	73	54	112	105	72	250 mg/l
DO	215	130	86	110	161	10 mg/l
DO	1.94	0.98	3.57	3.17	4.93	10 mg/l
Alkalinity/NO ₃	1.6	6.1	5.5	4.0	3.5	10 mg/l
Phosphate/PO ₄	0.23	0.79	0.11	0.14	0.07	2.0 mg/l
Sulfate/SO ₄	16	14	42	42	15	10 mg/l
CA	0.016	0.0029	0.00108	0.005086	0.0022	0.00 mg/l
Fe	1.88	1.23	0.70	0.63	0.53	0.5 mg/l

Remarks: pH and DO are less than the permissible level. Turbidity, COD and Fe concentrations are greater than the permissible level.

Checked By: M. Rathnayake
 Certified By: M. Rathnayake
 Date: 30.12.2016

Managing Rain Water - Make Sri Lanka Prosperous

Source: Department of Irrigation

Table 5.0.2: Water Quality Report- Lake Gregory

Test	Unit	Method	SLS 614: 2013	Results					L.O.D	E.U % (K=2)
				Lake Gregory Inlet	Lake Gregory Mid-Point	Lake Gregory near the School	Lake Gregory near the Bridge	Lake Gregory near the Sluice		
Odour	-	CML 1		Objec **	Objec **	Objec **	Objec **	Objec **	-	-
# Turbidity	NTU	APHA 2130 B	2	118	222	94.6	50.4	121	-	20
# pH at 25° C	-	APHA 4500 - H ⁺ B	6.5-8.5	7.62	8.21	8.26	8.22	8.32	-	-
# Chloride (as Cl)	Mg/L	APHA 4500 Cl - B	250	22	22	22	22	22	-	4
# Total Alkalinity (as CaCO ₃)	Mg/L	APHA 2320 B	200	43	46	47	43	46	-	4
Free Ammonia (as NH ₃)	Mg/L	SLS 614 : 2013, Appendix A	0.06	2.4	2.4	2.0	1.6	2.4	-	-
Albuminoid Ammonia ((as NH ₃))	Mg/L	SLS 614 : 2013 Appendix A	0.15	2.8	1.8	0.80	2.4	2.0	-	-
Nitrate (as NH ₃)	Mg/L	CML /MM/02/02/019/V 1.2	50	5.0	5.0	4.8	5.3	4.8	-	-
# Nitrite (as NH ₃)	Mg/L	APHA 4500- NO ₂ B	3	0.11	0.09	0.20	0.06	0.04	-	14
# Fluoride (as F)	Mg/L	APHA 4500-F C	1.0	0.37	0.36	0.36	0.50	0.36	-	6
# Total Phosphates (as PO ₄)	Mg/L	APHA 4500 - P B & C	2.0	1.4	1.5	1.1	1.4	1.3	-	10
# Total Dissolved Solids	Mg/L	APHA 2540 C	500	140	101	146	130	131	-	5
# Total Hardness (as CaCO ₃)	Mg/L	APHA 2340 C	250	45	49	51	45	44	-	4
Sulfate (as SO ₄)	Mg/L	Modified APHA 4500 SO ₄ ±E	250	ND	ND	16	ND	ND	10	-
Calcium (as Ca)	Mg/L	APHA 3500 Ca- D	100	14.5	15.7	18.9	15.1	14.9	-	-
Magnesium (as Mg)	Mg/L	APHA 2340 C & 3500 Ca - D	30	2.0	2.4	3.4	1.8	1.7	-	-
Cyanide (as CN)	Mg/L	CML 18	0.05	ND	ND	ND	ND	ND	0.05	-
Sodium (as Na)	Mg/L		200	9	9	8	9	8	-	-
Iron (as Fe)	Mg/L		0.3	0.75	0.46	0.66	0.80	0.50	-	-
Copper (as Cu)	Mg/L		1.0	ND	ND	ND	ND	ND	0.05	-
Manganese (as Mn)	Mg/L		0.1	0.08	0.08	0.11	0.11	0.10	-	-
Zinc (as Zn)	Mg/L		3.0	0.03	ND	ND	ND	ND	0.02	-
Aluminum (as Al)	Mg/L		0.2	0.84	0.65	0.94	0.91	0.53	-	-
Chromium (as Cr)	Mg/L		0.05	ND	ND	ND	ND	ND	0.05	-
Nickel (as Ni)	Mg/L	USEPA -200.8	0.02	ND	ND	ND	ND	ND	0.01	-
Arsenic (as As)	Mg/L		0.01	ND	ND	ND	ND	ND	0.001	-
Cadmium (as Cd)	Mg/L		0.003	ND	ND	ND	ND	ND	0.001	-
Lead (as Pb)	Mg/L		0.01	ND	ND	ND	ND	ND	0.01	-
Selenium (as Se)	Mg/L		0.01	ND	ND	ND	ND	ND	0.001	-
Mercury (as Hg)	Mg/L		0.001	ND	ND	ND	ND	ND	0.001	-
# COD	Mg/L	Modified APHA 5220 D	10	110	110	85	100	105	-	4
Phenolic compounds (as C ₆ H ₅ OH)	Mg/L	APHA 5530 B & D	0.001	ND	ND	ND	ND	ND	0.1	-
Oil & Grease	Mg/L	APHA 5520 B	0.2	ND	ND	ND	ND	ND	2	-

Source: Central Environmental Authority



Table 5.0.3: Drinking Water Quality

Sample Places within NEMC	Total clorifom Bacteria in 35 .C (100ml) Pipe born water- 02 Other 10	Total clorifom Bacteria in 44 .C (100ml) 0
Pedro (spring water)	→ 38	→ 4
Toppass (spring water)	→ 68	→ 10
Hevan Seven Hotel (Haddon Hill Rd)	→ 10	No
Post Box junction, Gamunu Mawatha	→ 72	→ 8
Tank near to Pedro Tank	→ 52	→ 2
Technical College	No	No
Haddon Hill Pump House (Outside Pipe)	No	No
Haddon hill Stock Tank	→ 48	No
Near to Kadireshan Kovil- Nanuoya Rd	→ 12	No
Tap- Gregory Lake Stage III	→ 4	No
Mr. A.L.A.P. Udayakantha, Kalukele	No	No
Himaluwa Hotel, Magastota	→ 38	→ 8
Vegetable Estate- Sandathenna junction	→ 18	→ 2
"Sunil" Shop- Wijithapura junction	→ 10	No
Magastota	No	No
Badulla Rd	→ 60	→ 14
Vajiraknana Vidyalaya, Ledy Machlam Rd, N'Eliya	→ 368	→ 240
Kandy Rd, Bambarakele	→ 120	→ 54
Nuwara Eliya MC Office	→ 710	→ 480

Source: Municipal Council, Nuwara Eliya

02. Decreased quantity of drinking water

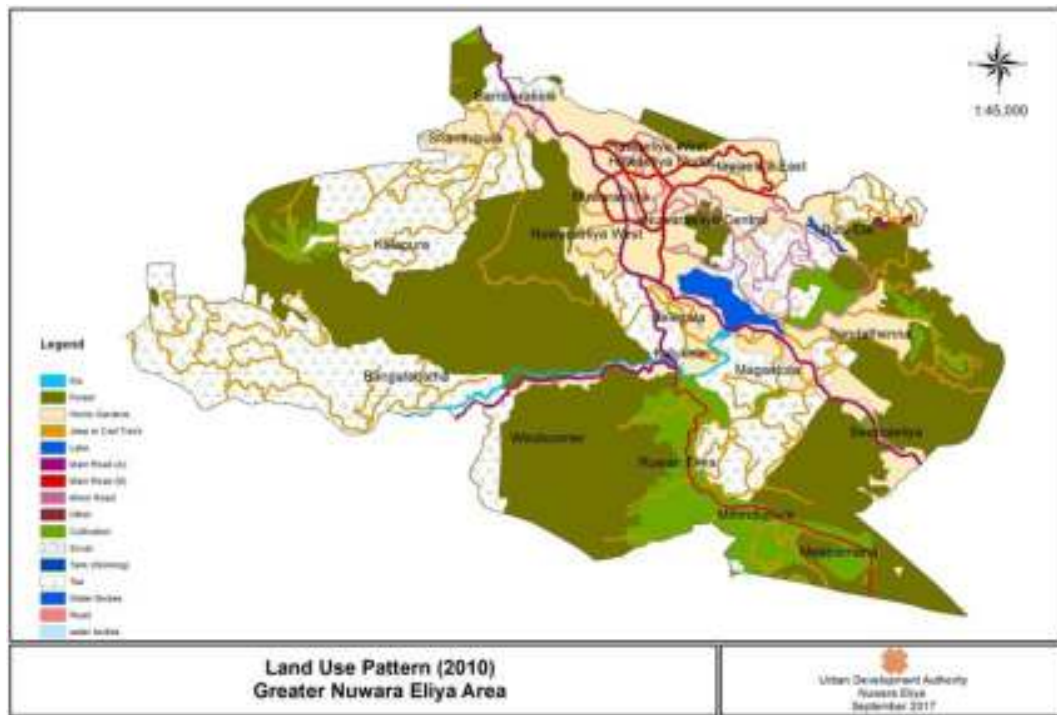
There are 13 pumping stations within the city to get drinking water purpose. Although the daily water demand is increased up to 5500 Cubic Meter, but decreased the water capacity to 3500 Cubic Meter in dry season. Therefore, tube wells use to supplying shortage of water demand due to the decrement of water capacity of the natural water resources. This issue is mainly disturbs to the tourism industry of the area.

03. Decreased the forest coverage and encroachment of reservations

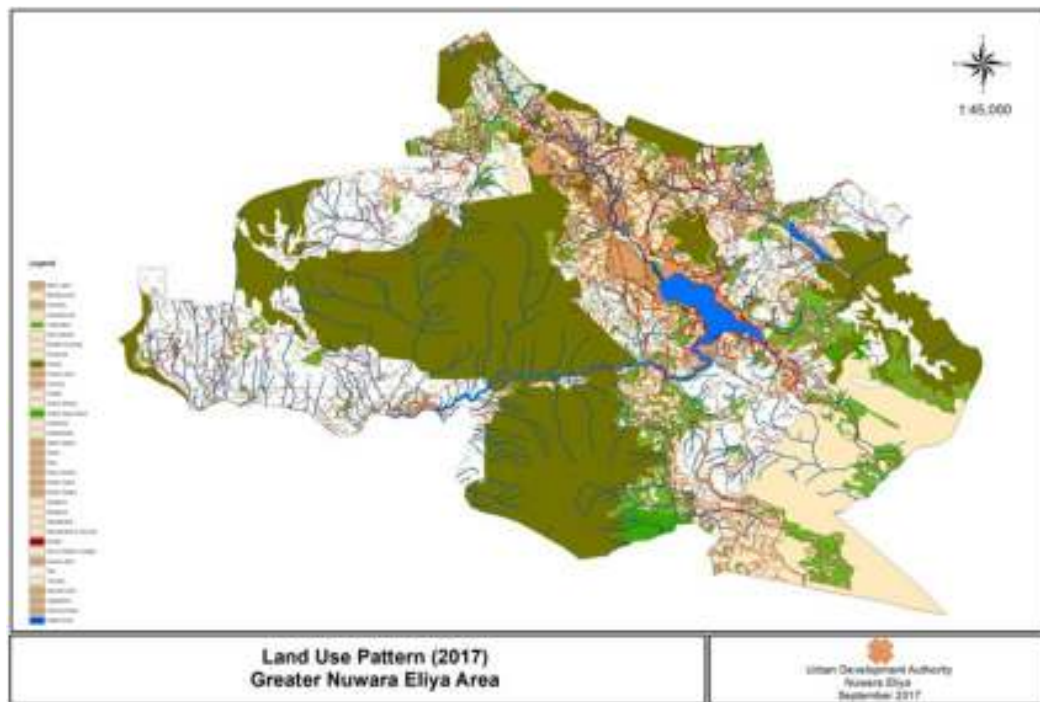
When considering about the sensitive environment of Nuwara Eliya is mainly focuses about natural forest coverage and mountain ranges. But the percentage of forest cover has been decreased gradually, 40% of forests cover in 2010 and it was dropped as 34% in 2017. Therefore, it became a main negative factor for changes of uniqueness of Nuwara Eliya



Map 5.0-6: Land Use Pattern 2010



Map 5.0-6: Land Use Pattern 2017



5.1.3. Opportunities

01. Government Policies

- National Physical plan
- Sri Lanka Tourism Development Plan

Nuwara Eliya and Central hilly area is in the environmental sensitive area according to the National Physical Plan which prepared by National physical Planning Department. Other than that, the Tourism Development master Plan of Sri Lanka is focuses of main strategies to develop the tourism industry of the area. According to that, the government policies are helps to achieve our goals of the plan.

2. Increased demand for the organic products.

Consideration of the demand for the organic agriculture products is increasing at present and therefore it is best opportunity to achieve the goal of preserve the natural environment and improve the water quality. Through that, can be decreased chemical fertilizers usage of the area.

3. Proposed new sewage treatment plant

Municipal Council of Nuwara Eliya has been proposed to newly construct sewage treatment plant with JICA funding. It's better support to have clean environment.

4. Sustainable Development Goals 2030 (SDG)

5.1.4. Threats

01. Advertisements of the chemicals and fertilizers for agriculture of the private companies.

The main factor which is affected to the above identified issue of pollution of water bodies and decreased the water quality is high usage of chemicals and fertilizers for the agricultural purposes. This happens due to unawareness about fertilizer usage and high publication of the chemicals and fertilizers by multinational companies. Therefore many farmers are trying to use high dose of it.



Strengths S W Weaknesses

1. Existing water body system (Nanu Oya, Water Field Drive, Lake Gregory, Barrack Plain, Glainfall, Lover's Leap)
2. High elevated mountain range (Piduruthalagala, Single Tree, Kikkiliyamana, Lover's Leap)
3. Salubrious climatic condition (Rainfall, Humidity, Temperature)
4. Existing forest cover (Galways, Piduruthalagala, haggala)
5. Tourist's attraction places
6. Existing buildings with British colonial architectural features
7. Upcountry cultivation
8. Tea estates
9. Unique flowers and horticulture

1. Pollution of water sources
2. Pollution of drinking water
3. Decreased forest cover and encroachment of reservations
4. Decreased the construction of buildings with British architectural features
5. Disturbs to the viewing points of the area due to new constructions
6. Distribution of slum and shanties within the town
7. Agricultural lands use for constructions

5.2 To rebrand the unique character of Nuwara Eliya.

International high demand for the tourism to the sensitive environmental areas

Climate changes and weather condition changes

Opportunities O T Threats



5.2. To rebrand the unique character of Nuwara Eliya.

5.2.1. Strengths

1. Existing water body Network

The existing water bodies like Nanu Oya stream, Water field drive, Lake Gregory, Barrack Plain, Glainfalll, Lover's Leap and other streams of the area are most valuable asset to achieve the goal of imaging unique context of Nuwara Eliya. Nearly about 2% from total land area of Nuwara Eliya is cover by water and specially those feature such as water falls, streams, lake are support to highlight of uniqueness of Nuwara Eliya.

2. High elevated mountain ranges

The mountain ranges, elevated above 2000m which situate around the area are create scenic view for Nuwara Eliya. Piduruthalagala, Kikkiliyamanna, Haggala mountains get highest attraction in this point. Tea and natural forests are top of the mountains and therefore its helps to enhance the natural beauty of the area.

3. Salubrious Climatic condition

Many tourists attract to the Nuwara Eliya due to the unique climatic condition which has average temperature of 20 °C and high humidity. Also no other city within the South Asian which can comparable with Nuwara Eliya climate. Therefore many visitors attract to the area and it is most significant fact that supports to realize the goal.

4. Existing Forest Cover

Forest coverage is the most special feature when considering of uniqueness of Nuwara Eliya. According to that, the forests of Galways, Piduruthalagala, Haggala is get high attraction with green. Nearly 34 % of area from the total land is covered by forest and it provides best support to lead the goal.

5. Existing buildings with British colonial architectural features.

The buildings which built in the colonial period with Victorian, Georgian and British architectural features are the most significant that shown the identity of Nuwara Eliya. There are about 129 number of buildings can be identified within the area. In addition, those are given support to attract more tourists.



Figure 5.0.6: Post Office



Post Office: This is one of the oldest building in the area and the Archiological Depatment mentioned as listed building

Figure 5.0.7: Queen Cottage



Figure 5.0.8: Presidential Bungalow



Figure 5.0.9 :St Xavier's Church



Initiated in 1838 the St Xavier's Church was built to its current structure in a span of 10 years.

The towering walls of the church are light brown in color following the same pattern of colonial houses.

Figure 5.0.5: Grand Hotel



Grand Hotel: The original building, a single story bungalow, called 'Barnes Hall', was constructed as the holiday residence of Sir Edward Barnes, the fifth Governor of Ceylon, It has unique identical architectural features in Nuwara Eliya

The Hill Club is a beautiful property surrounded by Nuwara Eliya's lush greenery.

Built as an English country house, during the late 19th century by the British Colonial administration of the island, for the use of the Governor of Ceylon Since independence in 1948, the house became the official vacationing residence of the Governor General of Ceylon and since 1972 the President after Sri Lanka became a republic



6. Tourist's attraction Places

Unique characters of Nuwara Eliya are shown as main tourist destination and therefore many of attraction places locate sorrowing to there.

This is good potential to achieve the goals. Among them, Lake Gregory ,, Golf ground, Galways Park, Victoria Park, Horton Plains, Moon Plains, Seethaeliya Kovil, Ambewela Farm, Labukele Tea Factory, Kudaoya, Boralanda Tea Factory and tea estates are get major tourist's attraction places .Other than that, Lover's Leap water fall, colonial architectural buildings, flower farms are additional attraction places.

The following table shows the tourist's arrivals of different places of the area

Table 5.0.4: Tourist's arrival details

	2012		2013	2014	2015	2016
Foreign Tourists						
Haggala	12489		14713	18071	24188	29192
Horton Plains	39123		34065	69979	87962	131670
Galways	82		29	84	49	198
Lake Gregory Park						61622
Victoria Park						47294
Mon Plains						8673
Local tourists						
Haggala	587749		511879	578825	742133	956815
Horton Plains	184744		46511	198374	228858	319999
Galways	1521		1084	1669	2047	3345
Gregory lake Park						721495
Victoria Park						643725

Source: Tourism Development Authority/ Nuwara Eliya MC

According to that dueto tourist attraction for the Nuwara Eliya annually about 01 million local tourist and 130000 of foreign tourist area recorded in 2016. Therefore tourist sector mainly contributed to increase the Economy of Nuwara Eliya area. Annually 12000 million rupees get from tourist and its related field to the area. 180 no of Tourist hotels and Guest Houses area located in this area with about 1600 numbers of Rooms. According to the 2012 census report, 20% of direct employees are engage in tourist field, Therefore this tourist attraction will help to achieve the goal .

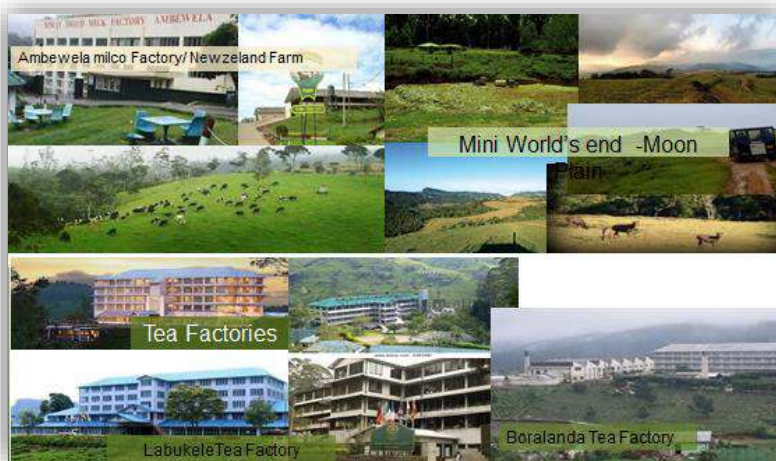


Figure 5.10: Tourists' Attraction Places



Captured By: Nilantha Paranagama March, 2017

Figure 5.11: Tourists' Attraction Places



Captured By: Nilantha Paranagama March, 2017

7. Upcountry cultivation

There are 897 ha of extent cultivation lands can be identified within Greater Nuwara Eliya planning area. The daily average production of Nuwara Eliya dedicated economic center is 150 tons and average annual income is Rs. Mn 5250. This is 23% of income of the upcountry vegetables.



Figure 5.12: Upcountry cultivation



07. Tea estate

Total High Grown Tea in Sri Lanka is 41137 Ha and production is - 64 Mn/Kg .Mean while the NuwaravEliya Area provided 1.83 Mn/Kg and its is 2.8% of Sri Lanka total production. Therefore, these tea production give Rs. 836 million income for the Area. It is 0.7% from the Sri Lanka tea income

08. Indigenous flowers and horticulture

Types of flowers- Gebara, Deasy, Babandesiya, Kaneshan, Krishanthimum, Asthemeriya, Lili, Rose, Hydringia

Horticulture areas- Mipilimanna, Wajirapura, Lover's Leap, Shanthipura, kande Ela

Nearly around 270 farmers of horticulture are registered of the Flower association of the area.

About Rs. 10Mn of income can be earned through the cultivation

This is having high demand for tourism as well as to economic improvements and there are flower exhibitions within the seasonal periods.



Figure 5.0.10: Flowers



Source: Internet

5.2.2. Weakness

1. Pollution of water source

The unique character of having clean water body network of Nuwara Eliya is lose due to the pollution of drinking and surface water sources which identified according to the above mentioned paragraph 5.12. It causes to damage the environment system as well as bio diversity too. Therefore it has been negatively influenced to achieve the goals.

2.Decreased forest coverage and reservation encroachment

The green environment and forest cover is most important feature of Nuwara Eliya. About 34% of forest cover helps to have uniqueness, but unfortunately this is decreasing day by day and it was 40% in 2010 and it has decreased up to 34% in 2017. Since, the decrement directly affects to the goals achievements of the plan.

03.Changes of unique architectural features of Nuwara Eliya

The colonial architectural features of the area being loosen and changed at the present moment, due to the improper, unplanned constructions. The most powerful character which help to attract more tourists and with the changes it will cause to disturb to tourism industry development of the area.



Figure 5.11: Changes of unique architectural features of Nuwara Eliya



Captured By: Mr. Nilantha Paranagama March, 2017

04. Disturbs to viewing points of the area due to new constructions

The viewing points and the water falls, mountain ranges has been covered Due to the improper new constructions. It distracts to show natural beauty of the area.

Figure 5.0.11: Disturbs to viewing points due to constructions



Captured By: Nilantha Paranagama March 2017



Figure 5.0.12: Disturbs to viewing points due to constructions



Captured By: Nilantha Paranagama March 2017

05. Low income housing and slums

There are about 21% of housing of Nuwara Eliya MC and its surrounding characterize as joint housing and line housings, The housing types of 21 GN Divisions which in the Greater Nuwara Eliya planning area show the following table. Addition to that, there are 3331 of population of 638 families lives in 590 of low income settlements. It's the main disturbance to having better economy and famous as tourism destination.

Figure 5.0.13: Low income housing



Captured By: Mr. Nilantha Paranagama March, 2017



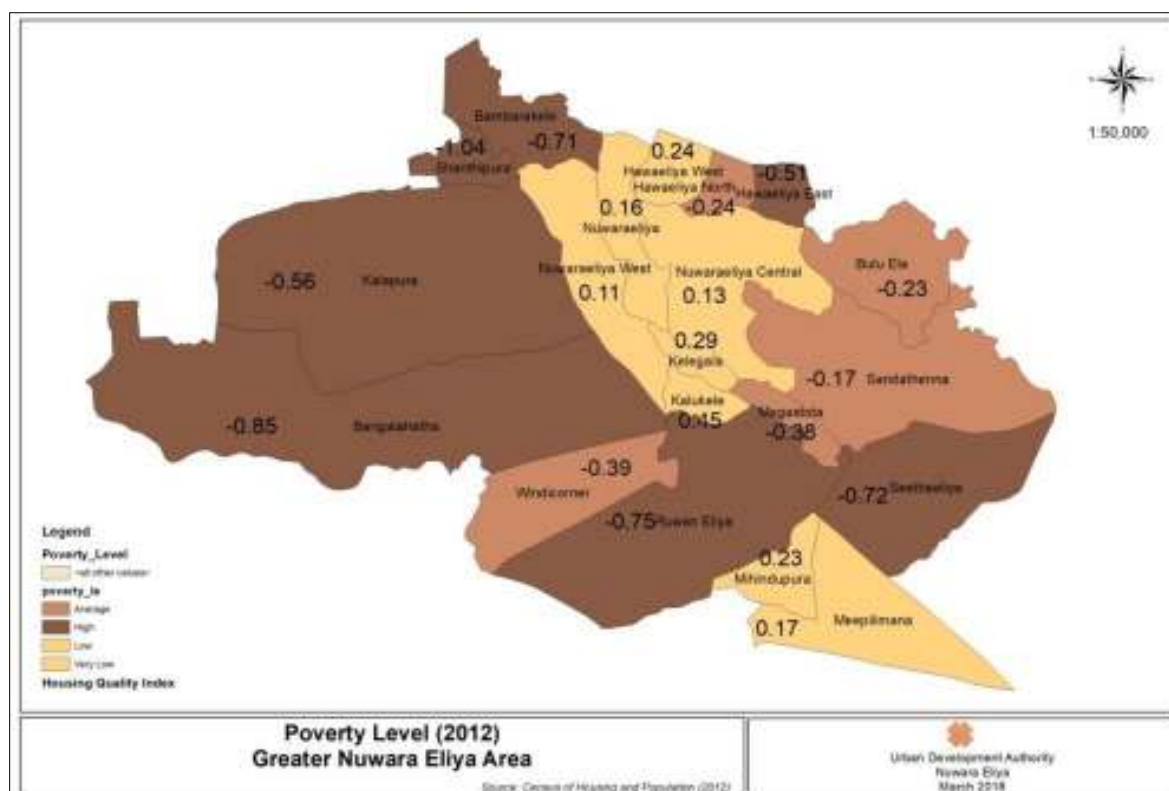
Table 5.0.5: Condition of the housing

GN Division	No of families	No. of housing	Scarcity of housing	House with ground floor	2 story house	Houses more than 2 stories	Joint houses	flats	Dual houses	Line houses	Slums
Total	11008	10784	224	6861	791	71	483	19	231	2184	144
Percentage of existing housings			2.1	63.6	7.3	0.7	4.5	0.2	2.1	20.3	1.3

Source: Department of Statistics

The poverty level of the area is increased with that situation.

Map 5.0-7: Poverty Level



5.2.3. Opportunities

01. High international demand for eco-friendly tourism

Table 5.0.6: Tourist's arrivals- Sectional Wise

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Entertainment	67.4	67.1	73.2	80.0	78.9	80.4	74.4	72.7	67.95	66.6	83.4
Business	17.8	10.5	8.5	8.6	12.7	8.0	9.0	5.2	1.33	1.3	1.8
Meet relations	7.6	8.3	8.3	5.2	5.4	8.2	11.7	12.4	27.45	25.5	11.5
Conference & meetings	3.0	1.5	1.3	1.4	1.0	1.7	2.2	2.0	.29	.3	.8
Cultural & religious	1.7	2.8	2.6	2.0	.8	.3	2.2	4.8	0.01	0.1	0.0
Health									0.53	3.2	0.6
Sports									0.53	0.7	0.4
Duty									0.11	0.2	0.0
Other	2.5	9.8	6.1	2.8	1.2	1.4	0.5	2.9	1.49	1.7	1.2
☺Total	100	100	100	100	100	100	100	100	100	100	100

Source: Sri Lanka Tourism Development Authority

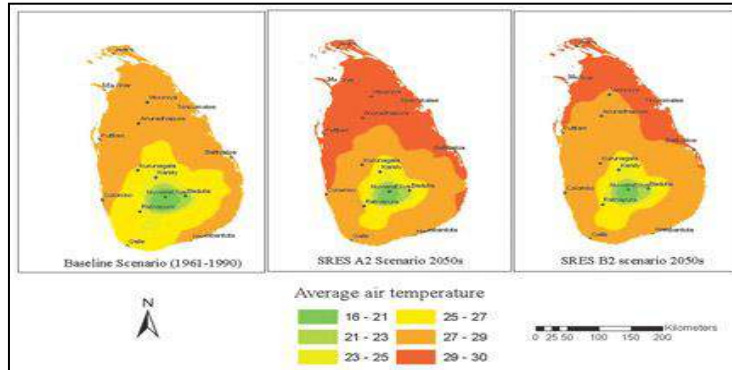
According to the above table, can be identified the arrivals of tourists increased in the section of environment and entertainment according to consider the statistics of last years. Accordingly, the future can get high attraction to Nuwara Eliya as more entertaining and environmental importance area.



5.2.4. Threats

01.Changes of weather and climatic conditions

Figure 5.22: Climatic & Weather condition changes



Source: - MMI Research Report2016

The climatic condition of the area has been changing with due to the global climatic changes. Those changes can identify through the above figures. It will be effected to the change the Nuwara Eliya unique climetic condition. There for it will treat for the Goal of Imaging Uniquenes of Nuwara Eliya



Strengths S

1. Tourism attraction places
2. Existing colonial architectural buildings
3. Upcountry cultivation
4. Tea estates
5. Unique flowers and horticulture
6. Municipal council with high revenue
7. Seasonal festival of Nuwara Eliya
8. Locate near to upcountry railway line
9. Internationally famous tourism destination
10. Proposed and ongoing projects

W Weaknesses

1. Polluted drinking water and inadequate water in dry season
2. Not get best and optimum use from the government land
3. Decreased the constructions with unique architectural features
4. Disturbs to viewpoints due to improper constructions
5. Distribution of low income settlements and slums

5.3. To enable Sustainable people centric vibrant economic development within the area.

1. Sri Lankan Tourism Development Plan 2017-2020
2. Proposed Sri Lankan express ways network
3. Agriculture Development projects by Agriculture Department
4. Increment of tourist's arrival to Sri Lanka

1. Surrounding towns development as tourism strategic cities (Ella, Bandarawela, Haputhale, Nallathanniya)
2. Entering roads to Nuwara Eliya is become critical situation in rainy days
3. High no of tourists arrive to Nuwara Eliya within less no of days in April

Oppotunities

T Threats

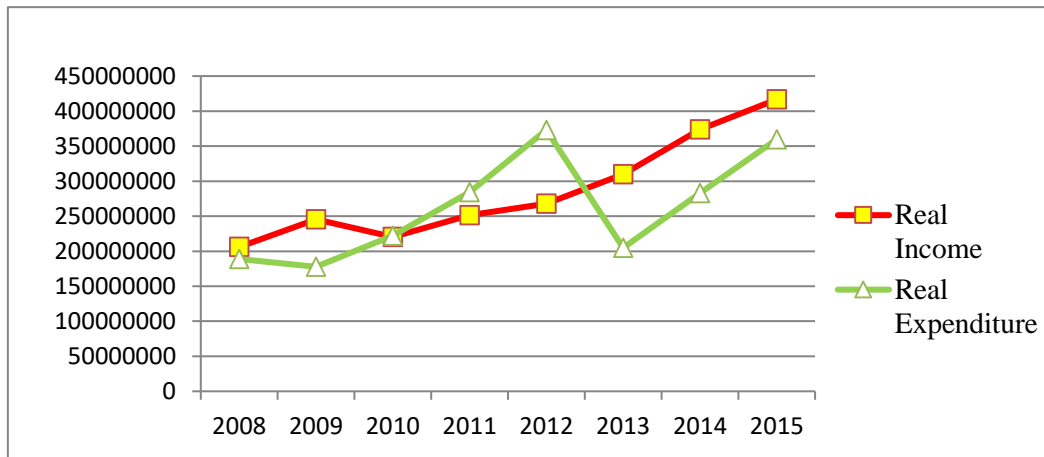


5.3.1. Strengths

06. Municipal council with high revenue

There is high opportunity to invest for development due to having surplus revenue of the Nuwara Eliya Municipal Council. Therefore it is best support to development of town as well as its infrastructure facilities. The income and expenditure of the Municipal Council is display the following chart.

Figure 5.23 – Annual revenue and expenditure of Nuwara Eliya MC



Source: Nuwara Eliya MC

07. Seasonal festival of Nuwara Eliya

The seasonal festivals and programs of Nuwara Eliya is held in April month of every year and therefore many of tourists attract to the area. It is main festival in Nuwara Eliya which attracts 100000-200000 of Local tourist. The following graph shows the arrival of tourists and organizes many events and programs throughout the year. High demand for the hotels and guest houses within the seasonal period and helps to increase economic benefits for the area.



Figure 5.0.14: Seasonal festival of Nuwara Eliya

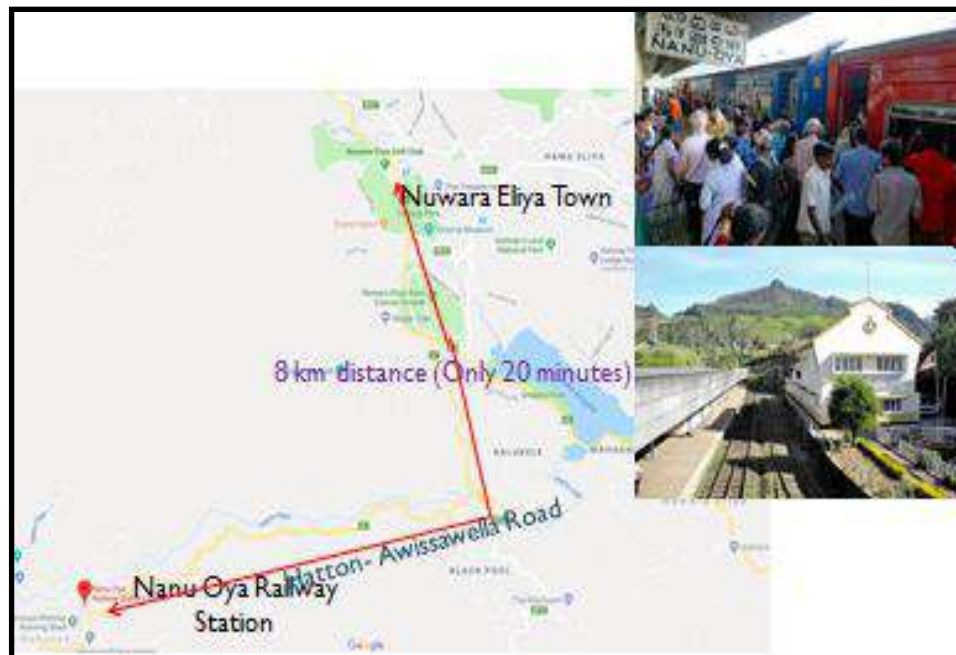


Source: Nuwara Eliya Municipal Council

08. Locate near to upcountry railway line

The location near to the upcountry railway line is the highest benefit to attract more tourists to the area. Especially the most of travellers select the train as their travelling mode due to the beautiful sceneries along the railway line. Nanu Oya railway station is the nearest station of Nuwara Eliya and also is major destination.

Figure 5.0.15: - Locate near to upcountry railway line



Nuwara Eliya town is famous as major tourism destination in locally as well as internationally and as that, it's great support to develop the tourism industry of the area. Also, according to the international ecofriendly classification, Nuwara Eliya takes highest place. In addition to that, Nuwara Eliya recognized as main traveling destination within Sri Lankan context

Quick Links

- Sri Lanka Tourist Attractions
- Research and Statistics
- Addresses and Telephone Numbers
- Embassies in Sri Lanka
- Sri Lankan Embassies in Other Countries
- Tourism Act
- Tourist Police
- Regional Tourism
- SRTDA Regions

Highlights

SRI LANKA Tourism and Hospitality Worldwide Competitiveness ROADMAP 2018-2023

Selecting an individual Consultants for Human Resource and Product Development and Management

Sri Lanka Tourism Strategic Plan (2017-2020)

The New Gazette on Classification of Tourist Hotels

Help and Assistance

Investment Process

Tourism Business Classification

Registration with SRTDA Services

Registered Accommodation

Registered Travel Agents

Registered Restaurants

Registered Spice Gardens

Registered Tourist Shops

Registered Spa & Wellness Centers

Registered Tour Guides

Business Location Map

Benefits of Registering with SRTDA

Tourism Statistics

Sri Lanka Tourism Attractions

1. Anuradhapura	2. Anuram Bay	3. Adam's Peak	4. Battaramulla	5. Bentota	6. Binswala
7. Bundra Nataraja Park	8. Colombo	9. Dambulla	10. Ella	11. Galle	12. Hambantota
13. Hikkaduwa	14. Hirtten Plains	15. Jaffna	16. Kalutara	17. Kandy	18. Kandy
19. Kirtimbayake	20. Kihigalla	21. Kukulana Kanga	22. Mannar	23. Matara	24. Minneriya
25. Negombo	26. Nilavelle	27. Nuwara Eleya	28. Pabandara	29. Pinnawala	30. Polonnaruwa
31. Puttalam	32. Ratnapura	33. Sigiriya	34. Sinharaja	35. Trincomalee	36. Unawatuna

135

10. Proposed and ongoing development projects

Proposed new projects and ongoing projects within Nuwara Eliya area show the following table.

Table 5.9- Proposed and Ongoing Projects

No	Project	Present Status	Investment (Mn)	Funding Institute
1	Nuwara Eliya new hospital	Ongoing	14000.00	Ministry of health
2	Gregory Lake Landscaping Development Project	Ongoing	450.00	Urban Development Authority/ Nuwara Eliya Municipal Council
3	High altitude Sports Training Complex	Proposed	12000.00	Sports Ministry/ Private sector
4	Nuwara Eliya Central Market Developemnt	Ongoing	450.00	Urban Development Authority/ Nuwara Eliya Municipal Council
5	Housing Projects for Estate workers	Ongoing	-	Ministry of Upcountry New Villages, Estate Infrastructure & Community Development
6	Eco Villa Project at Ocklay Cottege	Proposed	-	Urban Development Authority
7	Middle Income Housing Project	Proposed	-	-
8	Ocean View Mix Development Project	Proposed	-	-
9	Nuwara Eliya Theme Park Project	Proposed	-	-
10	Central Water Treatment Plant	Proposed	-	-



Above main projects give highest contribution for the development of economy of the area.

5.3.2. Weakness

07. Less facilities for the tourists

There were 02 Mn foreign tourists came to Sri Lanka in 2016 and 7.5% of among them visit to the upcountry areas of Sri Lanka as per the Annual Report of SLTDA.

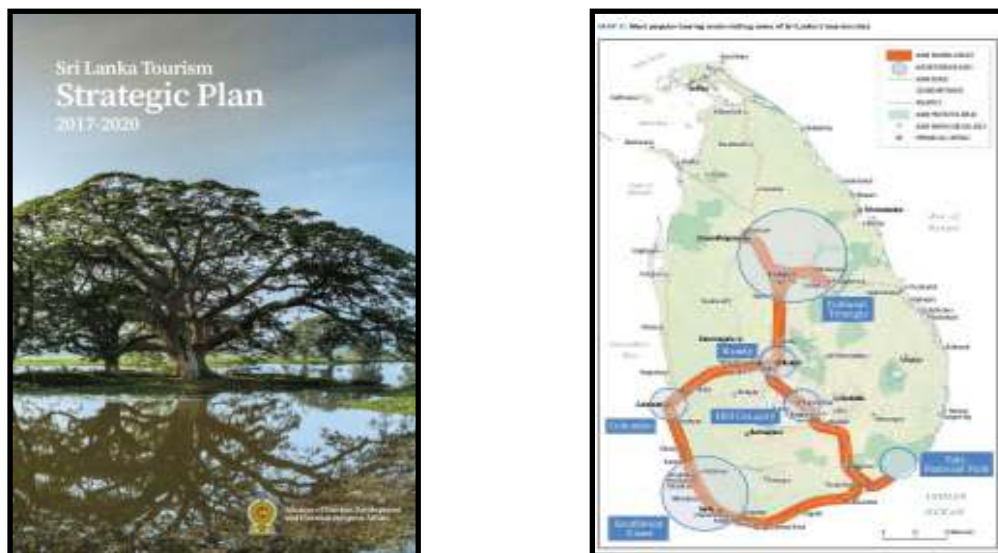
Most of the tourists arrived to country for the purpose of entertainment .It's 23% in 2016 and 66% in 2015.According to the statistics, there were nearly 950,000 local tourists and about 135,000 foreign tourists arrived to Nuwara Eliya and the existing tourist's facilities which are the common facility and services centers, enough accommodation places, aren't sufficient to them. Therefore this is the main issue of the area.

5.3.3. Opportunities

1. Sri Lanka Tourism development Plan 2017-2020

Nuwara Eliya identified as one of the major town which is going to develop through the Tourism Development Plan by Ministry of Tourism Development. That is the great opportunity for the tourism development of the area. According to that, Nuwara Eliya is in first stage developing town.

Figure 5.0.18: Sri Lanka Tourism Strategic Plan

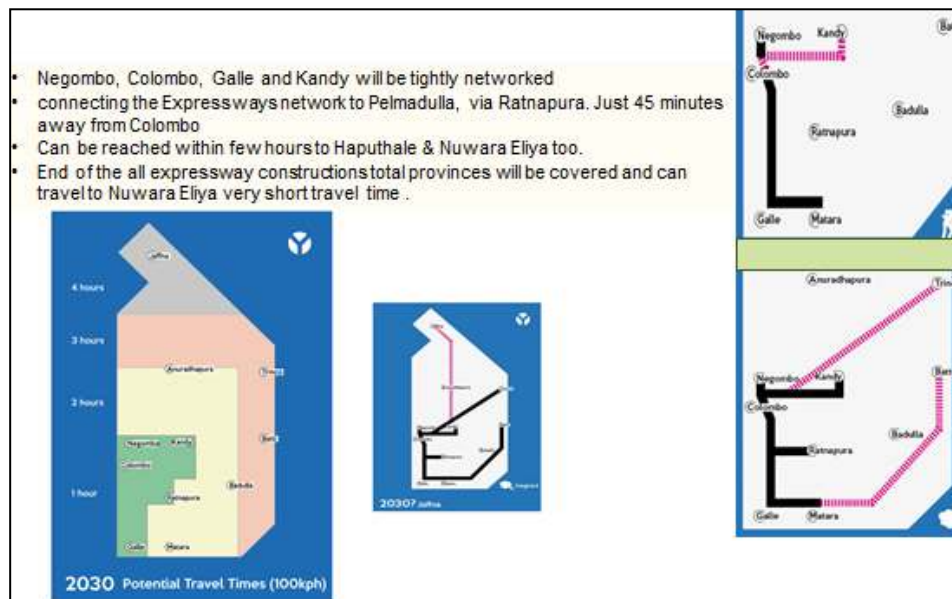


2 Proposed express ways of Sri Lanka

02.New and Proposed High ways

The destinations of proposed express ways of Ratnapura , Mattala and Kandy which are most close to Nuwara Eliya and therefore travellers can be easily reached to Nuwara Eliya from above destinations. The products of the area can transport other places and tourists can be visited to here easier.

Figure 5.0.19: Proposed High Way Road



Source - Internet

03.Agricultural Development Projects of Agriculture Department.

The agriculture development projects and plans which prepared by Agriculture department and its institutions (2017-2020) are best supportive ways for development of agriculture sector of the area.

04. Increased tourism arrivals in Sri Lanka

The tourist's arrival rate of Sri Lanka is annually increased and therefore due to that can be expected to more tourist's arrivals to Nuwara Eliya as well. Following graphs show the table

Figure 5.0.20: Tourists' Arrivals



Figure 5.0.21: Tourists' Arrivals

Market	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Average Annual Growth Rates
Western Europe	2,917	2,498	2,115	2,171	3,255	4,088	4,820	5,337	6,363	7,647	8,613	29.6
Asia	4,824	3,338	2,926	2,990	4,087	5,559	6,382	8,775	10,644	10,644	14,686	28.6
North America	1,814	806	660	712	1,153	1,525	1,612	1,990	2,063	2,614	3,216	7.2
Australasia	2,954	2,728	2,752	3,087	4,392	6,099	5,936	8,576	8,444	8,588	11,033	25.0
Others	3,536	5,749	6,492	6,507	9,461	11,980	17,892	23,193	30,450	30,776	30,776	54.0
All Markets	2,943	2,598	2,306	2,355	3,442	4,501	5,288	6,703	8,031	9,457	10,785	26.2

Source – Annual Report. Sri Lanka Tourist Board

5.3.4. Threats

1. Surrounding towncenters as tourism attractive towns.

Surrounding towns of Ella, Bandasrawela, Haputhale, Nallathanniya is developing as major tourist's attractive destinations and the arrival rates has been increased within last years. Therefore these changes affect to Nuwara Eliya tourism industry.

2. Entering roads become dangerous situation during the rainy days.

The accessing roads to Nuwara Eliya of Awissawella- Hatton road, Kandy- Badulla road, Badulla- Welimada road are become dangerous during heavy rainy days. Therefore most of the tourists disincline to visit to Nuwara Eliya due to above situation.

