Embilipitiya Development Plan 2021–2030





Urban Development Authority

Embilipitiya Development Plan 2021–2030



Urban Development Authority Ministry of Urban Development & Housing

Embilipitiya Development Plan 2021–2030

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Embilipitiya Development Plan 2021–2030 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 Guidelines and Zoning Guidelines pertaining to the planning boundary for the period of 2021–2030. The part III consist of the zoning boundaries with the coordinates and all the Annextures.

Embilipitiya Development Plan 2021–2030 has been prepared by the Sabaragamuwa Provincial Office, Planning Diviion.

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Embilipitiya Development Plan (2021–2030) was prepared under the initial supervision of the Strategic Planning Division of the Urban Development Authority. The aim of this plan is to create developed attractive city with value added, qualitative agricultural collection center that highlight the agricultural identity though the vision of "Agro Economic Product Navel of Walawa Valley. The vision of the Embilipitiya Development Plan 2021–2030 is in line with the Government Policies of the Democratic Socialist Republic of Sri Lanka and is in line with His Excellency the President Gotabhaya Rajapaksa's "Vistas of Prosperity and splendor".

It is our privilege to Hon. Mahinda Rajapaksa subject Minister of urban Development & Housing for approving the Embilipitiya Development Plan 2021 – 2030 under the provision of Urban Development Authority Act No. 41 of 1978 as amended by the Act No. 04 of 1982. We extend our sincere thanks to the Hon. Minister of State for Urban Development, Coast Conservation, Waste Disposal and Community Sanitation, Dr. Nalaka Godahewa, Ministers and Members of Parliament of the Ratnapura District, the Hon. Governor of the Sabaragamuwa Province and the Hon. Chairman, Mr. Lalith Gamage and Public Representatives of the Embilipitiya Urban Council and also the Hon. chairman, Mr. Surantha Weerasinghe, and Public Representatives of the Embilipitiya Pradeshiya Sabha.

We would like to thank Sirinimal Perera, Secretary to the Ministry of Urban Development and Housing for providing the necessary guidance for the successful completion of this plan. Furthermore, as many government agencies including Embilipitiya Divisional Secretariat, Embilipitiya Urban Council and Embilipitiya Pradeshiya Sabha contributed their resources in obtaining information and ideas for this urban development plan, we would like to thank the staff working in the relevant institutions including the, Divisional Secretary, Embilipitiya Urban Council Secretary, Embilipitiya Pradeshiya Sabha Secretary and others.

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Somasekera, Director – Environment and Landscape Division Landscape Architect, Ms. D.K.E Kalupahana and all the officers of the above mentioned divisions and all the staff attached to the Ratnapura Office for their support in this plan preparation.

Last but not least, special gratitude offered to all the government institutes, semi government institutes, private institutes, various resource persons and the urban community who have directly and indirectly supported in all stages from the initial data collection stage to the publication of the Gazette of the Embilipitiya Development Plan (2021–2030).

Hon. Minister's forward



The Urban Development Authority was established under the Urban Development Authority Act No. 41 of 1978, for the systematic planned urban development in the declared urban areas and continue to actively contribute towards it.

Steps have been taken to formulate comprehensive development plans for each urban development area, based on the efficient and effective use of physical space so that all areas of Sri Lanka make an equal contribution to the development process of the country.

The Embilipitiya Town provide services to a large population. Accordingly, Embilipitiya Urban Council area and part of the Embilipitiya Pradeshiya Sabha area as Planning Area has the potential to become a town that continues to provide agriculture, commercial, industry and tourism services. This potential is further enhanced by the natural ecosystem of the surrounding area and the locations of tourist attractive sites of value. These development plans aim to develop the Embilipitiya town by utilizing the potential of the area.

For the realization of His Excellency the president's vision "Vistas of Prosperity" the new Reurbanization Programme has been formulated in wide consultation with Professionals, Specialists, Stakeholders & communities with strategies having an excellent technological methodology and innovative approach.

Accordingly, I commend the Chairman of the Urban Development Authority, the Director General, the planning teams and all the officers of the Urban Development Authority who assisted in making this work a success. Further, I also appreciate and believe through the support and contribution of the relevant Local Government Institutions, Public and Private Sector Institutions and the general public, Embilipitiya Development plan would be successfully implemented.

Hon.Mahinda Rajapaksa (M. P) Minister of Urban Development & Housing

Hon. State Minister's forward



As a pioneer in Sri Lanka in achieving modern sustainable development goals, the Urban Development Authority has a great responsibility. Accordingly, it is essential to prepare development plans for the Urban Development Areas declared by the Hon. Minister in charge of the subject in terms of the Urban Development Authority Amendment Act No. 04 of 1982 (Part II, Section 8A (1)).

The development plans thus formulated are primarily aimed at building a productive citizen, a happy family, a dignified society and a prosperous nation, which are the core aspirations of the vistas of prosperity. I also believe that these development plans will go a long

way in achieving the objectives of urban development and regulation through a formal reurbanization plan that will bring economic stability to the urban population.

Therefore, I would like to express my heartfelt gratitude to the planning team and to all those who have played a very responsible role in preparing this plan and I hope that you will all contribute to the expectations of the vision of prosperity.

Dr. Nalaka Godahewa (M.P) State Minister of Urban Development, Coast Conservation, Waste Disposal and Community Cleanliness

Hon. Chairman's forward – Urban Development Authority



Throughout the last four decades, Urban Development Authority has been serving as the apex planning authority in Sri Lanka having the statutory powers to prepare and enforce urban development plans.

Urban Development Plans cover a number of fields including optimum, effective and efficient use of land and managing the quality of its environment. These development plans are prepared for the promotion and regulation of public well-being in urban areas and the people.

According to the present government's manifesto, it is compulsory to prepare development plans for areas which have been declared as

urban development areas by the subject minister as per section 8 A (1) under part II of Urban Development Authority Act No. 04 of 1982 (Amendment).

The Development Plan for Embilipitiya Urban Council area and part of the Embilipitiya Pradeshiya Sabha area has been prepared for the period 2021–2030 considering the physical, economic, social and environmental factors, while successfully overcoming the challenges in preparing the development plan through tools and methodologies with which the Urban Development Authority is equipped.

Therefore, I extend my heartfelt gratitude to the planning teams who dedicatedly worked for ensuring successful completion of this plan and to those who contributed in numerous ways. At the same time I also expect that all parties who contributed for the preparation of this plan will also effectively contribute in future as well for successful implementation of the plan.

Archt. Harshan De Silva Chairman Urban Development Authority

Hon. Chairman's forward – Embilipitiya Urban Council



Urban development authority as pioneer of urban development in Sri Lanka has started development plans preparation using new technology and knowledge to create livable cities for people.

Preparation a development plan for Embilipitiya UDA Declared area including Embilipitiya Urban Council is the best answer for timeliness needs and this town has identified as a second order town according to Sabaragamuwa provincial urban hierarchy.

This development plan has taken best solution to minimize and solve all barriers which effect for town development with best understanding

about day today life, agriculture base city identity and development trends of the city. Proposed land use plan and new development strategies are created considering existing population and population growth rate with suit legal frames are introduced to infrastructure development and to minimize misuse human activities.

Specially when preparation of this development plan for 2021–2030 period, Sabaragamuwa provincial office urban planning team has carried on good coordinate with all kind of relevant local institution in this area. Based on this coordination UDA has identified real ground situation of social, physical, economic and environment aspects of this area. And also UDA has identified area specific issues and has given best solution tapping all potentials of this area to achieve sustainable development of this town. Specific urban center development projects have introduced to facilitate community population and to attract foreigners towards the city with all kind of physical infrastructure development considering traffic and parking issues.

As finally must be thankful to Urban Development Authority taken this action to prepare a development plan for Embilipitiya Town and hope to provide our best support as our responsibility to complete these projects as public representatives of this area.

Lalith Gamage Chairman Embilipitiya Urban Council

Hon. Chairman's forward – Embilipitiya Pradeshiya Sabha



The Urban Development Authority (UDA) has initiated as one of the main agencies responsible for urban development and is committed to improving the physical development of cities to improve quality of life. As a part of urban development effort, preparation a development plan for Embilipitiya is a great opportunity for the people who live in this area. In addition to the Embilipitiya Urban Council area, special strategies have been identified for Embilipitiya Pradeshiya Sabha area including urban centers such as Udawalawa, Thunkama and Padalangala to get the benefits via future development.

The Udawalawa Tourism Zone, which has already gained a high position in tourism. Further cultivation land including banana like value added crops are valuable resources in the city. Hambantota Port, Mattala Airport and Southern Expressway are great opportunities for future economic developments of the city. Utilizing these resources special projects are introduced to uplift the city economy and community life.

The Urban Development Authority (UDA) in collaboration with the Embilipitiya Pradeshiya Sabha and other local administration institutions in carrying out this development role should appreciate and also this authority has identified future needs to make the city a more attractive and livable for people.

As responsible public representatives, I and all other public representatives of the Embilipitiya urban community are expected to extend their fullest cooperation in implementing this development plan.

Surantha Weerasinghe Chairman Embilipitiya Pradeshiya Sabha

Preface

Due to the development trends in Embilipitiya, there is a need for a development plan to successfully address the challenges that arise. Accordingly, the Embilipitiya Development Plan has been prepared with the aim of achieving the objective of creating sustainable cities of Sustainable developable goals by analyzing the economic, social, physical and environmental conditions in the city.

Embilipitiya Development Plan 2021–2030 consists of three parts as I, II and III. Part I is consisted Background of the Development Plan, Preliminary Survey, Need of the Development Plan, Development Framework, SWOT Analysis and Summery of Data Analysis, the Plan and Part II is consisted Physical Development Strategies and Guidelines relevant to the planning boundary for the period 2021–2030. Part III consist the zoning boundary coordinates and all attachments.

Part 1 – Chapter 1 of the plan describes the meaning of the development plan, legal context, the stakeholders of the plan, the scope and the planning process. Chapters 2 and 3 describe the planning area, the history of the area, boundary delineation and the need of the plan. Chapter 4 consist the vision, objectives, and strategic plans, and Chapter 5 covers the basic SWOT analysis for each goals with a detailed description.

Chapter 6 of the Development Plan describe conceptual plan and the proposed land use plan. Under this chapter, the main strategic plans of the development plan are described as physical and social infrastructure development strategies, economic development strategies, sustainable environmental development strategies and implementation strategies.

Part 2 - Chapter 7 describe the Development Zones and Common Zoning Guidelines and Chapter 8 describes the Zoning, Zoning Guidelines and the Industrial Zone Guide Plan and Guidelines. Chapter 9 includes proposed road widths, building lines and reserve limits.

Accordingly, the objective of this Authority and the Government of Sri Lanka is to implement the Embilipitiya Urban Development Plan 2021–2030 in the near future.

APPROVAL OF THE DEVELOPMENT PLAN FOR THE URBAN DEVELOPMENT AREA OF EMBILIPITIYA URBAN COUNCIL AREA AND PART OF THE EMBILIPITIYA PRADESHIYA SABHA AREA

I, Mahinda Rajapaksa, Minister of Urban Development and Housing do hereby approve the development plan for the Embilipitiya Urban Council Area and part of the Embilipitiya Pradeshiya Sabha Area, having considered the 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.

Ower Err. P.

Mahinda Rajapaksa (M.P) Minister of Urban Development and Housing

Ministry of Urban Development and Housing, 17th and 18th Floors, **"Suhurupaya",** Sri Subhuthipura Road, Battaramulla.

Date: 15 . April , 2021.



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PART I : SECTION (I) — GENERAL

Government Notifications

APPROVAL OF THE DEVELOPMENT PLAN FOR THE URBAN DEVELOPMENT AREA OF EMBILIPITIYA URBAN COUNCIL AREA AND PART OF THE EMBILIPITIYA PRADESHIYA SABHA AREA

I, Mahinda Rajapaksa, Minister of Urban Development and Housing do hereby approve the Development plan for the Embilipitiya Urban Council Area and part of the Embilipitiya Pradeshiya Sabha Area, having considered the 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.

MAHINDA RAJAPAKSA (M. P.), Minister of Urban Development and Housing.

Ministry of Urban Development and Housing, 17th and 18th Floors, "Suhurupaya" Sri Subhuthipura Road, Battaramulla.

Date: 15April 2021.

07-570/1



1A - G 34645 — 60 (07/2021) This Gazette Extraordinary can be downloaded from www.documents.gov.lk 2 Α **Ι** කොටස : **(Ι)** ජෙදය - ශූී ලංකා පුජාතාන්තික සමාජවාදී ජනරජයේ අති විශෙෂ ගැසට පතුය - 2021.07.13 PART I : Sec (1) – GAZETTE EXTRAORDINARY OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA – 13.07.2021

NOTICE OF APPROVAL OF THE DEVELOPMENT PLAN FOR THE URBAN DEVELOPMENT AREA OF THE URBAN COUNCIL OF EMBILIPITIYA AND A PART OF THE PRADESHIYA SABHA LIMIT OF EMBILIPITIYA

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, Mahinda Rajapaksa, the Minister in charge on the subject of Urban Development & Housing, by virtue of the powers vested in me under Section 8(F) of the said Act, have approved the Development Plan for the Urban Development Area of the Urban Council of Embilipitiya and a part of the Pradeshiya Sabha limit of Embilipitiya prepared under Section 8(A) of the said Act, on the 15th day of April, 2021.

MAHINDA RAJAPAKSA (M. P.), Minister of Urban Development & Housing.

Ministry of Urban Development & Housing, 17th and 18th Floors, "Suhurupaya" Sri Subhuthipura Road, Battaramulla.

12th July, 2021.

07-570/2

APPROVAL OF THE DEVELOPMENT PLAN FOR THE URBAN DEVELOPMENT AREA OF THE URBAN COUNCIL OF EMBILIPITIYA AND A PART OF THE PRADESHIYA SABHA LIMIT OF EMBILIPITIYA

PUBLIC are hereby informed that the Development Plan prepared for the Urban Development area of the Urban Council of Embilipitiya and a Part of the Pradeshiya Sabha limit of Embilipitiya 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 15th April 2021, by Hon. Mahinda Rajapaksa, Minister of Urban Development & Housing, by virtue of powers vested on him under Section 8(F) of the said Act.

Archt. Harshan De Silva, Chairman, Urban Development Authority.

12th July, 2021.

07-570/3

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Embilipitiya Development Plan 2021–2030 Urban Development Authority



Part I

Situatinal Analysis and The Plan Embilipitiya Development Plan 2021–2030 Urban Development Authority



Background of the Development Plan

Embilipitiya Development Plan 2021–2030 Urban Development Authority

Chapter 1 Background of the Development Plan

Introduction

Planning Team

1.1. Introduction

Identification of urban development areas, declaration of those areas as UDA Declared areas and preparation of development plans for those areas and executing them are major functions of the Urban Development Authority. Accordingly, this development plan was prepared for Embilipitiya UDA Declared area including Embilipitiya town, Udawalawa, Tunkama and Padalangala small towns in Rathnapura District.

Embilipitiya Urban area was declared by the Extraordinary Gazette Notification No. 385/8 of 21st January, 1986 and expanded the declared area Parallel to the Greater Hambantota Development project, Embilipitiya Urban Council and Embilipitiya Pradeshiya Sabha including 21 GND divisions with 150sqkm extent of land in the Rathnapura District was declared as Embilipitiya urban development area on 11 June 2009 under the Urban Development Authority Act No 41 of 1978 by the No 1605/41 Special Gazette paper.

This Development Plan was prepared as guideline to provide strategies for development, with detail study of economic, social, physical and environmental issues, to up lift the living standards of the people living in the urban and around area and strengthening the urban economy. The aim of preparing this development plan was to create a planned city during 2021-2030 period. Development Plan was prepared in accordance with the Act No. 4 of 1982. The initial studies were started in March 2017.

This development plan was prepared by methodical data collection and analysis of that data after taking into consideration the input of ideas and suggesions of local public. This report includes details of all the development proposals of this development plan.

1.2. Planning Team

For the development of Embilipitiya Development Plan, great assistance was provided by various institutions, including state and semi-government agencies, various sector representing agencies and project organizations, in addition to the planning team of the Urban Development Authority and other relevant stakeholders. Thirty three number of organizations have given their contribution.

Main consultancy agencies

- 1. Embilipitiya Urban Council
- 2. Embilipitiya Pradeshiya Sabha

Other consultancy agencies

- 1. National Physical Planning Department
- 2. Mahaweli Authority Embilipitiya
- 3. Divisional Secretariat Embilipitiya
- 4. Road Development Authority Embilipitiya
- 5. Ceylon Electricity Board Embilipitiya
- 6. National Water Supply & Drainage Board
- 7. Community Water Supply Project Ratnapura
- 8. Sri Lanka Transport Board Embilipitiya
- 9. Sabaragamuwa Road Passenger Transport Authority
- 10. Embilipitiya / Kuttigala / Udawalawa Police Stations
- 11. Postal Department Embilipitiya
- 12. Sri Lanka Telecom (SLT) Embilipitiya
- 13. Office of the Medical Officer of Health Embilipitiya
- 14. Divisional Education Office Embilipitiya
- 15. Executive Engineer's office Kuttigala
- 16. Industrial Park Embilipitiya
- 17. Forest Department Udawalawa
- 18. Land Reforms Board Embilipitiya
- 19. District Secretariat Ratnapura
- 20. Ministry of Industries Sabaragamuwa Provincial Council
- 21. Central Environmental Authority Ratnapura
- 22. Housing Development Authority Ratnapura
- 23. Provincial Road Development Authority
- 24. Department of Agrarian Development Ratnapura
- 25. Department of Agriculture. Ratnapura
- 26. Irrigation Department Ratnapura
- 27. Department of Archeology Ratnapura
- 28. Land Use Policy Planning Department Sabaragamuwa Provincial Council
- 29. Geological Survey and Mines Bureau Ratnapura

Other Stakeholder Groups

- 1. Embilipitiya Trade Association
- 2. Embilipitiya Farmers' Association

Planning division of Sabaragamuwa Provincial office, UDA was responsible for the preparation of this development plan.

Chapter 1 Background of the Development Plan

Planning Team

Chapter 1 Background of the Development Plan

> Scope of the Development Plan

1.3. Scope of the Development Plan

Embilipitiya town, is one of the towns in Rathnapura District is a center that facilitates interconnection of Sabaragamuwa, Southern and Uva Provinces. Due to the spatial position of this city, it can obtain privileges to the Hambantota development project by the Hambanthota International Port and the Mattala International Airport.

The National physical plan prepared according to national policies, has been identified Embilipitiya city as a second-class city in Sabaragamuwa province. Further, in the future development process combining with Sothern province, it is included to southern economic development corridor. (Annexture Map No. 1.2) According to all these contributions it is observed that there is a way to rapid development process. Even though it has not been identified the essentially of national level rapid development process, it has been identified to developed Embilipitiya Town through the process of local development process.

By this development plan entire Embilipitiya UDA Declared area has been covered.it is expected to use available resources in this region effectively and efficiently, to build economically sound, environmentally friendly, physically developed beautiful city with healthy people in a just society by the year 2030.

1.4. Planning Process

Chapter 1 Background of the Development Plan

Planning Process



Figure 1.1 : Planning Process Source : Planning Team, Sabaragamuwa Provincial Office, UDA, 2017 Embilipitiya Development Plan 2021–2030 Urban Development Authority

Chapter 1 Background of the Development Plan

Planning Process

The preparation of the Embilipitiya development plan consisted of several steps. This planning process is shown in Figure No. 1.1.

As the primary step of the city development plan, a thorough study on the proposed area for development was carried out. Accordingly, a comprehensive picture was gained from the study of primary and the secondary data on the economic, social, environmental, and physical aspects of UDA Declared area.

Apart from the study of primary and secondary data, further information was collected in relation to the relevant development activities through the study of the National and physical plan, the Sabaragamuwa Provincial structure plan, other plans prepared by Local Government Institutions and other institutions.

The primary and secondary data collected through the above-mentioned steps and the development activities have assisted in identifying the new development potentials and problems in the development of the city.

In addition to the potentials and the problems identified in the basic study of the city, identifying the city development needs through stakeholder meetings, consultations with various types of organizations, and by sharing their experiences and aspects was a significant element in this development plan (Annexture no 06).

When considered in grass root level, of the surfaced and highlighted problems in this city, it has been studied that it should be whether find solution to all of them through, this development plan. Thus, when conducting the comprehensive study of the problems, their significance, context, and their comparative magnitude of effects were explored.

Further, to make the background of this development plan several data analysis such as sensitivity analysis, SWOT analysis, potential analysis, livability analysis, development pressure identification, etc. were done.

Based on the data and all the information gathered in all the above steps, a suitable vision, goals and objectives have been set to achieve the Embilipitiya development plans by the year 2030.

To achieve the aim of the development plan necessary strategies have been included to the development plan. Four key development strategies have been set. Which are, land and building development strategies, social and physical infrastructure development strategies, economic development strategies and sustainable environment development strategies. Under these development strategies some major development plans were made. These development plans have been developed under elements such as the proposed land uses, urban service development, small township development, transport, development of value-added industries, development of agriculture related activities and public open space recreational activities. In addition, development guide plans were prepared for identifying special zones.

After the completion of the development plan, and after gaining the approval of the Local Authority, and then after 60 days were given for the public consultation and amendments were made, the approval of the plans by the main planning committee of the Urban Development Authority was gained. The development plan was published by the Minister in charge of the subject of a gazette notification.

Chapter 1 Background of the Development Plan

Planning Process

Embilipitiya Development Plan 2021–2030 Urban Development Authority

(8)



Preliminary Study

Chapter 02 Preliminary Study

Study Area

2.1. Study Area

Embilipitiya town is in the Embilipitiya district secretariat division in the Rathnapura District, in Sabaragamuwa province, and the center of main road junction located by the 55th Km of Pelmadulla–Nonagama (A 18) road which connects Embilipitiya–Moraketiya (B549) road which connects, Embilipitiya – Middeniya (B486) roads and which connects Embilipitiya – Panamura (B18) roads (Figure 2.1)



Figure 2.1 : Embilipitiya study area Source: : google earth map

The Embilipitiya development plan is based on quality analysis of the area focused on the socioeconomic physical and environmental dimensions.

An extensive study of the social dimension of the study area has enabled to identification of the social infrastructure of the region, education, health facilities and developments in those areas. The total population of the Embilipitiya Divisional Secretariat Division is 185,470 (2016) (Resource profile – Embilipitiya Divisional Secretariat) of which 56.9% of the population is reported to live in the Embilipitiya UDA Declared area and the forecasted population for the study area in 2030 is 230,000 of which 125,045, or 54.3% of the population (Figure No. 2.2) is expected to live in the Embilipitiya UDA Declared area.

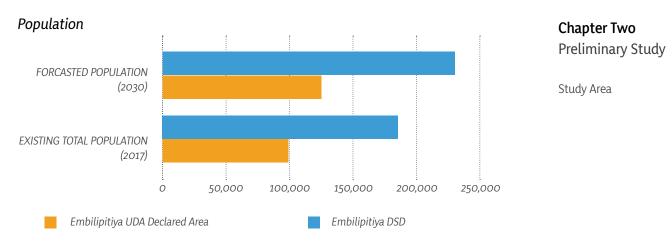
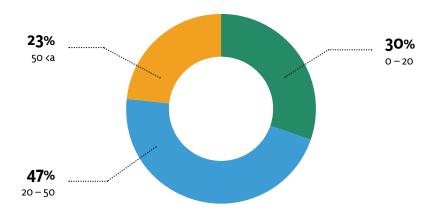


Figure 2.2 : population

Source : Department of Census and Statistics 2012

In the Embilipitiya Divisional Secretariat Division, the population density is 484 persons per sq. Km and the urban population exceed 660 persons per square kilometer (Annexture map no.1.5), while the population growth rate is 1.3.

In the study area, Ethnicity wise, highest population of 99.9% of Sinhalese people were found and religion wise, highest population of 99.8% of Buddhists were found. Population segregates according to the age group are 46.6%, which is higher and found to be residents among the age groups 20–50 years, and the population of 30.3% is between the age of 0–20 years, and the lowest percentage is 23.1% of the population age over 50 years. According to these statistics, residents living in the study areas have been identified as a significant strength that can account for 46.6% of the working age population, which can immensely contribute to the development activities (Figure No. 2.3)



Population Distributon by AGE Groups

Figure 2.3 : Population Distribution by Age Groups *Source :* Department of Census and Statistics 2012

Chapter Two Preliminary Study

Study Area

At the beginning of this planning process it has been given special attention to identify the existing infrastructure facilities of the study area, and it has been revealed that under the social infrastructure, it is to full fill education needs, there are 50 schools were established in the education zone in the Embilipitiya region. Out of 50 schools, there are 6, 1AB schools, 9 1C schools, 1 semi-government school, 24 second category schools and 10 in the third category schools. Out of the 6, 1AB schools, in that high-quality facilities wise, five schools are in the municipal area (Education Zonal Office, 2016). Other than these schools, 8 educational training institutes and technology training institutes are also situated this town area.

The study was carried out at the Embilipitiya zone's education level of the year 2016, was revealed that, after the GCE Ordinary level education, there were more than 46.6% of students did not follow the GCE Advanced level education. (Annexture graph no. 4.1).

In comparison to other zones of Rathnapura district, except Rathnapura education zone, a higher number of student population reports from the Embilipitiya education zone (Annexture graph no 4.2)

It is possible to identify the existing health facilities through the data, analyzing on the health status of the region and there has been no specific impact on communicable and non-communicable diseases over the past few years.

In 2016, 454 epidemic patients were reported, of which 254, or 56% of them were dengue patients. But since this illness affected the whole country in the year 2016 it cannot be considered to cause by the Embilipitiya area alone. (Resource Profile – Embilipitiya Divisional Secretariat) Health facilities are provided through the Embilipitiya district General hospital, four private hospitals and an Ayurvedic hospital. All these hospitals are situated in the Embilipitiya UDA Declared area is an exceptional (Annexture map no.1.6).

Learning about the economic situation in the study area has been done a comprehensive analysis of the economic base and about the labor force of the city. The total workforce in the study area is 99,765, out of this economically active work force is 52,284. The economically inactive amount is 47,481. Also, 48,461 are reported as employed and 3803 are unemployed. (Department of Census and Statistics 2012). In comparison, it has been identified that the rate of unemployment is very low compared to the employment rate; is considered one of the most important strengths for the economic growth of the town (Figure No. 2.4).

Labourforce Embilipitiya DSD

Chapter Two Preliminary Study

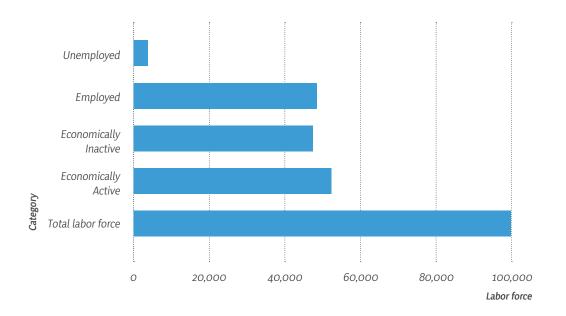


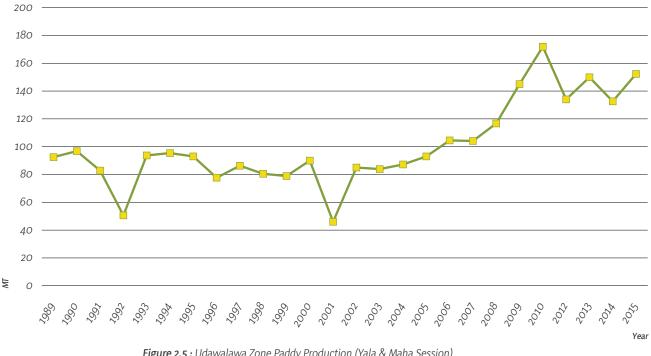
Figure 2.4 : Labourforce Embilipitiya DSD 2012 Source : Department of Census and Statistics 2012

The economic base of the city has been built through agriculture, industries, wholesale and retail trade, automobile and spare parts, tourism industry and minerals etc. And the main economic contribution is provided by agriculture.

An increase in agricultural production is already being demonstrated based on the arising farming community with the Udawalawe Multipurpose Scheme (1963). As the main crop, paddy cultivation is being carried out in this region. In addition, vegetables, bananas, fruits, sugar cane, peanuts and maize are also being cultivated in this region. The Udawalawe main agricultural area has been named as the Walawa special zone under the Mahaweli Development Scheme and has been divided and named under 6 subdivisions. Out of this Embilipitiya town belongs to the Chandrikawewa division.

During the past 2015-2016 years, in the Yala season 11,378 MT of paddy and in the Maha season 9,935 MT of paddy have been harvested in this region and contribution of the Chandrika Wewa zone to the Udawalawa zone in paddy production in the Yala and Maha season was 14.6%. Out of 27 major paddy production regions in Sri Lanka, Udawalawa is in 15th place (Annexture graph 4.3) and the overall paddy production of the Udawalawa region from 1989 to the year 2015 trend to the gradual increase. (Figure No. 2.5).

Study Area



Udawalawa Zone Paddy Production (Yala & Maha Session)

In addition to paddy cultivation, mainly Banana cultivation and inter-crop cultivation are done in Embilipitiya. During the year 2016, except paddy cultivation highest amount of land has been used to cultivate Banana, that is 2121.6 hectares (16% of the total cultivated land) for Banana cultivation, and 1587 hectares (12% of the total cultivated land) for additional crop cultivation has been used (Figure no.2.6).



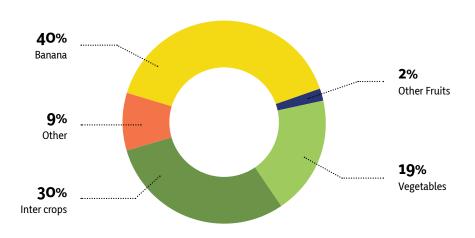


Figure 2.6 : Land use for cultivations without Paddy Source : Resource Profile, Embilipitiya DSD 2012

Figure 2.5 : Udawalawa Zone Paddy Production (Yala & Maha Session) *Source :* Department of Census and Statistics 2015

Crop cultivations, Agrao productions and Agricultural services-based market have been contributed to evolving Embilipitiya city economy (Figure No. 2.7), based on Agriculture. All the machinery, agricultural vehicles, fertilizers, Agrochemicals and collection centers are available in the existing Embilipitiya Market. **Chapter Two** Preliminary Study

Study Area

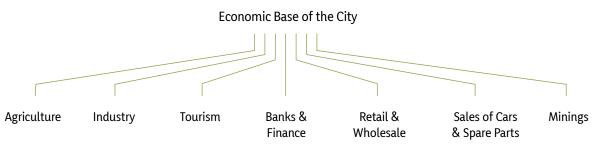


Figure 2.7 : Economic Base of the City *Source :* Resource Profile, Embilipitiya DSD 2012

In addition to urban population, Southern and various part of Uva province people are coming in to Embilipitiya town to purchase agricultural machinery and service facilities. As classified according to the types of occupations (Figure no.2.8) in the region, the highest percentage, that is 27% are involved in the agricultural sector.

Occupational Types of Embilipitiya DSD 2012

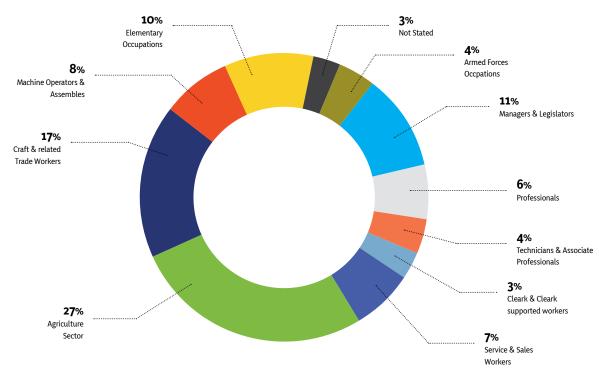


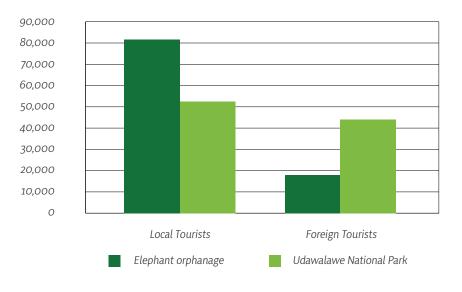
Figure 2.8 : Occupational Types of Embilipitiya DSD 2012 *Source :* Department of Census and Statistics 2012

Chapter Two Preliminary Study

Study Area

In addition to the agricultural sector, industrial sector also contributes to the strengthening of the regional economy. Within the study area there are overall 2400 industries established which consists of a large-scale industry, 35 medium scale industries, 297 small scale enterprises, 562 traditional industries and 1505 self-employment industries. Out of these industries, 917 industries are in the UDA Declared area. In addition to these industries, an industrial park comprising 50 acres of land has been established by the Ministry of Industries and presently, an area of 25 acres is being used in industries under the first stage.

In addition to the manUvacturing industries, the tourism industry can be identified as a significant industry in the region. Out of the seven main tourist zones of the Sabaragamuwa Province (Annexture Map nol. 12) Embilipitiya and adjacent tourism areas are included in Udawalawa Tourism zone Udawalawe Reservoir, Udawalawe National Park, Sankapala Viharaya, Maduwanwela Walauwa, Chandrika Wewa, Liayangasthota Amuna and Udawalawa Elephant orphanage are among the tourist attraction of this region. The Udawalawe National Park has attracted tourists from all over the world and within 2015 January to July this park had attracted arrivals of 44,032 foreign tourists and 52,530 local tourists. In addition to this, 76,248 local tourists and 12,119 foreign tourists visited the Elephant orphanage (Eth author sauna) from January to July 2014 (Figure no2. 9).



Tourist Arrivals (January -July Session 2015)

Figure 2.9 : Tourist Arrivals January - July Session 2015 *Source :* Ministry of Tourism, Sabaragamuwa Provincial Council

There are various sorts of minerals such as Dolomite, Rubble, Sand, Lands and, kaolinite and Gems in this study area and the Geological Survey and Mines Bureau (GSMB) has issued about 120 permits for mining for the last year (2016) (Annexture Tables 2.1). Thus, by efficient management of these commercially value mineral resources will help to strengthen the economy of the city. The study of physical resources in the study area has identified the way needed to meet the future demands for infrastructure and the spread of infrastructure. Accordingly, considering the physical infrastructure development of Embilipitiya, special attention was focused towards Roads, Water, Electricity and Transportation.

The main road network of Embilipitiya town is formed by joining of Pelmadulla-Nonagama (A18) road, Embilipitiya-Moraketiya road (B549), Embilipitiya-Middeniya road (B486) and Embilipitiya-Panamura (B18) road. The road network in the city provides easy access to most parts of the Southern and Uva Provinces and is known for being a city in the Sabaragamuwa Province and has a short distance to reach the Uva and Southern Provinces. The distance from Embilipitiya to Ratnapura town is 79 kilometers, while Sewanagala towns in Uva is 12.8 kilometers away from Embilipitiya and Suriyawewa town in Southern Province is only a distance of 21.7 kilometers.

In many areas of the town, there is a linear development on both sides of the main roads (Annexture map nol. 8). The poor standard of main road network in the center of town and by road network in the town has been identified.

It has been identified that it is benefited of locality of the Embilipitiya Town as a transport hub to commence transport facilities to the many areas of the country. There are 626 Buses long distance travel turns per day and there are 771 Buses short distance travel turns per day.

To meet the electricity requirement of the city, the transformers are to be installed and wired to cover the entire city. In addition, ACE POWER private oil-fired power plant in Embilipitiya provides the national grid with a total capacity of 100 MW and a capacity of 6MW by the Udawalawa Hydro Power Plant provides to meet the regional electricity requirements.

The National Water Supply and Drainage Board and Community Water Supply Project fulfill 68.6% of the drinking water requirement in this region. In addition, wells and other water resources also use for drinking water supply and the Chandrika Wewa is the main source of drinking water supply.

Although the garbage management in the city is being carried out separately by the Embilipitiya Urban Council and the Pradeshiya Sabha, there is no sewerage and drainage system installed in the city.

The main feature of the environment of this study area is the area covered by the Tanks and the irrigation canal system, as well as paddy fields and other vegetable, fruit cultivated land use in the city and suburbs area. 35% of land in the Embilipitiya UDA Declared area has been used for agricultural purposes.

The Embilipitiya town and the surrounding area are located as the hub of an agricultural region with cultivated land use. Over 70 small irrigation canals connected to the Udawalawa South Stream, which brings water from Udawalawe reservoir have been built for irrigation purposes. The Udawalawe reservoir, including 16 small tanks, as well as the Hulanda Oya and the Walawe River, meets the water requirements of this area

Chapter Two Preliminary Study

Study Area

Chapter Two	(Annexture map no. 1.9.) Areas associated with paddy fields and tanks are identified as
Preliminary Study	sensitive area once the land use for agricultural purposes.
Study Area	Center of city land surrounded by Chandrika Tank, New City Children's Park, Mahaweli

Center of city land surrounded by Chandrika Tank, New City Children's Park, Mahaweli ground, Yodagama Sports Ground has been identified for outdoor entertainment and sports and also within the village level small scale sports grounds and the school grounds have been identified.

Embilipitiya is in the intermediate zone between the dry and wet zones. According to the weather statics every year from the end of June to the beginning of November there is dry weather prevails in Embilipitiya. Also, the average annual temperature is 26.8 degrees Celsius and rainfall is 1423 mm (Annexture graph no. 4.4).

The determination of the present land value of Embilipitiya is based on the physical location and the distribution of the infrastructure of the city and the existing land use. Accordingly, the price of a land of high demand for commercial use in the city center is over 500,000–1,000,000 rupees. Lands situated little far from the center of the city on either side of the road costs between 200,000 to 400,000 rupees, while the price of cultivated land areas has reduced.

Out of the Mahaweli zones, Embilipitiya town which belongs to Walawa zone identified as a special development center. Accordingly, projects relating to the development of agriculture as Mahaweli Authority are in progress. The project of extensions of the Southern Expressway from Matara to Mattala via Embilipitiya city also in progress.

2.2. Planning and Situation Context

2.2.1. Historical Background of the Town

The historical background of the city dates to the 2nd and 3rd BC. The name Embilipitiya was recorded in the history of King Kavantissa. According to the folk story, that construction of the Kavantissa tank was done by the minister Weera Vaahala on his own decision, has invited the king to open the tank. But the king was angry with Minister Weera Vaahala due to the tank construction done by him without getting approval from him and ordered to behead of the ministerWeerVaahala. The place where the minister was killed was called "Bilipitiya" then converted to present "Embilipitiya".

According to historical evolution, Embilipitiya was administered under the district administrative system as a major city of the Kolonna Korale area in Ratnapura District under the regime of the British rule.The last district administrator of the area was Maduwanwela Disaawe who was very famous as a district administrator. The house he lived, was built during the period of the king Wimaladharmasooriya II in 1700 AD (Figure No. 2.10). This Maduwanwela walauwa is situated in the Kolonna town near the Embilipitiya town. It is currently preserved being the historical and archaeological site by the Department of Archeology, and this place has become a frequent visiting place for local and foreign tourists (Wijesinghe, 2016).

Chapter Two Preliminary Study

Planning and Situation Context

Historical Background of the Town



Figure 2.10 : Maduwanwela walawwa Source : https://bit.ly/2RUqxOT (2017)

After the district administration method, until 1986 Embilipitiya became a developmental council. It was declared as a Pradeshiya Sabha with the 17th Amendment of the 1986 Constitution and subsequently declared as a Municipal Council in 2002.

Chapter Two Preliminary Study

> Planning and Situation Context

Historical Background of the Town

National Physical Plan

With the "Gam Udawa" program, new town of Embilipitiya, Higura ara (including Gramaniladahari division of Yodagama), Gramaniladahari division of Udagama, Kumbugoda Ara,Halmilla Ketiya,Thunkama,Pallegama,Kalagedi Ara and Higura Ara ,including the Area adjacent to the area of Main Roads (Nonagama,Moraketiya,Middeni ya,and Panamura Roads) have been declared as Urban Development Authority declared Area under the UDA act number 41 of 1978 by the special Gazette notification number 385/8 dated 21st January 1986.

The Embilipitiya divisional secretariat division consisting of the total number of 40 Grams Niladari divisions are considered as the study area for the town development plan. The area under study that consists of 8 Grama Niladari Divisions and parts of 2 divisions at the center of Embilipitiya makes up the Embilipitiya Urban Council area and the rest of the Divisional Secretariat areas of Embilipitiya are governed as Pradeshiya Sabha areas. Based on the development plan, from Udawalawa Junction to Padangangala area including entire Embilipitiya Urban Council and the Pradeshiya Sabha which include 21 Grama Niladari Divisions are considered as UDA declared area and declared under the Urban Development Authority Act, No. 41 of 1978 on the 11th June 2009 by the 1605/41 gazette notification.

2.2.2. National Physical Plan

Four major corridors have been identified through the National Physical Plan prepared by the National Physical Planning Department for 2050, Embilipitiya Town has been included its Southern Economic Development Corridor. (Annexture Map No.1.2).

Five metro regions in Sri Lanka have been identified through the National Physical Plan prepared by the National Physical Planning Department for 2030. (Annexture Map 1.1). Out of these cities, Hambantota, Embilipitiya and Monaragala three major cities fall under the Grater Southern region plan. (Figure No. 2.11).

Embilipitiya city has been in close locality of nationally important greater Hambanthota. With the implementation of proposed national level development projects, main roads and highway projects of the Greater Hambanthota Zone, paves the way for future development of the Embilipitiya city as well.

According to the proposed Town Hierarchy of the Sabaragamuwa Provincial Plan prepared by the National Physical Planning Department, Embilipitiya has been identified as a second-class town. (Annexture Map No. 1.4). Accordingly, aside from the first-class town of Sabaragamuwa which is Ratnapura town, Kegalle district also exists as a second-class town. Embilipitiya being a second-class town alongside Kegalle is significant.

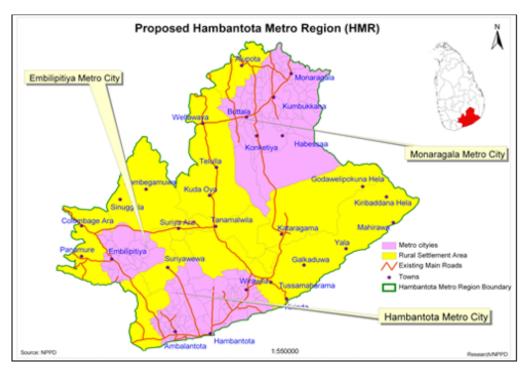


Figure 2.11 : National Physical Plan (Large City) Source : National Physical Plan, 2030

2.2.3. Pre-prepared development plans for Embilipitiya town

In 2009, the National Physical Planning Department prepared a development plan for the 12 Grama Niladari divisions, including the Municipal Council area of Embilipitiya, but it has not yet been implemented.

The vision of the above development plan has been envisioned as a "prosperous city and a Hinterland". It has been included, Regional plan, infrastructure and Chandrika Wewa forest reservation plans.

According to the new development trend in the city plan has been prepared for 2030. It has not been implemented due to insufficient of extent included and the shortcomings of planned regional and infrastructure facilities.

Chapter Two Preliminary Study

Planning and Situation Context

Pre-prepared development plans for Embilipitiya town

Chapter Two Preliminary Study

Planning and Situation Context

Pre-prepared development plans for Embilipitiya town

Delineation of the Planning Boundary

Geographical Boundary

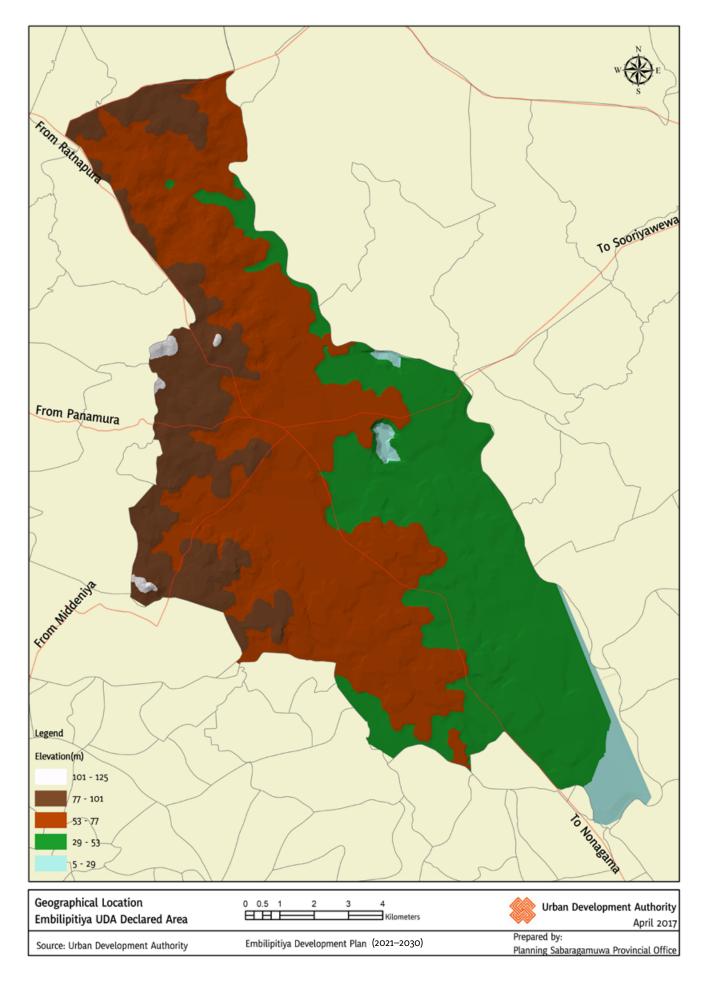
2.3. Delineation of the Planning Boundary

In determining the design area for Embilipitiya, the geographical boundary, the Functional Boundary, the Administrative Boundaries, and the existing urban boundaries are mainly considered.

2.3.1. Geographical Boundary

This study area is in Ratnapura District of Sabaragamuwa Province (Embilipitiya DSD) and located in 6° 20'38 "north latitude and 80° 50'56" eastern longitude. Considering the geography of the area, the city at the Walawe river valley is 60–100 m above sea level and most of the city has a flat plain, but it also displays scattered wavy geographical features (Map No. 2.1).

The plains in the eastern and southern, especially the urban center, show a somewhat flat nature compared to the northern and western parts of the town and this change is gradual. It is also evident that the natural drainage pattern in the area is a linear drainage pattern feeding the Walawe River. These characteristics of the landscape, identify the physical development of the city and is identified as an area with very low risk of natural disasters such as floods and landslides.



Map 2.1 : Geographical Locartion of Embilipitiya

Chapter Two Preliminary Study

Delineation of the Planning Boundary

Functional Boundary

2.3.2. Functional Boundary

The distinctive feature of Embilipitiya town located on the boundary of Sabaragamuwa Province and in the Rathnapura District is the emergence of distinct connections with the district of Hambantota in the Southern Province in comparison to the existing connections with the other areas of Ratnapura district. Most of the people in the Southern Province have been resettled in the Embilipitiya town and surrounding areas during the Gam Udawa program and the Mahaweli project. Accordingly, folk culture of the people of the city, as well as their behavior, shows the characteristics of Southern province.

Also, about 70% of commuting population is coming to Embilipitiya town from outside of the study area, to meet their day-to-day needs are coming from nearby towns and villages in Uva and the Southern Province (Figure no. 2.12). Another highlight of urban development trend analysis is that the development of Embilipitiya is expanding towards the south (Annexture Figure 3.1)

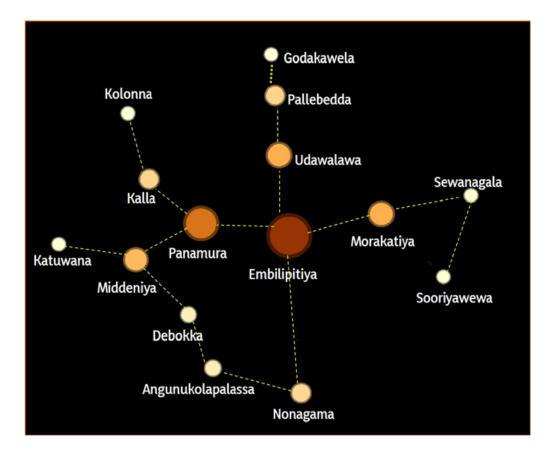


Figure 2.12 : Relationships with Embilipitiya town (Nearness centrality) *Source :* Sabaragamuwa Provincial Office, UDA

2.3.3. Administrative Boundary

The Embilipitiya Divisional Secretariat Division is in the Ratnapura District of the Sabaragamuwa Province and is situated on the boundary of Moneragala District and Hambantota district of Uva Province and the Southern Province.Administrative District is Ratnapura District and consists of 40 Grama Niladari Divisions. The Embilipitiya Divisional Secretariat Division is administered under two local government bodies, which are, the Embilipitiya Urban Council and Pradeshiya Sabha. (Map No. 2.2)

Under the Urban Development Authority Act, for the grater Hambantota Development Project, the declared area which was declared on 11th June 2009 was included 21 Grama Niladari Divisions including the entire Embilipitiya Urban Council area which included in the study area, a part of the Udawalawa town which belong to Pradeshiya Sabha and small town named Tunkama and Padalangala with a land area of 150 square kilometers. Plans and building guidelines are implemented under the Urban Development Authority Act, according to the provisions in the mentioned urban land area.

Considering the above facts, the declared area includes the entire Embilipitiya Urban Council area and considering the impact of the development Embilipitiya city, from small towns such as Udawalawe, Tunkama and Padalangala, and emphasizing the links between other major cities, it has been considered, the existing UDA Declared area is the most appropriate area of the Embilipitiya city development plan.

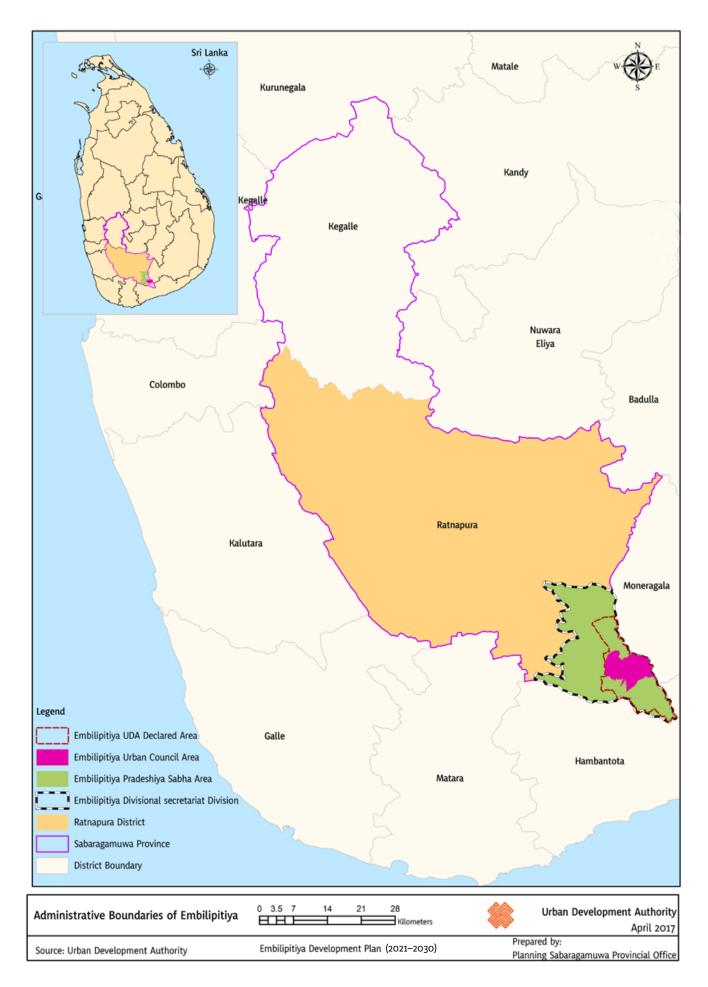
In addition to the Embilipitiya town, small cities such as Udawalawe, Tunkama, Padalangala, and another 19 Grama Niladari divisions, and inclusively parts of 2 Grama Niladari divisions altogether there are 21 Grama Niladari Divisions are included in this planning area and the extent of the planning area is of 150 square km.

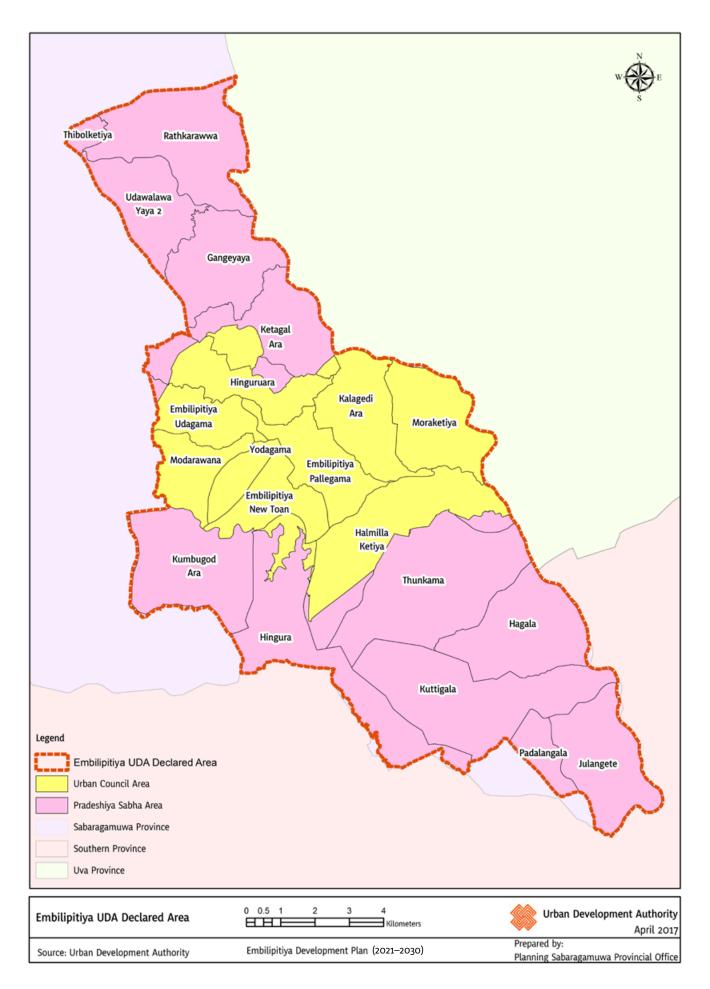
The boundaries of UDA Declared area starting from Udawalawa junction, spreading up to Padangala town and East boundary ending up at the river Walawa (Map no. 2.3)

Chapter Two Preliminary Study

Planning and Situation Context

Administrative Boundary





Map 2.3 : Embilipitiya Urban Authority area

(28)



Need of the Development Plan

Chapter 03 Need of the Development Plan The need for planning in the development planning process is identified based on a comprehensive study of the economic, social, environmental, physical aspects of the planning area, and from the existing problems and development potentials. Accordingly, four main issues endemic to this area have been identified that obstructed the development.

- 1. During the dry season in the year from the month of June to the month of November, there is insufficient water supply for agriculture work.
- 2. Inability of actively keeps growing large scale industries including Embilipitiya Industrial Park.
- 3. It has been failed to reach the desired objectives by the Embilipitiya Economic Center.
- 4. Due unfavorable activities on the environment, unauthorized building constructions which are carried out by the human being causes of ecological imbalance.
- 1. During the dry season in the year from the month of June to the month of November, there is insufficient water supply for agriculture work.

After the colonial era: with the construction of the Chandrika Wewa in 1957, the development of the Walawa River Basin was begun. In 1963 a large geographical area inclusive of the Embilipitiya city has been included under the Walawa special Administrative division in the Udawalawa development project (the second multipurpose development project in Sri Lanka). Also, in 1986, from the Gam Udawa program a boost to the agricultural sector in the region was given. The Udawalawa reservoir is identified as the main source of water for the area's agricultural activities and the Chandrika Wewa that feeds by the Udawalawa south canal and Hulanda Oya also contributes.

Due inability maintains the enough water level of Udawalawa reservoir throughout the year, supplying the total water requirement uninterruptedly to Embilipitiya Zone agricultural purposes is impossible.

The ordinary water capacity of the Udawalawa reservoir is approximately 217,000-acre feet, will be reduced to 35,000-acre feet during the dry season from end of June to the beginning of the November. Due to this situation water cannot be released enough to the irrigation system during dry season, the main economic potential of agriculture of the region will be obstructed.

This has turned out to be an annual issue, and the total amount of agricultural lands cannot be cultivated during dry season. Therefore, annual harvest cannot be maintained at a stable level and farmers are affected badly as well. It is not easy to find solutions for this water scarcity and the main reasons for this problem are, lack of proper renovation of the existing tanks, irrigation systems and poor water management. (Annexture Flow chart note no. 5.1).

2. Inability of actively keeps growing large scale industries including Embilipitiya Industrial Park.

The industrial park established in the Higura area in Embilipitiya has begun in 2007. Although the total land area is 50 acres, under the first stage of the project the industrial park was active in only 25 acres out of which 4 acres of land was bare without any investors.

In this industrial park there are 4 factories functioning. In these factories manufacturing coir, rubber products, concrete poles, dehydrated coconut, pure coconut oil, and quartz powder. Although there is scope for setting up manufacturing facilities to produce through agricultural raw materials easily in this region, there has been no trend for such industries over the 10-year period from 2007 to 2017. This has been identified as an acute problem in the field of industry.

In addition to this industrial park, Embilipitiya paper mill and the Moraketiya Rice mill complex run long period back has not been in operation for several years to date, leads to the collapse of the regional industry. This paper mill had the capacity of producing 35 metric tons of pulp required to produce 50 metric tons of paper per day and was declared opened in 1977. In 2003, with 1500 workers, it halted production after 26 years of operation. (Vidanapathirana, 2017), (Perera, 2017).



Figure 3.1 : Embilipitiya Paper Factory Source : https://bit.ly/2EogDSR, https://bit.ly/2UzDM9v

In addition to the paper mill, Moraketiya Rice mill which was inaugurated in 1970 has been built with the financial assistance of the Asian Development Bank. This had only been in operation for a short period of 10 years. The complex had been in the process of boiling, drying and storing paddy 24 hours per a day, and over 1000 employees had been involved in this industry. Shutting down of such large scale industrial activities in this manner had contributed to the decline in the industrial sector in Embilipitiya also was causing over 1000 people have lost their jobs. (The Great Paddy Store refused by the county, 2016) (Jayasekara, 2016).

Analyzing the causes to find the main reasons for decline of the industry revealed that, (Annexture Flow chart no 5.2) failure to use regionally produced raw materials, even regional raw materials are used it had been not introduced modern technology, and not been introduced the value-added products. This directly affected to the weakening of the regional economy, increase in the number of unemployed and the breakdown of the agricultural product market.

Chapter 03 Need of the Development Plan

Chapter 03 Need of the Development Plan



Figure 3.2 : Moraketiya Paddy Warehouse scheme Source : Local News, 2016

3. It has been failed to reach the desired objectives by the Embilipitiya Economic Center.

Embilipitiya city which is being developed in agricultural regions as a hub. People live in and around Embilipitiya to facilitate of selling their agricultural products. The Embilipitiya Spactial Economic Center was established in 2003. Prior to the establishment of the economic center, an extensive study was carried out and data were collected on the regional crop cultivations.

According to the study calculated data of harvest as follows, in the Higura Ara, Udagama, Tunkama and Higura area, 4212 metric tons of paddy harvest, 1650 metric tons of banana and 1560 metric tons of vegetables. Over 200 metric tons of Bananas produced from these areas per a month. Out of this Economic Center receives only 40% or 50%. 260 metric tons of vegetable produced per month. Out of this Economic Center receives a low rate of 23% or 26%. This situation has become a major problem in reaching to the desired targets at the inception of the Economic Center.

Since its inception in 2003, the Center had been functioning successfully for nearly 3 years, but since then for 11 years, it had not been functioning efficiently and it has been one of the main problems in the region's development. The Economic Center is comprised of 46 stalls, including the main building. Out of this 46 only about 12 shops are used for agricultural products and out of theses, 5 shops had been closed.



Figure 3.3 : Embilipitiya Economic Centre Source : Embilipitiya Economic Centre (2017)

To find the causes of failure in achieving expected targets by the economic center, the root cause analysis was done. It was revealed that intermediary vendors buying regional agricultural products are the main cause of failure in achieving expected targets by the economic center. (Annexture flow chart no 5.3)

Chapter 03 Need of the Development Plan

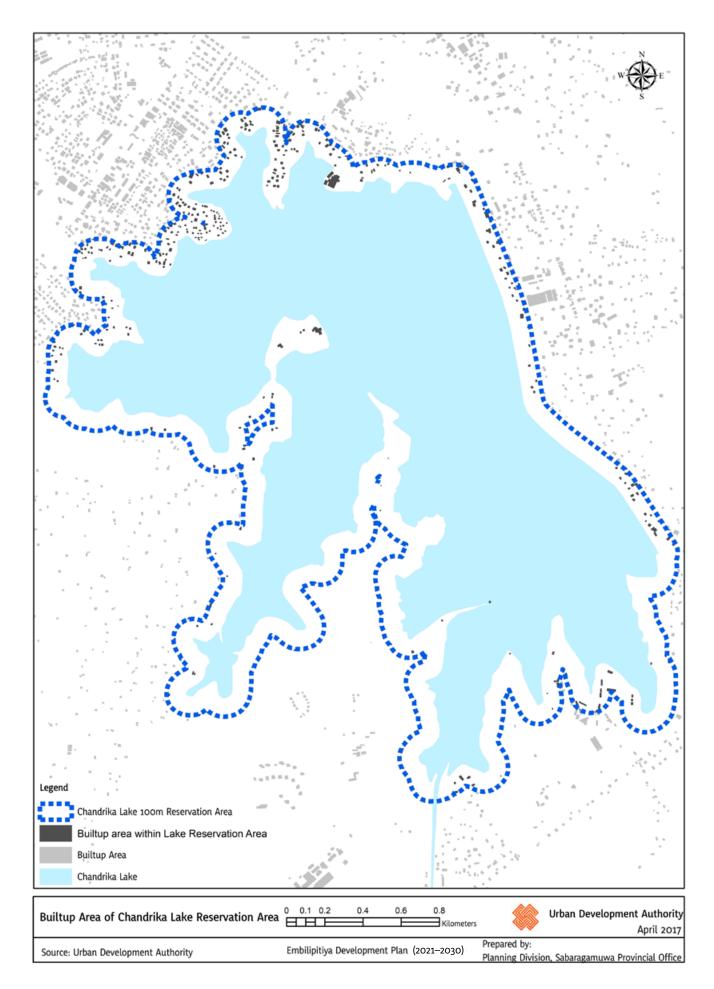
Due unfavorable activities on the environment, unauthorized building constructions which are carried out by the human being causes of ecological imbalance.

In addition to the three major problems identified above, several environmental damages occurring due to resource misuse in this area have been identified. Not giving due attention for a long period of time to the environmental damage by the human activities, causes ecological imbalance. Unauthorized mining in the water catchment sanctuary and sand mining in the surrounding of the Walawe river bank has been identified as major problems of the environmental damage.