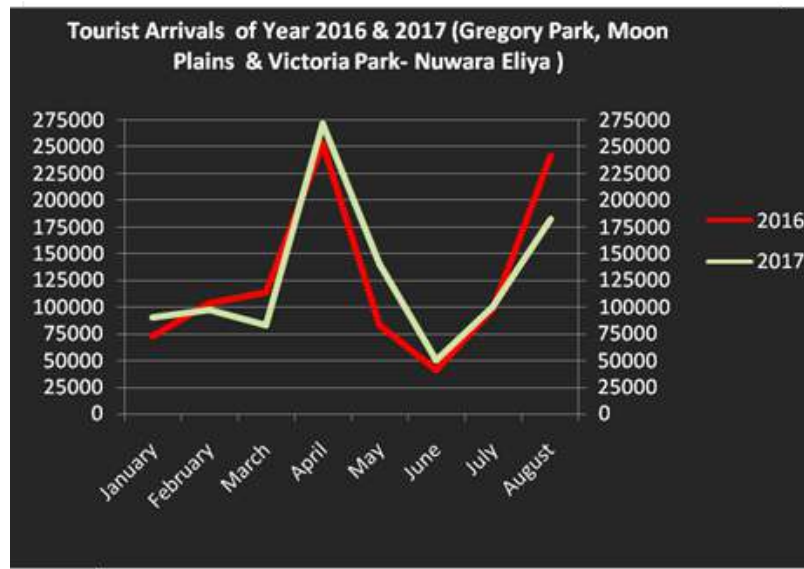
Figure 5.0.22: Existing Situation of some roads in rainy days



03.Highest number of local tourists arrived to Nuwara Eliya within few days of April month

There are high no. of local tourists visited to Nuwara Eliya within seasonal periods of the area and daily tourist's arrivals from 10th to 20th of April season are nearly 100,000-150,000 . The situation arise congestion and also it become major issue when facilitating the infrastructure to them. Following graph shows the tourism arrival to Nuwara Eliya

Graph 5.2: Tourists' Arrivals



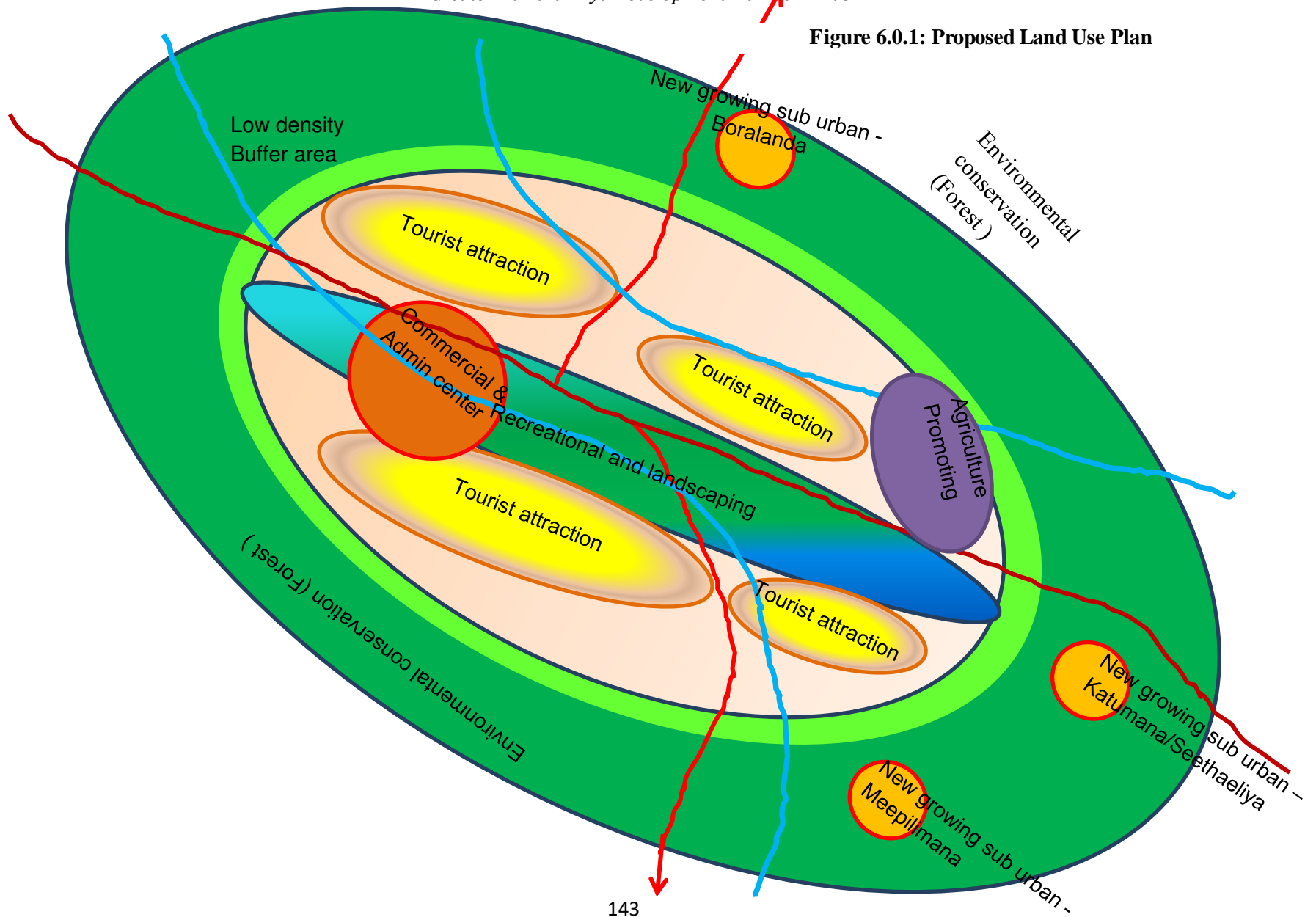
CHAPTER 06- THE PLAN**6.1. Concept Plan****6.1.1. Introduction**

The concept plan mainly focuses on preserve the natural sensitive environment, protect the forest cover around the mountain range and protect natural water body system

The natural mountain ranges of Kikiliyamanna, Single Tree, Magastota, Lover's Leap, Piduruthalagala, Seethaeliya which situate around the area supposes to preserve as green natural zone with making clean water body network of Nanu Oya Stream, Barrak Plain. Thalagala Oya and other sub streams. Also, expect to create entertainment zones and tourism zones for the people who live in the area as well as tourists by achieving sustainable development via enhancing quality of sensitive environment of the area. At the same time, supposed to provide infrastructure facilities related to socio- economic, commercial by centralizing the town area to all city users and hope to improve mix residential uses with humanizing unique upcountry cultivation in same manner associated in the surrounding town centers like Hawaeliya, Bambarakele, Miipilimana, Katumanna. Specially the cultivation pattern is hope to make as balanced ecofriendly environment system by practicing good agriculture practices via reducing harmful activities to the environment.



Figure 6.0.1: Proposed Land Use Plan



6.2 Proposed Land Use Plan

The city of Nuwara Eliya and its surroundings are prominent as best tourism destination with highest tourists' attraction due to the geographic situation, environment sensitivity as well as amazing and precious natural environmental features which can't be comparable with other areas. Other than that, upcountry vegetable cultivation and tea estates can be seen most parts within Nuwara Eliya as the salubrious climatic condition which is high valued assets of the area. When considering the above facts, Nuwara Eliya based on the economy with foremost upcountry cultivation as well as tea plus tourism industry and the most prominent factor is environmental equilibrium that essential to every factors.

The plan expects to achieve future goals and objectives through sustainable ecofriendly development accordingly the vision of *"THE PARADISE OF MISTY HILL"*.

Also the plan identified the development strategies and projects for facilitating maximum level of tourism infrastructure with entertaining and especially identifying tourist's attraction places with the objective of protecting and preserving the natural environment, water bodies and its related important places. In addition to that, proposed land use plan identified bringing the economic development through improving the services and infrastructure related to agriculture and tourism sector for the local people and then makes a way to earn more profit from those industries. Zoning, strategies and projects as well as regulations has been identified through the plan



Map 6.0-1: Proposed Land Use Plan

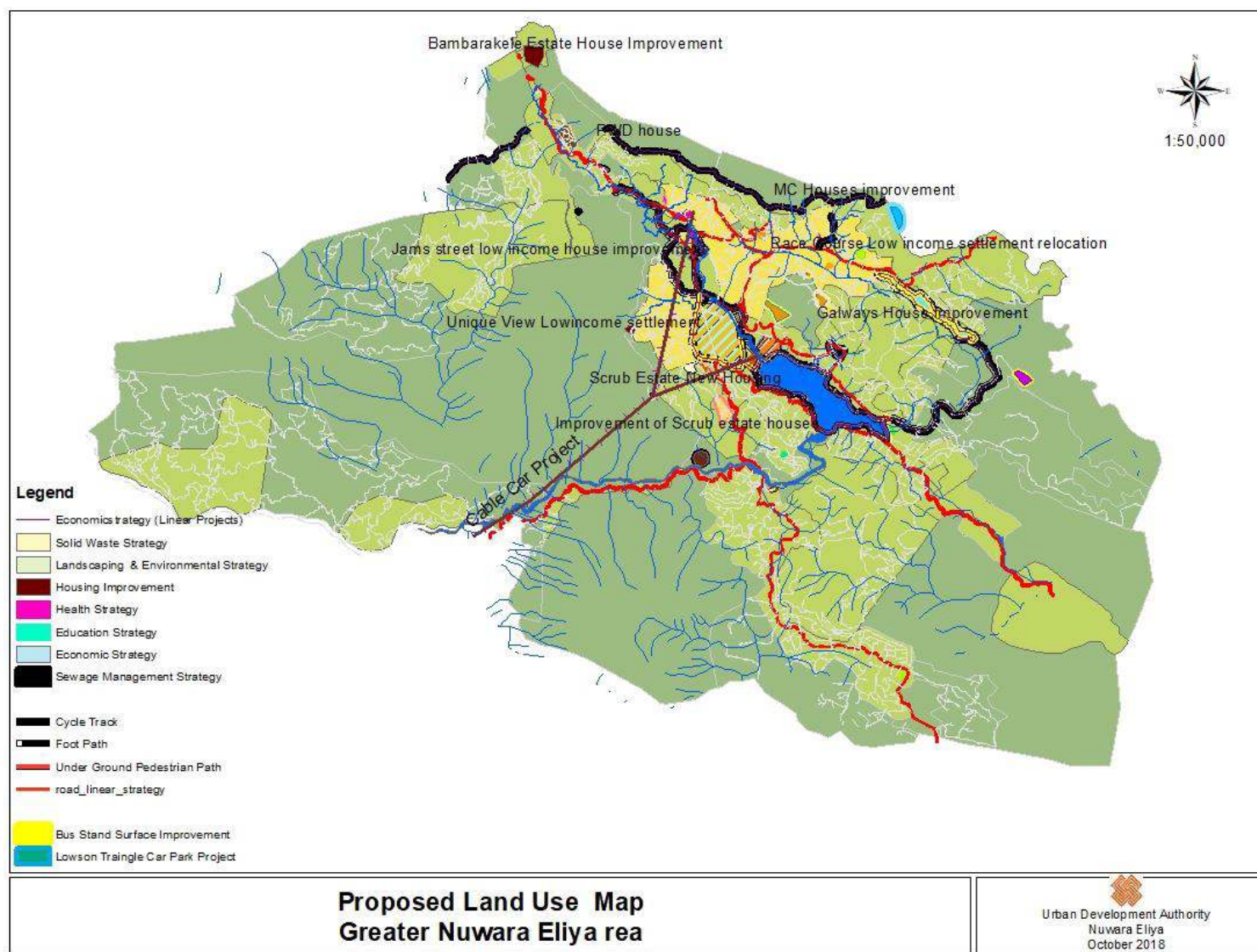
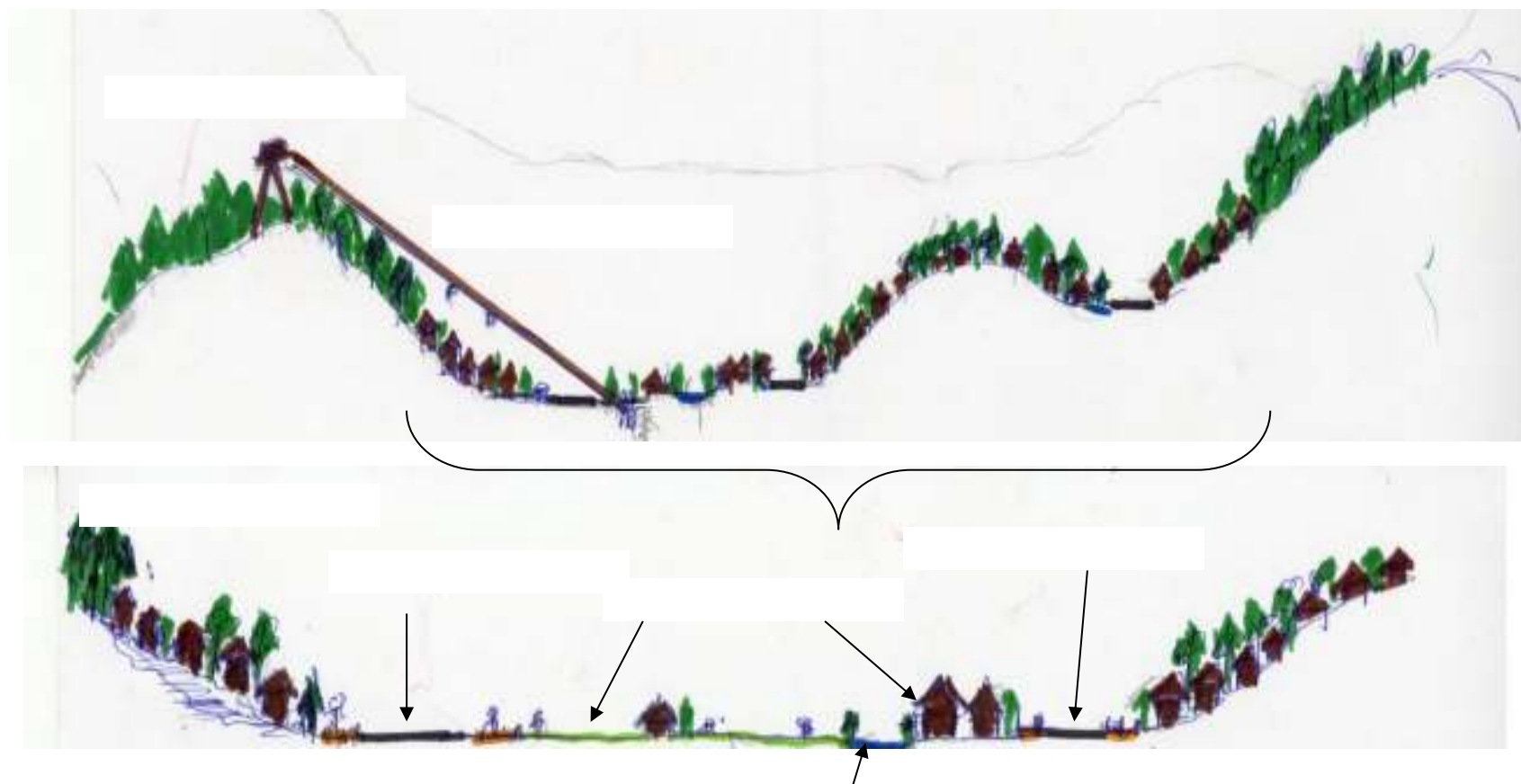


Figure 6.0.2: Cross Section from Race Course Ground



6.3. Economic Development Strategies

6.3.1. Introduction

Tourism industry, upcountry vegetable cultivation and tea cultivation are the main income generation economic activities within the greater Nuwara Eliya development area. This chapter presents the strategies proposed for the development of each of this economic sector.

Since, tourism industry is the most significant economic activity and also because the other economic activities are also have significant interlinkages with the tourism activities of the area, the economic strategy is mostly focused on the tourism development. The development of other economic sectors are also discussed in the latter part of the chapter.

6.3.2 Present status of the tourism and other economic activities in Nuwara Eliya

It is highlighted feature that the tourism industry comprises of both local and foreign tourists. There are 147,470 foreign tourists and 1,400,000 local tourists arrive to Nuwara eliyaa annually. 6% of foreign tourists arrived to Numara eliya out of total foreign tourists visiting Sri Lanka.

6300 million rupees income is generated by foreign tourists arrivals to Nuwara eliya. It is 1% of the total tourism industry income. 5500 million rupees of income is absorbed to the Nuwaraeliya area from the local tourists visit to the town annually.

There are 180 hotels and guest houses within the Numara eliya area based on the tourism industry and there are 1500 number of rooms in that accommodations. Certain number of direct and indirect employees was engaged in this sector. Mainly tourist guides, entertainment service employers in related to the industry in the generated employment in this sector. In the total number of employees engaged in the Numara eliya area, most of employees are in the tourism related entertainment services, tourist guides to be a main service in this employment generation sector.

One of the main expected goal to achieve by this development plan in the year of 2030, is increases the foreign tourist up to 10% that's 65,000 number and local tourist up to 4 million and also expected staying nights in this town increase up to 2 nights to 4 nights by this development plan.

In between 125 – 150 tons of vegetable transports daily done in the town to other areas of the island. Vegetable cultivation is doing in 897 hectares of lands within the greater Nuwaraeliya development area. By this vegetable cultivation earned income is about 4200 million rupees. And also 5000 million of rupees income is flowing to the foreign countries through these dedicated economic centers. This amount is 23% of value compare to the total vegetable income in upcountry vegetable earning.

And also tea cultivation contributes to the Sri Lanka economy is certain extent and it assist to the development the tourism industry as well. Cultivated tea land extent in greater Numara eliya development plan area is about 1332 hectares and it is 23% of the total land extent in the district. Estate workers 2550 are engaged in this tea cultivation within the area. Annually 250



million of income generated by the tea cultivation within the area and it is 0.01% in the total tea cultivation income in Sri Lanka.

In addition to that livestock management and flower cultivation also income generated sectors within the area. Reported number of 54 livestock farmers are in the area and their annually earned income is about 65 million rupees. There are 270 endemic flower cultivators are reported and also flowers were planted generally in all the home gardens within the area. Annually earned income from the flower cultivation is about 6 million rupees within the area and main areas of flower cultivation within the area are Shanthipura, Lovers leap, Meepilimana and Boralanda the areas are to be highlighted.

It is identified that the main income generated way as tourism sector in the greater Numara eliya development area as it is a priority income earning sector at present in Numara eliya. In related strategies to that are the targets to achieve the expected “vibrant economy” in the development planning area. And also through high tourism attraction, it is expected to achieve aims up to 10% tourist arrivals from the immigration tourists to Sri Lanka and expected staying nights up to 4 nights.

From these strategies it is expected to develop tourism sector as it is the main source of the Nuwaraeliya town economy, in the year of 2030, expected daily tourist arrivals will be 25,000 and its highest target will be up about 50,000 tourists. It is essential factor that is in tourism sector development and to achieve targets for “vibrant economy”. Also it is expected to achieve and completed that Nuwaraeliya foreign tourists arrivals up to 12% out of the total Srilanka foreign tourist arrivals and staying tourists” nights up to 4 nights from present as they are in at 2 staying nights.

6.3.3) Tourism Development

The proposed toruism development strategies can be categorized in to two sections namely tourism promotion strategies and tourism facilitation strategies.

1. Tourism Product Development Strategies

The tourism product development strategies proposed for the Nuwara Eliya DP area or in other terms the Nuwara Eliya Central Tourism Area cover following aspects.

- Recreational tourism development based on Gregory lake, Victoria Park, Racecourse and the surrounding area
- City centre based flower tourism and city beautification programme
- Conservation of the unique British architecture of the city
- Development and promotion of tourism attractions located in and around the Nuwara Eliya city centre
- Promotion of tourism trails in and around Nuwara Eliya city centre
- Promotion of unique tourism products of Nuwara eliya including vegetables, fruits, flowers, diary and tea.
- Facilitation of tourism attractions located outside of DP planning area



I. Recreational tourism development based on Gregory lake, Victoria Park, Racecourse and the surrounding area

The recreational tourism projects and programmes proposed based on the Gregory lake and the surrounding area are shown in the below table.

Table 6.0.1: Recreational Tourism Projects

No.	Project Name
01	Construction of a Theme Park at the upper part of the Gregory Lake
02	Construction of International High Altitude Sports Complex at the Race Course
03	Construction of an Entertainment Zone at Barrackplain Reservoir
04	Development of motor cycle and motor car racing tracks at the upper Gregory Lake area
05	Public ground improvement at Lake Gregory- Nuwara Eliya
06	Cable car project linking Nanu Oya station with Nuwara Eliya town center
07	Development of a greenbelt along the Nanu Oya Stream with Pedestrians walk ways and cycling paths.
08	Develop foot paths and cycling paths along the forest edges surrounding the city.

According to that it is expected to make the lake Gregory surrounding environment zone as completed tourism zone through increasing the tourism activities. Theme park construction at the upper lake area, pedestrian and cycle paths development around the lake Gregory, construction of running ways for motor bicycles and motor cars, construction of tourist facility centers, as a sustainable development system. Construction of connecting foot paths and cycling ways from town center commercial area to entertainment zone at lake Gregory as a sustainable development system, introducing multi activity projects to the local tourists who are in around the lake Gregory surrounding area zone and it will be more time to stay there and also it is expected spread tourist arrival in all 12 months of the year.

It is fulfilling the aim of 12% increase of tourist arrival to Numara Eliya by making the new attractive zone for tourist in the urban area. Introduced the new entertainment activities with more attractive large medium and small scale projects within said zoning areas. Accordingly Race course ground will be a high altitude sports and athletic training center in the south Asia will be open next 3 years of time, and it is a fortunate opportunity to athletics to training sports in this town. It is another trend of tourist attraction to the town and it will increase the tourists at about 15,000 annually. Hence it will make tourists arrivals up to 1% by this strategy.



Further it is expected that the cable car project to construct for tourist attraction at the starting point of old railway station to town center location of lovers leap waterfall crossing single tree mountain range and Gregory lake zone.

II. City centre based flower tourism and city beautification programme

This strategy consists of both project interventions as well as regulatory interventions. Nuwara Eliya has always been famous for flowers and there are a variety of flowers bloom seasonally as well as year-round. The cold climate and frequent rainfall pattern which is unique to the area provide favorable conditions for a variety of flower plants. However, recently, the flower market of Nuwara Eliya has experienced a slight decline due to various reasons and although the Nuwara Eliya has the potential to be one of the top flower destination in the world, it has not fully tapped its potential.

Hence, following projects and regulatory guidelines are proposed within Nuwara Eliya City Center in order to re-promote the flower culture in Nuwara Eliya.

Table 6.0.2: Project Interventions

No.	Project Name
01	Carrying out a roadside flower landscaping project within Nuwara Eliya City Centre and along the main roads.
02	Allocating a space within Victoria Park for a Flower Market and a Flower Exhibition centre.
03	Introduce a unique signage system for Nuwara Eliya area capturing its unique architectural and cultural characteristics and floral arrangements.
04	Introduce South Asia's largest flower show - Carry out seasonal and annual flower shows, parades and festivals at the city center integrated with complementary events such as fashion shows and horse riding shows etc. combine with the Victoria Park
05	English Garden promotional programme in collaboration with hotels and bungalows in Nuwara Eliya City Center

Table 6.0.3: Regulatory Interventions

No.	Project Name
01	Introduce regulatory guidelines to maintain the flower edges, flowery landscapes in the building line and maintain the building facades with appropriate flowery creepers and plants according to proposed flower themes.
02	Introduce appropriate colour themes for building facades.



III. Conservation of unique British architecture of the city

Nuwara Eliya inherits a unique architectural character which reflects on British architectural influence. There are number of existing buildings and city features which reminiscence the British architectural characteristics. One of the two key reasons why Nuwara Eliya is known as ‘Little England’ is this unique British architectural character blended with its cold climate and natural hill land character.

Accordingly, the following project interventions and regulatory guidelines are proposed to preserve this unique architectural character of Nuwara Eliya City centre.

Project Interventions

Table 6.0.4: Conservation of unique British architecture of the city- Project Intervention

No.	Project Name
01	Carryout a conservation project focusing on the archeologically declared buildings and buildings with unique British architectural characteristics in consultation with the Department of Archaeology and relevant experts.
02	Carryout a project to introduce roadside city features such as lamp posts, symbols and monuments and benches etc. which characterize the unique British architecture. <ul style="list-style-type: none"> - Along Hatton Road from Presidential Bungalow - Gregory Lake - Grand Hotel Road - Park Road - Wedderburn Road
03	Design of public squares/streets within Nuwara Eliya City Centre reflecting on the unique British architectural characteristics blended with Sri Lankan architecture. <ul style="list-style-type: none"> - Junction at the Presidential Bungalow - Junction at the Araliya Hotel - City center junction close to BOC Bank - Junction close to the bus stand - Street strip from the Junction at the Presidential Bungalow to Junction at the Araliya Hotel

Regulatory Interventions

Table 6. 0.5: Regulatory Interventions

No.	Project Name
01	Regulate the building facades in selected areas and road strips as to conserve the British architectural characteristics.



IV. Development and promotion of tourism attractions located in and around the Nuwara Eliya city centre

There are number of attractions located within the Nuwara Eliya city centre and in the immediate surroundings. Development and promotion of these attractions are discussed under this sub-strategy.

Table 6.0.6: Development and promotion of tourism attractions

No.	Project Name
01	Development of an observation center with relevant facilities at the Single Tree Hills and development of tea promotion kiosk. (This will be implemented combined with Cable car project)
02	Development of an observation center with relevant facilities at Shanthipura, development of tea promotion kiosk and landscaping improvement along the access road.
03	Promotion of a natural trail within Galways forest and having a dedicated eco-friendly camping site at a minimum disturbing location within the Galways forest.
04	Oakley Cottage development parallel to the development in Galways Forest
05	Development of a Wax Museum at Victoria Park
07	Open a portion of the Golf Course for general public and promote commercial programmes such as Golf training programmes, public golf vent etc.
08	Facilitation project at Lover's Leap
09	Promotion of hiking and camping at Kikiliyamana and Lover's Leap mountains
09	Development of an Indigenous Medicine Ayurvedic Spa and Eco - tourism center at Okley Cottage
10	Pedestrian walkway and cycle path development in identified routes in Nuwara Eliya City Center.
15	Promotion of Nuwara Eliya Railway Station which is located on the Nuwara Eliya - Uda Pussellawa as a tourism attraction.
16	Promoting caravan sites at appropriate locations in Nuwara Eliya.



V. Development of market spaces for unique tourism products of Nuwara Eliya including tea, vegetables and fruits.

Table 6.0.7: Development of market spaces for unique tourism products

No.	Project Name
01	Facilitate and promotion of existing tea boutiques and development of tea boutiques at the key tourism attraction points and the proposed public squares/ public streets.
02	Upgrading and facilitation of the existing vegetable and fruit markets in the town center

2. Tourism Facilitation Strategies

Identified tourism industry as a main base of the town economy through this greater Nuwara Eliya development plan, and identified other services related to development associated infrastructure facilities also directly and indirectly contribute to tourism industry development. Accordingly identified infrastructure strategies for road storm water drainage and sewerage system also directly contribute to the tourism industry development. Especially, through making drinking water quality improvement will be resulted finally it will be a change of the belief of tourists regarding supplied drinking water, and that fact will be a reason for good services supply for tourists and increase arrivals to the area.

Creating centralized sewerage system will be a reason to preserving of environment and it avoided the water system pollution. It is again will be a reason to tourists' industry progress and economic development in indirect way. As such creating high density tourism zone through the zoning regulation giving priority tasks that targeting tourism industry, it will be a progress in tourism sector.

Through landscape strategy development will make scenic beauty increasing and it will be further enhance the tourism attraction. Introduced the development strategies and regulations through this development plan to preserve environment. Those strategies indirectly impact to economic development.

Tourism facilitation strategies which focus on provision of adequate infrastructure to enable successful functioning of tourism activities are equally important as tourism promotion strategies. Hence, this sub-section elaborates on various modes of facilitation such as common tourist facilities, accessibility improvement to and in between different attraction points, development of tourist accommodation facilities and standardization of tourism accommodation facilities and other services.

I. Common tourist facilities development

147,470 foreign tourists and 1,400,000 local tourists visit Nuwara Eliya annually. The total tourist arrival during the April season is The existing tourist facilities are not adequate to cater the demand created by this large number of tourists especially during the season. Hence, following common tourist facilities development projects are proposed.



Table 6.0.8: Common tourist facilities development

No.	Project Name
01	Development of the main tourist facilities centre and information centre at the Gregory Lake.
02	Provision of basic tourist facilities such as drinking water facilities, washrooms and seating as appropriate at tourist attraction points.
03	Installation of information boards at selected tourist hot spots within Nuwara Eliya City centre and at attraction points.

II. Accessibility improvement

Easily accessibility enhances the level of attraction of tourist attraction points. Hence, it is important to improve accessibility through various modes of transport. Following projects have been proposed to enhance the accessibility of tourism projects.

Table 6.0.9: Accessibility improvement

No.	Project Name
01	Introducing eco-friendly vehicles renting system including different vehicles such as electric cars, electric bikes, bicycles, electric carriers etc.

III. Standardization of tourism accommodation facilities and other services

Maintaining the standards of tourism services is important to maintain the attraction level of a tourism destination and to have more and more repeat tourists. Compliance with international and national standards make the destination more assuring and reliable to tourists. Accordingly, following actions are proposed to standardize the tourism services in Nuwara Eliya.

Table 6.0.10: Standardization of tourism accommodation facilities and other services

No.	Project Name
01	To have a registration system for all types of tourism service providers in Nuwara Eliya and maintain an open web portal which has all tourism related information about Nuwara Eliya and which also facilitates online operation of tourism services.
02	To strictly enforce the SLTDA's standards for tourism accommodation facilities and other services especially for house renting
03	To have a tourist registration system operated through the online web portal.
04	Implement tourist service providers training programmes linked with hotel associations and other service provider associations.



6.3.4. Strengthen the economy through the upcountry vegetable cultivation.

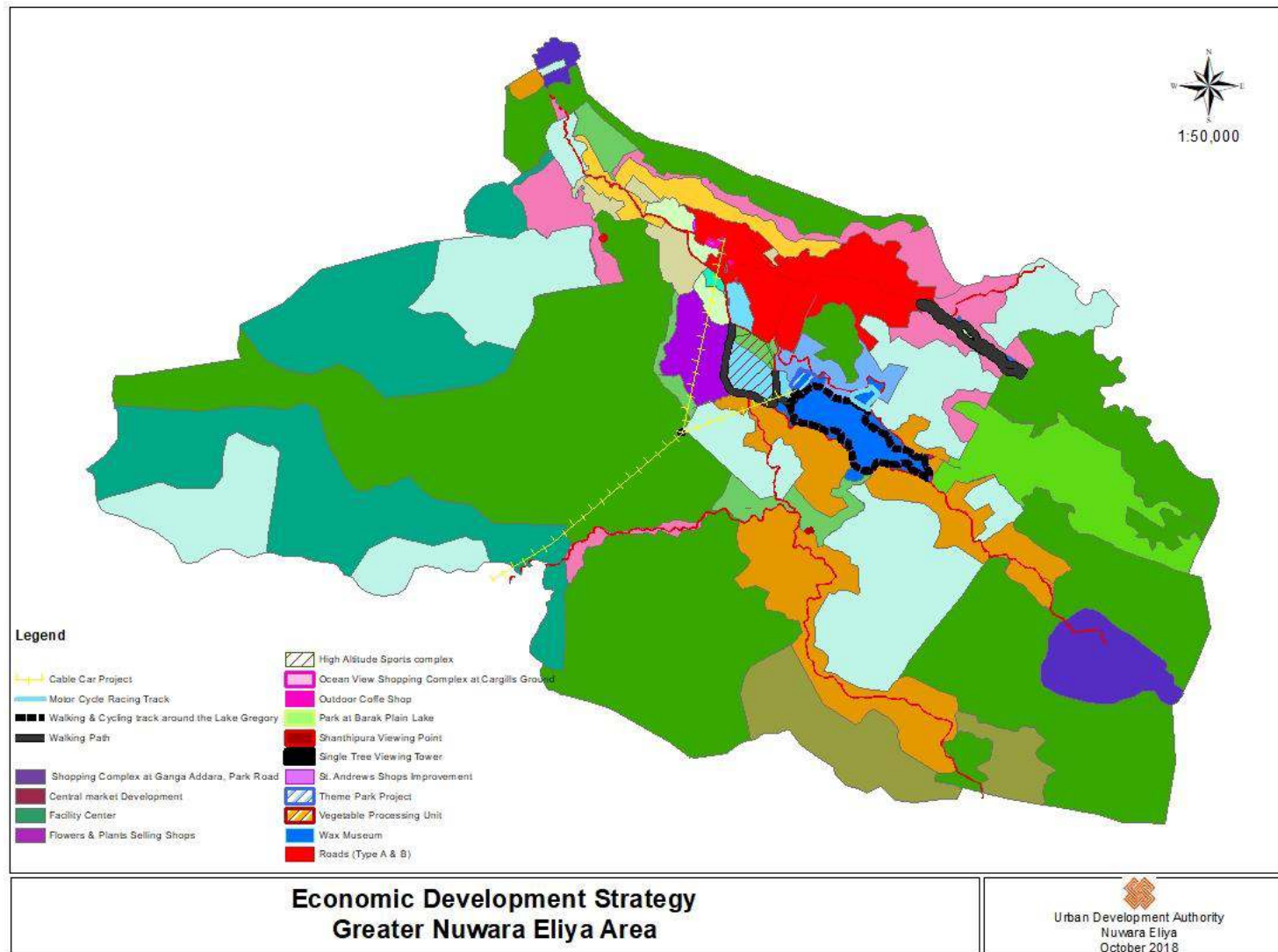
From this development plan, it is expected to continue the upcountry vegetable cultivation as it is in the present situation, and upgrades it to earn high income to the Nuwaraeliya town economy. Daily tons of 100 – 150 of quantity upcountry vegetables transport to other areas of the island from Nuwaraeliya town. However the farmers do the vegetable transport directly from the vegetable farm lands without cleaning or proper packing. There is a strategy in this development plan to make cleaning and packing service for the vegetable transportation. For that proposed to build vegetable supply center in the town. According to the zoning plan, it is expected to limit the population density in the areas of Sandathanne, Shanthipura, Meepilimana where the vegetable cultivation in currently high areas and named as vegetable cultivation zones. Through that it is expected to minimizing the plot coverage further as well and to lessen the building constructions and land subdivisions in those areas. It is expected to keep the upcountry vegetable cultivation as the same as present and connect the endemic up country vegetable cultivation in Nuwaraeliya with tourism industry and to make regulation to develop tourism industry. And allow to agro-tourism projects within these zones by making plans. For the purpose of inclination of the farmers to carbonic vegetable cultivation, it is proposed to allow to projects related to carbonic vegetable cultivation in connection with tourism industry. It is recommended in this plan to obtain the GPA certificate from the agricultural department to all the agricultural activities. Through this, farmers will be motivate to cultivate carbonic fertilizer vegetable cultivation as well as minimizing the using of high pesticides so as to make reduce the impurity of water sources. It will be reason to supply of carbonic vegetable cultivation. These strategies will make fulfilling the strategies of that are need to environment balance as well as achieve the aims need to obtain water quality recommendation for reservoirs in the greater Nuwaraeliya development area from the central environment authority.

6.3.5. Commercial service development.

Especially though this service it is expected to supply commercial infrastructure facilities in the town center residing population and as well as to expected tourism population in 2030. High density mix zone in Nuwaraeliya town center and Hawaeliya sub town zone commercial constructions identified in this development plan. For the purpose of consumer facility development, it is expected to do the retail trade as well as whole sale development in the town center area. To achieve that aims it is expected to central market renovation, cargills ground associated ocean view shopping complex, St. Andrews shopping complex, park road shopping complex and open restaurant constructions, will be the development for targeting tourists. Through these developments it will get the opportunity to services supplied in the central area commercial and related office services.



Greater Nuwara Eliya Development Plan 2022-2032
Map 6-0-2: Proposed Economic Development Strategies.



6.4.Strategies for environmental sustainability.

6.4.1.Environmental Preservation Strategies.

6.4.1.1 Introduction.

Natural eco-systems are included with highly sensitive feature are in the high altitude zone in Numara eliya. Accordingly in the National Physical Plan in 2011 and new national physical plan in 2017 of national physical planning department, this area named as highly sensitive environmental zone in Numara eliya.

The mountain ranges, water sources, eco-systems and attractive natural scenes will make high intensive in greater Nuwaraeliya area. There are water sources, water reservoirs extent of hectares 59.6 that is 1.08% cover the greater Numara eliya area. Mainly Gregory Lake, Nanuoya and related tributaries, Barrackplain reservoir and related waterways, lovers leap waterfall, Glenfall waterfall, Katumana reservoir, Magasthota irrigation reservoir are the water bodies in the area. Extent of Lake Gregory in about 90 hectares while Barrackplain cover the area of 40 hectares.

There are mountain ranges among the environmental features also considered as important features within the area. Highest mountain ranges of Piduruthalagala, Kikiliyamana and Haggala are also among them. These areas are over 2500 meters over the MSL.

There are forest areas of about 1782 hectares are in percentage of 38.8% of total land area in within the greater Nuwaraeliya area. Of these forests reservations single tree, Haggala, Piduruthalagala and Bomurualla are the main forests in the area. Main two rivers of Kothmala oya and Uma oya tributaries of Mahaweli river are nature by these forest catchments.

It is further helpful factor to beautify of surrounding area tea cultivation lands in extent of 1332 hectares for scenic areas of Numara eliya further, Glenfall and lovers leap waterfalls in the town area also intensify the environmental beauty. Galways national forest park in extent of 29.42 also one other significant location in the eco-system. This area was declared as natural sanctuary in 1928 and again it was declared as national park in 2006. Birds endemic to Srilanka about 20 varieties are living in this sanctuary.

It is expected to create town preserving environmental sensitive eco-system with a vision of “Misty Hill Paradise” is for all the people can satisfied. For that it is identified in that vision is to achieve target of create purity water sources through preserving sensitive eco-system. To preserve environmental sensitivity, the main aims are, protecting existing forest areas, water quality of water spring sources are to be improved, make use of GAP certificate for all agricultural areas, In view of preserving the environment.

Misty hill paradise is the vision of the development plan, and for that main targets as preserving environmental eco-system and under the purity water sources system it was identified 5 aims. Out 5 aims, 4 are the main aims are, supply of pure drinking water in the year of 2030, improve the water quality of main reservoirs and get release the environmental encroached lands in the water sources. Existing forest percentage is keeping as it is in the present, and the preserving sensitive eco-system in the directly contribute strategy to achieve all those above aims.



Vibrant economic development and embodied construction features hereditary to Nuwaraeliya of the other targets also contribute in their strategy to fulfil above targets completely. Scenic angles and landscaping beauty of the areas open to see entering tourists to Nuwaraeliya, though the preserving the eco-system in the Nuwaraeliya area. By making environment sensitive green toward moving town and it will reason to tourist arrival increase to the town. It will indirectly help to staying nights increase up to 4 numbers.

6.4.1.2. Strategies

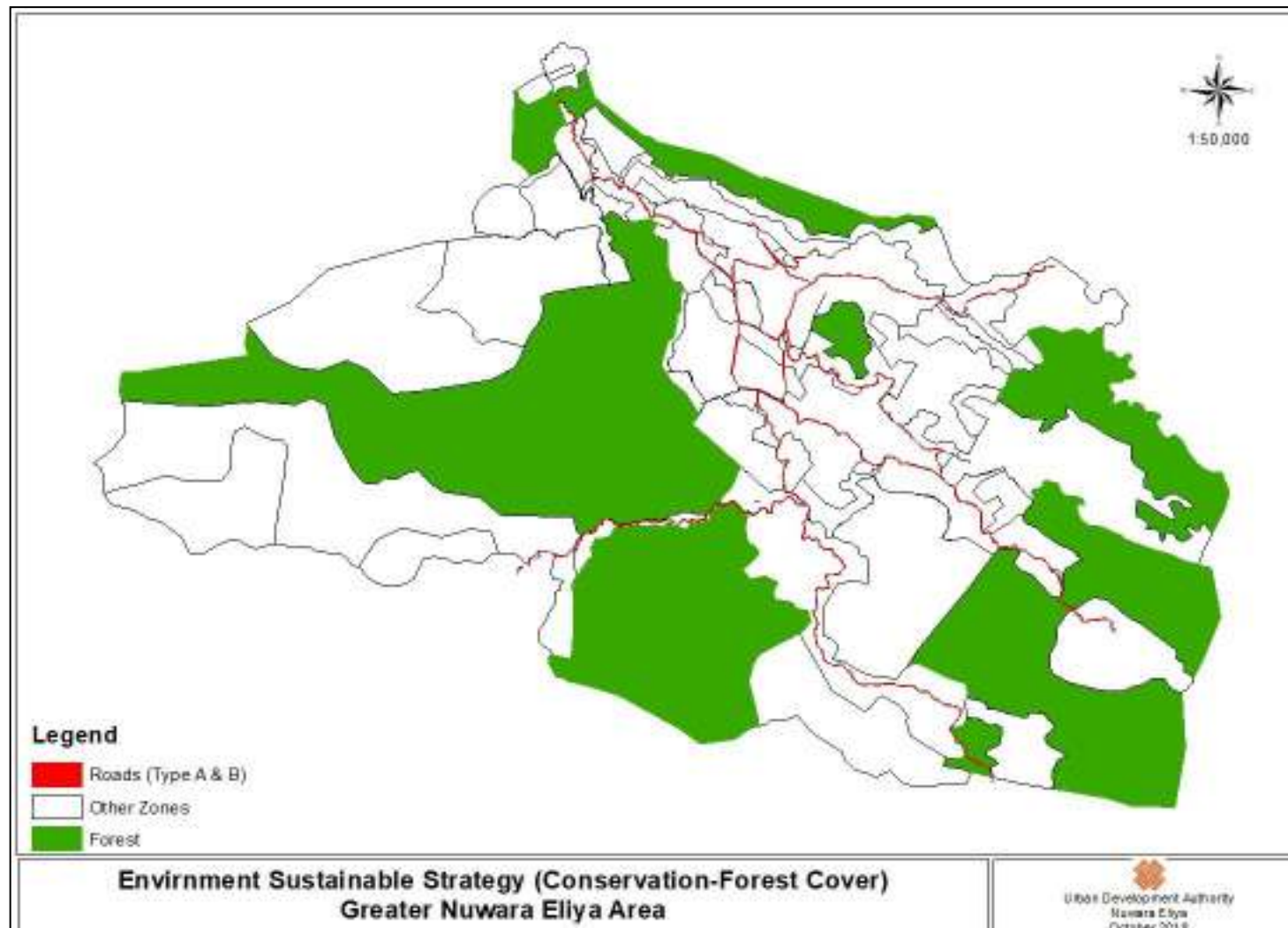
1 – Sensitivity Preserved forest eco-systems.

As the dense forest cover area reduced by 6% during the last 5 years of time, in future it is expected not to lessen the cover area below 34% of existing forest at present rather than that extent. It is confirmed that forest limit area separated and zone the area and regulation are imposed to that area not allowed to any kind of construction. To prevent the unauthorized exposing of the forest, it is proposed to make foot path along the forest limit as an obstruction method. These footpaths fulfil the people walking facility and natural environmental season feeling necessity.

Also it is name on an obstruction zone at the edge of the limit of forest area; limit the development activities within the forest area. It is expected to build 10 meters reservation from the edge limit of forest reservation. Regulation imposed to preserve those factors to help preserve existing eco-system.



Map 6-0-3: Proposed Forest Eco-system.



2 – Reservation allocation to water sources.

These are the activities proposed for reservation are, allocate less reservations allocation for main water ways, declared Gregory lake surrounding area as environment sensitive area and control the building construction, create boundary limits surrounding Barrackplain reservoir and construct pedestrian and cycle walk ways. It is expected from those activities to preserve water ways.

It is a new activity to avoid water contamination by human excreta and waste water is to regulations enforced to compulsory to build waste water refinery system with new building construction.

Create cluster refinery systems for existing hotels and tourist hotels, presently implementing project for control sewage system by Nuwaraeliya municipal council associated with JICA, are the two projects to helpful further preservation of environmental sensitive areas. These are identified lands for the proposed sewage system in this development plan. Regulation enforce for the reservation land covering the water sauces have to be used for cultivation under the GAP certificate.

3 – Water front activity.

Water ways of Nanuoya ela, Barrackplain ela and excess water ways are imposed minimum reservation, through that reservation people can have opportunity to enjoy using that area as walking path way facility, from that activity it will preserve the water reservation encroachment and will keep it clean the area and minimizing water contamination.

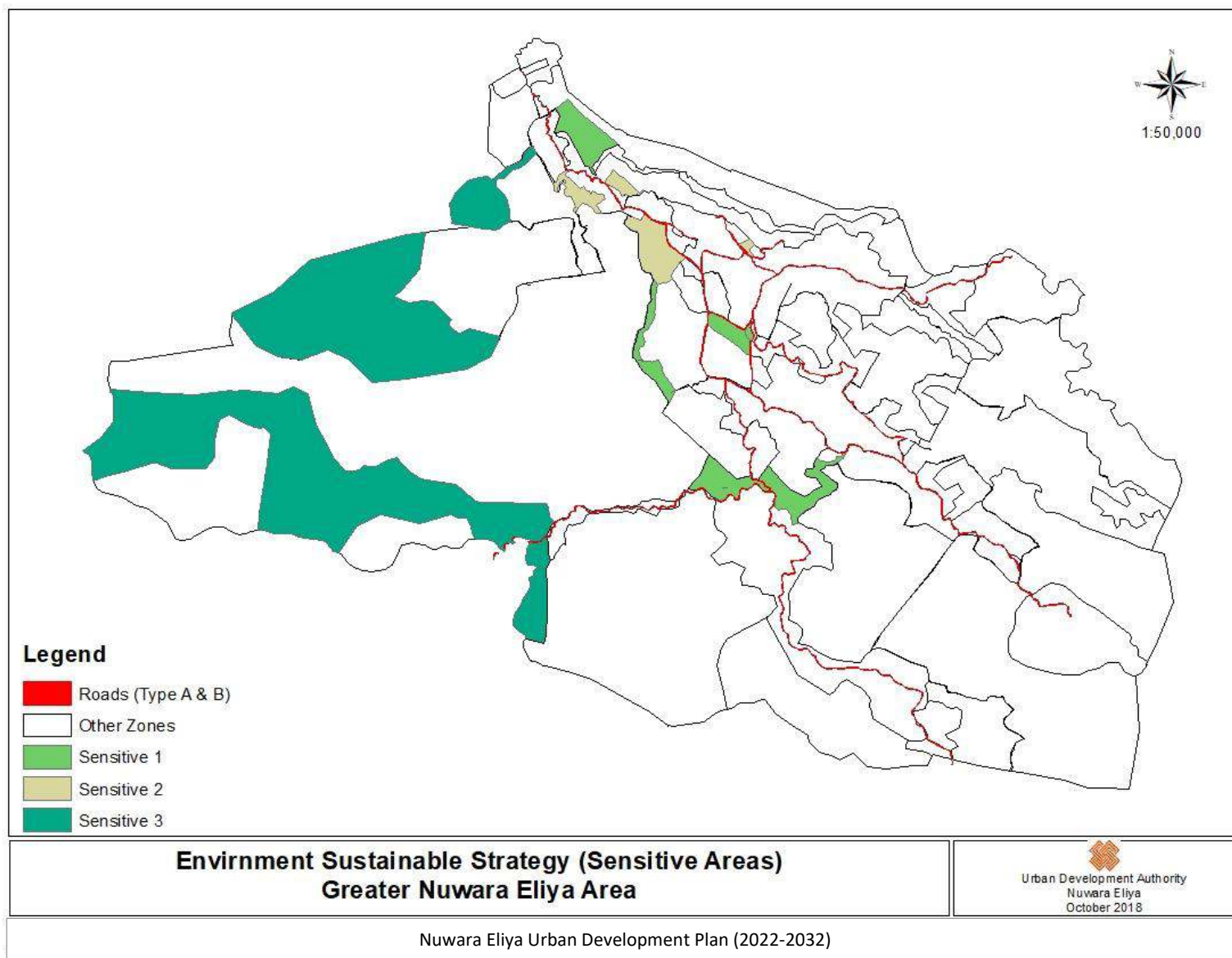
4– Enforced limitation conditions for preserve of environment sensitive areas.

Identification of environmental sensitive areas and named as environmental sensitive zones, accordingly sensitive zones numbering as 1, 2, 3 as main strategy. Identified areas as high sensitive area through the sensitivity study to consider for their zoning limitation areas.

Near the boundary limits of Udaradella and Shanthipura, shanthipura entering road with Bambarakele steep slope, two side area of Bambarakele Nanuoya ela, st Andrews road church and its associated forest, overspill of the lake Gregory land strip along the ela up to Blackpool, near the area of Uniqueview forest, are the main areas. Strict regulation enforced in this area for construction control start forestation in this area. And they will help to improve sensitivity. And also eco-system sensitive tea lands are enforcing regulation not to release for constructions will also doing this regulation imposing. Under this the identified sensitive areas are tea land associated Windiconer area, and tea land associated Bambarakele tea lands.



Map 6-0-4:- Sensitive Zones



Strategies 5 – Prevention of obstructing scenic angles and increase of green dense forest.

In this chapter, it is expected to tourist attraction of arrived tourist to Nuwaraeliya and other people feel the taste of environmental scenic beauty and sensitivity further. Not allow the constructions obstructing the scenic plains of the surrounding area mountain ranges of the town. By this idea it is expected to at least 2/3 of the all mountain ranges sceneries to view the tourists.

All the buildings will be constructed and parallel to that at least 5 number of trees should be planted within the building land premises and also need to plant trees to cover the buildings to obstruct the view plain to the tourists. And also proposed to plant trees around the lake Gregory reservation and further it is proposed to implement all the other area road side tree planting projects for to continue to preserve sensitive environment of the town.

Strategy 6 – Environmental friendly Agricultural uses.

However, upcountry vegetable cultivation is identified as main income generating way in the economy of Nuwaraeliya town area, it creates impurity to the environment and the water sources is an identified problem. Hence it is proposed to lessen the using of the non-organic vegetable cultivation and also lessen the use of pesticides and farmers make inclined to organic vegetable cultivations in the extent of 200 hectares of lands in upcountry vegetable cultivation areas in Nuwaraeliya urban area. Accordingly it is recommended to all the agricultural activities should be done under the GAP certificate issued by the agricultural department.

Accordingly this strategy inter related to the strategy of solid waste disposal system of town area. And all the homestead garden should have to keep composting bin to make fertilizer.



6.4.2 Landscape and beautification plan.

6.4.2.1. Introduction

It can be considered that especially landscape beauty area Nuwaraeliya got the people fame on due to its own possession of natural scenic area connected unique beauty sensitive destination. Main reason for that is greater Nuwaraelya town area as a whole is located in an environmental landscape scenic area. Especially, it is the reason for Nuwaraeliya town possess of natural environmental beauty, from the past history, this area named as natural sensitive area. When the British ruled period, after they enter the area they thought that this area should be kept preserved area and continue it a resort town. And also it is the reason that landscaped based natural eco-system to increases of tourist arrivals to this area.

Main component among the above situation are that the existing eco-system, natured water falls, open lands, golf ground, Lake Gregory around associated environmental entertainment zone. 18 hectares of forest area and about 2 hectares of open areas and play ground as well as 13.3 hectare of tea cultivation and 5 hectares of water spread areas and about 8.5 hectares of upcountry agricultured lands are within the sensitive greater Nuwaraeliya area, intensify the landscaping beauty.

In addition to this natural eco-system, there were about 130 buildings constructed at the time of British period with Victorian architectural features as hereditary human features beauty intensify further. After sometime build Gregory Lake Park, Victoria park landscape beauty of Nuwaraeliya intensify further as well.

However endemic natural landscaping beauty of Nuwaraeliya weaken at present due to high-rise buildings constructed covering scenic beauty plain, weaken natural forests resulted not appearance of water falls and scene of water ways, impurity of water ways, mainly influenced to this situation. On behalf of the hereditary architectural features applied another architectural features make hindrance to beautification. It is seen more construction of innovative buildings substitute for natural green constructions can be seen in the past.



6.4.2.2.Strategies

01. Natural landscape plains promotion.

Promotion of natural landscape beauty idea behind this is give the first priority to the natural eco-system in the landscape development. Accordingly in future need to do the continuation of the existing natural eco-systems more than to construction of artificial landscaping.

Following locations were identified for preservation of natural forest areas and new endemic tree planting areas in Nuwaraeliya. Accordingly Bambarakele, shanthipura sensitive zone and Unique view sensitive zone, Nanuoya ela bank two sides, upper part area of Gregory lake, front vehicle parking area of lake Gregory club, Race course ground, Udapussallawa road reservation, near the Blackpool bridge and Nanuoya ela bank two side area will be preserved as landscape areas.

01. Town center Recreational zone and landscaping.

Land plots where at Gregory lake zone in the town center in Nuwaraeliya town area, Racecourse playground, Golf course, Victoria park and president mansion, commander general's mansion, prime minister's mansion and associated lands of that premises will be used for minimum building uses preserving natural landscaping scenic beauty view plains. For that zoning and building regulations were identified for enforcement.

02. All the lands are homestead.

Except high density mix, high density tourism zones, all other zones as 50% enforced regulation high density mix and high density tourist zones 60% as homestead were enforced by regulation for flower cultivations, vegetable cultivation or landscaping activities and all homestead are planted at least 5 trees as compulsory as regulation.

03. Town beautification through water ways associated landscaping.

It is expected to achieve as a main resource of Nuwaraeliya water saucers associated landscape scenic plains protection and further promotion of that activity. Accordingly Barrackplain reservoir surrounding landscape project, two sides of Nanuoya ela banks landscaping, Katumana Lake and ela reservation landscaping, Magasthota Lake and ela associated landscaping, Magasthota lake associated area landscaping are targeted projects.

02. Town landscaping and preserve the naturally formed the structure features.



It is targeted to cover the manmade concrete formation by green covers in the town center and along the road sides. And minimize of such construction in the future. Accordingly minimize the concrete formed constructions in the near road sides and currently existing constructions of concrete wall/brick walls and drains make beautification by green covers. Hoarding for commercial publicity will enforce by regulations of standard measurements, introduced common notice boards at the entering points of the sub-roads, enforced limitation conditions for trade notice boards, enforced to that by giving standard sizes by regulations as well as fixing locational standards, enforce the regulations to use suit colour for walls and roof of the buildings. Introduced the hereditary architectural features for Nuwaraeliya by regulations. Building high controlled by enforcing regulations so as to avoid covering of scenic areas beauty view plain by constructions. Entering points of Nuwaraeliya town at Toppass, Blackpool, Katumana and Boralanda will be beautified by making landscape with hereditary features of Nuwaraeliya.

6.4.3 Disaster Management Plan

6.4.3.1 Introduction.

Main disaster of earth slip and water flooding can be identified within the greater Nuwaraeliya planning area and according to data of national building research organization there are 3 earth slip prone areas within the area. Accordingly the areas of upper part of Uniqueview area, upper part of Bambarakele Shanthipura road, upper part of Waterfield, are the areas prone to earth slips. When experienced torrential rain in the Nuwaraeliya town, it resulted to overflowing the water ways and inundated lowlands and associated residential areas would be affected with flooding. Following table No 6.1 shows the areas that would be affected to disasters.

Table 6.0.11: Disaster Locations

Location	No of families	Disaster
PWD Houses	60	flooding
St. Andrews Drive	20	flooding
James Street	25	flooding
Uniqueview upper part	58	earth slip
Race cours e ground	54	flooding
Mahinda mawatha low land	34	flooding

6.4.3.1 Strategies



01. Disaster area named as less developed zones.

Upper area of Uniqueview, upper part of the Shanthipura in the slop area of upper part of Bambarakele named as sensitive area, upper part of Waterfield drive and adjoining part of Boralanda forest reservation named as low density housing areas, and it will be a control of development activities.

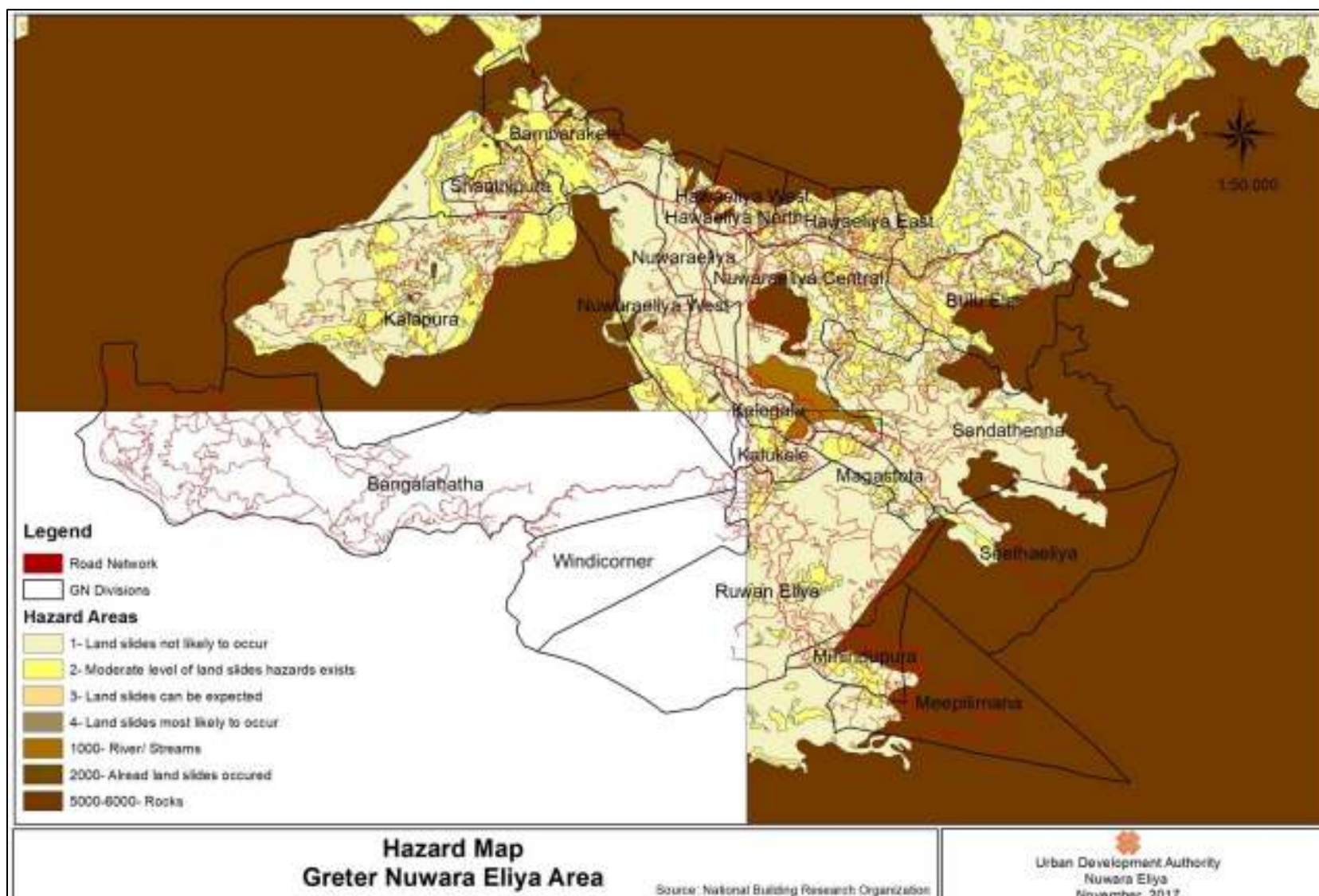
02. Relocation of settled families.

(i.).The High attitude sport complex project is proposed and parallel 54 families currently live in race course ground to be relocated to the Hawaeliya lands belongs to the municipal council. This families facing to flooding of Nanuoya stream..

(ii). under the new housing development project, it is proposed to relocate 24 families presently settled in earth slip prone unique view area to Scrub state housing project.



Map 6-0-5: Hazard Area



03. Removal of silt deposited in main reservoirs.

- I. Demarcation of reservoir boundary of Barrack plain and remove deposited silt.
- II. Removal of deposited silt in Katumana reservoir.

04. Widen the water ways that are already damaged.

Widen the water way of Barrackplain, Water field drive, Thalagala oya and Nanuoya flows across race course area.

6.4.3.2. Development plan vision make suit to the targets.

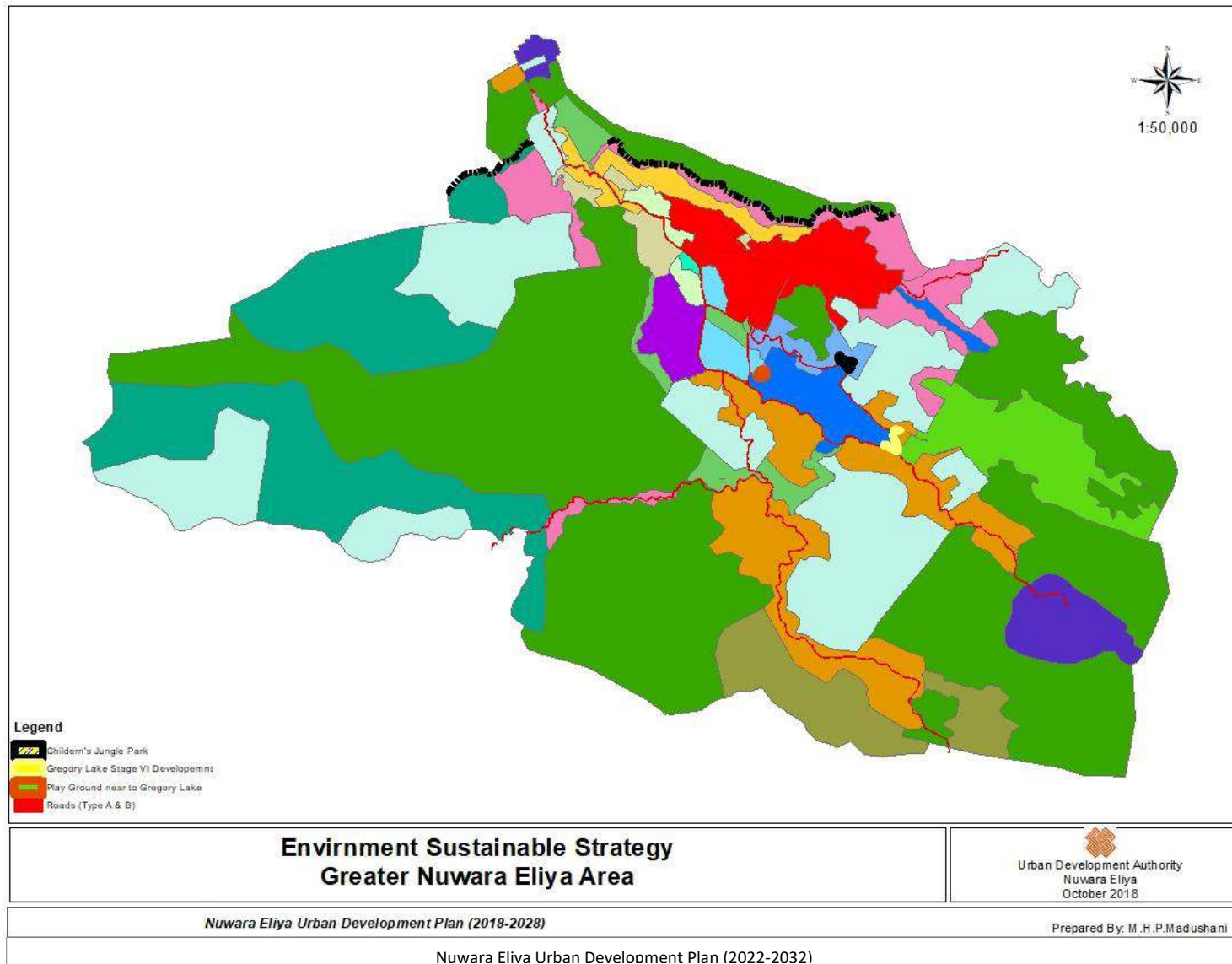
Directly and indirectly supportive to achieve the targets of above disaster management strategies through preserving eco-system to win the vision of vibrant prosperous town center. Through minimizing the residential uses in the catchment areas of associated sensitive eco-system in the areas of water spring water sources can be avoided the impurity of that sources.

6.4.3.3. Other connected strategies.

Interconnected to the strategy of storm water flowing drainage system with increase up of the water volume of the reservoirs and water sources through minimizing disasters in the disaster management housing project, it is connected with the James street housing development project and unique view upper part houses relocation project. The low income family housing project for 54 families in proposed high altitude sport complex land to relocation project connected with strategies of economy development.



Greater Nuwara Eliya Development Plan 2022-2032
Map 6-0-6: Environment Preserving Strategies.



6.5 Social and physical infrastructure strategies

6.5.1. Service plan

One of the aims of this development plan is to supply the facilities and fulfill the service necessities of the connecting population as well as residential population through making sustainable development to all can be satisfied within the greater Nuwaraeliya development planning area to achieve the target of misty hill paradise.

It is targeted that the tourist arrivals for the all area is about 4.5 million in the year 2030 and its daily average is 24,000. Residential population for 2030 year will be targeted to 60,000. On the other hand the employers and employees daily travel to the town is about 40,000 in the year of 2030. According to that it is analyzed the needed services for the residential and migration population by the strategies. Special attention will be forecast for the need of health, education and housing for the growth population in this development plan.

6.5.1 (A) Housing

Housing conditions of the greater Nuwaraeliya development area are in the lower level is a problem. Poverty level is 21.6% percentage of total population in the area and it is the reason for they are occupying substandard houses. And also low facility houses as well as there are 2328 number of houses are shanties in the area. Main slum area locations are unique view, Kelegala, Nesby state, Galways area, Mc houses, PWD houses, Police lane houses, Scrub line houses.

According to censuses and statistic department reports there are number of 224 families not have them to owned houses. there are 2328 houses in the area were shanties and line houses.

it is identified that the 21.6% percent of substandard houses were targeted to reduce to 10% by the greater Nuwaraeliya development plan. Population of this area in 2016 is 49,331 and in 2017 it was 52,302. According to that growth rate it will be 60,000 population can be expected in 2030. Number of families were in 2012 was 11,008 and in 2017 it was 11,644. According to that the family size in as 4.4 can be calculated.

Having backlog in 2012 was 242 and it was 2017 is 247. Hence the population needed housed in 2030 will be 7698 and the needed houses will be 1749.

The housing backlog in 2017 was 2.1% and comparative to it 2030 will be increased. And expected to reduce 3% by development of houses and needed other quantity will be fulfilled by the housing market in the area. Accordingly needed housing backlog can be analysis shown in below.



2030 needed excess quantity of houses	1749
Obselet houses	116
2030 needed total houses	<u>1865</u>
Direct construction of houses 03%	179
2017 housing backlog	<u>247</u>
Direct construction of housing	<u>422</u>
1. Supply of direct houses	422
2. Market supply of houses	1443

6.5.1.(A) Strategies

1. Direct housing projects.

Implementation of 2 middle income housing projects.

01.Scrub estate UDA land houses	80
02.Proposed middle income housing land-Hawaeliya.	
Meteorological department land houses	100

It is expected that the housing market will supply the needed facilities for the housing and develop the infrastructure facilities, through the planning and zoning regulations identified as medium density zones at Blackpool, Meepiliman, Ruwanpura, Katumana to implement by this development plan.

6.5.1.(a) 2.Renovation of low income houses.

According to the data it was identified that needed houses in 2012 was 2328(21.6%) and in 2017 it was 2533. specially in the margin zones and Nanuoya estate associated labour houses were lime houses, shanties are included to the backlog and to develop these houses proposed to through several strategies.



Table 6.0.12: Housing Renovation Strategies.

A.A	Location	No of houses	Land ownership	Housing renovation strategies
1	Bambarakele PWD houses	55	National housing development authority	Renovation with private investors at the same location
2	Bambarakele estate houses	150	Estate companies/land reclamaiton commission	construction by the instruction of UDA at the same location
3	James street	50	golf houses	Renovation with private investors at the same location
4	Lady Maccalam Drive Mc houses	400	Nuwaraeliya Municipal council	Access area and common open space develop according a plan
5	Galways land houses	60	Nuwaraeliya Municipal Council	Supply of infrastructure facilities develop according a plan at the same location.
	Scrub estate	300	LRC /Estate facilities	develop at the same location

6.5.1.(A) 3 Relocation strategies

Table 6.0.13: Housing construction strategies

No	Location	No of houses	Land ownership	Housing construction strategies
1	Unique view housing scheme	54	Government	Aquire the 2 acres of land in scrub estate and relocation needed famillies and concomitantly renovation the scrub houses.
2	Scrub estate	100	Government	Relocation to new houses
3	Golf houses	54	Golf land municipal council	connected the relocations to altitude sport complex project.
4	Boralanda low income housing	50	Urban development authority	Invested by the owners at the same location.



6.5.1 (B) Education

It is took value when compared to the primary and secondary education levels of other educational zones of the district with greater Nuwaraeliya development planning area. In the year of 2016 the national percentage of G.C.E.(O/L) examination result got through the examination in 71% percentage and it was of the G.C.E.(A/L) got through results percentage is 70%. However it was that the result percentage is the greater Nuwaraeliya development planning area 53% and 50% respectively. There are 14 schools in this educational zone and students 8600 are getting education. Out of that 30% of students daily travels for further educational purpose to other ares.

6.5.1 (B) 1. Strategies

01. There are only 5 schools have the sufficient playground out of 14 schools within the planning area and expects other 04 playgrounds to develop through this development plan. They are as follows.

- i. Hawaeliya wajiraghana school play ground to be develop properly.
- ii. Meepilimana Senananda school play ground development.
- iii. Kalukale primary school playground development.
- Iv. Magasthota Madduma bandara school play ground development.

02. Primary educational section development.

Space allocation for pre schools associated projects of proposed relocation of golf houses, associated scrub new houses, MC houses, Galways land houes, Nesby estate houses.

03. Tertiary educational developoment.

There are 4 main institutions are located within the area for the tertiary educational developoment. Namely vocational training authority , National Apprentice and technical training authority, Technical collage of Nuwaraeliya and youth service council. In addition to that 2 private educational centers in the area.

New oppotunities created targettting trainning caurces for tourism and agricultural related development.

- I. Start hotel school within the premises of vocational training authority.
- II. Promote flower plant cultivation in the Bambarakel primary school as agricultural livestock associated vocational training center.
- III. Start short term causes for ariculcural sector within the premises of seethaeliya seed potatoes reach institute. Causes starts for converting GAP certificate methodology and make awareness of proper agricultural methods for farmers.



6.5.1 (C). Health services.

Nuwaraeliya general hospital is the main medical facility supply center for the area. And it's new hospital complex act as a extending of the hospital for the standerd of national hospital. There are 425 beds are presently use for patients and give services for highest no. of patients daily. No of doctors 105. and 525 number of beds are included to the new hospital complex as well.

6.5.1 (C).1. Strategies

1. Sufficient parking area facility development for new hospital complex.

- I. As emergency entering way to the hospital, develop the lady Macclam drive for doctor's vehicle and emergency service vehicles coming in to the hospital complex.
- II. Road widen up to 12 meters and develop it from Udapussallawa road to hospital complex.
- III. Develop the main parking area of the hospital.

Make large the waste water refinery system of the hospital and establish the incinerator for hospital solid waste within the hospital premises.

2. Promotion of private hospitals.

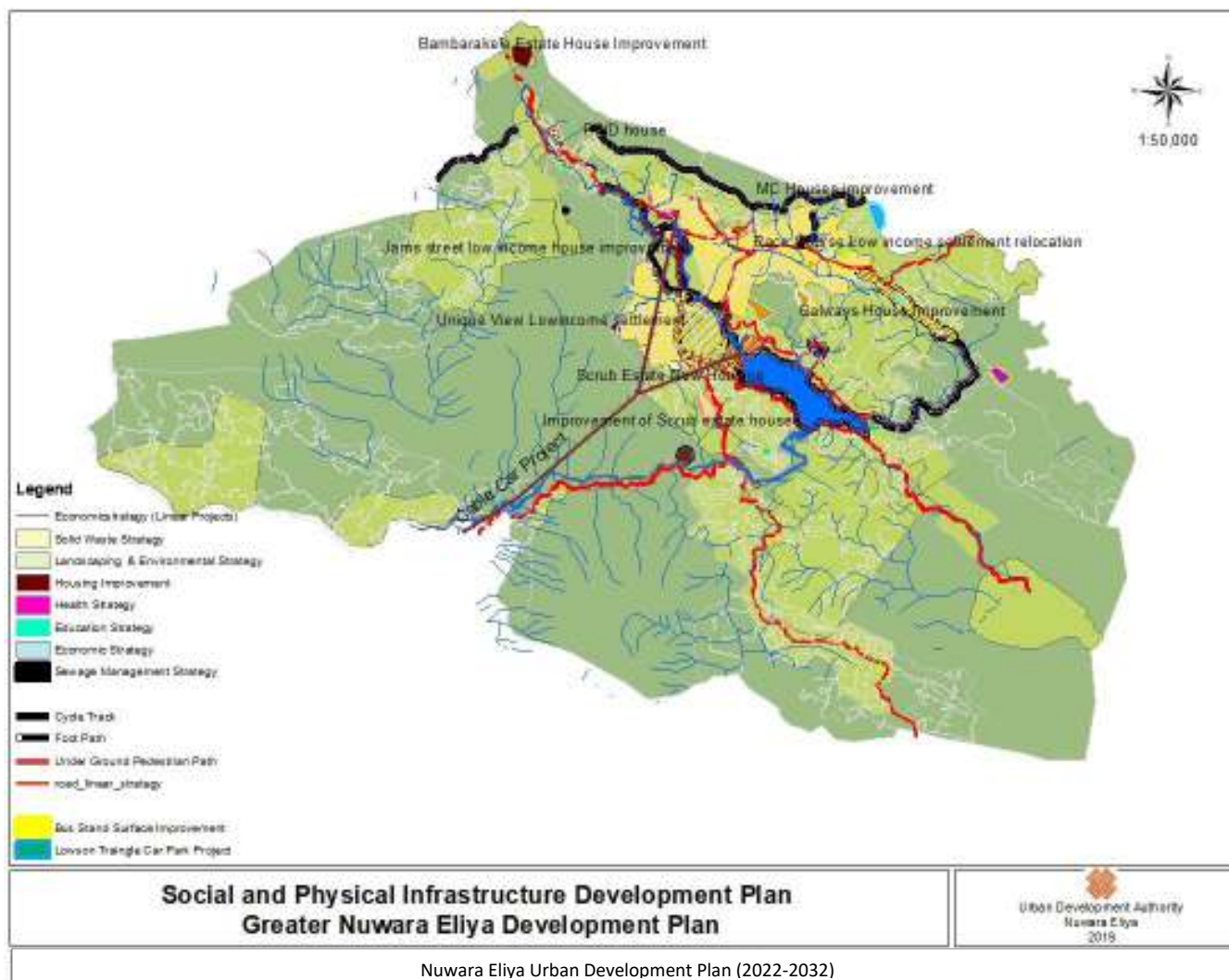
there is only one private hospital in the Nuwaraeliya area and it comprises 39 beds. However for the future tourism infrastructure facility promotions, it is suitable to allow the private hospital comprises of 10-20 beds within the high density mix zone.

3. Indegenous Ayurvedic therapy promotions.

It is arises the need of the Ayurvedic hospital for the tourism industry. With the tourism sector development in the area need arise to start ayurvedic hospital as a treatment center. For that make open oppotunity to private and public sector to participate and allocation of 2 area UDA land at Oaklay cottage premises can be provided.



Map 6-0-7: Map No 6.8- Social and Physical Infrastructure Strategies



In view of misty hill paradise, preserve the existing eco-systems and purity water sources systems and highlights hereditary features to Nuwaraeliya and vibrant town economy are the targets need to achieve the targets by the strategies through direct or indirect way.

Construction of new houses, renovation of low income substandard houses and they will be resulted to down the poverty level it will be comes to achieve vibrant economy within the environmental associated eco-system in PWD houses, Unique view houses, giving them to alternative solution and make minimize the effect harmful to the eco-system and preserve eco-system and make purity of water sources and can be fulfill the targets.

Meanwhile the 21% of shanties and low income housing percentage 10% to reduce and through by the renovation of substandard houses and uncover the scenic beauty areas and make reflecting of hereditary features of Nuwaraeliya of said facts can be fulfill the targets, it is helpful to residential attraction are the facts, living standards of residential population will up by the developing playground development and primary school development through achieve vibrant prosperous economy to increase housing demand through upgrade living standards.

Under the tertiary education development make training in the field of tourism and agriculture to services supply for 24,000 number of daily arrival of tourists by human resources training programme through that it can be achieved the target of vibrant prosperous town. People can train to proper agricultural uses, and through that can be achieved to the target of preserving eco-system.

Through the promotion of hospital vehicle parking under the health service, may help to health development of health service getting people, and it will achieve the target of vibrant prosperous economy.

Through the private hospital promotion and ayurvedic hospital construction may help to tourist arrivals and it can be achieved the target of the vibrant prosperous town.



6.5.2 Transportation

6.5.2.1. Introduction

Nuwaraeliya town is a tourist center and as well as district administrative center. Population of the district in 2012 was about 706210 while it will be about 7012000 in 2030. Accordingly travel population for administrative and other purposes to the town is about 62000 daily. Daily average tourist arrivals will be about 24000 as well while in the year of 2016 it was about 52,500 and population will be 59,000 in the year of 2030.

Out of whole tourist population 75% percent uses the private transport system and the community population 50% of the people travel by passenger transport services.

6.5.2.2. Strategies

01.Strengthen the common transport services.

Transport services that are using by the people strengthen and proposed to more passengers to travel by common transport services.

(A) Create transport service for the passengers who travel to Nuwaraeliya from Nanuooya railway station as connecting transport service with trains. though this service it is expected more passengers arrivals to Nuwaraeliya.

(B) To making the Nanuooya railway station as a center, and from that point to town center, Gregory lake park, and tourist targeted cable car project transport services connect for tourists.

(C) Second stage of the nuwaraeliya bus stand development implementation and bus stand space management will be done properly.

(D) Waiting bus stand is proposed to develop at the Udupussallawa road, and by the sides of upper lake road and Gregory lake park can use for parking.

02 Sustainable transport systems for internal town centers.

(A) town associated center area and Gregory lake entertainment zone, high density tourist zone and high density commercial zone connecting pedestrian and bycical transport system. Through this system Gregory lake associated zone to Nanuooya ela reservation and also ela reservation up to Peradeniya Badulla A5 road and along the Udupussallawa road pedestrian and bycical road ways construction.



(B) Construction of pedestrian path ways along the grand hotel road, new kandy road and park road, lady maccalam drive road, Unique view roaad.

(C) Town service transport system will implement when the more tourists arrival high time in the April season by this it can be minimize the vehical conjesion in the town.

(D) When in the pedestrian crowd are high time, to minimize the conjested problems, it is proposed to build under ground bridges at in front of Loson squire and it extent up to proposed market building and other one is proposed build at in front of bus stand for the pedestrian using telecom pathway.

(E) Construction of pedestrian network starting from unique view road junction to connecting grand hotel road via Glenfall road paralleled to Badulla road.

(F) proposed to build pedestrian pathway from right bank of Nuwaraeliya and associated area of park road pedestrian to use.

03. Covered pedestrian pathways.

(a) Town center Queen Elizebeth road, New Kandy road, Udapussallawa road, Court road, park road, Lawson street of all the pedestrian path ways proposed to build with covering roots.

04. Minimize the traffic congestion in town center

Weekend vacation and specially in the summer season when the tourists arrivals are high town center roads block with traffic congestion(Map No) the Peradeniya – Badulla main road can be highlighted. Traffic congested other roads are unique view road Glenfall road that were the many tourists hotels located, Haddon hill road, Upper lake road, Gemunupura road and baker’s farm road. To minimize the traffic congestion on the above road need to widen those roads with facilitating pedestrian pathways.

Accordingly below mentioned roads proposed to widen at least 9 m width from the place of spot location number



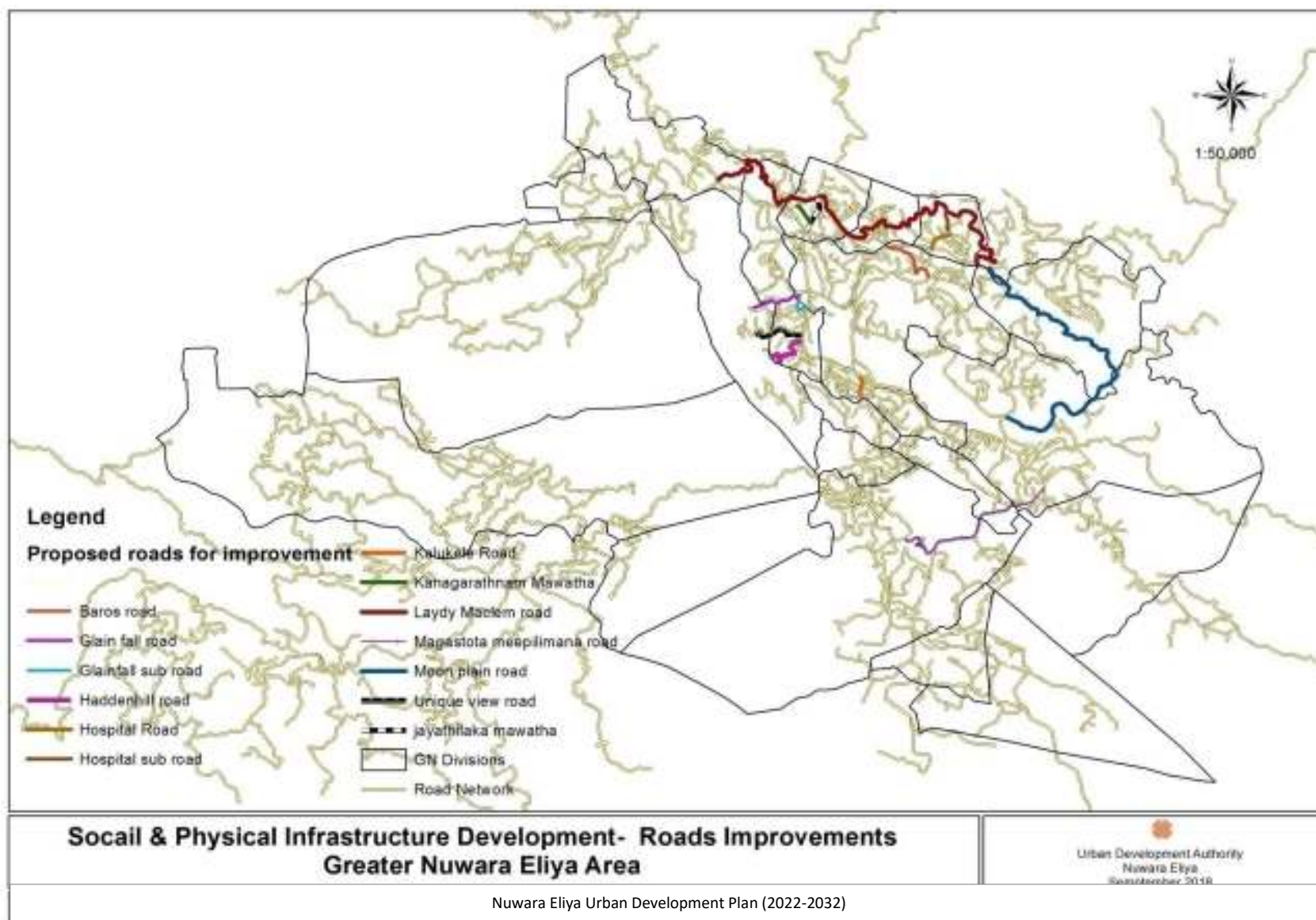
Table 6.0.14: Proposed Roads for widden

No	Road	Spot location		
		Index No	latitude	longitude
a	Unique view road	1	6.963183°	80.766802°
		2	6.963303°	80.762125°
b	Glenfall road	1	6.967167°	80.766553°
		2	6.966035°	80.762083°
c	Haddonhill road	1	6.962537°	80.766718°
		2	6.961483°	80.763590°
d	Lady maccalm road	1	6.970334°	80.784507°
		2	6.973198°	80.771879°
		3	6.977272°	80.768346°
		4	6.976908°	80.767072°
		5	6.977326°	80.765488°
		6	6.976876°	80.765215°
		7	6.976525°	80.764472°
e	Upper lake road	1	6.966681°	80.772169°
		2	6.952154°	80.787155°
f	Magasthota – Blackpool road	1	6.947405°	80.791090°
		2	6.945892°	80.789567°
		3	6.942315°	80.777272°
g	Sandathenna road	1	6.954727°	80.787399°
		2	6.970076°	80.785663°
h	Baros road	1	6.972220°	80.775379°
		2	6.968925°	80.779421°
i	Jayathilake mawatha	1	6.973944°	80.767163°
		2	6.977217°	80.768351°
j	Kanakarathnem road	1	6.974697°	80.767670°
		2	6.976469°	80.766378°
k	Glenfall sub road	1	6.965870°	80.767262°
		2	6.967150°	80.766555°

05.All the roads are standards enforce to landscaping beauty and pedestrian crossing accordingly in future road development should done with at least 1 m width pedestrian pathways in to the sides at least 0.5 m width land strip for tree planting or endemic flower planting, and paralleled to the road land should allocate for service supplying multi service duck. Above land allocation should compulsory according to regulations.



Map 6-0-8: Road Development Projects



6.5.3 Drinking water supply

6.5.3.1. Introduction

Water supply distribution is done by the Nuwaraeliya municipal council within the limit of municipal council area. 35,000 of citizens out of total population within town limits are consumed municipal council water supply and there were 6977 commercial and residential water connections. Water connection categories are residential units 3950, commercial units 411 not residential units 950 and institutional and other units 245. Needed daily water volume is 4500 cu.m. and it's percentages are 72% residential, 18% commercial and tourism, and 10% for public and private institution are distributed.

All the water supply system is feed by 9 spring water sources of within water catchment forest areas. Water storage tanks 15 in the area divided 7 distribution zones to covers all the municipal areas. Excess water supply needed for dry season will be supplied by 9 tube wells. Water volume supplied in the dry season by the water spring sources is limited to 3500 cu.m. and the excess water supply by the tube wells are 1000 cu.m.

Out of all consumed water supply 70% is used in the Haddon hill zone and the main spring water sources are Pedrew estate and Toppas spring sources. Commercial, residential and tourism zones are covered by 5 main water storage tanks.

Hawaeliya Mahinda Mawatha around hospital area cover by the lovers leap and lower area zones daily supplied water volume is for the tank is 1750 cu.m. Main residential area with high density zone and location of the main hospital is in this zone is supplied water from this water catchment area.

Supplied water volume to this zone reduces down to 900 cu.m. in the dry zone during the January – April time was supplied water from H1,H2,H3,H4 tube wells and distributed.

However other dry season from December to April time also got down the water volume daily to 3500 cu.m. due to decreases water in the water sources. And water demand going up to 5500 cu.m. daily. Reason for this is increases of tourism arrival in this grama niladari division of Ruwanpura, Meepilimana, Katumana, Blackpool and Shanthipura area are water distribution is done by the separate divisional and rural water supply projects within the Nuwaraeliya Pradeeshiya Sabha. For that there is no proper mediation by the Nuwaraeliya Pradeeshiya Sabha.



6.5.3.2. Strategies.

01 . Confidential water supply.

It is the aim from this chapter is continuous water supply for the residential and tourism population within the town. It was estimated the needed water volume for a day is 9500 cu.m. for the forecasted population in 2030 of town residential population 59,000 daily tourism population 35,000 , people who coming for other purposes are 52,000 as accordingly forecast. Total population daily is the town in 2030. On the above forecasting figures in addition to daily supply water volume of 4500 cu.m. Other excess water volume needs 5000 cu.m. for 2030 as identified.

(A). Centralized water refinery center

(B).Loversleaf water tank

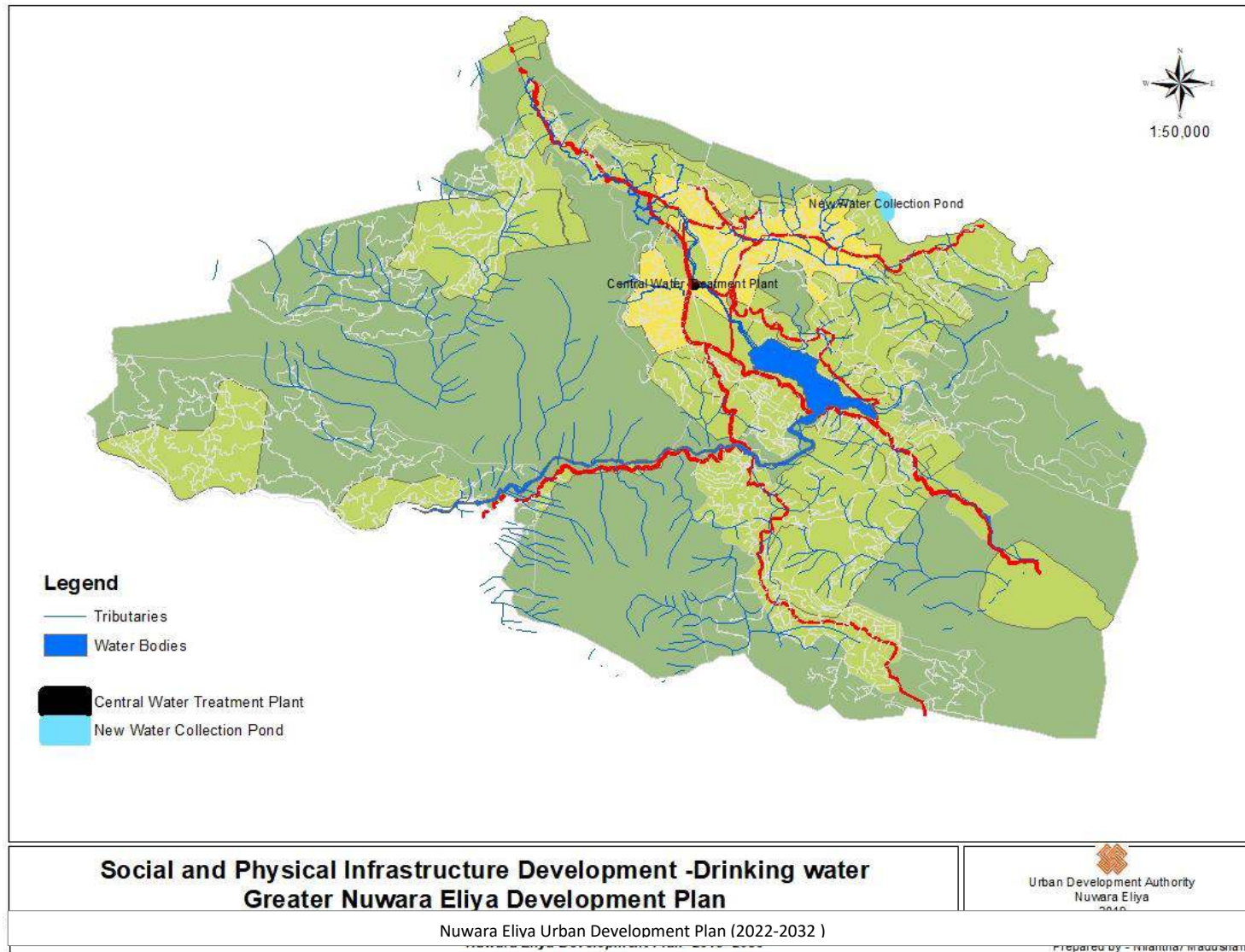
Water collecting reservoir in proposed to build within the 7 area land in the bottom of loversleaf waterfall land owned to pedrew estate. It will be collected water volume in 15 acres of cu. feet. Main water source for that is loversleaf waterfall.

(C).Implementation of 1000 cu.m. project for residential and tourism units using water sources is Haggala forest associated with Katumana and Seethaeliya area.

(D). Implementation of water supply project capacity of water 2000 cu.m. for residential and tourism purposes for 2030. Proposed to supply water to the areas of Meepilimana and Ruwaneliya area. The project is connecting with the Municipal council Nuwaraeliya water supply system as it is institute presently doing the water supply for the said area.



Greater Nuwara Eliya Development Plan 2022-2032
Map 6-0-9: -Centralized Water Refinery Unit and Water Tank



6.5.4 Electricity and Telecommunication facilities

6.5.4.1 Introduction.

It was reported that the population of greater Nuwaraeliya area is about 52,000 was in 2017 and it is daily average tourist for the town is extent of 7300 population. Maximum tourist arrivals reported was 50,000 in 2017. While the commuter daily travel to town for other purposes (except tourist) was 40,000 and it will be in 2030 for 60,000. The Residentail population will be 59000 in 2030 and average daily tourist will be 35000 and ita maximum will 60000 per day.

All the area within the greater Nuwaraeliya development area are supplied electricity continuously by the electricity board, the extent of electricity supply is 8156 kilo watt for the day. Excess kilo watt 1500 needed for residential, tourism and commuting population for 2030. Accordingly it can be forcasted needed electricity vome 2030 is kilo watts 9656.

When considered about telecom facility forecasting of the area, all the area coverd teelecome and other private mobile phone facilities sufficiently available in the area. However it is expected tourist arrival will be 33,000 ups for 2030 and tourist staying noights will be up to 4 nights in 2030. Due to that it is needed sametime calling facility for 100,000 subscribers within the area in the year of 2030.

Accordingly for the future tourism promotion, needed main infrastucture facilities of electricity and telecommunication would be fulfilled and it will be reason to promotion of tourism sector and can acheived the target of vibrant prosperous economy in the greater Nuwaraeliya planning area.



6.5.5 Storm water drainage, sewage and sewerage plan

6.5.5.1 Introduction.

When consider the rainfall of past 10 year period of duration in the Nuwaraeliya area, it's average annual rainfall is 2000 m.m. and in the same duration in 2010 reported rainfall was 2000 m.m. in and year of of 2010 it was 2157 m.m. in the year of 2013, reported as highest rainfalls shows the figures.

Table 6.0.15: Annual average rainfall.

Year	Average Rainfall
2007	1675.7
2008	1587
2009	1639.9
2010	2182.3
2011	1699.6
2012	1971.1
2013	2157.9
2014	1857.7
2015	2021.2
2016	1137

Source –department of meteorology

However it is reported that the highest rainfall reported in June, July, August and September months and the highest rainfall reported in one day on 05.02.2015 as 120 m.m. Accordingly rainfall experienced area was 56.78 sq.k.m. area got highest rainfall of 6,814,000 cu.m.

However it is 50 sq.k.m. extent of area covered by forests, tea estates and agricultural lands within greater Nuwaraeliya development planning area. And adsorbs the rainfall water of 50% and half of storm water volume will flows in the area water ways to streams.

For that drainage there are about length of 23. k.m. extent of drainage streams are dispers in the area. The storm water flowing main streams are Nanuoya ela, Barrackplain ela, Thalagala oya, Waterfield ela, Glenfall ela, Katumana ela are main streams. These streams are nurtured Gregory lake, Barrack plain reservoir, Katumana lake and at last to Mahaweli river.