90% of the City water requirement is full fill by the Chandrika Wewa, considered as the heart of the city. Due to unauthorized constructions being done in the water catchment area of the reservoir and discharging polluted water to the water catchment and the water source is a dangerous situation. According to the present situation, it is found that there are about 400 unauthorized constructions situated within the 100 meters radius of the Chandrika Wewa Reservation Area.



Figure 3.4 : Chandrika Wewa surrounded by the unauthorized constructions *Source : google map*



Same as above explained situation, traveling two kilometers towards the Embilipitiya to Sooriya Wewa along on the Moraketiya road there is Canal and Canal reservation area right side of this road. Alongside this canal and reservation also can be seen the number of unauthorized linear constructions had been built.

From the frequently receiving public complaints it is also identified that the waste water collected from most of the city's commercial sites has been directed to the d 26 channel that flows from the center of the city and these wastes get collected in paddy fields which harms the Farmer community.

Over the past year (2016), the Geological Survey and Mines Bureau has issued over 100 licenses to excavate mineral resources in this zone. The use of these resources makes an economic gain possible, but the conditions that go beyond it have not considered environmental concerns associated with it. Particularly, it is possible to see large scale pits, due to land, sand mining, gravel mowing, digging. Thus, the main reason for the imbalance of the lands' stability is due to not covering these pits created after mining.

Lapses in controlling human activities during lengthy period, causes an environmental imbalance also creates barriers to the sustainable development as well.



Figure 3.5 : Inland Sand mining on the land area of Walawe River *Source :* google map (2017)

Chapter 03 Need of the Development Plan

Chapter 03 Need of the Development Plan



Figure 3.6 : Mineral mining in the city *Photography :* Urban Development Authority (2018)



Figure 3.7 : After mining minarets, cultivations of citrus *Photography :* Urban Development Authority (2018)

The above photographs show the excavations carried out in the Embilipitiya Declared area and refilling large amounts of pits using mud, soil and subsequently commencing citrus cultivation as the recovering measure. To minimize the environmental damage, cultivation of citrus can be considered as the best strategy. (Annexture flow chart No 5.4).

While identifying the needs to preparing the Embilipitiya Development Plan, it has been identified the existing development potentials and the issues that exist in the area as well. Especially in the Sabaragamuwa Province, the city of Embilipitiya, which has become a second-class city, is located adjacent to the Sabaragamuwa Provincial boundary and two other provincial boundaries, has been paved the way of development of the city towards a new path.

Embilipitiya is in a close relation with Southern Province, which is vital for a long-term development process, but it has been identified that Embilipitiya has still not gain its necessary results in this manner. During the Southern Development Program and the Greater Hambanthota Project was emerged new development opportunities for Embilipitiya.

Therefore, parallel to the Greater Hambanthota Project, including Embilipitiya city and a part of the Ratnapura district have been declared as Urban area and this town has been identified as an economic center of this Greater Hambantota Project. The Southern Expressway, which connects Colombo and the South, will be extended from Matara to Mattala and the expressway will travel through Padalangala, of Embilipitiya. The closest interchange is "Barawakumbuka" which is only 14km away from the center of Embilipitiya. Accordingly, it is a development opportunity to reach Colombo and South with convenience for commercial and agricultural purposes using the Southern Expressway.

In addition, Mattala Airport is located 43 km away from Embilipitiya town, and Hambanthota Port is located at 57 km from the Embilipitiya town. It is facilitating for distribution of agricultural products, obtaining raw materials for the region's industries as well as access for local and foreign tourists to Udawalawa.

Embilipitiya town has been established as an agricultural city, under the Udawalawa Multipurpose Scheme and the Gam Udawa Development Program. Small scale and medium scale tanks and canal network emerged from Udawalawa reservoir, provides water requirements of Walawa agriculture zone. This irrigation network is potential to produce agriculture related new products in the region.

Also, 15,000 acres of land have been proposed for the Southern Province development program and 1,500 acres land has been allocated for an industrial zone around the Embilipitiya town area. It is possible to establish new industries using agricultural raw materials and distribution and exporting products facilitate through the Hambantota Port and Mattala Airport. In addition, this industrial zone will create direct and indirect employment opportunities for the people in this area.

According to the locality of Embilipitiya town, it is observed that the people who lives in the suburbs of South and Uva provinces such as Sewanagala, Sooriyawewa, Middeniya, Angunakolapelessa, Katuwana, Debokka and Nonagama area are being provided easy access to Embilipitiya town for their agricultural, commercial and financial services. It has been also identified as an opportunity to develop Embilipitiya as a commercial and service center.

Embilipitiya town has been developed as an agricultural city and its existing major problems also relate to the agriculture. In this context, new development opportunities have been identified to uplift the living standard of the people in the region through streamlining the agriculture industry. It is expected to address the identified major issues, to create an attractive city with favorable living environment while strengthening its economy. Further, these studies were carried out according to the implementation of identified development opportunities sustainably to make the Embilipitiya City a developed city by the year 2030. **Chapter 03** Need of the Development Plan

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The Planning Framework

Chapter 04 The Planning Framework

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Vision

4.1. Vision

"වලව නිම්නයේ කෘෂි ආර්ථික නිපැයුම් කේන්දුය" "Agro economic product navel of Walawa Valley"

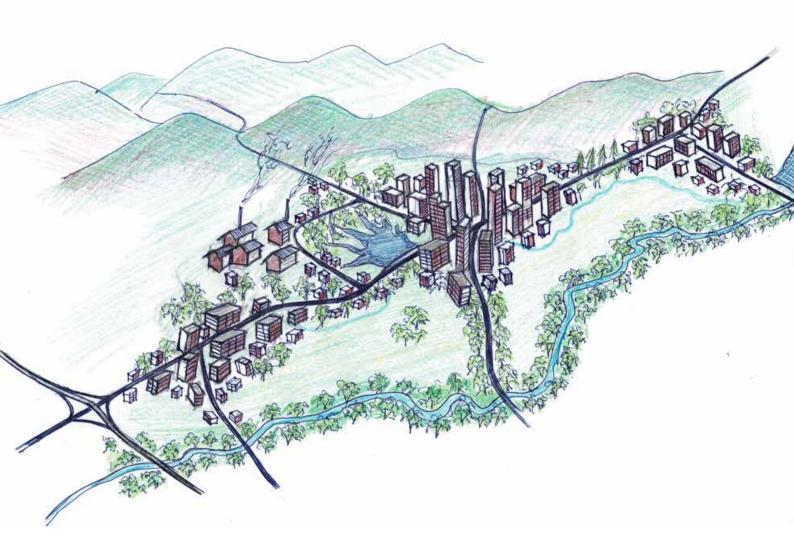


Figure 4.1 : Embilipitiya conceptual vision for the year 2030 Source : Planning team-Sabaragamuwa Provincial Office, UDA (2020)

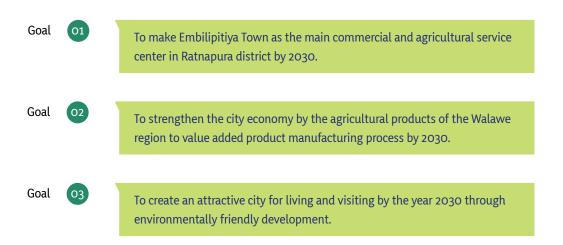
4.2. Vision Statement

The detailed statement of the Urban Development Vision states that "To create a developed and attractive city with a quality standard production center that highlights the agricultural identity of the town, through a sustainable agriculture and a value-added manufacturing process". The Walawe Valley highlights the agricultural identity of the city and describe the agriculture-based product economy through the "Agra economic product navel".

By adding the "Walawa Valley" to the urban development vision, it is expected to protect and maintain the city's agricultural identity and its associated irrigation system, tourist attractions, urban nature attraction and ecological resources. At the same time, by the year 2030, it is expected to achieve a developed city to increase the economic capacity of the city with introducing value added production hub for agricultural production.

4.3. Goals

Three main objectives have been built to reach the vision of the Embilipitiya Development Plan by 2030.



Chapter 04 The Planning Framework

Vision Statement

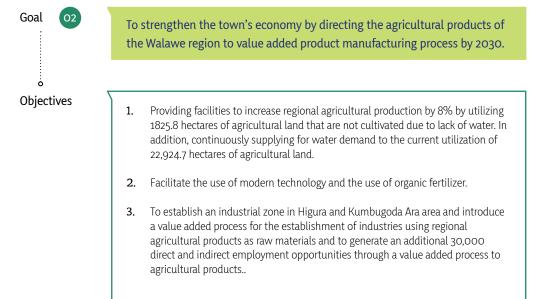
Goals

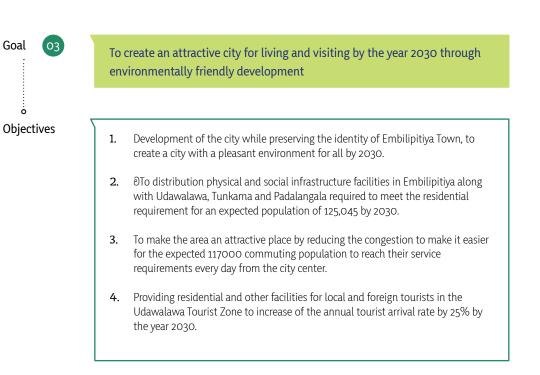
4.4. Objectives

Chapter 04 The Planning Framework

Goals

Goal 01	To make the Embilipitiya City as the main commercial and agricultural service center in Ratnapura district by 2030.
Objectives	 To increase the commercial land use of the existing city center area about 0.3% of UDA Declared area (hectares 46.8) to 1% (hectares 174) by 2030. To convert Embilipitiya Special Economic Center to an operational center for
	 collecting agricultural products. 3. To manage the existing developable land of hectares 8187.72, of land for potential development, according to a proper plan to meet the land demand by 2030.





Chapter 04

The Planning Framework

Goals

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SWOT Analysis

5.1. Summary of SWOT Analysis

Goal

01

To make Embilipitiya City as the main commercial and agricultural service center in Ratnapura district by 2030

S

- According to the physical plan of the Sabaragamuwa Provincial Council prepared by the National Physical Planning Department (2030) Embilipitiya has been identified as a Second-Class ranked city.
- Embilipitiya has been identified as an economic center by the Greater Hambantota Development Plan.
- Special Economic Center established in Embilipitiya targeting regional agricultural products.
- Establishment of public fairs covering Embilipitiya, Udawalawe, Tunkama and Kuttigala
- The total financial network of Embilipitiya is a network of 17 state and private banks and 25 financial institutions.
- Currently established service center networks are present for selling Seeds, fertilizers, agrochemicals, agricultural vehicles and machinery as well as service networks for selling cars and spare parts, and city market for the sale of agricultural products and foodstuffs in the city are present.
- Sri Lanka Mahaweli Authority possesses nearly 70% of the entire urban area.



Embilipitiya economic center has remained poor in its performances due to par below accumulation of the anticipated agricultural products.

- Traffic congestion in the city center and by-roads not being developed.
- Embilipitiya is located at the southern end of the Ratnapura District.



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- 1500 acres from Embilipitiya has been reserved for an industrial zone of 15,000 acres which was proposed to be implemented under the Southern Development Project..
- The Hambantota harbor is 57 km away from the center of Embilipitiya and the Mattala airport is also located 44 km away. It's an opportunity to meet the needs of both passenger and freight transportation.
- According to the project to extend the existing Southern Expressway from Matara to Mattala, the nearby interchange (Barawakumbuka interchange) is only 14km away from the center of Embilipitiya town.
- There are seven main tourist zones in Sabaragamuwa Province, which have been specially trapped in tourism. These include the Embilipitiya town that comes under the Udawalawa tourist zone.
- Ratnapura city which is the main commercial city of Ratnapura District receives annual flood threats.

T

- Agricultural product collection centers spread around the city.
- The Old Ratnapura town, which is the commercial hub of Ratnapura town the main city of the Ratnapura district gets annual flood threats, but the commercial affairs remain uninterrupted.







To strengthen the city economy by the agricultural products of the Walawe region to value added product manufacturing process by 2030

		· · ·
Action is being taken to develop Embilipitiya and Angunukolapelessa towns as urban centers to provide services to the farms established in the Walawe Special zone under the accelerated Mahaweli Development Program which was started to develop the agriculture and power generation in the country. Presence of a favorable climate and fertile soil constituents for cultivation The crops currently being cultivated in this region can be used for the value-added process. The irrigation system built covering the entire agricultural area. This town is located 60-100m above sea level in the Walawe river basin mostly consist with plain lands.		 Due to the climatic changes within a year, the farmers tend to change the type of crops cultivated. Therefore, there will be no supply agricultural products required to meet the target. Abandoning of cultivation in urban agricultural lands and changing urban lands use There is a need of maintenance 90.6% of the road network covered agricultural land. Embilipitiya Industrial Zone is functioning under Ministry of industries. It has been observed that there was not commendable industrial establishment in the first stage and the second stage has not commenced yet. It had been started as large-scale industries,
An industrial zone had been established in the Urban Authority area with the capacity of establishment of agricultural based product manufacturing industries 35% urban land use in the city are used for land	that Embilipitiya paper mill and Moraket mill complex had been bankrupted and o	that Embilipitiya paper mill and Moraketiya rice mill complex had been bankrupted and closed.
and muddy cultivation		
Udawalawa Hydro Power plant and Hingura Thermal Power plant which contribute to the generation of power are located close to Embilipitiya town.		
The Sabaragamuwa Regional physical plan (Sabaragamuwa Structure Plan) which was prepared by the National Physical Planning Department for 2030 identified Embilipitiya as an Agricultural area.		
I		

- 1500 acres from Embilipitiya has been reserved for an industrial zone of 15,000 acres which was proposed to be implemented under the Southern Development program.
- The Hambantota Port is 57km away from the center of Embilipitiya and the Mattala Airport is located about 44km away. This is an opportunity to meet the needs of both people and freight transport.
- Establishment of an interchange in Barawakumbuka for the Southern expressway which is only 14 km away from Embilipitiya town with the extension of the Southern Expressway from Matara to Mattala.

T

- Outsourcing most of the overall production due to the intervention of mediating vendors.
- It is vulnerable to severe drought, in dry climatic condition.



Goal

03

To create an attractive city for living and visiting by the year 2030 through environmentally friendly development.

S

- Embilipitiya town is located on the boundary of the Walawe River. Canals network spreads the area for distributing water from the Udawalawa water reservoir to Chandrika Wewa, and other small tanks. This water network creates an aesthetically friendly and comfortable environment.
- Embilipitiya town is located 60-100m above sea level on the bank of the Walawe river and most parts of the town has plains features..
- Tourism Development Area plan which was prepared for the year 2030 by the National Physical Planning Department, Embilipitiya has been named as an eco-tourism destination.
- To provide services for locals and foreign tourists, there is high trend in establishing hotels and lodges in Udawalawe and Embilipitiya.
- Compared to other areas of the Ratnapura District, Embilipitiya is least prone to natural disasters.

W

- Temperature intensification during dry weather season from June to November due to drying up water bodies.
- Land ownership had not been sorted out.
- Unauthorized constructions have been carried out in the reserves of Tanks and Canals.
- Linear development on either side of the Main roads.



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- Mattala Airport is 44km away from the center of Embilipitiya town is an opportunity to meet the needs of people's travelling.
- Establishment of an interchange in Barawakumbuka for the Southern expressway proximity from Embilipitiya town with the extension of Colombo Matara Southern Expressway from Matara to Mattala..
- Sabaragamuwa province is a special tourism destination. Sabaragamuwa Ministry of Tourism had declared, seven main tourist zones, Udawalawa tourism zone one of them belongs to Embilipitiya.
- Development of 15,000 acres of land for an industrial zone containing 1,500 acres of land around Embilipitiya is proposed to establish industries and generate direct and indirect job opportunities.

T

• It is vulnerable to severe drought, in dry climatic condition.



Detailed SWOT Analysis

5.2. Detailed SWOT Analysis

Goal 01

To make Embilipitiya City as the main commercial and agricultural service center in Ratnapura district by 2030.



1. Sabaragamuwa Provincial Physical Plan (2030) prepared by the National Physical Planning Department identified Embilipitiya as a Second Ranked City.

According to the ranks of the towns in Sabaragamuwa Province introduced by SPP plan 2030, except from the First order Rathnapura town, Embilipitiya Town having a rank like the Kegalle Town is a significant strength feature in respect of achieving first objective under the development plan. (Figure No. 5.1)

2. Embilipitiya has been identified as an economic hub of the greater Hambantota development plan.

Under the Greater Hambantota development plan six major service centers have been identified (Map No. 5.1) and the Embilipitiya town and its economic center are included in it. Accordingly, due to Embilipitiya being named as an economic center in such a great regional level development plan, it is evident that the development of the economy and the commercial sector can be achieved along with the development of the city.

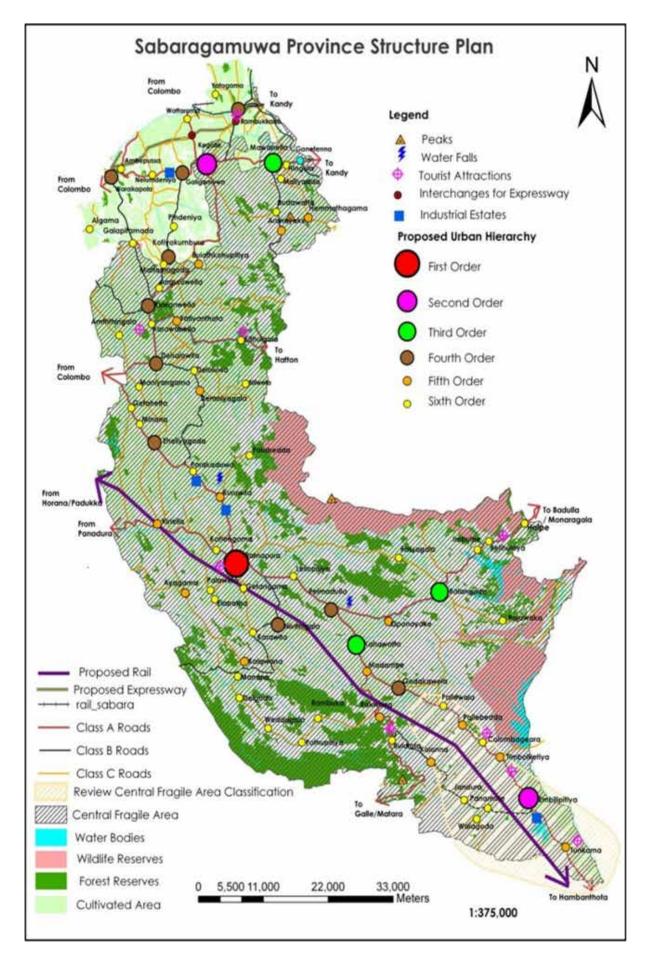
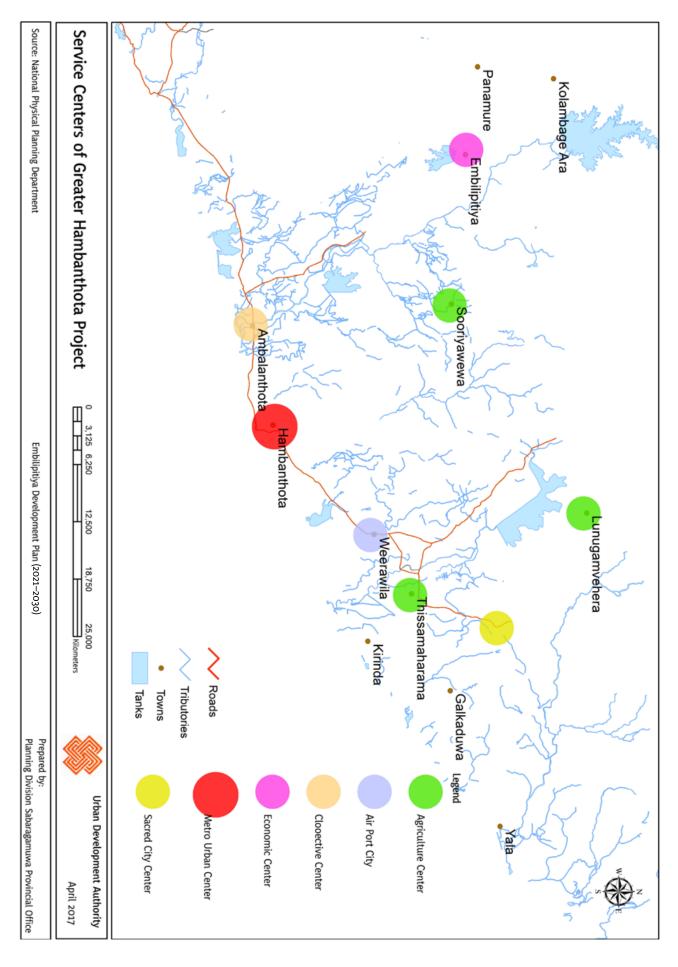


Figure 5.1 : Sabaragamuwa Province Structure Plan

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Source : National Physical Planning Department

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3. Agricultural products based Economic Center established in the Embilipitiya New Town along the Middeniya Main Road.

The Economic Center, which was started in the year 2003 consists of 45 stalls, a Canteen and an open building of 1500 square meters. At present these stalls have been used to sell agricultural products and for other commercial requirements. Although there are agricultural product sales markets, wholesale stores and public markets near Embilipitiya, the Embilipitiya special Economic center is the main economic center in the region. Thus, this economic center can be utilized for further development activities of the city under a proper management process. **Chapter 05** SWOT Analysis

Detailed SWOT Analysis



Figure 5.2 : Embilipitiya Special Economic Center Source: : Google earth map, Embilipitiya Special Economic Center

4. Public fairs which covered Embilipitiya, Udawalawe, Thunkama and Kuttigala

The public fairs in Embilipitiya, Udawalawa, Thunkama and Kuttigala are used for wholesale and retail trade of agricultural products. The main public fair is located facing the Middeniya main road of the Embilipitiya new town. The land consists of 2 acres and 35 perches. It contains 4 buildings, including 16 permanent shops and the public market. There is a vast number of traders in the public market from 950 to 1000, and since the building contains a platform, it can be used for public purposes as well on days public fair is not there.



Figure 5.3 : The front view of public fair in Embilipitiya

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Chapter 05 SWOT Analysis

Detailed SWOT Analysis



Figure 5.4 : Public fair in Embilipitiya Source : Sabaragamuwa Provincial Office, UDA

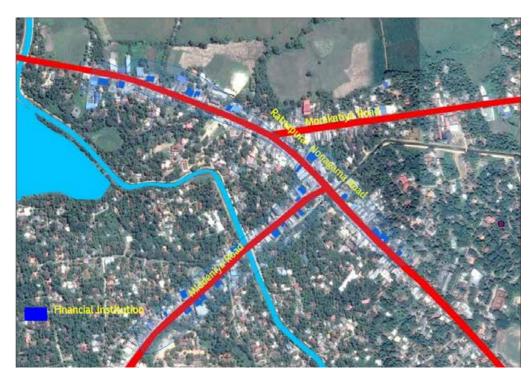
This development project has been implemented by the Urban Development Authority and the public fairs are being operated under the management of the Embilipitiya Urban Council. In addition, the fairs in the Udawalawe, Thunkma and Kuttigala towns and the Moraketiya Banana fair are also used for the marketing of agricultural products. Accordingly, these sites have been identified as resources for the purchasing and trading of agricultural raw materials for the economic development of the city



Figure 5.5 : Public fairs in Embilipitiya declaired area Source: : Google earth map

5. The entire financial network of 17 state and private banks and 25 financial institutions operating in Embilipitiya.

Apart from two or three financial institutions all other financial institutions are found on either side of the Nonagama main road and the Middeniya main road, which makes it easy to obtain their services. Embilipitiya is the only city containing 42 established institutions in the banking and finance sectors in the Walawa region. Therefore, people from surrounding towns and villages come to Embilipitiya to meet their financial needs. Accordingly, already made specialty progress in trade and finance of Embilipitiya town is recognized as a special strength in respect of future development activities of the town (Annexture table no2. 9).



Chapter 05 SWOT Analysis

Detailed SWOT Analysis

Figure 5.6 : Spreads of financial institution in Embilipitiya town

6. Agriculture based all kind of Production, equipments and other commercial products based existing city market

In the city that Market has been established to capable of supplying of agricultural seeds, fertilizers and Agrochemicals, agricultural vehicles, and machinery, as well as vehicles, motor spare parts sales service center network and centers for sales of foods and restaurants. (Figure No. 5.7)

All these services are available in New town, Pallegama and Yodagama areas belonging to the town center, allowing the clients to carry out their work easily. Established as the main urban center in the Walawa region, this town receives from 30,000 to 60,000 people to acquire various services daily. Arrival for agricultural services from Godakawela, Pallebedda, Sankapala, Udawalawe, Kolonna, Kella, Sevanagala, Middeniya, Sooriyawewa and Ridiyagama has been identified.

Especially from Kolonna, Sevanagala, Middeniya, Sooriyawewa and Ridiyagama, people come to Embilipitiya town for agricultural services due to the convenience of access to all requirements. For example, for a person who comes to the Embilipitiya Economic Center to sell agricultural crops, many financial companies are established in the city for their financial purposes and can purchase seeds, fertilizer and other chemicals as per the desire of them in the city itself. The ability to buy machineries for agricultural services, motor vehicles, and spare parts to purchase agricultural products and food items, to buy essential daily items, to provide administrative, health, educational and financial necessities have been identified as the strength of the city to transform the city into a commercial center.

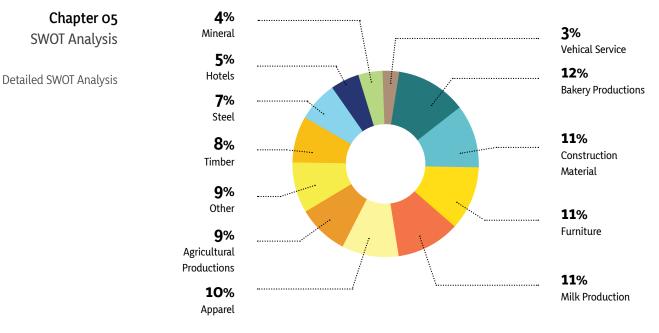


Figure 5.7 : The commercial uses of the city in 2016 Source : Resource Profile, Embilipitiya divisional secretariat, 2016

The Mahaweli Authority owns around 70% land of the entire declaired area 7.

The Mahaweli Authority owns around 70% of the entire urban area and out of 70% of the land 47% is used by agriculture, 51% by residential, commercial 0.3% and other 1.79%. Accordingly, ownership of lands by one institute will make land acquisition for future development activities much easier. It also allows easy lands acquiring for new investors. This has been identified as an existing strength to facilitate development activities.





1. Though the Embilipitiya Special Economic Center is a strength to the town, it has been identified that, its performances are in a weak state at present due to the expected agricultural products has not been collected.

According to the initial studies of the Higura Ara, Udagama, Thunkama and Higura areas, the expected harvest from a single cultivated season was, 3372 metric tons of paddy, 1290 metric tons of banana and 1560 metric tons of vegetables. However, the harvest received per month from these areas is 200 metric tons of banana. Out of this, the economic center receives a low percentage of between 40% and 50%. Vegetable production is about 260 metric tons per month and the economic center receives a low rate of 23% to 26%.

Сгор	Amount (Metric tons)
Banana	80-100
Vegetables	60-70
Fruits	10-15

 Table 5.1 : Monthly collection of the products in the Economic center

 Source : Economic Center Embilipitiya, 2016

Accordingly, the Economic Center is currently at a level where the expected results cannot be met. Also, out of 46 stalls in this economic center only 14 stalls are used for the sale of agricultural products while 5 stalls are not in use and the rest of the stalls are being used for other purposes. This has been identified as an existing weakness.

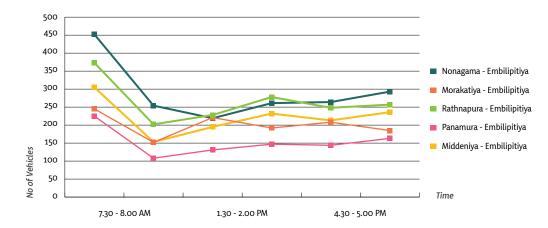
2. The traffic congestion in the city center and the by-roads are being under developed has been identified as a problem that could impede future development of the city.

When considering the traffic congestion during weekdays in Embilipitiya, the traffic congestion on Nonagama road is quite high relative to the other main roads. (Figure No. 5.8)

Considering the time of the day, the increase of vehicles entering the city can be seen in the morning. The lack of space and facilities for public transportation in the city also contributes to the problem.

Detailed SWOT Analysis

Especially there is not enough space to operate buses and to stop, long distance buses in the Embilipitiya main bus stand. In addition to the traffic congestion, most of the roads in the city are in the maintenance condition and around 90% of roads in rural and agricultural areas are maintenance condition.

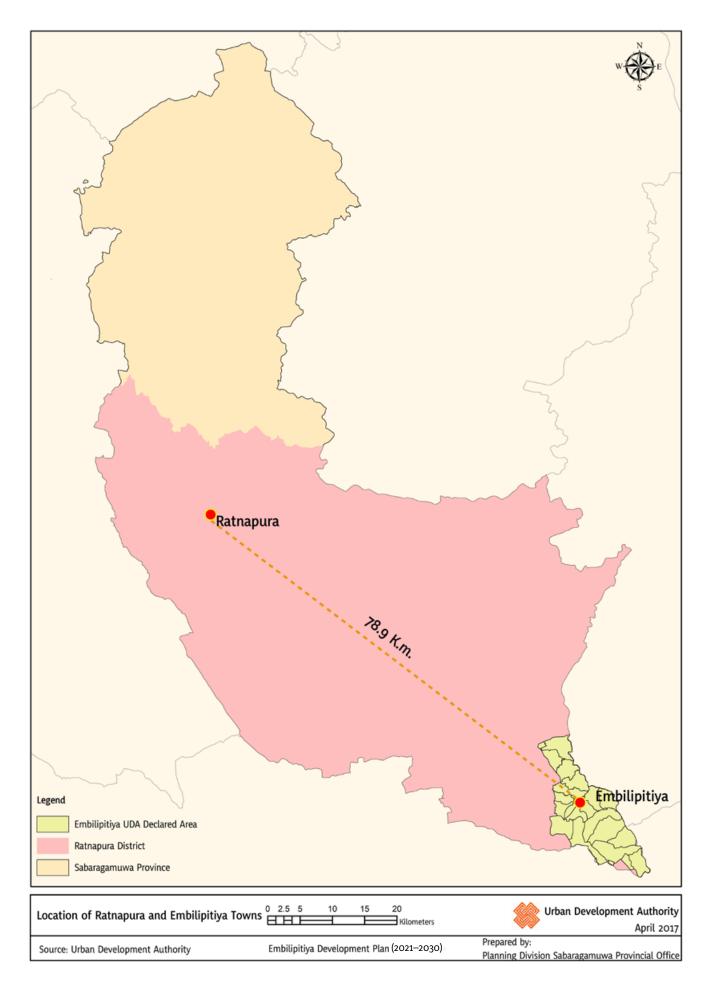


Traffic survey - Embilipitiya Town 2017

Figure 5.8 : The commercial uses of the city in 2016 *Source :* Sabaragamuwa province office, Urban Development Authority

3. Embilipitiya is located at the southern end of the Ratnapura District.

The location of the Embilipitiya town of the Ratnapura District, which is now the commercial capital of Ratnapura, is 78.9 kilometers away near the Southern border. This has been identified as a weakness in becoming a major commercial center in the Ratnapura District (Map No. 5.2).



Map 5.2 : Location of Rathnapuraya and Embilipitiya.

Chapter 05 SWOT Analysis

Detailed SWOT Analysis



1. 1500 acres lands in Embilipitiya has identified for Industrial Zone

1500 acres of Hingura and Kumbugoda Ara areas in the Embilipitiya town have been identified for an industrial zone and this industrial zone is part of the proposed project of 15,000 acres to be developed under the Southern Development Program. (Appendix map no.1.11). This project proposes to create 2400 industries and 400,000 direct and indirect employment opportunities and out of this, 2400 industries, 200 industries to be established in Embilipitiya region to create 30,000 direct and indirect employment opportunities in the Embilipitiya region.

Accordingly, in this industrial zone by introducing industries producing value added products it will be possible to create zonal indigenous agricultural crop-based quality products. Also, some of these products can be supplied to the city markets to create a unique opportunity to be established as an agricultural and commercial center.

With the creation of new employment opportunities, for migrant workers to provide the necessary services, there will be opportunities such as the emergence of agglomeration centers and residential zones, the associated infrastructure development and development of the regional market by the usage of industrial based products will arise from the establishment of the industrial zone.

2. It is easy to full fill commercial activities with the short distance to Mattala Airport & Hambanthota harbor

In developing the Embilipitiya town as the main commercial service center in Ratnapura District, the fact that the Hambanthota harbor is just 57km away from the Embilipitiya town, and the Mattala airport being just 44km away is important for the transportation of goods necessary for commercial activities, for reducing the transportation cost in export and import, and for attract in new investors. (Annexture figure no.3.2)

3. Easy transport access with the ongoing southern expansion of commercial activities

The Southern Expressway from Colombo to Matara will be extended to Mattala and the expressway runs close to Embilipitiya and the closest interchange "Barawakumbuka" is located about 14 km from the center of Embilipitiya town. This makes it easier to access the Commercial and financial sector services. This will also enable easy access to the investors, to get hold of joint ventures with major commercial cities in Colombo and to transport goods from Mattala. Thus, this Southern expressway is identified as an opportunity for commercial development in Embilipitiya (Annexture figure no. 3.2)

4. Udawalawa Tourism Zone that can supported to increase urban economy

Embilipitiya is a part of the Udawalawa tourism zone, which is one of the 7 tourism zones (Annexture map no. 1.11) in the Sabaragamuwa Province as identified by the Provincial Tourism Ministry. The tourist attractions such as "Udawalawa Ath Athuru Sewana", "Sankapala Rajamaha Viharaya", "Udawalawa reservoir", "Chandrikawewa", "Maduwanwela walauwa", "Liyanangasthota dam" and "Panamura Athgala" are in this zone and are economically beneficial to the city.

Local and foreign tourists who visit the Udawalawe Tourist Zone, are coming to Embilipitiya Town to find their all needs including food, lodging. The existing tourist attractions have been identified as a special opportunity to streamline of those services and developments in a commercial way (Annexture map no. 1.16).

Ratnapura town which is the main town of the Ratnapura District being annually subjected to disaster situations.

Ratnapura commercial city has been identified as a city with annual flood threats, and disaster-free commercial land use in this city has been identified to be less and this is an opportunity to develop Embilipitiya, which is least subjected to natural disasters, into one of the leading commercial hubs in the district. (Annexture Figure no 3.3).

Chapter 05 SWOT Analysis

Detailed SWOT Analysis

Threats | Goal 01

Chapter 05 SWOT Analysis

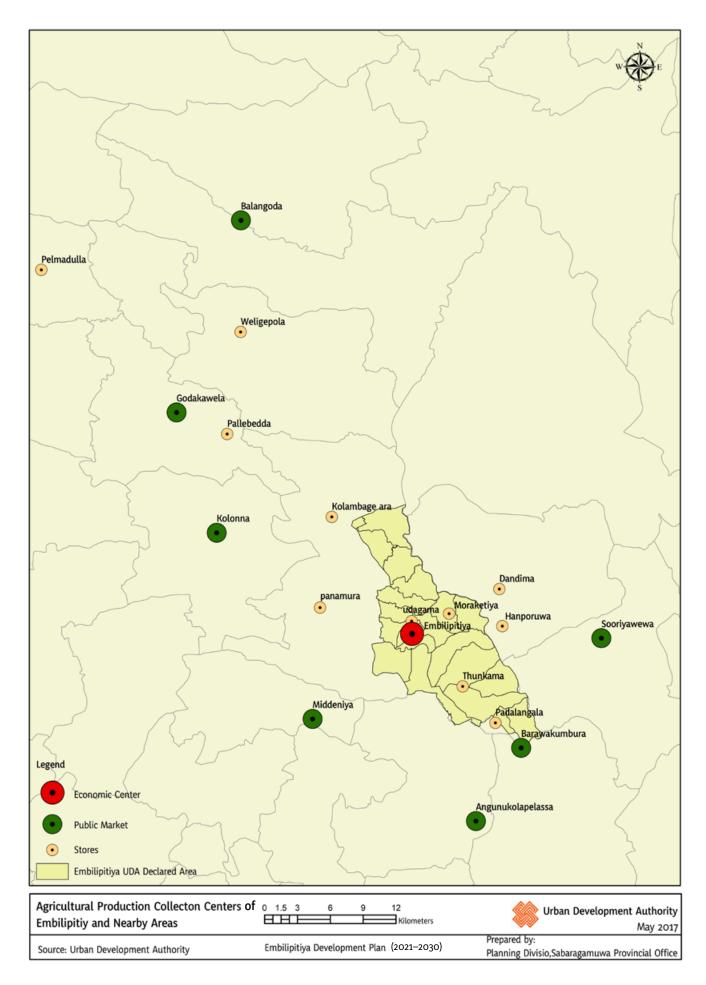
Detailed SWOT Analysis

1. Agricultural product collection centers spread around the city

Outside of the declared area, seven Public Market centers and seven whole sale warehouses have been identified in the vicinity. Due to this, limiting the flow of Walawe regional agricultural products into Embilipitiya town has been identified as a weakness to establish Embilipitiya town as an Agricultural and commercial center (Map No. 5.3).

2. Even though the old city of Ratnapura which is the main commercial hub in the Ratnapura District gets annually flooded, the commercial activities of the town remain uninterrupted.

A Rathnapuraya old town situated in the main Ratnapura city in Rathnapura District, has been established as the main commercial hub which is under annual flood threat. Although the commercial network collapses during that flooded period, it has been identified that the commercial practices of the city have not been changed to date. This situation has been identified as a threat to develop Embilipitiya as the main commercial and Agricultural services center in Ratnapura District. (Annexture map no.1.14).



Map 5.3 : Embilipitiya Agricultural product collection centers.

Detailed SWOT Analysis

Goal 02

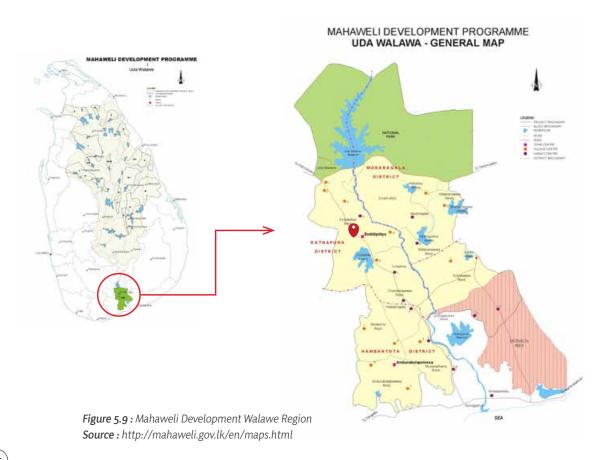
To strengthen the city economy by the agricultural products of the Walawe region to value added product manufacturing process by 2030.



1. Embilipitiya named as a Mahaweli development center for future development

Steps have been taken to develop Embilipitiya and Angunukolapelessa towns as urban centers to provide services to the farmers colonies nourished by the Udawalawa reservoir which was built based on the Walawe River (called Walawa special zone) under the accelerated Mahaweli Development Program to develop the country's agriculture and energy production.

Out of these two cities, Embilipitiya is moving towards a rapid development as an agricultural area as of the recent pastt. Enough lands are provided to the farmers for dwelling and cultivating under the Mahaweli Development Project. More than 50% of the agricultural lands in the Embilipitiya UDA Declared Area are owned by the Mahaweli Authority.



Under the Udawalawa Multipurpose Scheme, colonization and agricultural area development were carried out between 1961 and 1981 and it has been functioning under the "River Valley Development Board". The people who came from other areas of the Sabaragamuwa Province and those from the Southern Province were resettled and given lands for agricultural purposes. In 1979, the area was designated as the Walawa Special Zone and in 1982, the Mahaweli Authority took over the administration of the Walawe region (Embilipitiya leaflet). Accordingly, it is now possible to move towards an accelerated development, prioritizing agriculture as a special area of the Mahaweli and this has been identified as an enormous strength to reach an agriculture base economic development.

2. Contains of fertilize soil suit for cultivation

Embilipitiya town, with a distinct intermediate and dry zone climate, contains soil types suitable for cultivation. This has been identified as a strength to focus on local and foreign marketable crops and to increase production of agricultural products.

There are five varieties of soil that are favorable for crop cultivation in this region

- Red yellow podosolic soils
- Reddish brown earths
- Immature brown loam
- Alluvial soil
- Low humid clay soils

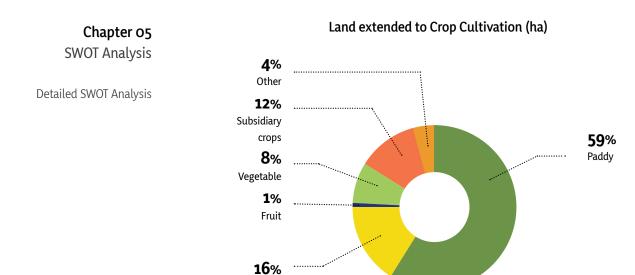
The soil in this region is suitable for paddy, vegetable (pumpkin, ladies, fingers, long beans, bitter gourd, brinjal, and ridge gourd), fruit (banana, mango, types of mandarins, dragon fruit, and pomegranate), peanuts, maize, and ash pumpkin like cultivation. Thus, the raw materials required to establish the value-added product manufacturing process can also be obtained from the region itself. This is identified as a strength for the development of the economy of the country.

3. Crop cultivation, which suit for value added industries

Through the value adding process to the agricultural products being produced in this region, could be focused on new product process. Following named product have been identified for this value-added process; Paddy, bananas, fruits, vegetables, types of potatoes, peanuts and corn etc. Out of these crops, mostly cultivated amount i.e. 59% are paddy cultivation. In addition, 16% of banana cultivation, 12% of supplementary crop cultivation and 8% of vegetable cultivated are conducted. Producing quality products from the crops harvested in the region itself is identified as a strength for urban economic growth.

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Banana

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Figure 5.10 : Land usage according to crop cultivation (hectares) 2016 *Source :* Resource Profile, Embilipitiya divisional secretariat

4. Over 70 irrigation canals covering the Embilipitiya region

Over 70 irrigation canals covering the Embilipitiya region have been built based on the Udawalawe reservoir and the Chandrika Wewa feeding in the Walawe River. This irrigation system provides water for all agricultural activities in the region. In 2016, paddy fields that were cultivated using 63 irrigation systems amounted to 6950.3 acres. Accordingly, the irrigation system has identified as a potential for further development of agriculture in the city (Annexture Map No. 1.9).

5. It is easy to transport raw materials and production with flat land terrain

This town is located 60-100m above sea level in the Walawe river basin and many areas show features of being plain areas which are considered a strength for agricultural use as well as for the transportation of agricultural products and for facilitating water supply for agricultural purposes (Annexture Maps No. 1.15).

6. Presence of an industrial zone in the urban area with a capacity of supporting the establishment of agricultural based product manufacturing industries.

In the 50-acre industrial zone, at present, an area of 25 acres is being used for industrial activities and four main industries are in operation. In addition, the existing large and medium scale industries around the town are identified as an inherent strength for the development of agriculture and other production-based industries. The 25-acre land area that is still not in use, has been identified as a strength for the development of the city in the new value-added industries.



Detailed SWOT Analysis

Figure 5.11 : Existing situation of Industrial Zone 2017 *Source: :* Google earth

7. Out of existing urban lands area 1/3 of land use for agriculture is strength to establish industries

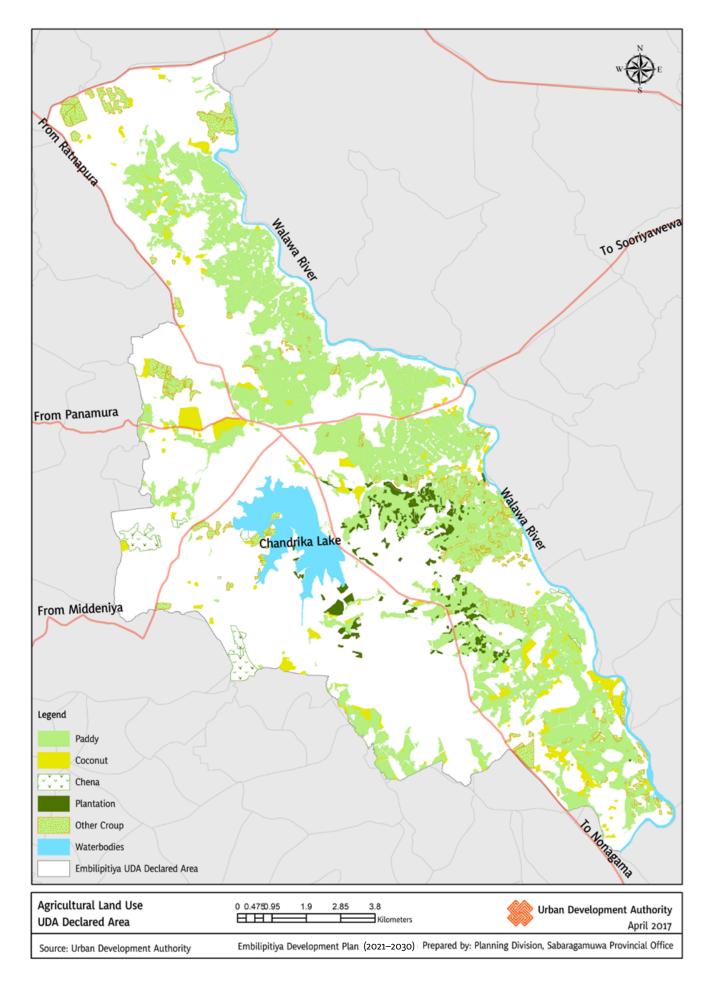
Out of existing urban land area 1/3, of the lands have been used for agricultural purposes, it is calculated that this usage is 35% of the total available lands. Presently, in these lands there are paddy, banana, coconut, fruits, vegetables and Chena cultivations as well as inter-crop cultivation is being carried out. Accordingly, this area is already found to be an agricultural area. It has been identified as a developmental strength of the city to enable obtaining crops harvested in the region itself for the process of value-added product manufacture.

Land use	Extent (Hectares)
Residential	6682.485
Commercial	44.586
Industrial	111.51
Government Institutions	87.54
Roads	471.97
Playgrounds	10.84
Religious	4.09
Scrubs	1250.48
Cemeteries	2.28
Paddy fields	4129.68
Coconut	374.654
Other crops	487.825
Marshy lands	38.45
Water bodies	904.89
Vacant Lands	0.29
Chena	128.75
Cultivations	216.75
Total	15082.38

 Table 5.2 : Existing Land Use Pattern of

 Embilipitiya | Source : Sabaragamuwa

 Provincial Office, UDA, 2017



8. Udawalawe Hydro Power Generating Plant and Hingura Thermal Power Generating Plant which contributes to the generation of power have been established in Embilipitiya town.

The capacity 6 MW, Udawalawa small scale Hydro Power generating plant was commissioned in 1969. In addition, Hingura fuel driven Thermal Power generating plant (ACE Power) supplies 100 MW of electricity to the national grid.

In addition, a power plant that generates electricity by "Girisidiya wood" in Hingura area has been in operation since recently and it adds 3MW to the national grid. Such power generation centers located near Embilipitiya have been identified as a powerful force to achieve the future development goals of the Embilipitiya town.



Figure 5.12 : Udawalawa Hydro Power plant Source : goo.gl/SimwkN

Figure 5.13 : ACE Power Plant Source : goo.gl/3kc6Q9

9. Embilipitiya town has named as an agricultural area in Sabaragamuwa Province structure Plan

The Sabaragamuwa Province Structure plan which was prepared by the National Physical Planning Department for 2030 identified Embilipitiya Divisional Secretary Division as an Agricultural area. This matter has been identified as a viable strength to expand the agricultural based services efficiently in regional development of Embilipitiya city. (Annexture Map no. 1.16).

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Weakness | Goal 02

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Detailed SWOT Analysis

1. Unable to achieve expected annual production due to the climatic changes

Due to the climatic changes, the farmers tend to change the type of crops cultivated. Therefore, there will be no supply of agricultural products required to meet the target, and identified it as one of the main weaknesses of the agriculture-based economy of the town.

For example, paddy cultivation is being carried out in Yala and Maha seasons, and the quantities of cultivation and the harvest depends on these seasons. Further, it has been changed to banana cultivation when insufficient water for paddy cultivation. In addition, there are instances, no cultivation in both seasons due to not receiving an adequate amount of rainfall. In this context, difficult to meet the required amount of crop for producing agricultural product, which is identified as a weakness.

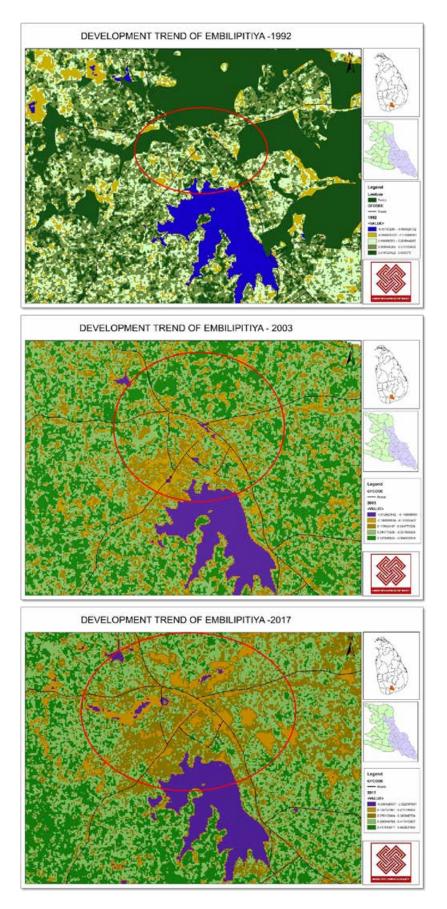
	Total Land extent (Ha)			Cultivated Land		
Season	Major Irrigation	Minor Irrigation	Nourished by Rain	Major Irrigation	Minor Irrigation	Nourished by Rain
Paddy Maha Season	4040.6	584.1	141.1	3800.8	542.2	123.1
Paddy Yala Season	4040.6	546.7	122.5	3797.6	506.6	97.5

 Table 5.3 : Paddy cultivation in Yala and Maha season

Source : Resource Profile - Embilipitiya Divisional Secretariat

2. Abandoning of cultivation and changes in utilization purpose of urban agricultural lands, have been identified as a weakness in the agricultural sector.

It has been observed that most of the land use for agriculture purposes during 1992, especially in the center of Embilipitiya town, had been considerably converted into residential and commercial uses from 2003 to 2017. This has been identified as a weakness in terms of agriculture development (Figure No. 5.14).



Detailed SWOT Analysis

Figure 5.14 : Land use changes in the Embilipitiya Town (1992- 2017)

Detailed SWOT Analysis

3. There is a need of maintenance 90.6% of the road network covered agricultural land has been identified as barriers to efficient transportation of agricultural product.

Especially roads in rural areas 2-3 km away from the main roads beyond the center of the city, are gravel roads and yet to be developed. This matter has been identified as a weakness to achieve development goals of the city.

Grade						Total distance (k.m.)	Developable distance (K.m.)
A Grade	B Grade	C Grade	D Grade	Local Authority roads	Gravel roads	469	425 (90.6%)
38.5	35	28.3	12.5	134	220.7		

 Table 5.4 : Classification of the Roads - Embilipitiya UDA Declared area

 Source : Resource Profile, Embilipitiya Divisional Secretariat

4. Embilipitiya Industrial Zone stage II hasn't started yet.

The Embilipitiya Industrial Zone is functioning under Ministry of industries. It has been observed that there was not commendable industrialists established in the first stage and the second stage has not commenced yet. This matter has been identified as a weakness in the establishment of agricultural industry.

The Embilipitiya Industrial Zone has 50 acres. Under the first stage 25 acres and under the second stage the other 25 acres were planned to be operated. But since the first stage was not completed even by 2018, there isn't a possibility of starting the operations of the second stage. Under the first stage, an area of 4 acres, is still (2018) vacant without any investment and only 4 industries are currently in operation. Accordingly, the inability of implementing the second stage of the industrial zone has been identified as a weakness.

5. It had been started as large-scale industries, that Embilipitiya paper mill and Moraketiya rice mill complex has been bankrupted and closed.

This paper mill had the capacity of producing 35 metric tons of pulp required to produce 50 metric tons of paper per day and was declared opened in 1977. In 2003, with 1500 employees, its halted production after 26 years of operation.Moraketiya rice mill which was inaugurated in 1970 has been built with the financial assistance of the Asian Development Bank. This had only been in operation for a short period of 10 years. The complex had been in the process of boiling, drying and storing paddy 24 hours of the day, and over 1000 employees had been involved in this industry. The closedown of two large scale manufacturing industries have been identified as a disadvantage in meeting the development goals of the region.

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1. There are new opportunities to establish agriculture based industries in this proposed industrial Zone

1500 acres from Embilipitiya has been reserved for an industrial zone of 15,000 acres which was proposed to be implemented under the Southern Development program (Annexture Map No. 1.11).

Nearly 2,400 industries will be set up by this entire project and it will generate around 400,000 direct and indirect employment opportunities. This project has been identified as an opportunity to create value added agricultural industries.

2. Mattala airport and Hambanthota port are new opportunities to export and imports of industrial raw materials and productions.

The Hambantota Port is 57km away from the center of Embilipitiya and the Mattala Airport is located about 44km away. This is an opportunity to meet the needs of both people and freight transport. (Annexture figure no.3.2).

3. With the southern highway expansion create a new easy path to connect with the commercial hub of the country

Establishment of an interchange in Barawakumbuka for the Southern expressway which is only 14 km away from Embilipitiya town center with the extension of the Southern Expressway from Matara to Mattala(Annexture figure no3.2).

Threats | Goal 02

Chapter 05 SWOT Analysis

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1. Outsourcing most of the overall production due to the intervention of mediating vendors. Which resulted deprive of the high income to the region.

According to the study carried out at the outset, calculated data of harvest as follows, in the Higura Ara, Udagama, Tunkama and Higura area, 3372 metric tons of paddy harvest, 1290 metric tons of banana and 1560 metric tons of vegetables. Over 200 metric tons of Bananas produced from these four areas per a month. Out of this Economic Center receives only 40% or 50%. 260 metric tons of vegetable produced per month. Out of this Economic Center receives a low rate of 23% or 26%. This situation has become a major problem in reaching to the desired targets at the inception of the Economic Center.

The main reason for this situation is the intermediate vendors direct approach to the farm fields and purchasing the harvest directly from farmers. This situation has been identified as a threat to the city's economic development through the value-added agricultural products.

Banana	Metric tons. 80-100
Vegetables	Metric tons 60-70
Fruits	Metric tons 10-15

 Table 5.5 : Monthly collection of Agricultural products by the economic center

 Source : Embilipitiya Economic Center, 2016

2. It is vulnerable to severe drought, dry climatic condition.

The rainfall in the catchment areas in the region will decrease due to climate changes occurring from late June to early November. Due to this, the volume of water in the Udawalawe reservoir that enrich the regional irrigation system decreases. The Udawalawe reservoir has an average capacity of 217,000-acre foot and during prolonged dry climatic conditions this capacity is reduced to 35,000-acre foot. During the dry season and in severe drought situations the water level of the main water bodies dropped up to the zero-use level. It has been identified that this scenario threat to the agricultural economy in the city.

Goal 03

To create an attractive city for living and visiting by the year 2030 through environmentally friendly development.

Chapter 05 SWOT Analysis

Detailed SWOT Analysis

Strengths | Goal 03

1. Attractive environment consists with green & blue

Embilipitiya town is located on the boundary of the Walawe River. Canals network spreads the area for distributing water from the Udawalawa water reservoir to Chandrika Wewa, and other small tanks. This water network creates an aesthetically friendly and comfortable environment. The Udawalawa reservoir and the Chandrika tank have attracted attention to the city and small tanks like Kawantissa tank and Hingura Ara tank which are in the inner city also contribute to the natural beauty of the city.

1/3, of the land area of the region is used for cultivation and 6% of the land area is in the form of water sources (Annexture map no.1.9). Also, large buildings have no windshields and therefore, the wind blows through the city which helps to control the temperature of the environment.

The inheritance of an environment created by irrigation canals within a dry climatic condition is identified as a strength to achieve the development objectives of Embilipitiya town.

2. Easy to continue physical development with existing flat terrain.

Embilipitiya town is located 60–100m above sea level and is on the river valley of Walawe river. Here, most of the areas are identified with features of a plains area (Annexture map No.1.15). The location of the plains grounds have been identified as a special strength for the physical development of the city.

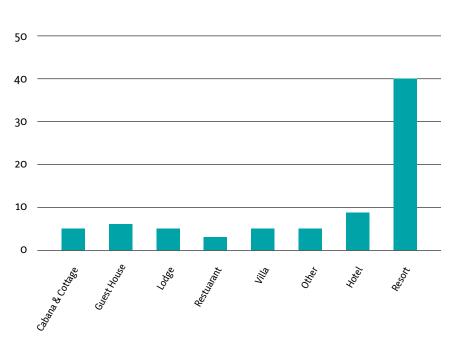
3. Embilipitiya has been named as an eco-tourism destination under the tourism development plan for 2030 prepared by the National Physical Planning Department

The specialty thus offered by the National Physical Plan to Embilipitiya recognizes the opportunity for urban development while preserving the natural environment in the region as a potential strength to achieve the development objectives (Annexture map No. 1.17).

Detailed SWOT Analysis

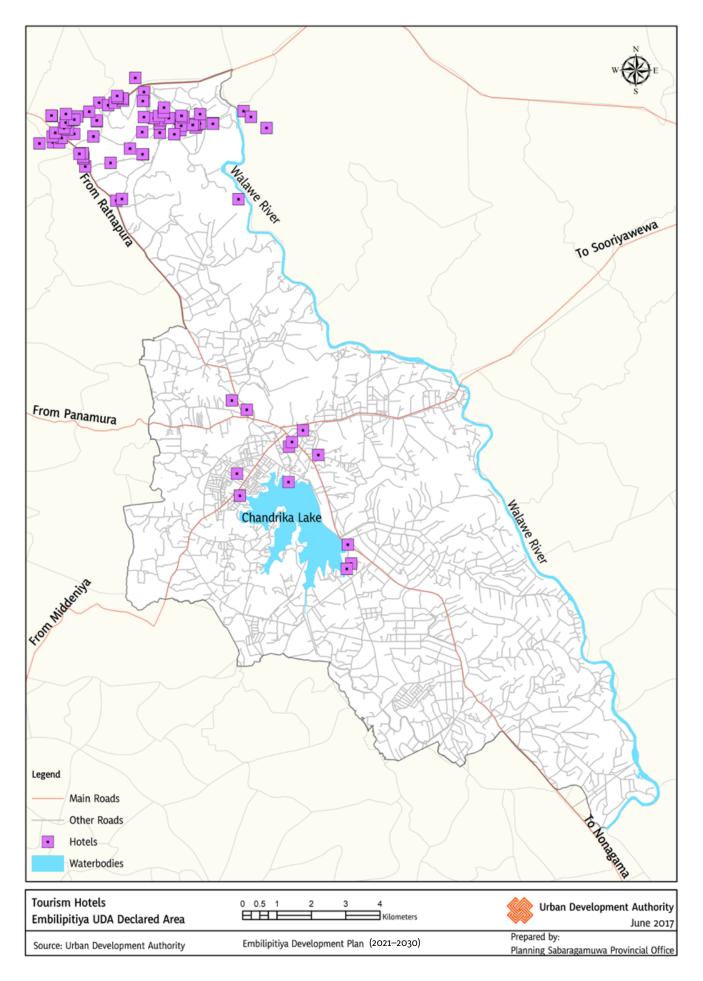
4. To provide services for locals and foreign tourists, there is a high trend in establishing hotels and lodges in Udawalawe and Embilipitiya.

Currently, Udawalawe and Embilipitiya towns have been established as service centers for many visitors to the Udawalawe Tourist Zone for services such as food, shelter and safari (Map No. 5.5). It has been identified that the above scenario is strength for future development of city by streamlining those potentials to achieving intended objectives in order to make the city attractive and favorable city to be lived.



Tourist Hotel Facilities

Figure 5.15 : Tourist Hotel Facilities 2016 Source : Resource Profile, Embilipitiya Divisional Secretariat, 2018



Map 5.5 : Existing Tourist hotel distribution

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5. Situated in free of natural disasters

It has been reported that, out of the major cities in the Ratnapura District, Embilipitiya is least prone to natural disasters.

Ratnapura District, the lowest number of natural disasters are reported from Embilipitiya. This situation paved the way for the people to construct their habitats in a safe environment. (Annexture map no. 1.13)



1. Temperature intensification during the dry weather season from June to November due to drying up water bodies.

The average temperature in Embilipitiya is about 26 degrees Celsius, but due to climatic changes, the temperature rises more than the average. This situation has been identified that due to this reason, people who are visiting the city and living in the city are getting fatigued. Accordingly, this environmental temperature rise has been identified as a disadvantage for achieving the third objective of the city development plan.

2. Land ownership issues have created with Mahaweli Land permit ownerships

Dispute of Land ownership has been identified as a problem faced by the Walawa regional population and the main reason for this problem is the possession of about 70% of the land by the Mahaweli Authority. Land ownership has been handed over to the people by the Mahaweli Authority on annually issued basis license. Transferring of such ownership of the land to another family member or use for commercial purposes are difficult. Only less than 20% of land ownerships have been given by the clear deeds. The percentage of land ownership had been deprived has been increased up to 56.4%.

Private Land Owners	18,654
No of unclear Land ownerships	24,112

Table 5.6 : Land ownership

Source : Resource Profile, Embilipitiya Divisional Secretariat2016

3. Unauthorized constructions have been carried out in the reservations of Tanks and Canals.

Unauthorized constructions have been identified around the main drinking water source of the Chandrika Wewa. This can cause a decline in the natural attraction as well as can cause drinking water problems. This situation has been identified as a weakness in urban development.