However water flowing drains in the town are obstructing by the waste, main water ways deposited by still near the reservoir and people encroachment reservation of streams are identified as a problem situation in to the drainage system.



To preserving the existing system in the Greater Nuwaraelliya planning area and to achieve target of purity water sources make it avoid of all obstruction to smooth water flowing of the water ways. Hence strategies of this plan will be achieved targets by direct and indirect way.

It is needed to avoid of disposing waste water and excreta in the water sources for that need to do the separated refinery systems for each projects and to establish centralized refinery system with area cover network for waste water purification. Main target of this plan is purified water sources through preserving eco-system can be fulfilled direct way from these strategies.

6.5.5.2 Strategies

01. Opportunity for free and natural water flowing.

According to the geographical situation lands are located with the angles of 10 20 degrees to 40 degree slope gap for proper water flowing. However the water flowing in the areas of town center associated area of Nanuoya and near the associated area of Gregory lake and Barrack plain lake associated area low lands are got inundated due to slowly water flowing. To avoid water flooding of those areas need to free flow of water ways without obstructions is main idea of this chapter. Accordingly it is expected to do the widening of water supplying main drain to Barrack plain reservoir removed of deposited silt in the reservoir water way flowing through district secretory premises and Municipal council Nuwaraeliya of their drains need widen. Associated water ways in Sandathanne will be improved. Thalagala oya, Waterfield ela and Nanuoya ela reservation remove encroachments near waterfield drive, Nanuoya widen the Nanuoya ela, remove encroachment and clear the water way. Widen the Katumana ela to waterflow freely.

02. Construction of silt traps for drainage water ways.

From this chapter it is proposed to build silt traps for minimize the silt depositing quantity within the area of Greater Nuwaraeliya development planning area. Accordingly it is proposed to build silt traps at before the connecting point of Nanuoya to Gregory lake. Two silt traps for two water ways of Barrack plain reservoir and construction of silt trap for Katumana ela are the main projects for silt trap constructions.

03. Sewerage system development.

There is no sewerage system for the town within the Municipal council area. And it was proposed for the project of centralized sewage and sewerage project for to investment for the loan agreement with Japanese aids by the Municipal Council Nuwaraeliya. Accordingly proposed to cover the high population and tourist hotel areas for the sewerage system and after the project completion by the 2030, it will help for tourism development and the centralized purification center will be located Blackpool area GPS latitude No 6.950552 and longitude No 80.768683 point.

In the future develop tourist hotels over 5 rooms and other hotels need to establish a refinery to purify the waste water. For that regulations are proposed in this development plan.

6.5.6 Solid waste and waste water management.



There are 25 tons of solid waste collected by the Municipal council within the limits of Municipal council area daily, and out of its total 20 tons (80%) of solid waste were digestible solid waste and 5 tons (20%) of waste non digestible solid waste.

Pradeshiya sabha area is located out limits of Nuwaraeliya Municipal Council area and it is visible that the solid waste collection are doing by the two sides of the road and not visible that collection is doing covering the residential area within the Nuwaraeliya pradeeshiya sabha area. Nuwaraeliya municipal council owned Sandathanne sanitary land filling project use for disposal of solid waste, they are not making separation of solid waste, therefore they can't use it for longer time to use and reset 10-15 years it will enough for waste disposal uses. Further it will leave to fill the volume of 60,000 cu.m. capacity of solid waste. However this solid waste disposal location can be use further 30 years of time by proper solid waste management doing efficiently fruitfully. And it is identified 3 strategies through this development plan for manage it for longer period of time for solid waste disposal. Agriculture development strategies suit with this strategies directly and indirectly impact in the development of tourism industry and inter connected those strategies each other for the economic development of the town.

6.5.6.1 Strategies.

01. Waste further not waste.

It is expected that the further growth of population and immigration population growth, collection daily solid waste extent is 32 tons in 2030. Extent of solid waste volume can be reduce by the housing premises through the waste management system for 20 tons per day within the town limit of Nuwaraeliya. Digestible waste composting system to develop to all the medium density zone, less density zones and all the premises in residential and tourism zones. In this zones it is compulsory to establish the composting bin and it is imposed by the building regulations, and enforced to do the waste collection only non digestive center for establish to collect non digestible waste can be located in the Sandathanne waste disposal site. Accordingly motivate the householders to establish the composting bins all the residential and other premises in above all zones. In this way they are use to composting organic vegetable cultivations. Plot coverage in the above zones are 50% and balance land should use for upcountry vegetable cultivation and flower cultivation also it is allowed for landscaping.

Through this process to need collection of digestive waste and it will be reason to reduced the waste within the limit of municipal council area.

02.Reuse of the non digestive waste.

In the year of 2030, the estimated non digestible waste extent is 8 tons and that quality only use for the container establish in disposal project. However in future for the tourist population make awareness for non digestible waste uses need to minimize non digestible waste collection should be done by the Municipal council and reuse of polythene and plastic collection need to improve.



6.6 Strategies for the common open spaces.

6.6.1 Introduction

Common area can be divided into two categories as open and indoor and again it can be divided as active and passive. Accordingly existing open and indoor spaces can be categorized as follows.

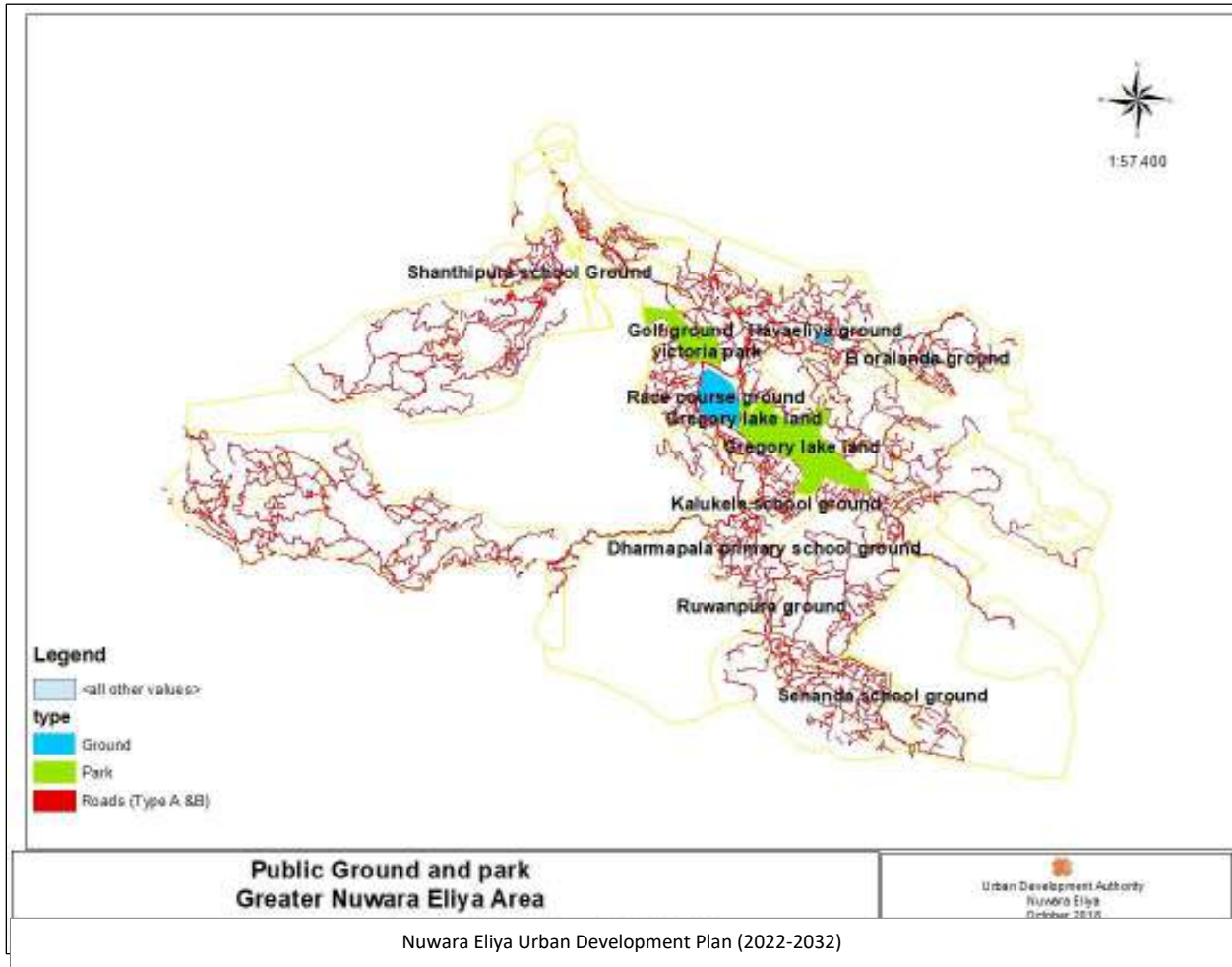
Table 6.0.16: Common open spaces

Indoor/open	type	Location	Quantity(sq.m.)
Indoor	active	Cenecita indoor stadium	
		Common market exercise Gymnasium (Gym)	
		Nuwaraeliya sport club	
		Nuwaraeliya motor racing society.	
		Old kandy road exercise location	
	Passive	Cenecita auditorium	
		Town Library	
		Regal cinema	
		Keepilimana community hall	
Open	active	Race course ground	29
		Gregory lake entertainment zone	88
		Victoria park	10
		Golf ground	20
		Hawaeliya play ground	1.6
		Vajiragnana school playground	0.5
		Kalukele school playground	0.2
		Senanayake school playground	0.4
		Dharmapala school playground	0.01
		Shanthipura school playground	0.1
		Boralanda Playground	1
		Holytrinity school playground	0.1
		Good shepherd convent school playground	0.1
		Ruwaneliya Playground	0.5
	Passive	Shanthipura, Pidurutalagala, Single tree view point	
		Old buildings building features shown British period Nuwaraeliya Architectural construction near 129	
		Old century constructed British period	
		Hawaeliya urban cemetery	



Accordingly open spaces and playground of 153 hectare of spread over the town area.

Map 6-0-10: Open land and playground



Source: NEMC

In the year of 2030, population of Nuwaraeliya area is 60,000 and daily tourists arrivals 35,000, and commuting population to the town for various purposes is 52,000 Accordingly open spaces and playground needed quantites.

Residential population - 60 hectare

Tourist population - 35 hectare

Daily commuting population - 13 hectare



(It is estimated needed open space 25% is estimated as for percentage of total population to proportion)

Accordingly all land extent is 108 already existing land for open space and this extent is sufficient for next coming year.

Though the out of town area more land available and less land available in Meepilimana area.

6.6.2 Strategies.

To avoid this situation below play ground development are proposed.

1. Develop the Boralanda play ground.
2. Develop the existing of vajiragnana playground.
3. Ruwaneliya playground extending and development.
4. Meepilimana senananda school playground extending and development.

6.7. Cultural and Historical locations development strategies.

There are 129 buildings in British colonial period are in greater Nuwaraeliya development area. Architectural features of Victorian, Georgian and British type buildings were named for needed presence buildings in the town area. (Building list in Table 6.7)

Building architectural features of that buildings to be preserved and further the building features need to be promoted by applying those features to new buildings. Accordingly identified the regulations. (Regulation No.....)

One of the aims of this development plan is to preserve the hereditary building architectural features in Nuwaraeliya.

Enforced regulations are compulsory for main road near associated identified zones.



6.7.1. Historical and Architectural valued buildings Nuwaraeliya Municipal council area – 2002

Table 6.0.17: Preserved buildings

Street Name		Assesment No	land extent					Not available details	Total	Age of the building (Years)		Not available details.	Total
			>10	11-20	21-30	31-40	over 41			>100	101<		
01	Queen Elizebeth road	Queen's courtage , 44,140,02U.V.,132A,126,114,108,104,50,01,42,38	03	02	05	01	02	-	13	01	10	02	13
02	Upper lake road	39,34,43/2,71(71/1,71/2,71/3),55,(55/1),35,(35/2,35/3,35/4,37),85,(85/1),81/2	02	02	02	01	-	01	08	-	04	04	08
03	Badulla road	162,34,68,66,46,142,1/1,25,144,136/3,156	07	01	02	-	-	01	11	07	02	02	11
04	Haddonhill road	16(17),07,02,71	02	01	-	01	-	-	04	02	01	01	04
05	Wedabon road	02,05,12,14(14/1),24,09,7/5,22,13(13/1,13/2)	03	04	-	-	-	02	09	03	05	01	09
06	Church road	06,6/1,15,10,12,26,(26/1,26/2),30(30/1),1/22,30,34/1,32	08	02	01	-	-	-	11	02	07	02	11



Greater Nuwara Eliya Development Plan 2022-2032

07	Park road	25,31(31/1)	01	01	-	-	-	-	02	02	02	-	02
08	Kandy road	340,381,395,(395/1,401/1,325/1	03	-	-	-	-	01	04	02	02	-	04
09	St. Anrew's road	150,132/1,128,20,100,160,124	01	03	-	-	-	-	07	01	03	03	07
10	Watetrfield road	102,96,98,92,55,56,26,46,20/1	03	06	-	-	-	-	09	-	04	05	09
11	Lady macclm road	02,11,17,18,20,33,26,28 (28 ⁰⁰),35,4,3/4,90/4,4/2,2/2,10,80,190,55,01,149,157	07	06	02	01	02	02	20	02	09	09	20
12	Uniqueview road	07	-	01	-	-	-	-	01	-	-	01	01
13	Lebenon road	112/11	01	-	-	-	-	-	01	-	01	-	01
14	Glenfall road	¾,1/1,25	02	01	-	-	-	-	03	-	03	-	03
15	Udappussallawa road	95,123,125,2/143* Old railway building	01	01	-	-	01	02	05	02	02	01	05
16	Mount marry road	18(24/1)	01	-	-	-	-	-	01	-	-	01	01
17	Rahula mawatha	07,06,20,	03	-	-	-	-	-	03	-	-	03	03
18	Keena road	25	01	-	-	-	-	-	01	01	-	-	01



Greater Nuwara Eliya Development Plan 2022-2032

19	Grand hotel road	17,29,76,19/10,10,21	04	02		-	-	-	06	02	04	-	06
20	Hill street	14,	-	-	01	-	-	-	01	-	01	-	01
21	Kanagarathnam mawatha	09,11	01	01	-	-	-	-	02	-	02	-	02
22	Old bazaar	90	-	-	-	-	01	-	01	-	-	01	01
23	Long street	05	-	-	01	-	-	-	01	01	-	-	01
24	Cross street	25	-	01	-	-	-	-	01	-	01	-	01
25	Jayathilake mawatha	24,10,20,17	01	03	-	-	-	-	04	-	04	-	04

* Assessment No

U.V. – Unique view

3kqñ_a ù5r^]j Darakl i aj pAqðkñu ≈. qs]ñ] alw]



6.7.2. Identified Street Wise Preserved Buildings Distribution.

Table 6.0.18: Road wise preserved buildings.

Name of the street		Total of the units	Plot coverage (perches)					Building Age (years)					
			< 10	11-20	21-30	31-40	Over 41	Not defined	Over 100 years	75-99	50-74	Below 49	Not defined
01	Queen Elizebeth street	13	03	02	05	01	02	-	10	01			02
02	Upper lake road	08	02	02	02	01	-	01	04	-	-	-	04
03	Badulla road	11	07	-	03	-	-	01	03	03	03	-	02
04	Haddonhill road	04	02	01	-	01	-	-	01	-	02	-	01
05	Wedabbon raod	09	03	04	-	-	-	02	05	03	-	-	01
06	Church road	11	08	02	01	-	-	-	07	01	01	-	02
07	Park road	02	01	01	-	-	-	-	02	-		-	-
08	Kandy road	04	03	-	-	-	-	01	02	01	01	-	-
09	St. Andrew road	07	04	03	-	-	-	-	03	01	-	-	03
10	Waterfield road	09	03	06	-	-	-	-	04	-	-	-	05



Greater Nuwara Eliya Development Plan 2022-2032

11	Lady Macclam road	20	07	06	02	01	02	02	09	01	01	-	09
12	Unique view road	01	-	01	-	-	-	-	-	-	-	-	01
13	Lebanon road	01	01	-	-	-	-	-	01	-	-	-	-
14	Glenfall road	03	02	01	-	-	-	-	03	-	-	-	-
15	Udapussallawa road	05	01	01	-	-	01	02	02	01	01	-	01
16	Mount marry road	01	01	-	-	-	-	-	-	-	-	-	01
17	Rahula mawatha	03	03	-	-	-	-	-	-	-	-	-	03
18	Keena road	01	01	-	-	-	-	-	-	01	-	-	-
19	Grand hotel road	06	04	02	-	-	-	-	04	-	01	01	-
20	Hill street	01	-	-	01	-	-	-	01	-	-	-	-
21	Kanagarathnam road	02	01	-	-	-	-	-	02	-	-	-	-
22	Old Bazaar	01	-	01	-	-	01	-	-	-	-	-	01
23	Long street	01	-	-	01	-	-	-	-	-	-	-	-
24	Cross street	01	-	-	-	-	-	-	01	-	01	-	-
25	Jayathilake mawatha	04	01	03	-	-	-	-	04	-	-	-	-
Total		129	58	37	15	04	06	09	68	13	11	01	36



6.8. New Project List

Table 6.0.19: New Project List

Project	Marks	Priority
Centralized Water Purification Centre	272.5	1
Construction of Central Market	257.3	2
Centralized Sewerage System	247.3	3
Construction of theme park at upper part of Gregory lake.	246.8	4
Construction of Loves leap reservoir	226.0	5
Construction of international high altitude sport complex.	211.4	6
Remove deposited silt from Barrackplain reservoir and Katumana reservoir.	209.0	7
Construction of an entertainment zone reservoir near Barrackplain.	192.8	8
Widen the Glenfall by pass road.	191.7	9
Widen the Barrackplain ela and remove deposited silt.	183.8	10
Widen the Unique view road.	182.8	11
Develop the hospital road as minimum width of 12meters.	181.4	12
Development of Unique view housing project.	180.8	13
Develop the drain system floors through district secretariat and Nuwaraeliya municipal council premises.	178.6	14
Development of 2 nd phase Nuwaraeliya bus stand.	178.2	15
Construction of common playground at Magasthota near Gregory lake	175.0	16
Develop the vehicle parking area of the main hospital.	172.4	17
Construction of cycle tracks and walk ways from Gregory lake zone to commercial zone for tourists.	171.7	18
Construction of walk ways for tourist at the forest boundary limit.	170.2	19
Construction of walk ways at the right side bank Nanuoya and near Park road for pedestrians.	161.9	20



Project	Marks	Priority
Relocation of houses in proposed racecourse sport complex ground.	153.7	21
Cable car project.	150.7	22
Construction of silt trap for Nanuoya ela.	149.1	23
Bambarakele PWD housing complex.	146.9	24
Park road shopping complex.	141.8	25
Construction of pedestrian walkways near Grand hotel road, New Kandy road, Park road, Lady Maccalum road and Unique view road.	138.7	26
Construction of silt traps for Barrakplain ela.	130.3	27
Widen of refinery for waste water purification near main hospital and establish incineration for hospital waste for new hospital building.	125.5	28
Widen of Glenfall road.	122.2	29
Construction of new entrance roadway to the hospital from Lady Maccalum road.	121.7	30
Widen the streams of Thalagala oya, Waterfield ela and Nanuoya ela remove encroachments from the reservations	117.1	31
Composting project for daily digestible waste.	114.0	32
Widen of Hadden hill road.	108.5	33
Construction of Ayurvedic medicine hospital.	103.8	34
Widen of Lady Mccalum road.	103.3	35
Construction of the silt trap for Katumana ela.	95.4	36
Construction of viewpoints at the mountain peaks of Shanthipura and Single tree.	94.0	37
James street housing development project.	92.8	38
Construction of new pedestrian walk way network from Unique view road to Glenfall road connecting Grand hotel road	92.4	39
Pedestrian tunnel way in front of Losan triangle.	88.4	40




Project	Marks	Priority
Widen of Katumana ela water way.	84.0	41
Lady Macckalum rosdMc housing project.	81.0	42
Widen of Magasthota - Blackpool road project.	79.8	43
Ocean view shopping complex project.	78.3	44
Pedestrian walk way covering project in the town center.	77.7	45
Construction of children park near the Upper lake road.	75.1	46
Vegetable processing center.	73.4	47
Galways park housing project.	72.5	48
Scrub estate housing project.	71.3	49
Renovation of Boralanda playground.	68.3	50
Bambarakele estate housing project.	68.1	51
Widening of upper lake road.	65.8	52
Properly develop the Havaeliya wajiraghana playground.	62.6	53
Katumana Seethaeliya water project.	60.3	54
Widen and renovating Ruwaneliya playground.	58.6	55
Boralanda low income housing complex.	55.8	56
Widen of Jayathilaka Mawatha.	55.7	57
Widen of Baros road.	54.4	58
Widen of Sandathenna road.	54.4	59
Open Hotel school within the premises of Vocational Training Authority.	53.7	60
Bambarakele primary school, Floor cultivation, converted into Agriculture / Livestock development associated vocational training centre.	53.3	61
Meepilimana Senananda college playground development.	52.9	62



Project	Marks	Priority
Sandathenna road drain system development.	52.6	63
St. Andrews road shopping complex project.	52.4	64
Water supply project for Meepilimana and Ruwaneliya zones.	51.7	65
Middle income housing project 01.	48.7	66
Widening of Kanagarathnam road	45.7	67
Middle income housing projects 02.	45.1	68
Construction of floor plants and floor exhibition hall in Victoria park.	39.8	69
Develop the Magasthota Madduma Bandara school playground.	35.4	70
Develop the Kalukele primary school playground.	29.2	71



6.8.1. Centralize Drinking Water Purification Center- Nuwara Eliya

Project title	Centralize Drinking Water Purification Center- Nuwara Eliya			
Project	Provide safe and pure drinking water			
Project proposal	The project is aim to improve the quality of drinking water withreliable sources. Proposed to redevelop ofexisting water TreatmentPlant at Nuwara Eliya International Buddhist Center and establishment of 03 new machines for water treatment. Especially it will cover Haddonhillwater distribution zone.			
Project location	Nuwara Eliya International Buddhist Center			
Location	Province	Central	District	Nuwaraeliya
	Divisional Secretariat	Nuwaraeliya	Local authority	Nuwaraeliya M.C.
Boundaries	North	East	South	West
	Nanu Oya Stream	Badulla- Nuwara Eliya Main Road	Buddhist Center	Buddhist Center
Access	Badulla- Nuwara Eliya Main Road (Queen Elizabeth Road)			
Location map				




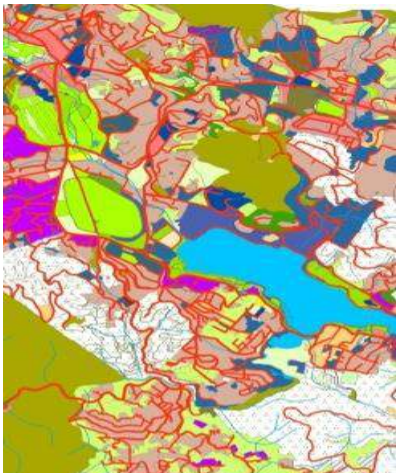
Adjoining land and usage (Details with map)										
	<p>Legend</p> <ul style="list-style-type: none"> Other Bare Land Builtup Area Cemetery Commercial Cultivation Educational Estate Housing Financial Forest Grass Land Ground Health Home Sheds Indoor Agriculture Industrial Institutional Open Space Water Area 									
Project arrangement										
Project type	New		Improvement		√	Extension			Land development only	
Project type	Preservation	Commercial	Landscape	Historical preservation	House	Resettlement	Other			
Project modal	Economic					Social		√		
Project aims	1. Provide reliable and purified drinking water. 2. Provide water demand of 9500 Cubic Meter by 2030									
Project suitability	Forecasted 50,000 residual population and 25,000 daily commuters in 2030 within Greater Nuwara Eliya Planning area. Therefore, drinking water needs to be provided those populations and that will affect to the tourism industry of the area. Since the project gets highest attention in this project									
Present land ownership	U.D.A.				Private				State	
Is it free of obstacles	Yes	√	Not		If not concerns details					
Ownership related details	Already the land which owned by Sports Ministry allocated for water treatment plant									



Details of the survey plan.	Survey plan No.		Survey plan No.		Date		Land extent		
	PP Nu 2061		07		17.12.2001		...ace.	...ro.	20 per
Project details									
Project duration	Short (Yrs. less)		Medium term (Yrs.1-3)	√	Long term (Yrs. 3-over)		Total estimated cost(Rs. millions)		15
Funding method	Treasury Fund/ Foreign Fund								
Infrastructure facilities									
Historic Information (If need)	The centralized water treatment plant is abandoned 15 years ago due to less maintenance. The buildings of the project which built through JICA funds can be used for further works and treatment plant need to be replace again.								
Zone	High density tourism			Compatible with the zoning			Yes		
Present position (With detailed descriptions)		The present drinking water distribution didn't distribute through the purification system and therefore the issue is having relatedto that.							
Project cost	Activity					Cost Rs. Millions.			
	Establishment of water treatment plan					50			
Approval Institutions									
Activity				Institute			Authorized officer		
Identified proper treatment mechanism and fix relevant machines				National Water supply and Drainage Board (NWSDB)					
Regulations and Conditions		Development should be done according to the guide lines of NWSDB							



6.8.2. Nuwara Eliya Theme Park



Project name	Theme Park – Nuwaraeliya																																																
Project	Tourism Infrastructure Facilities Development																																																
Project proposal	International standard theme park construction for the improvement of entertainment activities for arriving tourists in Nuwaraeliya.																																																
Project location																																																	
Location	Province	Central	District	Nuwaraeliya																																													
	Divisional Secretariat	Nuwaraeliya	Local Authority	Nuwaraeliya Municipal Council																																													
Boundaries	North	East	South	West																																													
	Dun short cut	Balanced land portion of Gregory lake	Nanuoya stream	Lot No. 01 of Survey plan No. 51583																																													
Access	Upper lake road – Dun short cut																																																
Location map																																																	
Adjoining land usage (Details with maps)	<div><div><p>Legend</p><table><tr><td>Provinces</td><td>State Land</td><td>Residential</td></tr><tr><td>Landuse_final</td><td>Ground</td><td>Residential & Tourist</td></tr><tr><td>not other reason</td><td>Health</td><td>Roads</td></tr><tr><td>LP_TP_La_2</td><td>Home Share</td><td>1000 Children Village</td></tr><tr><td>Water Land</td><td>Water Agriculture</td><td>Scenic Land</td></tr><tr><td>Water Area</td><td>Industrial</td><td>Scrub Land</td></tr><tr><td>Canality</td><td>Institutional</td><td>Sea</td></tr><tr><td>Commercial</td><td>Open Space</td><td>Tourist</td></tr><tr><td>Cultivation</td><td>Park</td><td>Unclassified</td></tr><tr><td>Educational</td><td>Play Ground</td><td>Wooded Land</td></tr><tr><td>Private Housing</td><td>Promo Plaza</td><td>Vegetation</td></tr><tr><td>Financial</td><td>Quarrel</td><td>Volcano Parks</td></tr><tr><td>Forest</td><td>Religious</td><td>Water Area</td></tr><tr><td></td><td></td><td>Road Network</td></tr><tr><td></td><td></td><td>Water Joints</td></tr></table></div><div></div></div>				Provinces	State Land	Residential	Landuse_final	Ground	Residential & Tourist	not other reason	Health	Roads	LP_TP_La_2	Home Share	1000 Children Village	Water Land	Water Agriculture	Scenic Land	Water Area	Industrial	Scrub Land	Canality	Institutional	Sea	Commercial	Open Space	Tourist	Cultivation	Park	Unclassified	Educational	Play Ground	Wooded Land	Private Housing	Promo Plaza	Vegetation	Financial	Quarrel	Volcano Parks	Forest	Religious	Water Area			Road Network			Water Joints
Provinces	State Land	Residential																																															
Landuse_final	Ground	Residential & Tourist																																															
not other reason	Health	Roads																																															
LP_TP_La_2	Home Share	1000 Children Village																																															
Water Land	Water Agriculture	Scenic Land																																															
Water Area	Industrial	Scrub Land																																															
Canality	Institutional	Sea																																															
Commercial	Open Space	Tourist																																															
Cultivation	Park	Unclassified																																															
Educational	Play Ground	Wooded Land																																															
Private Housing	Promo Plaza	Vegetation																																															
Financial	Quarrel	Volcano Parks																																															
Forest	Religious	Water Area																																															
		Road Network																																															
		Water Joints																																															
Project arrangement																																																	
Project type	New	√	Improvement	Extension	Land development only																																												



Project type	Preservation	Commercial	Landscaping	Historical preservation	Houses	Resettlement	Other
		√					
Project modal	Economic		√		Social		
Project aims	<ul style="list-style-type: none"> Improvement of the relevant infrastructure facilities for local and foreign tourist. Improve the income generating activities in the town and employment activities. Keep up the more staying nights in the town in arrived tourists. 						
Suitability of the project	Land area located at the upper part of the lake Gregory is most suitable for the aforesaid project for the paradise area of Nuwaraeliya for local and foreign tourist to fulfil the lacking sectors of the tourist industry.						
Present land ownership	U.D.A.	√	Private		State		
Is it free of obstacles	Yes	√	Not		If not concerned details	Land acquisition need when on construction in the reservation	
Ownership concerned details	Urban development authority has the ownership with transfer deed						
Survey plan details	Survey plan No.			Date		Land extent	
	Lot No 01 of Survey Plan No. 4026.					12 Acre	02 Rd.per.
Project details							
Project duration	Short term (Yrs.. less)		Medium term (Yrs. 1-3)	√	Long term (Yrs. 3- Over)	Total estimated cost (Rs.Million)	
Funding method	Through private funds						
Approval needed institution							
Activities	Relevant institutions				Authorized officer		
	U.D.A.						
	Central environment Authority						
Regulation and conditions	It should be compatible with the orders of No.1487/10 and 2017.03.05 dated,central environment authority extraordinary gazette notification. And also the development planning regulations of the U.D.A. as well.						



6.8.3. Construction of lovers leap reservoir

Project title	Lovers leap reservoir construction			
Project	Lovers leap reservoir construction			
Project proposal	The residential population of the Nuwaraeliya town forecast to the year 2030 will be about 50000 and its daily tourist population 25,000. For that population, needed water volume is Qu.M. 9500 to supply this storage tank proposed to construct for the need of their drinking water purposes.			
Project location	Land portion owned to Pedrew estate adjoining to the Lovers leap waterfall.			
Location	Province	Central	District	Nuwaraeliya
	District Secretariat	Nuwaraeliya	Local Authority	Nuwaraeliya Municipal council
Boundaries	North	East	South	West
Access	Nuwaraeliya Paryeshanawatta road or Boralanda Junction			
Location map				
Adjoining land usage (Details with maps)				
Project Arrangement				



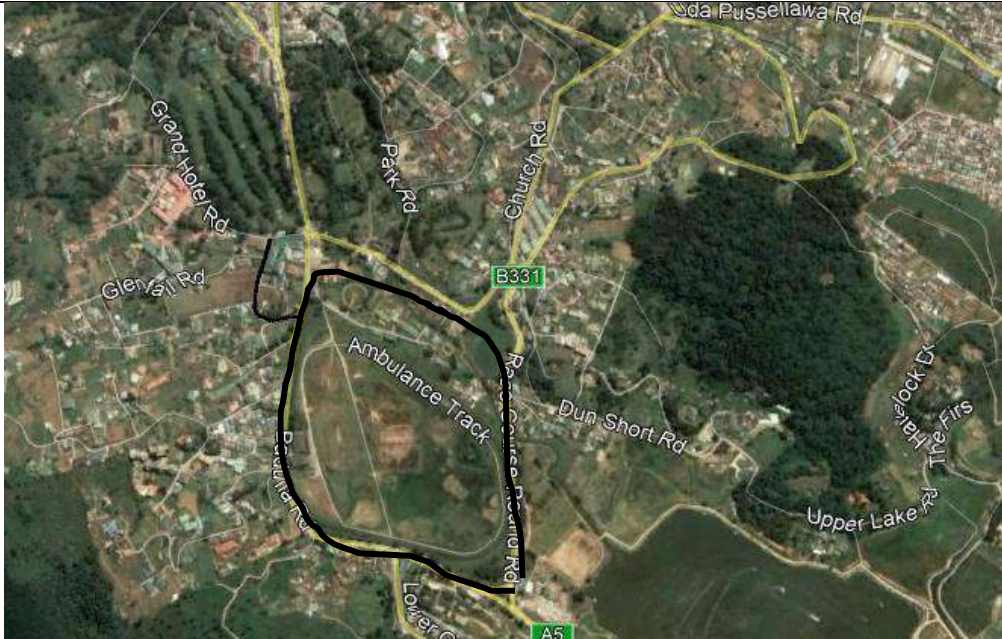
Project type	New	√	Improvement		Extention		Land developm ent only	
Project type	Preser vation	Com merci al	Landscaping	Historica l preservat ion	House	Other		
						√		
Project Modal	Economic		-		Social		√	
Project Aims	1. Supply the water demand of qu.m. 9500 volume when in need 2030. 2. Make uninterrupted water supply to the people.							
Project Suitability	IT is forecast that the residential population in the year of 2030 in the greater Nuwaraeliya development planning area is 50,000 and daily commuting population is 25,000. For that population needed water volume is 9500 qu.M. Presently supply water volume is 4500 qu.m. Therefore it is needed to construct store tank for balanced water volume to store, And proposed for lovers leap waterfall near tank to build as it has continuous water supply in the whole year.							
Present land ownership	U.D.A.		Private		State	N.H .D. A.		
					√			
Is it Free of Obstacles	Yes	√	Not		If not concerned Details			
Ownership related details	Land reform commission owned lands rent out to estate companies							
Survey plan details	Survey plan No.	Lot No.		Date		Land extent		
						A c. 10	Ro. -	per.
Project Details								
Project duration	Short Term (Yrs. less)		Medium term (Yrs.1-3)	√	Long term (Yrs. 3- over)		Total estimated cost (Rs.Million	200



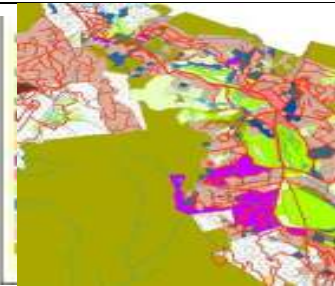
Funding Method	Treasure funds / Nuwaraeliya Municipal council				
Infrastructure facilities					
Water	Needed Volume		Electricity	Needed volume	
	Existing Volume			Existing volume	
Zone	High density residential		Is it compatible with zoning		Compatible
Present situation(Detailed descriptions with maps)	For the construction of reservoir in this land, basic plans are being made by the irrigation department by the proposal submitted by the municipal council.				
Project cost	Activity		Cost Rs. Million		
	Construction of reservoir		200		
Approval need institution					
Activity	Relevant Institution		Authorized Officer		
Construction and plan preparation	Irrigation department				
Regulation and conditions	Development activities should be done under the recommendation and supervision of irrigation department and national water supply and drainage board.				



6.8.4. High Altitude Race Course Play Ground- Nuwara Eliya

Project title	High Altitude Race Course Play Ground- Nuwara Eliya			
Project	Tourist’s infrastructure development			
Project proposal	Improvement of the main ground and its related infrastructure (Development of Athletic ground, Rugger & Cricket grounds, Swimming Pool, Sports consultation, Fitness centers, and Accommodation facilities). And also relocation of low income families at Hawa Eliya.			
Project location				
Location	Province	Central	District	Nuwaraeliya
	Divisional Secretariat	Nuwaraeliya	Local authority	Nuwaraeliya M.C.
Boundaries	North	East	South	West
	Udupussellawa road	Race Course ground	Badulla road	Badulla road
Access	Badulla road			
Location map				





Adjoining land usage (Details with map)										
Project arrangement										
Project type	New		Improvement		√	Extension		Land development only		
Project type	Preservation	Commercial	Landscape	Historical preservation	Houses	Resettlement	Other			
								√		
Project modal	Economic					Social		√		
Project aims	This access way project can be implemented as to lessen the traffic congestion originated in the summer season carnival time in Nuwaraeliya. Improve the associated sub way condition in the Nuwaraeliya town. Road way usage for pedestrians and tourists to make attractive and easy level.									
Project suitability	This is a very needed project to implement within next two year time as it is a very urgent solution to lessen the traffic congestion when the most tourist crowded in the town.									
Present land ownership	U.D.A.				Private				State	Nuwaraeliya M.C.
Is it free of obstacles	Yes		Not	√	If not concerns details		Land acquisition need to be done when reservation need for construction.			
Ownership related details	Road way ownership with the municipal council Nuwaraeliya									
Details of the survey plan.	Survey plan No.		Survey plan No.		Date		Land extent			
							...ace.	...ro.per	
Project details										
Project duration	Short (Yrs. less)	√	Medium term (Yrs. 1-3)		Long term (Yrs.		Total estimated		15	



					3-over)		cost(Rs. millions)	
Funding method	Nuwaraeliya municipal council funds/treasury							
Infrastructure facilities								
Water	Needed volume	-	Electricity	Needed volume	-			
	Existing volume	-		Existing volume	-			
Zone	High density tourism		Compatible with the zoning			Yes		
Present position (With detailed descriptions)	Presently less usage of this road due to 5 meter width.							
Project cost	Activity				Cost Rs. Millions.			
	Road way expansion				10			
	Pedestrians ways and area landscape				05			
	Total				15			
Regulations		Should be develop the road with minimum access of 9 meters.						

6.8.5. Construction of recreational area at Barrack Plain Reservoir



Project title	Construction of recreational area at Barrack Plain Reservoir						
Project	Tourist’s infrastructure development and preserve the water reservation areas						
Project proposal	75 % of the reservoir filled with mud and garbage at present. The project aims to removeof those sedimentation, mark the reservation area and develop it as recreational area. As well as widen the sub streams of the reserior and landscaping the reservations will be proposed with the project.						
Project location							
Location	Province	Central		District	Nuwaraeliya		
	Divisional Secretariat	Nuwaraeliya		Local authority	Nuwaraeliya M.C.		
Access	Hawaeliya- Moon Plain road and Udupussellawa road						
Location map							
Adjoining land usage (Details with map)							
Project arrangement							
Project type	New	√	Improvement		Extention		Land development only
Project type	Preservation	Commer cial	Landscapi ng	Historical preservati on	House	Resettlement	
	√		√				





Project modal	Economic	√	Social	√
Project aims	1.Establishment of propoer water volume of the reservior 2. Landscaping of reservation area. 3. Establishment of tourism recreational activities. 4.Prevention of flooding in associated streams of the reservior.			
Project suitability	Aims to improve the activities for attracing nearly 7 million annual tourists' arrivals in 2030 and increase staying days upto 4 nights within the area. Also the natural sensitive environment preservation and development in proper way are the main factors which aim to fulfill through the plan. Therefore, this development identified as main project where both tasks can be done simultanceously.			
Present land ownership	U.D.A.		Private	State
Is it free of obstacles	Yes	√	Not	-
Ownership related details	Divisional Secratariate and Irrigation Department			
Details of the survey plan.	Survey plan No.	Survey plan No.	Date	Land extent
				20 ace. ...ro.per
Project details				
Project duration	Short (Yrs. less)	Medium term (Yrs. 1-3)	Long term (Yrs. 3-over)	25.0
Funding method	Nuwaraeliya municipal council funds/treasury			
Zone	Recreational and Sensitive zone		Match with the zone	Yes
Present position (With detailed descriptions)	The Nuwara Eliya MC and Irrigation Department take actions for the development of the Barrck Plain and landscaping and improving as recreational area will be done by Urban Development Authority.			



Project cost	Activity	Cost Rs. Millions.	
	Removal of sediment	150	
	Landscape and improve the tourism facilities	50	
	Widden of associate streams and preservation	30	
	Silt trap	20	
Approving Institutes			
Activity		Institute	Authorized person
Preparation of plans and remove sediment		Irrigation Department	
Landscape plans and development of reservation area		UDA/ NEMC	
Regulations and conditions		Development should be inaccording to the insructions and inspection of Irrigation Department and UDA	



6.8.6. Nuwara Eliya Glainfall Sub Road Expansion Project.



Project title	Glainfall Sub Road Expansion Project.			
Project	Tourist’s infrastructure development			
Project proposal	<p>This road connecting to close by Glenfall road from the Badulla road that is one of main access road to the town as a sub way. This accesses is specially road expansion project is identified to lessen the traffic congestion originated due to the large tourist crowed arrival in the summer season.This accesses road facilitate to the road way to the people who need to enter the town from Badulla road direction and enter Glenfall road via Grand hotel road and evade Anagarika Dharmapala roundabout and the town center to Kandy road and also the people who need accesses to reach to Badulla road from Kandy direction can get the access from Sampath bank to Badulla road avoiding the town center.This road also easy access to pedestrians who need to evade the town center for their destination, for that it is proposed to make pedestrians path ways parallel to the road with attractive landscaping.</p>			
Project location				
Location	Province	Central	District	Nuwaraeliya
	Divisional Secretariat	Nuwaraeliya	Local authority	Nuwaraeliya M.C.
Access	Badulla road			
Location map				
Adjoining landusage (Details with map)				



Project arrangement										
Project type	New		Improvement		√	Extention		Land development only		
Project type	Preservation	Commercial		Landscape	Historical preservation	Houses	Resettlement	Other		
								√		
Project modal		Economic			Social			√		
Project aims	This access way project can be implemented as to lessen the traffic congestion originated in the summer season carnival time in Nuwaraeliya. Improve the associated sub way condition in the Nuwaraeliya town. Road way usage for pedestrians and tourists to make attractive and easy level.									
Project suitability	This is a vary needed project to implement within next two year time as it is a very urgent solution to lessen the traffic congestion when the most tourist crowded in the town.									
Present land ownership	U.D.A.				Private			State		N.E M.C.
Is it free of obstacles	Yes		Not	√	If not concerns details		Land acquisition need to be done when reservation need for construction.			
Ownership related details	Road way ownership with the municipal council Nuwaraeliya									
Project details										
Project duration	Short (Yrs. less)	√	Medium term (Yrs. 1-3)			Long term (Yrs. 3-over)		Total estimated cost(Rs. millions)	15	
Funding method	Nuwaraeliya municipal council funds/treasury									
Zone	High density tourism			Compatible with the zoning			Yes			
Present position (With detailed descriptions)				Presently less usage of this road due to 5 meter width.						
Project cost	Activity					Cost Rs. Millions.				
	Road way expansion					10				
	Pedestrians ways and area landscape					05				
	Total					15				
Regulations		Should be develop the road with minimum access of 9 meters.								