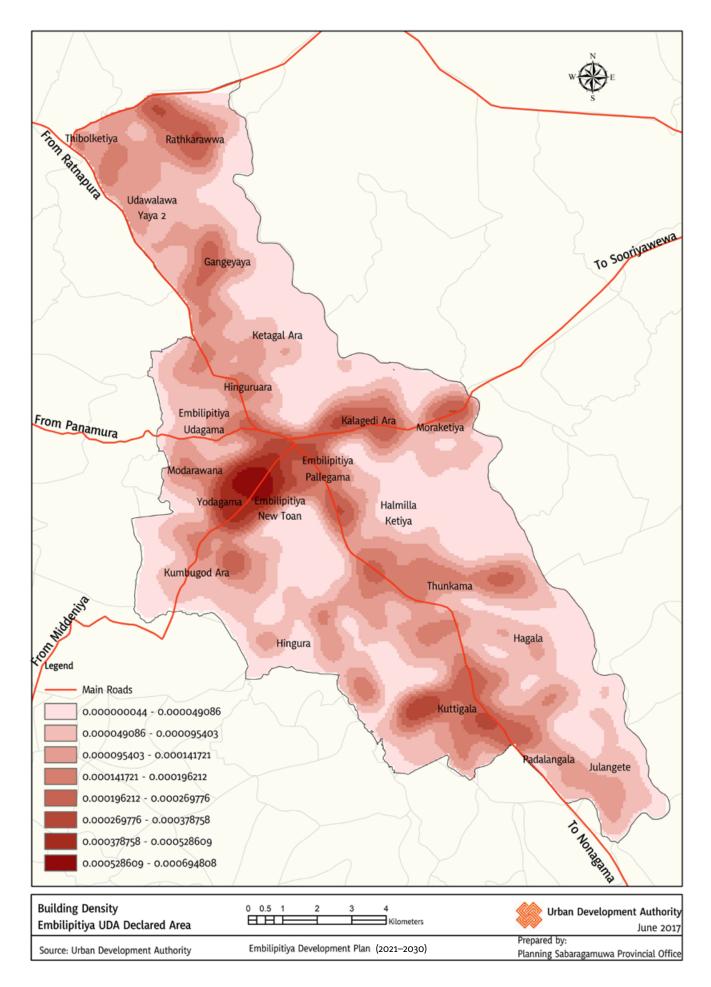
4. Linear development on either side of the Main roads.

There is a linear development on either side of the Nonagama road, Moraketiya, Middeniya and Panamura Roads of Embilipitiya town. In addition to commercial uses, residential uses also have been built around these main roads (Map No. 5.6).

In this context, due to the lack of development of infrastructure in the rural areas outside the town center has been identified as a weakness in favor of a habitable city.

Chapter 05 SWOT Analysis

Detailed SWOT Analysis





Detailed SWOT Analysis

1. The Mattala International Airport is located 44 km away from Embilipitiya town.

This facility has been identified as a unique opportunity for easy access to the city for both local and foreign tourists visiting the city in addition to Embilipitiya residents (Annexture Figure No. 3.2).

2. Easy accessibility with location of Proposed Barawakumbuka Interchange, and Southern Highway expansion

Establishment of an interchange in Barawakumbuka (Annexture Figure No. 3.2) for the Southern expressway, which is only 14 km away from the Embilipitiya town with the extension of the Southern Expressway from Matara to Mattala. This has been identified as an opportunity for residents of the city to be able to access the island's capital and the southern province.

3. Embilipitiya Town is included in Udawalawa Tourism Zone proposed by ministry of tourism, Sabaragamuwa Province

Sabaragamuwa province is a special tourism destination. Sabaragamuwa Province, Ministry of Tourism had declared, seven main tourist zones, Udawalawa tourism zone are one of them belongs to Embilipitiya. (Annexture Map No. 1.12). Udawalawe Tourist Zone, which is unique to the tourism industry, attracts local and foreign tourists annually. The tourist attraction in Udawalawa has been identified as an opportunity to promote urban attractiveness (Figure No. 5.16).



Chapter 05 SWOT Analysis

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Figure 5.16 : Tourists attraction areas of Embilipitiya

4. Direct and indirect job opportunities with 1500acres lands allocation for industries

Development of 15,000 acres of land for an industrial zone containing 1,500 acres of land around Embilipitiya is proposed to establish around 2,400 industries in the industrial sector. It has been identified to create about 400,000 direct and indirect employment opportunities. Accordingly, 1/10 of land for this industrial zone are found near Embilipitiya. This is an opportunity for the people of the region to obtain over 30,000 direct and indirect employment in about 100 industries established near that area.



Detailed SWOT Analysis

1. Temperature intensification during the dry weather season from June to November due to drying up water bodies.

As a problem in Embilipitiya, the water level of water sources decreases during the period from late June to early November. Usually, the Udawalawa reservoir has a capacity of 217,000-acre foot and this reduces to 35,000-acre foot in dry periods.

The volume of the Udawalawa reservoir that replenish the regional irrigation system decreases during the above period. This causes urban attractiveness depletes, which has been identified as a threat.

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The Plan

Chapter 06 The Plan

Introduction

Concept Plan plan

6.1. Introduction

Three main goals have been identified to make Embilipitiya town as an "Agro Economic Product navel of Walawa Valley" by the year 2030. Objectives have been set to achieve those identified goals. The Conceptual Plan has built by analyzing strengths, weaknesses, opportunities and threats that effect to achieve those goals and objectives.

The proposed land use plan has been prepared based on the proposed conceptual plan for the development of Embilipitiya town. The proposed land use plan reflects the expected physical development of the city by 2030. Six key strategies have been identified to achieve that desired physical development as well as economic and environmental development, and this chapter covers five key strategies up to the strategic projects under the implementation strategies.

6.2. Concept Plan

The conceptual plan included in the Embilipitiya Urban Development Plan illustrates how the future development of the city will take place. It has been developed with the aim of developing Embilipitiya as the main commercial and Agro service center in Ratnapura district by creating an interrelationship between four major development centers identified with the commercial, agricultural, industrial and tourism sectors.

In developing the conceptual plan, the urban development trends identified from the UDA declared areas as well as the future opportunities have been considered. Attention has also been given to developing specialized areas for various activities as development centers and making their development activities systematic and efficient, whilst establishing an interrelationship between these centers.

Accordingly, it has been identified to develop the area around Udawalawa Town, which is located North of the Embilipitiya declared area, as a tourism services hub it will promote the tourism related activities happening in the area.

It is expected to provide facilities such as accommodation, meals, and safaris and opportunities to buy good quality agricultural products for the tourists who visit the Udawalawa Elephant Transit Home and the Udawalawa National Park via these development activities. Further, opportunities have been identified to promote tourism by developing many attractive places around the city including the Chandrika Wawa.

The Embilipitiya town center is now undergoing a rapid development as a commercial hub based on Pelmadulla -Nongama A 18 lane and Middeniya, Panamura and Moraketiya main road networks. Therefore, this development plan has identified to develop that area as the main commercial hub.

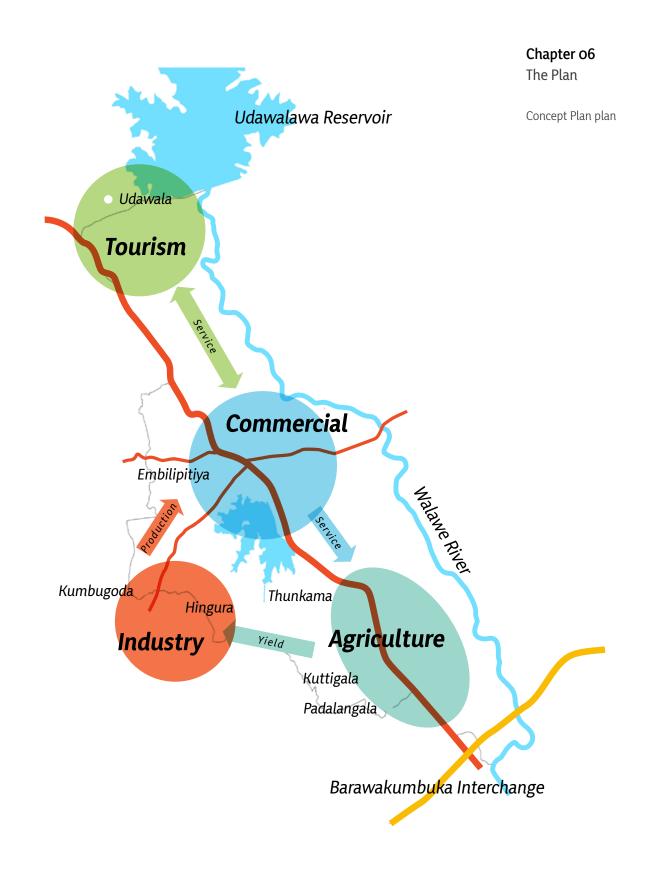


Figure 6.1 : Conceptual Plan Source : Sabaragamuwa Provincial Office, UDA (2020)

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Chapter 06The small towns such as Thunkama, Kuttigala and Padalangala, situated in the Southern
part of the declared area are established based on the A 18 road and they function as
small urban centers that serve a larger agricultural area. Accordingly, this small
township has been identified to be developed as an agricultural service center, to
strengthen the economy of the city via the development of agricultural service facilities,
because agriculture is the backbone of urban economy in this area.

Strengthening the industry sector to develop the city economy has been identified as a major economic development strategy. In addition, it has been identified to establish an industrial zone in the declared area and to establish more Agro-based industries that use Agro products of the area, in that industrial zone.

Accordingly, a new industrial zone is proposed to be established in Hingura and Kumbugoda Ara areas and it will include the current 50-acre industrial zone operated by the Ministry of Industry and Commerce as well.

This development concept has been built to create economic, social, physical and environmental development in the whole urban area by the year 2030, via implementation of strategic plans, including the proposed industrial zone and the above mentioned interconnection between agricultural, commercial and tourism urban centers.

6.3. Proposed Land Use Plan

The Embilipitiya Town is an agricultural town in the Mahaweli Walawa special zone and is currently identified as a natural growth town without special development interventions. Embilipitiya town, being bounded by 3 provinces, has been able to have regional interconnections and benefit from the major scale development opportunities that take place regionally. Accordingly, the proposed land use plan for the year 2030 has been prepared to meet the future development goals by improving the development trends of the city protecting the urban agricultural identity and the surrounding sensitive ecosystem and utilizing the available resources and the land at optimum level.

The entire urban model introduced by this development plan shows green landscapes of agricultural fields, such as gardens, paddy fields and banana plantations and bluish backgrounds of rivers, tanks and canals illustrating a scenic blue-green environment. It also shows buildings with heights appropriate for the unique developmental characteristics in each area constructed along the main roads that run into all directions, in such a way that the scenic views and the main wind flows are not blocked. Moreover, a person entering the city through any of the main four gateways will be able enjoy the experience of an attractive and active functioning city surrounded by a tranquil environment. With the entrance to the town of the Northern gateway, an area with a wide range of amenities and recreational activities such as, the scenic area around the Udawalawe Reservoir, gardens, aquatic related activities along the Thanamalwila-Udawalawa route, tourist hotel lodging with natural environments and tourist services including safaris can be seen. To travel further into the city, the attractive the trail, running along the Udawalawa Southern canal, located left to the four-lane-Nonagama Road, can be used. Chapter 06 The Plan

Proposed Land Use Plan

When travelling along the Udawalawa South canal road, city's endemic agricultural land, banana and paddy cultivations can be seen, and one would also get the chance to enjoy the local food and drinks. This can be experienced around the urban park near the Kawantissa Lake, as well.



Figure 6.2 : Intersection from Udawalawe Water Tank to Kawantissa urban Park Source : Sabaragamuwa Provincial Office, UDA, 2020

In the Eastern side, the access point to the city starts from the Walawa river boundary and the Moraketiya road is the main access. When entering the city via the Moraketiya road, agricultural lands and a few of Banana trees in between the main road and the irrigation canal on the left can be seen. There is also a linear park and can be spent time enjoying local food and relaxing in the area. The buildings on either side of the road gradually increase in height when moving towards the city, passing the park.

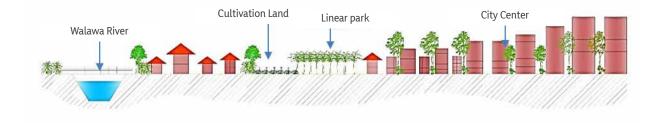


Figure 6.3 : Intersection from Moraketiya to Embilipitiya Town center *Source :* Sabaragamuwa Provincial Office, UDA, 2020

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Proposed Land Use Plan

When reaching the Embilipitiya city from the Southern entrance, one would come across the proposed Barawakumbuka Interchange that will connect Nonagama Road to the Sothern Expressway and the expressway running through the Padalangala area.

Vehicles exiting the highway through Barawakumbuka Interchange could enter the Embilipitiya city through Nonagama road. When traveling towards the city center along this road, scenic views of paddy fields and banana plantations will be seen on either side of the road. Low height buildings would be seen in Padalangala, Kuttigala, and Thunkama areas.

When moving forward along this road one will be able to witness urban features with an agricultural identity. After passing Halmillaketiya, a gradual increase in building heights and density could be identified in Pallegama area. As further proceeded along the road, one would come across Mahaweli Stadium, luxury shopping complexes, banks and other commercial buildings and Embilipitiya main bus stand.

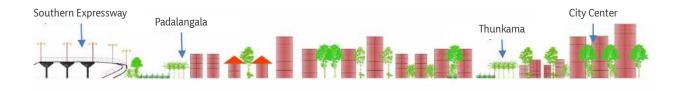


Figure 6.4 : Intersection from Padalangala to Embilipitiya Town center *Source :* Sabaragamuwa Provincial Office, UDA, 2020

Kumbugoda-ara junction is one of the main junctions one would come across if accessed the Embilipitiya town via the Middeniya road, which is the main access entrance to the town from the West. The heavy vehicles that would travel from the Embilipitiya Industrial Zone and Hambantota harbor towards Colombo could come through alternative roads and join the Middeniya road at this junction. Alongside the four-lanemain-road starting from the junction will be visual with banana and coconut plantations and a mixed development of residential and commercial buildings. Modarawana junction could be seen on the left of the Middeniya road when travelling towards the city past Kumbugoda-Ara area. One would also see heavy vehicles travelling to Colombo along the alternative road leading to Modarawana passing Kumbugoda-ara. The new town boundary can be identified when moving further towards the town center along the Middeniya main road. The area consists of administrative complexes and related activities. In the same area, onto the right side of the road, activities based on the main economic operations center and public fair of Embilipitiya are identified. Anyone travelling through that area would be able to buy organic agricultural products. It would be seen that the building gradually increases in height and density after passing Embilipitiya Janadhipathi Vidyalaya along the Middeniya road.

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Proposed Land Use Plan

Although there would be multiple activities happening alongside the Middeniya main road, the well-structured parking spaces, pavements and drainage systems and beautifully landscaped gardens would create an attractive city.

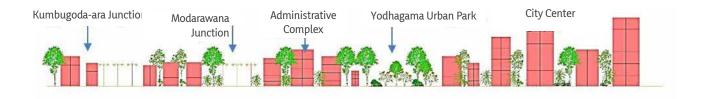
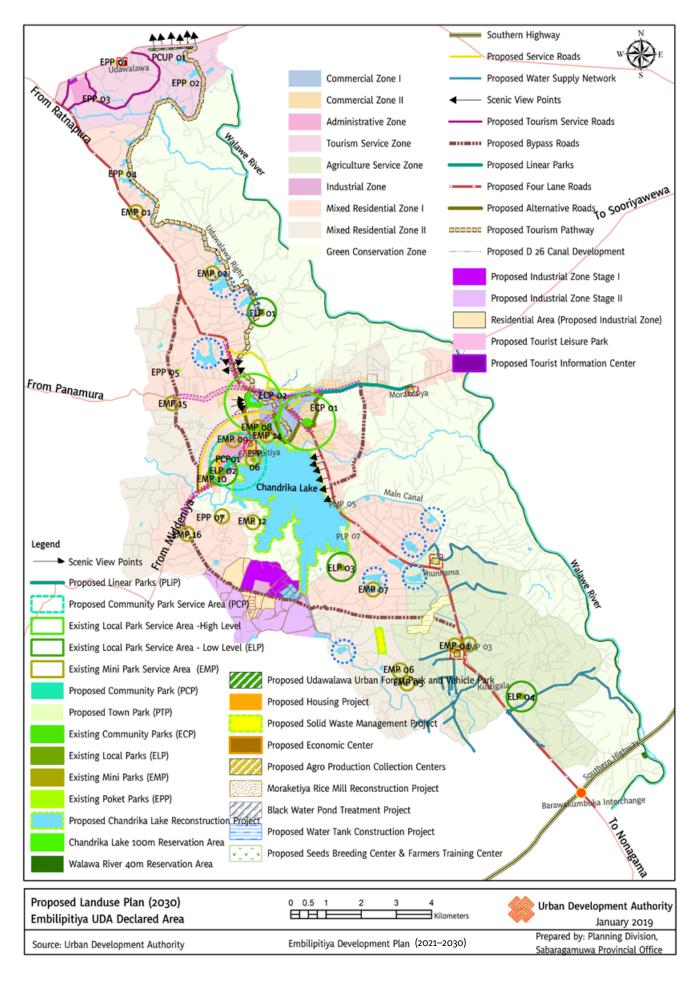


Figure 6.5 : Intersection from Kumbugoda-ara to Embilipitiya Town center *Source :* Sabaragamuwa Provincial Office, UDA, 2020

As such, the greenery alongside the main roads which provide entrance to the town will feel about agricultural background and the uniqueness of the area. At the town center is approached the diversified characteristics of the city activities and the change in urban form could be identified.

Entrance to the city center would give the vibe of a city with a commercially active mechanism surrounded by agricultural lands. This town's structure will be different to that of the Kumbugoda-ara and Hingura areas and industries with large scale buildings and associated activities will be seen.

Accordingly, the above description indicates that through the development of Embilipitiya town, an urban structure depicting the urban vision of "Agro-economic Product navel of the Walawa valley" will be seen by 2030.



6.4. Physical, and Social Infrastructure Development Strategies

To achieve an eco-friendly development by 2030, which will enable a city with tourist attractions and favorable habitats, it is expected to develop the physical and social infrastructure facilities from the town center to Udawalawa, Thunkama, Kuttigala and Padalangala, in such a way that the city residents' daily needs will be met.

Urban infrastructure development strategies have been identified through strategic plans to uplift the urban economy by achieving the desired urban vision and goals for urban development.



Figure 6.6 : Urban Infrastructure Development Plans

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Physical, and Social Infrastructure Development Strategies

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Physical, and Social Infrastructure Development Strategies

Social Infrastructure Development Strategies

6.4.1. Social Infrastructure Development Strategies

The proposed service provision plan has been prepared by studying the main areas of residential, health and educational needs under social infrastructure facilities and the infrastructure requirements of the expected residential population by 2030.

6.4.1.1 Residential facilities

The proposed service provision plan for the year 2030 includes proposals on infrastructure development for residential facilities, health and education services, which are identified as key services in the city.

The current population of Embilipitiya declared area is 99,138 (2017) and the forecasted population by the year 2030 is 125,045. Accordingly, the expected increasing population over the current population by the year 2030 is 25,907. There are 24,784 families living in the Embilipitiya declared area at present and as per the forecasted population the total number of families expected is 31,261. Accordingly, by the year 2030, there will be 6,477 families in addition to the current number.

According to the existing land uses of Embilipitiya declared area, the total residential area is 6,666 hectares. At present, about 2507 hectares have been used for residential use by the existing number of residential units (considering a minimum 40 perch area for each family unit). This extent of land is as low as 37.6% of the currently available extent of residential land. Accordingly, the residential land area required for the increasing family units expected by the year 2030 is identified to be a surplus.

Year	Population	Number of families	Residential density			
			Residential density (housing units per sq.km)	Net residential density (housing units per sq.km)		
2011	78,150	22,293	148	318		
2017	99,138	24,784	165	354		
2030	125,045	31,261	208	446		

Table 6.1 : Residential density

Source : Resource Profile, Embilipitiya Divisional Secretariat2016

The proposed land use plan for 2030 has taken into consideration areas that can satisfy the recreational needs as well as health facilities and educational services and introduced mixed residential zones and residential zones, through which adequate land has been provided for the residential needs.

6.4.1.2. Health Facilities

In addition to the Embilipitiya District General Hospital, both the Padalangala and Udawalawe Divisional hospitals and the Ayurvedic hospital in the new town provide health facilities to the city. Further, three private hospitals and other medical centers operating in the town also provide health services.

Number	Name of the Hospital	Hospital Classification		
01	Embilipitiya District General Hospital	District General Hospital	433	
02	Ayurvedic Hospital Embilipitiya	A Grade	58	
03	Wijenayaka Weda Madura (Pvt)	-	30	
04	Green Medicare Private Hospital	A Grade	08	
05	Chandrika Wawa Divisional Hospital	B Grade	65	
06	Poly Clinic Private Hospital	A Grade	85	
07	Navodya Private Hospital	A Grade	05	
08	Udawalawe Divisional Hospital	D Grade	24	
09	Vithanachchi and Shakthi Ayurvedic Hospital	Ayurvedic	30	
	738			

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Physical, and Social Infrastructure Development Strategies

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Table 6.2 : Health facilities of Embilipitiya declaired areas

Source : Resource Profile, Embilipitiya Divisional Secretariat2016

As per table 6.2 above there are hospitals including Embilipitiya District General Hospital, the Chandrika Lake Divisional Hospital, Udawalawa Divisional Hospital, Nine (9) ayurvedic and private hospitals. Other than that, there are 2 local medical centers around Thunkama and Moraketiya areas, all these health centers cover health services within Embilipitiya declared area. The Udawalawa and Padalangala District hospitals need to be developed specially to minimize the congestion in the residential and outpatient department (OPD) unit in Embilipitiya District General Hospital. By studying the catchment areas of existing hospitals, it has been identified to improve the health facilities covering the whole of Embilipitiya declared area (Annexture map 1.6).

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Physical, and Social Infrastructure Development Strategies

Social Infrastructure Development Strategies

6.4.1.3. Education Facilities

The 20 schools in the UDA declared area are enough to provide basic educational facilities for the students in the area. The facilities of the schools at 1 AB and 1 C levels could be improved to cater to the educational needs of the growing student population by 2030, and there would be no need to build new schools. Further, it has been identified to provide adequate opportunities for tertiary education by developing facilities at Embilipitiya Technical College, Vocational Training Centers and the Military Engineering School (Annexture map no.1.7).

Grama Niladhari Division	Name of the School	School Category	Classes Range	No of Classes	Number of Students	No. of Students	Teacher student Ratio
Gange yaya	Gange yaya Vidyalaya	2	1 - 11	16	438	23	1: 19
Yaya 2	Bodomaluwa Vidyalaya	2	1 - 11	29	1126	46	1: 24
Udagama	Embilipitiya Maha Vidyalaya	1AB	1 - 13	42	1280	93	1: 14
Pallegama	Junior secondary school	2	1 - 11	54	2440	70	1:30
Kumbukgoda Ara	Kanamada Ara Vidyaaya	2	1 - 9	09	123	13	1:9
Morakatiya	Morakatiya Maha Vidyalaya	1AB	1 - 13	41	1184	68	1:19
Hingura Ara	Bodiraja Vidyalaya	semi	1 - 11		779	43	1:18
Katagal Ara	Embilipiptiya Katagal Ara Vidyalaya	2	1 - 11	11	252	19	1:13
Modarawana	Embilipitiya Modarawana Vidyalaya	2	1 - 11	13	334	20	1:17
New Town	Presidents College	1AB	1 - 13	115	4765	204	1:22
Hingura	Kachchigala Vidyalaya	2	1 - 11	11	180	16	1:9
Padalangala	D.A. Rajapaksha Vidyalaya	3	1 - 5	24	901	30	1:37
Hingura	Sirisangabo Vidyalaya	2	1 - 11	11	200	21	1:14
Hingura	Embilipitiya Chandrika Wawa Jayanthi Vidyalaya	1AB	1 - 13	40	1206	66	1:19
Kuttigala	Embilipitiya Uruparaththa Vidyalaya	2	1 - 11	11	156	20	1:9
Jalangate	Walawa Nadi Vidyalaya	2	1 - 11	11	326	20	1:18
Thunkuma	Thunkuma Maha Vidyalaya	1C	1 - 13	21	506	30	1:15
Hagala	Therapuththa Vidyalaya	2	1 - 11	11	299	23	1:13
Hagala	Karawilayaya Maha Vidyalaya	2	1 - 11	13	343	28	1:15
Halmillakatiya	Halmillakatiya Maha Vidyalaya	1C	1 - 13	30	1129	52	1:18
Thibolkatiya	Thibolkatiya Vidyalaya	2	1 - 11	08	293	17	1:14
Hingura Ara	Hingura Ara Primary Vidyalaya	1C	1 - 13	30	779	44	1:13

Table 6.3 : Educational facilities of Embilipitiya declared areaSource : Educational Zonal Office, Embilipitiya, 2017

6.4.2. Physical Infrastructure Development Strategies

Issues with providing physical infrastructure and adequacy of social infrastructure for building an attractive city to provide sufficient facilities for residential and commuting population have been identified. There are major strategic plans that have been identified to provide enough physical infrastructure facilities for the expected residential and commuting population in 2030.

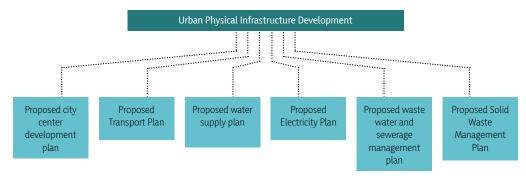


Figure 6.7 : Physical Infrastructure Development Plans

6.4.2.1. Proposed City Center development plan

The town center covered by the commercial zone I and commercial zone II and the administrative zone identified by the proposed zoning plan, is designed as a high-density zone consisting of many activities in areas such as, commercial, financial, administrative and transport. There are few strategies identified in the proposed city center development plan to develop the city center and provide all the necessary facilities to the service providers and recipients who come to the city center expecting to satisfy their needs efficiently and without difficulty.

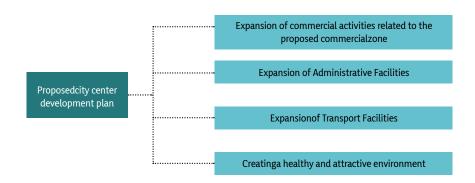


Figure 6.8 : Proposed city center development plan objectives

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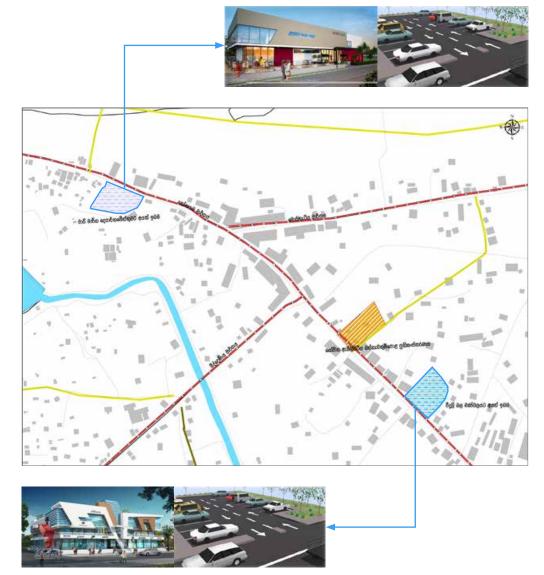
Physical, and Social Infrastructure Development Strategies

Physical Infrastructure Development Strategies

Strategy 01

Higher value lands located in the central of town, which are owned by the government institutions, to be acquired for commercial development.

Proposed commercial complex including restuarants, cinema, and car park



Proposed shopping mall and car park

Figure 6.9 : Proposed commercial developments for government lands in town center *Source :* Sabaragamuwa Provincial Office, UDA, 2020

Strategy 02

Centralization of administrative institutions, for facilitate to easily obtaining of administrative services

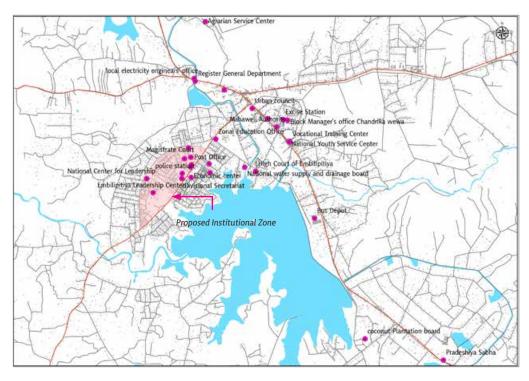


Figure 6.10 : Proposed Administrative zone and government institutions *Source :* Sabaragamuwa Provincial Office, UDA, 2020

Strategy 03 : Expansion of Transport Facilities

- (a). To provide service facilities to the people, minimization of the traffic congestion at the center of the town and regulating of transportation facilities
- (b). Reduce traffic congestion in the city center area through identified special road development

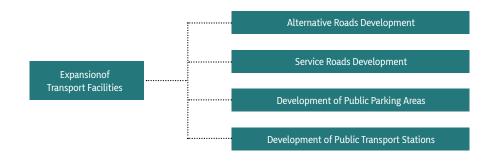


Figure 6.11 : Objectives for Expansion of Transport Facilities

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Physical, and Social Infrastructure Development Strategies

Strategy 04

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Physical, and Social Infrastructure Development Strategies

Physical Infrastructure Development Strategies To provide facilities for leisure and recreation activities to the urban population, improving the attractiveness of the town center through the creation of Water Parks, Urban Forest parks and Linear Parks in the town.

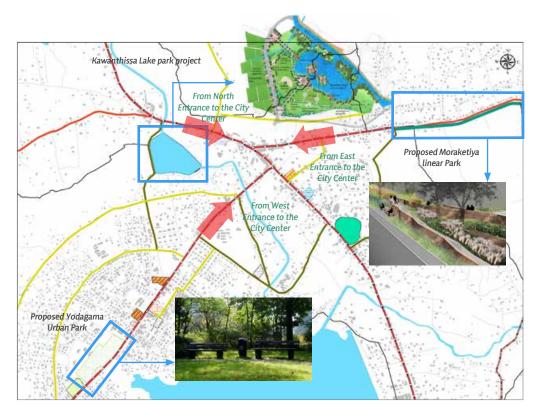
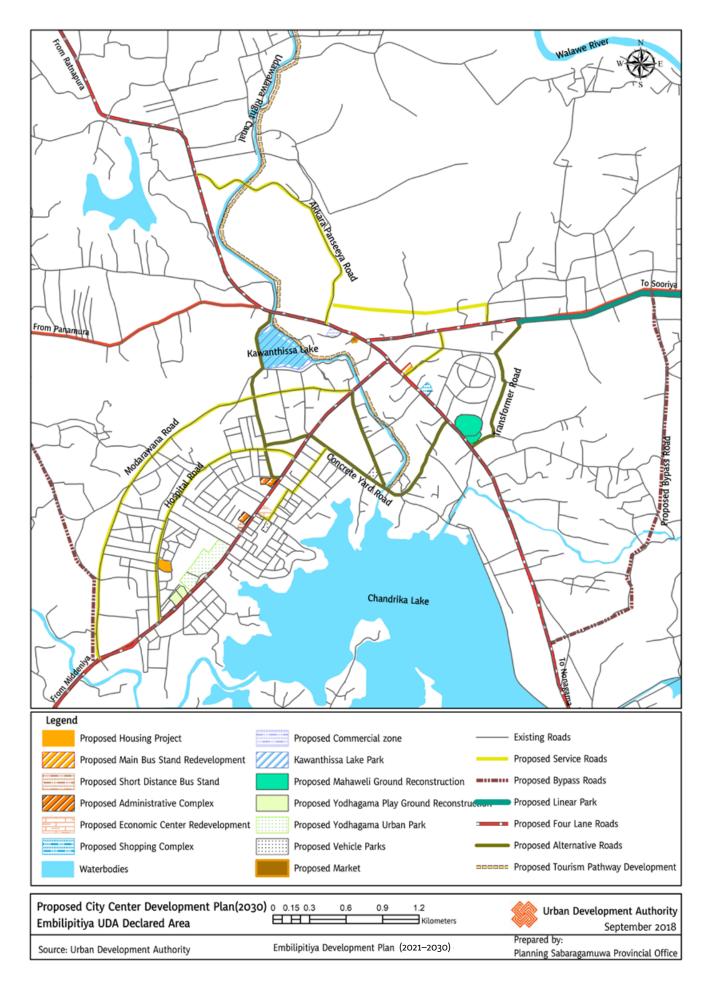


Figure 6.12 : Strategies for City Center Beautification Source : Sabaragamuwa Provincial Office, UDA, 2020



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Physical, and Social Infrastructure Development Strategies

Physical Infrastructure Development Strategies

6.4.2.2. Proposed Transport Plan

The transport plan has been prepared for 2030 is one of the strategies for developing physical infrastructure facilities in Embilipitiya Development Plan. The population of 125,045 inhabitants expected in 2030. Expected commuting population of the city has been estimated 301,100 by 2030.

Considering projected population in year 2030, this plan has been planned for providing transport services to the people without any interruption.

According to vehicles In and Outflow of the city, traffic survey conducted in Embilipitiya in 2017 the average number of traffic daily flows into the city during the traffic congestion period within half an hour, in the morning, noon and evening is about 1220 and the number of traffic flows out of the city is 1040. According to the forecasted commuting population by 2030, it has been estimated within half an hour there would be 1525 traffic inflow to the city and traffic outflow would be 1300 per day.

It has been assumed that these estimated traffic flows, will be generated through. The proposed industrial zone activities related to the development activities in the region, Udawalawa tourism related activities, agricultural activities and the development of commercial services at the center of the city, as well as the development of residential areas in the city and mixed residential and residential zones

With the increase of traffics, there would be requirements for alternative road construction, by-road construction, service road construction and widening of existing roads, and constructions of Bus and Car parking facilities for public transportation. Accordingly, several major strategies have been identified in respect of road development in the city.

Strategy 01 : Development of Bypass roads

(a). Traffic congestion has been occurred by Car carriers, container carriers traveling along Nonagama road from Hambanthota Port of Colombo and other areas passing Padalangala to be minimized, and heavy vehicles bound to Higura Ara and Kubugoda Ara proposed Industrial Zone to be avoided traveling through the center of the city and to be diverted to the Nonagama, Middeniya, and Panamura roads. Therefore, alternative roads have been identified.

(Via Colombo road 100 post close to (Boosirigama road) Panamura road, Modarawana road up to Middeniya road, from Kubugoda junction to Paper mill road via Kadurugas ara, Karawila Yaya road up to Nonagama road to be developed as two lane road as an alternative route.) (b). The heavy vehicles coming along Moraketiya road via Monaragala by passing center of the town to be directed to the Southern Expressway and to interconnecting with proposed Industrial Zone in Monaragala district and exchange raw materials with Embilipitiya Industrial Zone, Embilipitiya Halmillaketiya School Road connecting to Hathara Ela road along Veheragama road up to Moraketiya to be developed as two lanes road as a by road route.

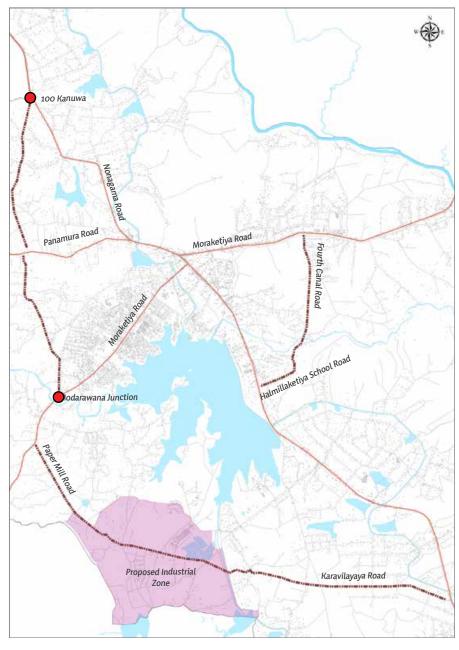


Figure 6.13 : Proposed bypass roads Source : Sabaragamuwa Provincial Office, UDA, 2020

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Physical, and Social Infrastructure Development Strategies

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Physical, and Social Infrastructure Development Strategies

Physical Infrastructure Development Strategies

Strategy 02 : Alternative Roads Development

Main bus station, public fair, Embilipitiya district hospital and Embilipitiya President School are the populous places in the center of the town should be free from traffic congestions for providing service to the public. Therefore, following roads must be developed as alternative roads with two lanes to minimize traffic. Hospital road from Udagama junction up to the President College, from there along Concrete yard road to Nonagama road and Transformer road starting near to Mahaweli ground road up to Moraketiya road.

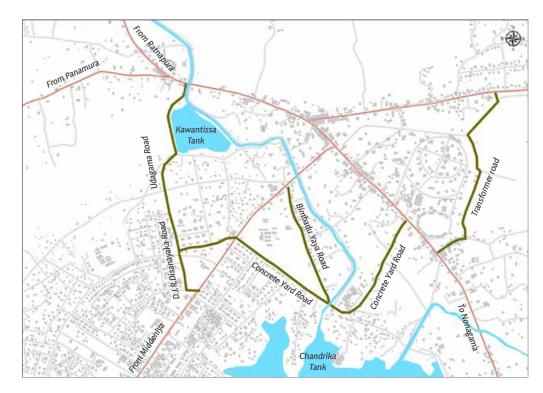
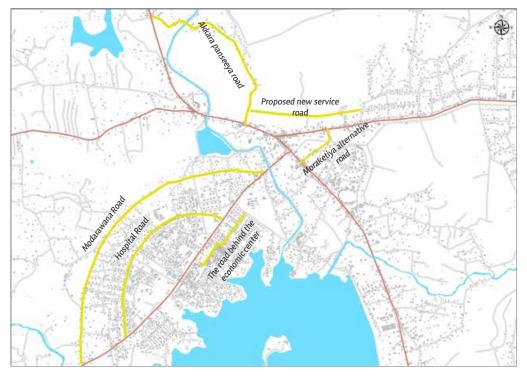


Figure 6.14 : Development of proposed alternative roads *Source :* Sabaragamuwa Provincial Office, UDA, 2020

Strategy 03 : Service Road Development

To minimize traffic congestion on mostly used populous following five roads in dilapidated conditions at the center of the city, to be developed as main service roads. Hospital road, Modarawana ring road, Road is nearing to the Economic center behind the Fair up to Concrete yard road, Akkara panseeya road. And new road from Akkara panseeya road behind the Embilipitiya Royal College, Moraketiya Road's up to Liyinagama Road.



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Physical Infrastructure Development Strategies

Figure 6.15 : Proposed service roads Source : Sabaragamuwa Provincial Office, UDA, 2020

Strategy 04 : Tourist Service Road Development

Following roads must be developed as two-lane roads. The roads have been identified located in the Udawalawa town which is proposed Tourist service center with hotels and safari facilities in Udawalawa Junction, Rathkarawwa area, are saw mill road, Dharmapala Mawatha and Mudunmankada Road. And road along Udawalawa right stream bank to be developed as a special tourist trajectory for attracting Tourist to the Embilipitiya Town.

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Physical, and Social Infrastructure Development Strategies

Physical Infrastructure Development Strategies

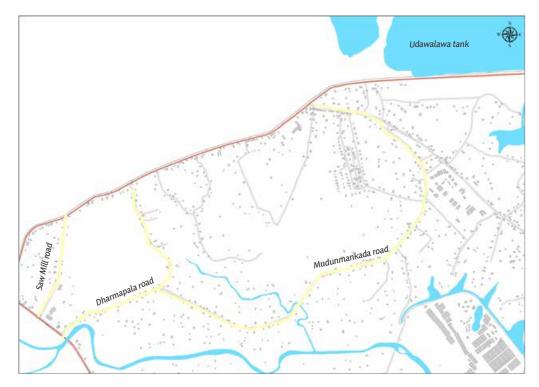
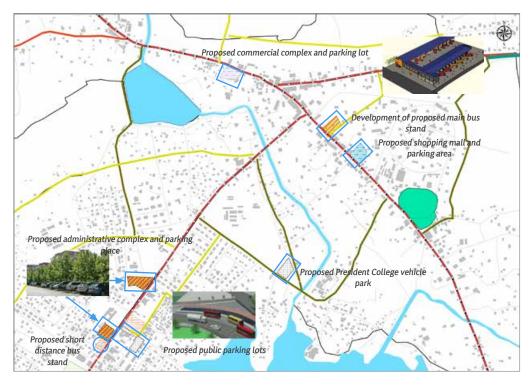


Figure 6.16 : Proposed tourist service road Source : Sabaragamuwa Provincial Office, UDA, 2020

Strategy 05 : Vehicle Parking Areas and Bus station Development

- (a). Improvement of the facilities required for the operation of buses within the city Bus station And construction of a bus station in Embilipitiya New Town for the short distance travel busses. In addition, construction of a bus park, where the place near to the main bus station for new busses for parking during their waiting period until comes next turn for departure. And to be widen and developed the road leading up to the Moraketiya road from bus station, to regularize the urban transport service.
- (b). To be increased the vehicle parking facilities near the economic center for customers who coming to the Embilipitiya Public fair, Economic Center and the new town. Construction of a vehicles park for school buses and van in the, bare lands in the school premises to minimize traffic congestion near the Embilipitiya Presidents School. As well as providing an alternative approach to the school through expansion and development of the road behind the school.
- (c). To provide vehicle parking facilities in the center of the city, construction of vehicle parks in the land owned by the Urban Council and the Ceylon Electricity Board (land belong to the proposed vehicle park and shopping complex)



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Physical Infrastructure Development Strategies

Figure 6.17 : vehicle parking and bus station development *Source :* Sabaragamuwa Provincial Office, UDA, 2020

Strategy 06 : Management of Existing Vehicle Flow Direction

Implementation of strategies for elimination of parking vehicles either side of roads, route changes of vehicle movement for smooth flow of vehicles. To be implemented a traffic plan to city center to minimize traffic congestion.

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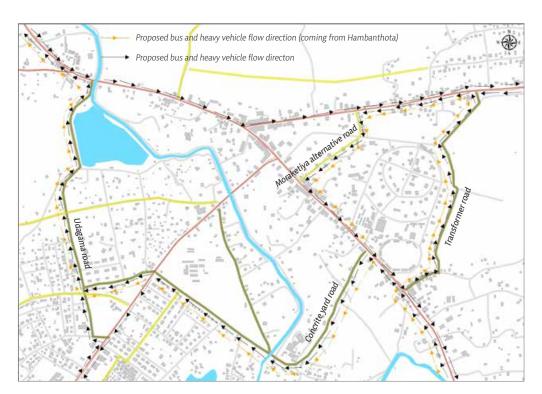


Figure 6.18 : Proposed heavy vehicle flow direction Source : Sabaragamuwa Provincial Office, UDA, 2020

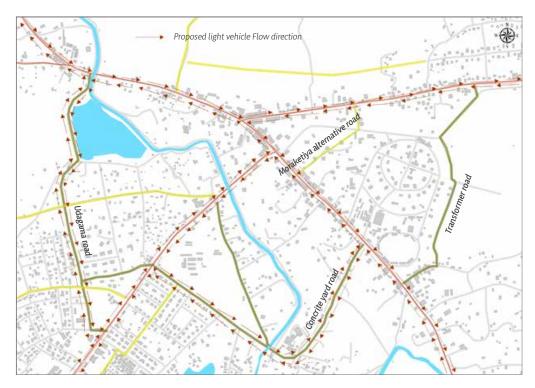


Figure 6.19 : Proposed light vehcle flow direction Source : Sabaragamuwa Provincial Office, UDA, 2020

Strategy 7 :

Introduce the concept of Green Vehicles Park for all the proposed car parks and the existing car parks to be converted to green vehicle parks.

Expand the proposed roads in the heart of the city area and incorporate green coverings to minimize the temperature associated with the city and facilitate to pedestrians.

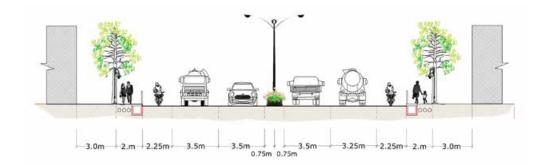


Figure 6.20 : Cross section of proposed four lane roads Source : Sabaragamuwa Provincial Office, UDA, 2020

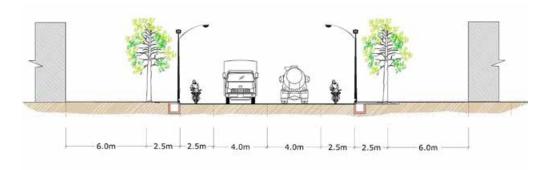


Figure 6.21 : Cross section of proposed two lane roads Source : Sabaragamuwa Provincial Office, UDA, 2020

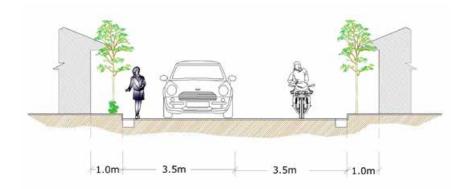
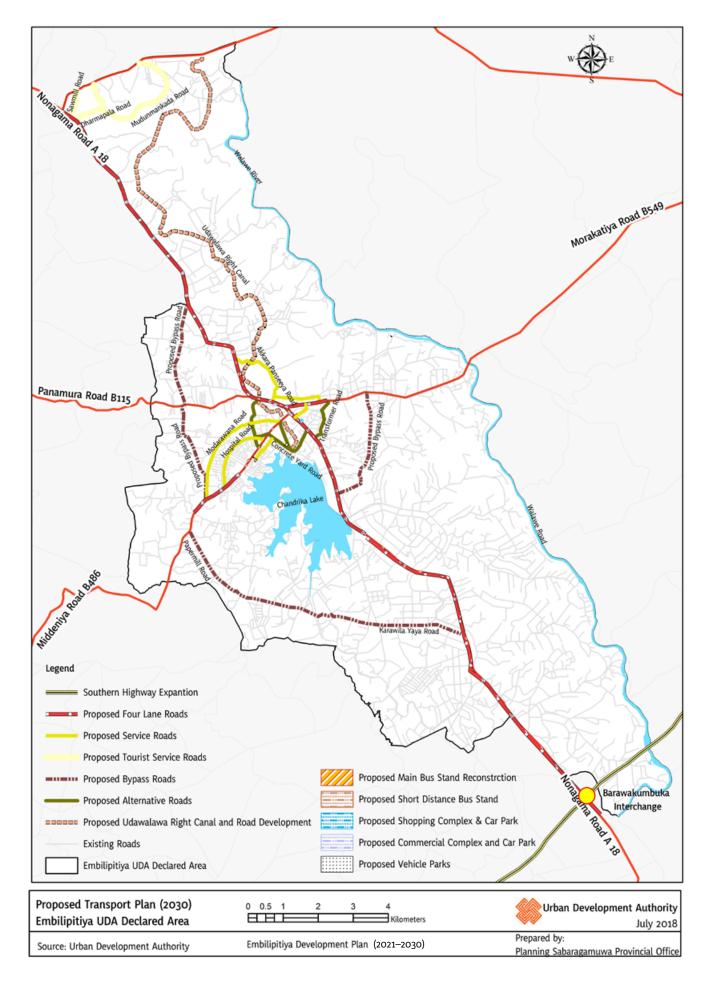


Figure 6.22 : Cross section of proposed local roads Source : Sabaragamuwa Provincial Office, UDA, 2020

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6.4.2.3. Proposed water supply plan

The Embilipitiya residents meet the water requirement for drinking and domestic needs by several main sources. Around 55% of drinking water is supplied by the National Water Supply and Drainage Board. The National Water Supply and Drainage Board is currently in the process of fulfilling the water requirement in addition to the drinking water requirements for commercial, institutional, industrial and other requirements (Table 6.4 and Map 6.4).

	National Water Supply and Drainage Board	Community Water Project	Tube wells	Safety wells	Insecure well	Other
Urban Area	12,153	5,409	339	2671	468	881
Percentage	55.4%	24.6%	1.5%	12.1%	2.1%	4%

 Table 6.4 : Drinking water supply in Embilipitiya urban area (Number of families covered) 2016

 Source : Resource Profile, Embilipitiya Divisional Secretariat, 2016

In Udawalawa and Embilipitiya, two main water storage tanks are used to fulfill the water requirement in the Embilipitiya declared area. The Embilipitiya drinking water reservoir capacity is 18,000 cubic meters while the Udawalawe drinking water reservoir capacity is 7500 cubic meters.

Out of total water consumption about 11,000 cubic meters of water from the Embilipitiya Water tank and about 6500 cubic meters of water from the Udawalawe water retention tank uses per day. According to the current usage, in these two water tanks an accumulated water stock of 8,000 cubic meters of excess water level has been maintained.

By 2030, 25,907 number of residential populations will be increased than existing residential population and drinking water requirement would be 3108 cubic meters per day for increasing dwellers. In addition, the daily water requirement for forecast commuting population of 301,100 anticipated for various services such as commercial, institutional, travel and transport, would be 6022 cubic meters. Accordingly, the daily water requirement of the increasing amount of residential and commuted population could not be met by the existing excess water cubic meters 8,000.

The water requirement of 116 number of small and medium scale industries proposed to be set up by 2030 in the industrial zone would be cubic meters 13764. Existing water storage tanks capacities and water purification centers capabilities would be insufficient to meet this water requirement. According to the above calculations anticipated shortages of water by 2030 would be cubic meters 14894.

Accordingly, to supply water for anticipated shortage by 2030, following strategies have been identified.

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Chapter 06 The Plan Strategy 01 Supply water with drinking qualities Proposed Water Physical, and Social Strategy 02 Provide water requirement for 2030 Supply Plan Infrastructure **Development Strategies** Strategy 03 Use proper water management methods for drought season Physical Infrastructure **Development Strategies**

Figure 6.23 : Proposed water supply plan objectives

Strategy 01 :

Necessary steps would be taken to implement proposed community drinking water distribution projects, covering the Thunkama, Padalangala and Kuttigala with the proper hygienic water purification process.

Strategy 02 :

To meet the predicted water requirement by 2030, it is to be built new water tank with the capacity of 15000 cubic meters and enhance the capabilities of existing water purification plant to suit the total new requirement.

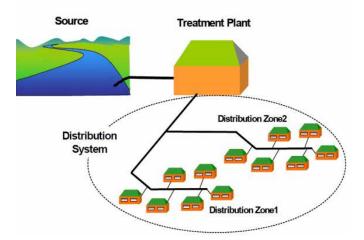
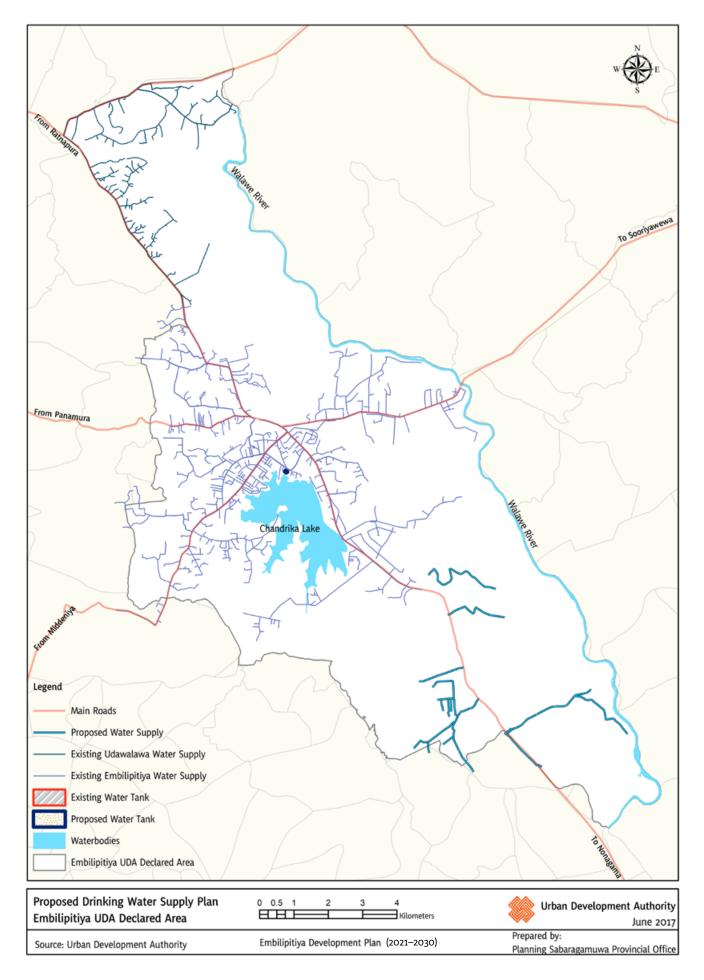


Figure 6.24 : Drinking water distribution system Source : https://rb.gy/0z3pov

Strategy 03 :

Chandrika Wewa is the main water source of the region to maintain adequate water capacity by proper systematic water management system to supply water, even in the annual drought period of Embilipitiya zone.



Map 6.4 : Drinking water supply plan 2030

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6.4.2.4. Proposed Electrical and Data Lines Plan

Presently whole Embilipitiya urban declared area has been covered by electricity supply, and electricity distribution has been done by the main grid station in the Kadurugas Ara area. Its maximum capacity is 63 megawatts ampere. 31.5 megawatts ampere electricity had been consumed in residential, industrial, institutional and commercial sectors during the year 2017. 31.5 megawatts ampere of excess electricity have been existing in the Electricity grid.

Accordingly, to the forecast population in the year 2030, 6476 residential units have been expected to increase, in addition to the current residential units, the anticipated capacity of the projected commercial, institutional, and industrial sectors, 49.3 megawatts has been expected to increase by 2030. The current surplus cannot meet the increasing requirement. Accordingly, it has been identified, 18 megawatts ampere requires to meet the forecast demand for electricity by 2030.

It has been identified the necessity of providing data network to the entire urban area, to achieve the objectives of the proposed town development plan by 2030, with modern technology for future communication, interchange of data and increasing global connectivity. Accordingly, some of the key strategies identified through the proposed power supply and data plan for fulfilling the power consumption requirements and the requirements for data usage by the year 2030 are as follows.

Strategy 01:

Generate electricity through Solar Power to meet the expected electricity demand by 2030.

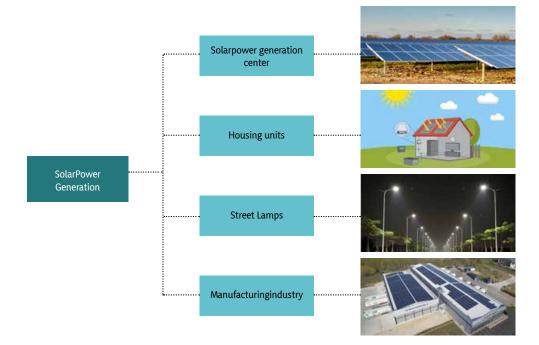
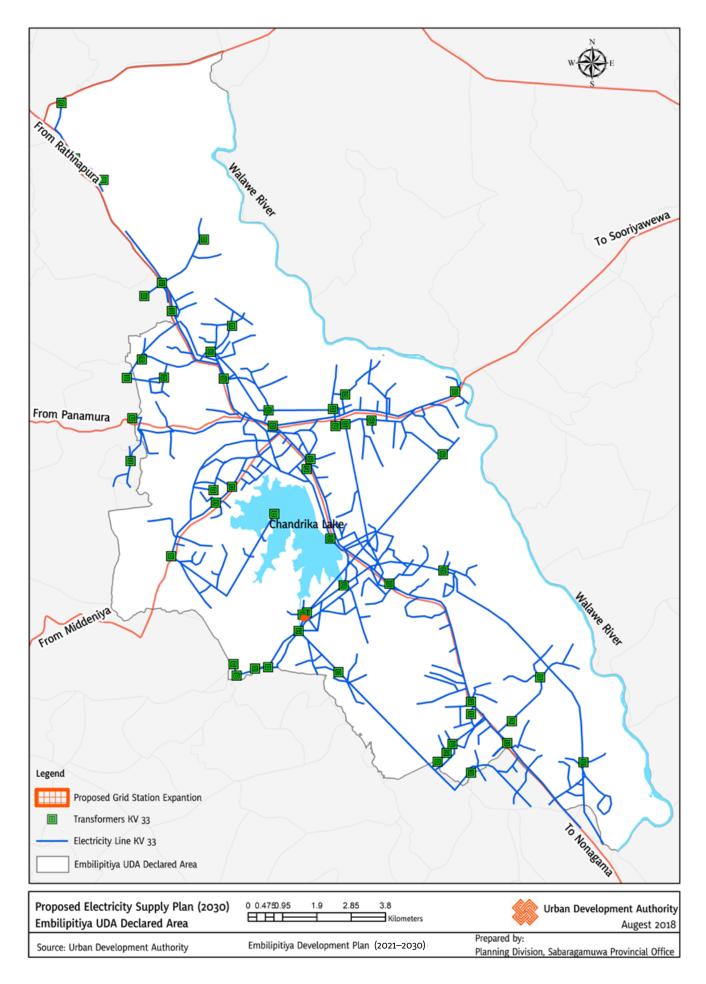


Figure 6.25 : Solar power generation methods



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Physical Infrastructure Development Strategies

Strategy 02:

Data network must be covered the entire declared area, including Udawalawa Tourist Service Center, Embilipitiya Commercial Center, Thunkama, Padangalagala, Agriculture Service Center Zone and Proposed Industrial Zone.



Figure 6.26 : Identified city centers for WI-FI coverage

6.4.2.5. Proposed Wastewater and Sewerage Management Plan

Septic tanks and waste water pits have been used for drainage and sewerage system in the House, Commercial buildings, and Institutes in Embilipitiya urban area, there is no proper methodology for drainage and sewerage system. However, the use of these methods has become a problem due to the high density of commercial use of the Embilipitiya town center. According to the geographical location of the town low water table depth (Figure No. 6.27), malfunction of absorbing of waste water pits and septic tanks have been overflowing.

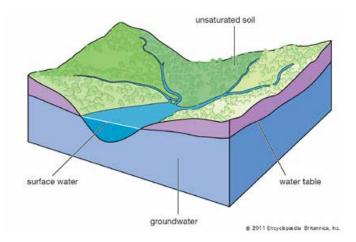


Figure 6.27 : The cross section of a land Source : https://bit.ly/2J16dIG

At present, drainage and sewerage system of the buildings at the commercial center in the city center has been malfunctioning. During rainy days and night time, some of the people has been diverted drainage and sewerage to storm water drains. These drains have been carried contaminated water to the Canal D 26, at the Kawantissa Rajamaha Viharaya to the paddy fields. Therefore, who use D26 canal's water for the cultivations has been experiencing severe inconvenience due to contaminated water.

Accordingly, to find solutions to the existing problems by the year 2030, there are several strategies have been identified by the proposed drainage and sewerage Plan.

Strategy 01 : Release of Wastewater into the Environment after treatment Process

- (a). Formalize existing drainage system and polluted water caring through the drain to be refined prior flows to the environment.
- (b). D 26 canal, to be renovated and to be prevented of waste and sewage disposal to the canal

Strategy 02 :

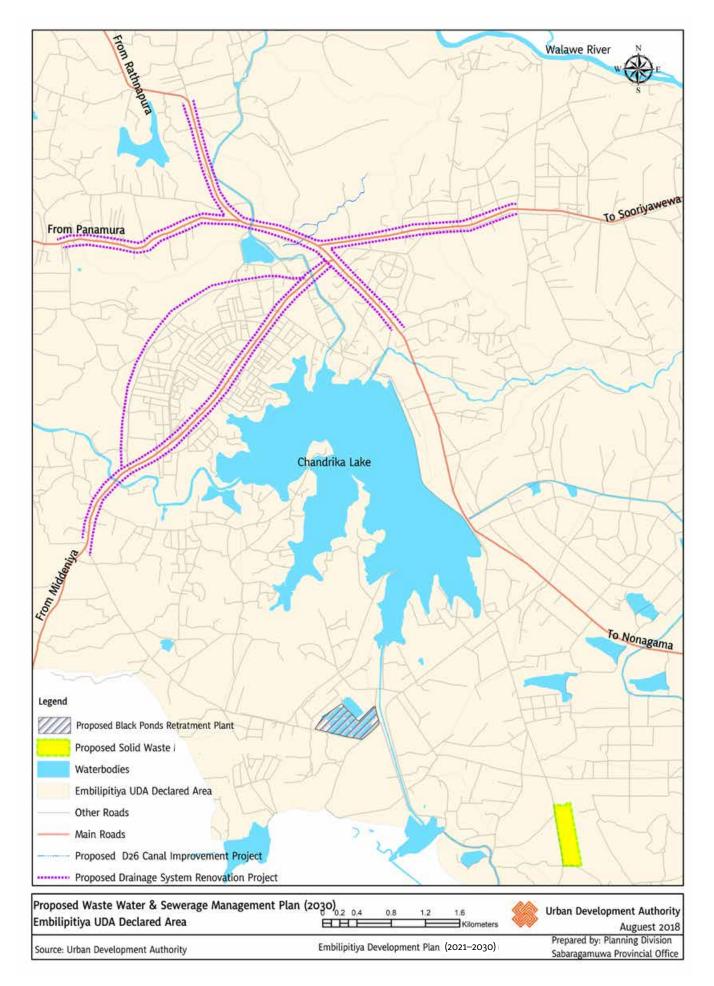
Sewage system line work with the gravitation force to be constructed in the area covered by the proposed commercial zone I for 2030. And sewage carries through the sewage system line to be collected at place, and to be transported by Gully Bowsers to the proposed recycling plant for recycling, to be built in the proposed green model village by Embilipitiya Urban Council.



Figure 6.28 : Sewage management method Source: : https://bit.ly/2x7C8S5

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6.4.2.6. Proposed Solid Waste Management Plan

Solid waste management in Embilipitiya declared area has been carried out by under main administration institutions of Embilipitiya Urban Council and Pradeshiya Sabha. The amount of solid waste generated within the Embilipitiya Urban Council is about 24 tons. Out of 24, the Urban Council collects 6 tons per day. From the Provincial council area which belongs to declared area, 16 tons of solid waste has been generated. Out of 16 tones Pradeshiya Sabha collected only about 4 tons per day.

Accordingly, from the entire Embilipitiya declared area 40 tons of total solid waste has been generated per day. Out of 40 tons, only 10 tons have been collected per day. According to the expected number of inhabitants to be increased by 2030, it has been forecast 9.9 tons solid waste could be generated by them per day, and by the commuted population by 2030, it has been forecast 6.7 tons solid waste could be generated by them per day. Accordingly it has been expected that total of 56.6 tons of solid waste could be generated in the Embilipitiya declared Area by 2030.

The predicted commuting population of 2030 predicts a tone of solid waste per day about 6.7 tons per day. Accordingly, by 2030 the Embilipitiya Urban Council will generate 56.6 tons of solid waste.

Out of 6 tons, 2.25 tons of garbage collected daily by the Embilipitiya Urban Council have been used to produce organic fertilizer, while 1 ton has been issued to private buyers for recycling. The balance 2.75 tones have been dumped and covered by the soil layer, at the disposal site of the Kadurugas Ara Solid Waste Management Center. However, in some occasions this disposal process could not be carried out in practically, in such instance, it has been observed garbage had been kept on open ground for a number of days.

4 tons of solid waste collected within the urban area belonging to Embilipitiya Pradeshiya Sabha has been dumped to the land called Ethhodagala Nindagama. This land has been located very close to the Chandrika Wewa, such a manner dumping of garbage to open ground has not advisable, and it has been created many environmental issues.

At present, there has been no proper system for solid waste management in the declared Area. It has been prepared the Solid Waste Management Plan for Embilipitiya UDA declared Area up to 2030.The plan has been included identified strategies and it has been taken into the consideration of anticipated Solid Waste generated by the increasing population by the year 2030.