6.8.7. Development of Nuwara Eliya Bus Stand– Stage II


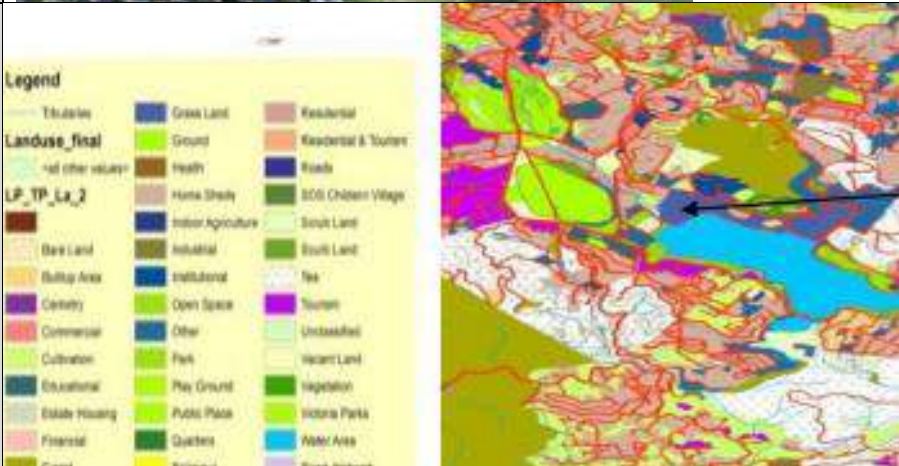
Project Name	Development of Nuwara Eliya Bus Stand– Stage II							
Project	Development of transportation facilities							
Project Proposal	Developments of existing bus stand surface area and pedestrian path improvement near to the stand.							
Project location	Bus stand of Nuwara Eliya							
Location	Province	Central	District	Nuwaraeliya				
	Divisional secretary	Nuwaraeliya	Local authority	Nuwaraeliya Municipal Council				
Boundaries	North	East	South	West				
	Central Market land	Nanu oya Ela	Victoria Park	Badulla road				
Access	Badulla Road							
Location map								
Adjoining land usage (details with maps)	<div><div><div><div>Other</div><div>Park</div><div>Play ground</div><div>Public Place</div><div>Public Space</div><div>Churches</div><div>Religious</div><div>Residential</div><div>Residential & Tourism</div><div>Houses</div><div>SOI Children Village</div><div>Group Land</div><div>Trek</div><div>Tourism</div><div>Vacant Land</div><div>Vegetation</div><div>Victoria Plaza</div><div>Water Area</div></div><div><div>Legend</div><div><div>Bare Land</div><div>Barbed fence</div><div>Cemetery</div><div>Common land</div><div>Club house</div><div>Food storage</div><div>Estate house</div><div>Forest</div><div>Forest</div><div>Open Land</div><div>Ground</div><div>Health</div><div>Public Street</div><div>Urban Agriculture</div><div>Industrial</div><div>Warehouse</div><div>Open Space</div></div></div><div></div></div></div>							
Project arrangements								
Project type	New		Improvement	√	Extension		Land development only	
Project type	Preservation	Commercial	Landscaping		Historical preservation	Houses	Resettlement	Other
								√



Project Modal	Economic		-		Social		√	
Project aims	1. Improve the surface area of the bus stand 2. Management of buses in proper manner. 3. Development of pedestrian facilities. 4. Drainage Improvemnt 5. Establishment of eco- friendly landscape							
Project suitability	This project aims to improve of public transportation and therefore congestion of the bus stand need to be decrease. It will help to create user friendly envirmemnt. It will hope to reduce private transportation and orientation to use public transportation by commuters.							
Present Land Ownership	U.D.A.				Private			
							√	
Is it free of obstacles	Yes	√		Not				If not cocerned details
Details related to ownership	Land is belong to RDA and Divisional Secretory							
Project details								
Project duration	Short term (Yrs.. Less)		Medium term (Yrs. 1-3)		√		Long term (Yrs. 3-over)	
Funding method		Treasury funds / Nuwaraeliya municipal council.						
zone	High density mix					Is it compatible with the zoning		Compatible
Present position	Nuwara Eliya bus stand is the main transportation hub of the district . There is having issues such as less efficiency of that has been decreased due to the congestion and lack of a pleasant environment due to lack of cleanliness of the premises. Therefore attraction of the commuters was decreased due to the above situations.							
Project cost	Activities					CostRs. Millions		
	Improvement of surface area					25		
	Development of pedestrian path and bridge					15		
	Drainage improvement					10		



6.8.8. Public ground improvement at Lake Gregory- Nuwara Eliya

Project Name	Public ground improvement at Lake Gregory- Nuwara Eliya			
Project	Landscaping Improvement			
Project Proposal	Empty ground area near to the Lake Gregory which owned by UDAs proposed to develop as public ground.			
Project location	Bus stand of Nuwara Eliya			
Location	Province	Central	District	Nuwaraeliya
	Divisional secretary	Nuwaraeliya	Local authority	Nuwaraeliya MC
Boundaries	North	East	South	West
	Race Course Ground	Nanu oya Ela	Lake Gregory	NE Lake Club & stream
Access	Race Course road			
Location map				
Adjoining land usage (details with maps)	 <p>Legend</p> <ul style="list-style-type: none"> Thickets Landuse_final not other values LP_TP_La_2 Bare Land Buildup Area Canterbury Commercial Cultivation Educational Estate Housing Financial Forest Grass Land Ground Health Home Sheds Indian Agriculture Industrial Institutional Open Space Park Play Ground Public Place Quarters Religious Residential Residential & Tourism Roads SOB Children Village Sports Land Swamp Land Trees Tourism Unclassified Vacant Land Vegetation Victoria Parks Water Area Water Network 			




Project arrangements									
Project type	New	√	Improvement			Extension			Land Deve.
Project type	Preservation	Commercial	Landscape	Historical preservation	Houses	Resettlement	Other		√
Project Modal	Economic		-		Social		√		
Project aims	1. Improvement of public ground facility for community 2. Improvement of tourists activities								
Project suitability	There isn't having proper public ground near to the recreational zone of Lake Gregory and also will be lost the playing area due to construction of the International High Altitude Training Center at Race Course Ground. Therefore, the project aims to develop as alternative place for that.								
Present Land Ownership	U.D.A.		Private			State			
	√								
Is it free of obstacles	Yes	√	Not		If not concerned details				
Details related to ownership	Urban Development Authority								
Survey plan details	Survey plan No.		Lot No.		Date		Land extent		
							02 Acr	Ro. -	P .
Project details									
Project duration	Short term (Yrs.. Less)		Medium term (Yrs. 1-3)	√	Long term (Yrs. 3-over)		Total estimated cost (Rs.Million)	246	
Funding method	Treasury funds								
zone	Recreational zone			Is it compatible with the zoning			Yes		




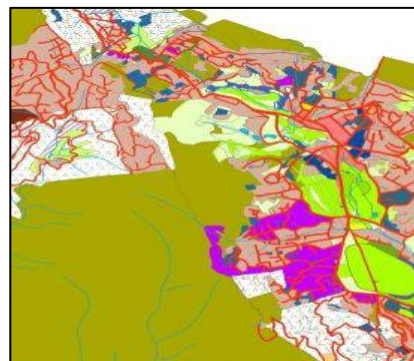
Present position	Nuwara Eliya bus stand is the main transportation hub of the district . There is having issues such as less efficiency of that has been decreased due to the congestion and lack of a pleasant environment due to lack of cleanliness of the premises. Therefore attraction of the commuters was decreased due to the above situations.	
Project cost	Activities	CostRs. Millions
	Construction of play ground	100
Approval Institutions		
Activity	Institute	Authorized Person
Preparation of plans and construction	UDA and Sports Ministry	
Rules and Regulations	Construction should be done according to the instructions and guideness of UDA and Sports Ministry	



6.8.9. Nuwara Eliya Bambarakele PWD Housing Development

Project Name	Housing Development			
Project	Bambarakele PWD Housing Improvement			
Project proposal	These houses were identified as low income facility houses located by the side of the main access to the Kandy road to Nuwaraeliya in the Bambarakele area.Living people in these houses are mostly employees associated to Nuwaraeliya town area employments and the land area where the houses were constructed is limits to Nanu oya stream reservation and the main road. Hence it is identified that the main factor for impurity of the water in the Nanuoya stream is a cause for constructed houses in this area. Also it is observed theses houses were not suitable for residential purposes and it is also observed that the above houses were not suitable for the living condition of the residents and that this residential area near the stream is a main reason for the water pollution of the Nanuoya stream. Therefore it is proposed to upgrade the environmental condition of the area, improve the social level of the residents, construction new houses in the same land for residents. And it is proposed to construct new houses by the private developers for the above residents in the balance portion of the same land by this project.And proposed to make systematically Nanuoya stream reservation through this project as well.			
Project location				
Location	Province	Central	District	Nuwaraeliya
	Divitional secretary	Nuwaraeliya	Local authority	Nuwaraeliya M.C.
Boundaries	North	East	South	West
	Kandy Rd	Nanu oya stream	MC housing	Stream
Access	Kandy Road			
Location map	<div></div> <div>Pwd houses</div>			




Land usage adjoining area(Detail with maps)							
	Project arrangement						
Project type	New		Improvement	√	Extention		Land development only
Project type	preservation	Commercial	Landscaping	Historical preservation	Housing	Resettlement	other
Project model	Economical				social	√	
Aims of the project	<ol style="list-style-type: none"> 1. Water supply system improvement through preserving Nanuoya stream and its bank reservation as it is a main water source. 2. Improve the living standard of the residents of these houses. 3. Make most attractive zone of this area as it is main access area to the town. 4. Make opportunity to use high valued lands near the town for development activities. 						
Suitability of project	<p>Make creative environmental background for the arrived tourist to the Nuwaraeliya town as it is environmentally attractive town to make attitude to tourist in regard to Nuwaraeliya town. It is difficult to achieve above aims due to not possessing of hereditary architectural pattern of houses within this area near the main access road. It is needed to upgrade the social level standard from low level living condition in this area. Therefore considering the above factors identify this project to implement.</p>						
Present land ownership	U.D.A.		Private		State	N.H.D. A.	
Is it free of Obstacles	Yes	√	Not		If not related details		
Ownership details	Housing Development Authority						




Project details								
Project duration	Short term(Yrs.. less)		Medium term (Yrs.. 1-3)	√	Long term (Yrs.. 3-over)		Total estimated cost(Rs. Millions	100
Investment System	Both private and state bilateral funds							
Infrastructure facilities								
Water	Needed volume		Electrify	Needed volume				
	Existing volume			Existing volume				
Zone				Is it compatible with zoning				
History(If need)	Part of these low income settlement was improve on 2005 by the Ministry of Urban development							
Present condition	50 no of families living in this location and Building was bulled before about 60 years as a labour quarters.							
Project cost	Activity				Cost (Rs. Mn)			
	Construction of House				85			
	Improvement of Stream				10			
	Landscaping				10			
Institutions approved								
Activities		Relevant institutions			Authorized officer			
Road reservation		Road development Authority						
Stream improvement		Divisional Secretary						
Development of houses		National Housing Development Authority						

6.8.10. Pedestrians walk ways And Foot cycle ways construction



Project Name	Greenbelt of Nanuoya Stream			
Project	Nuwaraeliya Landscape Development			
Project Proposal	Construction of pedestrian walk ways and foot cycle ways as an environment friendly transport medium from Gregory lake entertainment zone to high density mix zone and entertainment zone 01 and 02. And also in related natural landscape views improvement in the eco system.			
Project location	From Gregory lake along the Nanuoya to town center and then up to town center to Bambarakele area.			
Location	Province	Central	District	Nuwaraeliya
	Divisional secretary	Nuwaraeliya	Local authority	Nuwaraeliya municipal council
Access				
Location map				




Adjoining land usage (details with maps)	<div><div><div>Legend</div><div><div><div>Bar Land</div><div>Building area</div><div>Greenery</div><div>Commercial</div><div>Cultural</div><div>Educational</div><div>Public housing</div><div>Forest</div><div>Grass Land</div><div>Gravel</div><div>Health</div><div>Home Street</div><div>Industrial Agriculture</div><div>Industrial</div><div>Vegetation</div><div>Open Space</div></div><div><div>Other</div><div>Park</div><div>Play Ground</div><div>Public Place</div><div>Public Space</div><div>Quarries</div><div>Reservoir</div><div>Residential</div><div>Residential & Tourism</div><div>Roads</div><div>SOS Golden Village</div><div>School Land</div><div>Sea</div><div>Tourism</div><div>Vacant Land</div><div>Vegetation</div><div>Visitors Parks</div><div>Water Area</div></div></div></div><div></div></div>							
	Project arrangements							
Project type	New	√	Improvement			Extensi on		Land development only
Project type	Preserv ation	Commer cial	Landsca ping	Historica l preservat ion	House s	Resettle ment	Ot he r	
			√					
Project Modal	Economic		-		Social		√	
Project aims	<div><div>1. Motivate people to use the environment friendly green transport methods.</div><div>2. Inter connect the all entertainment zones parks in the town, and connect the playground and commercial zones by the pedestrians walk ways and foot cycle ways.</div><div>3. Improve the environment condition of the Nanuoya stream.</div><div>4. Improve the needed walking and foot cycle facilities for the tourists.</div><div>5. Preserve the Nanuoya stream reservations.</div></div>							
Project suitability	It is a main aim of this development plan is to do the transport methods through green mode of system by constructing attractive pedestrian foot cycle ways target for tourists in 2030.And also preserve the natural landscape views as well. Through this it is expected to lessen the vehicle usage and create environment friendly transport modes. And can be avoided the unauthorized constructions and land encroachments on stream reservations as it is public common area.							
Present Land Ownership	U.D.A.		Private			State	N.H.D. A.	



						√	
Is it free of obstacles	Yes	√	Not		If not concerned details		
Details related to ownership	Land is belong to RDA and Divisional Secretary						
Survey plan details	Survey plan No.	Lot No.		Date	Land extent		
					Ace..	Ro. -	Pe r.
Project details							
Project duration	Short term (Yrs.. Less)		Medium term (Yrs. 1-3)	√	Long term (Yrs. 3-over)	Total estimated cost (Rs.Million)	246
Funding method	Treasury funds / Nuwaraeliya municipal council.						
zone	Entertainment zone/sensitive zone / High density mix				Is it compatible with the zoning	Compatible	
Present position	No available of foot path and cycling tract Along the Nanuoya stream and main road . Space for the project is available.						
Project cost	Activities				CostRs. Millions		
	Stream banks preservation				100		
	Foot cycle andPedestrian way development				100		
	Landscape beautification				46		
Approval needed institution							
Activity	Relevant institution					Authorized officer	
Plan preparation and construction	Urban development authority/ Irrigation department and Nuwaraeliya municipal council.						
Regulation and conditions	Should be done the development activities under the recommendation and supervision of irrigation department and the urban development authority.						



6.8.11. Create footpaths along the forest margins.

Project Title	Create footpaths along the forest margins of Toppass and Piduruthalagala mountains			
Project	Tourist’s infrastructure facility development			
Project Proposal	Creating footpaths along the forest margins of Top Pass and Piduruthalagala mountains. The project facilitates to walk along the forest area. Specially the main objective of the proposed footpaths is to protect forest cover from human interventions and it will act as barrier. This is basically only for pedestrian access and the main tourist’s facility improvement project			
Project location				
Site	Province	Central	District	Nuwara Eliya
	Divisional Secretariat Division	Nuwara Eliya	Local Authority	Nuwara Eliya MC
Boundaries	North	East	South	West
	Forest area	Seethaeliya	Residential zone	St. Andrews Road
Access	Badulla road			
Site Plan				
Nearest land use (with descriptions)	<div><div><div><div><div>Legend</div><div><div><div><div><div><div>Footpaths</div><div>Landuse_final</div><div>LP_TP_LA_2</div></div><div><div><div><div><div>Grass Land</div><div>Ground</div><div>Home Sheds</div><div>Home Agriculture</div><div>Industrial</div><div>Intentional</div><div>Open Space</div><div>Other</div><div>Park</div><div>Play Ground</div><div>Public Place</div><div>Quarters</div><div>Religious</div><div>Grass Land</div><div>Health</div><div>Home Sheds</div><div>Home Agriculture</div><div>Industrial</div><div>Intentional</div><div>Open Space</div><div>Other</div><div>Park</div><div>Play Ground</div><div>Public Place</div><div>Quarters</div><div>Religious</div><div>Residential</div><div>Residential & Tourism</div><div>Roads</div><div>SCS Children Village</div><div>Scrub Land</div><div>Shrub Land</div><div>Tee</div><div>Tourism</div><div>Unclassified</div><div>Waste Land</div><div>Vegetation</div><div>Victoria Park</div><div>Water Area</div><div>Road_Network</div><div>Water Bodies</div></div></div></div><div><div><div><div><div>Grass Land</div><div>Ground</div><div>Home Sheds</div><div>Home Agriculture</div><div>Industrial</div><div>Intentional</div><div>Open Space</div><div>Other</div><div>Park</div><div>Play Ground</div><div>Public Place</div><div>Quarters</div><div>Religious</div></div><div><div><div><div><div>Grass Land</div><div>Health</div><div>Home Sheds</div><div>Home Agriculture</div><div>Industrial</div><div>Intentional</div><div>Open Space</div><div>Other</div><div>Park</div><div>Play Ground</div><div>Public Place</div><div>Quarters</div><div>Religious</div></div><div><div><div><div><div>Residential</div><div>Residential & Tourism</div><div>Roads</div><div>SCS Children Village</div><div>Scrub Land</div><div>Shrub Land</div><div>Tee</div><div>Tourism</div><div>Unclassified</div><div>Waste Land</div><div>Vegetation</div><div>Victoria Park</div><div>Water Area</div><div>Road_Network</div><div>Water Bodies</div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div>			



Project list									
Project type	New	√	Improvement			Collectin g		Land development	
Project category	Conservatio n		com merc ial	landscap ing	Archeolo gical	Housin g	Resettle ment	Other	
	√								
Projecttype	Economic					Social		√	
Project Objectives	1. Protection of main unique character of forest range 2. Foot paths act as barrier to control human interventions towards to the forest area 3. Facilitate better experience for people who prefer to walk								
Project proposal	When considering the forest coverage of the area during the periods of 2010 and 2017, can be identified it has been gradually decreased. Therefore, forest cover as the unique feature of Nuwara Eliya essential need to protect for the future. Since, the plan identified that the strategic actions which are direct to protect forest stripe will be more applicable than introducing new rules and regulations. Thus, the project will initiates by connecting tourism with environment aspect.								
Present land ownership	UDA				Private		Government		√
Free from obstacle	Yes	√	No		If no, please describe				
Ownership details	Owned by Divisional Secretariat and Forest Conservation Department								
Survey plan details	Survey plan no			Date			Land extent		
							A	R....	P.....
Project details									
Project period	Short term (Above 1 year)	√	Medium term (1- 3Years)		Long term(above 3 years)		Total estimated cost (Rs Mn)		
Funding mechanism	Treasury /Nuwara Eliya Municiple council								
Infrastructure facilities									
Water	Required capacity				Electricit y	Required capacity			
	Existing capacity					Existing capacity			



Zone	Forest		Does match with zoning plan	yes
History				
Project cost	Activities		Cost	
			25	
Relevant authorities for approvals				
Activities		Relevant authorities		
Identification of the project zone		Forest Conservation Department, Urban Development Authority, Nuwara Eliya Municipal Council		
Confirmation of land clearances		Nuwara Eliya Municipal CouncilDivisional Secretariat Office, Nuwara Eliya		
Construction of foot paths		Nuwara Eliya Municipal Council		
Compensation for private land owners that falls for the projects		Nuwara Eliya Municipal Council		
Cloture of final stage of the project		Nuwara Eliya Municipal Council		



Part II

DEVELOPMENT ZONES AND ZONING GUIDELINES



CHAPTER 07- LAND AND BUILDING DEVELOPMENT STRATEGY AND REGULATIONS

7.1. Background of the Zoning Plan.

New technology and scientific methodology applied for the introduced zoning plan by the Nuwaraeliya greater development plan. It is need to consider the development trends in the areas in future 10 years of time, considering interconnected areas, and specially pay more attention on preserving environment sensitivity of the areas while enforcing development control activity process. Basically follow the zoning density methodology based on the zoning areas in the development plan. In that process get the existing land use pattern into the systematic way and control its intensity. For that completed the analysis of Environment sensitivity study, Livability analysis and Development potential analysis. (Annexure 01)



7.1.1. Zoning Plan

Map 7-0-1: Zoning Plan

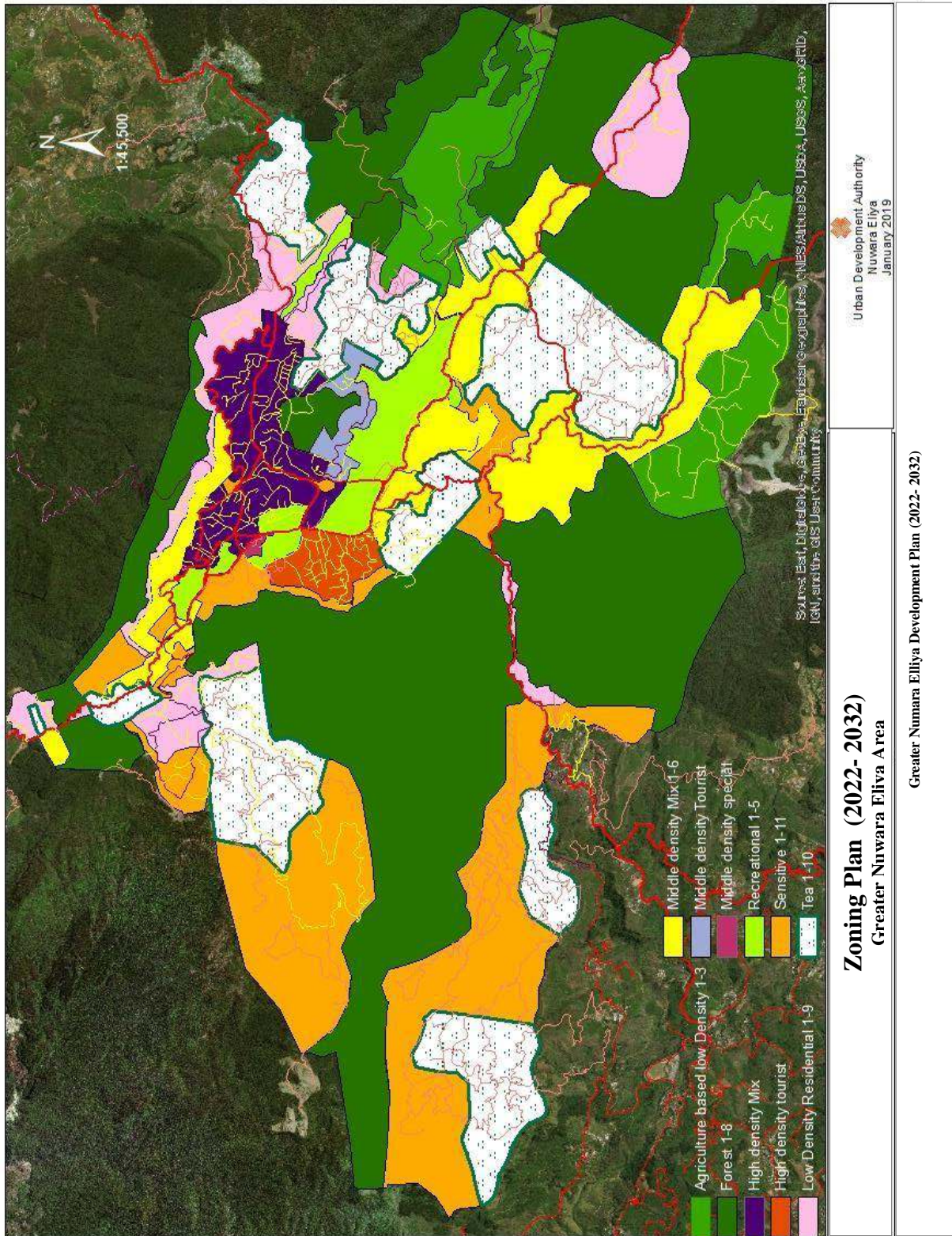









Table 7.0.1: Zones and zone colours

Zone No.	Zone	Zone colour
01	Low residential density agricultural zone 1,2,3	
02	Forests 1,2,3,4,5,6,7,8	
03	High density mix	
04	High density tourism	
05	Low density residential 1,2,3,4,5,6,7,8,9	
06	Medium density mix 1,2,3,4,5,6	
07	Medium density special zone	
08	Medium density tourism zone	
09	Entertainment zone 1,2	
10	Entertainment zone 3,4	
11	Entertainment zone 5	
12	Environmental sensitive zone	
11	Tea cultivation	



7.2. Zoning Factor

7.2.1. Form 01- Table of Permissible Floor Area Ratio for zones

Table 7.0.2: Form A - Permissible Floor Area Ratio

Form A - Permissible Floor Area Ratio																				
Land extent (Sq.M)	Zone factor = 0.50 - 0.74				Zone factor = 0.75-0.99				Zone factor = 1.00-1.24				Zone factor = 1.25-1.49				Zone factor = 1.50-1.74			
	Minimum Road Width				Minimum Road Width				Minimum Road Width				Minimum Road Width				Minimum Road Width			
	7m	9m	12m	15m or above	7m	9m	12m	15m or above	7m	9m	12m	15m or above	7m	9m	12m	15m or above	7m	9m	12m	15m or above
150 less than 250	0.8	0.9	0.9	0.9	1.3	1.3	1.4	1.4	1.6	1.7	1.8	1.9	2.0	2.2	2.3	2.4	2.4	2.6	2.7	2.8
250 less than 375	0.9	1.0	1.2	1.3	1.3	1.6	1.8	2.0	1.8	2.2	2.4	2.7	2.2	2.7	3.0	3.3	2.6	3.2	3.6	4.0
375 less than 500	0.9	1.0	1.2	1.4	1.3	1.6	1.9	2.1	1.9	2.2	2.5	2.8	2.3	2.8	3.2	3.4	2.7	3.3	3.8	4.2
500 less than 750	1.0	1.1	1.3	1.5	1.4	1.7	2.0	2.2	2.0	2.3	2.7	3.0	2.4	3.0	3.4	3.5	2.8	3.4	4.0	4.5
750 less than 1000	1.0	1.2	1.4	1.7	1.5	1.8	2.2	2.5	2.1	2.4	2.9	3.3	2.6	3.0	3.6	4.0	3.1	3.6	4.3	5.0
1000 less than 1500	1.1	1.3	1.5	1.8	1.6	1.9	2.3	2.7	2.2	2.5	3.0	3.6	2.7	3.1	3.8	4.5	3.2	3.8	4.6	5.5
1500 less than 2000	1.1	1.4	1.7	2.0	1.7	2.1	2.5	3.0	2.3	2.7	3.4	4.0	2.9	3.4	4.2	5.0	3.4	4.0	5.0	6.0
2000 less than 2500	1.2	1.5	1.8	2.1	1.8	2.3	2.7	3.1	2.4	2.8	3.5	4.2	3.0	3.5	4.4	5.4	3.5	4.2	5.2	6.5
2500 less than 3000	1.2	1.6	2.0	2.4	1.9	2.4	3.0	3.6	2.5	3.2	4.0	4.7	3.1	3.8	4.7	5.8	3.6	4.4	5.5	7.0
3000 less than 3500	1.3	1.7	2.1	2.5	2.0	2.5	3.1	3.7	2.6	3.4	4.2	5.0	3.2	4.0	5.0	6.2	3.7	4.6	6.0	7.5
3500 less than 4000	1.4	1.8	2.2	2.6	2.2	2.6	3.3	3.9	2.8	3.6	4.3	5.3	3.3	4.3	5.5	6.6	3.8	4.8	6.3	7.7
More than 4000	1.5	1.9	2.3	2.8	2.5	2.8	3.5	4.0	3.0	3.8	4.5	5.5	3.5	4.5	6.0	7.0	4.0	5.0	6.5	8.0



1. Floor area allocated for parking facilities are not calculated for FAR
2. Above Floor Area Ratio shall not be applicable for the zones where number of floors or FAR indicated under the zoning regulations
3. Above Permissible FAR may be restricted under the development plan based on the slope of the land
 - 0° - 10° - Unlimited**
 - 11° - 20° - 75% from FAR**
 - 21° - 30° - 50% from FAR**
 - 31° - 45° - 35 from FAR**
 - Above 45° - Not approved for the development**
4. Clearance shall be taken from National Building Research Organization for the lands having slope morethan 110
 - * FAR more than or equal to 10.0 shall be permitted only for the roads having minimum of 12m (from road center) Building Line, if not maximum FAR shall be limited to 9.0



7.2.2. Form 02 - Number of Floors for 03m & 4.5m Wide Roads

Table 7.0.3: Number of Floors for 03m & 4.5m Wide Roads

Form B - Number of Floors for 3.0m & 4.5m wide Roads						
Minimum Road Width	Minimum Site Frontage	Plot Coverage*	Maximum Number of Floors			
			Zone Factor 0.5 - 0.74	Zone Factor 0.75 - 1.24	Zone Factor 1.25 - 3.49	Zone Factor 3.50 - 4.00
3.0m	6m	65%	1 (G)	2 (G+1)	3 (G+2)	3 (G+2)
4.5m	6m	65%	1 (G)	2 (G+1)	3 (G+2)	4 (G+3)

1. Number of floors are indicated including parking areas
2. Number of units allowed for each road shall not be changed
3. * Where no plot coverage specified under the zoning regulations



7.2.3. Form 03 - Setbacks

Table 7. 0.4: Form C - Setbacks & Open Spaces

Form C - Setbacks & Open Spaces									
Building Height (m)	Minimum Site Frontage (m)	Plot Coverage*		Rear Space (m)		Side Space (m)		Light Well for NLV	
		Non Residential	Residential	When no NLV is taking this end	When NLV is taking this end	When no NLV is taking this end	When NLV is taking this end	Minimum width	Minimum Area
less than 7	6	80% **	65%	2.3m	2.3m	-	2.3m	2.3m	5 Sq.m
7 less than 15	6	65%	65%	3.0m	3.0m	-	3.0m	3.0m	9 Sq.m
15 less than 30	12	65%	65%	4.0m	4.0m	1.0m and 3.0m	4.0m	4.0m	16 Sq.m
30 less than 50	20	65%	65%	4.0m	5.0m	3.0m both side	5.0m	5.0m	25 Sq.m
50 less than 75	30	50% ***	50% ***	5.0m	6.0m	4.0m both side	6.0m	6.0m	36 Sq.m
75 and above	Above 40m	50% ***	50% ***	5.0m	6.0m	5.0m both side	6.0m	6.0m	****

NLV - Natural Light & Ventilation

Building Height - Height between access road level to roof top or roof level (Including parking floors)

* Where no Plot Coverage specified under the zoning regulations

** The entire development is for non-residential activities

*** 65% plot coverage can be allowed only for the podium level not exceeding 20% of the tower height or 12 floors which ever is less

**** Minimum area shall be increased by 1 Sq.m for every additional 3m height



7.3. Zoning & Common Guidelines

The following regulations are effective as a general Guidelines of this plan.

01. The planning and building regulations applicable to any development work is regulated the Gazette Notification dated 01st August 2022 and No. 2291/07. The said legalized development regulations also apply to the Greater Nuwara Eliya Development Planning area of Nuwara Eliya Municipal Council limits and Part of the Nuwara Eliya Pradeshiya Sabha limits.
02. This development plan is enforced under the basic instructions of divisional development plan of national physical planning department notified by the National Physical Planning Department in due cause.
03. Any location or property should be used for specified use when it is defined to use said activity in the development plan.
04. Urban Development Authority has the authority to take decision for the development activity when it not covers the development plan regulations.
05. Though these regulations are mentioned in any form, authority has the right to make use of the plot of land, do any kind of development activity, prohibit or limit or relaxing the regulation or introducing new regulation to fulfill the aims of the development plan.
06. When in the land portion is located within the two local authority areas/within two Grama Niladari Divisions, and said land portion is considered to be owned to accessible local authority or Grama Niladari Division. When in the land portion is accessible by two local authority areas or two Grama Niladari Division, then they said portion is considered to be owned to the main road accessible local authority or Grama Niladari Division. And also these two roads are in the same width, and then it belongs to the large portion of land area located local authority or Grama Niladari Division.
07. If the any use incompatible with the legally zoning use when the development plan regulation enforced date, said use is not permitted by the extension of period or its building extension or its machinery dispersing or extension of adjoining land portion or for any kind of project activity. In addition to that the proposed land or building is implied not favorable to continue further it can be given order to stop the incompatible use.
08. It should not be obstructed accordingly zone approved usages when the property or location is not specified for special use.
10. If the any land portion is located in between the two zones, that land portion is considered to be belongs to the accessible zone area. And also any land portion is accessible from two access by each zones and that land portion is belongs to the main



accessible zone area. If the land portion accessible two roads are same width then the said land is considered to be belonging to large portion of land located zone.

11. Mostly shown boundaries in the zoning map are considered basically roads or sub roads or railway roads or water ways. When those physical boundaries are unavailable then it has to be considered the zoning boundary in the development plan as according to Decimal Degree in the Google Earth based on by the X and Y co-ordinate numbers.
12. Establish the reservation or barrier zones for the protection and continuing of environment background of specific location, has the right to the urban development authority to take final decision.
13. Special approval should be obtained from the Authority for construction of hazardous toxic pollutants or projects which have implications for forests and ecosystems.
14. When in the complication situation arise regarding the boundaries of the zones, such situation urban development authority has the right to take final decision.
15. Special permission must be obtained from the Authority for projects and constructions that have a detrimental effect on hazardous toxin industries or forest and ecosystems.
16. When a land or a plot of land is allocated for a cemetery, approval of the Urban Development Authority should be obtained.
17. Where a plot of land or home is reserved for a specific use, no one can change the use of the land. But on the recommendation of the Planning Committee, with the approval of the Chairman of this authority, the local authority may consider modifying these if the following matters are completed.
 - i. Such facilities should not be obstructed by facilities in the area
 - ii. Such uses should not cause problems with traffic congestion
 - iii. Such practices should not impair the integrity of the environment by creating health hazards from pollution.
 - iv. Land size should be sufficient to provide infrastructure
 - v. Adequate arrangements must be made to protect against fire and other hazards.
 - vi. Do not make any changes to the landscape of the area by cutting down trees, pruning or maliciously destroying natural vegetation
 - vii. No changes shall be made to the buildings, mountains, historical and



archaeological value monuments in the area.

18. The Zone Factor is based on the development density of designated areas in the development plan. Further, in calculating the Zonal factor, the following are based,
 - i. Environmental and cultural sensitivity
 - ii. Improving infrastructure facilities in the respective region
 - iii. Development affordability of the respective region based on geographical factors, population density and similar factors.
19. Zone factor are not applicable for protected areas/ reservations and special protected areas. Only the zoning regulations apply to those zones.
20. The orientation of the proposed building should be a focal point of the town or a landmark or main road leading to the rest of the access road to the main relevant land and the front of the building should be planned towards that point. The Authority has the power to make the final decision if issue comes regarding the above matter.
21. If at any time an applicant requests a flat terrace roof for a building, the Authority will consider to it for approval. In such a case, Landscaping Plans should be submitted for at least 75% of the construction on that flat roof.

At the time of issuing the Certificate of Conformity for the said constructions, the Landscaping Plans are monitored and field inspections are carried out by the Authority every 5 years.
22. When a tree planting program is implemented on both sides of the identified roads owned by the Road Development Authority and the Local Authorities, the protection of the planted trees and its maintenance is entrusted to the nearest land owner.
23. Maximum height of the boundary wall should not exceeds 01 m from GL face to main entrance side of the building and maximum height of the boundary walls of other side not exceeds 02 m from the GL. Further height can be covered by wire mess or hedge if needed.

Figure 7.0.1: Landscaping



Figure 7.0.2: Boundary Wall

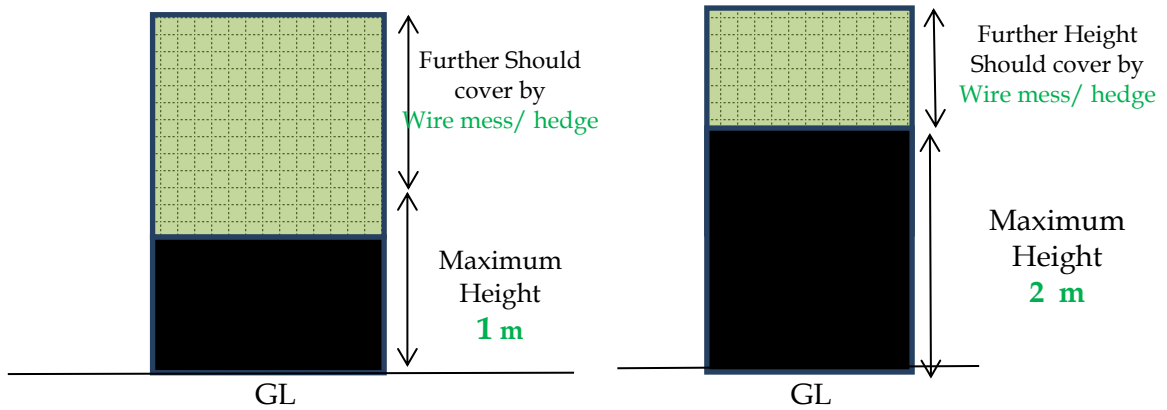
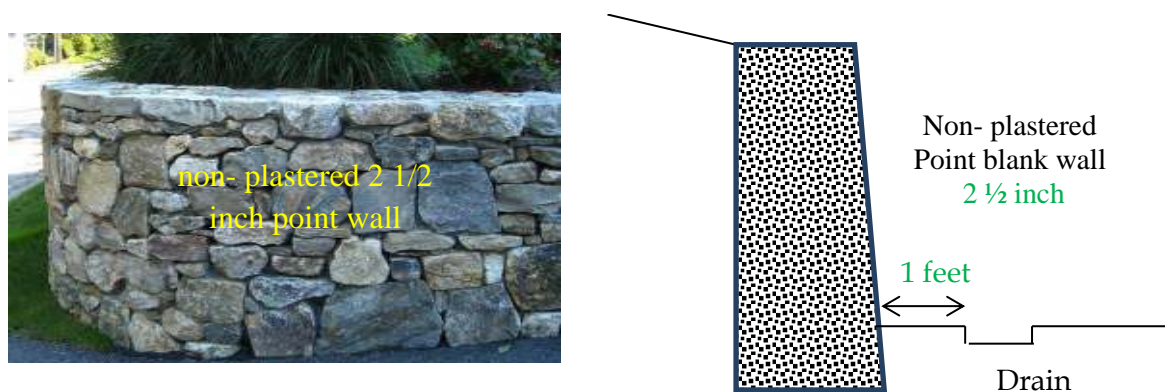


Figure 6.0.3: Example for Boundary Wall



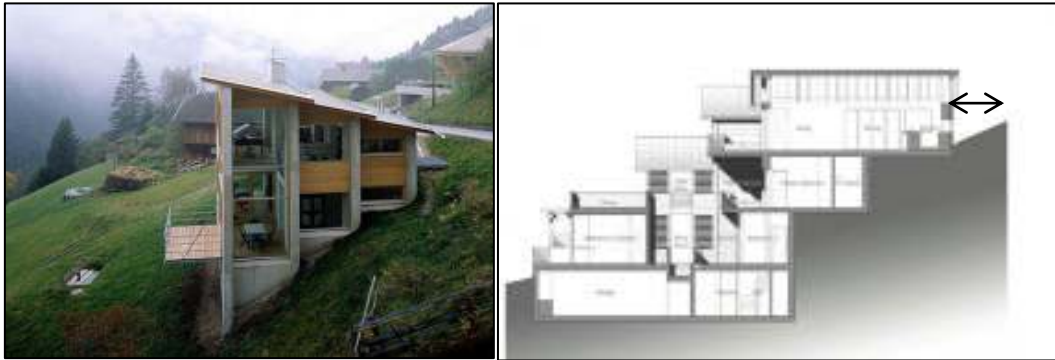
- 24.** Retaining wall must be built with a point-blank wall and it should be a non- plastered 2 1/2 inch point wall.

Figure 7.0.4: Retaining walls



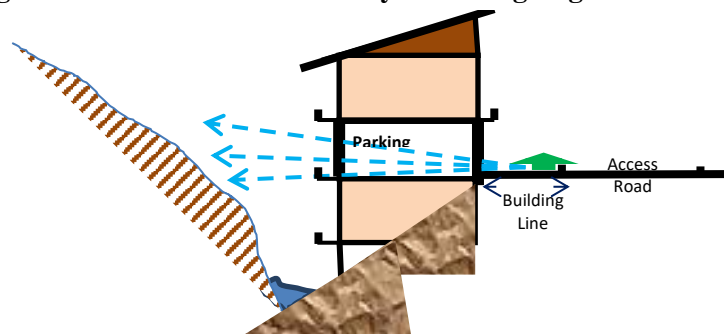
25. Where the building is situated on more than one street, the rear space is consider from the widest street from the land gets the right of way.
26. When the land locates above the access road and the building supposed to build step wise, then the rear space will consider in the highest level of the land

Figure 7.0.5: Construction of Step Wise



27. Construction should be done in a manner that does not obstruct the topography and unique environmental scenery in the Nuwara Eliya area. In order to protect such features, buildings must be constructed in such a way that the surrounding landscape can be seen through the floor at the entrance road level. In such a case, the Authority has the power to make recommendation for such plans. The floor can be used as parking space.

Figure 7.0.6: Construction done by see throughing the landscape



28. A Water and Waste Treatment Plant shall be provided by the developer in case of any other development which is having six rooms (06) and above in order to protect the existing environmental sensitivity and unique features of the area. It should be proposed in the premises and implemented properly and the Certificate of Conformity will be issued only after it has been inspected.



29. Telecommunication towers and their associated design should be designed in a "tree" shape design to suit the surrounding landscape, away from the general design.

Figure 7.0.7: Tree Shape Telecommunication Towers



30. When a developer has applied for a development project which can be considered to be locally / nationally important, if the area where the proposed developed land is located does not fall within the scope of the visual field analysis and if it is a project that suits the surrounding environment of the area, it is considered as a special matter Nuwara Eliya District The Authority has the power to take a decision with the recommendations of the Planning Committee to the Chief Planning Committee of the Authority



7.3.1. Architectural Standards and specification Applicable for all zone
Table 7.0.5: Architectural Standards and specification Applicable for all zone

Feature	Prescribed Standard
(a).Roof	
(i) Roof Angle	Should not be less than 30 degree.
(ii) Recommended roof for	Gable and hip roof RCC flat roof
(iii) Prohibited Roofing Material	
Note : - Balcony, Roof, Surface Backyard Open Floor (Terrace) are approved subject to a maximum of 20 square meters or less than 10% of the plot cover.	
(iv) Colour	The recommended colour for roofing sheet are Dark green, Shades of green ,Brown,
(b) Prohibited material in facades	i. Glazed Tile ii. Shading and contrasting aluminum cladding iii. Contrasting aluminum for door and window iv. Shining colours
(c) Wall colour	
(d) Doors and windows	Bright primary colours are not allowed.
(e) Balcony railing	Preferably doors and windows shall not be fully glazed but divided into rectangles by center mullions in case of glass door and windows
(i) Recommended Materials	
(II) Prohibited Materials	Shall be made out of timber, masonry, flatiron ,angle iron or box iron
(f) Valance Board	Steel rods, stainless steel, Shining materials Concrete fascia to cover the eaves and roof shall not be allowed .A matching valance board is allowed.

The Authority will be given ‘The Urban Design Guideline’ at the time of approval of the PPC which consists with the characters and special conditions of the area. That should be followed for further development.



7.3.2. Endemic Trees of Nuwara Eliya which Suitable for Planting**Table 7.0.6: Endemic Trees of Nuwara Eliya**

No	Name	Scientific Name
01	Walburutha	Psydraxmontanus
02	Lunu Ankenda	Euodialunu-ankenda
03	Wal sapu	Michelianilagirca
04	Rathu Mihiriya	Adinandralasiopetala
05	Mihiriya	Gordoniaceylanica
06	Rathu Mihiriya	Gordoniaspeciosa
07	Kihiriya	Gordoniaauxalaris
08	Yakul Maran	Syzygiumzeylancium
09	Maharathmal(Rhododendron)	Rhodendronaboriumzeylanicum
10	Gal Veralu	Elecarpus Montana
11	Kudu Dawla	Neolitseafulcata
12	Beeriya	Litesaovalifolia
13	Mal Beriya	Morus alba
14	Bombu	Symplocoscochinensis
15	Bora	Ligustrumrobustum
16	Nika Dawla	Miliosmapinnata
17	China Pera	Psidiumcattleyanum
18	Embul Pera	Psidiumguineense
19	Gurunda	Celtistimorensis
20	Atteriya	Murrayapaniculata
21	Kahako	Cassia spectabilis
22	Iththa	Scheffleraheterobotrya
23	Etaburu	Fagraceilania



CHAPTER 08- ZONING GUIDELINES FOR SPECIFIC ZONES

8.1. Zone 01 (Agricultural based Low Density Zone 1/2/3)

Figure 8.0.2: Agriculture based Low Density -01



Figure 8.0.1: Agriculture based Low Density -02



Figure 8.0.3: Agriculture based Low Density -03**8.1.1. Zoning Guidelines****Table 8.0.1: Zoning Guidelines in Zone 01**

(a.)	Zoning Definition	Preserve endemic up country agricultural use in Nuwara Eliya.
(b.)	Zone boundaries (Coordinates)	Noted Under Annexure
(c.)	Zoning Factor	0.5
(d.)	Approved height limits	N/A
(e.)	Approved plots coverage	20% Limited by the conditions specified in the zoning factor.
(f.)	General Terms Related to the Zone	<ul style="list-style-type: none"> • Environment pollution industries are not allowed • The minimum plot size should be 40 perches when grant the approval for subdivisions. • The present agricultural activities should be maintain as it is within the lands. • The approval will be granted only for agricultural and its related activities. • There will not be granted the approval for further subdivisions or development other than agricultural activities for the land where granted approval for maximum plot coverage from the date of gazetting the Development Plan. • Eco- Tourism activities will be allowed after reviewing the project by the Authority.



8.1.2 Permissible uses

Table 8.0.2: Permissible uses in Zone 01

No.	Permissible uses	Minimum Extent of the land (Sq. m)
(a.)Commercial		
i.	Retail shops	Only 20 % of the land is approved.
(b.)Residential		
i.	Residential uses	Only 20 % of the land is approved.
ii.	retail shops for residential	
(c.)Educational (Etc.)		
i	pre school	
(d) Agricultural		
i	Construction for agriculture related activities	Only 20 % of the land is approved.
ii	Tourism with Organic agriculture	



8.2. Zone 02 (Forest 1/2/3/4/5/6/7/8)

Figure 8.0.4: Forest 01



Figure 8.0.5: Forest 02



Figure 8.0.7: Forest 03



Figure 8.0.6: Forest 04



Figure 8.0.8: Forest 05

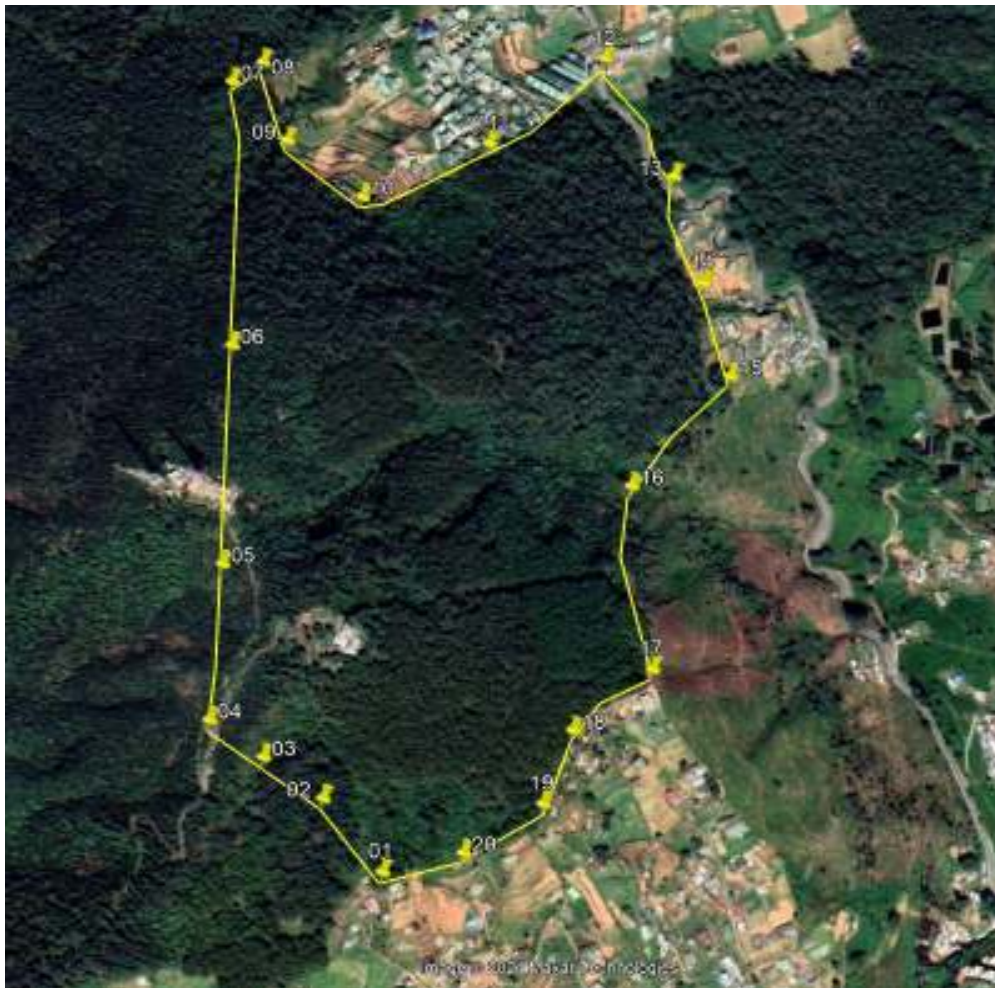


Figure 8.0.9: Forest 06



Figure 8.0.11: Forest 07



Figure 8.0.10: Forest 08



8.2.1 Zoning Guidelines

Table 8.0.3: Zoning Guidelines in Zone 02

(a.)	Zoning Definition	Preservation of endemic forest eco-system to Nuwara Eliya
(b.)	Zone boundaries (Coordinates)	Noted Under Annexure
(c.)	Zoning Factor	0.0
(d.)	Approved height limits	N/A
(e.)	Approved plots coverage's	0 Limited by the conditions specified in the zoning factor.
(f.)	General Terms Related to the Zone	It is only allowable to fulfill the proposed work by sharing the existing towers and not allow any kind of construction except telecommunication column and cable car columns. Subdivisions are not allowed

8.2.2. Permissible uses

Table 8.0.4: Permissible uses in Zone 02

No.	Permissible uses	Minimum Extent of the land (Sq. m)
(a.) Eco friendly		
i.	View point huts, Exploration huts not exceed	not exceed 50 sq.m



8.3 Zone 03 (High Density Mix Development Zone)

Figure 8.0.12: High Density Mix Development Zone



8.3.1 Zoning Guidelines

Table 8.0.5: Zoning Guidelines in Zone 03

(a.)	Zoning Definition	Main Zone for providing infrastructure facilities for Residential and Commuting People
(b.)	Zone boundaries (Coordinates)	Noted Under Annexure
(c.)	Zoning Factor	1.5
(d.)	Approved height limits	



	Viewing Point (Towards Piduruthalagala)	Maximum Height Limits					
	Near to Sampath Bank Junction (6.973238 – 80.765360)	Maximum Contour Height (m)	1880	1885	1902.5	1912.5	1927
		Height	1891	1900	1909	1918	1927
	Near to Bus Stand (6.971807 – 80.766805)	Maximum Contour Height (m)	1880	1890	1902.5	1912.5	1932.5
		Height	1891	1900	1909	1918	1927
(e.)	Approved plots coverage's	50% of the land for living houses and 60% for other uses. (Limited by the conditions specified in the zoning factor.)					
(f.)	General Terms Related to the Zone	<ul style="list-style-type: none"> The zone fall for the 'View Analysis' which done for the area and the maximum heights will be limited based on the analytical data of the above analysis. Should be obtained approval from other institutions in case where those recommendations are deemed necessary. When the land locates above the access road and the building supposed to build step wise, then the rear space will consider in the highest level of the land 					

8.3.2 Permissible uses

Table 8.0.6: Permissible uses in Zone 03

No.	Permissible uses	Minimum Extent of the land (Sq. m)
(a.)Commercial		
i.	Shops	200 Sq. m
ii.	Restaurants & Hotels	
iii.	Banks and financial institutions	
iv.	Super markets	
v.	Printing industry	
vi.	Professional offices	



vii.	Pharmacies,	
viii.	Whole sale centers	
(b.)Residential		
i.	Houses for living purposes	500 Sq.m
ii.	Apartments	
iii.	Public assembly halls	
iv.	Entertainment uses	
v.	retail tread shops	
vi.	Religious places	
vii.	Parks	
viii.	Play Grounds	
(c.)Institutional		
i.	Government and Private Offices	
ii.	Service institutions	
iii.	Hospitals	
iv.	Government hospital	
v.	Public assembly Consultancy training centers	
vi.	Professional offices	
(d) Industrial and Agricultural		
i.	Garage	
ii.	Agriculture related shops	
iii.	Fertilizer stores	Not exceed 100 Sq.m
iv.	Chemical fertilizer stores	
v.	Explosive material shops	
(e) Other		
i.	Medical Centers	200sqm
ii.	Restaurants & Hotels, shops,	
iii.	Showrooms	
iv.	Vehicle parking area	
v.	Clubs	
vi.	Television screen shops	
vii.	Vehicle repairing centers	Not exceed 100 sqm
viii.	Vehicle service stations	
ix.	Fuel stations	
x.	Parks and play grounds	-
xi.	Museums	
xii.	Entertainment uses	
xiii.	Film halls	
xiv.	Transportation hubs	



8.4 Zone 04 (High Density Tourism Zone)

Figure 8.0.13: High Density Tourism Zone



8.4.1 Zoning Guidelins

Table 8.0.7: Zoning Guidelines in Zone 04

(a.)	Zoning Definition	Tourism infrastructure facility development activities.					
(b.)	Zone boundaries (Coordinates)	Noted Under Annexure					
(c.)	Zoning Factor	01					
(d.)	Approved height limits						
Viewing Point			Maximum Height limits				
Near Dharmapala Roundabout (6.967547 ⁰ – 80.767537 ⁰)	Maximum Contour Height (m)	1880	1890	1897.5	1917.5	1960	
	Maximum Height from MSL	1895	1911	1920	1942	1960	
Near Cey Bank Rest (6.965837 ⁰ - 80.767312 ⁰ .)	Maximum Contour Height (m)	1885	1897.5	1917.5	1940	1960	
	Maximum Height from MSL	1899	1915	1932	1948	1965	
Near Race Course Entrance (6.966412 ⁰ - 80.767477 ⁰)	Maximum Contour Height (m)	1880	1885	1900	1927.5	1960	
	Maximum Height from MSL	1896	1908	1928	1941	1965	
Near Unique View Road (6.963187 ⁰ - 80.766824 ⁰)	Maximum Contour Height (m)	1892.5	1902.5	1915	1927.5	1940	
	Maximum Height from MSL	1898	1909	1918	1931	1940	
Near Haddon Hill Road	Maximum Contour Height (m)	1895	1905	1912.5	1927.5	1940	



	(6.962472 ⁰ -80.769315 ⁰)	Maximum Height from MSL	1900	1910	1920	1931	1942
	Near Hatton Road Junction (6.960737 ⁰ -80.769315 ⁰)	Maximum Contour Height (m)	1872.5	1870	1897.5	1917.5	1970
		Maximum Height from MSL	1897.5	1912	1926	1940	1955
(e.)	Approved plots coverage	50% (Limited by the conditions specified in the zoning factor.)					
(f.)	General Terms Related to the Zone	<ul style="list-style-type: none"> • Environment pollution industries and over 5000 sq.f. industries are not allowed 					



8.4.2 Permissible uses

Table 8.0.8: Permissible Uses in Zone 04

No.	Permissible uses	Minimum Extent of the land (Sq. m)
(a.)Commercial		
i.	Shops,Banks and financial institutions	Not exceed 50 Sq.m
ii.	Retail shops	
iii.	Super Market	
iv.	Restaurants	
(b.)Residential		
i.	Houses for living	500 sqm
ii.	Apartments	
iii.	Public assembly& consultation halls	
iv.	Tourism consultation training centers	
(c) Tourism		
i.	Tourism hotels	-
ii.	Massage centers	
iii.	Karaoke centers	
iv.	Night clubs	
(d) Other		
i.	Vehicle parking locations,	Not exceed 100 sqm
ii.	Exhibition halls	
iii.	Cinema halls &Television screen shops	
iv.	Social clubs	
v.	Entertainment uses	
vi.	Parks, Play ground	
vii.	State and private offices	
viii.	Service centers, consultation training centers	
ix.	Professional offices	



8..5. Zone 05 (Low Density Residential Zone-1,2,3,4,5,6,7,8,9)

Figure 8.0.14: Low Density Residential Zone-01



Figure 8.0.15: Low Density Residential Zone- 02



Figure 8.0.16: Low Density Residential Zone- 03



Figure 8.0.17: Low Density Residential Zone- 04



Figure 8.0.18: Low Density Residential Zone- 05



Figure 8.0.19: Low Density Residential Zone- 06

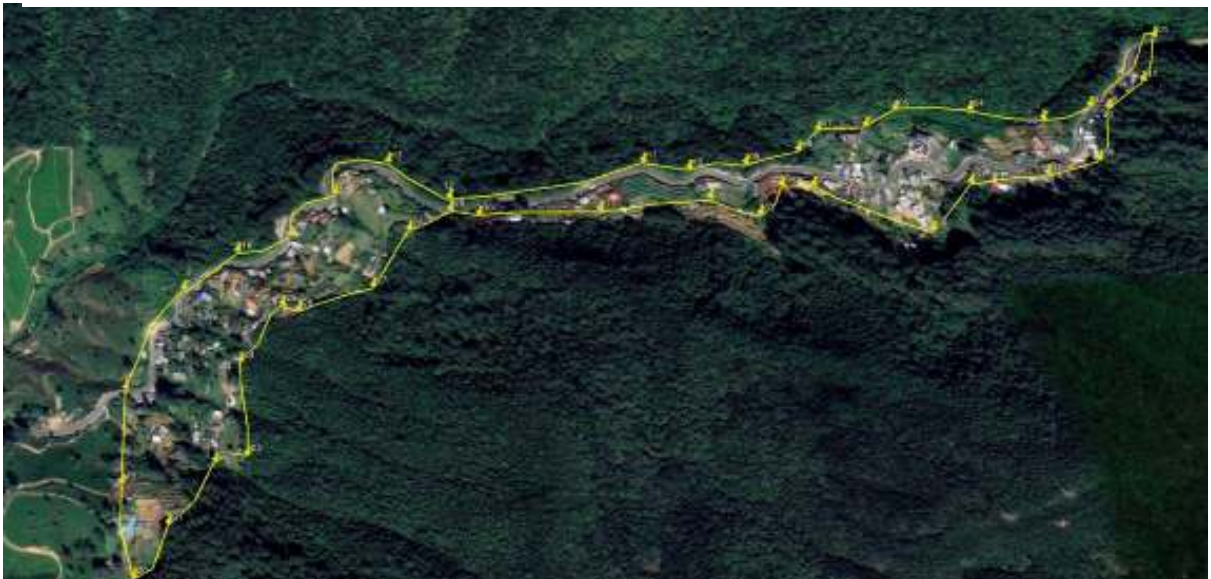


Figure 8.0.20: Low Density Residential Zone- 07



Figure 8.0.21: Low Density Residential Zone- 08



Figure 8.0.22: Low Density Residential Zone- 09

8..5.1 Zoning Guidelines

Table 8.0.9: Zoning Guidelines in Zone 05

(a.)	Zoning Definition	Low density residential zone for the barrier zone for forest zone.
(b.)	Zone boundaries (Coordinates)	Noted Under Annexure
(c.)	Zoning Factor	0.5
(d.)	Approved height limits	N/A
(e.)	Approved plots coverage	40% (Limited by the conditions specified in the zoning factor.)
(f.)	General Terms Related to the Zone	Wooden associated saw mills or wooden associated workshops. are not allowed



8..5.2 Permissible uses**Table 8.0.10: Permissible uses in Zone 05**

No.	Permissible uses	Minimum Extent of the land (Sq. m)
(b.)Residential		
i.	Construction for residential uses	500 Sq.m
(b.)Tourism		
i	Guest houses	Not more than 500 sq.m
ii	Home Stay Tourism	-
(d) Other		
i.	Pharmacies,	250 Sq m
ii.	State sector service centers	
iii.	Entertainment activities	
iv.	Museums,	
v.	Parks	1000 sqm



8.6. Zone 06 (Middle Density Mix Zone-1,2,3,4,5,6,7)

Figure 8.0.23: Middle Density Mix Zone- 01



Figure 8. 0.24: Middle Density Mix Zone- 02



Figure 8.0.25: Middle Density Mix Zone- 03



Figure 8.0.26: Middle Density Mix Zone- 04



Figure 8.0.27: Middle Density Mix Zone- 05



Figure 8.28: Middle Density Mix Zone- 06



8..6.1 Zoning Guidelines

Table 8.0.11: Zoning Guidelines in Zone 06

(a.)	Zoning Definition	Residential and commuting population infrastructure facility supply zone				
(b.)	Zone boundaries (Coordinates)	Noted Under Annexure				
(c.)	Zoning Factor	0.7				
(d)	Approved height limits					
Viewing Point (Towards tea cultivation land)		Maximum Height Limits				
Near Upper Lake Road car park 03	Maximum Contour Height (m)	1890	1892.5	1897.5	1900	1910
	Maximum Height from MSL	1890	1892	1897	1901	1905
Near Upper Lake Road car park 01	Maximum Contour Height (m)	1895	1900	1902.5	1910	1925
	Maximum Height from MSL	1894	1902	1909	1916	1925
Near Upper Lake Road car park 02	Maximum Contour Height (m)	1895	1905	1907.5	10912.5	1925
	Maximum Height from MSL	1894	1902	1909	1916	1925
Viewing Point (Towards Bonvista and Kalukele side)		Maximum Height limits				
Badulla Road	Maximum Contour Height (m)	1885	1892.5	1907.5	1917.5	1925
	Maximum Height from MSL	1891	1900	1909	1919	1926
Near Kovil (Badulla Road)	Maximum Contour Height (m)	1887.5	1897.5	1910	1920	1927.5



	(6.956084° – 80.778296°)	Maximum Height from MSL	1890	1900	1909	1918	1928
	Near Punchi Wewa (6.953534° – 80.780093°)	Maximum Contour Height (m)	1882.5	1895	1897.5	1917	1927.5
		Maximum Height from MSL	1888	1897.5	1908	1918	1928
(e.)	Approved plots coverage's	50% (Limited by the conditions specified in the zoning factor.)					
(f.)	General Terms Related to the Zone	Zone Factor and abovr view analysis will be considered for the approval.					



8.6.2 Permissible uses

Table 8.0.12: Table No 8.12. Permissible uses in Zone 06

No.	Permissible uses	Minimum Extent of the land (Sq. m)
(a.)Commercial		
i.	Markets	250 Sq.m
ii.	Super markets	
iii.	Whole Sale trade	
iv.	Filling stations	
v.	Banks and financial institutions	
vi.	Restaurants and hotels,	
vii.	Retail shops	
viii	Vehicle repairing centers	Not more than 100 sq.f.t
(b.)Residential		
i.	Houses for living	250 Sq.m
ii.	Apartments	1000 Sq.m
(d) Other		
i.	Community assembly halls	500 Sq.m
ii.	Consultation training centers	
iii.	Religion Places	500 Sq.m
iv.	Entertainment uses	
v.	Parks, Playground	
vi.	Museums	
vii.	State Hospitals	
viii.	Other Hospitals	
ix.	State and private offices	
x.	Transport centers	250 Sq.m
xi.	Medical Centers	
xii.	Vehicle parking places	
(e) Tourism		
i.	Karoke Halls	500 Sq.m
ii.	Night Clubs	
iii.	Massage Centers	
(f)Industrial		
	Industries related to the houses	100 Sq.m



8.7 Zone 07 (Middle Density Special Zone)

8.7.1 Zoning Guidelines

Table 8.0.13: Zoning Guidelines in Zone 07

(a.)	Zoning Definition	Preserving the unique architectural features of Nuwara Eliya as it is and further preserving the uniqueness and specific characters of the existing buildings of the zone.
(b.)	Zone boundaries (Coordinates)	Noted Under Annexure
(c.)	Zoning Factor	0.5
(d.)	Approved height limits	N/A
(e.)	Approved plots coverage	50% (Limited by the conditions specified in the zoning factor.)
(f.)	General Terms Related to the Zone	<ul style="list-style-type: none"> • Further subdivision of the existing land plots isn't allowed. • Further Developments of the existing building only with preserving unique architectural features will be allowed. • Existing land uses should be kept as it is. • Existing height should be maintained

8.7.2 Permissible uses

Table 8.0.14: Permissible uses in Zone 07

No.	Permissible uses	Minimum Extent of the land (Sq. m)
i.	Permitted only for an improvement of the existing use with general terms which above mentioned.	



8.8. Zone 8 (Middle density tourism)

8.8.1 Zoning regulations

Table 8.0.15:. Zoning Guideliness in Zone 08

(a.)	Zoning Definition	Tourist infrastructure facility development activities.					
(b.)	Zone boundaries (Coordinates)	Noted Under Annexutre					
(c.)	Zoning Factor	0.7					
(d.)	Approved height limits						
Viewing Point (Towards Piduruthalagala and Galways forest)		Maximum Height limits (M)					
Near Hatton Road Junction (6.960737° - 80.769315°)		Maximum Contour Height (m)	1877.5	1875	1890	1900	1917.5
		Maximum Height from MSL	1890	1895	1900	1906	1912
(e.)	Approved plots coverage	50% (Limied by the conditions specified in the zoning factor)					
(f.)	General Terms Related to the Zone	<ul style="list-style-type: none"> Any kind of Industries are not allowed Only the upcoming development that built in accordance with the architectural features of Nuwara Eliya will be allowed. When the land locates above the access road and the building supposed to build step wise, then the rear space will consider in the highest level of the land 					



8..8.2 Permissible uses

Table 8.0.16: Permissible uses in Zone 08

No.	Permissible uses	Minimum Extent of the land (Sq. m)
(a.) Commercial		
i.	Restaurants	500 Sq.m
ii.	Clubs	
iii.	Hotels	
iv.	Exhibition halls	
v.	Cinema halls	
vi.	Television screen tread stall	
vii.	Restaurants and retail shops	
(b.) Residential		
i.	Residential uses Dwelling houses,	500 Sq.m
(c.) Tourism		
i.	Karoke Halls	500 Sq.m
ii.	Night Clubs	
iii.	Massage Centers	
iv.	Uses related to the tourism purposes	
(d) Other		
i.	Vehicle parking areas	500 Sq.m
ii.	Parks, Playground	
iii.	Museums	
iv.	Entertainment uses	
v.	Public assembly consultation training centers	
vi.	State and private offices	
vii.	Medical centers, Pharmacies, Hospitals	
viii.	Exhibition halls	



8.9. Zone 09 (Entertainment zone 01/02)**8.9.1 Zoning Guidelines****Table 8.0.17: Zoning Guidelines in Zone 09**

(a.)	Zoning Definition	Entertainment and sports facility supply zone for residential and commuting population.
(b.)	Zone boundaries (Coordinates)	Noted Under Annexure
(c.)	Zoning Factor	0
(d.)	Approved height limits	N/A
(e.)	Approved plots coverage	0
(f.)	General Terms Related to the Zone	Laws and Regulations of the Gazette Notification designating Lake Gregory Lake as Environmental Protection Area No. 47 of 1980 should be followed for the development.

8.9.2 Permissible uses**Table 8.0.18: Permissible uses in Zone 09**

No.	Permissible uses	Minimum Extent of the land (Sq. m)
	<ul style="list-style-type: none"> Anzillary facilities of sports and infrastructure The construction will not allow and eventhough The Main Planning Committee of UDA will be decided the final approval if special development. 	



8.10. Zone 10 (Entertainment Zone- 03, 04)**8.10.1 Zoning Guidelines****Table 8.0.19: Zoning Guidelines in Zone 10**

(a.)	Zoning Definition	Continue Golf Course associated green dense area.
(b.)	Zone boundaries (Coordinates)	Noted Under Annexure
(c.)	Zoning Factor	0.0
(d.)	Approved height limits	N/A
(e.)	Approved plots coverage	0
(f.)	General Terms Related to the Zone	<ul style="list-style-type: none"> No development activities other than golf related activities will be permitted The construction will not allow and eventhough The Main Planning Committee of UDA will be decided the final approval if special development of exisiting buildings.

8..10.2 Permissible uses**Table 8.0.20: Permissible uses in Zone 10**

No.	Permissible uses	Minimum Extent of the land (Sq. m)
i.	Golf and its related activites only.	



8.11. Zone 11 (Entertainment zone 05)

8.11.1 Zoning Guidelines

Table 8.0.21: Zoning Guidelines in Zone 11

(a.)	Zoning Definition	Continuing only gardening related activities.
(b.)	Zone boundaries (Coordinates)	Noted Under Annexure
(c.)	Zoning Factor	0
(d.)	Approved height limits	N/A
(e.)	Approved plots coverage	0
(f.)	General Terms Related to the Zone	Should be maintained the exisiting Greenary area.

8..11.2 Permissible uses

Table 8.0.22: Permissible uses in Zone 11

No.	Permissible uses	Minimum Extent of the land (Sq. m)
i.	The construction will not allow and eventhough The Main Planning Committee of UDA will be decided the final approval if special development.	



8.12. Zone 12 (Sensitive Zone 1,2,3,4)

8.12.1 Zoning Guidelines

Table 8.0.23: Zoning Guidelines in Zone 12

(a.)	Zoning Definition	Zone for preservation of environmental sensitivity
(b.)	Zone boundaries (Coordinates)	Noted Under Annexure
(c.)	Zoning Factor	0.0
(d.)	Approved height limits	N/A
(e.)	Approved plots coverage	0
(f.)	General Terms Related to the Zone	No

8.12.2. Permissible uses

Table 8.0.24: Permissible uses in Zone 12

No.	Permissible uses	Minimum Extent of the land (Sq. m)
i.	Existing land use should be keep as it is and not allow any kind of other constructions	



8.13. Zone 13 (Sensitive zone5/6)**8.13.1. Zoning Guidelines****Table 8.0.25: Zoning Guidelines in Zone 13**

(a.)	Zoning Definition	Zone for preservation of environmental sensitivity
(b.)	Zone boundaries (Coordinates)	Noted Under Annexure
(c.)	Zoning Factor	0
(d.)	Approved height limits	N/A
(e.)	Approved plots coverage	0
(f.)	General Terms Related to the Zone	No

8.13.2. Permissible uses**Table 8.0.26: Permissible uses in Zone 13**

No.	Permissible uses	Minimum Extent of the land (Sq. m)
ix.	Existing land use should be keep as it is and constructions not allow any kind of other	



8.14. Zone 14 (Sensitive zones^{7,8})**8.14.1 Zoning Guidelines****Table 8.0.27: Zoning Guidelines in Zone 14**

(a.)	Zoning Definition	Zone for preservation of environment sensitivity with introducing environment friendly activities
With (b.)	Zone boundaries (Coordinates)	Noted Under Annexure
(c.)	Zoning Factor	0
(d.)	Approved height limits	N/A
(e.)	Approved plots coverage	-
(f.)	General Terms Related to the Zone	Other development are not allowed expect mentioned bellow table No 28

8.14.2. Permissible uses**Table 8.0.28: Permissible uses in Zone 14**

No.	Permissible uses	Minimum Extent of the land (Sq. m)
i.	Cabanas	not exceeding 50 Sq.m
ii	field study centers and recreation centers	



8.15. Zone 15 (Sensitive zones 9/10)

8.15.1 Zoning Guidelines

Table 8.0.29: Zoning Guidelines in Zone 15

(a.)	Zoning Definition	Zone for preservation of environment sensitivity.
(b.)	Zone boundaries (Coordinates)	Noted Under Annexure
(c.)	Zoning Factor	0
(d.)	Approved height limits	N/A
(e.)	Approved plots coverage	0
(f.)	General Terms Related to the Zone	No

8.15.2 Permissible uses

Table 8.0.30: Permissible uses in Zone 15

No.	Non-Permissible uses	Minimum Extent of the land (Sq. m)
i.	Existing land use should be keep as it is and not to allow any kind of other constructions	



8.16. Zone 16 (Sensitive zone11)

8.16.1 Zoning Guidelines

Table 8.0.31: Zoning Guidelines in Zone 16

(a.)	Zoning Definition	Environment preservation sensitive zone
(b.)	Zone boundaries (Coordinates)	Noted Under Annexure
(c.)	Zoning Factor	0.3
(d.)	Approved height limits	N/A
(e.)	Approved plots coverage	-
(f.)	General Terms Related to the Zone	No

8.16.2. Permissible uses

Table 8.0.32: Permissible uses in Zone 16

No.	Permissible uses	Minimum Extent of the land (Sq. m)
i.	Only the improvement of existing land use is allowed	



8.17. Zone 17 (Tea 1,2,3,4,5,6,7,8,9,10)**8.17.1 Zoning Guidelines****Table 8.0.33: Zoning Guidelines in Zone 17**

(a.)	Zoning Definition	Preserve Tea Cultivation lands
(b.)	Zone boundaries (Coordinates)	Noted Under Chapter 03
(c.)	Zoning Factor	0.3
(d.)	Approved height limits	N/A
(e.)	Approved plots coverage's	-
(f.)	General Terms Related to the Zone	No

8.17.2. Permissible uses**Table 8.34: Permissible uses in Zone 17**

No.	Permissible uses	Minimum Extent of the land (Sq. m)
i.	The construction will not allow and eventhough The Nuwara Eliya District Planning Committee of UDA will be decided the final approval if special development of exisiting landuse	



CHAPTER 09- ROADS WIDTH, BUILDING LINE/ ROAD RESERVATIONS

9.1. Building Line / Street Line

9.1.1. The building line of the following roads shall not be less than 15 meters.

01. St Andrews Road
02. Lady Macclum Road
03. Old Bazaar Road
04. Lawson Street
05. New Bazar Street
06. Udapussallawa Road
07. Double Cut Road
08. Race Course Road
09. Kandy Road
10. Queen Elizabeth Drive
11. Nanu Oya Road

9.1.2. Minimum width of the roads is more than 10m

1. The building line of the following roads shall not be less than 10 meters

01. Oliphant Shanthipura Road
02. Meepilimana “gammedda” road from GPS coordination $6^{\circ} 55' 27.78''$
N/ $80^{\circ} 47' 22.45''$ to $6^{\circ} 55' 40.70''$ N/ 80°
 $47' 02.85''$ E”
03. Grand Hotel Road
04. Clinic Road (Court Road)
05. Park Road



06. Hospita lRoad

07. Moon Plain Road (Vajira Road)

08. Upper LakeRoad

01. Kalukale Road

9.1.3. Minimum width of the roads is more than 08 m

1. building line of the following roads shall not be less than 06 meters

01. GleanFallRoadfromGPScoordination $6^{\circ} 58' 03.05''\text{N}/80^{\circ} 46' 00.09''\text{E}$ to
 $6^{\circ} 58'00.13'' \text{N}/80^{\circ} 45' 49.57''\text{E}$

02. Haddon Hill Road from GPS coordination $6^{\circ}57'44.96''\text{N}/ 80^{\circ} 46' 00.33''\text{E}$ to
 $6^{\circ} 57'40.06'' \text{N}/80^{\circ} 45'52.20''\text{E}$

03. Unique View Road fromGPScoordination $6^{\circ}57'47.48''\text{N}/ 80^{\circ} 46' 00.61''\text{E}$ to
 $6^{\circ} 57'48.05''\text{N} /80^{\circ} 45'49.66''\text{E}$
 $6^{\circ}57'45.48''\text{N}/80^{\circ}45'53.17''\text{E}$

04. Jayathilaka Mawatha



9.1.4. Minimum width of the roads more than 07 m

01. Building line or street line of the following roads shall not be less than 12meters

1. Sri PiyatissapuraRoad	38. John Street
2. Under Bank Road	39. Long Street
3. Water filed Road	40. Mount Marry Road
4. KeenaRoad	41. Gajabapura Road
5. CrossStreet	42. Military Road
6. ChapelStreet	43. Galway's Road
7. HillStreet	45. Old Kalegala Road
8. JamesStreet	46. BambarakeleRoad
9. KanagarthnamStreet	47. Bambarakele Bolram Road
10. Srimath JayathilakaMawatha	48. Jayathilaka Mawatha Short cut
11. Sri RahulaMawatha	49. Kalukale Short Cut Road
12. Police Lane	50. Kalukale – BonavistaRoad
13. GamunuMawatha	51. Gajabapura Short cut Road
14. Sri SumangalaMawatha	52. Loverslip Short Cut



15. RajasingheMawatha	53. Bruwary Short cut
16. Convent Short CutRoad	54. Moon Plain temple road
17. WerdabanRoad	55. Boralanda Temple Road
18. ChurchRoad	56. RahulaMawatha Short cut
19. Broom filedRoad	57. Nawagamgoda Road
20. Crighton VillageRoad	58. Magasthota Road
21. BaroosRoad	59. MC Housing road
22. AgricultureRoad	60. MagasthotaKalukale ShortCut
23. Experimental GardenRoad	61. Magasthota 1 st Lane
24. KovilaRoad	62. Magasthota 2 nd Lane
25. EdirisingheMawatha	63. Magasthota 3 rd Lane
26. MahindaMawarha	64. Katti seeya road
27. Dun Short CutRoad	65. Ranawiru GammanaRoad
28. AbeyapuraRoad	66. Meepilimana Gammedda road
29. Lady MacclumRoad	67. Jayawardhana Road
30. Upper Gibson Road	68. Mukalana Road
31. Lower GibsonRoad	69. Dharmapalapura Road
32. Single Tree Hill Road	70. Rose Garden Road
33. Haddon Hill Road	71. Windmayor Park Road
34. Unique View Road	72. Spenser Park Road
35. RanasingheMawatha	73. Misty hill Road
36. Lebanon Road	74. Seetha Eliya Gammedda Road
37. Glean Fall Road	75. Haggala Gammedda Road

02. Minimum Building line or street line limits is 6 meters for the road not mention in above list and width of the other roads 6m



9.2. Reservation for water bodies

	Water Body	Reservation from the bank
1	Small water ways Bed width less than 1 meter	The bed width of the water way
2	Large water ways bed width between 1 and 3 meters	The bed width of the water way +01
3	Large water ways bed width between 3 and 16 meters	The bed width of the water way +03
4	Water ways Bed with more than 16 meters	The bed width of the water way +05



9.3. Permissible height limits according to the view analysis

9.3.1. Objectives of protecting visibility zones

The visual environment is one of the most important factors in creating an urban area and making the environment attractive. The human brain communicates information through what the human eye see in the environment and what it feels through it. The result of that, the visual environment appears to be a very important feature in the perception of the city by people who encounter it. Therefore, it can be said that creating a good environment through urban development is very essential. Therefore, this visual field analysis was used in the background study as well as the analysis in formulating this Nuwara Eliya development plan.

Nuwara Eliya is a city in the heart of the central highlands of Sri Lanka with a unique climate and landscape. This is one of the main water catchment area for main water falls of Sri Lanka which surround by mountain ranges of Piduruthalagala , Kikiliyamana, Single Tree and Haggala. Even though, there can be identified following main facts when studying the urban environment of Nuwara Eliya area.

- Construction has been done without following proper regulations and plans.
- Improper construction in hilly areas
- Construction done without considering environmental factors, landscape and topology
- Upcoming high-rise construction and unplanned development which unsuitable architectural pattern for the area.

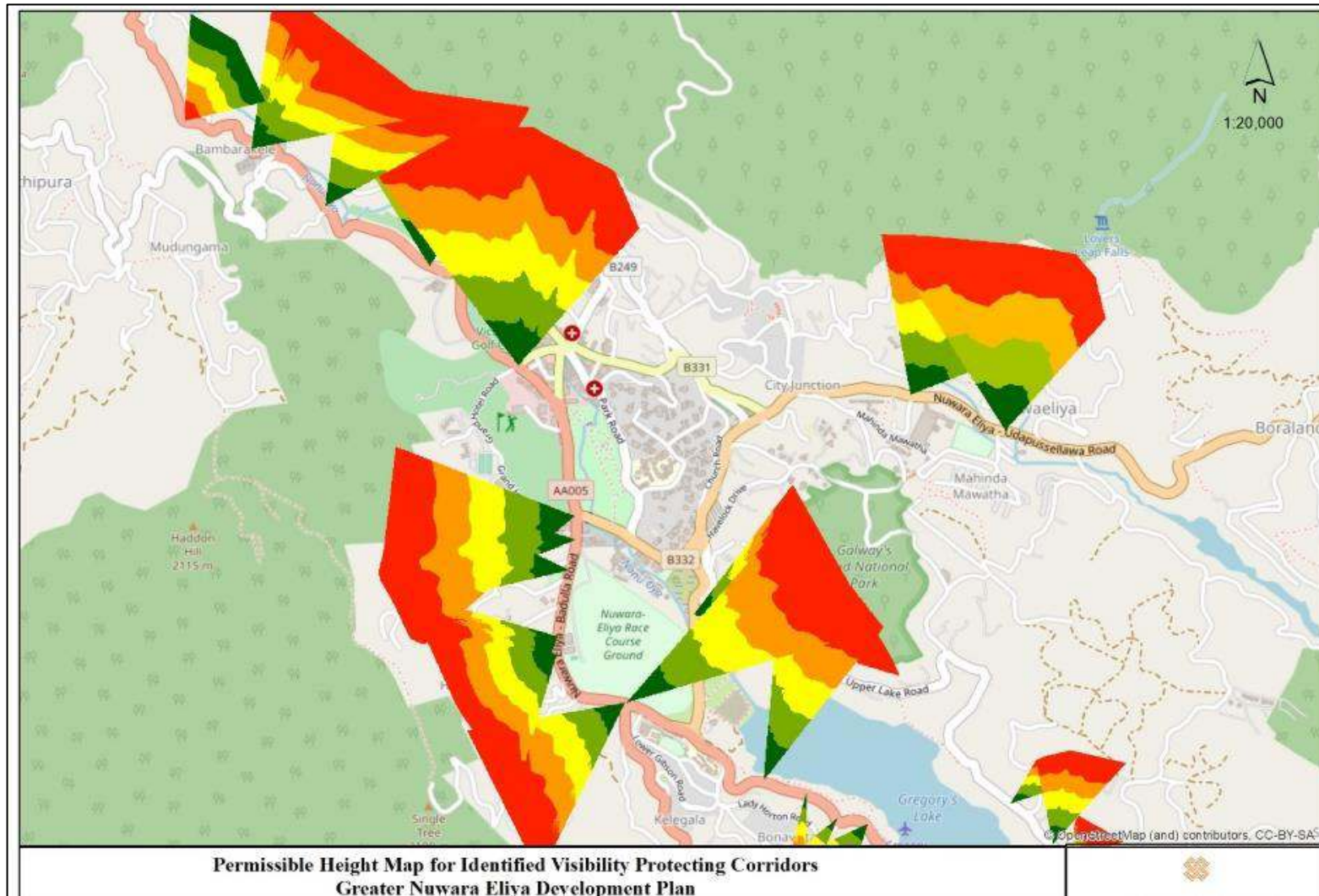
Therefore, the development plan is aim to protect the environment and physical features and upgrade the urban development with increase the regional specialty. Since, the upcoming future development will be based on the data obtained from this view analysis to limit the maximum height of the building. Especially the analysis focuses to achieve following objectives

- To control and protect visual object and environmental features
- To provide guidelines regarding maximum height of the developments of the area.
- To visualize the effects of improper development which affect to environmental features.
- To identify visibility level from mentioned location.

Accordingly, other rules and regulations will be controlled with the recommendations of visibility analysis and development



Map 9-1: Visibility Protection Corridors



Part III

Annexures



Annexure 01- List of Tables

Table of Maps

Map 2.0-1: Study Area	6
Map 2-0-2: Geo Diversification.....	24
Map 2-0-3: Mountain Ranges	25
Map 0-4: Land Use Pattern	30
Map 2-0-5: Population Density 2012.....	33
Map 2-0-6: Housing Density 2012	36
Map 2-0-7: Drinking Water Reservoirs	41
Map 2-0-8: Tourist's attractions in Nuwara Eliya	52
Map 2-0-9: Nuwara Eliya Municipal Council Limit	61
Map 2-0-10: Physical Boundaries.....	62
Map 2-0-11: Planning Area	64
Map 3-0-1: Water Reservation Encroachments	5
Map 3.0-2:– Forest area(40% 55.1 Sq.k.m.)2010.....	6
Map 3.0-3: Spatial distribution of NDVI analysis: 2001	8
Map 3.0-4: Spatial distribution of NDVI analysis: 2019.....	8
Map 3.0-5: Poverty level.....	0
Map 3.0-6: Quality of Roads	94
Map 5.0-1: Water Source System	109
Map 5.0-2: Geographical Locations	111
Map 5.0-3: Mountain Ranges	112
Map 5.0-4: Forest Coverage	114
Map 5.0-6: Land Use Pattern 2010	118
Map 5.0-6: Land Use Pattern 2017	118
Map 5.0-7: Poverty Level	129
Map 6.0-1: Proposed Land Use Plan	145
Map 6-0-2: Proposed Economic Development Strategies.	156
Map 6-0-3: Proposed Forest Eco-system.....	159
Map 6-0-4:– Sensitive Zones	161
Map 6-0-5: Hazard Area	167
Map 6-0-6: Environment Preserving Strategies.....	169
Map 6-0-7: Map No 6.8- Social and PhysicalInfrastructure Strategies	175
Map 6-0-8: Road Development Projects.....	180
Map 6-0-9: -Centralized Water Refinery Unit and Water Tank	183
Map 6-0-10: Open land and playground.....	189
Map 7-0-1: Zoning Plan.....	36
Map 9-1: Visibility Protection Corridors	6



Table of Diagrams

Diagram 2.0.1: Ethnic Composition	34
Diagram 2.0.2: Nuwara Eliya foreign visitor's composition by country of origin.....	48
Diagram 2.0.4.....	49
Diagram 2.0.3: Annual income of foreign visitors of Nuwara Eliya.....	49
Diagram 3.0.1: Problem Identification	66
Diagram 3.0.2: Access to Drinking Water.....	17
Diagram 3.0.3 :The largest water distribution system in NuwaraEliya is a Haddon hill :	20

Table of Figures

Figure 1.0.1: The Planning Process	4
Figure 2.0.1: Nuwara Eliya Colonial Period.....	7
Figure 2.0.2: Old Nuwara Eliya.....	8
Figure 0.3: Tour Map- Sri Lankan Tourism Strategic Plan.....	11
Figure 2.0.4: National Physical Struture Plan 2030.....	11
Figure 0.5: Tourist Areas-National Physical Structure Plan – 2050.....	11
Figure 2.0.6: The Tourist Tour Trails in Sri Lanka	12
Figure 2.0.7: Tour Map- Sri Lankan Tourism Strategic Plan	13
Figure 2.0.8: Geographic Setting of the Area.....	14
Figure 2.0.9: Geographic Setting of the Area.....	14
Figure 2.0.10: Concept of the Tourism Plan.....	15
Figure 2.0.11: National scale connectivity	17
Figure 2.0.12: Rail Transportation Linkages	20
Figure 0.13: National railway connection to Nanu Oya – Nuwara Eliya	20
Figure 2.0.14: travel duration for several.....	22
Figure 2.0.15: Topographical formation in and around of Nuwara Eliya planning area.....	23
Figure 2.0.16: Water Bodies	29
Figure 2.0.17: Seasonal Programs	42
Figure 2.0.18: Types of Tourism	45
Figure 2.0.19: Gregory Lake - Nuwara Eliya	52
Figure 2.0.20: Queen Victoria Park - Nuwara Eliya.....	53
Figure 2.0.21: Galway's Forest - Nuwara Eliya	53
Figure 2.0.22: View from Single Tree Hill - Nuwara Eliya	54
Figure 2.0.23: Moon Plains - Sandathenna.....	54
Figure 2.0.24: Shanthipura City Viewing Point	55
Figure 2.0.25: Piduruthalagala Mountain - Nuwara Eliya.....	56
Figure 2.0.26: Race Corse - Nuwara Eliya	56
Figure 2.0.27: Golf Club - Nuwara Eliya	57
Figure 2.0.28: Seetha Amman Hindu Temple - Seetha Eliya.....	58
Figure 2.0.29: Hakgala Botanical Garden - Haggala.....	58
Figure 2.0.30: Lovers Leap Fall - Nuwara Eliya	59
Figure 2.0.31: International Buddhist Center Nuwara Eliya	59



Figure 2.0.32: Post Office Building Nuwara Eliya.....	60
Figure 3.0.1: Inappropriate construction obstructed the natural scenic view of the mountain ranges	3
Figure 3.0.2: Drying the waterfalls	4
Figure 3.0.3: Changing of Architectural Pattern.....	9
Figure 3.0.4: Inherited British architectural buildings at Nuwara Eliya identified by local people.....	11
Figure 3.0.5: Context incompatible development in Nuwara Eliya.....	12
Figure 0.6:	12
Figure 3.0.7: Flow direction and streamline network in Nuwara Eliya.....	13
Figure 3.0.8: Population density distribution along with flow direction	14
Figure 3.0.9: Access to safe drinking water in 2016 by District.....	16
Figure 3.0.10: influence on determining quality of portable water	18
Figure 3.0.11: Watering for the Cultivator.....	19
Figure 3.0.12: Land use distribution within water catchments	19
Figure 3.0.13: Diagram No 3.4 Water Distribution Zones	20
Figure 3.0.14: Low Facility Houses.....	23
Figure 3.0.15: Road condition assessment of Nuwara Eliya tourism facilitation area	97
Figure 5.0.1: Existing water sources system.....	109
Figure 5.0.2: Numara Eliya Water Distribution System.....	110
Figure 5.0.3: Water quality Reports – 2017.....	115
Figure 5.0.4: Water quality Reports – 2016.....	115
Figure 5.0.5: Grand Hotel	122
Figure 5.0.6: Post Office	122
Figure 5.0.7: Queen Cottage	122
Figure 5.0.8: Presidential Bungalow.....	122
Figure 5.0.9 :St Xavier’s Church	122
Figure 5.0.10: Flowers	126
Figure 5.0.11: Disturbs to viewing points due to constructions	127
Figure 5.0.12: Disturbs to viewing points due to constructions	128
Figure 5.0.13: Low income housing	128
Figure 5.0.14: Seasonal festival of Nuwara Eliya.....	134
Figure 5.0.15: - Locate near to upcountry railway line.....	134
Figure 0.16: Locate near to upcountry railway line.....	135
Figure 5.0.17: Internationally famous tourism destination.....	135
Figure 5.0.18: Sri Lanka Tourism Strategic Plan	137
Figure 5.0.19: Proposed High Way Road	138
Figure 5.0.20: Tourists' Arrivals	139
Figure 5.0.21: Tourists' Arrivals	139
Figure 5.0.22: Existing Situation of some roads in rainy days	140
Figure 6.0.1: Proposed Land Use Plan.....	143
Figure 6.0.2: Cross Section from Race Course Ground.....	146
Figure 7.0.1: Landscaping.....	2
Figure 7.0.2: Boundary Wall	3



Figure 6.0.3: Example for Boundary Wall.....	3
Figure 7.0.4: Retaining walls	3
Figure 7.0.5: Construction of Step Wise.....	4
Figure 7.0.6: Construction done by see throughing the landscape	4
Figure 7.0.7: Tree Shape Telecommunication Towers	5
Figure 8.0.2: Agriculture based Low Density -01	2
Figure 8.0.1: Agriculture based Low Density -02	2
Figure 8.0.3: Agriculture based Low Density -03	3
Figure 8.0.4: Forest 01	5
Figure 8.0.5: Forest 02	5
Figure 8.0.7: Forest 03	6
Figure 8.0.6: Forest 04	6
Figure 8.0.8: Forest 05	7
Figure 8.0.9: Forest 06	7
Figure 8.0.10: Forest 08	8
Figure 8.0.11: Forest 07	8
Figure 8.0.12: High Density Mix Development Zone	10
Figure 8.0.13: High Density Tourism Zone	13
Figure 8.0.14: Low Density Residential Zone-01	17
Figure 8.0.15: Low Density Residential Zone- 02.....	17
Figure 8.0.16: Low Density Residential Zone- 03.....	18
Figure 8.0.17: Low Density Residential Zone- 04.....	18
Figure 8.0.18: Low Density Residential Zone- 05.....	19
Figure 8.0.19: Low Density Residential Zone- 06.....	19
Figure 8.0.20: Low Density Residential Zone- 07.....	20
Figure 8.0.21: Low Density Residential Zone- 08.....	20
Figure 8.0.22: Low Density Residential Zone- 09.....	21
Figure 8.0.23: Middle Density Mix Zone- 01	23
Figure 8. 0.24: Middle Density Mix Zone- 02.....	23
Figure 8.0.25: Middle Density Mix Zone- 03.....	24
Figure 8.0.26: Middle Density Mix Zone- 04.....	24
Figure 8.0.27: Middle Density Mix Zone- 05.....	25
Figure 8.28: Middle Density Mix Zone- 06.....	25



Table of Graphs

Graph 2.0.1: Monthly air temperature variations in Nuwara Eliya	26
Graph 2.0.2: Monthly rain fall variation in Nuwara Eliya - 2018	26
Graph 2.0.3: Work Force	36
Graph 2.0.4: Work Force 2012	37
Graph 2.0.5: Categories according to occupied sectors - 2012.....	38
Graph 2.0.6: G.C.E. (A/L) Results Average	39
Graph 2.0.7: Local visitors recorded at prominent attractions.....	44
Graph 2.0.8).	47
Graph 2.0.9: Trend of tourists' arrival prediction for Nuwara Eliya in 2030	47
Graph 2.0.10: Annual income of foreign visitors of Nuwara Eliya.....	49
Graph 5.0.1: - Annual Temperature and Rainfall	112
Graph 5.2: Tourists' Arrivals	141

Table of Tables

Table 2.0.1: Study Area	5
Table 2.0.2: Cnncept of the Tourism Development Plan.....	16
Table 2.0.3: Scheduled train via Nanu Oya	19
Table 2.0.4:Travel Durations	22
Table 2.0.5: Land Use	28
Table 2.0.6: Population Distribution in Nuwara Eliya Municipal Council Area.....	31
Table 2.0.7: Population Distribution in the Study Area.....	31
Table 2.0.8: Housing Condition 2012.....	35
Table 2.0.9: Educational Situations G.C.E. (O/L)	38
Table 2.0.10: Educational Situations G.C.E. (A/L)	39
Table 2.0.11: Seasonal Program Calendar	43
Table 2.0.12: Foreign tourist's arrival to Sri Lanka.....	46
Table 2.0.13: Tourists arrival of famous attractions in Nuwara Eliya.....	46
Table 2.0.14: Tourists arrival prediction for Nuwara Eliya in 2030.....	47
Table 2.0.16: Based Indexes for Functional Boundaries	63
Table 2.0.18: Development Plan Area	65
Table 3.0.1: Ratio between built up and green space area distribution within NEMC.....	7
Table 3.0.2:Green space and built-up area distribution within Nuwara Eliya MC.....	7
Table 3.0.3: Water quality situation of the Gregory Lake	15
Table 3.0.4: Land uses distribution within each catchments	19
Table 3.0.5:–Quality of Drinking Water.....	21
Table 0.6: Type of the houses	22
Table 3.0.7: Type of the houses	22
Table 3.0.8: Table No 3.5 –Low income houses with municipal council limit.....	23
Table 3.0.9: Poverty level	24
Table 3.0.10: Road Condition	93



Table 3.0.11: Tourist Arrivals.....	95
Table 3.0.12: Infrastructure in Tourism Sector.....	96
Table 3.0.13: Attraction Site's Specific Minimal Facilitation.....	102
Table 5.0.1: Annual temperature and Rainfall.....	113
Table 5.0.2: Water Quality Report- Lake Gregory	116
Table 5.0.3: Drinking Water Quality	117
Table 5.0.4: Tourist's arrival details	123
Table 5.0.5: Condition of the housing	129
Table 5.0.6: Tourist's arrivals- Sectional Wise	130
Table 6.0.1: Recreational Tourism Projects.....	149
Table 6.0.2: Project Interventions	150
Table 6.0.3: Regulatory Interventions	150
Table 6.0.4: Conservation of unique British architecture of the city- Project Intervention...	151
Table 6.0.5: Regulatory Interventions	151
Table 6.0.6: Development and promotion of tourism attractions	152
Table 6.0.7: Development of market spaces for unique tourism products	153
Table 6.0.8: Common tourist facilities development.....	154
Table 6.0.9: Accessibility improvement	154
Table 6.0.10: Standardization of tourism accommodation facilities and other services	154
Table 6.0.11: Disaster Locations	165
Table 6.0.12: Housing Renovation Strategies.....	172
Table 6.0.13: Housing construction strategies.....	172
Table 6.0.14: Proposed Roads for widening	179
Table 6.0.15: Annual average rainfall.....	185
Table 6.0.16: Common open spaces	188
Table 6.0.17: Preserved buildings.....	191
Table 6.0.18: Road wise preserved buildings.	194
Table 6.0.19: New Project List	0
Table 7.0.1: Zones and zone colours	37
Table 7.0.2: Form A - Permissible Floor Area Ratio.....	0
Table 7.0.3: Number of Floors for 03m & 4.5m Wide Roads	2
Table 7.0.4: Form C - Setbacks & Open Spaces.....	3
Table 7.0.5: Architectural Standards and specification Applicable for all zone	0
Table 7.0.6: Endemic Trees of Nuwara Eliya.....	1
Table 8.0.1: Zoning Guidelines in Zone 01	3
Table 8.0.3: Zoning Guidelines in Zone 02	9
Table 8.0.4: Permissible uses in Zone 02	9
Table 8.0.5: Zoning Guidelines in Zone 03	10
Table 8.0.6: Permissible uses in Zone 03	11
Table 8.0.7: Zoning Guidelines in Zone 04	14
Table 8.0.8: Permissible Uses in Zone 04.....	16
Table 8.0.9: Zoning Guidelines in Zone 05	21
Table 8.0.10: Permissible uses in Zone 05	22
Table 8.0.11: Zoning Guidelines in Zone 06	26



Table 8.0.12: Table No 8.12. Permissible uses in Zone 06	28
Table 8.0.13: Zoning Guidelines in Zone 07	29
Table 8.0.14: Permissible uses in Zone 07	29
Table 8.0.15: Zoning Guidelines in Zone 08.....	30
Table 8.0.16: Permissible uses in Zone 08	31
Table 8.0.17: Zoning Guidelines in Zone 09	32
Table 8.0.18: Permissible uses in Zone 09	32
Table 8.0.19: Zoning Guidelines in Zone 10	33
Table 8.0.20: Permissible uses in Zone 10	33
Table 8.0.21: Zoning Guidelines in Zone 11	34
Table 8.0.22: Permissible uses in Zone 11	34
Table 8.0.23: Zoning Guidelines in Zone 12	35
Table 8.0.24:	35
Table 8.0.25: Zoning Guidelines in Zone 13	36
Table 8.0.26: Permissible uses in Zone 13	36
Table 8.0.27: Zoning Guidelines in Zone 14	37
Table 8.0.28: Permissible uses in Zone 14	37
Table 8.0.29: Zoning Guidelines in Zone 15	38
Table 8.0.30: Permissible uses in Zone 15	38
Table 8.0.31: Zoning Guidelines in Zone 16	39
Table 8.0.32: Permissible uses in Zone 16	39
Table 8.0.33: Zoning Guidelines in Zone 17	40
Table 8.34: Permissible uses in Zone 17	40



Annexure 02- Analysis for the Zoning Plan

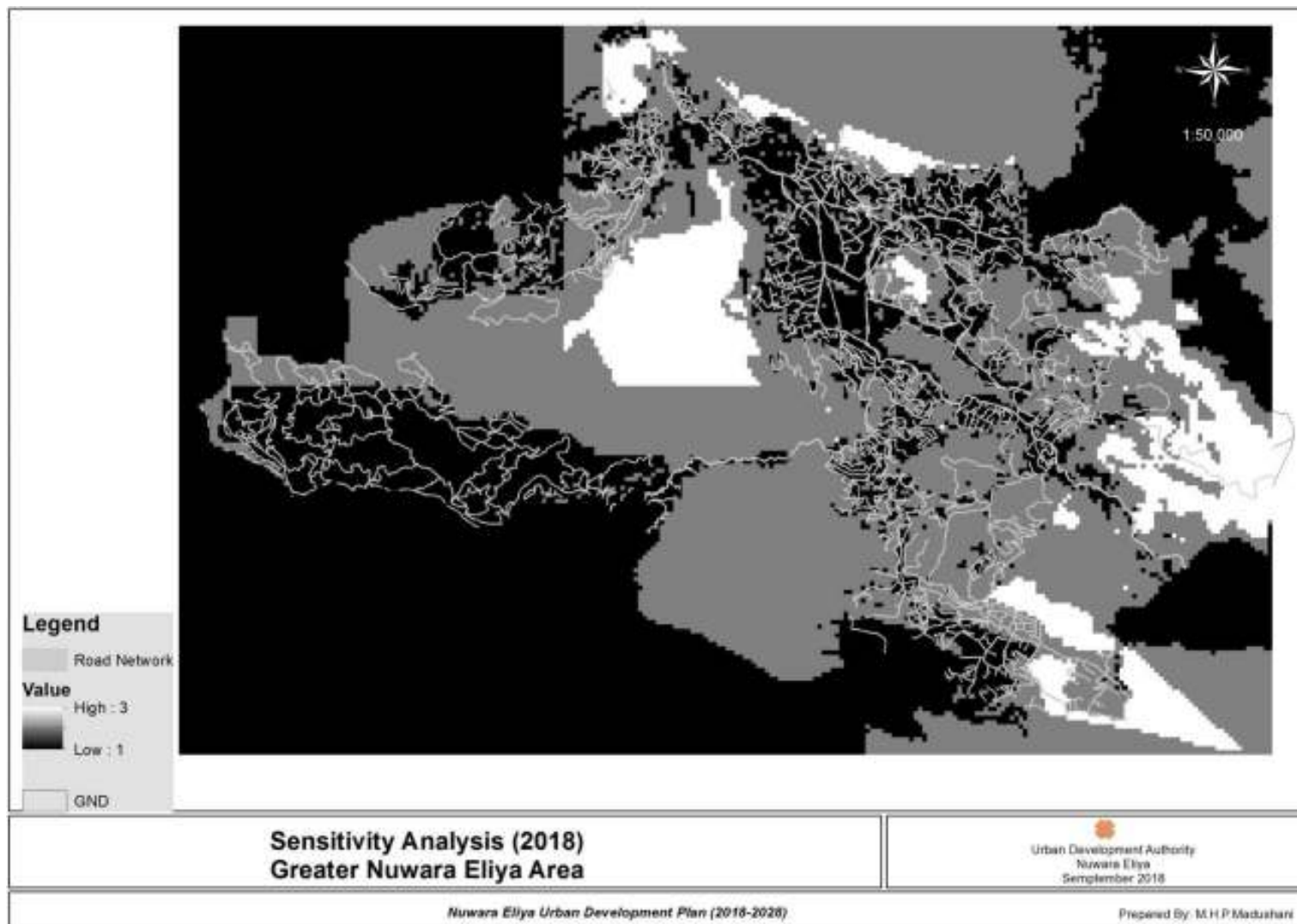
Environment sensitivity study

Following criteria based on for basic environment sensitivity analysis. Accordingly apply the weighted to the criteria. These analytical weights considered protect existing sensitivity in Nuwara Eliya area, preservation of the quality of sensitivity, and also weightages were put considering their importance. Said weightages and criteria given below.