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Major strategies identified

Strategy 01 : Collecting and disposing of garbage according to a systematic procedure

(a). Collection of segregated waste

It has been identified the requirement of separation of garbage according to a systematic methodology such as decay, non-decaying and garbage to be collected from the entire declared area according to these categories.

Collection of garbage from residential, commercial, institutional and all sectors in a systematic manner covering the entire municipal area under various categories such as decay, non-decaying, electronic Waste (E-waste).

Implementation of awareness programs on waste management practices such as Reduce, Reuse and Recycle (3R Concept).

(b). Practice of GPS technology

GPS technology and other technology have been used for collection, garbage in the Urban Council Area, to be implemented to all Urban Council and Pradeshiya Sabha areas.



Figure 6.29 : Solid waste collection by EUC using modern GPS technology and specialized APP *Source :* Embilipitiya Urban Council

(c). Disposal of garbage to the land without harming the environment

The land which is currently being used by the Embilipitiya Pradeshiya Sabha for disposal of solid waste is located about 500 meters away from Chandrika Wewa, has identified as a threat for the main drinking water source in this area and solid waste collected by Embilipitiya Pradeshiiya Sabha is given for the proposed waste management center by Urban Council.

Proposed Sanitation land filling by Embilipitiya Urban Council

There is only 30% of mixed garbadge can separate out of total mixed waste collected by Urban Council has identified to manage using sanitation land filling. Thus, sanitary landfilling has been identified as a scientific method that does not harm the environment.



Figure 6.30 : Proposed sanitation land filling system by Embilipitiya Urban Council | **Source :** shorturl.at/ckGX3

Strategy 02 : Convert city garbage as a property

The soil layer, which is dug for that is carefully milled by placing a fixed layer of soil at 4 m above ground water level, then systematically overlaying a layer of granite, then geo-textile cover, petrolite cover, HDPE Cover and again fill geo-textile cover, granite and finally fill geo-textile layer and complete the sanitary filling.

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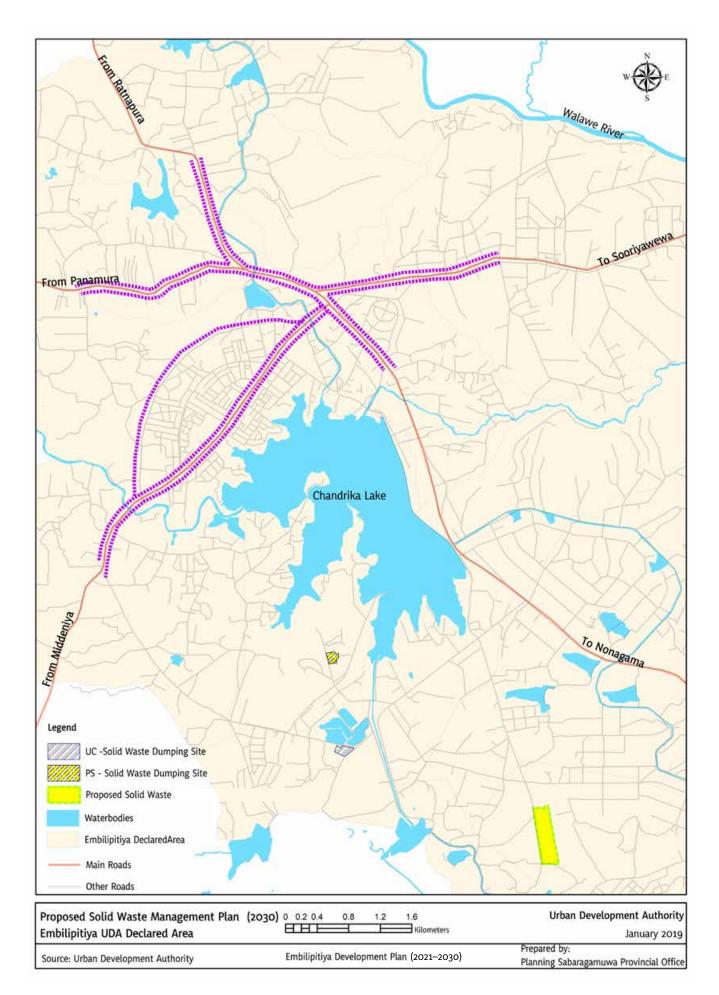
Physical, and Social Infrastructure Development Strategies

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Figure 6.31 : Proposed Kadurugasara Mihisara Organic Fertilizer Production center | **Source :** EUC

To be established proper garbage recycling center with advanced technology closed to Embilipitiya Industrial Zone, and proposed green village model for proper management of garbage discharge by Embilipitiya declared area.



6.5. Economic Development Strategies

Embilipitiya Development Plan based on the economic development of the town focused on following objectives. Develop Embilipitiya as the main commercial and Agro service center in Ratnapura district by 2030 and strengthening the economy of the town Through value added production process of Walawa regional agricultural products. Accordingly, three strategic plans for agriculture, industry and tourism have been identified in the development of Embilipitiya town in 2030.



Figure 6.32 : Economic development plans

6.5.1. Proposed Agro Economic Plan

According to the urban hierarchy Sabaragamuwa Provincial Council, Embilipitiya town in the Ratnapura district has been identified as a second order town.

According to the Department of Census and Statistics (in 2012), 52% of the total workforce in Embilipitiya declared area is economically active. The 92% of the active population is employed and the remaining 8% is considered as unemployed.

Agricultural activities are the main economic base of the town and about 1/3 or 35% of urban lands have been used for agricultural purposes and over 59% of land areas have been used for cultivation purposes. Out of 27 paddy producing zones in Sri Lanka, udawalawa zone has been ranked in 15th place. The rice production in Embilipitiya has been strengthened in the paddy production in the Walawe region.

In the year 2016, paddy production in the Yala season was 11,378 metric tons and the Maha season was 9,935 metric tons.

Although the paddy cultivation in the urban area is in higher rates. Embilipitiya town famous for banana cultivation. Banana production in Embilipitiya town has been distributed to the whole country. Four days a week, Banana markets have been operating within the Embilipitiya, Thunkama and Moraketiya. About 13,750 Banana stock has been sold in the weekly banana markets. (Hector Kobbekaduwa Agri Research and Training Institute 2011).

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Proposed Agro Economic Plan Embilipitiya is rich with fertile soil and it is good for different kind of cultivations. Therefore, except banana cultivation, vegetables, fruits and supplementary crop cultivations also available. Out total lands, 21% of the lands have been used for agricultural purposes. Taken into consideration the type of job expansion in the city, there are 27% of the people employed in agriculture sector is considered as the higher rate.

City economy mainly based on the agriculture. In addition, industries, tourism industry, wholesale and retail trade, mineral resources, Banks and Financial institutions contribute to the overall economy.

Embilipitiya town is the service provider for its surrounded small towns and agricultural activities as well. There are 152 different types of businesses can be identified. There are 64 different tourist hotels have been in declared area.

People who live around Embilipitiya town specially coming to the city to obtain financial services from financial institutions in the city. There are 17 state and private sector banks and 25 financial institutions located besides the main roads in the city; such as the Nonagama, Moraketiya and Middeniya road. This has been identified as strengthened of the city. The economy of the city has been expanded in many ways. These sectors have been operated in an inter connected manner. The main link of this economic vitality is agriculture, and that promotes the economy of the town.

Inability of issuing annual water requirement for agriculture has been identified as a major problem of irrigation. It is the major issue of agriculture sector. During the dry weather climatic conditions, it is impossible cultivating both Yala and Maha seasons. Due to this reason it must be abandoned cultivation in one season or cultivation half of the land area.

Introducing a new variety of seeds of low quantity water requires, and high yield and could be cultivated under dry weather condition also key strategy.

In this context, water is an indispensable factor for the promotion of agriculture. If managing the water in the dry weather condition, both Yala and Maha seasons could be cultivated and harvest would be increased. This is also a key strategy in strengthening the regional agricultural economy.

Strategy 01 : Facilitate for a maximum production

(a). Provide adequate water for cultivation

Improvement of irrigation canal system at Udawalawe southern stream, water supplying from Udawalawa reservoir to the Chandrika Wewa and agricultural lands

(b). Increase water retention capacity to full fill water demand

To be reconstructed of nine Tanks with the capacity of three (3) to fifteen (15) hectares water retention capacity, could be issued water for agricultural activities.

(c). Supply of water as needed

Implementation of a Water Management Plan covering the entire region to provide annual water demand continuity. (Water for Quota system)

Strategy 02 : Collection of yield near the cultivation areas

Establishment of collection centers for Agro-products in the stall, Thunkama, Kuttigala and Moraketiya areas and interconnecting these centers with the Embilipitiya Economic Center. And making the Economic Center as a major operational center for selling agricultural products, obtaining the products of the regional farmers at reasonable prices, and minimize the output of agricultural products via intermediate vendors, for strengthening the economy of the town.

Strategies 03 : Improve qualitative products

(a). To be Introduced new variety of seeds of low quantity water requires while high yield produced and could be cultivated under dry weather condition. To be established farmers training centers adjacent to Agrarian service centers to educate farmers about modern technology.



Figure 6.33 : Production of breeding seed

(b). To be establish large scale and small-scale compost plants in the region to minimize the use of Agro chemicals and chemical fertilizers and promote farmers to use of organic fertilizer in the cultivation practices.

Strategy 04 : Protection of cultivated lands

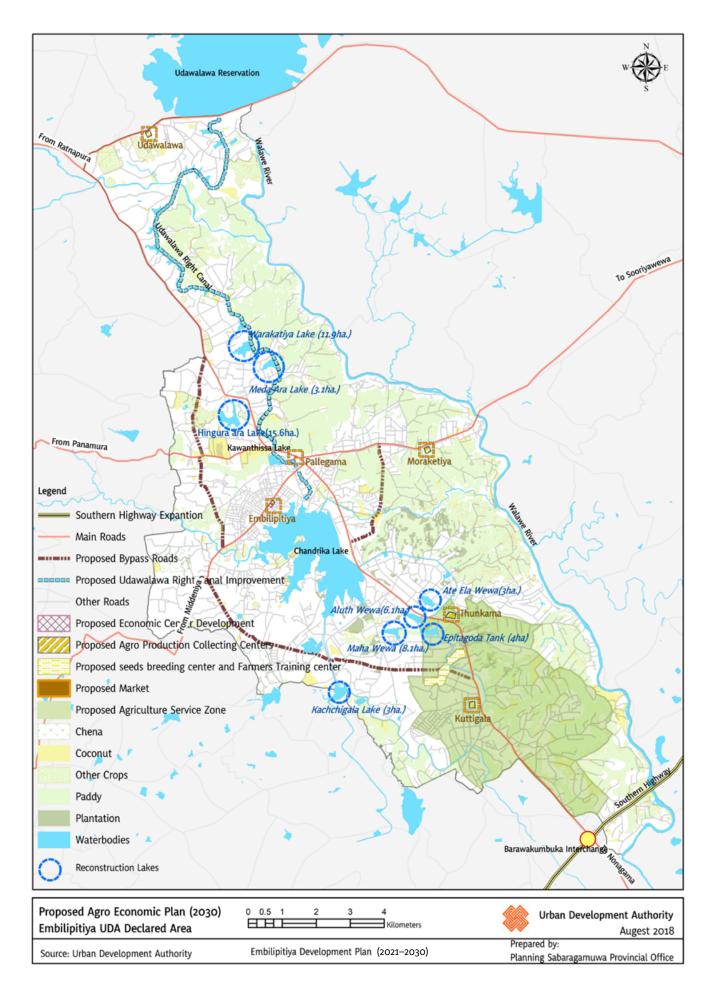
Protect existing paddy lands in planning area as sensitive ecosystem by developing as a Green Conservation Zone and to be utilized the area only for agricultural purposes

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Proposed Agro Economic Plan



6.5.2. Proposed Industry Plan

The main economic source of the town is agriculture and in addition, several industries are operating in the declared area. Currently, 287 industries are in operation in the Embilipitiya UDA declared area, including small, medium and large scale industries as well as traditional industries. Also, as a self-employed 630 small scale industries operating in the region. (Table no.6.5).

An area of 25 acres has been used in industries in the 50 acres industrial zone currently in operation in the Embilipitiya declared area. The remaining 25 acres of land will be allocated for the second phase.

Classification	Embilipitiya Urban Council
Small scale Industries Employees 1-10 Employees 10-50	191 18
Small scale Industries Employees 50-200	32
Large scale Industries Employees 650	01
Traditional Industries	45
Total	287

 Table 6.5 : Existing industries of Embilipitiya Declared Area

 Source : Resource Profile, Embilipitiya Divisional Secretariat2016

The area is being used for industrial development activities, identifying trends in new industries in the industrial zone, which has been identified in the proposed land use plan for 2030.

The total area of the industrial zone is 1200 acres. The Developable land area is 823.8 acres and it is estimated that 20% out of the total land area is allocated for outdoor areas and roads and 633.8 acres of land allocated for development of new industries.

The proposed industrial zone will be implemented in two phases and it has been identified to establish small, medium and large-scale industries. Proposed industries are proposed to be utilized with the agriculture related activities and Agro yield in the region

And some of the key strategies identified to create this industrial zone.

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Strategy 01 : Establishment of a Manufacturing Industrial Zone, which use regional agricultural productions as raw materials

- (a). Establishment of more than 100 industries (small, medium and large scale) which include value added Agro products and industries that can be used with minimize environmental damage, within the industrial zone proposed by the proposed land use plan for 2030
- (b). Development of Infrastructure facilities in 280-acres land for the establishment of industries including existing 50-acres industrial zone and paper mill land in Hingura, under the first stage of the proposed industrial zone.

As the second stage of the proposed industrial zone, the development of infrastructure facilities in approximately 580 acres adjacent to the proposed industrial zone under the first stage.

- (c). Resettlement of people who living in the proposed industrial zone with infrastructure facilities and resettling elsewhere in a favorable environment.
- (d). Manufacturing of value added productions using regional raw materials



Figure 6.34 : By-products of banana Source : https://bit.ly/2Y2Iu

Strategy 02 : Collection and transportation of regional agro-products in a convenient way

(a). Easy access to urban raw materials, manufacturing centers

Developing the market for bananas and other Agro-based products such as Thunkma, Moraketiya, Kuttigala and Udawalawa as major Agro-product collecting centers and the raw material required for the industry with value-added products gathering easily from the region.

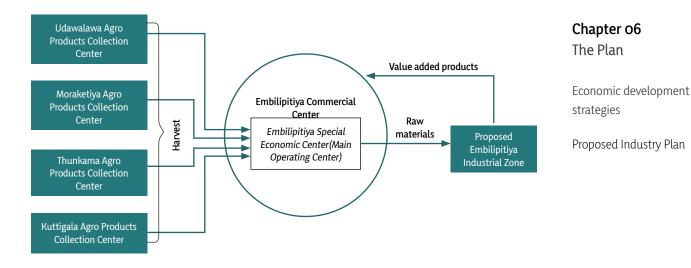


Figure 6.35 : Embilipitiya Agro Products Collecting Center Network

(b). Minimize transport cost for products and raw materials

For transporting products and materials to minimize costs, to connect to the Mattala Airport and the Hambantota Port as well as to the Southern Expressway, development of the two lanes alternative road from the paper mill to the Kadurugas Ara via Karavila Yaya road proceed to the Nonagama road

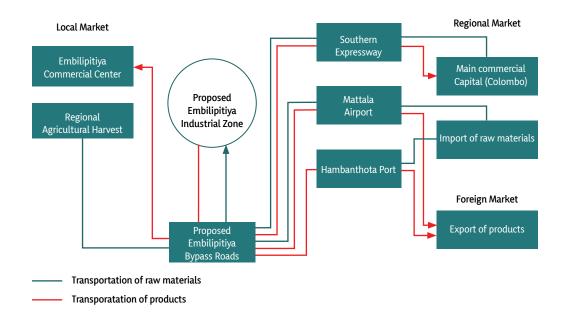
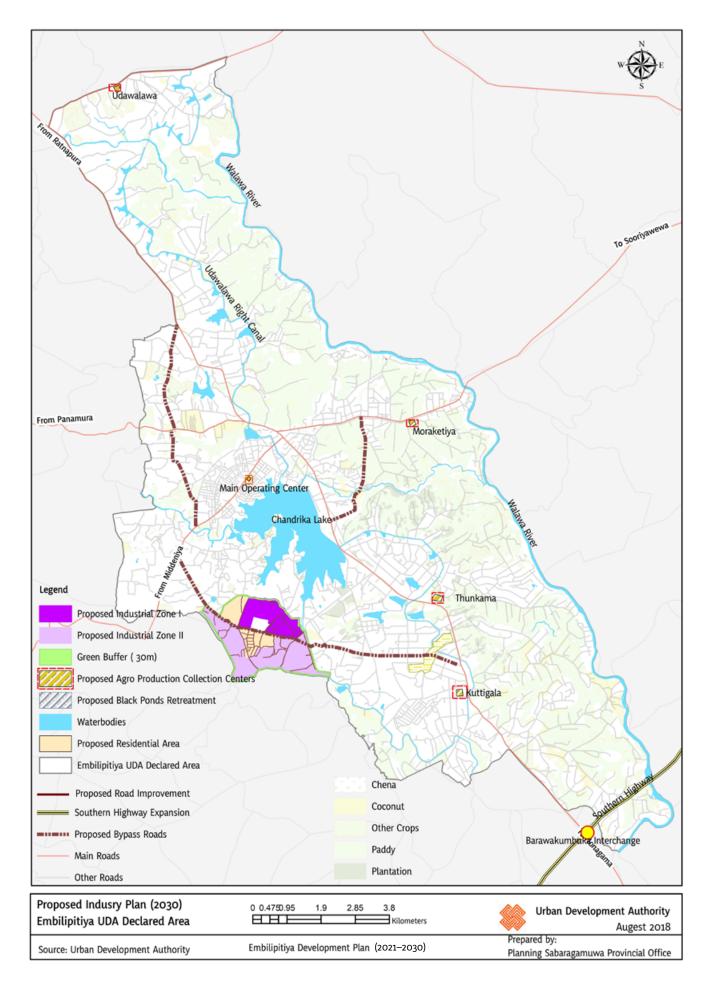


Figure 6.36 : Embilipitiya proposed manufacturingw materials & manUvacturing distribution network

(131)



6.5.3. Proposed Tourism Service Plan

Among the seven tourism zones in the Sabaragamuwa Province, Embilipitiya town is included in Udawalawa tourism zone. Among the more popular attractions in the tourist region are the Udawalawa Elephant Conservation, Udawalawa National Park, Sankapala Rajamaha Viharaya, Panamura Ettagala, Udawalawa Reservoir, Chandrika Wewa, Liayangastota Dam and Maduwanwela Walawwa. Although most of these places don't belong to the Embilipitiya declared area, but most tourist arrivals have been identified to visit the Embilipitiya declared area for obtain services.

Especially the Udawalawa Tourist Zone has become famous for watching elephants. During the January-July period, 134,116 domestic tourists and 62,145 foreigners visited the Udawalawa elephant transit home and the Udawalawa National Park. Similarly, the number of visitors to the Udawalawe Tourism Zone during the months of January-August and September-September is nearly 100,000, identified by travel gate counts.

About 50% of the visitors come to the Udawalawe National Park and travel to Embilipitiya for safari, accommodation and food. Udawalawa tourist arrivals have been spent in the urban area only and the Udawalawa track 2, Rathkarawwa areas have traveled to other areas and the attractions of the city center and the city have attracted many of the attracting areas to visit.



Figure 6.37 : Udawalawa Elephant Transit Home and Chandrika wawa Source: : goo.gl/c1pqrE



Figure 6.38 : Liyangasthota Dam and Sankapala Temple Source: : goo.gl/jDL1iY

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Proposed tourism service Plan

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Figure 6.39 : Udawalawe reservoir and Maduwanwela walauwa Source: : goo.gl/fzpLdy , goo.gl/fzpLdy

In addition, there are various types of facilities such as Cabana Cottage, Lodge, Restaurant, Villa, Hotels, Resorts etc. for lodging and catering at the Udawalawa Tourist Zone. There are 80 such centers in Embilipitiya, of which 64 are in Embilipitiya declared area. Further, residential units in the Udawalawa area have been identified conversion for tourism purposes.

There are some key strategies identified to promote tourism industry Thus, the resources available in the Udawalawa Tourist Zone are being improved as Embilipitiya is a major source of income

Strategy 01 : Expansion of Tourism services in the Udawalawa Tourism Zone

- (a). Udawalawa and other nearby attraction areas named as tourism service zone to promote tourism activities.
- (b). The lands which have high demand for tourism activities use for tourism.
- (c). Developing the Saw Mil Road, Dharmapala and Mudungankada Roads in the Udawalawa Tourist Zone to arrange transportation of visitors to obtain travel services.
- (d). Developing the Udawalawe Southern Canal road asthe tourist pathh from Udawalawe to Embilipitiya towncenter, attractingg tourists to the attractive tourist areas in the town.



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Proposed tourism service Plan

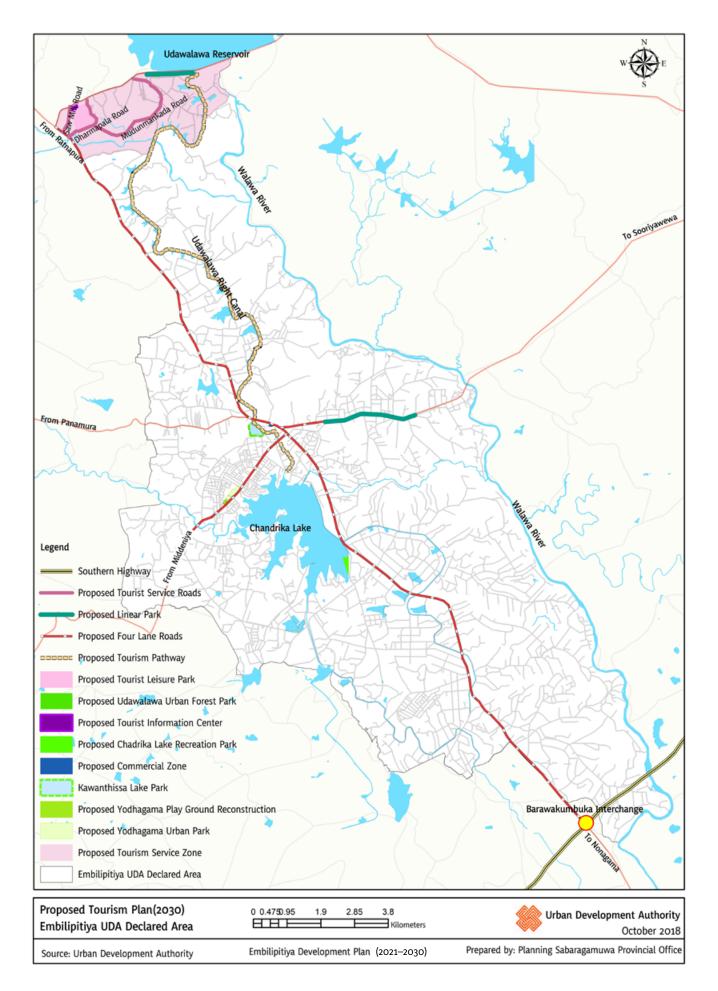
Figure 6.40 : Proposed Udawalawa Tourism Zone Source : Sabaragamuwa Provincial Office, UDA

Strategy 02 : Provide tourists attract new experiences

Attract local and foreign tourist to the tourist attraction areas in the city via Adventure Parks, Eco Tourist Bungalows, etc.



Figure 6.41 : Green circuit bungalows and adventure park proposed by the Embilipitiya Urban Council *Source :* https://rb.gy/hnocky/ , https://rb.gy/qqticx



6.6. Sustainable Environment Development Strategies

A major development objective identified in the Embilipitiya Development Plan for 2030 is to create an attractive city for a better environmentally-friendly development. The Proposed Environment Conservation Plan and open spaces (PORS) plan is key strategies under the sustainable environmental development strategy.

The identified strategic plans include the development of an environmentally friendly city, protecting environmentally sensitive areas, including Chandrika Wewa, Walawe River basins, paddy fields and other wetlands.



Figure 6.42 : Sustainable environmental development plans

6.6.1. Environment Conservation Plan

Out of the total land area in Embilipitiya Declared area 27% of land area is a paddy field and 6% of water Bodies. Accordingly, this town has been identified as an area with sensitive lands with tanks and reservoirs, irrigation canals, rivers, water resources and of 0.25% wetlands. Due to adverse human activities of the city the existing ecosystem has been damaged. Chandrika Wewa is the main water supply of the city and there is a 100m lake reservation area, in the present situation buildings are constructed in lake reservation area has identified as a threat to Chandrika Lake.

In addition to that releasing waste water to D26 canal which flows through the city center to paddy lands and land sand mining near Walawa river area are affected for imbalance of the existing ecosystem.

There are no serious natural disasters in the area and 1710 families have been affected by the drought during the past 5 years. Thus, conserving the existing ecosystem, some of the major strategies identified for carrying out the development activities of the city

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Environment Conservation Plan Chapter 06 The Plan

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Environment Conservation Plan Strategy 01 : Establish guidelines for the protection by identifying unique water sources and sensitive ecological zones

- (a). Protection of lake related ecosystems by creating 100 meter buffer zone for the Chandrika Wewa
- (b). Protection of riverine ecosystems by creating a 40-meter riverside protected area for the Walawa River
- (c). Chandrika Wewa and surrounded area develop as a low density area to protect the existing ecosystem.

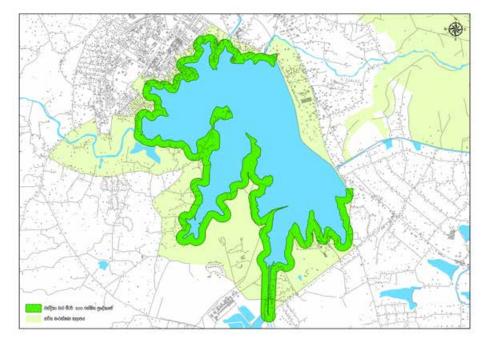


Figure 6.43 : Conservation area and green conservation area around Chandrika lake Source : Sabaragamuwa Provincial Office, UDA, 2020

Strategy 02 : Rehabilitation of existing water sources

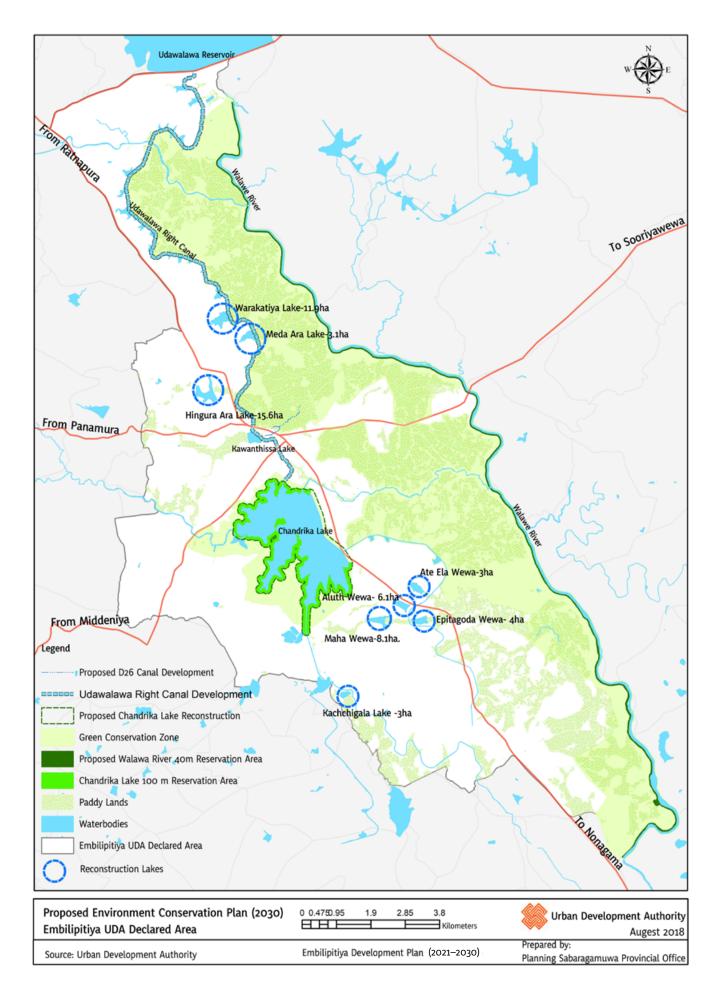
Improvement of the irrigation canal system at Udawalawe south stream supplying agricultural lands, including from Udawalawa reservoir to the Chandrika Wewa.

Strategy 03 : Increase quality production and promoting around the region

Reduce the use of pesticides and chemical fertilizers and promotion of organic fertilizer for cultivation and Establishment of large scale and small compost plants in this region.

Strategy 04 : Conservation of existing wetlands to protect ecological imbalance

Provision of special guidelines for wetland conservation in the town



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Proposed PORS Plan

6.6.2. Proposed PORS Plan

In 2016 the total population in the Embilipitiya declared area is 99,138 people and the net population density is 660 persons per square kilometer. The expected population in 2030 is predicted to be 125,045. The available space at present is 24.28 (Annexturetre Table No. 2.5), (Table No. 6.5) hectares to cater to the population needed for direct recreation. In addition to this, only two public libraries, one cinema halls and 68 community centers have been established to fulfill the indirect recreation facilities.

According to the design standards of Urban Development Authority, 1.4 hectares for 1000 population should be allocated for direct and indirect recreational facilities. Embilipitiya consist of large agriculture and residential lands and plenty of open spaces are there. So need to provide sufficient open spaces for commuting population and future population.

No	Classification	Extent (ha)
1.	Pocket Parks (EPP)	0.72
2.	Mini Park (EMP)	10.47
3.	Local Parks (ELP)	4.17
4.	Community Parks (ECP)	8.92
	Total	24.28

 Table 6.6 : Direct Recreational area in the Embilipitiya Town

 Source : Landscape Division, UDA, 2017

An extent of 175 hectares of land should be allocated for direct and indirect recreation for the predicted population for the 2030s. Accordingly, it has been identified as one of the strategies to fulfill the direct and indirect recreation in the town as a major infrastructure facility for the city dwellers (Annexture Table no2. 6).

Strategy 01 : Provide direct and indirect entertainment facilities to the desired population

(a). To provide direct entertainment facilities for predicted population for 2030 covering the whole declared area need and allocating space for small, medium and linear parks.

No	Classification of Parks	Extent (ha)
1.	Proposed Community Parks (PCP)	4.95
2.	Proposed Town Parks (PTP)	19.7
3.	Proposed Linear Park (PLiP)	209.2
	Total	233.9
4.	Extent of existing common open space	24.28
	Total	258.1

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Proposed PORS Plan

Table 6.7 : Proposed Park Classifications

 Source : Landscape Division, UDA, 2017

(b). All available play grounds and playable and common open spaces maximum use of recreation, and classification and Redevelopment for recreation.

Strategy 02 : Promote the urban economy through leisure facilities

- (a). Reconstructing the Mahaweli Stadium, which is one of the major playgrounds in the town and contributing to the urban economy by providing national and regional requirements.
- (b). Developing the South Canal of the Udawalawe as a tourist trail, providing an environmentally friendly recreational like miner boats, rowing, bicycles and rafting to provide entertainment for people contributing to the urban economy.
- (c). Develop the area that located near the Moraketiya canal facing to main road as Linear park to elimination of unauthorized constructions.

Facilitate the establishment of small scale Hela Bojun Halls located at Moraketiya linear park and create new employment opportunities for the urban people and contribute to the urban economy.

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Sustainable environment development strategies

Proposed PORS Plan

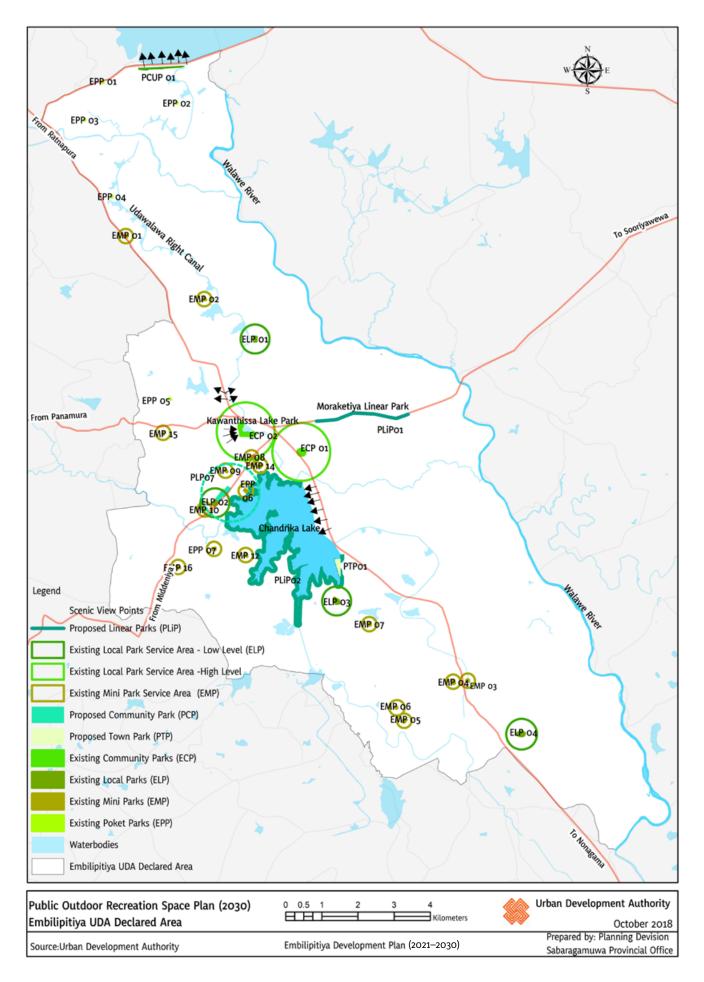
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Figure 6.44 : City economic development opportunities with recreational facilities *Source* : https://bit.ly/2XOJSjo

Strategy 03 : Creating a comfortable environment by using temperature minimizing techniques to increase urban attraction

- (a). Conducting all official state and semi-state buildings according to Green Building Concept.
- (b). Applying water sprinkler in the construction of all the offices and houses in the construction of the green paws and the green roof.
- (c). Awareness on the application of light colors to buildings.
- (d). Flooring is restricted to water-absorbing systems and restricted to light colors.
- (e). Maintenance of existing playgrounds, parks and open lands and planning and implementing proposed open ground green concept.



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Sustainable environment development strategies

Landscape Management Plan

6.6.3. Landscape Management Plan

The green – blue environment of Embilipitiya with its agricultural identity, lakes, canals and paddy fields has enhanced the aesthetic value of the town. Special attention has given for dry weather features in this area for landscape management. The main objective of this plan is to conserve the existing natural landscape features of the area. That will protect the identity of the city.

In addition, this plan seeks to sustainably landscape management for various ecosystems, trails, through systematic environmental conservation plans. The Landscape Management Plan has prepared following objectives to response global climate changes in future.

- (a). Increasing urban forest cover to reduce disasters such as Urban Heat, increased carbon footprint, increased air pollution, and increased flooding.
- (b). Addition of native plant diversity that is endemic to the environment for the growth of urban biodiversity
- (c). Provide separate walkway lanes with shade and seating areas for pedestrian safety and to encouragement for walkers
- (d). Protecting sensitive ecosystems and introducing Wise use for sustainable use in eco-friendly recreation.
- (e). Well-designed open spaces with infrastructural facilities such as urban squares and walkways create for the public
- (f). Enhance city beauty with the city identity and provide economic development via adding various parks, walkways, suitable name boards, lighting

The following strategies have been identified in the Landscape Management Plan of Embilipitiya town to achieve the above objectives

Strategy 01:

Increase city green cover within proposed urban parks to minimize climate changes such as urban heat, increased carbon footprint and flooding.

Strategy 02:

Develop urban parks near main accesses to city and encourage walkers by providing safe walkway lanes with seating areas

Strategy 03:

Conservation of sensitive ecosystems associated with lakes and canals in Embilipitiya town and introduction of Wise use for sustainable use in eco-friendly recreation

Strategies 04:

Create well – designed open spaces such as urban squares and public parks with infrastructural facilities for the people.

Strategy 05:

Applying the relevant landscape management guidelines to protect the expected urban form of Embilipitiya town which has plains topography features.

Strategy 06:

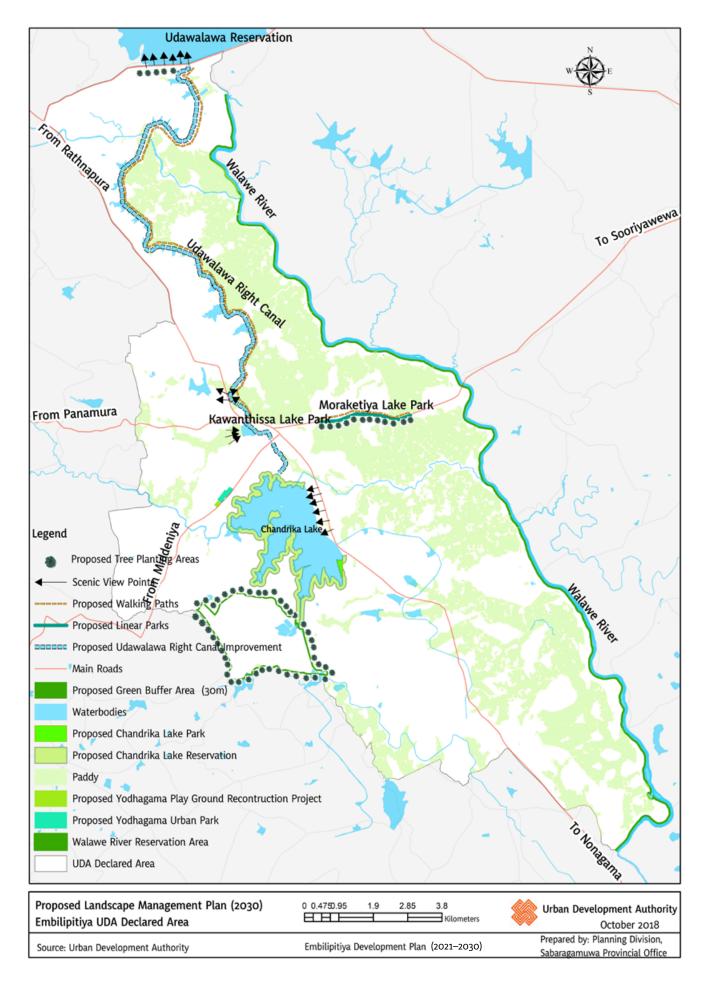
Applying guidelines related to the implementation of landscape management for approaching the expected urban form of Embilipitiya town.

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The Plan

Sustainable environment development strategies

Landscape Management Plan



6.7. Implementation strategies

6.7.1. Strategic Projects and Other Projects

The projects identified in the Embilipitiya Urban Development Plan for 2030, based on socio-economic and environmental effect, the period of the project, project Costs, measures to comply with the anticipated city development concept Etc. The project portfolio has been carried out by the analysis of data on above mentioned sectors (Annexture table no: 2.10).

Projects Order	Project
1	1. Embilipitiya main bus stand development Project
	2. Proposed Administration Building Complex Construction Project
	3. Embilipitiya Shopping Complex and Car Park Construction Project
	4. Agriculture Harvest Collection Centers Construction Projects
	a. Development of Thunkama public fair and establishing agriculture
	harvest collection center project
	b. Development of Kuttigala public fair and establishing agriculture
	harvest collection center project
	c. Moraketiya agriculture harvest collection center construction project
	5. Moraketiya Linear Park Development Project
	6. Proposed Embilipitiya alternative road development project
	7. A car park construction project related to the economic center
	8. Udawalawa Tourist Leisure Park construction project
	9. Pallegama Market Construction Project
	10. Proposed Yodhagama Housing Project
	a) Proposed Middle Income Housing Project
	b) Proposed Goovernment Quarters Project
	11. Proposed Solid Waste Management Project
2	1. Embilipitiya main roads development project.
	2. Proposed Embilipitiya service road development project
	3. Chandrika Lake Rehabilitation Project
	4. D26 canal reconstruction project
	5. Embilipitiya Economic Center redevelopment project
	6. Development of Udawalawe public fair and establishment of agriculture
	harvest collection centers
3	1. Project of "Kaludiya pokuna" waste water purification plant belonging to the paper
5	mill located in the proposed industrial zone
	 Rehabilitation project of Embilipitiya Tanks network
	 Udawalawa Tourism Information Center construction project
	 Proposed Udawalawa Urban Forest Park and Car Park Construction Project
	5 Chandrika Wawa Recreation Parks Development Project
	 Chandrika Wewa Recreation Parks Development Project Construction project of Commercial complex with restaurants and Cinema halls

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Strategic Projects and Other Projects

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Projects Order	Project			
4	 Proposed by-pass road development project Short Distance Bus Stand Construction Project at New Town Construction projects of seeds breeding center and Farmers Training center. Vehicle Park Construction Project near President College Udawalawa Southern Canal pathway developing as a tourist project Yodhagama Play Ground and Urban Park development Project Udawalawa Tourism Service Road Development 			
5	 Udawalawa Tourist Service Road Development Project Rehabilitation project of Moraketiya Paddy Storage Complex Resettlement relating to "Hingura Industrial Zone " Phase II "Hingura Industrial Zone " Phase II construction project Mahaweli Stadium Rehabilitation Project Embilipitiya President College Car Park Construction Project 			

Table 6.8 : Project order

Project 01

Project Name				
Project Proposal				
	Region	District	D.S. Division	Local Authority
Location	Sabaragamuwa	Rathnapura	Embilipitiya DSD	Embilipitiya Urban Council
Access	Road Development Au	thority Road (Nonagama Roa	d)	
Location Map				
Existing Use	Use as Main Bus stand			
Land Ownership	Embilipitiya Urban Cou	ıncil		
Land Extent	1.7 acres			

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Strategic Projects and Other Projects

Significance of the Project

The space and physical infrastructure facilities of the main bus stand of Embilipitiya have not been sufficiently developed. Embilipitiya town located as a hub of three major provinces and long-distance bus services is commencing from Embilipitiya town. There are 771 long, short distance buses are operated daily, and the area allocated for parking long distance buses are not sufficient.

There have not been established formalized and adequate transportation facilities required by the passengers. With these existing shortcomings, it has been identified the necessity of the development of the main bus station to provide adequate facilities expected to commute population by 2030 by streamlining the urban transport facilities.

Project objectives

It is to rehabilitation of the Embilipitiya main bus terminal, to enhancing basic services of transportation facilities and providing, common facilities properly to the urban population and to the commuting population.

Benefits of the project

- It has been Minimizing of the traffic congestions at the center of the city.
- It has been providing enough space facilities for operating buses.
- Providing sanitary facilities and common and public facilities for the commuters.
- It has enhanced the Service facilities of short and long-distance running buses in Embilipitiya town.

Finance Plan

Modules	Rs. Millions
Embilipitiya main bus terminal development Project	350

Project Operation & Maintenance

On completion of the project, operation and maintenance will be done by Embilipitiya Urban Council.

Project 02

Project Name	Administrative complex buildings construction project			
Project Proposal	Formalizing administrative service through centralizing administrative activities			
	Region	District	D.S. Division	Local Authority
Location	Sabaragamuwa	Rathnapura	Embilipitiya DSD	Embilipitiya Urban Council
Access	Road Development Au	thority Road (Middeniya Road	d)	·
Location Map				
	Administration Building 1		Administration Buildin	g 2
Existing Use	Old Post office and bar	e land	Embilipitiya Divisional	Secretariat office
Land Ownership	Mahaweli Authority, Postal Department,		Mahaweli Authority, En office	nbilipitiya Divisional Secretariat
Land Extent 1.8 acres 1 acre			1 acre	

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Strategic Projects and Other Projects

Significance of the Project

By proposed zoning plan for the 2030, it has been identified that, the administrative complex setup within the, named administrative services zone is facilitating to people who are coming to obtain services and easily activating their administrative services within one zone.

Project objectives

- Easy access to administrative services
- To regulate existing land uses
- $\bullet \quad {\it To be excluded suitable Areas for the commercial purposes of administration}.$

Benefits of the project

- It is easy for people to obtain their administrative services
- No unnecessary traffic congestion
- Providing adequate space and facilities for institutions
- State employees can discharge their services while in the comfortable environment

Financial Plan

Modules	Rs. Millions
Proposed Administrative complex building construction Project Phase 01	800
Proposed Administrative complex building construction Project Phase 11	500

Project Operation & Maintenance

On completion of the project, operation and maintenance will be done by relevant ministries.

Project 03

Project Name	Embilipitiya Shopping Complex and Car Park Construction Project			
Project Proposal	Accomplishment of Commercial shopping needs of urban people under one roof			
	Region	District	D.S. Division	Local Authority
Location	Sabaragamuwa	Rathnapura	Embilipitiya DSD	Embilipitiya Urban Council
Access	Road Development Au	thority Road (Nonagama Roa	ad)	
Location Map			Inage 9/2017 CIES 7/4	
Existing Use	Office of the Ceylon Electricity Board, Storing of Light posts and the Quarters			
Land Extent	3 acres			

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Strategic Projects and Other Projects

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Significance of the Project

Due to the commercial expansion and development trend of the Embilipitiya town, this project has been identified to provide adequate land space to meet modern shopping complex needs. According to the proposed zoning plan by 2030, land for this project has been marked, belonged to the commercial zone. Lands are being used for commercial purposes; it has the potential of increases of the land value.

Due to the expansions of the commercial activities in the Embilipitiya town center to facilitate the shopping activities of the city dwellers, it has been identified the requirement of the establishment of the commercial shopping complex. This project has been identified, also for developing the city as a tourist destination to provide tourist's requirements up to the maximum level.

Considering the existing land use of the central area of the city facing Nonagama road, as the main access road to the Embilipitiya town, it has been identified that this is the most suitable land for this project, which belongs to the Ceylon Electricity board. Offices of the Ceylon electricity board will be established in the proposed administrative zone. So this commercial complex expects to provide essential to the peoples such as textile, home appliances, modern equipment markets, ATM machines and restaurants under the one roof. By the proposed Car parking, facilities with this shopping complex further enhance the service facilities of the people.

Project objectives

Most shopping requirements of the urban population could be met by in one place.

Benefits of the project

- Most shopping requirements of the urban population could be met by in one place
- Easy access to financial services
- Convenience to spending time leisurely with shopping
- Increases of urban attractiveness
- potential for the commercial development of the town

Financial Plan

Ма	odules	Rs. Millions
En	nbilipitiya Shopping Complex and Car Park Construction Project	550

Project Operation & Maintenance

On completion of the project, operation and maintenance will be done by UDA

Project 04

Project Name	Construction project of Agro-Harvest collection centers				
Project Proposal	Establishment of Agro- Harvest collection centers nearby cultivated areas to purchase agricultural products in bulk.				
	Region	District	D.S. Division	Local Authority	
Location	Sabaragamuwa	Rathnapura	Embilipitiya	Embilipitiya Urban Council, Pradeshiya Sabha	
Access	Road development aut	hority road (Rathnapura-Nor	nagama road, Moraketiya road, l	Jdawalawa Thanamalwila road)	
Location Map Proposed Thunkama public fair and Agro- Harvest collection center	Nonagama Road				
Location Map Proposed Kuttigala public fair and Agro- Harvest collection center			Noragaria Re		

Location Map Proposed Moraketiya Agro-Harvest collection center	Morale Contractions of the second sec	tive Road	
Location Map Proposed Udawalawe Agro-Harvest collection center (Closed to public fair)	Inde 9.20 Tr Cues (and) a	livila Road	
Existing Land use	Udawalawa, Thunkama, and Padalangala uses for public fair, / Morakatiya uses for Banana fair.		
Land ownership	Embilipitiya Provincial council / Mahaweli Authority		
Land extent	Thunkama	1.2 acres	
(Proposed	Kuttigala	0.7 acres	
Agro-production collection center)	Morakatiya	1.2 acres	
	Udawalawa	0.75 acres	

Significance of the Project

The Embilipitiya agricultural city belongs to Walawa special zone, main income source is the agriculture. It has been identified that major problems faced by the farmers are, impossible of selling their products, reasonable competitive price and compelled to sell their agricultural products for the lowest price to the intermediate vendors. It has been identified by the project: Fairs are in active state in this agricultural zone, to be operated as agricultural harvest collecting centers, for buying the farmers 'products in the reasonable price.

Further, it is expected these agricultural harvest, collecting centers to be operated combining Embilipitiya main economic center.

Project objectives

- Establishing Agro-harvest collection centers and collected Agro product supplies as raw materials for industries in the proposed industrial zone.
- It is to be stopped Agro-production in the region flowing out of the region.
- To set up these centers in the agricultural zones, provide opportunities for farmers to sell new products at a reasonable price.
- To minimize transport damage for Agro harvest

Benefits of the project

- The expenditure incurred by the farmers for transportation, agricultural products has been reduced.
- Minimization of damage to harvest during informal transportation
- The regional agricultural production economy has been uplifted
- Farmers to sell their products conveniently
- Farmers are provided a reasonable price for their harvest

Financial Plan

Modules	Rs. Millions
Proposed Thunkama public fair and Agro- harvest collection center	75
Proposed Kuttigala public fair and Agro- harvest collection center	75
Proposed Moraketiya Agro- harvest collection center	75
Proposed Udawalawa Agro- harvest collection center	75

Project Operation & Maintenance

On completion of the Moraketiya Agro-production collection center project, operation and maintenance will be done by Embilipitiya Urban Council and, Thunkama and Kuttigala Agro-production collection center project operation and Maintenance will be done by Embilipitiya Pradeshiya Sabha

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Project 05

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Project Name	Moraketiya linear park development Project				
Project Proposal	Improve urban attractiveness through developing the green land area on the right side of Embilipitiya Moraketiya Road as a Linear Park.				
Location	Province	District	D.S.Division	Local Authority	
	Sabaragamuwa	Rathnapura	Embilipitiya D.S.D	Embilipitiya Urban Council	
Access	Road Development Authority Road (Moraketiya Road)				
Location Map			Morateliva Road		
Existing Use	Unauthorized commercial activities have been taken placed in Some places in the green land area between the Moraketiya Road and the Irrigation Channel.				
Land Ownership	Mahaweli Authority				
The length of the linear park	2 km				

Significance of the Project

Moraketiya road identified as Main entrance to the Embilipitiya and unauthorized commercial activities is underway in the canal reservation adjacent to the Moraketiya Road. Accordingly, the project has been identified to protect the canal removing all the existing unauthorized structures. Linear Park, adjacent to channel Area along the Moraketiya main road have been identified to provide livelihoods for the urban population providing market stalls related to local food products. Accordingly, travelers across the Moraketiya road will be able to rest in this linear park and enjoy local cuisine. It has been identified that executing this project is essential to removing existing unauthorized structures and enabling enjoying facilities by the public through the proposed project.

Project objectives

- Enhance leisure and entertainment facilities for the urban population and the commuting population
- Unauthorized construction along the Moraketiya Road and adjacent Canal area could be prevented.
- To be improved the urban attractiveness using existing canals network

Benefits of the project

- To be improved Urban attractiveness
- Could be prevented of unauthorized constructions
- To be accrued economic benefits

Financial Plan

Modules	Rs. Millions
Moraketiya linear park development Project	350

Project Operation & Maintenance

On completion of the project, operation and maintenance will be done by Embilipitiya Urban Council.

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Strategic Projects and Other Projects

Project Name	Alternative road Development Project in the Embilipitiya town			
Project Proposal	Development of urban alternative-roads for the expansion of urban services and development of infrastructure			
Location	Region	District	D.S. Division	Local Authority
	Sabaragamuwa	Rathnapura	Embilipitiya D.S.D	Embilipitiya Urban Council
Location Map	Page at a second s			O S CONTRACTOR OF
Existing Use	By-roads			
Road Length	Part of the Udagama Road ar Road		From Udagama Junction to Hospital Road u to the President College	p 1.5 km
	Concrete Vard Road		From the Presidential College to the Concre	te 16 km

	Concrete Yard Road	From the Presidential College to the Concrete Yard Road up to the Nonagama Road	1.6 km
	Transformer Road	Road near the Mahaweli ground via transformer road up to Moraketiya road.	1.3 km
	Bimbadhuyaya Road		800m

To provide services free from traffic congestion in the central area of city that population are mostly concentrated at the main service points such as Main Bus Stand, Public Fair, Embilipitiya District General Hospital, and Presidential College Embilipitiya, must be developed alternative-roads are indispensable.

Project objectives

- Develop a road network that is easy to access to the main roads by avoiding traffic congestion in the central area of the city.
- Expansion of development activities of town center beyond the city

Benefits are taken from the project

- Minimize traffic congestion
- Formalizations of transport facilities at the central of the city

Financial Plan

Name of the Road	Rs. Millions
Project related to road widening and development of hospital Road from Udagama junction to President College	60
Project related to road widening and development of concrete yard road	64
Project related to road widening and development of Road near the Mahaweli ground via transformer road to Moraketiya road.	52
Bimbadhuyaya road expansion project	32

Project Operation & Maintenance

On completion of the Project, operation and Maintenance will be done by the Road Development Authority.

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Implementation strategies

Project Name	Public Car Park construction projects in new town			
Project Proposal	Providing parking facilities for peoples visiting to obtain urban services near their service locations			
	Region	District	D.S. Division	Local Authority
Location	Sabaragamuwa	Rathnapura	Embilipitiya D.S.D.	Embilipitiya Urban Council
Access	Road Development Aut	thority Road (Middeniya Road)		
Location Map			A loss of the second se	
Existing Use	Proposed Car Park 1 – F in the Economic Centre	Proposed bare land for Car Park	Proposed Car Park 2 – O	ld Quarters
Land ownership	Embilipitiya Urban Council/ Mahaweli Authority			
Land extent	Proposed Car Park 1 - 0	0.3 Acres (48 perch)	Proposed Car Park 2 - 1 /	Acre

There are large number of vehicles are coming in Public Fair days and obtain services of Economic Centre and there are no sufficient vehicle parking facilities for them. In addition, there are no enough parking facilities for people visiting to government institutions and new town to obtain various services. It has been identified the requirement of construction of new Car Parks.

Project objectives

- Upgrade necessary parking facilities for visitors come to the Embilipitiya Public Fair, Economic Center and New Town
- For preventing of traffic interruption to shops and institutions around the city
- It is to provide systematic transport facilities to operate the city methodically and attractively.

Benefits of the project

- Minimizing traffic congestion by enhancing parking facilities
- Improvement of urban Attraction

Financial Plan

Modules	Rs. Millions
Proposed Car Park I	10
Proposed Car Park II	25

Project Operation & Maintenance

On completion of the project, operation and Maintenance will be done by Embilipitiya Urban Council.

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Project Name	Construction of Tourist leisure Park in Udawalawa town				
Project Proposal	Attraction of Local and Foreign Tourist formalizing tourist service facilities				
	Region	District	D.S. Division	Local Authority	
Location	Sabaragamuwa	Rathnapura	Embilipitiya D.S D	Embilipitiya Pradeshiya Sabha	
Access	Road Development Autho	ority Road (Thanamalwila ro	ad) / Local road (saw mill roa	d/ Dharmapala Mawatha)	
Location Map	Road Development Authority Road (Thanamalwila road) / Local road (saw mill road/ Dharmapala Mawatha)				
Existing Use	Teak cultivation	Teak cultivation			
Land Ownership	State Timber Corporation, Mahaweli Authority				
Land Extent	100 acres				

Among the tourist zones in the Sabaragamuwa Province, the Udawalawe Tourism Zone is a prominent place while large number of local and foreign tourists visits this zone annually. It has been identified that tourist arrivals increase during the period of January to July and August to September.

Large numbers of tourists nearly 100,000 come to visit the Udawalawa National Park per year. While they are watching the Udawalawa reservoir via Thanamalwila road being visited the Uva Province and Southern province tourist Zones. Many tourists have been coming to Udawalawa with the aim of watching elephants.

Several tourist hotels are located in the Udawalawa town. However, it has been identified that there has not been established the proper facilitated place for entertaining of tourists. Accordingly, establishment of the Tourists Park with water sports facilities, other entertainment activities, and facilitating to experience this unique aesthetics of the region has been expected to get the tourist attraction and actuate the Tourists, traveling passing Embilipitiya town via Thanamalwila Road.

Project objectives

- Attracting Tourists to Udawalawa town
- Providing new entertainment opportunities to tourists visiting the Udawalawa Tourist Zone
- Increase the tourism industry by providing essential services to tourists for strengthening the urban economy

Benefits of the project

- Provide water base sports facilities
- Fun activities that can be enjoyed throughout the day
- Parking facilities
- Providing facilities for obtaining foods
- Development of the urban economy

Financial Plan

Modules	Rs. Million
Construction of Tourist Park in Udawalawe town	2500

Project Operation & Maintenance

On completion of the project, operation and maintenance will be done by Embilipitiya Pradeshiya Sabha.

Chapter 06

The Plan

Implementation strategies

Project Name	Main roads Development Project in the Embilipitiya			
Project Proposal	Minimize traffic congestion and formalize transport activities through the development of main roads in the			oment of main roads in the Town
	Region	District	D.S. Division	Local Authority
Location	Sabaragamuwa	Rathnapura	Embilipitiya	Embilipitiya Urban Council and Pradeshiya Sabha
Location Map			Norakettar Pad	
Road length	Nonagama Road		awa junction up to the uka Interchange of the ressway	26.65 km
	Middeniya Road	From main ro with 4 lanes, o	ad, this was developed close to leadership r to Kubugoda Ara	2.5 km
	Moraketiya Road	From Embilip	itiya town up to proposed	1.35 km

Linear Park

Nonagama road, Moraketiya road and Middeniya roads are the main entrance roads to Embilipitiya town, and there are large numbers of vehicles have been entering and leaving the town daily. Accordingly, these roads development have been identified to achieve the desired development goals by 2030.

These main roads are important to maintain interconnection between the three provinces. With the anticipated future development of the city, the number of vehicles will be increased. Therefore, to meet the future demand of vehicles to be increased, developments of these main roads are essential in the urban development process.

Project objectives

For facilitating traffic by the development of the main roads that are mostly used for access to Embilipitiya town, transportation infrastructure has to be improved.

Benefits of the project

- Convenience movements of vehicle traffic
- Minimizes of traffic congestion
- Improving of urban attraction
- Creating of new investment opportunities
- The land value will be Increased
- It is easier to carry out expected future development in the city

Financial Plan

Modules	Rs. Millions
Nonagama road widening and development project from Udawalawa junction to Padalangala- Vatiya Interchange	1350
Middeniya Road, widening and development project from leadership training center to Kubugoda Ara junction. (This was developed with 4 lanes, close to leadership training center)	125
Moraketiya road widening and development project from Embilipitiya town to propose Linear Park	75

Project Operation & Maintenance

On completion of the project, operation and Maintenance will be done by Road development Authority

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Implementation strategies

Project Name	Service Road Development Project in Embilipitiya			
Project Proposal	Service road development for facilitating identified key service delivery locations in the town and minimize traffic congestion.			
	Region	District	D.S. Division	Local Authority
Location	Sabaragamuwa	Rathnapura	Embilipitiya	Embilipitiya Urban Council
Location Map				
Road length	Hospital Ring road	Co	mplete Hospital Ring road	2.1 km
	Modarawana Ring Road	d Co	mplete Modarawana Ring Road	3.5 km
	Akkara Panseeya Road	Со	mplete Akkara Panseeya Road	2 km
	Road behind public fai	r close to Err	om economic center to concrete v	ard road 0.0 km

Akkara Panseeya Roadi Complete Akkara Panseeya Roadi		2 KITI
Road behind public fair close to economic center	From economic center to concrete yard road	0.9 km
Proposed new service road	From Akkara Panseeya road (behind Embilipitiya Royal College) up to Liyinegama road of Moraketiya road	1.3 km

The Modarawana Road and Hospital Road are the major access roads to Yodagama Area, which situated close to center of the city has been identified as the main service roads used by urban residents.

The Akkara Panseeya Road starts from Hingura Ara of Nonagama Road is used to travel to town should be developed as a service road. To minimize the traffic congestion has been created around Embilipitiya Royal College situated in the Nonagama road closed to the central of the city: it has been proposed a new service road, running parallel to the Moraketiya Road. It will help to minimize traffic congestion on the main road during the school hours.

Project objectives

- Widening and development of the Hospital road for convenience of the public, who is coming for administrative purposes of the government institutions, court and health services related to the Embilipitiya District General Hospital.
- Developing service roads for minimize the traffic congestion near the main road, which are large number of people gathering places (Public Fair, Economic Center, Embilipitiya Royal College)

Benefits of the project

- Easy Access to obtain urban service facilities
- Increases of land value
- Formalize of urban infrastructure facilities

Financial Plan

Modules	Rs. Millions
Hospital ring Road Development project	63
Modarawana ring Road Development project	105
Akkara Panseeya road Development project	60
Road (behind public fair closer to economic center) Development project	27
New service road From Akkara Panseeya road (behind Embilipitiya Royal College) up to Liyinagama road of Moraketiya road	52

Project Operation & Maintenance

On completion of the project, operation and Maintenance will be done by Embilipitiya Urban Council.

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Implementation strategies

Project Name	Project for Rehabilitation of Chandrika Wawa			
Project Proposal	Fulfillment of urban drinking water and agricultural water requirement			
Location	Region	District	D.S. Division	Local Authority
	Sabaragamuwa	Rathnapura	Embilipitiya	Embilipitiya Urban Council
Access	Road Development Au	thority Road (Pelmadulla, No	onagama Road)	
Location Map				

Land Ownership	Mahaweli Authority
Land Extent	1082 acres

The main source of drinking water for the urban population is the Chandrika Wewa. The high demand has been identified for drinking water by the residential and industrial zone population by 2030. It has been identified the requirement of renovation of Chandrika Wewa to meet the future demand for water.

Embilipitiya is agricultural town and lack of enough water for both the Yala and Maha seasons has been identified as a problem. Tanks and irrigation canals supplied for paddy and other agricultural crops are irrigated by the Udawalawe reservoir and the Chandrika Wewa. Thus, the main water source Chandrika Wawa in the city needs to be reconstructed to increase the water retention capacity to maintain the required water level during the dry weather. This tank is the main resource of town and, in the tank reservation; some illegal constructions have been identified. Therefore, guidelines have been laid down to protect the reservoir and control their development activities.

In addition to this, environment friendly Park has been identified around this tank and it is expected to make it possible for the tourists to view the tanks without affecting the tank.

Project objectives

- Accomplish demand water anticipated by 2030
- Agricultural productivity to be increased by providing water requirements for the agricultural purposes

Benefits of the project

- Drinking water supply system will be formalized
- Increase tourism attractiveness
- Protection of the Chandrika Wewa and the surrounding environment

Financial Plan

Modules	Rs. Millions
Chandrika Wewa Rehabilitation Project	1500
Construction of Chandrika Wewa Park Project	75

Project Operation & Maintenance

On completion of the project, operation and maintenance will be done by Mahaweli Authority and Embilipitiya Pradeshiya Sabha.

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Implementation strategies

Project Name	Project of development of Embilipitiya economic center as a main operational center					
Project Proposal	Collection and distribution of all agricultural crops, including organic agricultural products					
	Region District D.S. Division Local Authority					
Location	Sabaragamuwa	Rathnapura	Embilipitiya	Embilipitiya Urban Council		
Access	Road Development Au	thority Road (Middeniya Roa	d)			
Location Map		With the set				
Existing Use	Embilipitiya special Eco	onomic Center				
Land Ownership	Ministry of Trade and Consumer Affairs					
Land Extent	2 acres					

The Economic Center commenced as the main operational hub for the collection of agricultural commodities. The anticipated objectives have not been achieved at the desired level. Some of the buildings at the Economic Center have been used for various other purposes and several have been closed. Farmers in the region have been selling Bananas and Vegetables to the Economic Centre, but most of the farmers have been selling their products to intermediate venders by passing the Economic Center.

The main objective of the establishment of the Economic Center was to purchase agricultural products of the farmers' community, under the reasonable prices in order to provide a direct contribution to the economy of the City. It has been identified to inspire this Economic Center situated in a busy area of central of the city, presently in operation state to be opened every day to the Public for selling agricultural products as the Agricultural Products Sales Center. Instead of that, it has been introduced flavored and low-quality products every day; it is to be given priority for organic product sales. Thus, make as peoples' demand is high productions sales Center. Further, it is to be operated as main operation center for coordination with Thunkama, Kuttigala, Udawalawa, and Moraketiya agricultural product collection centers, and distribution of regional products to the market in a systematic manner.

The project has been identified as an indispensable project to strengthen the urban economy, on priority base of agriculture and production of regional quality agricultural crops.

Project objectives

- To be the main operational center of the Agro produces spread throughout the city.
- To be the major organic Agro products Sales Center.

Benefits of the project

- Increase the benefits of organic product sales
- Commuting population facilitating to purchase of immanent organic products of the city
- Facilitating to the exchange of city's Agro-crop product information

Financial Plan

Modules	Rs. Millions
Project of development of Embilipitiya economic center as a main operational center	100

Project Operation & Maintenance

On completion of the project operation and Maintenance will be done by the Ministry of Trade and Consumer Affairs.

Chapter 06

The Plan

Implementation strategies

Project Name	It has been identified rehabilitation of 9 small tanks in Embilipitiya						
Project Proposal	Existing Tanks to be deeper	Existing Tanks to be deepened and rehabilitate to Increase water capacity to supply water adequate for agriculture					
	Region	Region District D.S. Division Local Authority					
Location	Sabaragamuwa	Rathnapura	Embilipitiya D.S.D	Embilipitiya Urban Council / Pradeshiya Sabha			
Location Map	Higura Ara	A Ara Wewa Meda Ara Wewa h Wewa Kachchigala Wewa	Wewa Ate Ela Wew Epitagoda W Nelum V	/ewa			

Tank	Land extent	Land Ownership
Chandrika Tank	434 ha	Mahaweli Authority
Waraketiya Ara Tank	11.9 ha	Mahaweli Authority
Meda Ara tank	3.1 ha	Mahaweli Authority
Hingura Ara Tank	15.6 ha	Irrigation Department
Ate Ela Tank	3.1 ha	Mahaweli Authority
Aluth Wewa	6.1 ha	Mahaweli Authority
Epitagoda Tank	4 ha	Mahaweli Authority
Maha Wewa	8.1 ha	Mahaweli Authority
Nelum Wewa	6.1 ha	Mahaweli Authority
Kanchigala Wewa	3 ha	Mahaweli Authority

Chapter 06 The Plan

Implementation strategies

Strategic Projects and Other Projects

Benefits of the project

Presently, water requirement of Embilipitiya town for drinking and agricultural purposes are supplied by the Chandrika Wewa. Water requirement for agricultural purposes are being taken by small scale tanks spreads around the city and from the south canal of Udawalawa Tank.

The South Canal of the Udawalawe Reservoir provides water to the canal system including the Chandrika Wewa. In small tanks surrounding them holding the water down and released for agricultural activities. Extent is more than 3 hectares of Tanks, in the town are need to be renovated and some of Tanks have been filled with soils and muds.

In this situation, the water resource that provides the primary energy for the functioning of town need to protect the Chandrika Wewa and other small-scale Tanks irrigation systems. In addition, the Chandrika Wewa, which meets the drinking water and agricultural needs of the Embilipitiya town, the Chandrika Wewa should be deepened and rehabilitated to improve the current retention capacity.

Project objectives

- Water requirement for cultivation in dry weather conditions, retention of enough capacity of water
- Protecting of the existing small-scale Tank system

Embilipitiya Development Plan 2021–2030 Urban Development Authority

Chapter 06

The Plan

Implementation strategies

Strategic Projects and Other Projects

Benefits of the project

- Receiving water for agricultural purposes
- Increase of agricultural productions
- Increase of urban attractiveness
- Protecting existing the ecosystem

Financial Plan

Tank	Project Period	Project cost (Rs. Millions)
Waraketiya Ara Tank	1 year	297.5
Meda Ara tank	1 year	77.5
Hingura Ara Tank	1 year	390
Ate Ela Tank	1 year	77.5
Aluth Wewa	1 year	152.5
Epitagoda Tank	1 year	100
Maha Wewa	1 year	202.5
Nelum Wewa	1 year	152.5
Kanchigala Wewa	1 year	75

Project Operation & Maintenance

On completion of the project, operation and Maintenance will be done by Mahaweli Authority and department of irrigation according to ownerships of lakes.

Land

Ownership

Project Name	Udawalawe Forest Park and Car Park Project			
Project Proposal				
	Region	District	D.S. Division	Local Authority
Location	Sabaragamuwa	Rathnapura	Embilipitiya	Embilipitiya Pradeshiya Sabha
Access	Road Development Aut	thority Road (Thanamalw	vila Road)	
Location Map			Thanaimaliwila ka	
Existing Use	Scrub Land			

Significance of the Project

Mahaweli Authority

There is a land remaining in this zone as scrubland, has been allocated for making an Urban Forest Park, while protecting available flora in this scrubland. This urban park has been proposed under the proposed tourist zone for 2030. It is proposed to build a Carpark and staying facilities within the Urban Park, facilitating Tourists who are coming to watch Udawalawa reservoir along Thanamalwila road.

Chapter 06 Project Objectives

The Plan

Implementation strategies

Strategic Projects and Other Projects

- Providing relaxing facilities for Tourists who are coming to watch Udawalawa reservoir along Thanamalwila road
- Securing the existing ecosystem

Benefits of the project

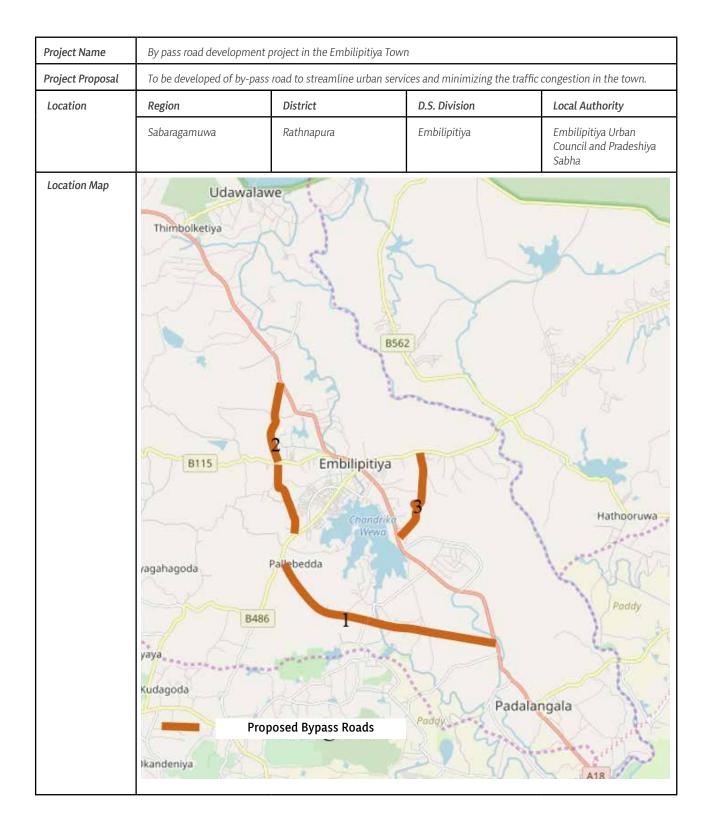
- Providing relaxing facilities for Tourists who are coming to watch Udawalawa reservoir
- Parking facilities
- Protecting the natural environment

Financial Plan

Modules	Rs. Millions
Udawalawe Forest Park and Car Park Construction Project	200

Project operation and maintainance

On completion of the project, operation and Maintenance will be done by Embilipitiya Pradeshiya Sabha



Embilipitiya Development Plan 2021–2030 Urban Development Authority

Road Length	Proposed By-pass Road 1	From Kubugoda Ara Junction, Paper mill road via Kadurugas Ara, along Karawila yaya up to Nonagama Road	8.9km
	Proposed By-pass Road 2	From 100-mile post of Colombo Road (near to Boosiri Gama road) via Panamura road Modarawana road up to Middeniya road	5.9 km
	Proposed By-pass Road 3	Halmillaketiya school road, connecting to Hathara Ela road along Wehearama road up to Moraketiya road	3.7 km

Significance of the Project

By the year 2030, with the expected development of the central of town, minimize the traffic Congestion on the main roads, which are Nonagama, Moraketiya, and Middeniya, has been identified by-pass road development to strengthen urban activities.

The activities of the proposed industrial zone in Hingura and Kumbugoda are also used in heavy vehicles for transport raw materials and products and these by-pass roads are essential to minimize traffic congestion in heavy vehicles.

By-pass roads have been identified by connecting main access roads to enter the town is expected to reduce the number of vehicle traffic central of town.

With future development activities; vehicles have been arrived from Monaragala to Hingura industrial zone for whatever the transportations requirement, could be avoided the center of the city and could come to Nonagama road, via the bypass road to the Moraketiya road to the Industrial zone of Embilipitiya. Again, via same way opportunity for connecting by pass roads around Karawila Yaya and Paper mill road.

Proposed main by-pass roads are identified to connecting existing narrow roads, and widening those narrow roads, facilitate to the development of the small towns connected them.

Project Objectives

- Heavy vehicles, traffics from Hambantota port to Colombo and other areas from Padalangala via Nonagama Road diverting the central of the city, could be minimized the traffic congestion.
- Heavy vehicles, traffics towards the proposed industrial zone in Hingura and Kubugoda Ara, avoiding central of the city and directing to Nonagama road Middeniya road, and to Panamura Road '
- Obtain new investment opportunities
- Colombo bound traffics from Monaragala via Moraketiya road could be avoiding city center and directing to Southern express way.
- Exchange of raw materials between Industrial Zone Monaragala and Embilipitiya Industrial Zone

Benefits of the project

- Opportunities for transportation of production without traffic congestion
- Increases of Urban land value
- Success of Industrial production in the region

Financial Plan

Components	Rs. Millions
From Kubugoda Ara Junction ,Paper mill road via Kadurugas Ara, along Karawila yaya up to Nonagama Road	311
From 100 mile post of Colombo Road (near to Boo Siri Gama road) via Panamura road Modarawana road up to Middeniya road	206
Halmillaketiya school road, connecting up to Hathara Ela road along Wehearama road up to Moraketiya road	129.5

Project Operation & Maintenance

On completion of the project operation and Maintenance will be done by the Road Development Authority

Chapter 06

The Plan

Implementation strategies

Project Name	Construction of short-distance travel Bus Station in Embilipitiya New Town				
Project Proposal		station for Buses in the Embi estion in the main Bus Statior	e Embilipitiya new town to formalize internal transport facilities and Station		
Location	Region	District	D.S. Division	Local Authority	
	Sabaragamuwa	Rathnapura	Embilipitiya D.S.D	Embilipitiya Urban Council	
Access	Road Development Au	ithority Road (Middeniya Roa	d)		
Location Map					
Existing Use	Office of the Passenger Transport Authority office and a bare land				
Land Extent	0.6 acres (96 perches)				

The limited space available in the Main Bus Station of Embilipitiya is insufficient to operate and parking Buses. Therefore, it has been identified the necessity of construction of Bus Station closer to central of the city, for parking and operation of short distance travelling buses, to minimize inconvenience to the passengers and formalization of transportation activities.

Project objectives

- Minimize traffic congestion in the main bus station.
- Formalization of public transport services
- Minimize traffic congestion in the central of the city.
- Provide transport facilities for people who come for obtaining services and to the office workers of new town administration complex

Benefits of the project

- Formalize transport services
- Convenient transport facilities for people, who comes to obtain administrative services

Financial Plan

Modules	Rs. Millions
Construction of short-distance travel Bus Station in Embilipitiya New Town	200

Project Operation & Maintenance

On completion of the project, operation and Maintenance will be done by Embilipitiya Urban Council.

Chapter 06

The Plan

Implementation strategies

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Project Name	Construction project of farmer training center and seed breeding center				
Project Proposal	Training farmers for mo varieties of seeds	Training farmers for modern technology and promotion of regional agro-production through introducing new varieties of seeds			
	Region	District	D.S. Division	Local Authority	
Location	Sabaragamuwa	Rathnapura	Embilipitiya	Embilipitiya Pradeshiya Sabha	
Access	Road Development Aut	hority Road (Rathnapura-No	onagama Road)		
Location Map				Nonagerine to the second	
	North Start			An Sec	

Existing Use	Paddy fields and Scrubland		
Land Ownership	Mahaweli Authority's licenses' Lands		
Land Extent	100 acres		

Embilipitiya City is known as agricultural Base, has been cultivating of Rice, Vegetables, Fruits and supplementary crops. There are identified problems related to agriculture are insufficient water for cultivating in the dry weather conditions, unreasonable prices for farmers' agricultural product.

Establishing by the Seed breeding center, it is expected to identify crop species that are resistant to dry weather conditions and introduce seed varieties that are less available for harvesting.

The seed breeding center is expected to identify crop species that are resistant to dry weather conditions and introduce seed varieties that are less available for harvesting. The task of the farmer training center is to provide new technological knowledge to regional farmers, and the use of organic fertilizers for quality crops, reducing the use of chemicals through conducting awareness programs.

Project objectives

- To provide knowledge to farmers about the use of modern technology
- Introduce new specific endemic seeds to the Area
- Strengthening the urban economy through the promotion of regional agriculture

Benefits of the project

- The possibility of obtaining epidemic seeds in the region
- Provide modern technical knowledge in agriculture to the farmers
- Improvement of agriculture related services
- Farmers in other areas could be participating in training programs

Financial Plan

Modules	Rs. Millions
Construction project of farmer training center	500
Construction project seed breeding center	1500

Project Operation & Maintenance

On completion of the project, operation and Maintenance will be done by the Department of Agrarian Services.

Chapter 06

The Plan

Implementation strategies

Project Name	Vehicle Park construction project near Embilipitiya President College			
Project Proposal	Parking school buses, vans and other vehicles during school hours			
	Region	District	D.S. Division	Local Authority
Location	Sabaragamuwa	Rathnapura	Embilipitiya	Embilipitiya Urban Council
Access	Provincial Council Road (Concrete Yard Road)		
Location Map				

Existing Use	Bare Land
Land Ownership	President College Embilipitiya
Land Extent	1.5 Acres

The Embilipitiya President College is one of the leading and popular schools in Embilipitiya.

The project has been identified to provide parking facilities for school buses, school vans and other vehicles in school premises. This can reduce traffic congestion during school hours in surrounding roads. Furthermore, students are picking up and dropping by vehicles within the school premises ensured the safety of students. Therefore, this project has been identified as a timely need.

Project objectives

Provide adequate parking facilities for school Buses, Vans and other vehicles of Embilipitiya President's College, will results, minimize traffic congestion around the concrete yard road during school hours.

Benefits through the Project

- Providing facilities for traffics controls in school busses and other school vehicles
- Providing parking facilities during school hours for school children's transport vehicles

Financial Plan

Modules	Rs. Millions
Vehicle Park construction project near President College Embilipitiya	25

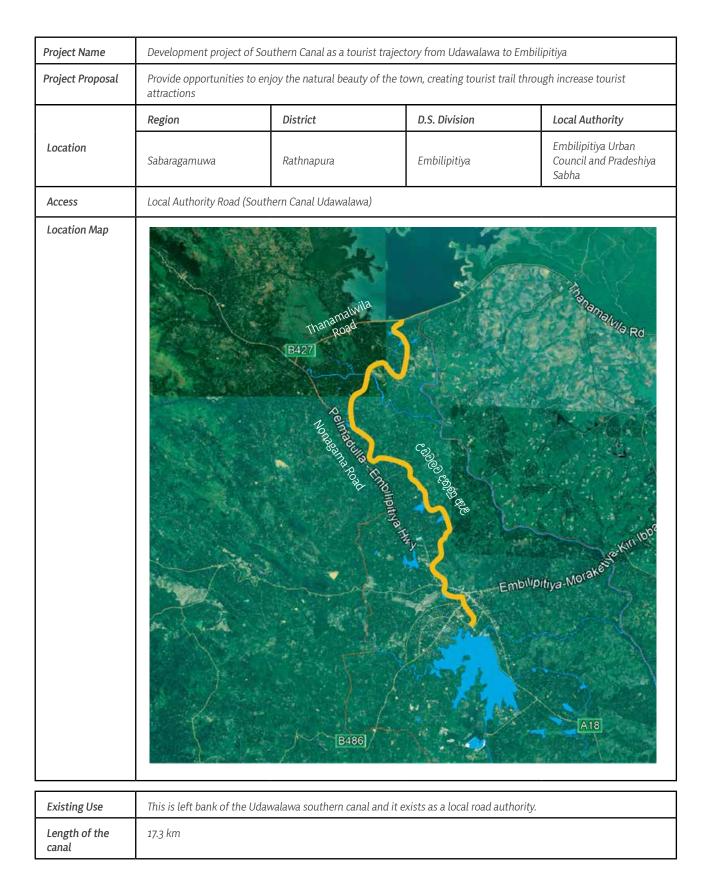
Project Operation & Maintenance

On completion of the project, operation and maintenance will be done by Embilipitiya Urban Council.

Chapter 06

The Plan

Implementation strategies



The south canal of Udawalawa has been started from the Udawalawa reservoir. It is the main source of water for agricultural purposes of the town and supplying water to Chandrika Lake. It has been in the proposed tourist zone up to the year 2030 of the Embilipitiya Development plan. This road has been proposed along the Canal to reach the central of the town, while enjoying the natural features which inherent to the city.

In addition, Tourists who have been visiting, can experience the local cuisine and the view of the Chandrika Wewa and Kawantissa Wewa and Urban Park. It has been identified the need for this project with the aim of facilitating easy access to attractive tourist areas in the town and the popularization of urban Agro products.

Project objectives

- Attract tourist into the town providing new tourist experiences in the Udawalawe tourist zone
- Upgrade urban economy by directing tourists visiting Udawalawa also towards to the Embilipitiya commercial City.

Benefits of the project

- Provide new tourist experience
- Easy access to the city center while enjoying natural attractions of Udawalawe
- Tourist attraction
- Increase Land values
- Protection of the canal

Financial Plan

Modules	Rs. Millions
Development project of Southern Canal as a tourist trajectory from Udawalawa to Embilipitiya	200

Project Operation & Maintenance

On completion of the project, operation and Maintenance will be done by Mahaweli Authority.

Chapter 06

The Plan

Implementation strategies

Project Name	Yodagama Playground and Urban Park Development Project			
Project Proposal	Provide facilities for sports, leisure, and recreation for urban people by improving existing attraction of the city center.			
	Region	District	D.S. Division	Local Authority
Location	Sabaragamuwa	Rathnapura	Embilipitiya	Embilipitiya Urban Council
Access	Road Development Auth	hority Road (Middeniya Road	d)	
Location Map				
Existing Use	Yodagama Playground and Scrubland			
Land Ownership	National Housing Development Authority			
Extent	18 acres			

This project has been included the Institutional zone of the zoning plan for 2030. The city has been situated in the dry zone as the hot climatic city; provide facilities to residents of the town and who is visiting by Middeniya road to the town, to stay leisurely in cool climatic condition, this project has been identified.

Project objectives

- To fulfill the sports, leisure and entertainment facilities required for the urban population.
- Improvements of facilities in the existing stadium
- To be increased the city beautification and uplift urban attraction near the Middeniya road which is one of the main entrances to the city

Benefits of the project

- Facilitate the facilities for sports and recreation to the urban population
- Increased urban attractiveness
- Providing staying facilities for people who are visiting the city and who are coming to obtain administrative services

Financial Plan

Modules	Rs. Millions
Yodagama Playground and Urban Park Development Project	100

Project Operation & Maintenance

On completion of the Project, operation and Maintenance will be done by Embilipitiya Urban Council.

Chapter 06

The Plan

Implementation strategies

Project Name	Proposed Udawalawe road development project				
Project Proposal	Developing roads in Udawalawa to promote tourism services				
	Region	District	D.S. Division	Local Authority	
Location	Sabaragamuwa	Rathnapura	Embilipitiya	Embilipitiya Pradeshiya Sabha	
Location Map		·		· ·	
		umpala Mavatha		Nudamaankada Road	
Road Length	Somil Road	Complete Sav	w mill Road	0.7km	
	Dharmapala Mawatha	Compete Dha	armapala Mawatha	1.6 km	
	Mudunmankada Road	Complete Mu	idunmankada Road	3.6 km	

Significance of the Project

According to the proposed zoning plan for the year 2030, Udawalawa town area has been named as Tourist Service Zone and Tourist hotels have been located near the Udawalawa town. It has been proposed teak land between Dharmapala Mawatha and the Saw mill road to be developed as Tourist Park. Proposed road will facilitate for local and foreign tourists to smooth traveling experience to the Tourist Park, Hotels, and Restaurants to get required entertainment and other facilities.

Project objectives

- Development of the Saw mill Road and Dharmapala Mawatha to facilitate enter in to the proposed Tourist Park
- To develop alternative access roads to facilitate reaching to tourist lodging and other services
- To facilitate access of accommodation and other service by developing alternative roads

Benefits are taken from the project

- Improve tourism attractiveness
- Easily obtaining Tourist service facilities

Financial Plan

Modules	Rs. Millions
Saw mill road development project	24.5
Dharmapala Mawatha development project	56
Mudunmankada road development project	126

Project Operation & Maintenance

On completion project, operation and Maintenance will be done by Embilipitiya Pradeshiya Sabha.

Chapter 06

The Plan

Implementation strategies

Project Name	Restoration of Moraketiya Rice Mill Complex			
Project Proposal	Restoration of Moraketiya Rice Mill Complex to provide storage facilities for regional paddy production.			
Location	Region	District	D.S. Division	Local Authority
	Sabaragamuwa	Rathnapura	Embilipitiya	Embilipitiya Urban Council
Access	Road Development Authority Road (Morakatiya Road)			
Location Map				
Existing Use	The closed paddy storage complex and its bare land			
Land Ownership	Ministry of Agriculture, Mahaweli Authority			
Land Extent	18 Acres			

The Moraketiya rice mill Complex had been established in 1970 and it had been in operation for more than 10 years and had been used for 24 hours throughout the day for boiling, drying and grinding as well as storing paddy.

In present only several buildings are used for paddy storage. Other machinery and buildings have not been used. Therefore, use of this site and buildings has been identified as an impetus to promote agricultural activities in the region and strengthen the agricultural economy.

Project objectives

- Providing modern storage facilities for regional paddy storage, Production of rice and rice flour
- Promoting urban agriculture related business.
- Strengthening the urban economy through reuse of these valuable assets without letting them deteriorate

Benefits of the project

- The ability of urban farmers to carry out rice production within the city
- Improvements to the urban product market

Financial Plan

Modules	Rs. Millions
Restoration of Moraketiya Paddy Storage Complex	200

Project Operation & Maintenance

On completion of the project, operation and Maintenance will be done by Paddy Marketing Board

Chapter 06

The Plan

Implementation strategies

Project 23

Project Name	Mahaweli Ground Reha	abilitation project		
Project Proposal	Promoting sports activ	ities of the urban people		
Location	Region	District	D.S. Division	Local Authority
	Sabaragamuwa	Rathnapura	Embilipitiya	Embilipitiya Urban Council
Access	Road Development Au	thority Road (Nonagama road	d)	
Location Map				
Existing Use	Mahaweli Ground			

Significance of the Project

The main stadium in Embilipitiya is the Mahaweli Playground and the project has been identified to eliminate the existing shortcomings.

Project objectives

• Reconstruction as the main stadium in the area reinforce the sports needs of the people

Benefits of the project

- Convenience for people to commence practices for participate on local and national level sports events
- To easy organizing of sports events

Financial Plan

Modules	Rs. Millions
Mahaweli Ground Rehabilitation project	2000

Project Operation & Maintenance

On completion of project operation and Maintenance will be done by Embilipitiya Urban Council

Chapter 06

The Plan

Implementation strategies

Strategic Projects and Other Projects

Project 24

Project Name	Middle Income Housing	g Project		
Project Proposal	Fulfill the proper reside	ential facilities near town ce	nter	
Location	Region	District	D.S. Division	Local Authority
	Sabaragamuwa	Rathnapura	Embilipitiya	Embilipitiya Urban Council
Access	Road Development Aut	hority Road (Hospital Road)		
Location Map	Google Earth			
	Proposed Middle Incom	e Housing Project	Proposed Governmer	at Quarters Project
Existing Use	Bare Land		Jermon Quarters	
Land Extent	2.5 acres		2.5 acres	
Land Ownership	Housing Development	Authority	Maweli Authority	

Significance of the Project

This project has been identified to fulfill the residential facilities of government officers by establishing this project in the administrative zone designated for administrative services through the proposed zoning plan for the year 2030. Furthermore, this housing project has been identified to provide residential facilities for the people who like to live in town center for business and other purposes.

Project objectives

- To provide residential facilities near the administrative zone for efficient service
- Provide accommodation in an area with a suitable living environment and infrastructure
- Regularization of existing land uses

Benefits of the project

- Easy access to the workplace for government officers
- Opportunity to fulfil residential demand in the town center
- Easy of performing services for public from a proper environment

Financial Plan

Modules	Rs. Millions
Proposed Middle Income Housing Project	300
Proposed Government Quarters Project	300

Project Operation & Maintenance

Project	Relevant Authority
Proposed Middle Income Housing Project	Housing Development Authority
Proposed Government Quarters Project	Urban Development Authority, Mahaweli Authority

Chapter 06

The Plan

Implementation strategies

Strategic Projects and Other Projects

6.7.2. Responsible Institutional Framework

Plan	Sub	plan and action projects	Relevant institutions	The responsibility of the organization for the implementation of projects
			Transport plan	
	1.	Main Road Development Project	Road Development Authority,	
	2.	Bypass Road Development Project	Provincial Road Development Authority,	Project operation and
	3.	Alternative Development Project	Embilipitiya Urban Council	Maintenance
	4.	Service Road Development Project	Embilipitiya Pradeshiya Sabha	
	5.	Development Project of Embilipitiya main	Urban Development Authority,	Project operation
		bus stand	Embilipitiya Urban Council	Project Maintenance
	6.	Short Distance bus station project	Urban Development Authority	Project operation
			Embilipitiya Urban Council	Project Maintenance
	7.	Car park construction project for public	Urban Development Authority	Project operation
		needs, including the Economic Center and the Public Fair	Embilipitiya Urban Council	Project operation and Maintenance
Physical and Social Infrastructure	8.	Udawalawa tourist service road development project	Provincial Road Development Authority, Embilipitiya Pradeshiya Sabha	Project operation and Maintenance
Development strategies	9.	Proposed Car park development Project of President College, Embilipitiya	Embilipitiya Urban Council.	Project operation and Maintenance
		Town Ce	entre Development Plan	
	10.	Proposed Administrative complex	Urban Development Authority	Project operation
		construction Project	Administration institution and subject based ministries	Project Maintenance
	11a.	Proposed Yodhagama Housing Development Project	Housing Development Authority	Project operation and Maintenance
	11.b	. Government quarters Development Project	Urban Development Authority	Project operation
			Mahaweli Authority	Project Maintenance
		Dr	inking Water Plan	
	12.	Proposed Water Tank construction Project in New Town	National Water Supply and Drainage Board	Project operation and Maintenance
	13.	Chandrika Wawa redevelopment project	Mahaweli Authority	Project operation and Maintenance
		Draina	ge and Sewerage Plan	
Physical and Social Infrastructure	14.	Proposed industrial zone Kaludiya Pokuna belongs to the Paper mill, Wastewater Refining Project.	Ministry of Industry	Project operation
Development strategies		Solid W	aste Management Plan	
	15.	Proposed solid waste management project	Embilipitiya Urban Council Embilipitiya Pradeshiya Sabha	Project operation and Maintenance

Plan	Sub plan and action proj	iects	Relevant institutions	The responsibility of the organization for the implementation of projects
		Ag	ro-economic Plan	
	16. Tank system redeve	lopment project	Mahaweli Authority Department of Irrigation	Project operation and Maintenance
Infrastructure	17. Construction project seed breeding center	rt of farmer training and er	Department of Agriculture	Project operation
strategies			Tourism Plan	
	18. Tourist information project (Udawalawa		Ministry of tourism Sabaragamuwa provincial council	Project operation and Maintenance
		Ag	ro-economic Plan	
	19. Develop Embilipitiya main operations cer	a Economic Center at the nter	Ministry of rural area economic development	Project operation and Maintenance
	20. Rehabilitation proje Storage Complex	ect of Moraketiya Paddy	Paddy Marketing Board, ministry of agriculture	Project operation and Maintenance
	21. D26 Canal improver	ment project	Mahaweli Authority	Project operation and Maintenance
Economic		and establishment of	Ministry of Agriculture, Urban Development Authority	Project operation
development	agriculture harvest	collection centers	Embilipitiya Provincial Council	Project Maintenance
strategies			Industrial Plan	
	23. Embilipitiya Hingura Development Projec		Ministry of Industry	Project operation and Maintenance
			Tourist Plan	
Physical and Social Infrastructure Development strategies17. Construct seed breat seed breat seed breat seed breat 18. Tourist in project (118. Tourist in project (119. Develop main ope 20. Rehabilit Storage (220. Rehabilit Storage (221. D26 Cana 22. Project for Kuttigala agricultu23. Embilipit Develop 24. Udawala24. UdawalaEconomic development strategies25. Proposed restaurant 26. Proposed restaurantSustainable environmental development strategies28. Park development strategies28. Park development strategies	24. Udawalawa Tourist	Leisure Park Project	Ministry of Tourism Sabaragamuwa Provincial Council Urban Development Authority	Project operation
			Embilipitiya Pradeshiya Sabha	Project Maintenance
		Central of	Town development Plan	
development	25. Proposed shopping	complex and vehicle park	Urban Development Authority	Project operation and Maintenance
strategles	26. Proposed commercinestaurants and cine		Urban Development Authority	Project operation and Maintenance
			Tourist Plan	
	27. Proposed Udawalav	va forest park and car	Urban Development Authority	Project operation
	μαικ		Embilipitiya Pradeshiya Sabha	Project Maintenance
	28. Park development p Chandrika Wewa	project around to	Urban Development Authority	Project operation
	Chanunna WEWd		Embilipitiya Pradeshiya Sabha	Project Maintenance

Plan	Sub	plan and action projects	Relevant institutions	The responsibility of the organization for the implementation of projects		
Sustainable environmental development	29.	Development project of Southern Canal as a tourist trajectory	Urban Development Authority, Ministry of Tourism Sabaragamuwa Provincial Council	Project operation		
strategies			Mahaweli Authority	Project Maintenance		
			PORS Plan			
	30.	Proposed linear park development project in Morakatiya	Urban Development Authority / Mahaweli Authority	Project operation		
			Embilipitiya Urban Council	Project operation Project Maintenance Project operation		
	31.	Yodhagama Playground and Urban Park	Urban Development Authority	Project operation		
		Construction Project	Embilipitiya Urban Council	Project Maintenance		
	32.	Mahaweli playground redevelopment project	Mahaweli Authority	Project operation and maintainance		

Table 6.9 : Projects and Responsible institutions

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Source : Planning Team, Sabaragamuwa Provincial Office, UDA, 2017



Part II

Physical Development Strategies and Guidelines

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Development Zones & Common Zoning Guidelines

Chapter 07 Development Zones & Common Zoning Guidelines

Introduction

Development Zones

7.1. Introduction

This development plan has been prepared to achieve the targeted development vision "Agro Economic Production Center of Walawa Valley" through the proposed Embilipitiya Town Development Plan for the year 2030. Targets and objectives have been introduced to achieve the urban development vision that is expected to be achieved within the next 10 years. In addition, six strategic plans have been introduced to achieve these targets and objectives. Accordingly, development zones and zoning requirements are included under the Land and Building Development Strategy.

Particularly, this plan, based on density, beyond traditional land use and traditional zoning plans, has facilitated the opportunity to create the desired urban model. Zoning boundaries have been demarcated using physical boundaries and based on developmental preasure analysis, sensitive area analysis, Road connectivity analysis, Livability Analysis as well as considered expected residential and comuting population and the impact of the proposed projects.

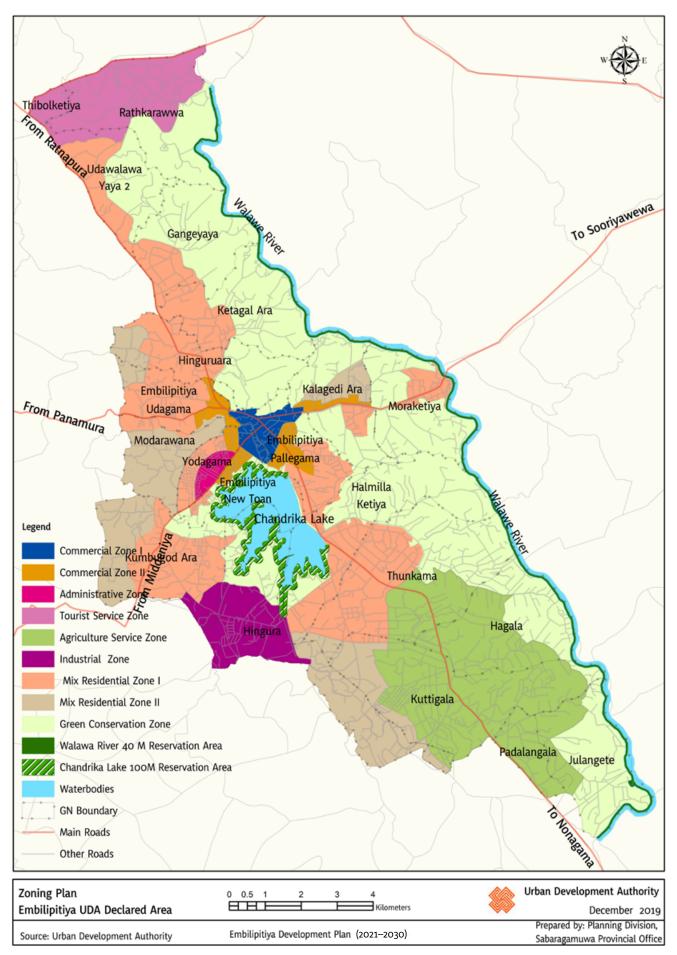
Further zoning has introduced uses that enhanced the potential of this region. Accordingly, the development zones and zoning requirements have been described in detail in this chapter. Here, development zones, zoning factor, permitted uses for development zones and general terms affecting those development zones have been described.

7.2. Development Zones

Out of the density zones identified for Embilipitiya urban area, 9 special uses zones have been identified to reach the proposed urban development vision for the year 2030

- 1. Commercial Zone I
- 2. Commercial Zone II
- 3. Administrative Zone
- 4. Tourism Service Zone
- 5. Agricultural Service Zone
- 6. Industrial Zone
- 7. Mixed Residential Zone I
- 8. Mixed Residential Zone II
- 9. Green Conservation Zone

7.2.1 Zoning Plan - 2021–2030



Map 7.1 : Zoning Plan

Chapter 07 Development Zones & Common Zoning Guidelines

Zone Factor

7.3. Zone Factor

The zone factor is a new concept introduced in place of a practically implemented Floor Area Ratio, which was previously implemented in the planning and building guidelines. It determines the identity of development that can take place within a specific time frame in an area. Accordingly, the development of the area relevant to the Embilipitiya Development Plan is expected to take place by 2030 based on density. According to the Embilipitiya evelopment Plan (2021–2030), density-based development is expected by the year 2030. High density development will be expected, especially in the high-density commercial zones, while high density development in the high destiny Administrative zone, and medium density development in medium density tourism, agricultural services and the mixed residential zones are expected. Low density development is expected in the Green Conservation Zone. It hopes to create the desired urban form by 2030. This is directly affected by the nature of the development taking place in the existing lands in the Embilipitiya area. Hence the creation of the desired urban form is practiced on the maximum level of development determined under the zone factor.

Before determining the extent of maximum development in an area, it is necessary to identify suitable areas for that development. That is, the determination of high-density, medium-density and low-density development zones should be done with the conclusions drawn from the observations of a detailed analysis by combining the practical functionality of the area. This is because such developments must be balanced in terms of physical, social, environmental and economic aspects.

Accordingly, the zones have been determined based on the analysis of the land's environmental sensitivity, the intensity and direction of development, the extent of infrastructure the extent of development in the terrain, the geographical conditions and the nature of the population. That means, if the Zone Factor of one region is higher than that of the other, it causes to be an area with a strong infrastructure, high commercial development, and high population attraction. If the zonal factor is low it is a result of being an ecologically sensitive area, a lack of the land tolerance for development, a lack of the infrastructure and at the bottom of expected urban form.

Accordingly, a zone factor has been provided for each zone in the development plan under the concept of Zone Factor.

7.3.1. Zone Factor Formulation

The zone factor of the area is the value obtained by dividing total land area currently available for development in the area by total utilizable extent of land for residential, commercial and other uses calculated taking into account key factors such as environmental sensitivity, potential for development, and resilience that limit future developments and the urban form that can be seen in the area in the future through the goals and objectives prepared in accordance with the development plan.

Thus, the zone factor is calculated in suitable manner to allow for the expected development under the proposed densities of each density zone within the proposed zoning plan of the development plan. The zone factor basically varies from the highest value of 2.5 to a lowest value of 0.5. This value can be varied up to and above 2.0 when very high development is expected in the region. For example, if a zone factor is 1.5 or higher, that means for a higher density development can be allowed in the region. It is allowed for medium density development if the value of the zone factor is between 0 and 1.0 while allowing low density development if the value of zone factor is below 1.0.

Thus, considering the urban form in the Embilipitiya Planning area, the building density and its height within the town center covered by the commercial zones are relatively high and relatively medium high in the medium density zones beyond the city center and decreasing the height gradually through the low-density zones. Looking at the cross-sectional layout of the town, the concept of the future town is expected to show a gradual decrease in the height of high-rise buildings from the area boundary to the center of the main city center. Accordingly, Annexture 07 shows how the zoning coefficient of the Embilipitiya Development Plan was calculated.

Determination of Permissible Floor area for developments According to the Form 'A' 'B' in Schedule 6 to Part IV of the Extraordinary Gazette Notification No. 2235/54 dated Thursday 08th July 2021, the coefficients applicable to the Embilipitiya Development Plan indicated by schedule 01, Forms A and B.

In determining the open space of the building pertaining to the said permissible floor area, the form 'E' of the above Gazette is indicated and it is specified in the Embilipitiya Development Plan schedule 01, Form E.

Chapter 07

Development Zones & Common Zoning Guidelines

Zone Factor

Zone Factor Formulation

Schedule 1 Form A – Floor Area Ratic	
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						Form.	Form A - Permissible Floor Area Ratio	nissible	Floor Ar	ea Ratic	Ŭ									
Land extent (Sq.M)	Zon	Zone factor =	= 0.50 - 0.74	0.74	Zon	e factor	Zone factor = 1.00-1.24	1.24	Zon	e factor	Zone factor = 1.50-1.74	1.74	Zon	Zone factor = 2.00-2.24	= 2.00-;	2.24	Zone	e factor	Zone factor = 2.50-2.74	.74
	W	Minimum Road Width	Road Wi	dth	Min	iimum H	Minimum Road Width	dth	Mir	iimum I	Minimum Road Width	dth	Min	Minimum Road Width	oad Wie	đth	Min	imum R	Minimum Road Width	th
	**6m	9m	12m	15m or above	**6m	9m	12m	15m or above	**6m	9m	12m	15m or above	**6m	9m	12m	15m or above	**6m	9m	12m	15m or above
150 less than 250	0.8	0.9	0.9	0.9	1.6	1.7	1.8	1.9	2.4	2.6	2.7	2.8	3.0	3.4	3.6	3.8	3.0	3.4	3.6	4.0
250 less than 375	0.9	1.0	1.2	1.3	1.8	2.2	2.4	2.7	2.6	3.2	3.6	4.0	3.2	3.6	4.5	4.5	3.5	4.0	5.0	5.5
375 less than 500	0.9	1.0	1.2	1.4	1.9	2.2	2.5	2.8	2.7	3.3	3.8	4.2	3.4	3.7	4.8	5.2	3.6	4.6	5.2	6.0
500 less than 750	1.0	1.1	1.3	1.5	2.0	2.3	2.7	3.0	2.8	3.4	4.0	4.5	3.5	4.0	5.0	6.0	3.7	5.1	5.5	6.5
750 less than 1000	1.0	1.2	1.4	1.7	2.1	2.4	2.9	3.3	3.1	3.6	4.3	5.0	3.6	4.5	5.7	6.5	3.8	5.2	6.5	7.0
1000 less than 1500	1.1	1.3	1.5	1.8	2.2	2.5	3.0	3.6	3.2	3.8	4.6	5.5	3.7	5.0	6.1	8.0	3.9	5.4	7.0	9.0
1500 less than 2000	1.1	1.4	1.7	2.0	2.3	2.7	3.4	4.0	3.4	4.0	5.0	6.0	3.8	5.1	6.7	9.0	4.0	5.5	7.5	*10.5
2000 less than 2500	1.2	1.5	1.8	2.1	2.4	2.8	3.5	4.2	3.5	4.2	5.2	6.5	3.9	5.2	7.1	*10	4.0	5.6	7.5	LL*
2500 less than 3000	1.2	1.6	2.0	2.4	2.5	3.2	4.0	4.7	3.6	4.4	5.5	7.0	4.0	5.3	7.4	*10.5	4.0	5.7	8.0	*11.5
3000 less than 3500	1.3	1.7	2.1	2.5	2.6	3.4	4.2	5.0	3.7	4.6	6.0	7.5	4.0	5.4	7.6	*11	4.0	5.8	8.0	*12
3500 less than 4000	1.4	1.8	2.2	2.6	2.8	3.6	4.3	5.3	3.8	4.8	6.3	7.7	4.0	5.5	7.8	*11.5	4.0	5.9	8.0	*12
More than 4000	1.5	1.9	2.3	2.8	3.0	3.8	4.5	5.5	4.0	5.0	6.5	8.0	4.0	5.6	8.0	*12	4.0	6.0	8.0	*UL
UL - Unlimited Floor area allocated for parking facilities are not calculated for FAR Above Floor Area Ratio shall not be applicable for the zones where number of floors or FAR indicated under the zoning regulations	s are not licable fo	calculatec r the zone	t for FAR es where	number o	of floors o	r FAR ind	icated un	ider the z	oning reg	gulations										

Above Floor Area Ratio shall not be applicable for the zones where number of floors or FAR indicated under the zoning regulations

Above Permissible FAR may be restricted under the development plan based on the slope of the land

Clearance shall be taken from National Building Reserach 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

**Minimum road width of 7m shall be considered for the roads identified as 7m wide road in the particular development Plan

	Fori	n B - Number of	f Floors for 3.0m	n & 4.5m wide R	oads	
A411		Dist		Maximum Nu	mber of Floors	
Minimum Road Width	Minimum Site Frontage	Plot Coverage*	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)

Form B - Number of Floors for 3m & 4.5m wide Roads

Number of floors are indicated including parking areas

Number of units allowed for each road shall not be changed

* Where no plot coverage specified under the zoning regulations

Form E - Setbacks & Open Spaces

			Form E	- Setback	ks & Open	Spaces				
		(<i>m</i>)	Plot Co	verage *	Rear Sp	ace (m)	Side Space	e (m)	Light We	ll for NLV
Building Category	Building Height (m)	Minimum Site Frontage (m)	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
Law Diag	less than 7	6	80%**	65%	2.3m	2.3m	-	2.3m	2.3m	5 Sq.m
Low Rise	7 less than 15	6	65%	65%	3.0m	3.0m	-	3.0m	3.OM	9 Sq.m
Inter Mediate Rise	15 less than 30	12	65%	65%	4.0M	4.0m	1.0m and 3.0m	4.0m	4.0m	16 Sq.m
Middle Rise	30 less than 50	20	65%	65%	4.0m	5.0m	3.0m both side	5.0m	5.OM	25 Sq.m
High Disa	50 less than 75	30	50%***	50%***	5.0m	6.0m	4.0m both side	6.0m	6.0m	36 Sq.m
High Rise	75 and above	Above 40m	50%***	50%***	5.0m	6.0m	5.0m both side	6.0m	6.0m	***

NLV - Natural Light & Ventilation

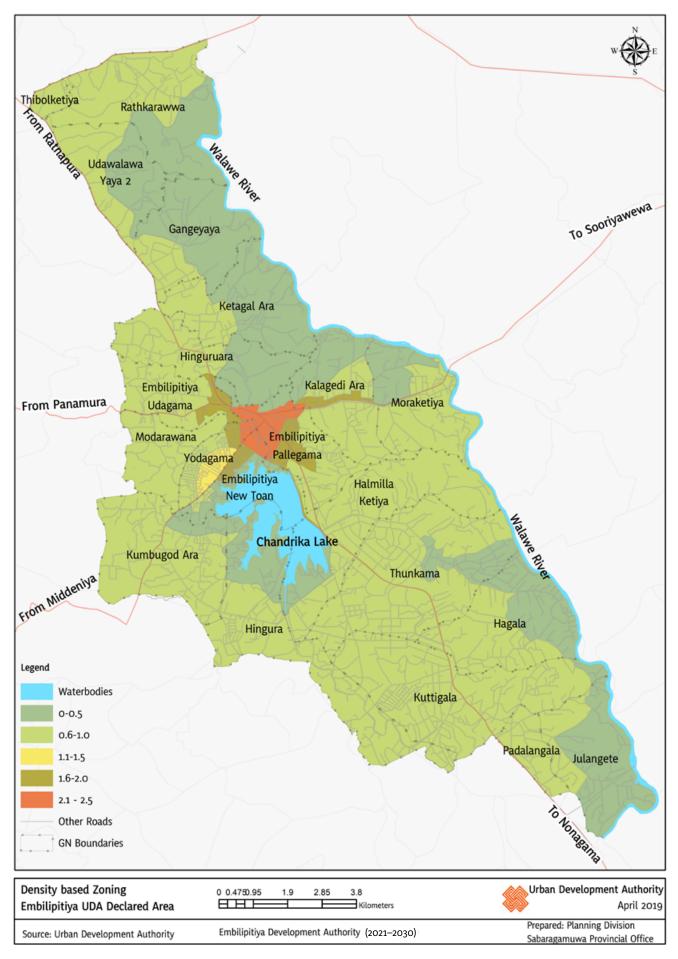
Building Height - Height between access road level to roof top or roof level (Including parking floors)

* 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

7.3.2. Zone Factor for each Zone 2021–2030



Map 7.2 : Density Based Zoning (2021–2030)

7.4. Common Zoning Guidelines for Planning Area

- 7.4.1. These guidelines apply to all areas within the administrative limits of Embilipitiya Urban Council area and part of the Embilipitiya Pradeshiya Sabha area which have been declared as Urban Development Areas in the Extraordinary Gazette Notification No. 1605/41 and 11.06.2009 under Section 3 of the Urban Development Authority Act No. 41 of 1978.
- 7.4.2. In addition to the provisions of this zoning plan, the Planning and Development Guidelines applicable to any development work is regulated by the Gazette Notification No 2235/54 dated 08th July 2021. The said legalized Planning and Development Guidelines also apply to the Embilipitiya planning area.
- 7.4.3. Total area of land approved for development work in relation to the development plan, schedule 01, Forms A, B and E should be used to determine the floor area, number of floors, the open area around buildings and plot coverage.
- 7.4.4. The boundaries shown on the zoning plan are often based on existing highways, byroads, railways, and waterways, and in the absence of such boundaries the zoning boundaries of the development plan should be based on the X and Y coordinates indicated by the degree of Google Earth.
- 7.4.5. When a place or property is designated for only a specific purpose by the zoning plan, that place or property should be used only for that designated use.
- 7.4.6. When a place or property is not designated for any particular use, its existing use under the zoning plan shall not be an impediment to the permitted use of the zone in which it is located.
- 7.4.7. If a property or building belongs to two zones or more, the area where the main entrance of that property or building belongs should be considered as the zone of that property or building, or the area that owns the largest percentage of the land should be considered the legal zone.
- 7.4.8. In addition to the usages specified separately in the relevant area, taking into account the minimum land area for other similar uses, may be permitted by the Authority subject to the conditions.
- 7.4.9. Areas currently used and identified for public outdoor parks and as entertaining places are permitted only for those activities.
- 7.4.10. If any legally implemented usage does not apply to the zone as of the date the guidelines of the plan take effect, such usage will not be permitted by extension of time or by the expansion of its building parts or machinery, or by the addition of parts from contiguous lands, or to any activity leading to any

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Common Zoning Guidelines for Planning Area

Chapter 07 Development Zones & Common Zoning Guidelines

Common Zoning Guidelines for Planning Area project and only essential maintenance is permitted. Further, if the continuation of the proposed site or building is deemed unfavorable, such misuse may be ordered to cease.

- 7.4.11. Building line applicable to footpaths, stairs and all roads and proposed minimum road width within the Municipal Council limits shall be in accordance with Chapter 9.
- 7.4.12. When any place or piece of land is situated next to a water way reservation area related to water way should be in accordance with Chapter 10.
- 7.4.13. Mining works licensed in the zones permitted for mining work done by someone for minerals should be in accordance with the reservation requirements specified in Chapter 10 and a preliminary planning Clearance (PPC) of Urban Development Authority should be obtained for mineral mining.
- 7.4.14. When allocating any land or land area for a cemetery or crematorium, the recommendation of the Urban Development Authority should be obtained.
- 7.4.15. Recommendations should be obtained from the Dangerous Drugs Control Board, the Central Environmental Authority and the Urban Development Authority for the construction or expansion of hazardous, toxic and polluting industries or businesses.
- 7.4.16. All buildings and lands related to archeological, ancient architectural and cultural and national heritage sites should be preserved as they exist and to preserve archaeological value during any improvement or renovation and construction. Recommendations should be obtained from the Urban Development Authority, the Department of Archeology and relevant institutions.
- 7.4.17. When any area categorized under wetland and not included in green conservation zone has been included in other development zone, the usages, guidelines and conditions of green conservation zones are effective for such areas.
- 7.4.18. A suitable green belt should be maintained at the boundary of the land used for the proposed waste recycling centers, sanitary waste centers or any other related purpose and no residential use should be permitted within 250 meters of that boundary.



Zoning Guidelines

Chapter 08 Zoning Guidelines

Commercial Zone I

Guidelines and Permissible Uses for Commercial Zone I In order to achieve the desired vision of the Embilipitiya Development Plan 2030, the specific uses and specific requirements for each of the nine zones have been identified to highlight special characters specific for each zone.

8.1. Commercial Zone I

Purpose of establishing this zone is to create a high density commercial zone concentrating commercial activities in the town center, so that it is beneficial for the population who come to obtain services from the town.

8.1.1. Guidelines and Permissible Uses for Commercial Zone I

The Guidelines and Permissible Uses for Commercial Zone I of proposed zoning plan listed below in Table 8.1 and 8.2.

Table 8.1 : The Requirements for Commercial Zone I

Zoning boundary (Coordinates)	Mentioned in Annexture No. 08
Zoning factor	2.5
Permissible height limit	The maximum height of the earth is 45 meters
Minimum Plot Size	sq.m. 150 (06 perch)

Table 8.2 : Permissible uses for Commercial Zone I

No.	Permissible uses	The Minimum Land Extent (sq.m.)		
(a) Comr	(a) Commercial			
i.	Shops	150 (06 Perch)		
ii.	Supermarkets, Commercial Complexes, Showrooms	1000 (40 perch)		
iii.	Restaurants	150 (06 perch)		
iv.	printing presses	150 (06 Perch)		
V.	Vehicle charging stations	500 (20 Perch)		
vi.	Bakery	250 (10 Perch)		
(b) Touri	(b) Tourism			
i.	Tourist Hotels, Reception Halls	1000 (40 Perch)		
ii.	Hotels, Lodges, Inn	500 (20 Perch)		

No.	Permissible uses	The Minimum Land Extent (sq.m.)
(c) Socia	al services and public affairs	·
i.	Conference Halls, Cultural Centers	1000 (40 Perch)
ii.	Libraries	500 (20 Perch)
iii.	Theaters	1000 (40 perch)
iv.	Public gathering places	1000 (40 perch)
(d) Heal	th	
i.	Private Hospitals	2000 (80 perch)
ii.	Medical Consulting Centers	500 (20 perch)
iii.	Medical Centers, Gymnacium, Ayurvedic Spa	250(10 perch)
iv.	Pharmacy, laboratory Service Centers	150 (06 perch)
(e) Educ	ational	
i.	Educational Institutions, Tuition Classes, Preschools	500 (20 perch)
(f) Instit	tutional	
i.	Professionals' office, Trade Institutions	
ii.	Banks and Financial Institutions, Insurance Companies	
(g) Vehi	cle	
i.	Vehicle Charging Stations	500 (20 perch)
ii.	Vehicle Parts Sale Stores	150 (06 perch)
iii.	Vehicle Sale Centers and Showrooms	500 (20 perch)
iv.	Vehicle Parking areas	-
V	Vehicle Parking Complex	1000 (40 perch)
(h) Resid	dential	
i.	Residential Buildings	250 (10 perch)
(i) Leisu	re and Recreation	
i.	Cinema, Social Club	500 (20perch)
ii.	Open Spaces, Parks, Leisure and Recreational Places	-
(j) Indus	stry	•
i.	Agro-based grinding industries and packaging industries (maximum floor area 100 sq.m.)	
		•

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Commercial Zone I

Guidelines and Permissible Uses for Commercial Zone I Chapter 08 Zoning Guidelines

Commercial Zone II

Guidelines and Permissible Uses for Commercial Zone II

8.2. Commercial Zone II

Purpose of establishing this zone is to create a high density commercial zone via the expansion of concentrated commercial activities in the town center.

8.2.1. Guidelines and Permissible Uses for Commercial Zone II

The Guidelines and Permissible Uses for Commercial Zone II of proposed zoning plan listed below in Table 8.3 and 8.4.

Table 8.3 : The Requirements for Commercial Zone II

Zoning boundary (Coordinates)	Mentioned in Annexture No. 08
Zoning factor	2.0
Permissible height limit	The maximum height of the earth is 30 meters
Minimum Plot Size	sq.m. 150 (06 perch)

Table 8.4 : Permissible uses for Commercial Zone II

No.	Permissible uses	The Minimum Land Extent (sq.m.)	
(a) Comm	(a) Commercial		
i.	Warehouses	250 (10 perch)	
ii.	Building Construction Material Stores	500 (20 perch)	
iii.	Welding and Leith Workshops	500 (20perch)	
iv.	Filling Stations	1000 (40 perch)	
(b) Vehicle	(b) Vehicle		
i.	Vehicle Repairing Centers, Vehicle service centers	500 (20 perch)	
(c) Social	(c) Social Service		
i.	Playgrounds	-	
ii.	Indoor stadiums	1000 (40 perch)	
iii.	Daycare Centers	250 (10 perch)	
(d) Indust	(d) Industries		
i.	Agro-based grinding industries and packaging industries (maximum floor area 100 sq.m.)	250 (10 perch)	
(e) Other	(e) Other		
i.	Permissible Uses for commercial zone 1	-	

8.3. Administrative Zone

Purpose of establishing this zone is to facilitate main administrative activities and related facilities within the zone so that it is beneficial for the commuters and residents.

8.3.1. Guidelines and Permissible Uses for Administrative Zone

The Guidelines and Permissible Uses for Commercial Zone I of proposed zoning plan listed below in Table 8.5 and 8.6.

Zoning boundary (Coordinates)	Mentioned in Annexture No. 08
Zoning factor	1.5
Permissible height limit	The maximum height of the earth is 30meters
Minimum Plot Size	150 sq.m. (06 perch)
Zoning conditions	Permissible plot coverage of 65% should be maintained for all commercial and non-commercial uses in this zone.

Table 8.6 : Permissible uses for Administrative Zone I

No.	Permissible uses	The Minimum Land Extent (sq.m.)		
(a) Instit	(a) Institutional			
i.	Administrative Complex	1000 (40 perch)		
ii.	Government Semi – Government and Private Institutions	500 (20 perch)		
iii.	Banks and financial Institutions, Insurance Companies, Trade Institutions, Professionals' offices	150 (06 perch)		
(b)Healt	(b)Health			
i.	Medical Consulting Centers	500 (20 perch)		
ii.	Medical Centers	250 (10 perch)		
iii.	Pharmacy, laboratory Service Centers	150 (06 perch)		
iv.	Gymnasium, Ayurvedic Spa	150 (06 perch)		
(c) Educ	(c) Educational			
i.	Educational Institutions, Preschools	500 (20 perch)		
ii.	Tuition	500(20 perch)		

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Zoning Guidelines

Administrative Zone

Guidelines and Permissible Uses for Administrative Zone

Chapter 08 Zoning Guidelines

Administrative Zone

Guidelines and Permissible Uses for Administrative Zone

No.	Permissible uses	The Minimum Land Extent (sq.m.)
iii.	Technical Colleges, Vocational Training Centers	1000 (40 perch)
iv.	Training Centers (Residential/ Institutional)	2000 (80 perch)
(d) Socia	l Service	
i.	Auditorium, Conference Halls, Theaters, Cultural Centers	1000 (40 perch)
ii.	Libraries	250 (10 perch)
iii.	Playgrounds	-
iv.	Indoor Stadiums	1000 (40 perch)
V.	Daycare Centers	500 (20 perch)
vi.	Community Halls	250 (10 perch)
(e) Leisu	re and Recreation	
i.	Open Spaces, Parks, Leisure and Recreational Places	-
(f) Reside	ential	
i.	Flats	1000 (40 perch)
ii.	Office Quarters	250 (10 perch)
iii.	Residential Buildings	250 (10 perch)
(f) Comn	nercial	
i.	Shops, Restaurants (Maximum floor area 100sq.m.)	150 (06 perch)
ii.	Printing Press	150 (06 perch)
(g) Touri	sm	
i.	Hotels (Maximum floor area 100sq.m)	150 (06 perch)
(h) Vehic	le	
i.	Vehicle Parks	250 (10 perch)
ii.	Vehicle Parking Complex	1000 (40 perch)
(i) Indust	try	
i.	Agro-based grinding industries and packaging industries (maximum floor area 100 sq.m.)	-

8.4. Tourism Service Zone

Purpose of establishing this zone is to create a tourism zone capable of attracting tourists via development of service facilities of tourist related activities.

8.4.1. Guidelines and Permissible Uses for Tourism Service Zone

The Guidelines and Permissible Uses for Tourism Service Zone of proposed zoning plan listed below in Table 8.7 and 8.8.

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Zoning Guidelines

Tourism Service Zone

Guidelines and Permissible Uses for Tourism Service Zone

Table 8.7 : The Requirements for Tourism Service Zone

Zoning boundary (Coordinates)	Mentioned in Annexture No. 08	
Zoning factor	1.0	
Permissible height limit	The maximum height of the earth is 21 meters	
Minimum Plot Size	250 sq.m. (10 perch)	
Zoning conditions	 Permissible plot coverage of 65% should be maintained for all commercial and non-commercial uses in this zone. 	

Table 8.8 : Permissible Uses for Tourism Service Zone

No.	Permissible uses	The Minimum Land Extent (sq.m.)		
(a) Touris	(a) Tourism			
i	Tourist Hotels, Tourist Camping Sites, Holiday Resorts, Reception Halls,	1000 (40 perch)		
ii	Hotels, Lodges, Inn	500 (20 perch)		
iii	Restaurants	250 (10 perch)		
iv	Swimming Pools	500 (20 perch)		
V	Tourist Information Centers, Homestay	250 (10 perch)		
vi	Small Scale Zoo	500 (20 perch)		
(b)Comm	(b)Commercial			
i	Shops	250 (10 perch)		
ii	Supermarkets, Commercial Complexes, Showrooms	500 (20 perch)		

Chapter 08 Zoning Guidelines

Tourism Service Zone

Guidelines and Permissible Uses for Tourism Service Zone

No.	Permissible uses	The Minimum Land Extent (sq.m.)	
iii	Bakery	250 (10 perch)	
iv	Printing Presses	250 (10 perch)	
V	Warehouses	500 (20 perch)	
vi	Building Construction Material Stores	500 (20 perch)	
vii.	Filling Stations	1000 (40 perch)	
viii.	Vehicle Charging Stations	500 (20 perch)	
(c) Social	Service		
i	Auditorium, Conference Halls, Theaters, Cultural Centers	1000 (40 perch)	
ii	Libraries	250 (10 perch)	
iii	Playgrounds	-	
iv	Indoor Stadiums	1000 (40 perch)	
V	Daycare Centers	500 (20 perch)	
vi.	Community Halls	250 (10 perch)	
(d) Healt	h	<u>^</u>	
i	Private Hospitals	2000 (80 perch)	
ii	Medical Consulting Centers	500 (20 perch)	
iii	Medical Centers, Gymnasium, Ayurvedic Spa	250 (10 perch)	
iv	Pharmacy, laboratory Service Centers	250 (10 perch)	
(e) Educa	tional		
i.	Educational Institutions, Tuition, Training Centers	500 (20 perch)	
(f) Institu	itional		
i.	Professionals' offices, Trade Institutions,	250 (10 perch)	
ii.	Banks and financial Institutions, Insurance Companies	250 (10 perch)	
(g) Vehici	(g) Vehicles		
i	Vehicle Parks	-	
ii	Vehicle Sale Centers and Showrooms	500 (20 perch)	
iii	Vehicle Parts Sale Stores	250 (10 perch)	
iv	Vehicle Repairing Centers, Vehicle Service Centers,	500 (20 perch)	
V.	Vehicle Charging Stations	500 (20 perch)	

No.	Permissible uses	The Minimum Land Extent (sq.m.)	
((h) Resid	((h) Residential		
V.	Residential Buildings	250 (10 perch)	
(i) Leisure	and Recreation		
i	Cinema, Social Club	500 (20 perch)	
ii	Open Spaces, Parks, Leisure and Recreational Places	-	
iii	Leisure Parks	500 (20 perch)	
iv	Adventure Parks	4000 (160 perch)	
(j) Indust	(j) Industry		
i.	Agro-based grinding industries and packaging industries (maximum floor area 150 sq.m.)	250 (10 perch)	
ii.	Handicrafts , Domestic Industries (Environment Friendly)	250 (10 perch)	

Chapter 08 Zoning Guidelines

Tourism Service Zone

Guidelines and Permissible Uses for Tourism Service Zone

Agro-service Zone

Guidelines and Permissible Uses for Agro-service Zone

8.5. Agro-service Zone

Purpose of establishing this zone is to facilitate a medium density agricultural zone concentrating the agro-based activities of the Embilipitiya town.