	Criteria	Weightage
1	Forest area	20%
2	Water Catchment area	18%
3	Upcountry vegetable cultivation usage lands	14%
4	Tea cultivation areas	17%
5	Disaster prone areas	11%
6	Steep slopes and high altitude lands	11%
7	Green lands	9%

Apply the weightages for the whole development plan areas with the assistant of the geographical data system and done the sensitivity analysis plan. Accordingly prepared map shown on below.





Livability Analysis

Mainly it has been considered the tourist attraction area and new development potential area and infrastructure for residential and related use within the Greater Nuwara Eliya area. Accordingly Following criteria shown in table as considered.

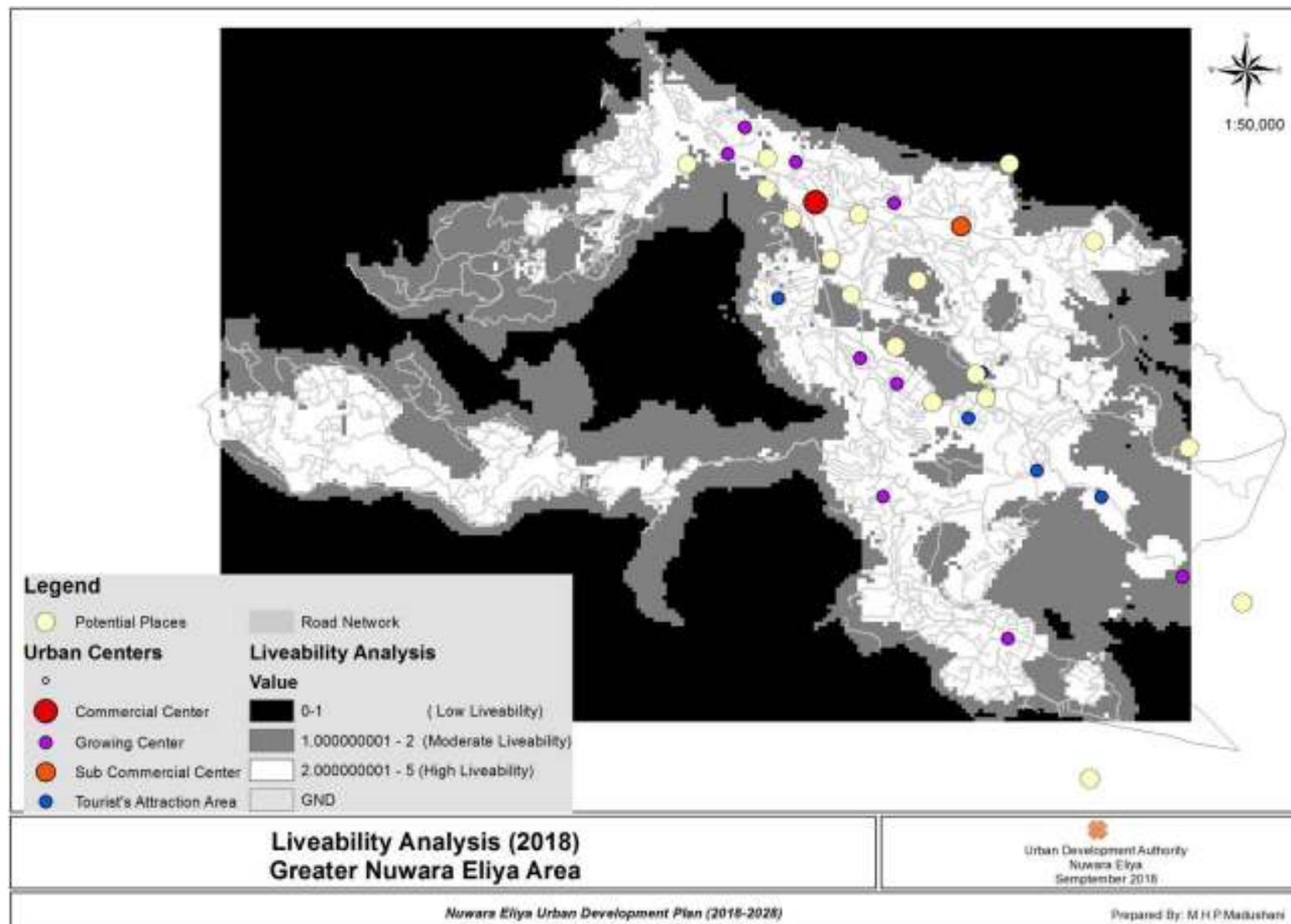
Tendency to tourism industry is considered as main economic strategy in Nuwara Eliya area. AS well as supply of health, education and commercial infrastructure facilities are also considered. Accordingly it is considered the importance of the respective zones and weightages given for the zones.

	Criteria	Weightage
1	Sub urban center	16
2	Tourist attractive locations	16
3	High altitude areas	4
4	Main road approach facility	16
5	Education centers	16
6	Medical centers	07
7	Population growth	13
8	Building density	12
9	Disaster minimum zone (Protective zone)	

According to this weights Analytical map is shown following map No. 1.2, which is referenced in Geographic Information Systems.



Livability Analyses



Development Potential Analysis

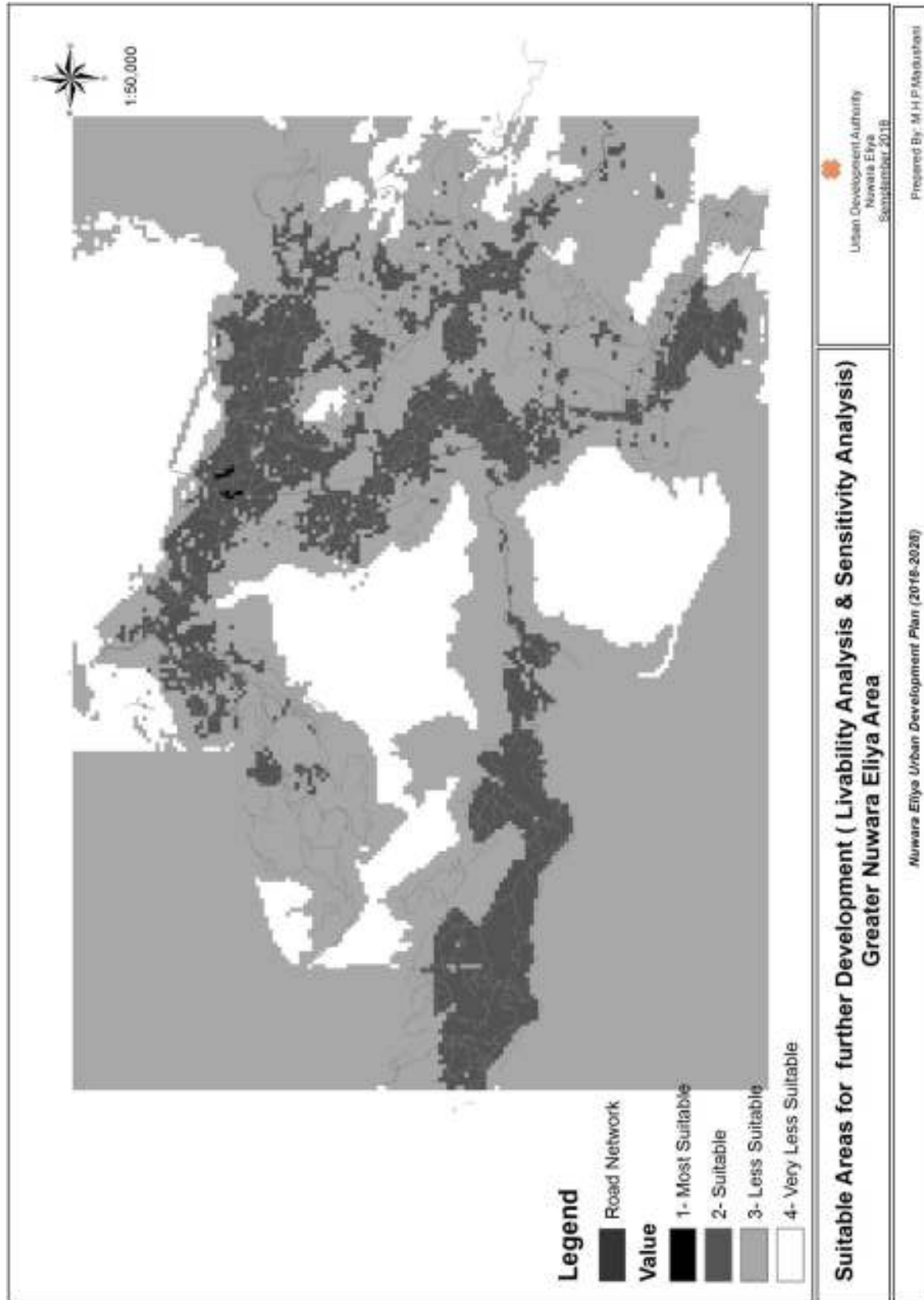
Analysis of the development potential of Nuwara Eliya town was done by considering the areas suitable for the future development of the town. Accordingly, a combination analysis was used. The combination analysis will identify the economic benefits of the city, identify areas that can be further developed, and avoid sensitive areas. Accordingly, the geographical information analysis supports the analytical maps.

The zoning composite map was obtained by combining the above environmental sensitivity analysis, the analysis of the livability areas and the development potential analysis. It shows the zoning map.

It identified areas suitable for living / tourism / development as well as undesirable areas and mediocre areas. Considering all these factors, the areas with high density and low density and sensitive areas were identified with high specificity.



Suitable areas for future development



Annexure 03- Zoning Coordinates

Agriculture Based Low Density Zone- 01

5	6°56'54.08"N	80°46'5.78"E
10	6°55'42.24"N	80°46'47.42"E
11	6°55'40.30"N	80°47'2.15"E
12	6°55'33.21"N	80°47'2.90"E
13	6°55'16.19"N	80°47'22.97"E
14	6°55'49.56"N	80°46'35.40"E
15	6°55'53.02"N	80°46'6.34"E
16	6°55'40.44"N	80°46'23.53"E
17	6°55'20.66"N	80°46'55.52"E
18	6°55'27.18"N	80°46'39.12"E

Agriculture Based Low Density Zone- 02

1	6°55'18.41"N	80°47'32.06"E
3	6°55'21.17"N	80°47'53.36"E
4	6°55'24.51"N	80°47'54.93"E
6	6°55'29.22"N	80°47'52.39"E
7	6°55'33.47"N	80°47'50.82"E
8	6°55'36.70"N	80°47'54.04"E
9	6°55'41.43"N	80°47'50.46"E
10	6°55'43.19"N	80°47'30.09"E
11	6°55'45.40"N	80°47'29.71"E
12	6°55'47.35"N	80°47'23.36"E
13	6°55'45.85"N	80°47'22.01"E
14	6°55'39.25"N	80°47'23.08"E
15	6°55'37.07"N	80°47'31.99"E
16	6°55'37.56"N	80°47'33.01"E



17	6°55'36.47"N	80°47'35.00"E
18	6°55'30.16"N	80°47'34.47"E
19	6°55'27.67"N	80°47'29.56"E
20	6°55'23.03"N	80°47'33.83"E
21	6°55'21.83"N	80°47'31.61"E
22	6°55'40.02"N	80°47'44.10"E

Agriculture Based Low Density Zone- 03

1	6°57'33.37"N	80°47'32.56"E	43	6°56'50.41"N	80°48'47.07"E
2	6°57'35.62"N	80°47'29.85"E	44	6°56'49.60"N	80°48'45.28"E
3	6°57'36.35"N	80°47'26.15"E	45	6°56'48.07"N	80°48'44.72"E
4	6°57'36.28"N	80°47'23.58"E	46	6°56'48.04"N	80°48'43.18"E
5	6°57'33.78"N	80°47'20.57"E	47	6°56'49.10"N	80°48'40.32"E
6	6°57'32.00"N	80°47'24.93"E	48	6°56'45.91"N	80°48'42.08"E
7	6°57'28.15"N	80°47'30.08"E	49	6°56'43.91"N	80°48'38.67"E
8	6°57'22.19"N	80°47'26.91"E	50	6°56'47.01"N	80°48'34.45"E
9	80°47'26.91"E	80°47'23.55"E	51	6°56'46.98"N	80°48'32.83"E
10	6°57'16.65"N	80°47'20.42"E	52	6°56'44.85"N	80°48'32.66"E
11	6°57'14.79"N	80°47'19.58"E	53	6°56'43.93"N	80°48'31.60"E
12	6°57'13.50"N	80°47'20.52"E	54	6°56'48.06"N	80°48'29.91"E
13	6°57'12.90"N	80°47'23.94"E	55	6°56'48.81"N	80°48'25.64"E
14	6°57'8.28"N	80°47'22.50"E	56	6°56'50.08"N	80°48'26.93"E
15	6°57'7.36"N	80°47'26.31"E	57	6°56'52.75"N	80°48'22.88"E
16	6°57'8.32"N	80°47'27.43"E	58	6°56'58.91"N	80°48'22.77"E
17	6°57'10.68"N	80°47'35.97"E	59	6°56'51.60"N	80°48'35.29"E
18	6°57'7.26"N	80°47'37.85"E	60	6°56'53.06"N	80°48'36.34"E
19	6°56'57.92"N	80°47'46.08"E	61	6°56'57.46"N	80°48'34.02"E
20	6°57'2.00"N	80°47'45.65"E	62	6°56'58.84"N	80°48'35.06"E
21	6°57'3.30"N	80°47'47.14"E	63	6°56'57.95"N	80°48'38.45"E
22	6°57'2.71"N	80°47'48.07"E	64	6°56'56.10"N	80°48'39.35"E
23	6°57'5.28"N	80°47'49.62"E	65	6°56'55.83"N	80°48'41.26"E
24	6°57'6.00"N	80°47'50.58"E	66	6°56'56.58"N	80°48'42.14"E
25	6°57'4.81"N	80°47'55.18"E	67	6°57'1.22"N	80°48'36.80"E
26	6°57'1.66"N	80°47'56.29"E	68	6°56'58.88"N	80°48'31.48"E
27	6°57'0.30"N	80°47'58.17"E	69	6°56'59.15"N	80°48'29.26"E



28	6°57'0.48"N	80°48'0.76"E	70	6°57'2.56"N	80°48'28.27"E
29	6°56'58.23"N	80°48'4.19"E	71	6°57'3.54"N	80°48'25.25"E
30	6°56'57.20"N	80°48'3.97"E	72	6°57'9.23"N	80°48'25.28"E
31	6°56'57.79"N	80°48'2.15"E	73	6°57'13.68"N	80°48'20.88"E
32	6°56'55.67"N	80°48'1.84"E	74	6°57'21.05"N	80°48'14.88"E
33	6°56'49.55"N	80°48'5.66"E	75	6°57'27.53"N	80°48'4.69"E
34	6°56'49.67"N	80°48'8.22"E	76	6°57'27.49"N	80°48'3.25"E
35	6°56'47.51"N	80°48'14.06"E	77	6°57'32.93"N	80°47'58.15"E
36	6°56'45.89"N	80°48'17.82"E	78	6°57'28.81"N	80°47'58.58"E
37	6°56'44.55"N	80°48'18.69"E	79	6°57'26.63"N	80°47'53.31"E
38	6°56'42.49"N	80°48'24.65"E	80	6°57'24.72"N	80°47'52.37"E
39	6°56'38.68"N	80°48'35.87"E	81	6°57'23.83"N	80°47'48.29"E
40	6°56'35.67"N	80°48'44.22"E	82	6°57'28.53"N	80°47'50.53"E
41	6°56'42.80"N	80°48'47.40"E	83	6°57'29.05"N	80°47'42.35"E
42	6°56'46.85"N	80°48'49.28"E	84	6°57'35.41"N	80°47'33.54"E

Forest Zone- 01

1	6°58'35.90"N	80°47'6.29"E	30	6°58'56.95"N	80°45'36.73"E
2	6°58'38.59"N	80°47'12.24"E	31	6°58'55.85"N	80°45'39.42"E
3	6°58'42.29"N	80°47'8.06"E	32	6°58'57.25"N	80°45'40.48"E
4	6°58'41.75"N	80°46'49.34"E	33	6°58'56.48"N	80°45'42.04"E
5	6°58'56.08"N	80°46'11.42"E	34	6°58'56.66"N	80°45'44.06"E
6	6°59'9.03"N	80°45'33.69"E	35	6°58'55.92"N	80°45'51.59"E
7	6°59'25.09"N	80°45'12.01"E	36	6°58'55.30"N	80°45'55.05"E
8	6°59'35.59"N	80°45'8.64"E	37	6°58'53.29"N	80°45'55.31"E
9	6°59'34.47"N	80°45'8.54"E	38	6°58'53.63"N	80°45'56.63"E
10	6°59'33.59"N	80°45'6.08"E	39	6°58'51.00"N	80°45'59.35"E
11	6°59'28.41"N	80°45'6.51"E	40	6°58'48.97"N	80°46'3.92"E
12	6°59'28.05"N	80°45'5.03"E	41	6°58'49.00"N	80°46'9.12"E



13	6°59'28.51"N	80°45'4.61"E		42	6°58'47.21"N	80°46'9.39"E
14	6°59'28.84"N	80°45'1.25"E		43	6°58'43.10"N	80°46'16.80"E
15	6°59'26.84"N	80°44'58.15"E	Along Kandy- Nuwara Eliya main road	44	6°58'41.54"N	80°46'20.20"E
16	6°59'25.89"N	80°44'58.68"E		45	6°58'41.37"N	80°46'22.74"E
17	6°59'23.43"N	80°44'59.56"E		46	6°58'39.53"N	80°46'25.10"E
18	6°59'23.43"N	80°45'1.59"E		47	6°58'35.50"N	80°46'27.37"E
19	6°59'21.44"N	80°45'1.48"E		48	6°58'35.19"N	80°46'29.15"E
20	6°59'19.39"N	80°45'3.03"E		49	6°58'35.92"N	80°46'31.58"E
21	6°59'17.11"N	80°45'5.18"E		50	6°58'35.99"N	80°46'33.53"E
22	6°59'18.73"N	80°45'7.65"E		51	6°58'35.25"N	80°46'36.01"E
23	6°59'22.12"N	80°45'12.02"E		52	6°58'33.92"N	80°46'41.50"E
24	6°59'15.92"N	80°45'17.73"E		53	6°58'36.16"N	80°46'42.08"E
25	6°59'3.15"N	80°45'32.61"E		54	6°58'39.43"N	80°46'45.61"E
26	6°59'2.26"N	80°45'32.68"E		55	6°58'39.78"N	80°46'49.25"E
27	6°59'1.54"N	80°45'31.89"E		56	6°58'36.89"N	80°46'55.61"E
28	6°59'0.95"N	80°45'31.90"E		57	6°58'40.11"N	80°47'2.48"E
29	6°58'58.00"N	80°45'36.62"E		58	6°58'38.02"N	80°47'7.50"E



Forest Zone- 02

1	6°56'43.91"N	80°48'38.67"E	41	6°57'47.74"N	80°47'48.31"E
2	6°56'45.88"N	80°48'42.04"E	42	6°57'48.27"N	80°47'47.47"E
3	6°56'49.06"N	80°48'40.30"E	43	6°57'45.51"N	80°47'45.23"E
4	6°56'47.98"N	80°48'43.11"E	44	6°57'46.41"N	80°47'39.41"E
5	6°56'48.08"N	80°48'44.72"E	45	6°57'44.46"N	80°47'37.69"E
6	6°56'49.60"N	80°48'45.34"E	46	6°57'39.29"N	80°47'35.33"E
7	6°56'50.38"N	80°48'47.11"E	47	6°57'35.41"N	80°47'33.51"E
8	6°56'46.88"N	80°48'49.27"E	48	6°57'29.11"N	80°47'42.31"E
9	6°56'54.06"N	80°48'52.79"E	49	6°57'28.61"N	80°47'50.49"E
10	6°57'0.29"N	80°48'54.98"E	50	6°57'24.35"N	80°47'48.48"E
11	6°57'4.01"N	80°48'54.77"E	51	6°57'23.66"N	80°47'49.21"E
12	6°57'8.87"N	80°48'51.95"E	52	6°57'26.71"N	80°47'53.23"E
13	6°57'9.18"N	80°48'49.16"E	53	6°57'28.86"N	80°47'58.53"E
14	6°57'12.85"N	80°48'43.53"E	54	6°57'32.98"N	80°47'58.11"E



15	6°57'17.11"N	80°48'40.27"E	55	6°57'27.51"N	80°48'3.22"E
16	6°57'21.53"N	80°48'37.78"E	56	6°57'22.15"N	80°48'13.19"E
17	6°57'22.47"N	80°48'35.44"E	57	6°57'19.11"N	80°48'20.52"E
18	6°57'21.43"N	80°48'32.91"E	58	6°57'13.77"N	80°48'20.85"E
19	6°57'27.14"N	80°48'29.34"E	59	6°57'9.26"N	80°48'25.29"E
20	6°57'27.95"N	80°48'30.62"E	60	6°57'3.60"N	80°48'25.32"E
21	6°57'29.81"N	80°48'30.86"E	61	6°57'2.61"N	80°48'28.31"E
22	6°57'31.23"N	80°48'25.38"E	62	6°56'59.25"N	80°48'29.24"E
23	6°57'33.34"N	80°48'24.97"E	63	6°56'59.02"N	80°48'31.45"E
24	6°57'34.52"N	80°48'22.02"E	64	6°57'1.28"N	80°48'36.82"E
25	6°57'32.54"N	80°48'20.60"E	65	6°56'56.28"N	80°48'42.07"E
26	6°57'32.99"N	80°48'19.98"E	66	6°56'55.78"N	80°48'41.26"E
27	6°57'35.07"N	80°48'19.10"E	67	6°56'55.98"N	80°48'39.24"E
28	6°57'34.03"N	80°48'14.49"E	68	6°56'58.80"N	80°48'35.07"E
29	6°57'37.37"N	80°48'14.86"E	69	6°56'57.46"N	80°48'34.05"E



30	6°57'41.67"N	80°48'13.75"E	70	6°56'53.00"N	80°48'36.31"E
31	6°57'43.22"N	80°48'21.76"E	71	6°56'51.60"N	80°48'35.33"E
32	6°57'44.50"N	80°48'22.32"E	72	6°56'54.98"N	80°48'29.65"E
33	6°57'47.92"N	80°48'19.60"E	73	6°56'58.94"N	80°48'22.82"E
34	6°57'51.46"N	80°48'20.69"E	74	6°56'52.75"N	80°48'22.88"E
35	6°57'53.02"N	80°48'11.49"E	75	6°56'50.01"N	80°48'26.92"E
36	6°58'1.38"N	80°48'10.74"E	76	6°56'48.81"N	80°48'25.66"E
37	6°57'59.46"N	80°47'56.49"E	77	6°56'48.17"N	80°48'29.79"E
38	6°58'1.77"N	80°47'50.21"E	78	6°56'43.93"N	80°48'31.61"E
39	6°57'59.01"N	80°47'44.22"E	79	6°56'46.98"N	80°48'32.88"E
40	6°57'49.74"N	80°47'50.19"E	80	6°56'45.39"N	80°48'36.47"E

Forest Zone- 03

2	6°56'21.00"N	80°47'18.42"E	47	6°56'4.35"N	80°48'36.42"E
3	6°56'40.98"N	80°47'34.08"E	48	6°56'10.17"N	80°48'29.03"E
4	6°56'40.16"N	80°47'41.29"E	49	6°56'13.85"N	80°48'24.13"E



5	6°56'36.08"N	80°47'39.46"E	50	6°56'15.87"N	80°48'20.24"E
6	6°56'33.49"N	80°47'41.68"E	51	6°56'22.46"N	80°48'12.05"E
7	6°56'24.01"N	80°47'52.92"E	52	6°56'23.54"N	80°48'8.09"E
8	6°56'23.52"N	80°47'55.90"E	53	6°56'19.72"N	80°48'2.02"E
9	6°56'27.71"N	80°47'56.48"E	54	6°56'18.64"N	80°47'58.93"E
10	6°56'34.28"N	80°47'57.87"E	55	6°56'12.91"N	80°47'54.78"E
11	6°56'37.02"N	80°48'2.99"E	56	6°56'6.60"N	80°47'54.07"E
12	6°56'42.15"N	80°47'56.37"E	57	6°56'3.27"N	80°47'52.12"E
13	6°56'51.13"N	80°47'43.29"E	58	6°55'57.90"N	80°47'52.03"E
14	6°56'53.86"N	80°47'42.55"E	59	6°55'55.73"N	80°47'53.56"E
15	6°56'58.08"N	80°47'46.31"E	60	6°55'52.71"N	80°47'58.17"E
16	6°56'59.71"N	80°47'46.63"E	61	6°55'50.04"N	80°48'9.25"E
17	6°57'2.01"N	80°47'45.66"E	62	6°55'49.71"N	80°48'18.31"E
18	6°57'3.24"N	80°47'47.10"E	63	6°55'52.15"N	80°48'25.08"E
19	6°57'2.70"N	80°47'48.08"E	64	6°55'54.00"N	80°48'28.25"E



20	6°57'4.02"N	80°47'49.54"E	65	6°55'54.01"N	80°48'32.44"E
21	6°57'5.35"N	80°47'49.66"E	66	6°55'50.76"N	80°48'34.47"E
22	6°57'5.95"N	80°47'50.56"E	67	6°55'49.13"N	80°48'38.33"E
23	6°57'4.80"N	80°47'55.18"E	68	6°55'29.39"N	80°48'39.89"E
24	6°57'1.62"N	80°47'56.30"E	69	6°55'7.54"N	80°48'35.86"E
25	6°57'0.33"N	80°47'58.18"E	70	6°55'7.76"N	80°48'21.20"E
26	6°57'0.49"N	80°48'0.73"E	71	6°55'10.49"N	80°48'12.08"E
27	6°56'58.20"N	80°48'4.18"E	72	6°55'14.00"N	80°47'52.61"E
28	6°56'57.17"N	80°48'3.97"E	73	6°55'15.47"N	80°47'53.52"E
29	6°56'57.76"N	80°48'2.11"E	74	6°55'21.06"N	80°47'53.06"E
30	6°56'51.50"N	80°48'3.15"E	75	6°55'24.45"N	80°47'54.60"E
31	6°56'49.53"N	80°48'5.67"E	76	6°55'25.86"N	80°47'57.75"E
32	6°56'49.65"N	80°48'8.24"E	77	6°55'29.19"N	80°47'52.19"E
33	6°56'47.47"N	80°48'14.05"E	78	6°55'33.37"N	80°47'50.56"E
34	6°56'45.85"N	80°48'17.81"E	79	6°55'36.70"N	80°47'53.75"E



35	6°56'44.56"N	80°48'18.69"E	80	6°55'39.60"N	80°47'50.77"E
36	6°56'42.58"N	80°48'24.37"E	81	6°55'41.56"N	80°47'50.27"E
37	6°56'38.68"N	80°48'35.81"E	82	6°55'41.59"N	80°47'45.92"E
38	6°56'34.38"N	80°48'48.79"E	83	6°55'40.12"N	80°47'44.10"E
39	6°56'16.24"N	80°48'52.04"E	84	6°55'40.25"N	80°47'42.16"E
40	6°55'54.29"N	80°48'42.71"E	85	6°55'41.48"N	80°47'36.65"E
41	6°55'56.75"N	80°48'39.41"E	86	6°55'43.18"N	80°47'29.91"E
42	6°55'59.03"N	80°48'39.31"E	87	6°55'45.37"N	80°47'29.55"E
43	6°56'0.22"N	80°48'38.55"E	88	6°55'47.07"N	80°47'23.24"E
44	6°56'0.25"N	80°48'37.81"E	89	6°55'51.67"N	80°47'22.71"E
45	6°56'1.80"N	80°48'36.30"E	90	6°55'54.00"N	80°47'17.46"E
46	6°56'3.25"N	80°48'36.82"E	91	6°55'56.85"N	80°47'11.38"E
			92	6°55'59.09"N	80°47'7.01"E
			93	6°55'59.60"N	80°47'4.73"E

Forest Zone- 04



1	6°57'52.71"N	80°46'32.18"E	21	6°57'59.43"N	80°46'47.49"E
2	6°57'55.36"N	80°46'36.64"E	22	6°57'58.36"N	80°46'48.31"E
3	6°58'0.90"N	80°46'28.02"E	23	6°57'57.78"N	80°46'48.03"E
4	6°58'5.65"N	80°46'29.15"E	24	6°57'55.05"N	80°46'49.47"E
5	6°58'6.23"N	80°46'32.21"E	25	6°57'53.91"N	80°46'49.34"E
6	6°58'7.55"N	80°46'34.79"E	26	6°57'50.67"N	80°46'46.66"E
7	6°58'9.98"N	80°46'35.47"E	27	6°57'48.62"N	80°46'46.35"E
8	6°58'10.89"N	80°46'38.23"E	28	6°57'46.91"N	80°46'47.35"E
9	6°58'10.25"N	80°46'41.97"E	29	6°57'46.64"N	80°46'47.35"E
10	6°58'10.90"N	80°46'42.66"E	30	6°57'45.84"N	80°46'47.78"E
11	6°58'9.63"N	80°46'44.59"E	31	6°57'45.65"N	80°46'48.12"E
12	6°58'9.08"N	80°46'44.80"E	32	6°57'44.67"N	80°46'48.21"E
13	6°58'8.80"N	80°46'45.25"E	33	6°57'44.22"N	80°46'47.08"E
14	6°58'8.76"N	80°46'45.56"E	34	6°57'43.20"N	80°46'46.57"E
15	6°58'7.66"N	80°46'45.90"E	35	6°57'43.03"N	80°46'45.73"E



16	6°58'7.04"N	80°46'45.65"E	36	6°57'42.99"N	80°46'44.03"E
17	6°58'6.81"N	80°46'46.19"E	37	6°57'43.09"N	80°46'43.57"E
18	6°58'5.00"N	80°46'46.87"E	38	6°57'44.80"N	80°46'43.94"E
19	6°58'2.74"N	80°46'46.42"E	39	6°57'49.46"N	80°46'41.09"E
20	6°58'1.01"N	80°46'47.46"E	40	6°57'51.08"N	80°46'38.10"E
			41	6°57'50.56"N	80°46'35.42"E

Forest Zone- 05

1	6°58'57.09"N	80°44'49.05"E	11	6°59'24.72"N	80°44'52.80"E	
2	6°58'59.82"N	80°44'46.91"E	12	6°59'28.05"N	80°44'57.06"E	Toppass junction
3	6°59'1.35"N	80°44'44.77"E	13	6°59'23.43"N	80°44'59.56"E	NE Kandy road
4	6°59'2.73"N	80°44'42.82"E	14	6°59'19.30"N	80°45'0.63"E	
5	6°59'8.59"N	80°44'43.22"E	15	6°59'15.71"N	80°45'1.57"E	
6	6°59'16.91"N	80°44'43.47"E	16	6°59'11.53"N	80°44'57.97"E	
7	6°59'27.15"N	80°44'43.35"E	17	6°59'4.62"N	80°44'58.70"E	
8	6°59'27.90"N	80°44'44.47"E	18	6°59'2.34"N	80°44'55.84"E	
9	6°59'24.84"N	80°44'45.40"E	19	6°58'59.61"N	80°44'54.77"E	



10	6°59'22.64"N	80°44'48.16"E	20	6°58'57.80"N	80°44'51.94"E	
----	--------------	---------------	----	--------------	---------------	--

Forest Zone- 06

1	6°56'52.40"N	80°45'4.34"E	49	6°58'40.33"N	80°45'14.58"E	
2	6°56'53.08"N	80°44'40.30"E	50	6°58'42.97"N	80°45'16.52"E	
3	6°57'0.04"N	80°44'31.35"E	51	6°58'43.44"N	80°45'18.52"E	
4	6°57'1.99"N	80°44'18.56"E	52	6°58'41.49"N	80°45'20.96"E	
5	6°57'9.70"N	80°44'9.69"E	53	6°58'40.00"N	80°45'22.20"E	
6	6°57'6.40"N	80°44'2.65"E	54	6°58'39.91"N	80°45'24.46"E	
7	6°57'6.93"N	80°43'58.04"E	55	6°58'40.35"N	80°45'28.20"E	
8	6°57'5.31"N	80°43'56.16"E	56	6°58'40.69"N	80°45'30.77"E	
9	6°57'5.06"N	80°43'51.20"E	57	6°58'39.36"N	80°45'34.07"E	
10	6°57'8.45"N	80°43'48.05"E	58	6°58'36.33"N	80°45'32.58"E	
11	6°57'16.17"N	80°43'43.97"E	59	6°58'34.43"N	80°45'33.96"E	
12	6°57'33.30"N	80°43'37.45"E	60	6°58'33.13"N	80°45'37.28"E	
13	6°57'35.78"N	80°43'32.45"E	61	6°58'29.18"N	80°45'37.72"E	
14	6°57'33.33"N	80°43'26.89"E	62	6°58'23.97"N	80°45'37.70"E	
15	6°57'34.40"N	80°43'9.48"E	63	6°58'19.07"N	80°45'38.79"E	
16	6°57'32.94"N	80°42'56.38"E	64	6°58'17.88"N	80°45'40.39"E	
17	6°57'35.05"N	80°42'25.54"E	65	6°58'17.83"N	80°45'42.17"E	
18	6°57'45.01"N	80°42'26.07"E	66	6°58'15.13"N	80°45'43.01"E	
19	6°57'48.23"N	80°42'51.04"E	67	6°58'12.52"N	80°45'42.17"E	
20	6°57'51.22"N	80°43'10.17"E	68	6°58'8.22"N	80°45'42.41"E	



21	6°57'56.57"N	80°43'8.92"E	69	6°58'6.60"N	80°45'41.53"E
22	6°58'2.19"N	80°43'9.95"E	70	6°58'2.31"N	80°45'40.67"E
23	6°57'54.20"N	80°43'16.47"E	71	6°57'58.03"N	80°45'39.82"E
24	6°57'48.78"N	80°43'23.46"E	72	6°57'56.35"N	80°45'37.55"E
25	6°57'45.96"N	80°43'35.31"E	73	6°57'50.85"N	80°45'35.96"E
26	6°57'49.33"N	80°43'44.80"E	74	6°57'46.63"N	80°45'35.71"E
27	6°57'46.08"N	80°43'52.26"E	75	6°57'41.76"N	80°45'39.35"E
28	6°57'37.59"N	80°44'0.63"E	76	6°57'38.13"N	80°45'43.91"E
29	6°57'39.94"N	80°44'20.48"E	77	6°57'30.02"N	80°45'48.65"E
30	6°57'42.45"N	80°44'35.56"E	78	6°57'26.29"N	80°45'46.37"E
31	6°57'46.78"N	80°44'43.66"E	79	6°57'19.04"N	80°45'54.78"E
32	6°57'59.14"N	80°44'48.95"E	80	6°57'14.87"N	80°45'59.19"E
33	6°58'7.15"N	80°44'53.82"E	81	6°57'11.02"N	80°46'3.30"E
34	6°58'12.32"N	80°44'53.38"E	82	6°57'3.07"N	80°46'0.01"E
35	6°58'14.03"N	80°44'55.97"E	83	6°56'56.53"N	80°45'54.66"E
36	6°58'16.33"N	80°45'11.11"E	84	6°56'56.08"N	80°45'53.80"E
37	6°58'17.18"N	80°45'17.23"E	85	6°56'54.23"N	80°45'51.75"E
38	6°58'18.34"N	80°45'25.18"E	86	6°56'54.49"N	80°45'42.80"E
39	6°58'24.04"N	80°45'22.77"E	87	6°56'53.55"N	80°45'41.19"E
40	6°58'26.36"N	80°45'22.42"E	88	6°56'53.47"N	80°45'39.03"E
41	6°58'27.48"N	80°45'21.29"E	89	6°56'52.35"N	80°45'37.92"E
42	6°58'29.20"N	80°45'18.87"E	90	6°56'51.50"N	80°45'32.63"E
43	6°58'31.17"N	80°45'17.27"E	91	6°56'51.91"N	80°45'30.34"E



44	6°58'32.13"N	80°45'17.07"E	92	6°56'50.98"N	80°45'27.58"E	
45	6°58'34.20"N	80°45'18.54"E	93	6°56'50.14"N	80°45'20.73"E	
46	6°58'34.84"N	80°45'17.00"E	94	6°56'52.12"N	80°45'15.81"E	Hatton NE Main road
47	6°58'36.83"N	80°45'16.07"E	95	6°56'45.73"N	80°45'7.48"E	
48	6°58'39.03"N	80°45'15.86"E	96	6°56'48.13"N	80°45'5.22"E	

Forest Zone -07

1	6°55'19.44"N	80°47'24.53"E		15	6°55'39.09"N	80°47'28.01"E
2	6°55'21.64"N	80°47'20.23"E		16	6°55'37.62"N	80°47'29.83"E
3	6°55'21.82"N	80°47'17.25"E		17	6°55'37.03"N	80°47'31.99"E
4	6°55'22.46"N	80°47'14.98"E		18	6°55'37.75"N	80°47'33.01"E
5	6°55'23.92"N	80°47'14.76"E		19	6°55'36.54"N	80°47'35.05"E
6	6°55'25.04"N	80°47'15.91"E		20	6°55'30.22"N	80°47'34.46"E
7	6°55'25.09"N	80°47'18.43"E		21	6°55'29.10"N	80°47'32.95"E
8	6°55'26.14"N	80°47'22.35"E		22	6°55'27.84"N	80°47'29.51"E
9	6°55'27.36"N	80°47'22.56"E	NE - Ambewela Main road	23	6°55'26.59"N	80°47'29.62"E
10	6°55'30.14"N	80°47'21.60"E		24	6°55'23.08"N	80°47'33.81"E
11	6°55'32.80"N	80°47'18.84"E		25	6°55'21.83"N	80°47'31.51"E
12	6°55'35.87"N	80°47'17.49"E		26	6°55'18.48"N	80°47'31.94"E
13	6°55'37.34"N	80°47'21.73"E		27	6°55'19.20"N	80°47'28.78"E
14	6°55'40.00"N	80°47'23.73"E		28	6°55'20.06"N	80°47'24.82"E

Forest Zone- 08



1	6°55'30.46"N	80°45'49.55"E	33	6°56'54.13"N	80°45'52.55"E
2	6°55'40.54"N	80°45'33.89"E	34	6°56'55.35"N	80°45'54.09"E
3	6°55'48.99"N	80°45'17.14"E	35	6°56'58.09"N	80°45'55.69"E
4	6°55'52.63"N	80°45'3.62"E	36	6°56'57.80"N	80°45'56.70"E
5	6°55'54.67"N	80°44'58.53"E	37	6°56'57.90"N	80°45'59.68"E
6	6°55'59.71"N	80°44'55.81"E	38	6°56'55.40"N	80°46'4.24"E
7	6°56'2.76"N	80°44'56.46"E	39	6°56'54.95"N	80°46'5.53"E
8	6°56'1.28"N	80°45'3.37"E	40	6°56'53.33"N	80°46'5.81"E
9	6°56'28.59"N	80°45'4.16"E	41	6°56'49.13"N	80°46'4.95"E
10	6°56'31.66"N	80°45'5.73"E	42	6°56'45.70"N	80°46'5.46"E
11	6°56'32.41"N	80°45'6.88"E	43	6°56'42.87"N	80°46'6.68"E
12	6°56'34.41"N	80°45'7.59"E	44	6°56'42.11"N	80°46'8.29"E
13	6°56'35.58"N	80°45'8.82"E	45	6°56'40.19"N	80°46'9.89"E
14	6°56'37.31"N	80°45'9.58"E	46	6°56'37.90"N	80°46'8.84"E
15	6°56'37.82"N	80°45'10.34"E	47	6°56'33.56"N	80°46'4.00"E
16	6°56'37.74"N	80°45'11.33"E	48	6°56'30.31"N	80°46'6.89"E
17	6°56'42.23"N	80°45'10.71"E	49	6°56'31.16"N	80°46'11.51"E
18	6°56'44.96"N	80°45'12.68"E	50	6°56'29.00"N	80°46'16.44"E
19	6°56'44.65"N	80°45'13.60"E	51	6°56'25.57"N	80°46'14.85"E
20	6°56'45.74"N	80°45'17.32"E	52	6°56'22.76"N	80°46'15.43"E
21	6°56'48.54"N	80°45'18.95"E	53	6°56'22.20"N	80°46'19.60"E
22	6°56'49.54"N	80°45'20.96"E	54	6°56'21.26"N	80°46'21.77"E
23	6°56'49.29"N	80°45'22.35"E	55	6°56'19.32"N	80°46'22.73"E



24	6°56'49.39"N	80°45'28.38"E	56	6°56'18.99"N	80°46'26.72"E
25	6°56'49.90"N	80°45'33.61"E	57	6°56'14.78"N	80°46'28.00"E
26	6°56'49.10"N	80°45'35.99"E	58	6°56'11.11"N	80°46'24.67"E
27	6°56'50.56"N	80°45'37.08"E	59	6°56'6.99"N	80°46'17.22"E
28	6°56'50.59"N	80°45'38.63"E	60	6°56'2.82"N	80°46'9.90"E
29	6°56'48.29"N	80°45'44.06"E	61	6°55'59.37"N	80°46'7.72"E
30	6°56'50.66"N	80°45'46.13"E	62	6°55'53.07"N	80°46'6.32"E
31	6°56'51.61"N	80°45'51.91"E	63	6°55'36.80"N	80°46'9.89"E
32	6°56'52.26"N	80°45'52.44"E	64	6°55'32.37"N	80°46'1.42"E

High density Mix Zone

1	6°57'47.55"N	80°46'18.53"E	Near to the bridge at Ravce Course Road	57	6°58'26.28"N	80°46'22.31"E
2	6°57'48.02"N	80°46'17.06"E	Edge of the Race Course Ground	58	6°58'26.64"N	80°46'25.69"E
3	6°57'57.06"N	80°46'5.04"E		59	6°58'29.67"N	80°46'29.83"E
4	6°57'59.04"N	80°46'2.91"E		60	6°58'27.73"N	80°46'30.74"E
5	6°58'3.41"N	80°46'2.99"E	Ner to the Dharmapala Roundabout	61	6°58'27.13"N	80°46'36.02"E



6	6°58'3.51"N	80°46'4.14"E	Along Ragala NE Road	62	6°58'32.23"N	80°46'42.26"E
7	6°58'1.79"N	80°46'8.48"E		63	6°58'33.96"N	80°46'44.48"E
8	6°58'0.35"N	80°46'10.39"E	Near to Park Road Junction	64	6°58'36.25"N	80°46'49.67"E
9	6°58'18.10"N	80°46'6.61"E	Along Park Road	65	6°58'34.06"N	80°46'52.66"E
10	6°58'17.85"N	80°46'5.54"E	Boundary of the Victoria Park	66	6°58'31.39"N	80°46'57.09"E
11	6°58'18.47"N	80°46'4.96"E		67	6°58'32.05"N	80°47'2.31"E
12	6°58'17.77"N	80°46'0.66"E	Near to the Bus stand	68	6°58'25.39"N	80°47'4.56"E
13	6°58'23.44"N	80°45'55.15"E	Near to the Sampath bank	69	6°58'18.95"N	80°47'8.51"E
14	6°58'24.57"N	80°45'53.54"E	Golf Course boundaary	70	6°58'16.84"N	80°47'8.79"E
15	6°58'25.96"N	80°45'54.62"E		71	6°58'16.84"N	80°47'15.33"E
16	6°58'27.39"N	80°45'54.89"E		72	6°58'11.85"N	80°47'14.29"E
17	6°58'28.23"N	80°45'56.16"E		73	6°58'9.56"N	80°47'11.87"E
18	6°58'28.03"N	80°45'56.79"E		74	6°58'7.50"N	80°47'10.18"E
19	6°58'27.67"N	80°45'56.97"E		75	6°58'7.99"N	80°47'9.06"E
20	6°58'27.23"N	80°45'57.56"E		76	6°58'8.06"N	80°47'6.97"E
21	6°58'27.40"N	80°45'58.29"E		77	6°58'7.25"N	80°47'6.16"E
22	6°58'29.66"N	80°45'58.89"E	New Kandy Road	78	6°58'2.28"N	80°47'5.18"E
23	6°58'30.10"N	80°45'58.74"E		79	6°58'2.44"N	80°46'58.94"E
24	6°58'31.67"N	80°45'53.85"E	Along Stream flows behind the PWD housing	80	6°58'5.82"N	80°46'54.10"E
25	6°58'31.37"N	80°45'52.97"E		81	6°58'6.68"N	80°46'50.07"E
26	6°58'31.62"N	80°45'52.17"E		82	6°58'3.09"N	80°46'48.38"E
27	6°58'32.24"N	80°45'51.29"E		83	6°57'57.49"N	80°46'55.13"E
28	6°58'32.33"N	80°45'50.85"E		84	6°57'53.59"N	80°46'51.77"E



29	6°58'32.66"N	80°45'50.76"E		85	6°57'56.86"N	80°46'49.78"E
30	6°58'33.42"N	80°45'50.15"E		86	6°57'59.35"N	80°46'47.48"E
31	6°58'34.70"N	80°45'50.53"E		87	6°58'0.96"N	80°46'47.40"E
32	6°58'35.31"N	80°45'49.80"E		88	6°58'2.69"N	80°46'46.39"E
33	6°58'36.82"N	80°45'50.21"E		89	6°58'4.94"N	80°46'46.83"E
34	6°58'37.30"N	80°45'49.78"E		90	6°58'6.74"N	80°46'46.15"E
35	6°58'41.21"N	80°45'50.39"E	Along St. Andrews Road	91	6°58'6.99"N	80°46'45.66"E
36	6°58'41.83"N	80°45'50.17"E		92	6°58'7.57"N	80°46'45.89"E
37	6°58'43.28"N	80°45'47.66"E		93	6°58'8.72"N	80°46'45.52"E
38	6°58'44.67"N	80°45'47.19"E		94	6°58'8.77"N	80°46'45.22"E
39	6°58'45.60"N	80°45'45.80"E		95	6°58'8.77"N	80°46'45.22"E
40	6°58'45.40"N	80°45'47.84"E		96	6°58'9.05"N	80°46'44.81"E
41	6°58'44.13"N	80°45'49.60"E		97	6°58'9.57"N	80°46'44.60"E
42	6°58'44.05"N	80°45'51.26"E		98	6°58'10.87"N	80°46'42.57"E
43	6°58'43.01"N	80°45'54.81"E		99	6°58'10.18"N	80°46'41.91"E
44	6°58'42.45"N	80°45'57.19"E		100	6°58'10.82"N	80°46'38.18"E
45	6°58'41.24"N	80°45'57.76"E		101	6°58'7.49"N	80°46'34.74"E
46	6°58'40.32"N	80°46'0.61"E		102	6°58'5.59"N	80°46'29.11"E
47	6°58'38.52"N	80°46'6.30"E		103	6°58'1.12"N	80°46'28.01"E
48	6°58'39.22"N	80°46'8.08"E		104	6°57'53.11"N	80°46'25.00"E
49	6°58'36.30"N	80°46'12.60"E		105	6°57'54.90"N	80°46'20.92"E
50	6°58'30.54"N	80°46'17.99"E		106	6°57'55.59"N	80°46'20.53"E
51	6°58'28.30"N	80°46'13.96"E		107	6°57'55.28"N	80°46'19.68"E



52	6°58'24.40"N	80°46'17.31"E		108	6°57'59.50"N	80°46'19.07"E
53	6°58'23.52"N	80°46'19.21"E		109	6°58'0.00"N	80°46'18.59"E
54	6°58'24.44"N	80°46'19.36"E		110	6°57'57.57"N	80°46'16.78"E
55	6°58'26.22"N	80°46'18.19"E		111	6°57'55.25"N	80°46'16.57"E
56	6°58'28.46"N	80°46'19.95"E		112	6°57'52.48"N	80°46'18.69"E

High Density Tourism Zone

1	6°57'39.81"N	80°46'3.07"E	Along NE Badulla Main Road	16	6°57'50.41"N	80°45'38.04"E
2	6°57'52.14"N	80°46'1.48"E		17	6°57'48.30"N	80°45'37.83"E
3	6°58'3.39"N	80°46'2.93"E		18	6°57'45.37"N	80°45'39.84"E
4	6°58'4.63"N	80°45'56.27"E	Along Grand Hotel Road	19	6°57'45.13"N	80°45'42.38"E
5	6°58'9.75"N	80°45'53.12"E		20	6°57'45.65"N	80°45'44.67"E
6	6°58'15.70"N	80°45'49.90"E		21	6°57'42.14"N	80°45'46.07"E
7	6°58'14.30"N	80°45'47.83"E		22	6°57'39.43"N	80°45'47.54"E



8	6°58'13.44"N	80°45'44.56"E		23	6°57'34.60"N	80°45'51.30"E
9	6°58'9.70"N	80°45'43.74"E		24	6°57'36.40"N	80°45'55.85"E
10	6°58'3.71"N	80°45'43.56"E		25	6°57'35.35"N	80°45'57.02"E
11	6°58'2.78"N	80°45'43.96"E		26	6°57'36.95"N	80°45'58.15"E
12	6°57'56.86"N	80°45'40.82"E		27	6°57'36.77"N	80°45'58.89"E
13	6°57'55.45"N	80°45'39.10"E		28	6°57'37.96"N	80°46'0.09"E
14	6°57'52.20"N	80°45'39.99"E		29	6°57'38.05"N	80°46'1.48"E
15	6°57'50.82"N	80°45'39.38"E		30	6°57'38.80"N	80°46'2.59"E

Low Density Residential Zone- 01

1	6°59'16.81"N	80°45'5.27"E	Along Kandy NE Main Road
2	6°59'20.28"N	80°45'2.77"E	
3	6°59'23.26"N	80°45'1.66"E	
4	6°59'23.42"N	80°44'59.52"E	
5	6°59'22.20"N	80°44'59.42"E	
6	6°59'19.31"N	80°45'0.57"E	



7	6°59'17.17"N	80°45'1.20"E	
8	6°59'15.04"N	80°45'1.78"E	
9	6°59'16.01"N	80°45'3.56"E	
10	6°59'15.84"N	80°45'3.78"E	
11	6°59'16.16"N	80°45'4.64"E	

Low Density Residential Zone- 02

1	6°58'16.97"N	80°47'24.61"E	46	6°59'2.70"N	80°45'24.81"E
2	6°58'18.28"N	80°47'21.90"E	47	6°58'58.88"N	80°45'22.54"E
3	6°58'24.81"N	80°47'17.66"E	48	6°58'56.99"N	80°45'20.85"E
4	6°58'37.19"N	80°47'13.45"E	49	6°58'55.46"N	80°45'21.81"E
5	6°58'38.59"N	80°47'12.24"E	50	6°59'2.26"N	80°45'27.07"E
6	6°58'36.50"N	80°47'9.43"E	51	6°59'2.09"N	80°45'27.85"E
7	6°58'35.80"N	80°47'6.28"E	52	6°59'1.49"N	80°45'27.95"E
8	6°58'37.92"N	80°47'7.46"E	53	6°59'0.24"N	80°45'29.88"E
9	6°58'40.02"N	80°47'2.53"E	54	6°58'59.89"N	80°45'31.25"E
10	6°58'36.79"N	80°46'55.52"E	55	6°58'55.14"N	80°45'36.36"E



11	6°58'36.94"N	80°46'53.66"E	56	6°58'55.46"N	80°45'37.02"E
12	6°58'38.02"N	80°46'51.26"E	57	6°58'54.57"N	80°45'39.47"E
13	6°58'39.67"N	80°46'49.20"E	58	6°58'55.09"N	80°45'43.19"E
14	6°58'39.33"N	80°46'45.61"E	59	6°58'54.86"N	80°45'44.68"E
15	6°58'36.10"N	80°46'42.05"E	60	6°58'55.35"N	80°45'49.96"E
16	6°58'33.80"N	80°46'41.52"E	61	6°58'54.72"N	80°45'52.34"E
17	6°58'35.15"N	80°46'37.31"E	62	6°58'52.83"N	80°45'53.02"E
18	6°58'35.90"N	80°46'33.45"E	63	6°58'50.36"N	80°45'56.11"E
19	6°58'35.07"N	80°46'29.15"E	64	6°58'47.85"N	80°45'57.68"E
20	6°58'35.42"N	80°46'27.32"E	65	6°58'44.49"N	80°46'5.38"E
21	6°58'39.39"N	80°46'25.07"E	66	6°58'42.62"N	80°46'7.13"E
22	6°58'41.24"N	80°46'22.68"E	67	6°58'41.61"N	80°46'10.55"E
23	6°58'41.50"N	80°46'20.24"E	68	6°58'42.18"N	80°46'12.05"E
24	6°58'42.98"N	80°46'16.87"E	69	6°58'39.92"N	80°46'14.57"E
25	6°58'47.14"N	80°46'9.41"E	70	6°58'40.20"N	80°46'17.17"E
26	6°58'49.01"N	80°46'9.15"E	71	6°58'38.93"N	80°46'18.71"E



27	6°58'48.88"N	80°46'3.83"E	72	6°58'36.80"N	80°46'19.50"E
28	6°58'50.94"N	80°45'59.29"E	73	6°58'33.00"N	80°46'23.82"E
29	6°58'51.94"N	80°45'58.61"E	74	6°58'32.57"N	80°46'25.88"E
30	6°58'52.34"N	80°45'57.54"E	75	6°58'33.84"N	80°46'27.57"E
31	6°58'53.52"N	80°45'56.63"E	76	6°58'32.92"N	80°46'33.37"E
32	6°58'53.18"N	80°45'55.28"E	77	6°58'32.99"N	80°46'39.25"E
33	6°58'55.23"N	80°45'54.96"E	78	6°58'31.89"N	80°46'41.83"E
34	6°58'55.78"N	80°45'51.56"E	79	6°58'32.23"N	80°46'42.26"E
35	6°58'56.56"N	80°45'44.03"E	80	6°58'32.08"N	80°46'43.74"E
36	6°58'56.37"N	80°45'41.97"E	81	6°58'34.23"N	80°46'44.50"E
37	6°58'57.17"N	80°45'40.47"E	82	6°58'36.31"N	80°46'49.64"E
38	6°58'55.77"N	80°45'39.42"E	83	6°58'32.66"N	80°46'53.38"E
39	6°58'56.93"N	80°45'36.73"E	84	6°58'32.66"N	80°47'1.47"E
40	6°58'57.92"N	80°45'36.63"E	85	6°58'25.49"N	80°47'4.54"E
41	6°59'0.92"N	80°45'31.88"E	86	6°58'18.29"N	80°47'8.90"E
42	6°59'1.50"N	80°45'31.88"E	87	6°58'16.90"N	80°47'8.76"E



43	6°59'2.18"N	80°45'32.66"E	88	6°58'16.91"N	80°47'15.33"E
44	6°59'3.13"N	80°45'32.53"E	89	6°58'13.22"N	80°47'14.55"E
45	6°59'5.36"N	80°45'30.13"E	90	6°58'12.81"N	80°47'17.78"E
			91	6°58'14.46"N	80°47'22.07"E

Low Density Residential Zone- 03

1	6°57'47.71"N	80°47'47.17"E		21	6°58'20.75"N	80°47'41.14"E
2	6°57'48.16"N	80°47'47.46"E		22	6°58'19.96"N	80°47'35.62"E
3	6°57'47.62"N	80°47'48.28"E		23	6°58'20.27"N	80°47'32.32"E
4	6°57'48.49"N	80°47'49.09"E		24	6°58'18.37"N	80°47'31.24"E
5	6°57'49.63"N	80°47'50.13"E		25	6°58'17.04"N	80°47'24.67"E
6	6°57'54.34"N	80°47'47.79"E		26	6°58'14.45"N	80°47'22.10"E
7	6°57'58.80"N	80°47'44.25"E		27	6°58'12.74"N	80°47'17.83"E
8	6°57'58.96"N	80°47'43.41"E		28	6°58'13.13"N	80°47'14.59"E
9	6°57'54.54"N	80°47'39.83"E		29	6°58'10.60"N	80°47'12.93"E
10	6°57'56.01"N	80°47'37.22"E		30	6°58'6.32"N	80°47'17.88"E
11	6°57'58.88"N	80°47'35.24"E		31	6°58'5.20"N	80°47'20.39"E
12	6°58'2.51"N	80°47'31.23"E		32	6°58'5.36"N	80°47'22.67"E
13	6°58'3.47"N	80°47'30.84"E		33	6°58'6.19"N	80°47'23.31"E
14	6°58'4.08"N	80°47'35.10"E		34	6°58'4.99"N	80°47'24.47"E
15	6°58'4.08"N	80°47'36.46"E		35	6°57'58.46"N	80°47'30.69"E



16	6°58'7.57"N	80°47'36.27"E		36	6°57'53.47"N	80°47'38.34"E
17	6°58'10.48"N	80°47'39.68"E		37	6°57'50.63"N	80°47'43.34"E
18	6°58'15.19"N	80°47'39.93"E	NE- Udu Pussellawa Road	38	6°57'48.95"N	80°47'44.68"E
19	6°58'18.03"N	80°47'44.05"E				
20	6°58'20.34"N	80°47'44.44"E				

Low Density Residential Zone- 04

1	6°57'44.46"N	80°47'37.69"E	24	6°58'7.34"N	80°47'6.20"E
2	6°57'45.98"N	80°47'39.08"E	25	6°58'2.33"N	80°47'5.20"E
3	6°57'47.26"N	80°47'38.58"E	26	6°58'2.44"N	80°46'58.94"E
4	6°57'49.71"N	80°47'37.50"E	27	6°57'56.98"N	80°46'59.35"E
5	6°57'51.97"N	80°47'35.26"E	28	6°57'59.23"N	80°47'2.53"E
6	6°57'54.02"N	80°47'32.66"E	29	6°57'56.06"N	80°47'6.73"E
7	6°57'54.15"N	80°47'31.36"E	30	6°57'54.79"N	80°47'9.40"E
8	6°57'55.45"N	80°47'30.93"E	31	6°57'56.68"N	80°47'12.36"E
9	6°57'55.98"N	80°47'29.49"E	32	6°57'58.35"N	80°47'15.56"E
10	6°57'55.95"N	80°47'28.66"E	33	6°57'55.64"N	80°47'20.56"E
11	6°57'57.35"N	80°47'27.22"E	34	6°57'56.03"N	80°47'21.07"E



12	6°57'58.13"N	80°47'25.54"E	35	6°57'54.96"N	80°47'23.07"E
13	6°57'58.96"N	80°47'23.93"E	36	6°57'53.69"N	80°47'23.76"E
14	6°58'1.45"N	80°47'23.03"E	37	6°57'53.19"N	80°47'25.03"E
15	6°58'2.27"N	80°47'19.91"E	38	6°57'52.37"N	80°47'25.15"E
16	6°58'4.54"N	80°47'18.09"E	39	6°57'52.22"N	80°47'25.58"E
17	6°58'4.18"N	80°47'17.08"E	40	6°57'54.09"N	80°47'27.56"E
18	6°58'4.68"N	80°47'16.29"E	41	6°57'54.13"N	80°47'29.00"E
19	6°58'5.77"N	80°47'15.82"E	42	6°57'52.48"N	80°47'30.79"E
20	6°58'9.12"N	80°47'12.85"E	43	6°57'46.74"N	80°47'31.80"E
21	6°58'9.34"N	80°47'11.59"E	44	6°57'47.36"N	80°47'33.70"E
22	6°58'7.51"N	80°47'10.22"E	45	6°57'45.96"N	80°47'35.78"E
23	6°58'8.08"N	80°47'6.95"E			

Low Density Residential Zone – 05

1	6°57'28.15"N	80°47'30.08"E	12	6°57'40.31"N	80°47'22.93"E
2	6°57'29.96"N	80°47'26.41"E	13	6°57'37.76"N	80°47'20.50"E
3	6°57'31.84"N	80°47'24.92"E	14	6°57'37.02"N	80°47'18.39"E



4	6°57'33.68"N	80°47'20.57"E	15	6°57'33.86"N	80°47'17.37"E
5	6°57'36.16"N	80°47'23.59"E	16	6°57'30.63"N	80°47'19.89"E
6	6°57'35.48"N	80°47'29.80"E	17	6°57'28.63"N	80°47'19.87"E
7	6°57'33.37"N	80°47'32.56"E	18	6°57'26.29"N	80°47'21.80"E
8	6°57'39.15"N	80°47'35.23"E	19	6°57'22.42"N	80°47'24.15"E
9	6°57'39.69"N	80°47'31.19"E	20	6°57'22.03"N	80°47'24.98"E
10	6°57'40.61"N	80°47'29.20"E	21	6°57'22.15"N	80°47'26.76"E
11	6°57'40.02"N	80°47'28.68"E	22	6°57'25.11"N	80°47'28.61"E

Low Density Residential Zone – 06

1	6°56'57.48"N	80°45'54.74"E		22	6°56'37.34"N	80°45'9.64"E
2	6°56'54.22"N	80°45'51.75"E		23	6°56'37.69"N	80°45'11.26"E
3	6°56'53.68"N	80°45'49.65"E		24	6°56'42.12"N	80°45'10.66"E
4	6°56'54.23"N	80°45'46.26"E		25	6°56'44.87"N	80°45'12.70"E
5	6°56'54.31"N	80°45'42.69"E		26	6°56'44.61"N	80°45'13.59"E
6	6°56'53.54"N	80°45'41.27"E		27	6°56'45.71"N	80°45'17.27"E
7	6°56'53.37"N	80°45'38.97"E		28	6°56'48.48"N	80°45'18.94"E
8	6°56'52.33"N	80°45'37.96"E		29	6°56'49.47"N	80°45'20.93"E
9	6°56'51.70"N	80°45'35.38"E		30	6°56'49.20"N	80°45'22.37"E
10	6°56'51.47"N	80°45'32.62"E		31	6°56'49.33"N	80°45'28.27"E
11	6°56'51.86"N	80°45'30.37"E		32	6°56'49.92"N	80°45'33.58"E
12	6°56'50.10"N	80°45'20.82"E	Along Hatton- NE Main Road	33	6°56'49.06"N	80°45'35.93"E
13	6°56'51.98"N	80°45'17.68"E		34	6°56'50.53"N	80°45'37.06"E
14	6°56'50.37"N	80°45'15.06"E		35	6°56'50.56"N	80°45'38.61"E



15	6°56'48.32"N	80°45'12.81"E		36	6°56'48.25"N	80°45'44.02"E
16	6°56'47.58"N	80°45'10.06"E		37	6°56'50.60"N	80°45'46.10"E
17	6°56'45.76"N	80°45'7.27"E		38	6°56'50.95"N	80°45'49.62"E
18	6°56'40.78"N	80°45'4.46"E		39	6°56'51.58"N	80°45'51.96"E
19	6°56'36.27"N	80°45'4.89"E		40	6°56'54.07"N	80°45'52.56"E
20	6°56'31.86"N	80°45'5.85"E		41	6°56'55.32"N	80°45'54.11"E
21	6°56'34.41"N	80°45'7.55"E				

Low Density Residential Zone – 07

1	6°58'16.88"N	80°45'17.37"E	20	6°58'54.46"N	80°45'5.25"E
2	6°58'18.39"N	80°45'25.38"E	21	6°58'58.22"N	80°45'3.33"E
3	6°58'25.97"N	80°45'22.69"E	22	6°59'2.31"N	80°45'0.65"E
4	6°58'31.99"N	80°45'17.28"E	23	6°58'56.69"N	80°44'55.05"E
5	6°58'34.09"N	80°45'18.78"E	24	6°58'55.71"N	80°44'51.70"E
6	6°58'34.72"N	80°45'17.20"E	25	6°58'52.65"N	80°44'48.86"E
7	6°58'39.00"N	80°45'16.05"E	26	6°58'52.60"N	80°44'46.83"E
8	6°58'41.44"N	80°45'14.44"E	27	6°58'51.66"N	80°44'45.82"E
9	6°58'42.05"N	80°45'14.89"E	28	6°58'49.74"N	80°44'45.76"E
10	6°58'46.10"N	80°45'13.27"E	29	6°58'46.54"N	80°44'49.27"E
11	6°58'46.21"N	80°45'11.68"E	30	6°58'41.13"N	80°44'50.80"E
12	6°58'48.43"N	80°45'11.06"E	31	6°58'37.01"N	80°44'51.35"E
13	6°58'49.40"N	80°45'11.91"E	32	6°58'36.93"N	80°44'54.20"E
14	6°58'50.43"N	80°45'11.00"E	33	6°58'33.68"N	80°44'58.29"E
15	6°58'51.89"N	80°45'11.65"E	34	6°58'36.15"N	80°44'59.90"E
16	6°58'52.27"N	80°45'10.82"E	35	6°58'37.03"N	80°45'3.97"E



17	6°58'47.69"N	80°45'8.39"E	36	6°58'37.96"N	80°45'14.23"E
18	6°58'47.96"N	80°45'7.54"E	37	6°58'34.07"N	80°45'14.01"E
19	6°58'50.59"N	80°45'7.34"E	38	6°58'30.30"N	80°45'13.47"E
			39	6°58'24.01"N	80°45'15.68"E

Low Density Residential Zone – 08

1	6°55'49.11"N	80°48'38.30"E	16	6°56'18.61"N	80°47'58.91"E
2	6°55'51.08"N	80°48'41.03"E	17	6°56'12.94"N	80°47'54.84"E
3	6°55'54.29"N	80°48'42.69"E	18	6°56'6.61"N	80°47'54.09"E
4	6°55'56.72"N	80°48'39.44"E	19	6°56'3.24"N	80°47'52.15"E
5	6°55'59.00"N	80°48'39.29"E	20	6°55'57.87"N	6°55'57.87"N
6	6°56'0.18"N	80°48'38.56"E	21	6°55'55.59"N	80°47'53.74"E
7	6°56'0.21"N	80°48'37.79"E	22	6°55'52.70"N	80°47'58.15"E
8	6°56'1.74"N	80°48'36.30"E	23	6°55'51.39"N	80°48'3.42"E
9	6°56'4.35"N	80°48'36.40"E	24	6°55'49.58"N	80°48'18.66"E
10	6°56'11.19"N	80°48'27.65"E	25	6°55'53.85"N	80°48'28.25"E
11	6°56'13.93"N	80°48'23.92"E	26	6°55'53.87"N	80°48'32.40"E



12	6°56'15.62"N	80°48'20.57"E	27	6°55'50.67"N	80°48'34.52"E
13	6°56'20.37"N	80°48'15.05"E			
14	6°56'23.59"N	80°48'8.11"E			
15	6°56'19.74"N	80°48'2.05"E			

Low Density Residential Zone – 09

1	6°59'25.80"N	80°44'58.62"E	17	6°59'42.60"N	80°44'57.05"E	
2	6°59'28.73"N	80°45'1.24"E	18	6°59'41.03"N	80°44'56.67"E	Along Kandy- NE Main Road
3	6°59'27.93"N	80°45'4.96"E	19	6°59'40.61"N	80°44'54.47"E	
4	6°59'28.41"N	80°45'6.51"E	20	6°59'38.69"N	80°44'54.86"E	
5	6°59'33.59"N	80°45'6.08"E	21	6°59'38.59"N	80°44'53.17"E	
6	6°59'34.44"N	80°45'7.36"E	22	6°59'37.03"N	80°44'53.57"E	
7	6°59'34.40"N	80°45'8.54"E	23	6°59'33.91"N	80°44'54.71"E	
8	6°59'35.58"N	80°45'8.63"E	24	6°59'33.83"N	80°44'54.44"E	
9	6°59'36.36"N	80°45'8.47"E	25	6°59'33.15"N	80°44'54.72"E	
10	6°59'37.72"N	80°45'9.81"E	26	6°59'35.76"N	80°45'0.49"E	
11	6°59'39.18"N	80°45'9.46"E	27	6°59'36.96"N	80°45'4.24"E	
12	6°59'41.55"N	80°45'8.44"E	28	6°59'34.49"N	80°45'4.95"E	
13	6°59'42.91"N	80°45'7.05"E	29	6°59'33.25"N	80°45'1.79"E	
14	6°59'42.62"N	80°45'4.83"E	30	6°59'30.99"N	80°44'56.50"E	Along Kandy- NE Main Road
15	6°59'44.44"N	80°45'1.22"E	31	6°59'28.05"N	80°44'57.06"E	
16	6°59'42.75"N	80°44'58.69"E				



Middle Density Mix Zone -01

1	6°55'24.96"N	80°47'16.20"E	39	6°56'55.20"N	80°46'27.54"E	Ambewela Main Road
2	6°55'26.52"N	80°47'22.47"E	40	6°56'57.42"N	80°46'25.60"E	Blackpool Junction
3	6°55'30.55"N	80°47'21.11"E	41	6°56'59.82"N	80°46'21.31"E	
4	6°55'35.73"N	80°47'17.41"E	42	6°56'58.45"N	80°46'15.67"E	
5	6°55'37.20"N	80°47'21.69"E	43	6°56'55.09"N	80°46'14.54"E	
6	6°55'39.25"N	80°47'23.08"E	44	6°56'56.13"N	80°46'10.87"E	
7	6°55'45.78"N	80°47'21.98"E	45	6°56'54.73"N	80°46'5.60"E	
8	6°55'47.27"N	80°47'23.36"E	46	6°56'45.58"N	80°46'5.51"E	
9	6°55'51.47"N	80°47'22.94"E	47	6°56'42.83"N	80°46'6.68"E	
10	6°55'56.09"N	80°47'12.75"E	48	6°56'40.17"N	80°46'9.88"E	
11	6°55'59.38"N	80°47'4.95"E	49	6°56'37.92"N	80°46'8.83"E	
12	6°55'56.56"N	80°47'0.13"E	50	6°56'35.61"N	80°46'6.41"E	
13	6°55'53.94"N	80°46'58.34"E	51	6°56'33.55"N	80°46'3.96"E	
14	6°55'55.99"N	80°46'46.33"E	52	6°56'30.31"N	80°46'6.89"E	
15	6°56'1.22"N	80°46'35.64"E	53	6°56'31.15"N	80°46'11.49"E	
16	6°56'3.95"N	80°46'37.19"E	54	6°56'28.99"N	80°46'16.45"E	
17	6°56'6.40"N	80°46'37.19"E	55	6°56'25.57"N	80°46'14.84"E	
18	6°56'8.52"N	80°46'35.36"E	56	6°56'22.74"N	80°46'15.39"E	
19	6°56'9.68"N	80°46'32.29"E	57	6°56'22.20"N	80°46'19.59"E	
20	6°56'18.86"N	80°46'32.24"E	58	6°56'21.26"N	80°46'21.76"E	
21	6°56'22.37"N	80°46'34.12"E	59	6°56'19.29"N	80°46'22.72"E	
22	6°56'28.89"N	80°46'37.50"E	60	6°56'18.98"N	80°46'26.72"E	



23	6°56'28.31"N	80°46'39.70"E	61	6°56'14.77"N	80°46'27.99"E	
24	6°56'29.53"N	80°46'42.05"E	62	6°56'10.59"N	80°46'23.81"E	
25	6°56'28.07"N	80°46'47.40"E	63	6°56'3.81"N	80°46'27.89"E	
26	6°56'28.74"N	80°46'48.46"E	64	6°55'58.14"N	80°46'30.97"E	
27	6°56'31.50"N	80°46'47.82"E	65	6°55'49.53"N	80°46'35.43"E	
28	6°56'38.41"N	80°46'47.46"E	66	6°55'46.89"N	80°46'39.67"E	
29	6°56'39.04"N	80°46'45.09"E	67	6°55'42.23"N	80°46'47.31"E	
30	6°56'41.11"N	80°46'44.90"E	68	6°55'45.34"N	80°46'50.36"E	
31	6°56'43.33"N	80°46'42.03"E	69	6°55'47.69"N	80°46'53.39"E	
32	6°56'46.09"N	80°46'35.77"E	70	6°55'44.61"N	80°46'58.72"E	
33	6°56'45.38"N	80°46'35.74"E	71	6°55'40.47"N	80°47'2.03"E	
34	6°56'44.90"N	80°46'33.69"E	72	6°55'37.88"N	80°47'1.46"E	
35	6°56'48.80"N	80°46'33.00"E	73	6°55'35.91"N	80°47'2.30"E	
36	6°56'50.77"N	80°46'31.57"E	74	6°55'33.44"N	80°47'2.81"E	
37	6°56'50.32"N	80°46'28.54"E	75	6°55'30.00"N	80°47'8.40"E	
38	6°56'51.77"N	80°46'27.55"E	76	6°55'27.68"N	80°47'12.00"E	

Middle Density Mix Zone- 0 2

1	6°59'28.05"N	80°44'57.06"E	NE- Kandy Main Road
2	6°59'30.99"N	80°44'56.50"E	
3	6°59'33.83"N	80°44'54.44"E	



4	6°59'31.16"N	80°44'49.59"E	
5	6°59'27.90"N	80°44'44.47"E	
6	6°59'24.76"N	80°44'45.40"E	
7	6°59'22.64"N	80°44'48.16"E	
8	6°59'22.75"N	80°44'49.03"E	
9	6°59'24.17"N	80°44'51.83"E	
10	6°59'25.52"N	80°44'54.42"E	

Middle Density Mix Zone- 03

1	6°57'10.23"N	80°47'13.90"E	17	6°57'30.51"N	80°47'9.45"E
2	6°57'15.27"N	80°47'18.28"E	18	6°57'30.87"N	80°47'8.61"E
3	6°57'14.52"N	80°47'19.48"E	19	6°57'31.78"N	80°47'7.37"E
4	6°57'16.71"N	80°47'20.40"E	20	6°57'31.27"N	80°47'6.65"E
5	6°57'18.10"N	80°47'18.63"E	21	6°57'31.21"N	80°47'5.94"E
6	6°57'19.45"N	80°47'18.69"E	22	6°57'29.45"N	80°47'5.34"E
7	6°57'20.26"N	80°47'17.11"E	23	6°57'28.39"N	80°47'3.41"E
8	6°57'19.36"N	80°47'12.08"E	24	6°57'26.11"N	80°47'0.84"E
9	6°57'20.96"N	80°47'8.75"E	25	6°57'26.31"N	80°46'58.58"E
10	6°57'22.74"N	80°47'7.50"E	26	6°57'22.95"N	80°47'3.10"E
11	6°57'25.88"N	80°47'9.76"E	27	6°57'21.45"N	80°47'3.71"E
12	6°57'25.89"N	80°47'11.05"E	28	6°57'18.20"N	80°47'7.18"E
13	6°57'26.67"N	80°47'12.30"E	29	6°57'17.16"N	80°47'9.53"E
14	6°57'29.14"N	80°47'13.28"E	30	6°57'16.89"N	80°47'14.57"E
15	6°57'30.13"N	80°47'11.09"E	31	6°57'15.71"N	80°47'12.57"E



16	6°57'30.72"N	80°47'10.46"E	32	6°57'12.21"N	80°47'13.09"E
----	--------------	---------------	----	--------------	---------------

Middle Density Mix Zone- 04

1	6°56'23.47"N	80°47'56.04"E	49	6°57'6.28"N	80°47'29.62"E
2	6°56'27.73"N	80°47'56.59"E	50	6°57'7.80"N	80°47'32.36"E
3	6°56'30.47"N	80°47'56.58"E	51	6°57'9.85"N	80°47'36.45"E
4	6°56'33.07"N	80°47'57.24"E	52	6°57'10.56"N	80°47'36.10"E
5	6°56'34.21"N	80°47'57.95"E	53	6°57'9.89"N	80°47'33.75"E
6	6°56'34.61"N	80°47'59.42"E	54	6°57'8.71"N	80°47'29.79"E
7	6°56'36.29"N	80°48'1.41"E	55	6°57'8.18"N	80°47'27.58"E
8	6°56'36.93"N	80°48'3.14"E	56	6°57'7.27"N	80°47'26.50"E
9	6°56'37.84"N	80°48'2.99"E	57	6°57'8.25"N	80°47'22.71"E
10	6°56'38.45"N	80°48'2.01"E	58	6°57'8.72"N	80°47'22.49"E
11	6°56'39.60"N	80°48'1.10"E	59	6°57'10.66"N	80°47'23.17"E
12	6°56'40.75"N	80°47'59.85"E	60	6°57'12.90"N	80°47'23.98"E
13	6°56'41.69"N	80°47'57.76"E	61	6°57'13.28"N	80°47'21.40"E
14	6°56'42.52"N	80°47'55.95"E	62	6°57'13.72"N	80°47'20.07"E
15	6°56'43.27"N	80°47'54.47"E	63	6°57'14.55"N	80°47'19.48"E
16	6°56'44.09"N	80°47'53.08"E	64	6°57'15.74"N	80°47'17.26"E
17	6°56'45.17"N	80°47'52.12"E	65	6°57'16.77"N	80°47'14.45"E
18	6°56'45.94"N	80°47'51.05"E	66	6°57'16.22"N	80°47'13.83"E
19	6°56'46.65"N	80°47'49.75"E	67	6°57'15.73"N	80°47'12.45"E
20	6°56'48.40"N	80°47'48.15"E	68	6°57'14.84"N	80°47'12.21"E



21	6°56'49.51"N	80°47'46.28"E	69	6°57'12.42"N	80°47'12.93"E
22	6°56'50.06"N	80°47'44.65"E	70	6°57'9.67"N	80°47'13.95"E
23	6°56'50.98"N	80°47'43.49"E	71	6°57'7.66"N	80°47'13.56"E
24	6°56'52.10"N	80°47'42.68"E	72	6°57'9.98"N	80°47'9.85"E
25	6°56'53.80"N	80°47'42.64"E	73	6°57'11.31"N	80°47'5.28"E
26	6°56'53.80"N	80°47'42.16"E	74	6°57'12.15"N	80°46'59.86"E
27	6°56'52.85"N	80°47'40.50"E	75	6°57'13.76"N	80°46'58.47"E
28	6°56'50.86"N	80°47'38.05"E	76	6°57'12.03"N	80°46'52.94"E
29	6°56'48.93"N	80°47'35.03"E	77	6°57'9.42"N	80°46'52.16"E
30	6°56'46.34"N	80°47'31.43"E	78	6°57'7.79"N	80°46'50.04"E
31	6°56'47.18"N	80°47'30.83"E	79	6°57'4.94"N	80°46'51.50"E
32	6°56'46.95"N	80°47'29.34"E	80	6°57'2.79"N	80°46'53.07"E
33	6°56'47.35"N	80°47'28.56"E	81	6°57'1.63"N	80°46'56.56"E
34	6°56'48.92"N	80°47'30.28"E	82	6°57'1.29"N	80°47'2.81"E
35	6°56'50.05"N	80°47'31.54"E	83	6°57'0.03"N	80°47'11.19"E
36	6°56'51.57"N	80°47'33.24"E	84	6°56'56.28"N	80°47'16.09"E
37	6°56'53.75"N	80°47'32.03"E	85	6°56'52.97"N	80°47'16.77"E
38	6°56'54.91"N	80°47'33.46"E	86	6°56'48.99"N	80°47'16.66"E
39	6°56'55.84"N	80°47'34.65"E	87	6°56'44.94"N	80°47'14.23"E
40	6°56'56.82"N	80°47'35.87"E	88	6°56'45.13"N	80°47'22.43"E
41	6°56'58.34"N	80°47'34.84"E	89	6°56'38.79"N	80°47'32.21"E
42	6°57'0.38"N	80°47'33.97"E	90	6°56'40.89"N	80°47'34.14"E
43	6°56'59.31"N	80°47'32.01"E	91	6°56'40.19"N	80°47'41.28"E



44	6°56'58.00"N	80°47'29.10"E	92	6°56'35.96"N	80°47'39.53"E
45	6°56'59.14"N	80°47'27.59"E	93	6°56'33.36"N	80°47'41.81"E
46	6°57'0.35"N	80°47'26.31"E	94	6°56'29.51"N	80°47'47.83"E
47	6°57'1.78"N	80°47'24.77"E	95	6°56'23.89"N	80°47'52.94"E
48	6°57'5.03"N	80°47'27.35"E			

Middle Density Mix Zone -05

1	6°56'55.33"N	80°46'38.18"E		22	6°57'35.19"N	80°46'9.35"E
2	6°56'56.81"N	80°46'40.37"E		23	6°57'30.40"N	80°46'9.53"E
3	6°56'57.93"N	80°46'41.54"E		24	6°57'29.60"N	80°46'11.55"E
4	6°56'59.09"N	80°46'44.06"E		25	6°57'25.85"N	80°46'11.98"E
5	6°57'1.99"N	80°46'42.42"E		26	6°57'24.91"N	80°46'8.87"E
6	6°57'2.70"N	80°46'38.89"E		27	6°57'22.98"N	80°46'7.41"E
7	6°57'4.02"N	80°46'38.01"E		28	6°57'20.55"N	80°46'7.49"E
8	6°57'5.60"N	80°46'38.97"E		29	6°57'20.07"N	80°46'11.18"E
9	6°57'6.37"N	80°46'41.60"E		30	6°57'18.79"N	80°46'11.57"E
10	6°57'12.43"N	80°46'44.11"E		31	6°57'18.58"N	80°46'15.00"E
11	6°57'13.68"N	80°46'46.71"E	Along Badulla - Perade niya Man Road	32	6°57'17.34"N	80°46'16.28"E
12	6°57'18.10"N	80°46'45.33"E		33	6°57'20.82"N	80°46'17.22"E
13	6°57'22.83"N	80°46'40.82"E		34	6°57'23.72"N	80°46'20.50"E



14	6°57'22.80"N	80°46'37.93"E		35	6°57'22.46"N	80°46'21.46"E
15	6°57'26.88"N	80°46'31.89"E		36	6°57'20.99"N	80°46'24.11"E
16	6°57'28.20"N	80°46'26.53"E		37	6°57'16.30"N	80°46'27.21"E
17	6°57'35.22"N	80°46'16.78"E		38	6°57'12.00"N	80°46'28.79"E
18	6°57'39.59"N	80°46'3.19"E		39	6°57'6.91"N	80°46'24.79"E
19	6°57'35.26"N	80°45'57.24"E		40	6°57'2.80"N	80°46'28.38"E
20	6°57'33.72"N	80°46'1.30"E		41	6°56'58.11"N	80°46'32.93"E
21	6°57'31.30"N	80°46'7.24"E				

Middle Density Mix Zone -06

1	6°58'27.15"N	80°46'36.03"E		45	6°58'54.32"N	80°45'10.84"E	
2	6°58'28.87"N	80°46'37.18"E		46	6°58'48.93"N	80°45'16.40"E	



3	6°58'30.08"N	80°46'39.47"E		47	6°58'49.60"N	80°45'17.58"E	
4	6°58'32.19"N	80°46'42.22"E		48	6°58'48.15"N	80°45'19.69"E	
5	6°58'33.00"N	80°46'39.25"E		49	6°58'48.07"N	80°45'20.17"E	
6	6°58'32.96"N	80°46'33.38"E		50	6°58'48.05"N	80°45'21.13"E	
7	6°58'33.49"N	80°46'31.84"E		51	6°58'46.56"N	80°45'25.22"E	
8	6°58'33.28"N	80°46'29.60"E	Along Gamunu Mawatha	52	6°58'45.14"N	80°45'25.48"E	
9	6°58'33.84"N	80°46'27.57"E		53	6°58'42.76"N	80°45'22.50"E	
10	6°58'32.56"N	80°46'25.86"E		54	6°58'40.00"N	80°45'24.41"E	
11	6°58'37.49"N	80°46'19.26"E		55	6°58'40.72"N	80°45'30.67"E	
12	6°58'40.08"N	80°46'17.61"E		56	6°58'37.45"N	80°45'38.54"E	
13	6°58'42.06"N	80°46'12.08"E		57	6°58'40.03"N	80°45'40.03"E	
14	6°58'42.61"N	80°46'7.11"E		58	6°58'42.53"N	80°45'32.58"E	
15	6°58'45.63"N	80°46'2.73"E	Keena Road	59	6°58'46.27"N	80°45'34.15"E	
16	6°58'47.97"N	80°45'57.62"E		60	6°58'46.95"N	80°45'32.92"E	
17	6°58'54.69"N	80°45'52.35"E	Along Waterfield Drive	61	6°58'46.38"N	80°45'31.99"E	



18	6°58'54.94"N	80°45'44.64"E		62	6°58'48.30"N	80°45'30.46"E	
19	6°58'55.39"N	80°45'36.13"E		63	6°58'51.39"N	80°45'25.23"E	
20	6°58'59.94"N	80°45'31.25"E	St. Andrews Rd	64	6°58'53.64"N	80°45'27.00"E	
21	6°59'2.26"N	80°45'27.07"E		65	6°58'55.92"N	80°45'28.60"E	
22	6°58'59.16"N	80°45'24.30"E		66	6°58'52.95"N	80°45'32.39"E	
23	6°58'55.46"N	80°45'21.85"E		67	6°58'47.46"N	80°45'38.06"E	
24	6°58'53.92"N	80°45'22.18"E		68	6°58'48.56"N	80°45'39.30"E	
25	6°58'54.47"N	80°45'21.23"E		69	6°58'47.56"N	80°45'41.40"E	
26	6°58'56.29"N	80°45'20.40"E		70	6°58'48.24"N	80°45'42.29"E	
27	6°58'57.46"N	80°45'18.07"E		71	6°58'45.14"N	80°45'44.82"E	
28	6°59'3.70"N	80°45'15.45"E		72	6°58'45.48"N	80°45'47.77"E	
29	6°59'5.07"N	80°45'14.23"E		73	6°58'44.11"N	80°45'51.26"E	
30	6°59'9.88"N	80°45'11.69"E		74	6°58'42.52"N	80°45'57.21"E	
31	6°59'10.08"N	80°45'10.37"E		75	6°58'41.32"N	80°45'57.77"E	
32	6°59'9.73"N	80°45'7.65"E		76	6°58'40.12"N	80°46'1.35"E	



33	6°59'8.39"N	80°45'7.66"E		77	6°58'39.15"N	80°46'6.07"E	
34	6°59'7.65"N	80°45'11.04"E		78	6°58'38.56"N	80°46'6.30"E	Rahula Mawatha
35	6°59'5.35"N	80°45'12.37"E		79	6°58'39.23"N	80°46'8.04"E	
36	6°59'4.00"N	80°45'10.71"E		80	6°58'36.11"N	80°46'11.68"E	
37	6°59'3.43"N	80°45'10.64"E		81	6°58'36.35"N	80°46'12.60"E	
38	6°59'3.07"N	80°45'10.26"E		82	6°58'32.74"N	80°46'15.91"E	
39	6°59'0.96"N	80°45'10.81"E		83	6°58'29.02"N	80°46'19.38"E	
40	6°59'0.24"N	80°45'11.57"E		84	6°58'26.35"N	80°46'22.24"E	Lady maclum Mawatha
41	6°58'59.28"N	80°45'12.92"E		85	6°58'26.67"N	80°46'25.70"E	
42	6°58'58.07"N	80°45'12.93"E		86	6°58'29.74"N	80°46'29.83"E	
43	6°58'57.10"N	80°45'10.96"E		87	6°58'27.81"N	80°46'30.73"E	
44	6°58'55.74"N	80°45'12.84"E		88	6°58'27.36"N	80°46'33.79"E	