8.5.1. Guidelines and Permissible Uses for Agro-service Zone

The Guidelines and Permissible Uses for Agro-service zone of proposed zoning plan listed below in Table 8.9 and 8.10.

Table 8.9 : The Requirements for Agro-service zone

Zoning boundary (Coordi-nates)	Mentioned in Annexture No. 08	
Zoning factor	1.0	
Permissible height limit	The maximum height of the earth is 21 meters	
Minimum Plot Size	300 (12 perch)	
Zoning conditions	 Permissible plot coverage of 65% should be maintained for all commercial and non-commercial uses in this zone. 	

Table 8.10 : Permissible uses for Agro Service Zone

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Agro-service Zone

Guidelines and Permissible Uses for Agro-service Zone

No.	Permissible uses	The Minimum Land Extent (sq.m.)
(a) Agric	culture	
i	Plant Nursery	500 (20 perch)
ii	Breeding Centers	2000 (80 perch)
iii	Agriculture Related Research and Training Centers	2000 (80 perch)
iv	Agricultural Production Collection Centers	1000 (40 perch)
(b) Indu	stry	
i	Animal based production industries (Maximum Floor Area 150sq.m.)	500 (20 perch)
ii	Agro-based grinding industries and packaging industries (small scale)	500 (20 perch)
(c) Resid	lential	
i	Residential Buildings	300(12 perch)
(d) Com	mercial	
i	Shops	300 (12 perch)
ii	Supermarkets, Commercial Complexes	500 (20 perch)
iii	Printing Presses	
iv	Hotels, Reception Halls, Lodges, Holiday Resorts	1000 (40 perch)
V	Restaurants	300 (12 perch)
vi	Bakery	300 (12 perch)
vii	Building Construction Material Stores	500 (20 perch)
viii	Wildings and Lathe Workshop	500 (20 perch)
ix	Saw mill	1000 (40 perch)
X	Warehouses	500 (20 perch)
xi	Vehicle charging stations	500 (20 perch)
xii	Filling Stations	1000 (40 perch)
(e) Insti	tutional	
i.	Banks and Financial Institutions, Insurance Companies	300 (12 perch)
(f) Healt	th	-
	Medical Centers	500 (20 perch)
	Pharmacy, laboratory Service Centers	300 (12 perch)

No.	Permissible uses	The Minimum Land Extent (sq.m.)
(g) Educ	ational	
i	Primary Schools	4000 (160 Perch)
ii	Secondary Schools	10,000 (395 perch)
iii	Preschools	500 (20 perch)
iv	Vocational Training Centers, Technical Colleges, Training Centers	1000 (40 Perch)
V	Educational Institutions	500 (20 Perch)
vi	Tuitions	500 (20 Perch)
(h) Vehi	cle	
i	Vehicle showrooms (Agricultural activities relate vehicles)	500 (20 Perch)
ii	Vehicle Sale Centers and Showrooms	500 (20 Perch)
iii	Vehicle Parts and Machinary sale stores	300 (12 perch)
iv	Vehicle Parks	-
V.	Vehicle Reparing Stations, Vehicle Service Stations	500 (20 perch)
(i) Socia	l Service	
i	Indoor Stadium	1000 (40 Perch)
ii	Play Grounds	-
iii	Libraries	300 (12 Perch)
iv	Community Halls	300 (12 Perch)
V.	Theaters, Cultural Centers	1000 (40 perch)
(j) Leisu	re and Recreation	
i.	Open Spaces, Parks, Leisure and Recreational Places	-

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Agro-service Zone

Guidelines and Permissible Uses for Agro-service Zone Chapter 08 Zoning Guidelines

Industrial Zone

Guidelines and Permissible Uses for Industrial Zone

8.6. Industrial Zone

Purpose of establishing this zone is to promote high, medium and small scale, value added industries and other environmentally friendly industries .

8.6.1. Guidelines and Permissible Uses for Industrial Zone

The Guidelines and Permissible Uses for Industrial Zone of proposed zoning plan listed below in Table

Table 8.11 : The Requirements for Industrial Zone

Zoning boundary (Coordinates)	Mentioned in Annexture No. 08	
Zoning factor	1.0	
Permissible height limit	The maximum height of the earth is 15 meters	
Minimum Plot Size	2000 sq.m.(80 perch)	
Zoning conditions	 Permissible plot coverage of 65% should be maintained for all uses in this zone. 	
	 The applicable guidelines, requirements and uses for this industrial zone are in accordance with Industrial Zone Guide Plan in 8.10 	

8.7. Mixed Residential Zone I

Purpose of establishing this zone is to promote mixed development activities

8.7.1. Guidelines and Permissible Uses for Mixed Residential Zone I

The Guidelines and Permissible Uses for Mixed Residential Zone I of proposed zoning plan listed below in Table 8.12 and 8.13

Table 8.12 : The Requirements for Mixed Residential Zone I

Zoning boundary (Coordinates)	Mentioned in Annexture No. 08	
Zoning factor	1.0	
Permissible height limit	The maximum height of the earth is 15 meters	
Minimum Plot Size	250 sq.m. (10 perch)	
Zoning conditions	Permissible plot coverage of 70 % should be maintained for Com-mercial uses and 65 % should be maintained for noncommercial uses in this zone.	

Table 8.13 : Permissible uses for Mixed Residential Zone I

No.	Permissible uses	The Minimum Land Extent (sq.m.)
(a) Resic	lential	
i.	Residential Buildings	250 (10 perch)
ii.	Flats	1000 (40 perch)
iii.	Housing Projects	2000 (80 perch)
(b) Com	mercial	•
i	Shops	250 (10 perch)
ii	Banks and financial Institutions, Insurance Companies,	250 (10 perch)
iii	Filling Stations	1000 (40 perch)
iv	Vehicle Charging Stations	500 (20 perch)
V.	Bakery	250 (10 perch)
vi.	Resturant	250 (10 perch)
vii.	Building Construction Material Stores	500 (20 perch)

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Zoning Guidelines

Mixed Residential Zone I

Guidelines and Permissible Uses for Mixed Residential Zone I

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Mixed Residential Zone I

Guidelines and Permissible Uses for Mixed Residential Zone I

No.	Permissible uses	The Minimum Land Extent (sq.m.)
viii.	Welding and Leith Workshops	500 (20 perch)
ix.	Saw mills	1000 (40 perch)
(c) Touri	ism	
i.	Reception Halls	1000 (40 perch)
ii.	Hotels, Lodges, Holiday Resorts	500 (20 perch)
(d) Heal	th	
i	Hospitals	4000 (160 perch)
ii	Private Hospitals	2000 (80 perch))
iii	Medical Consulting Centers	500 (20 perch)
iv	Medical Centers, Pharmacy, laboratory Service Centers	250 (10 perch)
V.	Gymnasium	250 (10 perch)
(e) Insti	itutional	
i.	Professionals' offices, Trade Institutions	250 (10 perch)
(f) Educa	ational	
i	Primary Schools	4000 (158 perch)
ii	Secondary Schools	10,000 (395 perch))
iii	Educational Institutions, Preschools	500 (20 perch)
iv	Tutions	500 (20 perch)
(g) Socia	al Service	
i	Libraries	250 (10 perch)
ii	Daycare Centers	500 (20 perch)
iii	Indoor Stadiums	1000 (40 perch)
iv	Playgrounds	-
V.	Cultural Centers, Theaters	1000 (40 perch)
vi.	Community Halls	250 (10 perch)
(h) Leisu	Ire and Recreation	·
i.	Open Spaces, Parks, Leisure and Recreational Places	-
(i) Vehic	les	•
i.	Vehicle Repairing Stations, Vehicle Service Stations	500 (20 perch)
ii.	Vehicle Sale Centers and Showrooms	500 (20 perch)

No.	Permissible uses	The Minimum Land Extent (sq.m.)	
iii.	Vehicle Parks	-	
(j) Industr	(j) Industries		
i.	Agro-based grinding industries and packaging industries (maxi-mum floor area 100 sq.m.)	500 (20 perch)	
ii.	Domestic Industries	500 (20 perch)	
(k) Agriculture			
i.	Agricultural Production Collection Centers	500 (20 perch)	

Chapter 08 Zoning Guidelines

Mixed Residential Zone I

Guidelines and Permissible Uses for Mixed Residential Zone I

Mixed Residential Zone II

Guidelines and Permissible Uses for Mixed Residential Zone II

8.8. Mixed Residential Zone II

Purpose of establishing this zone is to facilitate a Mixed Residential zone suitable for fulfilling the residential needs of the urban residents.

8.8.1. Guidelines and Permissible Uses for Mixed Residential Zone II

The Guidelines and Permissible Uses for Mixed Residential Zone II of proposed zoning plan listed below in Table 8.14 and 8.15.

Zoning boundary (Coordinates)	Mentioned in Annexture No. 08	
Zoning factor	1.0	
Permissible height limit	The maximum height of the earth is 12 meters	
Minimum Plot Size	300 sq.m. (12 perch)	
Zoning conditions	 Permissible plot coverage of 70 % should be maintained for Com-mercial uses and 65 % should be maintained for noncommercial uses in this zone. 	

Table 8.14 : The Requirements for Mixed Residential Zone II

Table 8.15 : Permissible Uses for Mixed Residential Zone II

Chapter 08 Zoning Guidelines

Mixed Residential Zone II

Guidelines and Permissible Uses for Mixed Residential Zone II

No.	Permissible uses	The Minimum Land Extent (sq.m.)
(a) Resid	lential	
i	Residential Buildings	300 (12 perch)
ii	Flats	1000 (40 perch)
iii	Housing Projects	2000 (80 perch)
(b) Heal	th	-
i	Medical Centers, Pharmacy	300 (12 perch)
ii	Gymnasium	300 (12 perch)
(c) Educ	ational	
i	Primary Schools	4000 (160 perch)
ii	Secondary Schools	10,000 (395 perch)
iii	Educational Institutions, Preschools	500 (20 perch)
iv	Tuition	500 (20 perch)
(d) Socia	al Service	•
i	Daycare Centers	500 (20 perch)
ii	Cultural Centers	1000 (40 perch)
iii	Community Halls	300 (12 perch)
iv	Indoor Stadiums, Swimming pools	1000 (40 perch)
V	Playgrounds	2000 (80 perch)
(e) Leisu	ire and Recreation	
i	Open Spaces, Parks, Leisure and Recreational Places	-
(f) Touri	sm	
i	Resturants	300 (12 perch)
ii	Hotels	500 (20 perch)
(g) Com	mercial	
i	Shops	300 (12 perch)
ii	Bakery	300 (12 perch)
iii	Building Construction Material Stores	500 (20 perch)
iv	Welding and Leith Workshops	500 (20 perch)
V	Saw mills	1000 (40 perch)
(h) Vehi	cles	
i	Vehicle Repairing Centers, Vehicle Service Centers	500 (20 perch)
ii	Vehicle Parks	-
iii	Vehicle Sale Centers and Showrooms	500 (20 perch)

No.	Permissible uses	The Minimum Land Extent (sq.m.)
(h) Institutional		
i	Professionals' office, Trade Institutions	300 (12 perch)
(i) Industri	(i) Industries	
i	Domestic Industries	500 (20 perch)

8.9. Green Conservation Zone

The purpose of establishing this zone is to make the areas a green protected zone to protect Chandrika Wewa, Walawe River which is the main drinking water supplying source in Embilipitiya town and very low density ecologically sensitive areas identified by environmental sensitivity study.

8.9.1. Guidelines and Permissible Uses for Green Conservation Zone

The Guidelines and Permissible Uses for Green Conservation Zone of proposed zoning plan listed below in Table 8.16 and 8.17.

Zoning boundary (Coordinates)	Mentioned in Annexture No. 08
Zoning factor	0.5 (Highlands)
Permissible height limit	The maximum height of the earth is 10meters
Minimum Plot Size	500sq.m. (20 Perch)
Zoning conditions	 Permissible plot coverage of 50% should be maintained for all uses in this zone.
	II. All construction in this area should be done subject to the Preliminary Planning Clearance of the Urban Development Authority
	III. The guidelines and conditions set out in 8.9.2 apply to all uses in this zone.

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Mixed Residential Zone II

Guidelines and Permissible Uses for Mixed Residential Zone II

Green Conservation Zone

Guidelines and Permissible Uses for Green Conservation Zone

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Green Conservation Zone

Guidelines and Permissible Uses for Green Conservation Zone

Table 8.17 : Permissible uses for Green Conservation Zone

Permissable Uses

No any construction will be permitted within the first 50 meters of the 100 meter reserve limit of Chandrika Wewa and the following uses will be permitted subject to the recommendations of the relevant institutions mentioned in Schedule 7.4.3 for the other reservation area and the 40 meter reserve limit of Walawe River.

- Wetland Nature Parks
- Eco-friendly Restaurants -100 sqm (Built on wooden pillars) Minimum land area 1000 sqm
- Small Scale Conference Centers (Built on wooden pillers) 140 sqm, Seating Capacity 75, Minimum Land Size 1000 sqm.
- Outdoor Fitness Areas / Fitness Facilities Minimum Land Size 1000sqm
- Cabana (built on wooden pillars) Minimum land area is 1000sqm
- Traditional fishing industry
- Water associated transport
- Government approved public infrastructure projects of national importance
- Construction of new irrigations / construction of flood protections
- Education and research and eco-tourism

No new additions will be allowed to any building within the 100meter reservation area for Chandrika Wewa and 40 meters from the Walawa river bank and it will be compulsory to obtain environmental protection permits to operate existing commercial establishments and industries within that limit.

All highlands in this zone are permitted only for the following uses

- Parks / Open playgrounds (no structural permanent construction)
- Residential Buildings Minimum Land Size 1000sqm (20 perches)
- Eco-Friendly Restaurants, Lodges, Banquet Halls Minimum Land Size 1000sqm (40 perches)
- Small Scale Conference Halls Minimum Land Size 1000sqm (40 perches)
- Eco-friendly tourism Minimum land area 1000 sqm (40 perches)

Existing cultivated paddy fields and fallow paddy lands and related areas such as Deniya, Ovita etc. can only be used in accordance with the approved Agrarian Development Act.

- Wetland related agriculture
- Epilepsy plant Cultivations
- Excavations carried out under the conditions of the Geological Survey and Mining Bureau and the Central Environmental Authority (clay, sand, soil and mineral excavations) subject to informal land restoration activities
- Eco-friendly aquaculture ponds

8.9.2. Guidelines and conditions applicable to Resevation areas

Wetlands

Wetlands in Embilipitiya UDA declared area can be classified as follows.

- I. Paddy lands
- II. Wetlands
- III. Tanks, Canals and other water bodies

The Green Conservation Zone has been established to include the above wetlands.

Green Conservation Zone

Existing cultivable paddy fields, abandoned paddy fields and associated areas such as Deniya, Ovita etc. Embilipitiya UDA declared area Wetland related agricultural areas, canals, dams and reservoirs are also included in this zone.

8.9.2.1. Guidelines for Green Conservation Zone

- A. Maintaining flood capacity and other development activities should be made in coordination with the relevant institutions mentioned in Schedule 02 taking into account the increase in the severity of extreme weather conditions caused by climate change in the region and the intensity of rainwater runoff due to landfills and constructions carried out.
- B. Prior approval should be obtained from the relevant institutions mentioned in Schedule 02 before developing low lying land / abondened paddy fields and cultivated paddy fields. Also, in cases where the ownership of wetlands falls under the purview of the relevant institutions under various Acts, the necessary clearance or approval should be obtained from the institutions mentioned in the schedule 02 and other relevant institutions.
- C. For any development work that may affect the wetland environment, the Environmental clearance or Environmental Protection License (EPL) should be obtained from the Central Environmental Authority and the relevant local authorities mentioned in the schedule and the license should be updated annually before the expiry date.
- D. The recommendation / approval (final clearance certificate) given for a wetland development work belonging to the Sri Lanka Land Development Corporation mentioned in the schedule should 02 be renewed annually as per the decision of the planning committee of that institution.
- E. Canal reservation of no.1662/17 published by the gazette notification dated 14.07.2010 of the agency No.01 and reservation of reservoirs of agency No.02 at the appendix 01 shall be maintained.

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Green Conservation Zone

Guidelines and conditions applicable to Resevation areas

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Green Conservation Zone

Guidelines and conditions applicable to Resevation areas

- F. Any construction that impedes drainage and flood retention capacity should not be carried out on wetlands or waterways, but for special projects or flooding recommended by the Urban Development Authority in accordance with the Master Plan or Design Guideline. Constructions to be carried out in such a manner as not to interfere with the flood carrying capacity schedule 02 no 01 and subject to the recommendation and approval of the relevant institution and other relevant institutions and also every permitted construction in wetlands must be designed according to a green building concept with specified technical standards.
- G. Plants and animals other than invasive plants and animals should not be removed from wetlands of ecologically sensitive value.
- H. Alternative locations should be appropriately installed to compensate for the reduction in water retention capacity and (other impact) environmental impacts on approved use in all wetlands where water retention capacity is particularly important. For this the approval of the relevant institutions mentioned in Schedule 02 should be obtained.
- I. Except doing traditional fisheries, mechanical boats, fishing gears, fuel or other vessels shall not be used in the process of catching fish or other aquatic life. In the locations where, mechanical boats have been allowed for fishing gear and fuel, approval of 02,03,05,19,20 institutions mentioned in the Schedule 02 should be obtained.
- J. Sustainable drainage methods should be used in the areas belonging to the Land Development Corporation of Sri Lanka mentioned in the schedule 02 recommended for wetland filling. Approval of the Central Environmental Authority should be obtained for the material used for filling wetlands.
- K. Areas of clearly identifiable landscaping / cultural / archaeological value and the areas with high biodiversity values should be conserved.
- L. Authorized public footpaths, public bathing places should be preserved or located at the appropriate nearest location at the approved works on wetlands.
- M. Developers should seek the services of professionally qualified professionals to plan, design and supervise.
- N. All breeding grounds for fish and other aquatic life should be specially protected
- O. Waste disposal should not be permitted in wetlands (domestic, corporate, industrial, commercial, electrical, and clinical waste).
- P. Wastewater should not be discharged into wetlands. But only treated water can be released subject to the recommendation of the Central Environmental Authority.

Q. These guidelines should be included as conditions in the issuance of licenses by the institutions mentioned in the schedule regarding the development activities in the wetland areas and the violation of those conditions will lead to the revocation or imposition of penalties.

8.9.2.2 Conditions for implementation of approved uses within the Green Conservation Zone

- A. The above conditions can be relaxed when it is necessary to implement an important public infrastructure project. (Maximum Permitted Infrastructure Projects Electricity, Water Supply, Telephone, Highways, Railways etc.)
- B. As it is proposed to re-cultivate the fallow paddy lands as per the government policy, the use of fallow paddy lands for other development activities should be done subject to the recommendations of the relevant institutions mentioned in Schedule 02.
- C. Survey Plan should be considered to determine the boundaries before approving the proposed development activities in the vicinity of wetlands or in the presence of highland areas in wetlands.
- D. In cases where there is an error in determining the location according to the geographical location system, the wetland zone belongs to the area approximately 10 m away from the boundary of a particular wetland zone and must be operated subject to the relevant laws, guidelines and approved practices in that zone.
- E. Where necessary, additional site specifications of institutions such as the Central Environmental Authority, Sri Lanka Land Development Corporation, Urban Development Authority, Agrarian Services Development Department, Sri Lanka Mahaweli Development Authority and the Irrigation Department may be attributed for "designated projects" under the Environment Act.

Violation of the above conditions in the development of any wetland may result in legal action un-der the powers vested in the Scheduled in 02.

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Green Conservation Zone

Guidelines and conditions applicable to Resevation areas

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Schedule 02

- 1. Sri Lanka Land Development Corporation
- 2. Sri Lanka Mahaweli Authority / Department of Irrigation
- 3. Central Environmental Authority
- 4. Urban Development authority
- 5. Embilipitiya Urban Council/ Embilipitiya Prdeshiya Sabha
- 6. Department of Forest Conservation
- 7. Department of Wildlife Conservation
- 8. National Building Reserch Organisation
- 9. Department of Agrarian Development
- 10. Department of Archaeology
- 11. National Aquatic Resources Reserch and Development Agency
- 12. Geological Survey and Mines Bureau
- 13. Sabaragamuwa Provincial Council
- 14. Water Resources Board
- 15. National Aquaculture Development Authority
- 16. Ceylon Electricity Board
- 17. Building Department of Sri Lanka
- 18. Road Development Authority
- 19. Department of Fisheries and Aquatic Resources
- 20. Rathnapura District Secretariat and Embilipitiya Divisional Secretariat

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8.10. Development Guide Plan and Guidelines

8.10.1. Introduction

Among the major development plans introduced in the Embilipitiya Town Development Plan, regulatory plans are prepared for areas identified for development under special guidelines. Accordingly, a special regulatory plan has been prepared for the Embilipitiya Industrial Zone only. All the factors required for the establishment of an industrial zone such as land, raw materials, labor, product market and road network for easy distribution of products have been already established in Embilipitiya. Accordingly, the opportunity to create value-added industries in agriculture has been well identified in this land mainly paddy and many agricultural crops such as bananas, other fruits and vegetables existing. The Southern Expressway, the Mattala Airport and the Hambantota Port, which are located in close proximity to the proposed industrial zone, could be used as opportunities to distribute products related to the region to regional, local and foreign markets.

8.10.2. Proposed Industrial Zone Guide Plan

Though Embilipitiya Hingura 50 acres industrial zone under the Ministry of Industry is currently inactive , 1200 acres land including Embilipitiya Paper Mill site which was a main industrial establishment then in Sri Lanka, has been identified for the proposed industrial zone. This industrial zone has been identified for operation under Phase 02.

Zone	The whole area of land (acres)	Area of land that can be used for development (Acres)
Proposed Industrial Zone Phase I	283.8	227
Proposed Industrial Zone Phase II	696	649
Proposed Residential Areas	220.2	207
Total	1200	1083

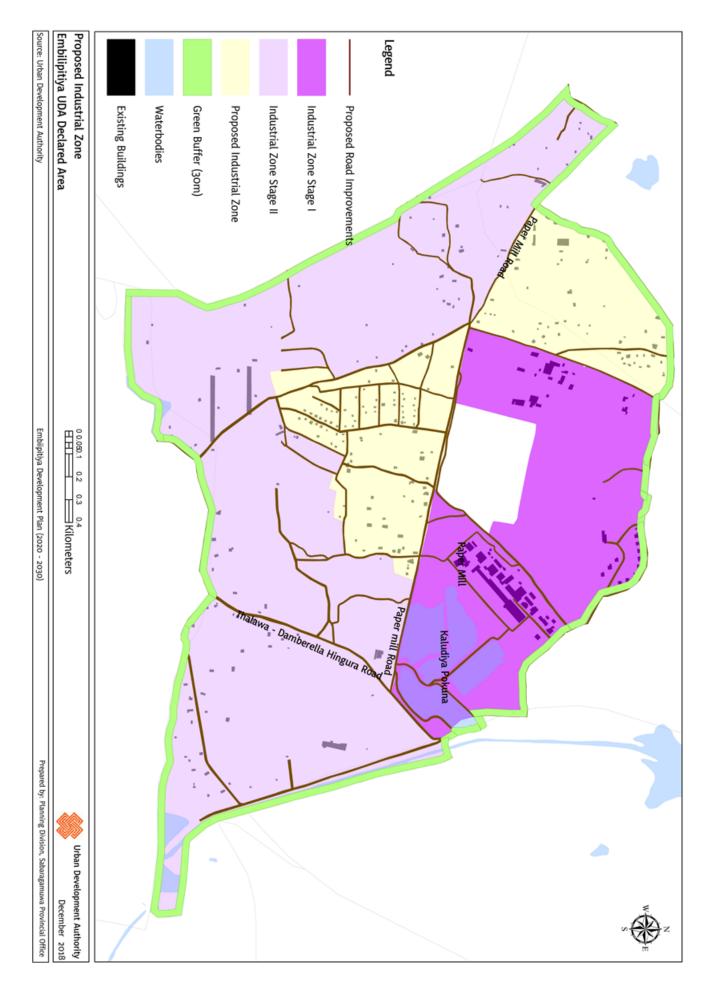
Table 8.18 : Proposed Industrial Zone Land Extents

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8.10.2.1. Proposed Industrial Zone Phase I

Table 8.19 : Approved Uses and Guidelines, Proposed Industrial Phase I

Approved Uses	 Eco-friendly large scale / medium scale and small scale agriculture and other manufacturing industries (industries mentioned in Schedule 9.3) Subsidiary uses for each industry (warehouses -raw materials and products), restaurants, medical treatment centers, official quarters, hostels, staff quarters, car parks, greenhouses, playgrounds and recycling centers
Recommended maximum height (m) From ground level	15 m
Zone boundaries	Google Earth's Decimal Degree X and Y for latitude and longitude coordinates (GPS-WGS) have been listed in Appendix 08 of 1984 for the boundaries of this region

Guidelines

Main Road Development

- Existing Paper Mill Road from Kadurugasara Junction to Kumbugodaara Junction should be widened and developed with 2 lanes..
- The old Karawilayaya road from Kuttigala should be widened and developed as an alternative road to the industrial zone with 2 lanes connecting to the paper mill road near the industrial zone.

Power supply

- Adequate power supply for the first phase of the industrial zone is available in the vicinity and the Kadurugas Ara substation belonging to the CEB is also located in the vicinity of the industrial zone. Currently, the substation has a capacity of 63 megawatts and uses Ampere 31.5 megawatts to meet the electricity demand of the area and The excess is Ampere 31.5 megawatts. Accordingly, the electricity demand of the proposed industries for this region should be obtained from this substation as required.
- In addition, each of the proposed industries has the potential to generate the required power generation using solar and alternative energy.

Water supply

For the 25 industries proposed to be implemented under the first phase, the existing industrial zone and the main water supply lines supplying water to the old paper mill can be utilized and Chandrika Wewa, the main source of water supply in Embilipitiya town, which is close to the industrial zone, should be used to increase the water supply capacity on demand.

For the 25 industries proposed to be implemented under the first phase, the existing industrial zone and the main water supply lines supplied to the old paper mill can be utilized. Forest Chandrika Lake should be used.

Waste Water And Solid Waste Management

- Recycling centers for waste water and solid waste management should be established through the Ministry of Industries under the infrastructure development in the proposed industrial zone.
- Regular waste water and solid waste disposal system which are installed separately for each industry, should dispose of water and solid waste in a systematic manner and comply with the recommendations of the Central Environmental Authority and relevant agencies.

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8.10.2.2. Proposed Industrial Zone Phase II

Table 8.20 : Approved Uses and Guidelines- Proposed Industrial Phase II

All approved uses for Industrial Zone Phase 01 shall be allowed to operate as approved uses for this Industrial Zone as well.
15 meters
Google Earth's Decimal Degree X and Y for latitude and longitude coordinates (GPS-WGS) have been listed in Appendix 08 of 1984 for the boundaries of this region

Internal road development

• As a main service road for the 696 acre land proposed to be implemented under Phase II, a two lane road should be constructed from the interior of the industrial area connecting the Paper Mill Road and the Old Karawilayaya Road and other internal roads should be constructed in connection with that service road (proposed road plan shown in Map No. 3.1).

Power supply

• Expansion of Embilipitiya Kadurugasara substation and installation of new transformer as required to adequately supply the expected demand capacity for industries proposed to be established under Phase II of the Industrial Zone

or

• An additional supply to this industrial zone should be obtained through the 133000 KW high tention power line under construction from Polpitiya to Hambantota via the Embilipitiya urban area.

Water supply

- The water supply of the Water Supply and Drainage Board is not sufficient to meet the water demand for the industries proposed to be established under Phase II of the Industrial Zone. Therefore, a new water project based on Chandrika Wewa should be established in the vicinity of the industrial zone or the water supply system owned by the Water Supply and Drainage Board should be improved.
- The water treatment plant owned by the Water Supply and Drainage Board should be expanded to increase its capacity to meet the drinking water requirement of the industrial zone.

Other

Existing farms associated with the industrial zone shall not be an impediment to the establishment and operation of industries, and housing located within this zone shall be resettlement within the proposed residential zone.

8.10.2.3. Proposed Residential Zone

Table 8.21 : Approved Uses and Guidelines, Proposed Residence Zone

Approved Uses	 Residential buildings Official quarters Employee housing Hostels Medical Treatment Centers Restaurants Grocery stores Domestic Industries (Eco-Friendly) Parks and green spaces Car parking 				
Approved maximum height (m) above ground level	15M				
Zone Boundaries	Google Earth's Decimal Degree X and Y for latitude and longitude coordinates (GPS-WGS) have been listed in Appendix 08 of 1984 for the boundaries of this region				
Guidelines					
• Only sub division of lands, repair of existing houses, addition of new parts and construction of new units will be permitted according to the basic needs of the existing landowners.					
• The minimum allotment should be 50%.	area of subdivisions in this zone is 20 perches and the approved plot cover				

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Common Guidelines for Development Activities in The Industrial Zone

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8.10.3. Common Guidelines for Development Activities in The Industrial Zone

- 1. The minimum allotment limit for allotment of land for industries should be 1/2 acre (80 perches).
- 2. A 30 meters strip of land between the outer boundary of the industrial zone and the proposed industrial area and a 10 meter green fence separating each industrial plot within the industrial zone should be planted and maintained according to the relevant spacing using the following species.

Plants to be planted in 30 meters green fence

1.	Kohomba	-	Azadirachta indica
2.	Albesia	-	Delonix regia
3.	Ehela	-	Cassia fistula
4.	Rathu Ma	-	Cassia roxburgii
5.	Kumbuk	-	Terminalia arjuna
6.	Ma dan	-	Syzygium cumini
7.	Karanda	-	Pongamia pinnata
8.	Mee	-	Madhuca longifolia
9.	Mayila	-	Bauhinia racemosa
10.	Ruk Attana	-	Alstonia scholaris
11.	Koon	-	Schleichera oleosa
12.	Tamarind	-	Tamarindus indicus

Plants to be planted in 10 meters green fence

1.	Kelani Thissa	-	Stenolobium stans
2.	Asoka	-	Saracca asoca
3.	Etteria	-	Murraya paniculata
4.	Na	-	Mesua ferrea
5.	Murutha	-	Lagerstroemia speciosa
6.	Maliththan	-	Salvadora persica
7.	Koboneela	-	Bauhinia purpuria
8.	Kahapethan	-	Bauhinia tomentosa
9.	Yellow Koon	-	Cassia spectabillis
10.	Peacock flower	-	Caesalpinia pulcarrima
11.	Temple flower	-	Plumeria acuminata

- 3. Off-road parking bays should be constructed where required so that all passenger vehicles can be diverted off the road.
- 4. Parking space should be provided as public space or as adequate in the interior of industrial premises.

- 5. Only 50% of the land proposed for industry should be used as land cover ratio.
- 6. The maximum height limit of buildings constructed in the industrial zone shall be 15 meters and the maximum number of story allowed is only 03 floors including the ground floor.
- 7. Service systems required to obtain electricity and water with the required capacity for each industrial area should be located.
- 8. A high pressure plumbing system should be installed to cover all industrial areas for use in case of emergency fires.
- 10. All industries established within the industrial zone should be environmentally friendly industries and action should be taken to obtain the recommendations of the following relevant institutions before establishing industries.
 - I. Central Environmental Authority.
 - II. Department of Fire Brigade Services.
 - III. Ceylon Electricity Board.
 - IV. Water Supply and Drainage Board.
 - V. Ministry of Industries.
 - VI. Relevant Local Government Institutions
- 3. A program with recommendations of the Central Environmental Authority on waste water disposal and waste management should be implemented covering the entire industrial zone.
- 4. Prior to locating all industries, a preliminary design settlement from the Urban Development Authority must be obtained

Chapter 08

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Schedule 03 (Industry Classification)

1. Food production industry

- I. Processing and preservation of vegetables and fruits
- II. Production of vegetables, animal fats and fats
- III. Dairy industry
- IV. Cereal flour preparation, flour and flour products
- V. Bakery products
- VI. Sugar production (including honey and jaggery)
- VII. Production of desserts, chocolate and cocoa
- VIII. Production of sauces, noodles and macaroni
- IX. Production of processed animal feed
- 2. Beverage production
 - I. Production of soft drinks, mineral water and bottling of water
- 3. Textile production
 - I. Fabric preparation and weaving for fabrics
 - II. Weaving
 - III. Finishing of fabrics
 - IV. Manufacture of other textiles
 - V. Manufacture of knitting fabrics
 - VI. Manufacture of processed textiles other than garments
 - VII. Manufacture of carpets and rugs
 - VIII. Manufacture of mesh rope and other cables
- 4. Garment manufacturing
- 5. Leather and allied products
 - I. Leather tanning and embellishment, Manufacture of luggage and handbags, Manufacture of saddles and armor, Fur dyeing and embroidery, Footwear manufacturing
- 6. Wood related products
 - I. Lumbering and timbering
 - II. Manufacture of wood materials, caps, pipes and fiber materials
 - III. Carpentry
 - IV. Manufacture of wooden containers
 - V. Manufacture of drinking straws and knitting materials
 - VI. Other wood products

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- 7. Manufacture of paper and paper material
 - I. Manufacture of pulp, paper and cardboard
 - II. Manufacture of other paper materials and paper boards
- 8. Cement related industries
- 9. Fiber related products
- 10. Manufacture of other hand-made fibers
- 11. Pharmaceutical preparation and manufacture of pharmaceutical products
- 12. Pharmaceutical, medical, chemical and herbal products
- 13. Clay based production
- 14. Manufacture of porcelain and ceramics
- 15. Iron and steel related production
- 16. Manufacture of computers, electronics and optical materials
 - I. Manufacture of electronic devices and circuit boards
 - II. Manufacture of computers, assembly and communication equipment
 - III. Manufacture of consumer electronics
- 17. Manufacture of electrical equipment
- 18. Manufacture of machinery and equipment
 - I. Manufacture of office equipment
 - II. Manufacture of machinery required for agro and timber industries
- 19. Car manufacturing
- 20. Bicycle manufacturing
- 21. Manufacture of furniture
- 22. Jewelery and allied products
- 23. Manufacture of sporting goods

Chapter 08

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Common Guidelines for Development Activities in The Industrial Zone Embilipitiya Development Plan 2021–2030 Urban Development Authority

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Proposed Road Width, Building Line and Reservations

Chapter og Proposed Road Width, Building Line and Reservations

Proposed Road Width and Building Lines

RDA and PRDA Roads (A and B category Roads)

Embilipitiya UC Roads

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9.1. Proposed Road Width and Building Lines

9.1.1. RDA and PRDA Roads (A and B category Roads)

No	Road Name	Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)
1	Pelmadulla – Nonagama Road	А	24 (80ft)	15 (50ft)
2	Embilipitiya – Moraketiya Kiri ibban ara Road	В	24 (80ft)	15 (50ft)
3	Embilipitiya – Middeniya Road	В	24 (80ft)	15 (50ft)
4	Eambilipitiya – Panamura Bulthota Road	В	18 (60ft)	15 (50ft)
5	Sooriyawewa – Padalangala Road	В	18 (60ft)	15 (50ft)
6	PRDA Roads		09 (30ft)	09 (30ft)

9.1.2. Embilipitiya UC Roads

D1 Cat	D1 Category Roads					
No	Road Name	Existing Road Width (m.)	Proposed Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)	
1	The Road to Cemetery Via Kadamandiya	8.6	D1	9.0	7.6	
2	Kiralawelkatuwa Road	5.0	D1	9.0	7.6	
3	The Road Near the Rural Leadership training Centre	8.7	D1	9.0	7.6	
4	Chandrika Lake outer circular Road	4.0	D1	9.0	7.6	
5	Thelbadu Ara Road	5.8	D1	9.0	7.6	
6	Darshanagama Wewa Road	4.0	D1	9.0	7.6	
7	Darshanagama Road	6.0	D1	9.0	7.6	
8	Dewale Temple Road	7.7	D1	9.0	7.6	
9	Bimbaduyaya Road	5.5	D1	9.0	7.6	
10	Moraketiya School Road	7.0	D1	9.0	7.6	
11	Liyanagama Road	5.0	D1	9.0	7.6	
12	Waidya Mawatha	8.8	D1	9.0	7.6	
13	Road infront of Sorowwa	6.0	D1	9.0	7.6	
14	D.J.R. Dissanayake Mawatha	9.0	D1	9.0	7.6	
15	Second Lane -left side of Hospital	9.0	D1	9.0	7.6	

D1 Cai	D1 Category Roads					
No	Road Name	Existing Road Width (m.)	Proposed Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)	
16	Sathwa Sayana Road	8.3	D1	-	7.6	
17	Cultural Center Road	8.0	D1	-	7.6	
18	Road near Yodhagama Playground	8.0	D1	-	7.6	
19	Water Tank Road near Children Park	8.0	D1	-	7.6	
20	President College Road	8.0	D1	-	7.6	
21	Road behind Economic Center	7.7	D1	-	7.6	
22	The Road to court near the Ayurwedic Hospital	6.5	D1	7.0	7.6	
23	Road In Front Of President College	6.5	D1	7.0	7.6	
24	Baladaksha Mawatha	6.7	D1	7.0	7.6	
25	The Road from Hulandawa To Newtown Cemetery	6.7	D1	7.0	7.6	
26	Hospital Road near Children Park	6.5	D1	7.0	7.6	
27	Court Road	7.0	D1	7.0	7.6	
28	Road in front of Liyanage Motors	7.0	D1	7.0	7.6	
29	Fourth Lane -Hospital Road	7.0	D1	7.0	7.6	
30	Road in front of Pela Thawana	7.0	D1	7.0	7.6	
31	Guru ara Road	7.0	D1	7.0	7.6	
32	Papermill Road	7.0	D1	7.0	7.6	
33	Sorowwa Old Road	7.0	D1	7.0	7.6	
34	Third Lane- Nonagama Road	7.0	D1	7.0	7.6	
35	Udakalagama Road	5.7	D1	6.0	7.6	
36	German Quarters Road	4.0	D1	6.0	7.6	
37	D Canal Road	5.5	D1	6.0	7.6	
38	D 5 Canal Road	6.0	D1	6.0	7.6	
39	Manikpura Road	4.3	D1	6.0	7.6	
40	Alternative Road of Lassanawatta Road	5.5	D1	6.0	7.6	
41	Higura Ara Second Lane	5.0	D1	6.0	7.6	
42	Nidahas Mawatha	5.0	D1	6.0	7.6	
43	Nidahas Mawatha	3.0	D1	6.0	7.6	
44	Tharindu Mawatha	5.0	D1	6.0	7.6	
45	Ranawiru Bandaranayake Mawatha	6.0	D1	-	7.6	
46	Road Infornt of Vishaka Children's Home	6.2	D1	-	7.6	

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D1 Cat	D1 Category Roads					
No	Road Name	Existing Road Width (m.)	Proposed Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)	
47	Hemamallika Mawatha	6.0	D1	-	7.6	
48	Gamudawa Road	6.0	D1	-	7.6	
49	Road Near Police Station	6.0	D1	-	7.6	
50	First Lane Near Police Quarters	6.0	D1	-	7.6	
51	Road In Front Of Telecom Office	6.0	D1	-	7.6	
52	First Lane - Left Side of Hospital	6.0	D1	-	7.6	
53	Road Near Lakmo Motors	6.0	D1	-	7.6	
54	B M C Road	6.0	D1	-	7.6	
55	Athkam Niwasa Road Near the Lord Buddha Statue	6.0	D1	-	7.6	
56	Second Lane – Concrete Wedapola	6.0	D1	-	7.6	
57	Road In Front of Ayurvedic Hospital	6.0	D1	-	7.6	
58	Prime Town Park Road	6.0	D1	-	7.6	
59	Siriwansha Road	6.0	D1	-	7.6	
60	Akkara 500 Watarawma Rd	6.0	D1	-	7.6	
61	Udagama Canal Road (Right Side)	6.0	D1	-	7.6	
62	Galwanguwa Third Lane	6.0	D1	-	7.6	
63	3 Mawatha	6.0	D1	-	7.6	
64	D 5 Canal Road	6.0	D1	-	7.6	

D2 cat	D2 category Roads				
No	Road Name	Existing Road Width (m.)	Proposed Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)
65	Shakthi Mawatha - 1St Lane	4.0	D2	-	7.6
66	Shakthi Mawatha — 2nd Lane	4.0	D2	-	7.6
67	Shakthi Mawatha – 3rd Lane	4.0	D2	-	7.6
68	Shakthi Mawatha – 4th Lane	4.0	D2	-	7.6
69	Tharindu Farm Village Road	4.4	D2	-	7.6
70	Cemetery Road 1St Lane	4.0	D2	-	7.6
71	Road In Front of District Court	5.3	D2	-	7.6
72	Vidumaga Road	5.5	D2	-	7.6
73	Sannali Redi Gedara Road	3.1	D2	-	7.6

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D2 cat	D2 category Roads					
No	Road Name	Existing Road Width (m.)	Proposed Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)	
74	Modarawana School Road	3.3	D2	-	7.6	
75	The Road Near the Avishka Stoters	5.3	D2	-	7.6	
76	1St Lane Near The Transformer	5.0	D2	-	7.6	
77	The Road Infront of Sri Devi Rice Mill	5.3	D2	-	7.6	
78	Sri Devi Rice Mill Road	5.0	D2	-	7.6	
79	Road Behind the Transformer of Modarawana Road	4.0	D2	-	7.6	
80	Hospital Road	5.0	D2	-	7.6	
81	Udakalagama 1St Lane	5.4	D2	-	7.6	
82	The Road Infront of Gamudawa Water Tank		D2	-	7.6	
83	Registrar Office Road	5.1	D2	-	7.6	
84	1St Lane - Registrar Office Road	5.0	D2	-	7.6	
85	1St Lane - Road Infront of Sanagaramaya	4.0	D2	-	7.6	
86	From Siluminigama Praja Shalawa to Road Infront Sangaramaya	5.3	D2	-	7.6	
87	The Road in front of Senanayake's House	4.0	D2	-	7.6	
88	The Road Near Dayarathne Stores	3.6	D2	-	7.6	
89	3rd Lane - Left side of Hospital	4.0	D2	-	7.6	
90	3rd Lane - 1St Cross Lane	4.0	D2	-	7.6	
91	Road Near the Sudu Ranmini Guest House	5.4	D2	-	7.6	
92	1st Lane -Nawa Asirigama Road (Left side)	3.0	D2	-	7.6	
93	Road Near the Mr Jayantha's House	4.0	D2	-	7.6	
94	2nd Lane -Road infront of Liyanage Motors	5.4	D2	-	7.6	
95	1st Lane - Road Behind the Fair (Left side)	3.5	D2	-	7.6	
96	Wewa Road near the High Court	4.0	D2	-	7.6	
97	Road Near the High Court	5.0	D2	-	7.6	
98	Road Near the BOC Quarters	5.0	D2	-	7.6	
99	Bimbaduyaya Road (Left) - 1St Lane	3.0	D2	-	7.6	
100	Bimbaduyaya Road (Left) - 2Nd Lane	4.0	D2	-	7.6	
101	Bimbaduyaya Road (Left) - 3Rd Lane	3.5	D2	-	7.6	
102	Canal Road In Front of Janashakthi	4.0	D2	-	7.6	
103	Canal Road Near the HNB	3.0	D2	-	7.6	

No	Road Name	Existing Road Width (m.)	Proposed Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)
104	Hospital Road – 4th Lane (Right side) – 1st cross Lane	5.0	D2	-	7.6
105	Road near the German Quarters	5.0	D2	-	7.6
106	4th Lane - Hospital Road	4.0	D2	-	7.6
107	1St Lane - Court Road	5.0	D2	-	7.6
108	Wew Athura Road	4.0	D2	-	7.6
109	1st Lane - Water Tank Road	5.0	D2	-	7.6
110	New Alternative Road	5.0	D2	-	7.6
111	1st Lane - New Alternative Road	4.5	D2	-	7.6
112	Road Near the Church	3.5	D2	-	7.6
113	Alternative Road Near the Church	4.0	D2	-	7.6
114	Athkam Niwasa Road	5.6	D2	-	7.6
115	Road Near Dutugamunu Seya	5.0	D2	-	7.6
116	1st Lane - Road Near The Dutugemunu Seya	4.1	D2	-	7.6
117	Bus Stand Road	5.0	D2	-	7.6
118	V.O. Vijesena Mawatha	5.0	D2	-	7.6
119	Canal Road - Right	4.0	D2	-	7.6
120	Molawatta Road - 01	3.0	D2	4.5	7.6
121	Molawatta Road - 02	4.0	D2	4.5	7.6
122	Greenfield Garden Road - 02	5.0	D2	-	7.6
123	Greenfield Garden's Road - 01	5.6	D2	-	7.6
124	Thelbadu Ara Vidyala Mawatha	5.0	D2	-	7.6
125	Modarawana Canal Road	5.0	D2	-	7.6
126	Road from Ambagawella Canal to Bo Tree	3.5	D2	-	7.6
127	Gal Amuna 2 Kanuwa Rd	5.0	D2	-	7.6
128	Road Near the Bo Tree	4.0	D2	-	7.6
129	Road from Modarawana Canal to Thelbadu Ara	4.1	D2	-	7.6
130	Thelbadu Ara 3rd Lane	4.0	D2	-	7.6
131	Suhada Mawatha	4.0	D2	-	7.6
132	Weerasinghe Mawatha	4.0	D2	-	7.6
133	Weerasinghe Mawatha – 1st Lane	3.3	D2	-	7.6
134	Weerasinghe Mawatha – 2nd Lane	3.0	D2	-	7.6

D2 cat	egory Roads				
No	Road Name	Existing Road Width (m.)	Proposed Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)
135	Udagama Village Road	3.5	D2	-	7.6
136	Kankanamwatta Road	3.0	D2	-	7.6
137	Kithsiriwatta Road		D2	-	7.6
138	Library Guest Road	3.0	D2	-	7.6
139	Kalu Kambili Dewala Road	4.7	D2	-	7.6
140	Pahan Gedara Road	3.0	D2	4.5	7.6
141	Kolombawatta Road	4.0	D2	4.5	7.6
142	Prime Prestige Road	5.0	D2	-	7.6
143	6th Lane - Panamura Road	4.0	D2	4.5	7.6
144	5th Lane - Panamura Road	3.0	D2	4.5	7.6
145	4th Lane - Panamura Road	4.0	D2	4.5	7.6
146	3rd Lane - Panamura Road	3.0	D2	4.5	7.6
147	Udagama Saman Mal Mawatha	5.0	D2	-	7.6
148	2nd Lane - Panamura Road	4.0	D2	4.5	7.6
149	1st Lane - Panamura Road	3.0	D2	4.5	7.6
150	Wedakoratuwa Watarawuma Road	3.0	D2	-	7.6
151	Road In Front Of Darshanagama Praja Shalawa	3.0	D2	-	7.6
152	Sisila Uyana Road	3.6	D2	-	7.6
153	Prime Land Road	4.0	D2	-	7.6
154	Iskolawatta Road	3.5	D2	-	7.6
155	1st Lane Darshanagama Rd Left	4.0	D2	-	7.6
156	By Road of Iskilawatte Road	4.0	D2	-	7.6
157	3rd Lane - Weerasinghe Road	3.0	D2	-	7.6
158	Bodhiraja Mawatha	4.3	D2	-	7.6
159	Kiri Mandala Mawatha	3.0	D2	-	7.6
160	Road Near the Wasantha Textiles	3.0	D2	-	7.6
161	Thalgaswatthe Road	3.5	D2	4.5	7.6
162	Hinguraara Wewa Para	3.5	D2	4.5	7.6
163	Sangabo Mawatha	3.0	D2	-	7.6
164	End Lane of UC Boundary	4.0	D2	-	7.6
165	Samagi Mawatha	4.0	D2	_	7.6

No	Road Name	Existing Road	Proposed	Proposed	Building Line
110		Width (m.)	Road Category	Road Width (m.)	from Center of the Road (m.)
166	Guruara 2nd Lane	4.0	D2	-	7.6
167	Guru Ara Samurdhi Mawatha	4.0	D2	-	7.6
168	Dinisuru Mawatha		D2	-	7.6
169	2nd Lane - Nonagama Road	4.0	D2	-	7.6
170	Road In Front of Mahaweli Block Office	4.7	D2	-	7.6
171	1st Lane - Nonagama Road (Left)	4.0	D2	-	7.6
172	1st Lane - Moraketiya Canal	4.0	D2	-	7.6
173	Kandurugasara Karawilayaya Wewa Road	4.0	D2	-	7.6
174	Kandurugasara Karawilayaya Road	3.0	D2	-	7.6
175	Meda Mawatha	3.1	D2	-	7.6
176	Kandurugasara Chandrika Wewa Road	3.0	D2	-	7.6
177	Road Under the Lake Dam	8.0	D2	-	7.6
178	Spill Way Road	3.0	D2	-	7.6
179	Sandeepa Mawatha	4.0	D2	-	7.6
180	Road near the Alahapperuma Garage	3.2	D2	-	7.6
181	Road near the Technical College	3.2	D2	-	7.6
182	Road near the Lucky Seven Stores	3.2	D2	-	7.6
183	Kammala Road	3.2	D2	-	7.6
184	Dewale Temple Road	2.9	D2	-	7.6
185	Kohomba Sewana Road	5.1	D2	-	7.6
186	1st Lane - Suhada Mawatha	3.5	D2	-	7.6
187	2nd Lane - Suhada Mawatha	5.0	D2	-	7.6
188	2nd Lane - D - 5 Canal Road -	3.1	D2	-	7.6
189	Road Infront of 4 Way Junction	4.0	D2	-	7.6
190	Coprel Sameera Mawatha	3.0	D2	-	7.6
191	Sankalpa Widyathana Road	3.0	D2	-	7.6
192	D - 6 Canal Road		D2		7.6
193	Nonagama Old Road	5.0	D2	-	7.6
194	Halmillaketiya Vidyala Mawatha	5.0	D2	-	7.6
195	D 1 Canal Road	4.0	D2	-	7.6
196	1st Lane (Right)- D 1 Canal Road	4.0	D2	-	7.6

D2 cate	egory Roads				
No	Road Name	Existing Road Width (m.)	Proposed Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)
197	Main Canal Road Infront Of Sorowwa - 1st Lane	5.0	D2	-	7.6
198	Road Near the Ajith Concrete	4.0	D2	-	7.6
199	Sri Bodhirajarama Mawatha	5.0	D2	-	7.6
200	1st Lane - Old Nonogama Road	4.0	D2	-	7.6
201	3rd Lane - Old Nonogama Road	5.0	D2	-	7.6
202	Samadhi Mawatha	4.5	D2	-	7.6
203	2nd Lane - Old Nonogama Road	3.5	D2	-	7.6
204	Nonagama Road - 5th Lane	5.0	D2	-	7.6
205	1st By Road - 5th Lane - Nonagama Road	5.0	D2	-	7.6
206	2nd By Road (Near the Buddha Statue)- 5th Lane - Nonagama Road	4.0	D2	-	7.6
207	3rd By Road - 5th Lane - Nonagama Road	4.0	D2	-	7.6
208	Road Near the Cemetery	5.0	D2	-	7.6
209	Road In Front of Cemetery	5.0	D2	-	7.6
210	1st Lane - Nuga Sewana	3.0	D2	-	7.6
211	By Road - 1st Lane - Nuga Sewana	4.0	D2	-	7.6
212	2nd Lane - Nuga Sewana	2.5	D2	-	7.6
213	Suhada Mawatha	3.0	D2	4.5	7.6
214	Nidahas Mawatha		D2		7.6
215	2nd Lane - Nidahas Mawatha	3.0	D2	-	7.6
216	1stLane - Nidahas Mawatha	4.0	D2	-	7.6
217	Road Near the Corn Stores	4.0	D2	-	7.6
218	1st Lane - Kiralawelkatuwa	5.0	D2	-	7.6
219	5th By Road - Kiralawelkatuwa 2nd Lane	4.0	D2	-	7.6
220	4th By Road - Kiralawelkatuwa 2nd Lane	4.0	D2	-	7.6
221	Kiralawelkatuwa 2nd Lane - 3rd By Road	5.0	D2	-	7.6
222	Kiralawelkatuwa 2nd Lane - 2nd By Road	4.0	D2	-	7.6
223	1st By Road - Kiralawelkatuwa 2nd Lane	4.0	D2	-	7.6
224	Kiralawelkatuwa 3rd Lane	4.0	D2	-	7.6
225	Kiralawelkatuwa 4th Lane	4.0	D2	-	7.6
226	Kiralawelkatuwa 5th Lane	4.0	D2	-	7.6

No	Road Name	Existing Road Width (m.)	Proposed Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)
227	Kiralawelkatuwa 6th Lane	5.0	D2	_	7.6
228	Kiralawelkatuwa 7th Lane (Right)	4.0	D2	-	7.6
229	Kiralawelkatuwa 8Th Lane	4.0	D2	-	7.6
230	Kiralawelkatuwa 9th Lane (Right)	4.0	D2	_	7.6
231	Bogahawatthe Road	4.0	D2	-	7.6
232	Kiralawelkatuwa 10th Lane (Left)	5.0	D2	-	7.6
233	Kiralawelkatuwa 11th Lane (Right)	4.0	D2	-	7.6
234	Kiralawelkatuwa 12th Lane (Right)	4.0	D2	-	7.6
235	Kiralawelkatuwa 13th Lane (Left)	4.0	D2	-	7.6
236	1st Lane (Left)- Old Camp Road	3.0	D2	-	7.6
237	1 St By Road - Old Camp Road	3.0	D2	-	7.6
238	Old Camp Road - 2nd By Road	4.0	D2	-	7.6
239	Road In Front of Senevirathne Tyre Centre	4.0	D2	-	7.6
240	Road Near the Kumara Electrical	3.0	D2	-	7.6
241	Beddewewa Road	4.0	D2	-	7.6
242	4th Lane - Nonagama Road	2.4	D2	-	7.6
243	1st By Road - 4th Lane - Nonagama Road	3.0	D2	-	7.6
244	Canal Road (Right) In Front of HNB	5.0	D2	-	7.6
245	Canal Road (Left) Near the Shakthi Enterprises	5.0	D2	-	7.6
246	2nd Lane - Nidahas Mawatha	3.0	D2	-	7.6
247	1st Lane - Tharindu Mawatha	3.2	D2	-	7.6
248	Lahiru Mawatha	3.0	D2	4.5	7.6
249	Public Rice Mill Road	3.5	D2	-	7.6
250	Aravinda Mawatha	4.0	D2	-	7.6
251	1st Lane - Public Rice Mill Road	3.0	D2	-	7.6
252	Hambuwa Central Road	5.0	D2	-	7.6
253	1st Lane - Hambuwa Central Road	3.0	D2	-	7.6
254	1st Lane - School Road	3.0	D2	-	7.6
255	2nd Lane - School Road	3.0	D2	-	7.6
256	Kalagedi Ara Gammana Para	4.0	D2	-	7.6
257	Road Near the Government Rice Mill	4.0	D2	-	7.6

D2 cat	egory Roads				
No	Road Name	Existing Road Width (m.)	Proposed Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)
258	1st Lane- Road Near the Government Rice Mill	4.0	D2	-	7.6
259	Nuge Cross Lane	5.0	D2	-	7.6
260	Nuge 1st Lane - Right	4.0	D2	-	7.6
261	Road Near the Kasun Tinkering	4.0	D2	-	7.6
262	1st By Road - School Road 1st Lane	4.0	D2	-	7.6
263	2nd By Road - School Road 1st Lane	4.0	D2	-	7.6
264	Kalagedi Ara Temple Road	4.0	D2	-	7.6
265	D - 2 Canal - Fc 9 Canal Road	5.0	D2	-	7.6
266	Kosmandiya Road	5.0	D2	-	7.6
267	Kosmandiya Road - 3rd Lane	3.0	D2	-	7.6
268	Nilaweera Watta Road	5.0	D2	-	7.6
269	River Road	4.0	D2	-	7.6
270	Road Near the Papadam Factory	5.0	D2	-	7.6
271	Nuge Cross Road - 1st Lane (Left)	4.0	D2	-	7.6
272	Ekamuthu Mawatha	4.0	D2	-	7.6
273	Deniya Road	3.0	D2	-	7.6
274	Isuru Mawatha	4.5	D2	-	7.6
275	Jeewaka Mawatha	5.0	D2	-	7.6
276	Liyanegama Road - 1	5.0	D2	-	7.6
277	Liyanegama Road - 2nd Lane	5.0	D2	-	7.6
278	Liyanegama Road - 1st Lane	3.0	D2	-	7.6
279	Road In Front Of Ajith Motors Stores	3.0	D2	-	7.6
280	Liyanegama Cemetery Road	5.0	D2	-	7.6
281	Liyanegama 3rd Lane	5.0	D2	-	7.6
282	Liyanegama Road In Front Of Bodhiya	5.0	D2	-	7.6
283	D - 2 Canal Road	4.0	D2	-	7.6
284	Kalagediara Wewa Road	5.0	D2	-	7.6
285	Road near the Liyanegama Cemetery	5.0	D2	-	7.6
286	Road near the Moraketiya Cemetery - 1st Lane	4.0	D2	-	7.6
287	Road near the Sujith Concrete Work	4.0	D2	-	7.6
288	Road near the Sujith Concrete Work - 1st By Road	4.0	D2	-	7.6

No	Road Name	Existing Road Width (m.)	Proposed Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)
289	D - 3 Canal Road - By Road	3.0	D2	-	7.6
290	D - 3 Canal Road	5.0	D2	-	7.6
291	Canal Road Near the House of No 145/3	3.0	D2	-	7.6
292	D - 4 Canal Road	5.0	D2	-	7.6
293	Fc - 14 Canal Road	3.0	D2	-	7.6
294	Fc - I4 S -1 Canal Road	3.0	D2	-	7.6
295	Fc - 10 Canal Road	3.0	D2	-	7.6
296	Fc - 13 Canal Road	3.0	D2	-	7.6
297	Fc - 12 Canal Road	3.0	D2	-	7.6
298	Fc - I2 S -1 Canal Road	3.0	D2	-	7.6
299	Fc - 12 Canal Road	3.0	D2	-	7.6
300	Fc - 07 Canal Road	3.0	D2	-	7.6
301	Fc - 08 Canal Road	3.0	D2	-	7.6
302	Fc - 09 Canal Road	3.0	D2	-	7.6
303	Fc - 06 Canal Road	3.0	D2	-	7.6
304	Samagi Mawatha	4.0	D2	-	7.6
305	Jaya Mawatha	3.0	D2	-	7.6
306	Janahitha Mawatha	4.0	D2	-	7.6
307	Road Behind the Ranketha Farmers Organization	4.0	D2	-	7.6
308	Fc - 02 Canal Road	4.0	D2	-	7.6
309	Road near the Mr Indika Kodituwakku House	4.0	D2	-	7.6
310	Araliya Mawatha	4.0	D2	-	7.6
311	Weheragama Road	5.0	D2	-	7.6
312	Road Infront Of No 274 House	5.0	D2	-	7.6
313	Samadhi Mawatha	4.0	D2	-	7.6
314	D - 7 Canal Road	3.0	D2	4.5	7.6
315	4th By Road - D - 7 Canal Road	4.0	D2	-	7.6
316	3rd By Road - D - 7 Canal Road	3.0	D2	-	7.6
317	D - 7 Canal Road - 2nd By Road	3.0	D2	-	7.6
318	1st By Road - D 7 Canal Road	4.0	D2	-	7.6
319	D - 8 Canal Road	5.0	D2	-	7.6

D2 cat	egory Roads				
No	Road Name	Existing Road Width (m.)	Proposed Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)
320	2nd By Road - D 8 Canal Road	3.0	D2	-	7.6
321	1st By Road (Right) - D 8 Canal Road	4.0	D2	-	7.6
322	1st By Road (Left) - D 8 Canal Road	5.0	D2	-	7.6
323	Road Infront Of Temple - (2nd By Road)	3.0	D2	-	7.6
324	3rd By Road - D 8 Canal Road	4.0	D2	-	7.6
325	D - 9 Canal Road	5.0	D2	-	7.6
326	1st By Road (Right) - D 9 Canal Road	4.0	D2	-	7.6
327	By Road Near The Praja Shalawa (Right) -D 9 Canal Road	4.0	D2	-	7.6
328	2nd By Road (Left) - D 9 Canal Road	4.0	D2	-	7.6
329	1st By Road (Right) - 1st Lane - D 9 Canal Road	3.0	D2	-	7.6
330	1st By Road (Left) - D - 9 Canal Road	5.0	D2	-	7.6
331	1st By Road - 3rd Mile Post Road (Right)	3.0	D2	-	7.6
332	3rd Mile Post Road	5.0	D2	-	7.6
333	RB 02 Road - D - 7 Canal Road	4.0	D2	-	7.6
334	1st By Road - Weheragama Road	3.0	D2	-	7.6
335	2nd By Road Weheragama Road	3.0	D2	-	7.6
336	D - 6 Canal Road	4.0	D2	-	7.6
337	2nd By Road (Right)- 1st Lane - D 9 Canal Road	3.0	D2	-	7.6
338	D - 9 Canal Road - 1st Lane	3	D2	-	7.6

9.1.3. Embilipitiya PS Roads

No	Road Name	Existing Road Width (m.)	Proposed Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)
1	Wisamithura – Bulathwelkanda Road	2	7.6	4.5	7.6
2	Pussallapitiya Ambalamandiyapota Road	3.6	7.6	7	7.6
3	Diyapota - Goduwaliyadda Road	2	7.6	4.5	7.6
4	Gamkanda – Walalgoda Road	2	7.6	4.5	7.6
5	Helwala Thorakolayaya Road (Embilipitiya Panamura Main Road to 3rd mile)	3.6	7.6	7	7.6
6	Daduthanna –Ambagahawella Road	2.4	7.6	6	7.6
7	Panamura Ranchamadama Road	3.6	7.6	7	7.6
8	Panamura Karadaketiya Ambagahawella Road	3.6	7.6	7	7.6
9	Thunkama Kachchigala Road	6.0	7.6		7.6
10	Kachchigala – Higura Road	4.2	7.6		7.6
11	Padalangala – Dikwewa Road	3.6	7.6	7	7.6
12	Thunkama – Hagala Therunnansegama Road	3.6	7.6	9	7.6
13	Thunkama Kachchigala Road to Kachchigala School Road	3.6	7.6	9	7.6

9.1.4. Other Roads

Road Category	Proposed Road Width(m.)	Building Line from Center of the Road (m.)
Provincial Road Development Authority	9 (30ft)	9 (30ft)
Existing Road width is 6m or more than 6 m	-	7.6 (25ft)
Existing Road width is less than 6 m	-	7.6 (25ft)
Guru para, Tractor Road and Cart Road	-	4.5(15 ft)
Footpath, පියගැටපෙළ	-	2(6.5ft)

9.1.5. Proposed Roads

No	Road Name	Proposed Road Category	Proposed Road Width (m.)	Building Line from Center of the Road (m.)
1	Proposed Tourism Service Road	В	18 (60ft)	15(50ft)
2	Saw mill Road	В	18 (60 ft)	15(50ft)
3	Dharmapala Road	В	18 (60)	15(50ft)
4	Mudunmankada Road	В	8 (60 ft)	15(50ft)
5	Hospital Road	В	8 (60 ft)	15(50ft)
6	Modarawana Road	В	8 (60 ft)	15(50ft)
7	Road Behind Economic Center	В	8 (60 ft)	15(50ft)
8	Alternative Road -Embilipitiya Bus stand to Moraketiya Road	В	8 (60 ft)	15(50ft)
9	Proposed New Service Road	В	8 (60 ft)	15(50ft)
10	Akkara 500 Road	В	8 (60 ft)	15(50ft)
11	D.J.R.Dissanayake Mawatha	В	8 (60 ft)	15(50ft)
12	Udagama Road	В	8 (60 ft)	15(50ft)
13	Concrete Yard Road	В	8 (60 ft)	15(50ft)
14	Bimbaduyaya Road	В	8 (60 ft)	15(50ft)
15	Transformer Road	В	8 (60 ft)	15(50ft)
16	Proposed Alternative Road 01	В	8 (60 ft)	15(50ft)
17	Proposed Alternative Road 02	В	8 (60 ft)	15(50ft)
18	Proposed Alternative Road 03	В	8 (60 ft)	15(50ft)
19	Proposed Alternative Road 04	В	8 (60 ft)	15 (50ft)

Chapter 09

Proposed Road Width, Building Line and Reservations

Proposed Road Width and Building Lines

Proposed Roads

N.B. :

If there is any issue with the road name which maintained by the local Authorities, the final decision should be taken by the relevant local authority.

Chapter og Proposed Road Width, Building Line and Reservations

> Reservations of Waterways

9.2. Reservations of Waterways

Water Body	Reservation	
Chandrika Lake	100m (From lake bank)	
Walawa River	40m (from River bank)	
Waterbody Reservation areas gazett	te by Sri Lanka Mahaweli Authority	
reservation area is extended 6	om area from the bank of the river	is more than 25 meters bed width, the or that water body is less than 25 meters bed width, the
		or that water body ervation area is extended 100m area
Waterbody Reservation areas gazett	te by Sri Lanka Land Reclamation an	d Development Corporation
Waterbody Reservation areas gazett The surface width of the canal(m)	te by Sri Lanka Land Reclamation an Reservation from the edge of Can	
		al
The surface width of the canal(m)	Reservation from the edge of Car	al
The surface width of the canal(m)	Reservation from the edge of Car For open canal (m)	al For surfaced covered canal (m)
The surface width of the canal(m) 1.0 – 1.2 1.3 – 3.0	Reservation from the edge of Car For open canal (m) 1.0	al For surfaced covered canal (m) 0.3
,	Reservation from the edge of Car For open canal (m) 1.0 2.0	al For surfaced covered canal (m) 0.3 1.0
The surface width of the canal(m) 1.0 – 1.2 1.3 – 3.0 3.1 – 4.5	Reservation from the edge of Car For open canal (m) 1.0 2.0 2.75	al For surfaced covered canal (m) 0.3 1.0 1.0

and the reservation areas named by those authorities are accepted.

9.3. Reservations of Mining

Construction	Reservation Limit	
	Meter	feet
Roads (From Road Center Line)		
Road Development Authority Roads		
A Roads	45	150
B Roads	20	66
C Roads	13	44
Other Roads	7	22
Private Roads	3	11
Water Paths		
River	10	33
Canal	7	22
Constructions		
Bridge, Culverts	10	33
Highrise buildings	20	66
Other Buildings	10	33
Play Grounds	10	33
Other Construction	3	10

Chapter 09

Proposed Road Width, Building Line and Reservations

Reservations of Mining

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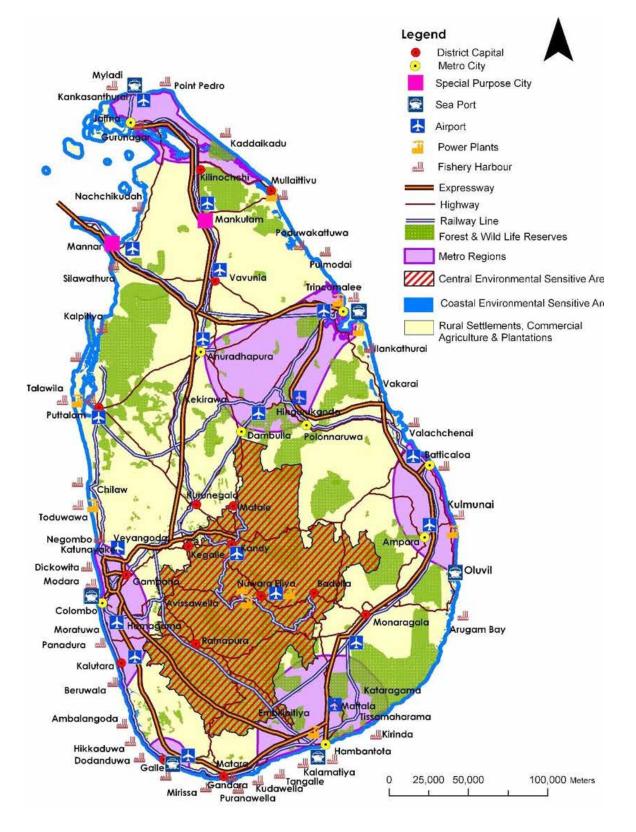
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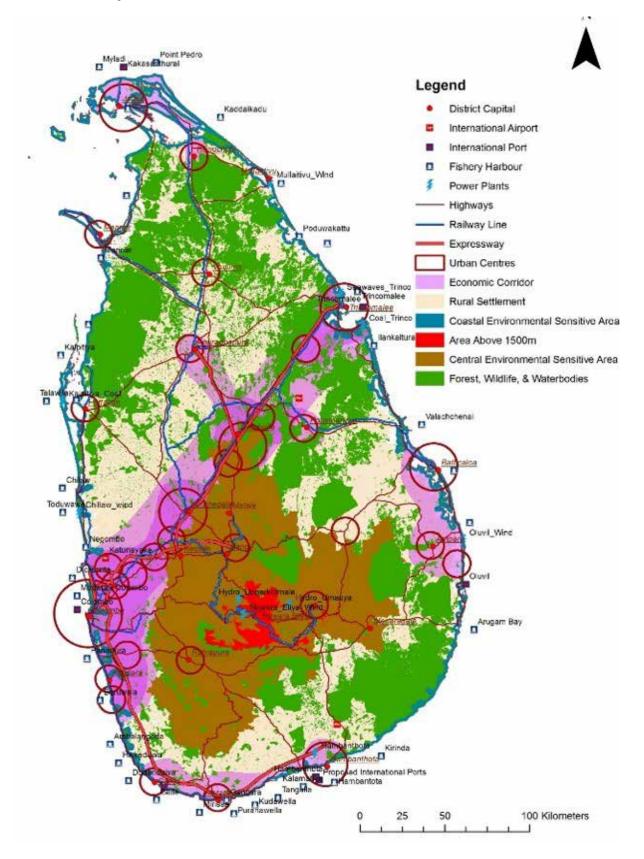
Annexture Part I

Annexture 01 : Maps

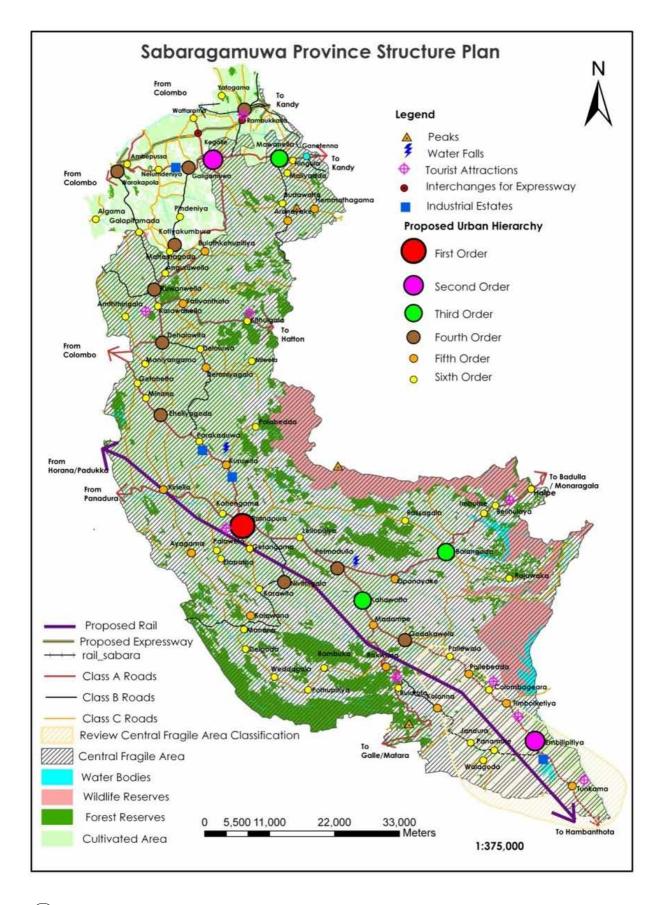
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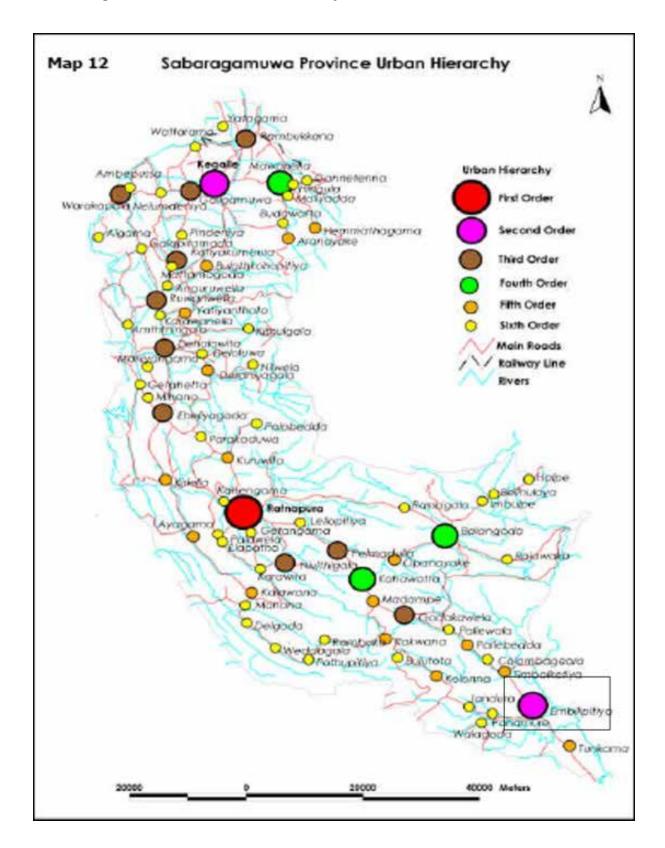
1.2 National Physical Plan 2050



1.3 Sabaragamuwa province structure plan

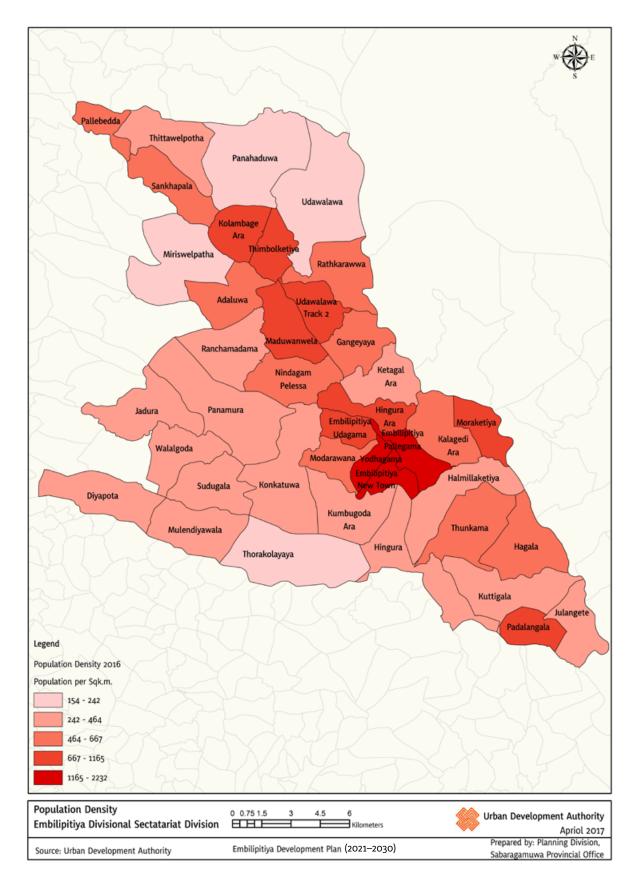


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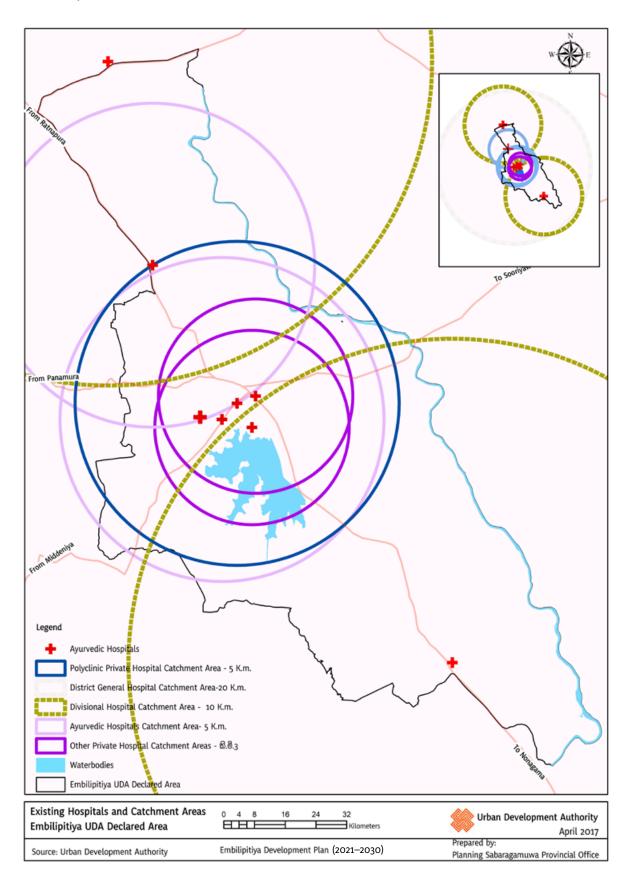


1.4 Sabaragamuwa Province Urban hierarchy

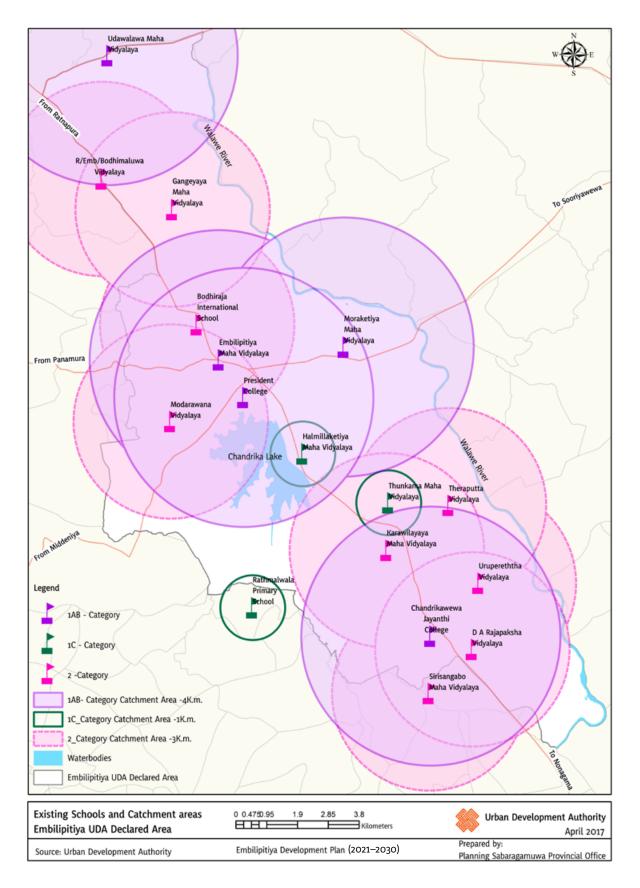
1.5 Population density – Embilipitiya DSD

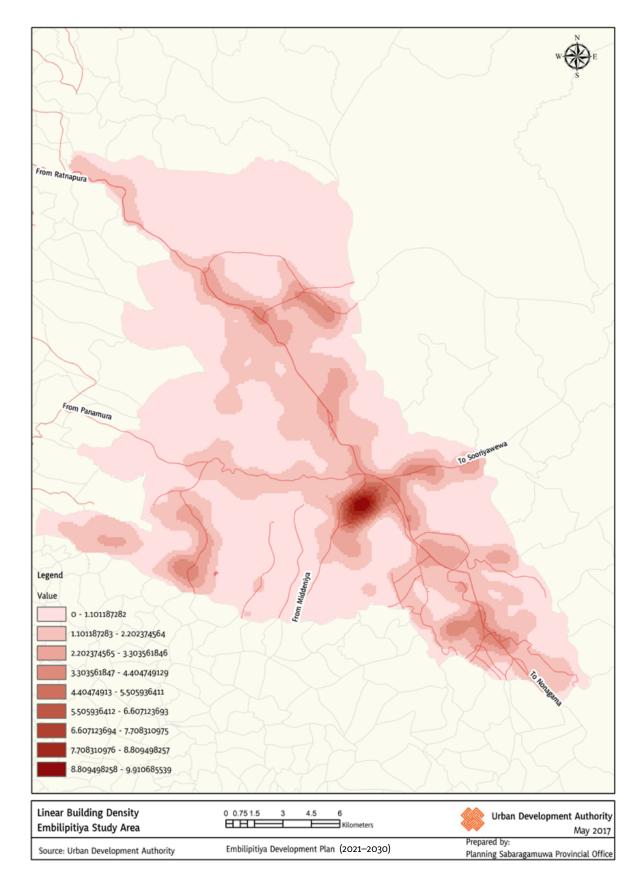


1.6 Hospital Location



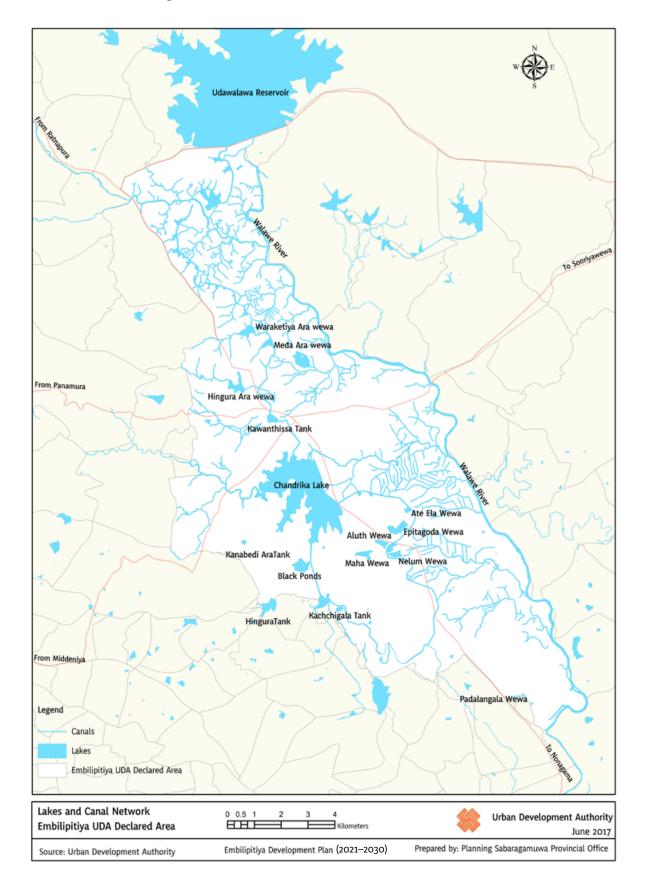
1.7 Schools Location



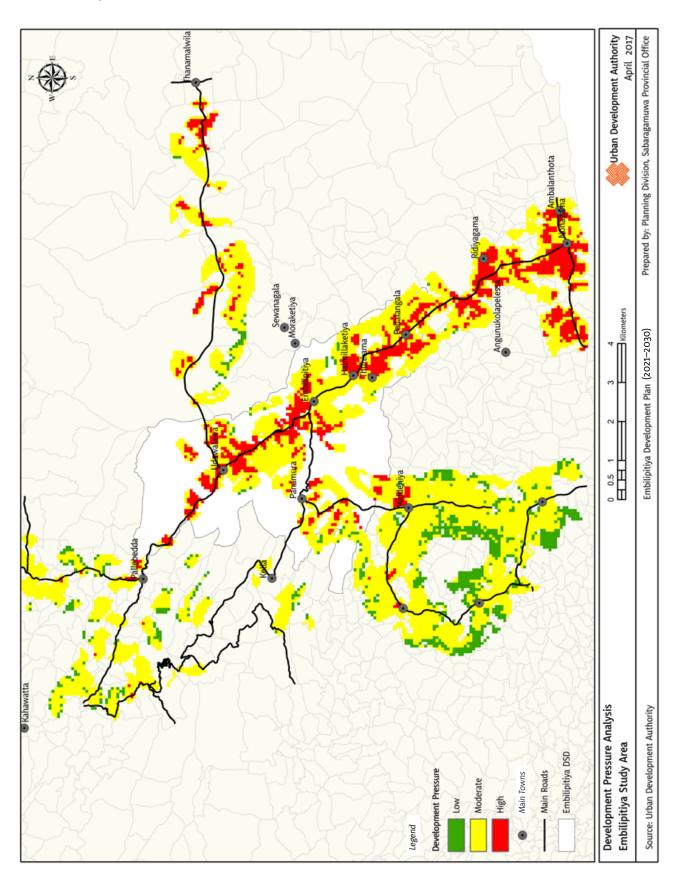


1.8 Linear development along the roads

1.9 Irrigation network

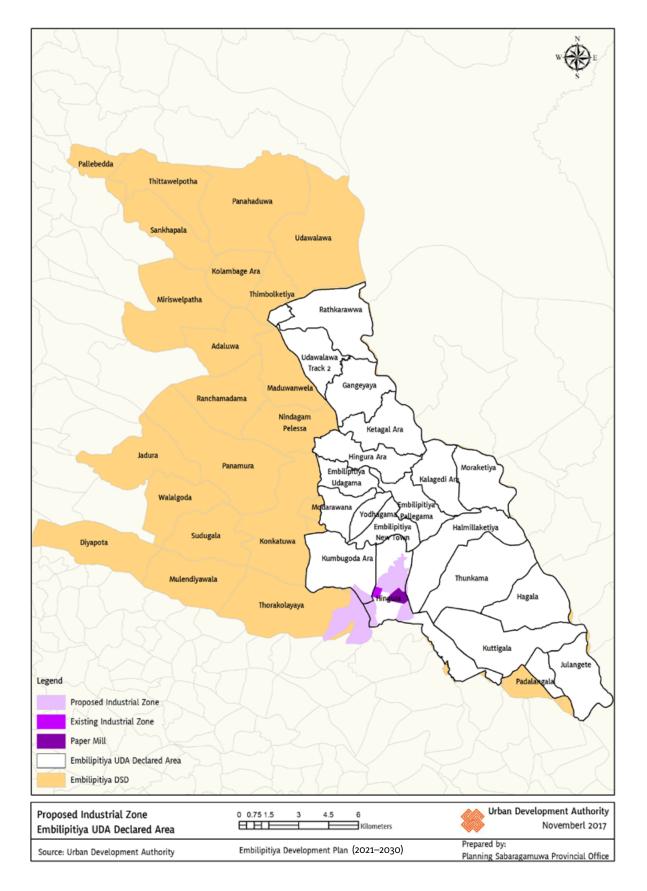


1.10 Development Pressure



1.11 industrial zone

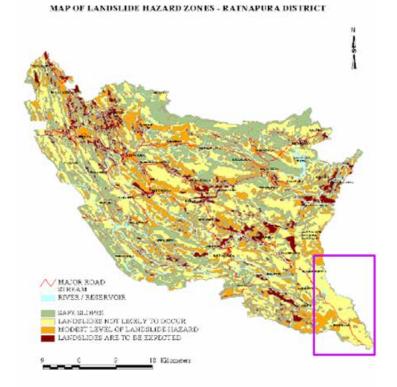
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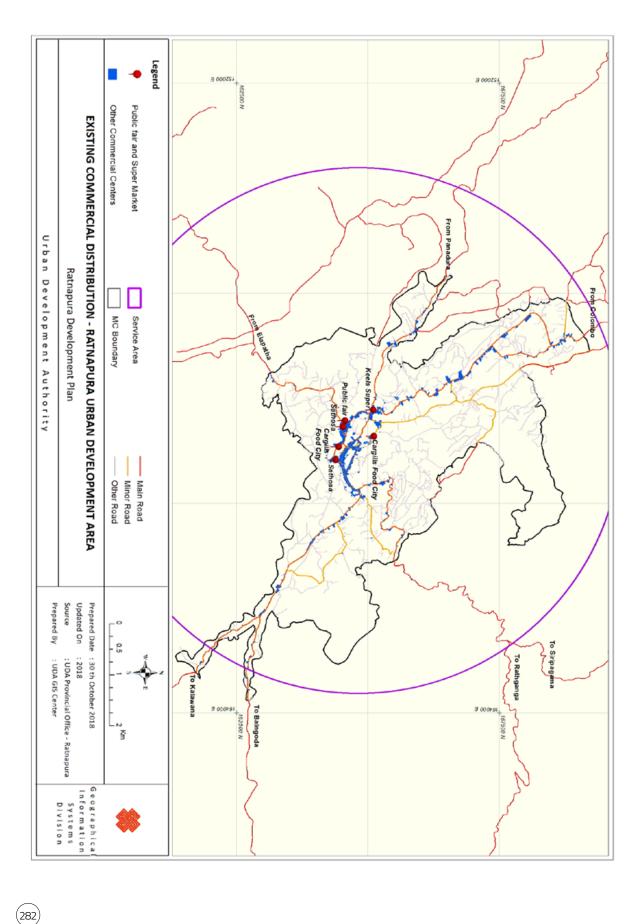
1.12 Tourism zones – Sabaragamuwa Province



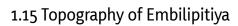
1.13 Landslide vulnerable areas in Ratnapura District

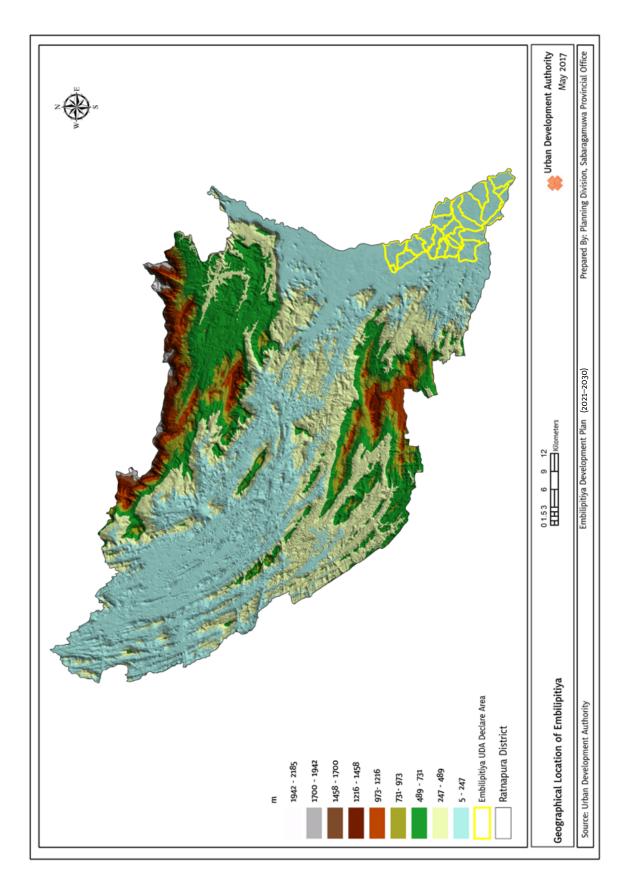


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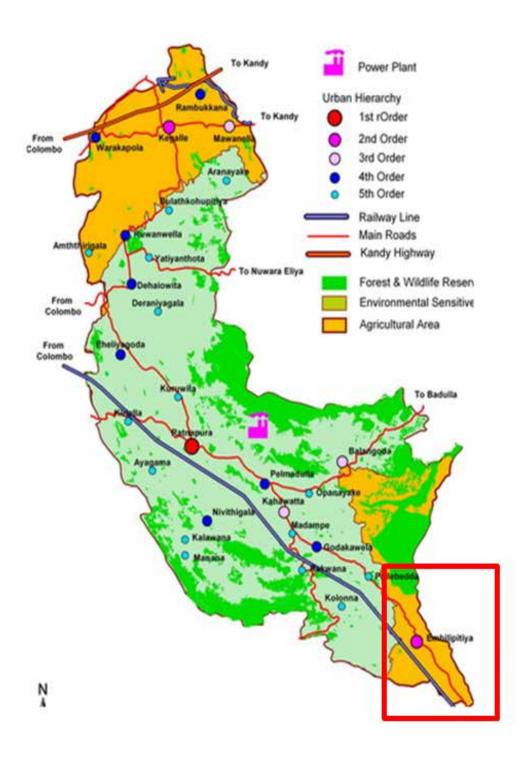


1.14 Commercial uses in Ratnapura District

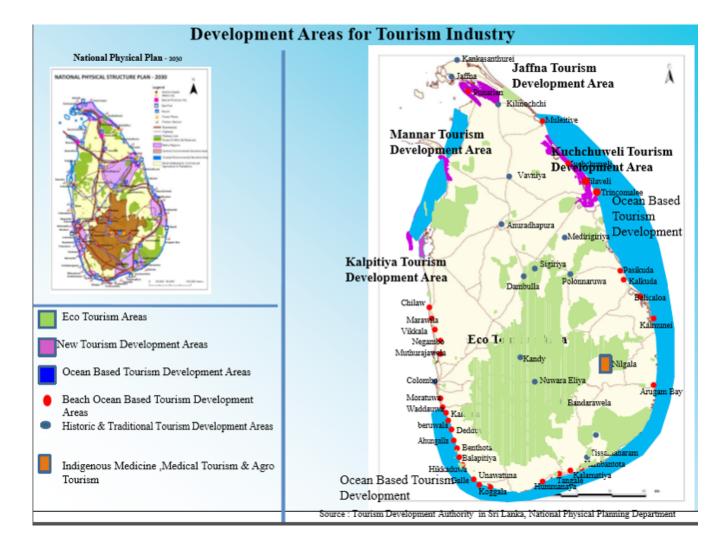




1.16 Embilipitiya named as an agricultural area (Sabaragamuwa Province Structure Plan)



(284)



1.17 Development Areas for Tourism Industry (National physical plan 2030)

Annexture 02 : Tables

2.1 Issued mineral excavation permits 2017

Туре	No of permits (2017)
Calcite, Dolomite	25
Inland Sand	10
Mica	4
Granite	32
Sand	31
Soil and gravel soil	19
Kaolin	1

Source: : Geological survey and mines bureau

2.2 Values relevant to Development pressure

CORE VALUES	WEIGHT	PARAMETER	VALUES	SCORE
Land use	20	Land use distribution	Built up Vegetation Hydro other	5 3 2 1
Accessibility	30	Tendency to accessibility of transport network	Major Roads (A Roads) Minor Roads (B Roads) Other Roads (C Roads, jeep/Cart track)	(0-1km) 5 (1-2km) 4 (2-3km) 3 (0-1km) 5 (1-2km) 4 (2-2.5km) 3 (0-200m) 5 (200-300m) 4 (300-500m) 3
Population density	10	Density	<218 294 497 1047 2515<	1 2 3 4 5
Population growth rate	10	Rate	<-0.003 0.006 0.014 0.029 0.07	1 2 3 4 5
Local connectivity	30	Hierarchical level of town centers	Level 1 town center Level 2 town center Level 3 town center	5 3 1

Source : Sabaragamuwa Provincial Office, UDA, 2017

No	Category	Open spaces	Extent (Hectares)	GN Division
01	EPP 01	Samagi Sports Club Play Ground	0.14	Rathkarawwa
	EPP 02	South Canal death grant association playground	0.12	Rathkarawwa
	EPP 03	Playground	0.09	Rathkarawwa
	EPP 04	Playground	0.16	Track 02
	EPP 05	Darshanagama Play Ground	0.12	Udagama
	EMP 01	Playground	0.78	Track 02
	EMP 02	Playground	0.64	Katagal Ara
	EMP 03	Pubudu Play Ground	0.46	Kuttigala
	EMP 04	Playground	0.90	Kuttigala
	EMP 05	Playground	0.72	Kuttigala
	EMP 06	Playground	0.72	Thunkama
	EMP 08	Aloka Play Ground	0.34	Yodhagama
	EMP 09	Village leadership training center playground	0.60	Yodhagama
	EMP 10	Siluminagama Play ground	0.52	Yodhagama
	EMP 11	Weerasinghepura Play Ground	0.47	Kumbugoda Ara
	EMP 12	Play Ground	0.67	Higura Ara
	EMP 13	Wew Asirigama play ground	0.47	New Town
	EMP 14	United Play Ground	0.90	New Town
	EMP 15	Play Ground	0.21	Modarawana
	EMP 16	Play Ground	0.69	Kumbugoda Ara
	EMP 17	Play Ground	0.34	Kalagedi Ara
	EMP 18	Play Ground	0.26	Moraketiya
	ELP 01	Play Ground	1.05	Katagal Ara
	ELP 02	Ranasinghe Premadasa Play Ground	1.42	Yodhagama
	ELP 03	Play Ground	1.70	Halmillakatiya
	ECP 01	Kawanthissa Lake leisure park	5.70	Udagama
	ECP 02	Mahaweli Play ground	3.22	Pallegama
02	EPP 06	Wew Asirigama Children Park	0.01	New Town
Children Parks	EPP 07	Weerasinghepura Children Park	0.02	Kumbugoda Ara
	EPP 08	Ranasinghe Premadasa Children Park	0.06	Yodhagama
	EMP 07	Anagarika Dharmapala Children Park	0.78	Yodhagama

2.3 Playgrounds and recreational parks in Embilipitiya

2.4 Proposed Recreational Parks

No	Туре	Existing Use	Extent (Ha.)	Proposed Use	GN Division				
01	Proposed Mini Park (PMP)								
	PMP 01	Scrub	0.97	Mini Park	Pallegama				
	PMP 02	Scrub	0.43	Mini Park	Pallegama				
	PMP 03	Scrub	0.95	Mini Park	Gangeyaya				
	PMP 04	The land near Thunkama Tank	0.7	Mini Park	Thunkama				
	PMP 05	Scrub	1.9	Mini Park	Halmi				
02	Proposed Lo	cal Parks (PLP)							
	PLP 01	Scrub	90.1	Local Park Low Level	Kalagedi Ara				
	PLP 01	Scrub	2.52	Local Park Low Level	Kumbugoda Ara				
	PLP 02	Scrub	1.97	Local Park Low Level	Higura Ara				
	PLP 03	Scrub	1.52	Local Park Low Level	Padalangala				
	PLP 04	Scrub	2.26	Local Park Low Level	Rathkarawwa				
	PLP 05	Scrub	2.63	Local Park Low Level	Hagala				
	PLP 06	School Play Ground	1.77	Local Park Low Level	Padalangala				
	PLP 07	Scrub land near Chandrika Lake	7.1	Local Park Low Level	Halmillaketiya				
03	Proposed Linear Parks (PLiP)								
	PLiP 01 (10m)	Canal Reservation	2.61	Linear Park	Pallegama, Kalagedi ara, Morakatiya				
	PLiP 02	Scrub	4	Linear Park	Rathkarawwa				
	PLiP 02 (Chandrika Lake Reservation - 100m)	Lake Reservation	202.61	Linear Park	New Town, Halmillaketiya, Hingura, Kumbugoda Ara				
		1	1		Total Ha - 229.14				

Source : Landscape Division, UDA, 2017

No	Park Category	Extent (ha)	Permitted Uses
01.	Community Parks	3 - 6 ha (7.5 - 15 acre)	 Ornamental gardens Rest areas Garden patches
02.	Town Parks	6 - 8 ha (15 - 20 acre)	 Ornamental gardens Children's play area Walking lanes Bicycle lanes Tourist boat services Rest garden Vehicle Parking
03.	Central Urban Parks	more than 8 ha (more than 20 acres)	 Children's play area Rest garden Vehicle Parking Nature trails
04.	Linear Parks	Existing River, Lake (Chandrika Wewa,Walawe River), Road reservations	 Walking lanes Bicycle lanes Cycling Nature trails

Public Outdoor Recreation Space (Pors) Plan - Permitted Activities

2.5 Water requirement for 2030

Daily Water Consumption				
Existing water tank capacity	18,000 m³			
Water capacity of Udawalawa Tank	7500 m ³			
Sum	25500			
Existing water consumption	(11000+6500) 1	7500		
Surplus	8000 m ³			
Forecasted drinking water capacity for resident population by 2030	3108 m ³			
Water requirement for commuter population (l)	(301100*20)			
	6022 m ³			
Water requirement for proposed industrial zone by 2030				
Assumptions				
Daily Water requirement per a large scale industry	166.6 m³			
Daily Water requirement per a medium scale industry	133.3 m ³			
Daily Water requirement per a small scale industry	100 m ³			
Drinking Water requirement for the proposed industrial zone	by 2030			
Water requirement for large scale industries	15*166.6	2499 m³		
Water requirement for medium scale industries	35*133.3	4665 m³		
Water requirement for small scale industries	66*100	6600 m³		
		Sum 13764		
Total Water requirement by 2030	6022 m ³			
	13764 m ³			
	3108 m ³			
Sum	22894 m³			
Existing water surplus	8000 m ³			
Water shortage by 2030	14894 m ³			

Source : Sabaragamuwa Provincial Office, UDA, 2017

2.6 Electricity requirement by 2030

	MWA	
Existing electricity Capacity	63	
Existing electricity surplus	31.5	
Proposed electricity capacities for users		
Institutions	(6/3)*21	42KVA
Commercial	(190/3) *21	1329KVA
Tourism	(60/3)*21	420KVA
Residential	(6476/3)*21	45339KVA
Sum		47130KVA
Assumption		
Proposed electricity for main uses (Institution, Comn	nercial, Tourism, and Residential,) assumed as 21MWA
Industry		
Small Scale Industries	(66/3)*42	924KVA
Medium Scale Industries	(35/3)*42	504KVA
Large Scale Industries	(15/3)*160	800KVA
		2228KVA
Total Electricity Requirement by 2030	47130KVA	
	2228KVA	
	49358KVA	
Forecasted electricity shortage by 2030	49.3-31.5	
	17.8MVA	
Assumptions	•	
Assume electricity requirement for each number three	ee of small and medium scale in	dustries as 42 KVA

Source : Sabaragamuwa Provincial Office, UDA, 2017

2.7 Banks and other financial institutions in Embilipitiya UDA declaired area

Bank	Other Financial Institution
 Sampath Bank Seylan Bank Hatton National Bank Commercial Bank Sanasa Development Bank NDB RDB Sri Lanka Merchant Bank Pan Asia Bank DFCC People's Bank Cooperative Rural Bank NSB BOC HDFC CDB 	1. Cooperative Insurance 2. Samarasinghe Investment 3. Janashakthi Insurance 4. Union Insrance 5. The Finance 6. Crystal Grameen 7. LB Finance 8. Sri Lanka Insurance 9. Softlogic Finance 10. Commercial Leasing Finance 11. Senkadagala Finance 12. Central Finance 13. Assetline Leasing Company 14. Nation Lank Finance 15. Ceylinco Insurance 16. Mercantile Insurance 17. Elience Insurance 18. Valible Finance 19. AIA Insurance 20. Singar Finance 21. Commercail Leasing and Finance 22. Bimpath Finance 23. LOLC Finance 24. Abance Finance 25. People's leasing and Finance

Source : Resource Profile, Embilipitiya Divisional Secretariat, 2018

2.8 Prioritization of Projects

Phys	Physical and Social Infrastructure Development Strategies								
Tran	sport Plan								
Proj	ects	Cost & Time period Variation	Value of Concept Achieving	Social Benefits	Environ -mental Benefits	Economic Benefits	Total	Priority Level	
Prop	oosed main road improvement	3	4	5	2	5	19	2	
1.	Main road improvement project From Udawalawa junction up to the Barawakumbuka Interchange of the Southern Expressway	3	5	5	1	4	18	3	
2.	Main road improvement project from main road, this was developed with 4 lanes, close to leadership training center to Kumbugoda Ara junction.	4	4	5	2	5	20	1	
3.	Main Road improvement project From Embilipitiya town up to proposed Linear Park	5	4	5	2	4	20	1	
Prop	oosed bypass road	3	5	4	1	4	17	3	
4.	From Kubugoda Ara Junction, Paper mill road via Kadurugas Ara, along Karawila yaya up to Nonagama Road widening and redevelopment project	2	5	3	1	5	16	5	
5.	From 100-mile post of Colombo Road (near to Boosiri Gama road) via Panamura road Modarawana road up to Middeniya road widening and redevelopment project	3	5	5	1	4	18	3	
6.	Halmillaketiya school road, connecting to Hathara Ela road along Wehearagama road up to Moraketiya road widening and redevelopment project	3	5	5	1	4	18	3	
Prop	oosed Alternative Road Improvement	4	4	5	3	4	20	1	
7.	Road improvement project From Udagama Junction to Hospital Road up to the President College	3	4	5	1	4	17	4	
8.	Road improvement project From the Presidential College to the Concrete Yard Road up to the Nonagama Road	4	5	5	1	4	19	2	
9.	Road improvement project from Road near the Mahaweli ground via transformer road up to Moraketiya road.	2	4	5	1	4	16	5	

Prop	oosed service Road Improvement	3	4	5	2	4	18	3
Proj	ects	Cost & Time period Variation	Value of Concept Achieving	Social Benefits	Environ -mental Benefits	Economic Benefits	Total	Priority Level
10.	Hospital Ring road widening and redevelopment project	4	4	5	1	4	18	3
11.	Modarawana Ring Road widening and redevelopment project	2	4	5	1	4	16	5
12.	Akkara pansiya Road widening and redevelopment project	4	3	4	1	3	15	6
13.	From economic center to concrete yard road widening and redevelopment project	5	5	5	1	4	20	1
14.	From Akkara Panseeya road (behind Embilipitiya Royal College) up to Liyinegama road of Moraketiya road widening and redevelopment project							4
Tran	sport service & parking							
15.	Embilipitiya main bus stand development Project	3	5	5	3	4	20	1
16.	Construction of short-distance travel Bus Station in Embilipitiya New Town	3	3	5	2	3	16	5
17.	Public Car Park construction projects in new town	4	4	5	3	4	20	1
18.	Proposed bare land for Car Park of the Economic Centre	5	3	4	3	3	18	3
19.	Proposed Car Park 2 construction project	4	3	4	3	3	17	4
Serv	ice Plan							
20.	Embilipitiya New Town water tank construction project	2	4	5	3	3	17	4
21.	Project for Rehabilitation of Chandrika Wawa	3	5	5	4	3	20	1
22.	Solid waste management project	2	4	5	4	5	20	1
23.	Black ponds retreatment project in proposed industrial zone	2	4	4	5	3	18	3
24.	Administrative complex buildings construction project	2	5	5	4	4	20	1
25.	Proposed administrative complex construction project step 1	1	5	5	3	4	18	3
26.	Proposed administrative complex construction project step 2	1	5	5	3	4	18	3
27.	Irrigation network restoration project	1	5	4	4	4	18	3
28.	D26 Canal Improvement Project	2	4	5	5	3	19	2

Economic Development Projects								
Agro	Economic Plan							
Proj	ects	Cost & Time period Variation	Value of Concept Achieving	Social Benefits	Environ -mental Benefits	Economic Benefits	Total	Priority Level
1.	Project of development of Embilipitiya economic center as a main operational center	3	5	4	3	4	19	2
2.	Rehabilitation project of Moraketiya Paddy Storage Complex	2	3	4	2	4	15	6
3.	Thunkama public fair development and Agro- Harvest collection center construction project	3	5	4	3	5	20	1
4.	Kuttigala public fair development and Agro-Harvest collection center construction project	3	5	4	3	5	20	1
5.	Udawalawa public fair development and Agro- Harvest collection center construction project	3	5	4	3	4	19	2
6.	Morakatiya public fair development and Agro- Harvest collection center construction project	3	5	4	3	5	20	1
7.	Chandrika Lake Rehabilitation Project	2	5	5	4	4	20	1
Indu	istrial plan							
8.	Execution of "Hingura Industrial Zone" Phase I	3	4	3	2	5	17	4
9.	Resettlement relating to "Hingura Industrial Zone" Phase I	2	4	5	1	3	15	6
10.	Execution of "Hingura Industrial Zone" Phase II	2	4	3	2	4	15	6
Tou	ism plan							
11.	Construction of Tourist leisure Park in Udawalawa town	2	5	5	3	5	20	1
12.	Tourist information center construction project	4	4	4	2	4	18	3
City	center development plan							
13.	Embilipitiya Shopping Complex and Car Park Construction Project	4	5	5	1	5	20	1
14.	Commercial complex construction project	4	5	4	1	4	18	3

Sus	Sustainable environment development strategies								
Proj	iects	Cost & Time period Variation	Value of Concept Achieving	Social Benefits	Environ -mental Benefits	Economic Benefits	Total	Priority Level	
Тои	rist attraction & Landscape Improvemen	t							
1.	Proposed Udawalawa forest Park and Car Park Construction Project	4	3	5	5	1	18	3	
2.	Urban parks construction project near Chandrika lake	3	4	4	4	2	17	4	
3.	Udawalawa Southern Canal pathway developing as a tourist trail	2	5	3	4	2	16	5	
POR	RS Plan								
4.	Moraketiya linear park development Project	3	4	4	5	4	20	1	
5.	Yodhagama Play Ground and Urban Park development Project	3	4	4	4	2	17	4	
6.	Mahaweli Stadium Rehabilitation Project	3	4	4	2	3	16	5	

Source : Sabaragamuwa Provincial Office, UDA, 2017

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Annexture 03 : Figures



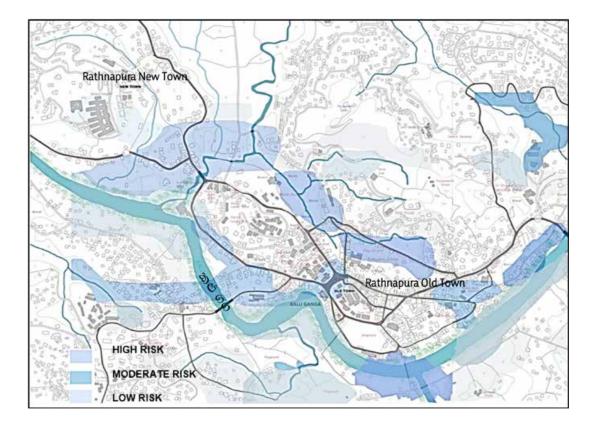
3.1 Sub centers which located around Embilipitiya

3.2 Location of Mattala airport and Hambanthota port

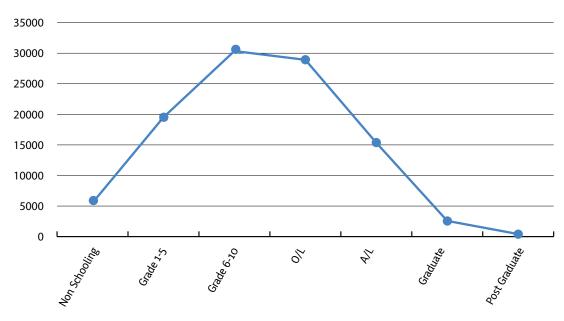


3.3 Flood vulnerable areas

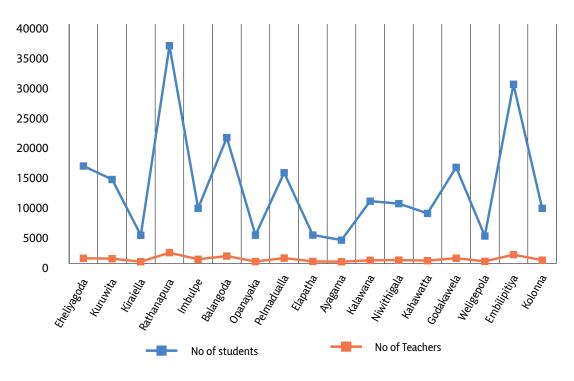
(298)



Annexture 04 : Graph



4.1 Student population according to education level

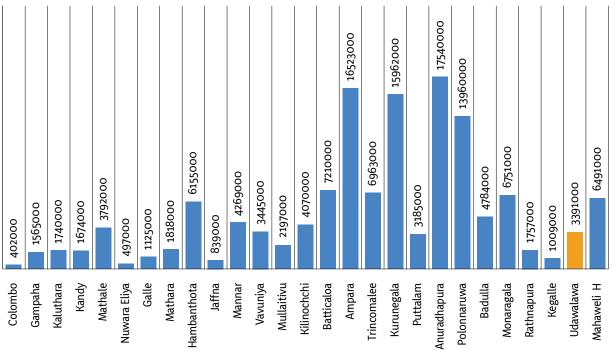


4.2 Student and teachers population 2016

Source : Department of Census and Statistics, 2016

Source : Department of Census and Statistics, 2016

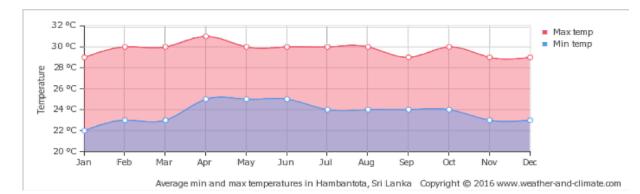
4.3 Annual paddy production



Annual paddy production

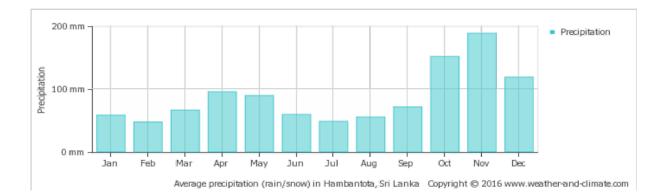
source : Department of Census and Statistics 2015

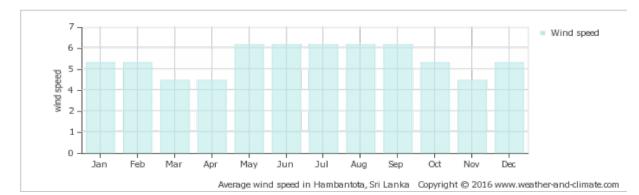
4.4 Meteorology details in Embilipitiya



Average minimum and maximum temperature in Embilipitiya (2016)

Average minimum and maximum Rainfall in Embilipitiya (2016)



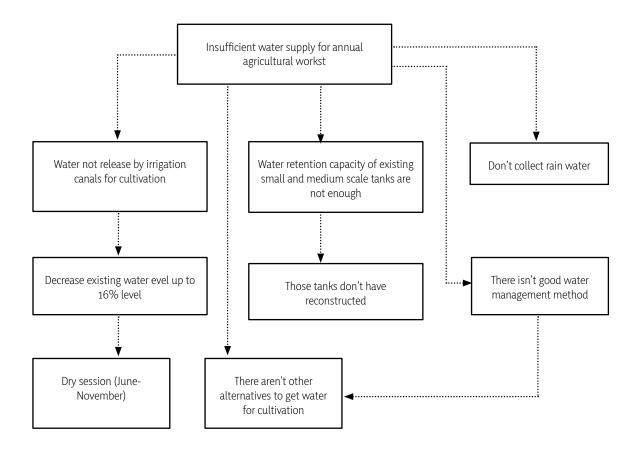


Average wind speed in Embilipitiya

Annexture 05 : Flow Chart

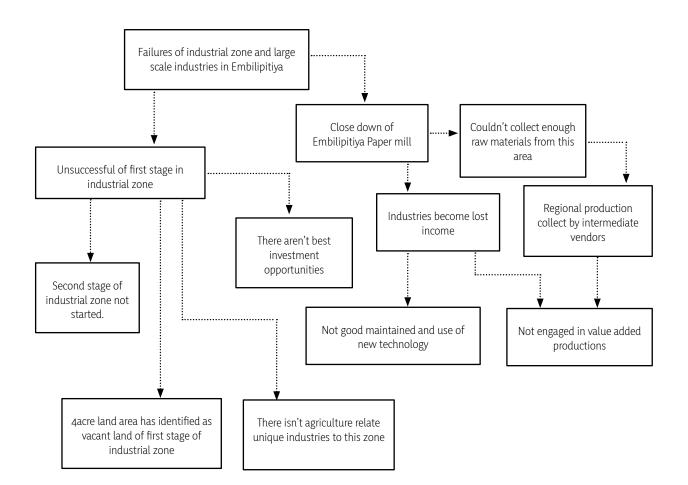
5.1 Root Cause Analysis 01

Root cause for insufficient water supply for agriculture work during the dry season in the year from month of June to month of November.



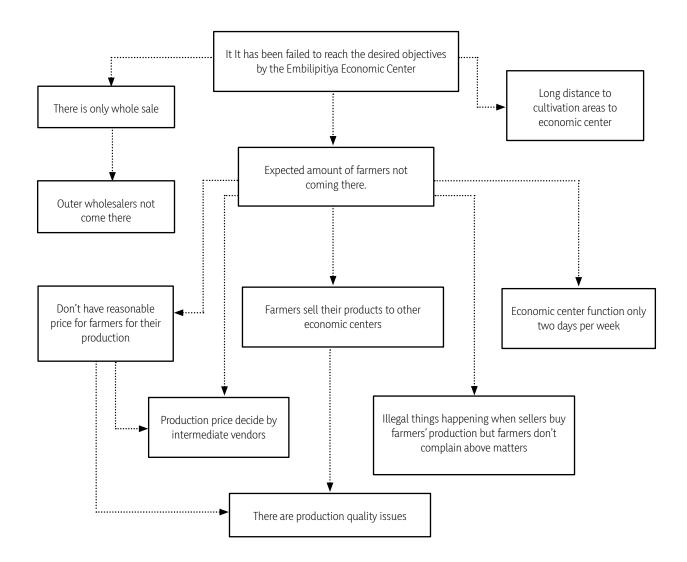
5.2 Root Cause Analysis 02

Root Cause Analysis for Inability of actively keep going large scale industries including Embilipitiya Industrial Park.



5.3 Root Cause Analysis 03

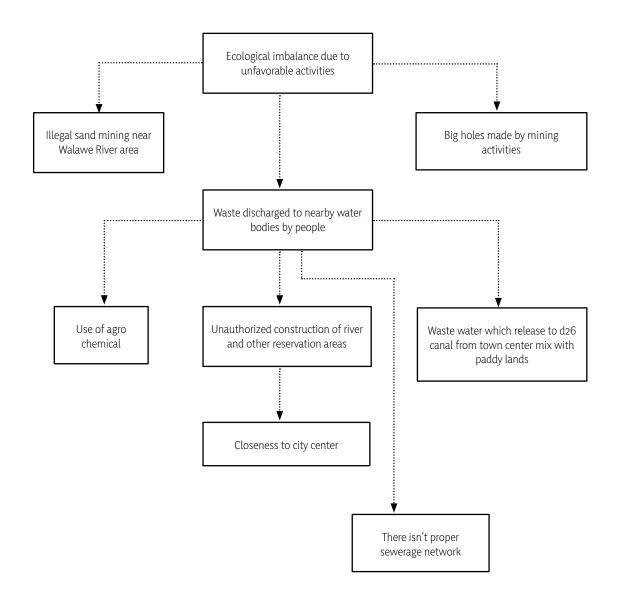
Root Cause Analysis for the failures of the Embilipitiya Economic Center



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5.4 Root Cause Analysis 04

Root Cause Analysis for ecological imbalance



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Annexture o6 : Computer word analysis of stakeholder ideas (Word Cloud Analysis)

The Embilipitiya stakeholder meeting was held on 12th of September and Nearly 45 representatives participated in this meeting representing government institutions, other institutions and local community associations. Those stakeholders divided into three groups such as Infrastructure, Agriculture & Environment, and Industry & Commerce. Each group discussions were analyzed according to their comments. The analysis was based according to the identified problems and potential of the Embilipitiya town area.

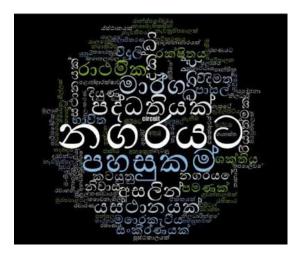
Results of analysis

Group 01 (Infrastructure)



According to the group 01 discussion, analysis the most frequently discussed areas were Infrastructure, Facilities and Primary. They have mainly focused on developing infrastructure to serve city dwellers and commuters.

Group 02- (Agriculture and environment)



Group 02 has mostly focused to discuss Agriculture they have mainly discussed Habitat, Production, Paddy and Fruits.

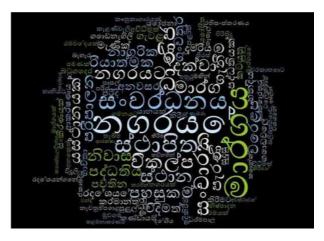
Group 03- Industry and commerce



Group 03 most frequently discussed areas were Industries, Agriculture based Production and Tourism.

of each group through this analysis, and it can take the whole interpretation of each group as Facilities, Habitat, Infrastructure and Agriculture based Production.

Through this analysis, can identify what are the key areas where every group has addressed and what are the key points that should be highlighted in the future development plan.



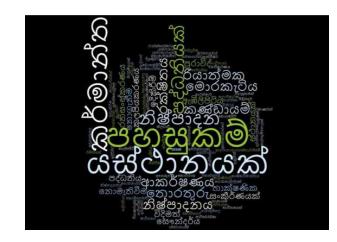
NODES

According to the Nodes word cloud the area should focus in vision as based on following sectors.

- 1. Production Facilities
- 2. Habitat
- 3. Industries

Identified Potentials

- Strong agricultural based productions
- Agricultural service oriented market
- Well Connected Road network
- Proximity to harbor and airport



Conclusion of Analysis

Stakeholder meeting results can be concluding as main three sectors according to the analysis. Analysis interprets the way development plan should address Embilipitiya city. According to that Production Facilities, Habitat and Industries should be considering the main areas of the development plan. Through this overall analysis, it shows the way that Vision, Goals, and Objectives of the Embilipitiya area should focus.

- 4. A city of Agricultural Hub
- 5. Forerunner of Agricultural

Vision Statement

Creating a city based on commercial value added agricultural products.

Goals

- Create an agricultural service based city economy by 2030
- Specialized Center of Value added Agricultural Products

Objectives

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- To provide a sustainable economy by value added agricultural products
- To create sustainable habitats for city dwellers

Annexture - Part II

Annexture 07 : Zone Factor Calculation

Density base Embilipitiya Zonning Plan

Proposed Zoning Plan of Embilipitiya Development Plan for 2030 has done based on density. Density based zoning plan prepared with several kind of data analysis and calculations. Main analysis are following.

- concept plan
- Development Pressure
- Environmental Sensitivity
- Integration
- Livability
- water catchment
- Area Prominent Character Analysis

7.1. Development Pressure

Development Pressure analysis is done to identify development trend of this town area. Specially in here Land use, Population density, population growth rate, linkages with other main town hubs, regional road network and accessibility were the basic data that used to complete this analysis. Based on data relativity and weighted overlay, development pressure analysis has completed (Table No. 1.1).

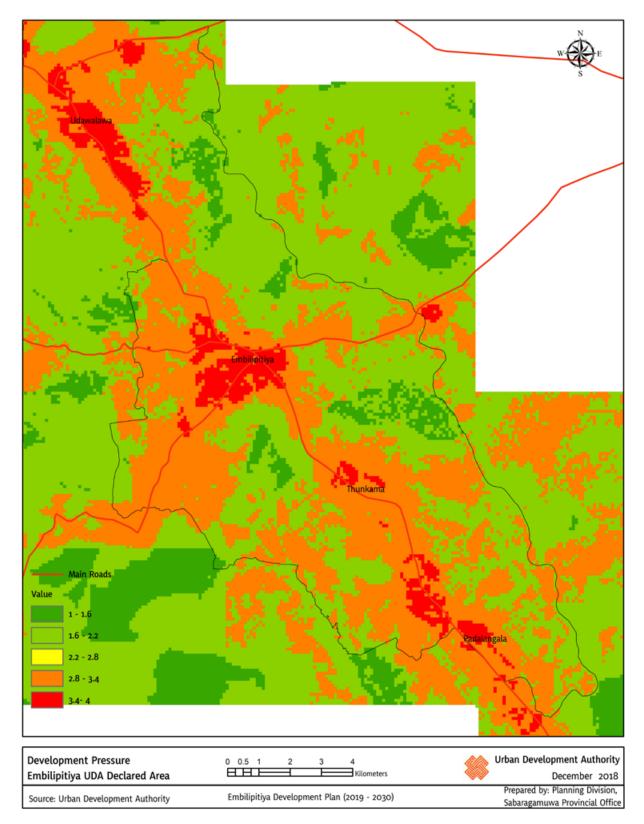
According to final results of this analysis high development trend has shown in Embilipitiya city center, Udawalawa, Thunkama, Kuttigala and Padalangala areas.. Development pressure is spreaded in a scatted way. and other special thing is this development pressure spreaded along Ratnapura –Nonagama Main road from North to South arera. (map no. 1.1)

Conclution of this analysis

- Development Trend of this town is rapidly scatted in Embilipitiya City Center, Udawalawa,Thunkama, Kuttigala and Padalangala areas
- if there is a Scatted development trend around main town centers development pressure scatted north to south (Udwalawa to Padalangala) areas along Ratnapura – Nonagama main Road.

CORE VALUES	WEIGHT	PARAMETER	VALUES	SCORE
Land use	20	Land use distribution	Built up Vegetation Hydro other	5 3 2 1
Accessibility	30	Tendency to accessibility of transport network	Major Roads (A Roads) Minor Roads (B Roads) Other Roads (C Roads, jeep/ Cart track)	(0-1km)5(1-2km)4(2-3km)3(0-1km)5(1-2km)4(2-2.5km)3(0-200m)5(200-300m)4(300-500m)3
Population density	10	Density	<218 294 497 1047 2515<	1 2 3 4 5
Population growth rate	10	Rate	<-0.003 0.006 0.014 0.029 0.07	1 2 3 4 5
Local connectivity	30	Hierarchical level of town centers	Level 1 town center Level 2 town center Level 3 town center	3 2 1

Table.1 : Development Pressure weighted



Map No. 01 : Development Pressure

7.2. Environmental Sensitivity

Out of total land use in Embilipitiya UDA Declared area 27% of paddy lands and 6% of waterbodies have identified. this area is consisted with environmental sensitive areas such as paddy, lake, river, canal, and mshry lands thus sensitivity analysis has done.

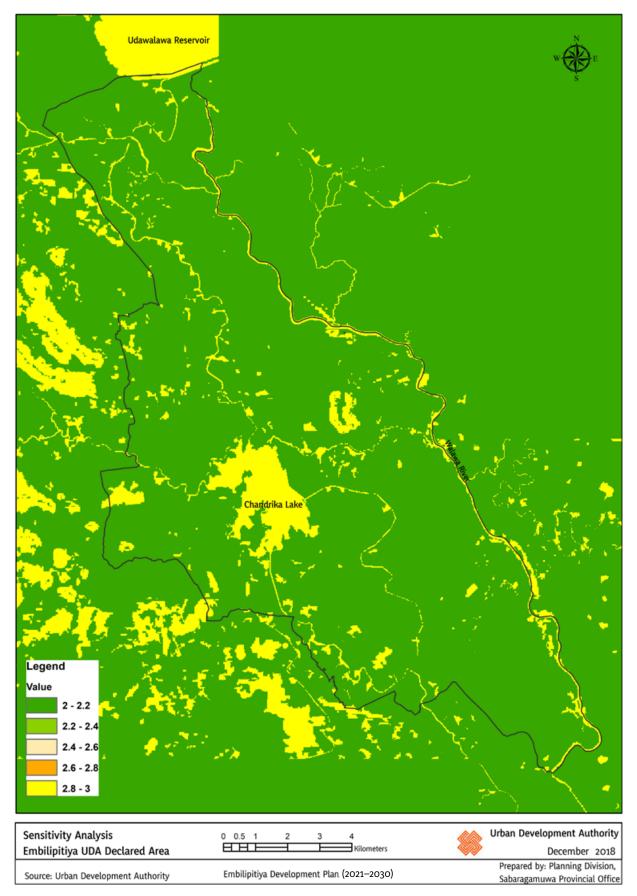
CORE VALUES	WEIGHT	PARAMETER	VALUES	SCORE
Land use	10	Land use distribution	Hydro Mash land & wetland paddy Vegetation other	5 4 4 4 3 1
Hydro	20	Water bodies and their reservation areas	Buffer Distance Walawe River(30m) Main Canals (15m) Other water bodies (10m)	5 4 3
Tanks	30	Tank reservations	Buffer Distance Udawalawa Tank (150m) Chandrika Tank (100m) Ridiyagama Tank(100m) Other Small scale Tanks (30m)	5 4 4 3
Vegetation	30	Vegetation cover	Paddy Forest Scrub Croup	5 4 3 2
Contour	10	Slop	m 5-80 80-135 135-190 190-255 255-350	1 2 3 4 5

Table. 2 : Sensitivity Analysis

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conclution of sensitivity analysis

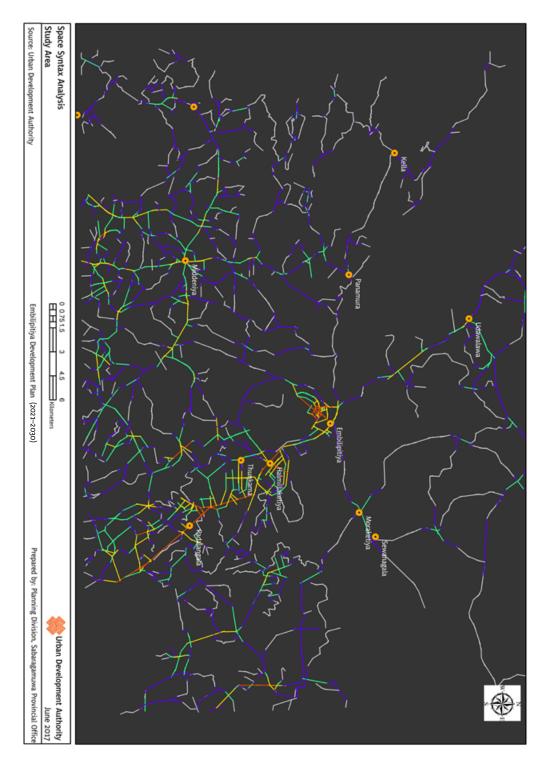
- most of High sensitivity areas are located out of town center
- Chandrika lake and nearby areas, Walawa river and nearby ares and some paddy lands in Mrakatiya are highlighted as high sensitivity areas.



Map No. 02 : Environment Sensitivity Analysis

7.3. Space Syntax (Road Integration)

All roads including RDA, PRDA, and Local authority roads are used for this space syntax analysis in Embilipitiya UDA declared area. According to results of the analysis high road integration has shown by Ratnapura - Nonagama road and Middeniya Road.



Map No. 03 : Space Syntax Analysis

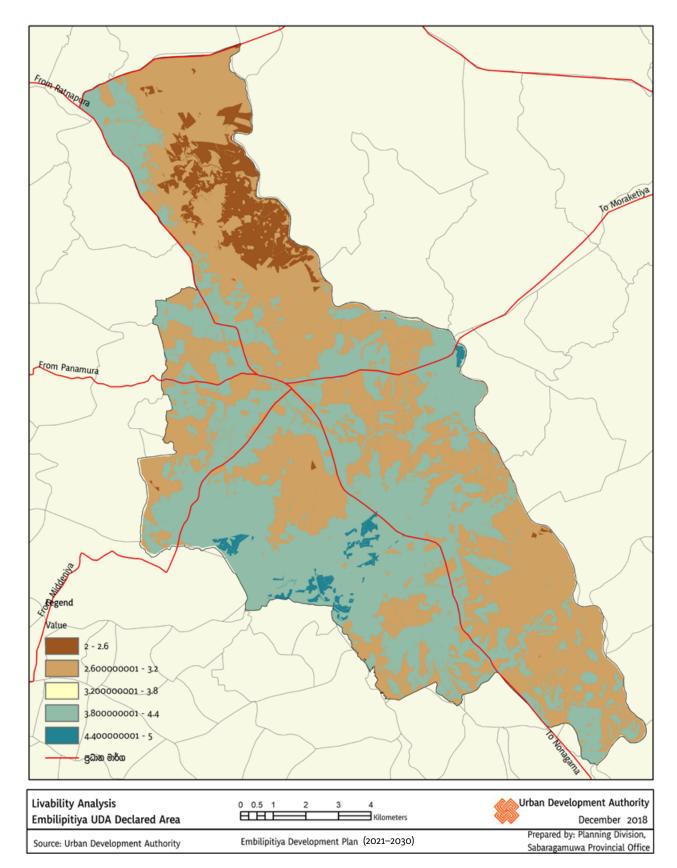
7.4. Livability Analysis

This analysis is done to identify livable areas with all kind of infrastructure facilities for city dwellers. Special consideration has given for Drinking water supply, Electricity network and related proposed projects, Accessibility, Distance to Schools, Hospitals and commercial centers and catchment areas of those facilities, existing land use and proposed development projects of Embilipitiya UDA Declared area.

CORE VALUES	WEIGHT	PARAMETER	VALUES	SCORE
Land use	10	Land use distribution	Built up Vegetation Hydro other	5 4 3 2
Electricity	30	Electricity Distribution	Electricity Line (distance - km) 33Kv 19-9 9-5 5-2 2-1 1>	5 4 3 2 1
Drinking Water	30	Water supply network	Water supply network (distance -km) 12-7 7-3 3-2 2-1 1>	5 4 3 2 1
Locations of Hospitals	20	Catchment area	Embilipitiya District General Hospital –20km Divisional Hospital– 5km Ayurveda Hospital – 5km Poli clinic pvt Hospital – 5km Other Private Hospitals – 3km	5 4 3 2 1
Locations of Schools	10	Catchment area	Distance of School Locations-km 1AB –(4km) 2 – (3km) 1C – (1km)	5 4 3
Accessibility		Road Network	Major Roads (A Roads) –1Km Minor Roads (B Roads) – 500km Other Roads (C Roads, jeep/Cart track) – 200km	5 4 3

Table. 3 : weighted for livability analysis

Embilipitiya Development Plan 2021–2030 Urban Development Authority



Map No. 04 : Livability analysis

Density of this town has identified via overlaping above analysis results. Further analysis done for this UDA Declared area has identified strong and weak linkages. after overall analysis and potetial identification has decided how to alocate the physiscal development of this town protecting natural features. five main density zones have identified for this area via these analysis.

- 1. very High density zone
- 2. High Density Zone
- 3. Intermediate zone
- 4. Low Density Zone
- 5. Environment Protection Zone

7.5. Forecasted Residential and Commuter Population Under Proposed Zones

According to the density-based zoning plan, the zone factor is calculated to determine the density of the each zones. Considering the existing residential and commuting population in the Density Zones, that population has forecasted for 2030 to identify future development needs with increasing demand.

Embilipitiya Town as a second order town of Sabaragamuwa Province is rapidly developing town under natural growth. This town has created with agriculture base identity but not only agriculture, but also there are many opportunities for commercial activities.

There can see daily commuters who come for agriculture and that sector base market activities, banks and financial institutions, education, and health sector needs. These commuting population can categorize for main two groups such as working population and the people who come to get service.

Commuter population data has collected through Embilipitiya Resource Profile, Traffic Survey data, Tourist information data analyzing. Existing commuter population forecasted for 2030 considering future development trends and upcoming developments of proposed zones.

Commuter Population		
Commercial	69951	
Institutional	53050	
Industry	9287	
Tourism	18267	
Total	150555	

zone	Existing commuter population	2017%
Very High Density Commercial Zone I	49993	33.2
High Density Commercial Zone II	23046	15.3
High Density Institutional Zone	4737	3.1
Moderate Density Tourism Service Zone	16338	10.9
Moderate Density Agriculture Service Zone	2253	1.5
Moderate Density Industrial Zone	10129	6.7
Moderate Density Mix Residential Zone	27207	18.1
Moderate Density Residential Zone	9091	6.0
Low Density Green Conservation Zone	7761	5.2
Total	150555	100

As above mentioned existing commuter population has identified under commercial, institutional, industry and tourism sectors.

Commuter population forecasting for 2030 has done based on future development which are going to expand in identified density zones. The assumptions are prepared based on future commercial development projects, proposed institutional zone, tourism activities and proposed industrial zone based activities.

Zone	2030%	Population
Very High Density Commercial Zone I	21.5	64737
High Density Commercial Zone II	18.5	55703
High Density Institutional Zone	5	15055
Moderate Density Tourism Service Zone	11.5	34626
Moderate Density Agriculture Service Zone	12.5	37638
Moderate Density Industrial Zone	12	36132
Moderate Density Mix Residential Zone	11	33121
Moderate Density Residential Zone	4	12044
Low Density Green Conservation Zone	4	12044
Total	100	301100

The zone factor has calculated based on the required space for expected commuting population for each zones. In calculating the space required for the intended commuting population, the minimum space required for one person is decided as 50 square meters per person.

Zone	Commuter Population	Require Space (sq.m.)	
Very High Density Commercial Zone I	64737	3236825	
High Density Commercial Zone II	55703	2785175	
High Density Institutional Zone	15055	752750	
Moderate Density Tourism Service Zone	34626	1731325	
Moderate Density Agriculture Service Zone	37638	1881875	
Moderate Density Industrial Zone	36132	1806600	
Moderate Density Mix Residential Zone	33121	1656050	
Moderate Density Residential Zone	12044	602200	
Low Density Green Conservation Zone	12044	602200	
Total	301100	15055000	

Other than required space for commuter population, the required space for forecasted residential population has calculated to find out the zone factor. When calculating residential space, the minimum space per one person has calculated based on some assumptions are following.

- Developable lands for residential activities are identified based on existing and future development trends.
- According to density, very high density and high density zones are identified for commercial development promotions as basic use and less space identify for residential activities thus 50sq.m. Per person has determined when calculation space required for residential in those zones.
- The zones identify for tourism activities and industrial activities are allocated residential space, assuming minimum space for one person as 100sq.m.
- The zone which identify for agricultural activities is allocated residential space, assuming minimum space for one person as 200sq.m.
- Among nine major zones identified in Embilipitiya declared area, two zones namely Mix Residential and Residential are prominent for residential activities and allocated 250 sq.m. per person when calculation total residential required space for 2030.

• Very less density zone that named as green conservation and all kind of development and residential activities are limited by guidelines. And 100sq.m. per person has assumed when calculation required space for residential.

Existing commercial, residential, institutional, vacant lands, scrub lands, rubber

Zone	Expected Residential population	Required space (sq.m.)
Very High Density Commercial Zone I	3126	156300
High Density Commercial Zone II	5627	281350
High Density Institutional Zone	3751	187550
Moderate Density Tourism Service Zone	12505	1875750
Moderate Density Agriculture Service Zone	14380	1438000
Moderate Density Industrial Zone	6252	1563063
Moderate Density Mix Residential Zone	39389	19694500
Moderate Density Residential Zone	18757	9378500
Low Density Green Conservation Zone	21258	2125765
Total	125045	36700778

Zone	Required space for commuter population	Required space for residential population
Very High Density Commercial Zone I	3236825	156300
High Density Commercial Zone II	2785175	281350
High Density Institutional Zone	752750	187550
Moderate Density Tourism Service Zone	1731325	1875750
Moderate Density Agriculture Service Zone	1881875	1438000
Moderate Density Industrial Zone	1806600	1563063
Moderate Density Mix Residential Zone	1656050	19694500
Moderate Density Residential Zone	602200	9378500
Low Density Green Conservation Zone	602200	2125765
Total	15055000	36700778

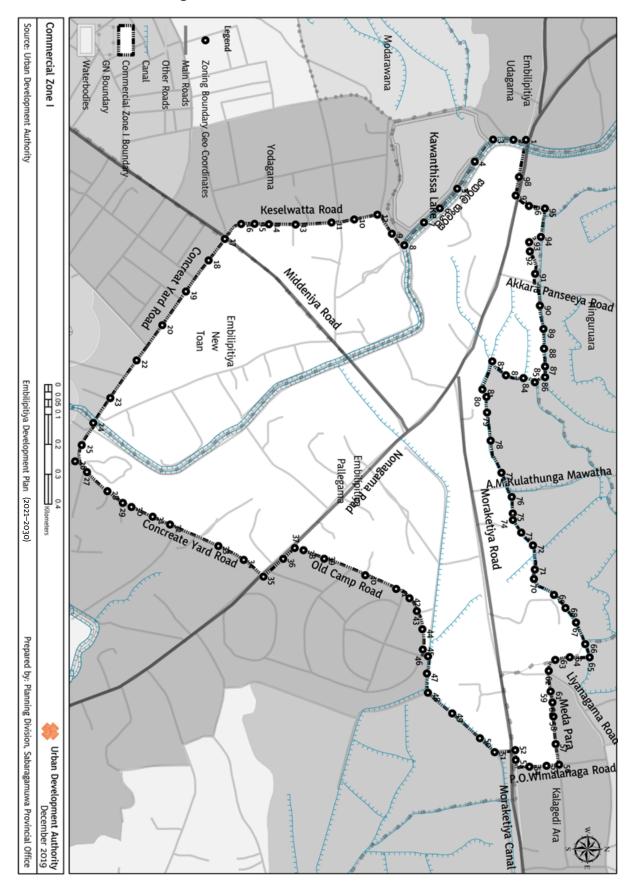
cultivation lands are considered developable lands and environment sensitive areas, water reservations, cultural and religious lands, Roads and paddy lands are considered as non-developable areas. Zone factor has calculated using only developable lands.

Zone Factor = Developable Land in the Zone

Zone	Total Required space(Total allowable lands)	Total developable lands	Zone facto	r
Very High Density Commercial Zone I	3393125	1328562.45	2.554	2.5
High Density Commercial Zone II	3066525	1860920.55	1.648	2
High Density Institutional Zone	940300	674151.24	1.395	1.5
Moderate Density Tourism Service Zone	3607075	5505517.47	0.655	1
Moderate Density Agriculture Service Zone	3319875	9628124.26	0.345	1
Moderate Density Industrial Zone	3369662.5	3508476.24	0.960	1
Moderate Density Mix Residential Zone	21350550	22145694.01	0.964	1
Moderate Density Residential Zone	9980700	18951555.26	0.527	1
Low Density Green Conservation Zone	2727965	6622777.3	0.412	0.5

(321)

Annexture 08 : Zoning Boundaries



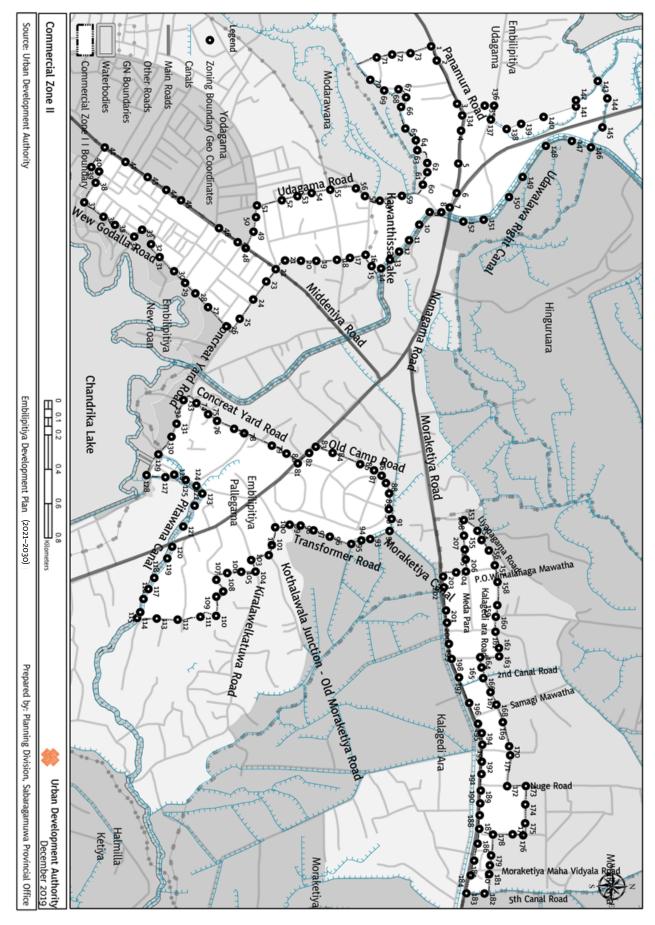
(322)

Point No.	X Coordinate	Y Coordinate
1	80.84665	6.336291
2	80.84665	6.33591
3	80.84664	6.335294
4	80.84731	6.334744
5	80.84813	6.33421
6	80.84872	6.333684
7	80.84915	6.333204
8	80.84984	6.33261
9	80.84949	6.332236
10	80.84906	6.331096
11	80.84915	6.330409
12	80.84891	6.331796
13	80.84921	6.329323
14	80.8492	6.328515
15	80.84919	6.328084
16	80.84919	6.327679
17	80.84965	6.327184
18	80.8503	6.326694
19	80.85124	6.326005
20	80.85225	6.325291
22	80.85332	6.324517
23	80.85446	6.323721
24	80.85521	6.323206
27	80.8567	6.323013
28	80.85728	6.323629
29	80.85763	6.324097
30	80.85775	6.324359
31	80.85805	6.324998
32	80.85829	6.325526
33	80.85893	6.326987
34	80.85935	6.327753
35	80.85986	6.328348
36	80.85932	6.328947
37	80.85899	6.329297
38	80.85906	6.329561
39	80.85932	6.330186
40	80.85982	6.331428

Point X Coordinate Y Coordinate No. 80.86023 41 6.332363 42 80.86051 6.332764 80.8609 6.332986 43 80.86145 6.333156 44 45 80.86206 6.333167 46 80.86227 6.333327 80.86279 47 6.33329 48 80.86337 6.333323 80.864 49 6.334055 80.86475 50 6.334895 80.86517 51 6.335341 80.86511 52 6.335961 53 80.8654 6.335974 80.86561 6.336392 54 80.86558 6.336908 55 80.86555 56 6.337288 57 80.86492 6.337185 80.86409 58 6.337117 80.86366 59 6.337089 60 80.86365 6.337087 61 80.86333 6.337034 80.8623 64 6.337611 65 80.8623 6.338213 66 80.8619 6.338079 80.86125 67 6.337801 68 80.86081 6.337484 80.86041 69 6.337136 70 80.85993 6.336529 71 80.85964 6.336556 72 80.85892 6.336502 80.85853 6.336143 73 74 80.85815 6.335894 75 80.85795 6.33589 76 80.85745 6.33586 77 80.85672 6.335549 78 80.85575 6.335222 80.8549 79 6.335111

Point No.	X Coordinate	Y Coordinate
80	80.85442	6.335094
81	80.8542	6.334971
82	80.85335	6.33527
83	80.85377	6.33568
84	80.85386	6.336212
85	80.85398	6.336555
86	80.85383	6.336865
87	80.8535	6.336865
88	80.85297	6.336836
89	80.85237	6.336818
90	80.85167	6.336711
91	80.8507	6.336567
92	80.85003	6.336405
93	80.84975	6.336388
94	80.84959	6.33674
95	80.84873	6.336864
96	80.84865	6.33638
97	80.84833	6.335981
98	80.84778	6.33608

Commercial Zone I - Zoning Boundary - Geo Coordinates



Point No.	X Coordinate	Y Coordinate
1	80.83792	6.335375
2	80.83867	6.335665
3	80.84095	6.336738
4	80.84236	6.336944
5	80.84409	6.336799
6	80.84564	6.336715
7	80.8464	6.336349
8	80.84665	6.33591
9	80.84664	6.335294
10	80.84731	6.334744
11	80.84813	6.33421
12	80.84872	6.333684
13	80.84915	6.333204
14	80.84961	6.332734
15	80.84949	6.332236
16	80.84889	6.331923
17	80.84906	6.331096
18	80.84915	6.330409
19	80.84921	6.329323
20	80.8492	6.328515
21	80.84919	6.327679
22	80.84965	6.327184
23	80.8503	6.326694
24	80.85124	6.326005
25	80.85225	6.325291
26	80.85265	6.324585
27	80.85164	6.323622
28	80.85092	6.322958
29	80.85037	6.322421
30	80.84975	6.321838
31	80.84901	6.321073
32	80.84833	6.320626
33	80.84757	6.320154
34	80.847932	6.319737
35	80.847315	6.318728
36	80.846889	6.318123
37	80.84613	6.317108
38	80.845094	6.317707

Point X Coordinate Y Coordinate No. 80.8445 6.31789 39 40 80.844271 6.317482 80.844 41 6.319285 42 80.84324 6.318188 80.8448 43 6.320443 80.84548 6.321423 44 80.84602 45 6.322206 80.84749 46 6.324204 47 80.84822 6.325189 48 80.84854 6.32561 80.84767 49 6.326016 80.84691 50 6.326146 51 80.84629 6.3262 52 80.84602 6.327509 53 80.84581 6.328336 54 80.84564 6.329079 55 80.84547 6.330061 56 80.8454 6.331409 80.8458 6.331886 57 58 80.84604 6.332663 80.84579 6.333833 59 6.334936 60 80.8452 61 80.84455 6.335167 62 80.84406 6.335163 63 80.84339 6.334642 64 80.84287 6.334563 65 80.84225 6.334013 66 80.84111 6.333793 67 80.84061 6.334055 68 80.84018 6.333653 69 80.84024 6.332897 70 80.83968 6.332163 71 80.83851 6.332504 72 80.83835 6.333318 80.83828 73 6.334283 74 80.8567 6.323013 80.85728 75 6.323629 76 80.85763 6.324097

Point No.	X Coordinate	Y Coordinate
77	80.85805	6.324998
78	80.85829	6.325526
79	80.85893	6.326987
80	80.85935	6.327753
81	80.85986	6.328348
82	80.85932	6.328947
83	80.85899	6.329297
84	80.85932	6.330186
85	80.85991	6.331632
86	80.86023	6.332363
87	80.86051	6.332764
88	80.8609	6.332986
89	80.86145	6.333156
90	80.86228	6.333142
91	80.86279	6.33329
92	80.86342	6.333181
93	80.86384	6.33216
94	80.86392	6.331696
95	80.8641	6.331163
96	80.86372	6.330035
97	80.86339	6.329173
98	80.86314	6.328492
99	80.86309	6.327917
100	80.86323	6.327158
101	80.86416	6.32698
102	80.8647	6.326818
103	80.86495	6.325899
104	80.86556	6.326118
105	80.86557	6.325368
106	80.86563	6.324635
107	80.86599	6.324056
108	80.8666	6.324422
109	80.86687	6.324057
110	80.86788	6.324046
111	80.86794	6.32322
112	80.86808	6.322021
113	80.86803	6.320924
114	80.868	6.319889

Commercial Zone II - Zoning Boundary - Geo Coordinates

325)

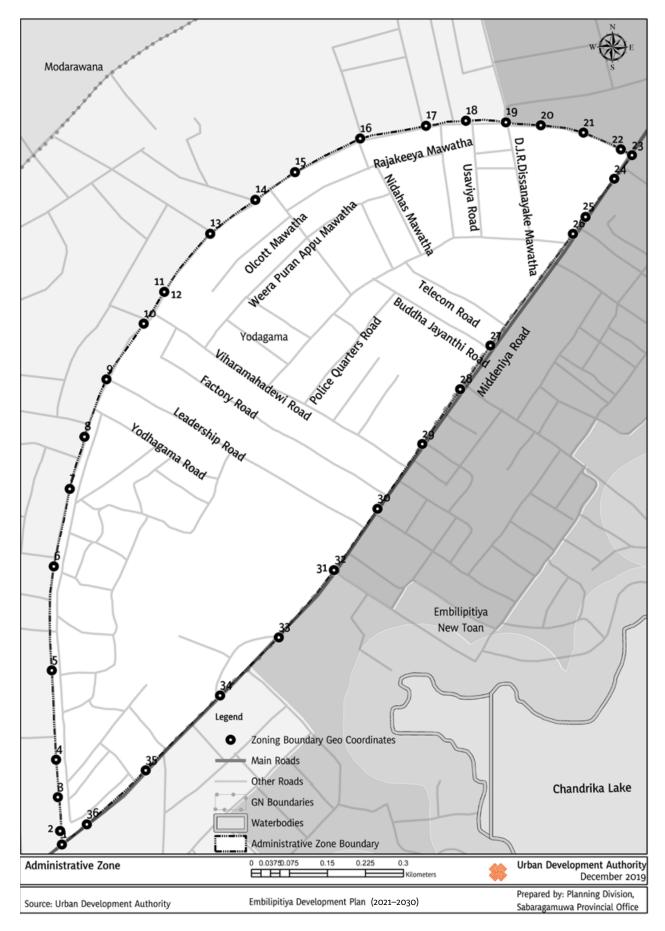
Embilipitiya Development Plan 2021–2030 Urban Development Authority

Point No.	X Coordinate	Y Coordinate
115	80.86769	6.320053
116	80.867	6.32022
117	80.86648	6.320483
118	80.86589	6.32079
119	80.86487	6.321478
120	80.86424	6.321732
121	80.86318	6.322314
122	80.86209	6.322919
123	80.86146	6.323325
124	80.86105	6.323013
125	80.86073	6.322447
126	80.86046	6.321842
127	80.8606	6.321378
128	80.86048	6.320387
129	80.85939	6.321012
130	80.85847	6.321698
131	80.85777	6.321973
132	80.85778	6.321967
133	80.85653	6.322334
134	80.84156	6.337007
135	80.84104	6.338191
136	80.84105	6.338682
137	80.84177	6.338517
138	80.84227	6.339346
139	80.842	6.340109
140	80.84163	6.341288
141	80.84109	6.342993
142	80.84076	6.342995
148	80.84316	6.341407
149	80.8448	6.340189
150	80.84585	6.339467
151	80.84705	6.33813
152	80.84715	6.337066
153	80.86285	6.337087
154	80.86341	6.337806
155	80.8639	6.338023
156	80.86445	6.338404

(326)

Point No.	X Coordinate	Y Coordinate
157	80.86523	6.338715
158	80.86611	6.33886
159	80.86733	6.338846
160	80.86794	6.338773
161	80.86872	6.338752
162	80.86958	6.338934
163	80.87002	6.338949
164	80.87007	6.337948
165	80.87061	6.338023
166	80.87117	6.338105
167	80.8719	6.338488
168	80.87256	6.338797
169	80.87348	6.339141
170	80.87475	6.339468
171	80.87523	6.339524
172	80.87685	6.339364
173	80.87685	6.340349
174	80.87781	6.34032
175	80.87881	6.340316
181	80.88148	6.338421
182	80.8825	6.33817
183	80.88249	6.337221
184	80.88154	6.337441
185	80.88076	6.337625
186	80.87987	6.33781
187	80.8791	6.337896
188	80.87838	6.337921
189	80.87775	6.337945
190	80.87708	6.337974
191	80.87621	6.338011
192	80.87556	6.338033
193	80.87467	6.338058
194	80.87406	6.33803
195	80.87356	6.337825
196	80.87247	6.337368
197	80.87113	6.336829
198	80.87015	6.336439

Point No.	X Coordinate	Y Coordinate
199	80.86936	6.336301
200	80.86825	6.336196
201	80.86761	6.336146
202	80.86639	6.336035
203	80.86582	6.336001
204	80.8656	6.336678
205	80.86555	6.337195
206	80.86492	6.337185
207	80.8644	6.337138
208	80.86366	6.337089



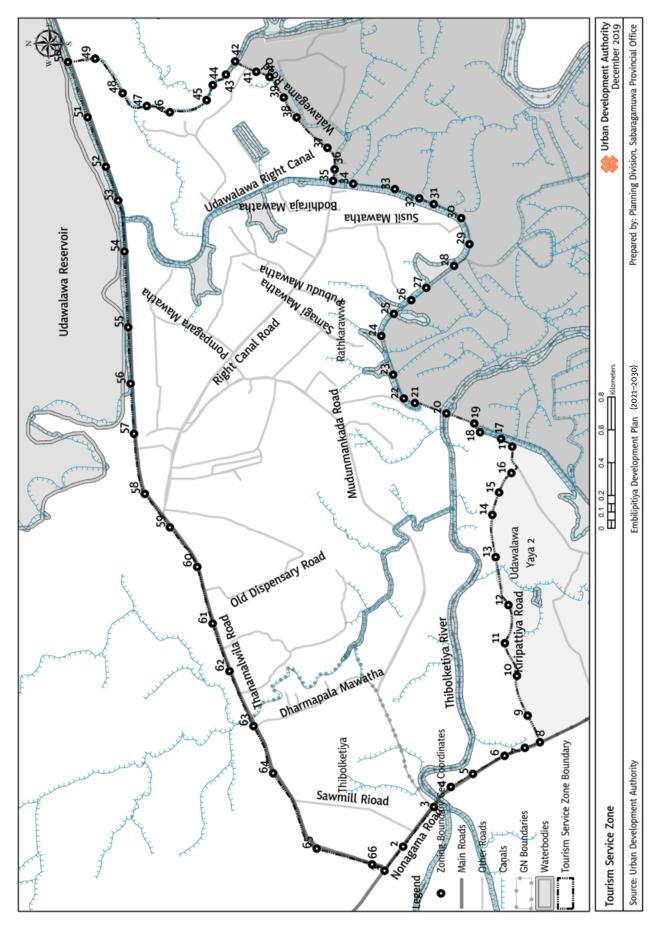
Map No. 03 : Administrative Service Zone

Administrative Service Zone - Zoning Boundary - Geo Coordinates

Point No.	X Coordinate	Y Coordinate
1	80.83837	6.313281
2	80.83834	6.313522
3	80.8383	6.314128
4	80.83827	6.314798
5	80.83819	6.316395
6	80.83823	6.318256
7	80.83851	6.319643
8	80.83877	6.320574
9	80.83917	6.321602
10	80.83983	6.322598
11	80.8402	6.323173
12	80.8402	6.323166
13	80.84102	6.324206
14	80.84182	6.324812
15	80.84253	6.325308
16	80.84369	6.325908
17	80.84487	6.326137
18	80.84558	6.326227

(328)

Point No.	X Coordinate	Y Coordinate
19	80.84629	6.3262
20	80.84691	6.326146
21	80.84767	6.326016
22	80.84834	6.325715
23	80.84854	6.32561
24	80.84822	6.325189
25	80.84771	6.324505
26	80.84749	6.324204
27	80.84602	6.322206
28	80.84548	6.321423
29	80.8448	6.320443
30	80.844	6.319285
31	80.84322	6.318188
32	80.84324	6.318188
33	80.84224	6.316985
34	80.84119	6.315946
35	80.83987	6.314607
36	80.83882	6.313641

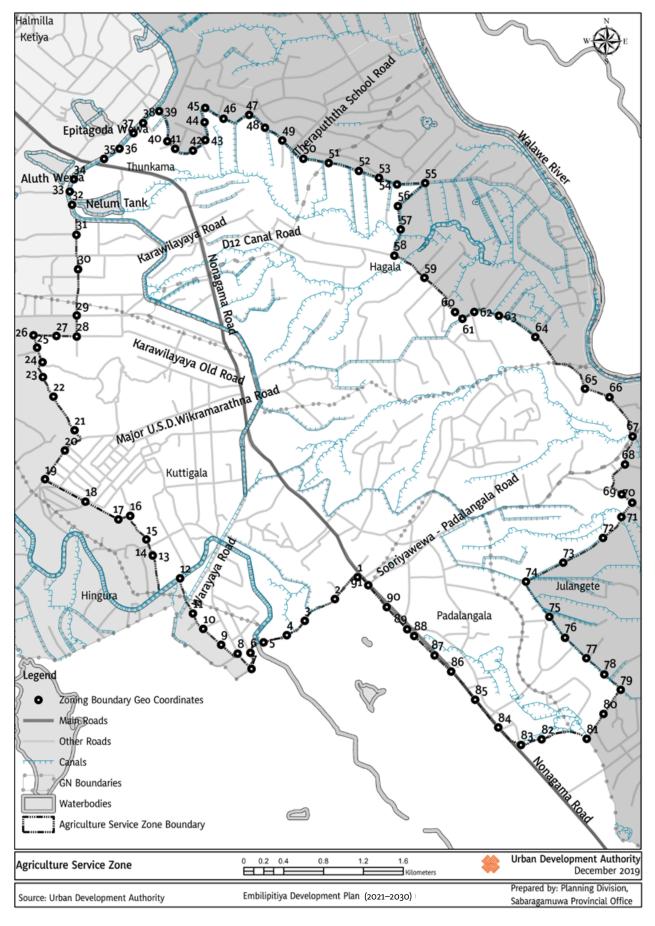


Map No. 04 : Tourist Service Zone

Tourist Service Zone - Zoning Boundary - Geo Coordinates

Point No.	X Coordinate	Y Coordinate
1	80.79635	6.410877
2	80.79767	6.40985
3	80.79986	6.40816
4	80.80095	6.407223
5	80.80167	6.406011
6	80.80267	6.404267
7	80.8031	6.403154
8	80.80342	6.402322
9	80.80488	6.402999
10	80.80707	6.403585
11	80.80886	6.404255
12	80.81096	6.404056
13	80.8136	6.404762
14	80.81593	6.404942
15	80.81716	6.404574
16	80.81823	6.403895
17	80.81968	6.403847
17	80.82011	6.404463
18	80.82047	6.405615
19	80.82095	6.405935
20	80.82151	6.40747
21	80.82208	6.409208
22	80.822332	6.409814
23	80.823634	6.410396
24	80.825774	6.411046
25	80.826991	6.410357
26	80.827742	6.409402
27	80.828422	6.408569
28	80.829632	6.407042
29	80.83082	6.406201
30	80.832258	6.406653
31	80.833025	6.408164
32	80.833345	6.408964
33	80.833855	6.410308
34	80.83415	6.412593
35	80.83431	6.4137

Point No.	X Coordinate	Y Coordinate
36	80.83494	6.413615
37	80.83613	6.414011
38	80.8378	6.41571
39	80.8389	6.416421
40	80.84003	6.417197
41	80.84031	6.417932
42	80.84089	6.419093
43	80.84015	6.419598
44	80.83958	6.420322
45	80.83875	6.420662
46	80.83808	6.422688
47	80.83843	6.423953
48	80.83913	6.425286
49	80.84103	6.426793
50	80.84085	6.428296
51	80.83781	6.42721
52	80.83509	6.426208
53	80.83323	6.425533
54	80.83042	6.42519
55	80.82625	6.424978
56	80.82315	6.424849
57	80.82039	6.424661
58	80.81708	6.424064
59	80.81524	6.422684
60	80.81306	6.421178
61	80.80994	6.420334
62	80.80732	6.419404
63	80.80431	6.418084
64	80.80171	6.417002
65	80.79756	6.414603
66	80.79669	6.41156



Map No. 05 : Agriculture Service Zone

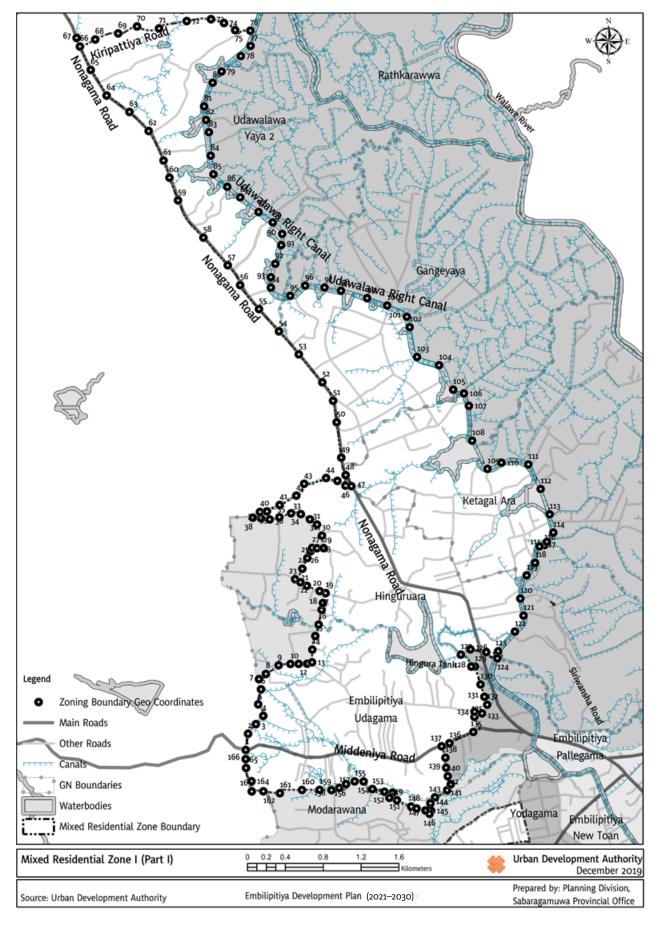
Agriculture Service Zone - Zoning Boundary - Geo Coordinates

Point	X Coordinate	Y Coordinate
No.		
1	80.91222	6.254057
2	80.91016	6.252059
3	80.90742	6.250078
4	80.9058	6.248774
5	80.90368	6.248117
6	80.90251	6.247174
7	80.9026	6.245701
8	80.90134	6.247097
9	80.89984	6.247907
10	80.89821	6.249349
11	80.89728	6.250743
12	80.89612	6.253951
13	80.89364	6.256019
14	80.89362	6.25607
15	80.89306	6.257481
16	80.89159	6.259633
17	80.89053	6.259303
18	80.88753	6.26092
19	80.88387	6.262969
20	80.88567	6.265575
21	80.88656	6.267417
22	80.88464	6.270481
23	80.88368	6.27226
24	80.88365	6.273609
25	80.88316	6.274949
26	80.88283	6.27606
27	80.88492	6.276001
28	80.88676	6.275949
29	80.88675	6.277859
30	80.88688	6.282069
31	80.88672	6.285203
32	80.88634	6.287925
33	80.88612	6.289134
34	80.8865	6.290253
35	80.88923	6.292105
36	80.89064	6.293035
37	80.89191	6.29445
38	80.89278	6.295377

Point No.	X Coordinate	Y Coordinate
39	80.89424	6.296449
40	80.89497	6.293708
41	80.89569	6.29302
42	80.8973	6.292867
43	80.89842	6.293814
44	80.89835	6.295436
45	80.89841	6.296742
46	80.90006	6.295757
47	80.9024	6.296108
48	80.90383	6.294939
49	80.9054	6.293781
50	80.9073	6.292113
51	80.90961	6.291731
52	80.91235	6.291007
53	80.91416	6.290381
54	80.9158	6.289774
55	80.91836	6.289906
56	80.91589	6.287805
57	80.91614	6.285681
58	80.91556	6.283302
59	80.91829	6.28128
60	80.92106	6.278172
61	80.92174	6.277552
62	80.92281	6.278175
63	80.92504	6.27783
64	80.92834	6.275892
65	80.93284	6.271197
66	80.93506	6.270415
67	80.93716	6.266847
68	80.93647	6.26429
69	80.93617	6.261574
70	80.93713	6.260812
71	80.93615	6.259516
72	80.93448	6.257617
73	80.93087	6.255367
74	80.92749	6.253637
75	80.9296	6.250439
76	80.93103	6.248528

Point No.	X Coordinate	Y Coordinate
77	80.93297	6.246676
78	80.93459	6.245201
79	80.93608	6.243796
80	80.93451	6.241603
81	80.933	6.239334
82	80.9289	6.239295
83	80.92703	6.238784
84	80.92498	6.240371
85	80.92288	6.242898
86	80.9207	6.245457
87	80.9192	6.246924
88	80.91735	6.248699
89	80.91672	6.249314
90	80.91487	6.251327
91	80.91319	6.253321





Map No. 06 : Mix Residential Zone I (Part I)

Mix Residential Zone - I - Zoning Boundary - Geo Coordinates

		1
Point No.	X Coordinate	Y Coordinate
1	80.81923	6.335016
2	80.81945	6.336571
3	80.8202	6.33749
4	80.8209	6.338284
5	80.82042	6.33938
6	80.82069	6.340826
7	80.82049	6.341803
8	80.82116	6.342295
9	80.82237	6.343122
10	80.8235	6.343248
11	80.82428	6.343256
12	80.82508	6.343269
13	80.82556	6.34341
14	80.82559	6.344618
15	80.82587	6.345923
16	80.82618	6.347016
17	80.82647	6.348424
18	80.8266	6.349077
19	80.82685	6.350025
20	80.82628	6.350214
21	80.82506	6.350728
22	80.82445	6.351065
23	80.82394	6.351358
24	80.82463	6.352366
25	80.82511	6.353381
26	80.82542	6.35404
27	80.82558	6.354359
28	80.82602	6.354324
29	80.82665	6.354333
30	80.8265	6.355528
31	80.82603	6.356594
32	80.82536	6.357082
33	80.82448	6.357588
34	80.82356	6.357662
35	80.82244	6.357297
36	80.82151	6.35708
37	80.82068	6.3572
38	80.8199	6.357247

Point No.	X Coordinate	Y Coordinate
39	80.82059	6.357788
40	80.82126	6.357846
41	80.82247	6.358463
42	80.82406	6.359358
43	80.8248	6.360492
44	80.8269	6.361047
45	80.82797	6.360774
46	80.82875	6.360308
47	80.82931	6.360264
48	80.82877	6.361319
49	80.82835	6.362992
50	80.82791	6.366369
51	80.82757	6.368437
52	80.82654	6.370206
53	80.8243	6.372878
54	80.82241	6.375071
55	80.8205	6.377208
56	80.8187	6.379497
57	80.81751	6.381396
58	80.81519	6.384045
59	80.81277	6.387615
60	80.81196	6.389778
61	80.81139	6.391419
62	80.80998	6.394248
63	80.80813	6.396066
64	80.80596	6.397641
65	80.80445	6.400096
66	80.80342	6.402322
67	80.8031	6.403154
57	80.81751	6.381396
58	80.81519	6.384045
59	80.81277	6.387615
60	80.81196	6.389778
61	80.81139	6.391419
62	80.80998	6.394248
63	80.80813	6.396066
64	80.80596	6.397641
65	80.80445	6.400096

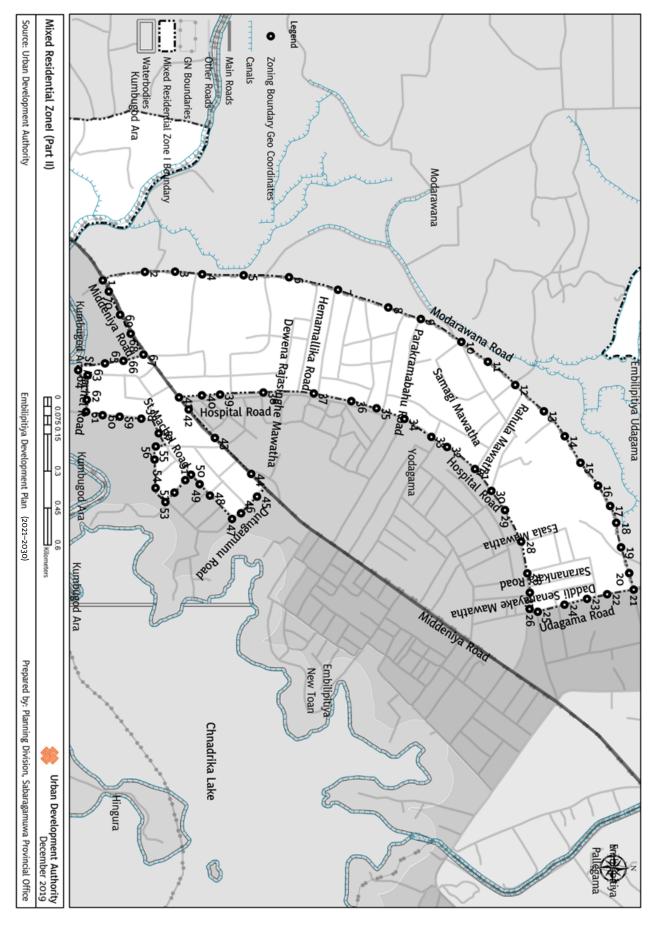
Point No.	X Coordinate	Y Coordinate
66	80.80342	6.402322
67	80.8031	6.403154
68	80.80488	6.402999
69	80.80707	6.403585
70	80.80886	6.404255
71	80.81096	6.404056
72	80.8136	6.404762
73	80.81593	6.404942
74	80.81716	6.404574
75	80.81823	6.403895
76	80.81968	6.403847
77	80.81969	6.402391
78	80.81877	6.401412
79	80.81693	6.399939
80	80.81608	6.398863
81	80.81527	6.396605
82	80.81545	6.395306
83	80.81572	6.394132
84	80.81589	6.391887
85	80.81615	6.390106
86	80.81747	6.3889
87	80.81871	6.38789
88	80.82045	6.386499
89	80.82181	6.3855
90	80.82271	6.384386
91	80.82262	6.383322
92	80.82205	6.381531
93	80.82164	6.380258
94	80.82163	6.379259
95	80.82346	6.378478
96	80.82491	6.379451
97	80.82675	6.379264
98	80.82832	6.378957
99	80.83081	6.378242
100	80.83272	6.377544
101	80.83461	6.376467
102	80.83487	6.375468
103	80.83558	6.37262

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Point No.	X Coordinate	Y Coordinate
104	80.83767	6.37183
105	80.83902	6.369502
106	80.84005	6.369134
107	80.84053	6.367948
108	80.84084	6.364607
109	80.84229	6.36191
110	80.84363	6.362503
111	80.8462	6.36234
112	80.84737	6.35999
113	80.84823	6.357558
114	80.84858	6.355824
115	80.84796	6.35492
116	80.84772	6.35461
117	80.84725	6.35449
118	80.84683	6.352925
119	80.84603	6.351724
120	80.84543	6.349504
121	80.84573	6.347874
122	80.84491	6.346341
123	80.84331	6.344461
124	80.84324	6.343781
125	80.84218	6.344384
126	80.84067	6.34464
127	80.83975	6.344144
128	80.84076	6.342995
129	80.84109	6.342993
130	80.84163	6.341288

Point No.	X Coordinate	Y Coordinate
131	80.842	6.340109
132	80.84227	6.339346
133	80.84177	6.338517
134	80.84105	6.338682
135	80.84095	6.336738
135	80.84104	6.338191
136	80.83867	6.335665
137	80.83792	6.335375
138	80.83828	6.334283
139	80.83835	6.333318
140	80.83851	6.332504
141	80.83879	6.331738
142	80.83844	6.331163
143	80.83728	6.330484
144	80.83684	6.329908
145	80.83691	6.329199
146	80.83676	6.32891
147	80.83637	6.329226
147	80.83553	6.329423
148	80.83501	6.329599
149	80.83365	6.330218
150	80.83324	6.330938
151	80.83294	6.330435
152	80.83247	6.331014
153	80.83131	6.331284
154	80.83047	6.332003
155	80.82961	6.332015

Point No.	X Coordinate	Y Coordinate
156	80.82879	6.331751
157	80.82816	6.331391
158	80.8274	6.331179
159	80.82627	6.331199
160	80.8246	6.331192
161	80.82249	6.330884
162	80.82092	6.331063
163	80.8198	6.33105
164	80.81978	6.332026
165	80.81926	6.333299
166	80.81923	6.33415



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Map No. 07 : Mix Residential Zone I (Part II)

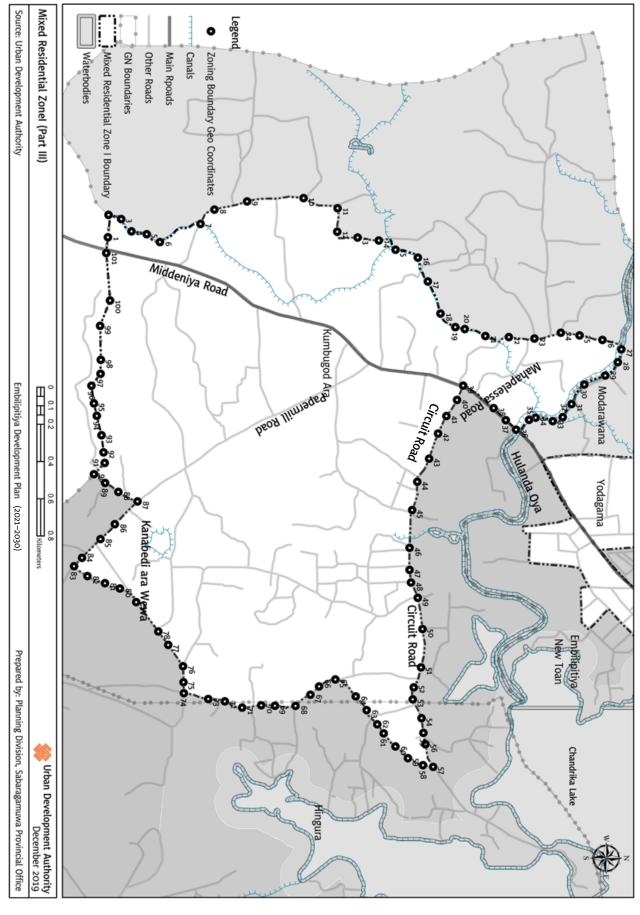
Point No.	X Coordinate	Y Coordinate
1	80.83405	6.310471
2	80.83374	6.312025
3	80.83373	6.313141
4	80.83383	6.31414
5	80.83387	6.31567
6	80.83394	6.317342
7	80.8344	6.319148
8	80.83505	6.321008
9	80.83548	6.322206
10	80.83633	6.323702
11	80.83706	6.324682
12	80.83791	6.325689
13	80.83889	6.326748
14	80.83981	6.327515
15	80.84078	6.3281
16	80.84163	6.328745
17	80.84238	6.329193
18	80.843	6.329419
19	80.8439	6.329594
20	80.84485	6.329894
21	80.84547	6.330061
22	80.84564	6.329079
23	80.84581	6.328336
24	80.84602	6.327509
25	80.84629	6.32652
26	80.84618	6.326217
27	80.84558	6.326227
28	80.84369	6.325908
28	80.84487	6.326137

Point No.	X Coordinate	Y Coordinate
29	80.84253	6.325308
30	80.84182	6.324812
31	80.84102	6.324206
32	80.8402	6.323173
33	80.83983	6.322598
34	80.83917	6.321602
35	80.83877	6.320574
36	80.83851	6.319643
37	80.83823	6.318256
38	80.83819	6.316395
39	80.83827	6.314798
40	80.8383	6.314128
41	80.83837	6.313281
42	80.83882	6.313641
43	80.83987	6.314607
44	80.84119	6.315946
45	80.84203	6.316164
46	80.84265	6.31557
47	80.84286	6.315241
48	80.84199	6.314421
49	80.84157	6.314043
50	80.84122	6.313728
51	80.84143	6.313516
52	80.84188	6.313116
53	80.84223	6.312781
54	80.84171	6.312415
55	80.84066	6.312384
56	80.84018	6.312427
57	80.8397	6.312537

Point No.	X Coordinate	Y Coordinate
58	80.83916	6.311891
59	80.83908	6.311093
60	80.83903	6.310464
61	80.8389	6.309855
62	80.83846	6.309878
63	80.83756	6.309913
64	80.83736	6.309563
65	80.83711	6.310552
66	80.83702	6.311231
67	80.83679	6.311973
68	80.83602	6.311498
69	80.83532	6.311113
70	80.834461	6.31069

Mix Residential Zone - II - Zoning Boundary - Geo Coordinates

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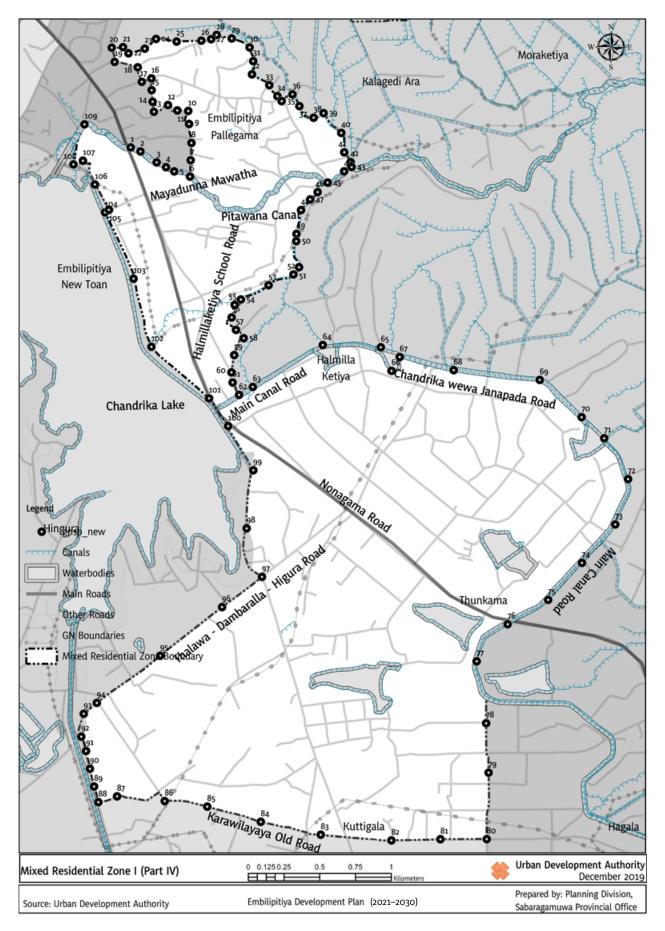


Point No.	X Coordinate	Y Coordinate
1	80.823168	6.289416
2	80.822078	6.289446
3	80.822278	6.29006
4	80.82288	6.290562
5	80.823018	6.291302
6	80.823395	6.291937
7	80.822515	6.293916
8	80.82182	6.294588
9	80.821426	6.296175
10	80.821266	6.298921
11	80.821761	6.300571
12	80.822895	6.300552
13	80.823178	6.301542
14	80.823324	6.302571
15	80.823771	6.303384
16	80.824158	6.304469
17	80.825313	6.304954
18	80.826873	6.30557
19	80.827533	6.306287
20	80.827623	6.306748
21	80.827965	6.307749
22	80.828016	6.308891
23	80.828084	6.310133
24	80.827805	6.311411
25	80.827936	6.312325
26	80.828155	6.313436
27	80.828611	6.314355
28	80.829234	6.314178
29	80.829884	6.31357
30	80.83032	6.312552
31	80.831273	6.311931
32	80.831901	6.311508
33	80.832095	6.311023
34	80.831932	6.310188
35	80.832032	6.309872
36	80.832511	6.309237
37	80.832051	6.30874
38	80.831467	6.308145

Point No.	X Coordinate	Y Coordinate
39	80.830371	6.306669
40	80.831067	6.306375
41	80.831849	6.305856
42	80.8327	6.305453
43	80.833921	6.305018
44	80.835041	6.304443
45	80.836416	6.304195
46	80.83825	6.304067
47	80.839316	6.304065
48	80.839936	6.304138
49	80.840676	6.304461
50	80.842192	6.304694
51	80.844054	6.304622
52	80.845027	6.304269
53	80.845607	6.304222
54	80.846526	6.304645
55	80.847237	6.304737
56	80.847786	6.304834
57	80.848886	6.305207
58	80.848806	6.304716
59	80.848465	6.303984
60	80.847895	6.303377
61	80.84726	6.302807
62	80.846824	6.302496
63	80.846133	6.301979
64	80.845463	6.301446
65	80.844645	6.300457
66	80.844983	6.29967
67	80.845387	6.299249
68	80.845923	6.298524
69	80.845916	6.297523
70	80.845896	6.296854
71	80.846009	6.295929
72	80.845707	6.295089
73	80.84559	6.294287
74	80.845306	6.293097
75	80.844775	6.293082
76	80.843997	6.29306

Point No.	X Coordinate	Y Coordinate
77	80.842965	6.292343
78	80.842316	6.291859
79	80.840884	6.290788
80	80.840225	6.289995
81	80.839964	6.289267
82	80.839621	6.288417
83	80.839141	6.28777
84	80.838732	6.28815
85	80.837823	6.289048
86	80.837097	6.289746
87	80.835995	6.290849
88	80.835532	6.289922
89	80.835099	6.289273
90	80.834669	6.288736
91	80.834127	6.289256
92	80.833612	6.289198
93	80.832778	6.289103
94	80.831839	6.288875
95	80.831232	6.288733
96	80.830377	6.288616
97	80.829794	6.289056
98	80.829115	6.289069
99	80.827469	6.289037
100	80.826235	6.289516
101	80.82393	6.289334

Mix Residential Zone - III - Zoning Boundary - Geo Coordinates



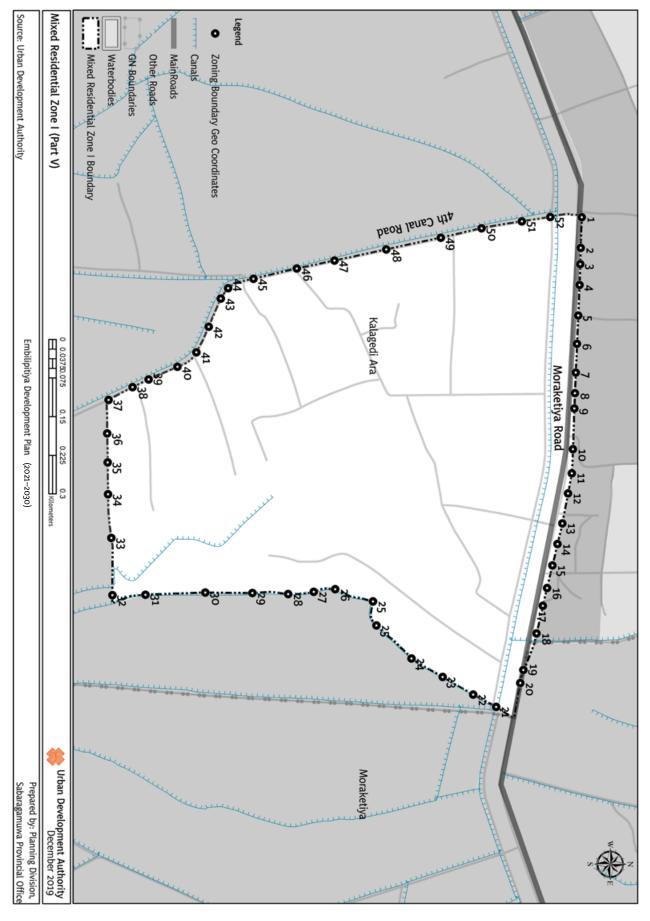
Point No.	X Coordinate	Y Coordinate
1	80.864243	6.321732
2	80.864865	6.321478
3	80.865885	6.32079
4	80.866475	6.320483
5	80.866996	6.32022
6	80.867999	6.319889
7	80.868031	6.320924
8	80.868084	6.322021
9	80.867936	6.32322
10	80.867884	6.324046
11	80.867191	6.324082
12	80.866602	6.324422
13	80.865714	6.323998
14	80.865631	6.324635
15	80.86557	6.325368
16	80.865555	6.326118
17	80.86495	6.325899
18	80.864695	6.326818
19	80.863227	6.327158
20	80.863052	6.328063
21	80.863759	6.328102
22	80.864105	6.327711
23	80.865136	6.328004
24	80.86585	6.328619
25	80.867151	6.328451
26	80.868713	6.328511
27	80.869334	6.328601
28	80.869683	6.328872
29	80.87063	6.328647
30	80.87177	6.328075
31	80.871992	6.327212
32	80.871918	6.326373
33	80.873017	6.325687
34	80.873521	6.324989
35	80.873791	6.32467
36	80.874477	6.325102
37	80.874915	6.324352

Point X Coordinate Y Coordinate No. 38 80.875818 6.323618 80.876449 6.32391 39 80.877563 6.322656 40 80.87775 6.321421 41 42 80.878156 6.32081 80.878216 43 6.320491 80.877742 44 6.320213 80.876696 45 6.319501 46 80.876065 6.318903 80.875596 47 6.318433 48 80.875018 6.317759 80.874732 6.316251 49 50 80.874718 6.315788 51 80.874888 6.314135 52 80.874534 6.313676 80.872964 53 6.312997 54 80.871208 6.312087 80.870818 6.311749 55 56 80.870633 6.310949 80.870899 6.310161 57 58 80.871389 6.309636 80.870789 59 6.308559 60 80.870613 6.307465 61 80.870689 6.306824 62 80.871095 6.306036 63 80.871968 6.306539 64 80.876388 6.309201 80.880063 65 6.309055 66 80.880738 6.307563 67 80.881253 6.308441 68 80.884671 6.307603 69 80.890107 6.306985 70 80.892761 6.304621 71 80.89419 6.303281 72 80.89569 6.300692 73 80.89488 6.297809 80.89278 74 6.295377

Point No.	X Coordinate	Y Coordinate
75	80.89064	6.293035
76	80.88808	6.29149
77	80.88612	6.289134
78	80.88672	6.285203
79	80.88688	6.282069
80	80.88675	6.277859
81	80.88383	6.277847
82	80.88072	6.277772
83	80.87626	6.278133
84	80.87247	6.278956
85	80.86907	6.279922
86	80.86639	6.280272
87	80.86338	6.280572
88	80.86219	6.280205
89	80.86192	6.281197
90	80.86166	6.282323
91	80.86141	6.283453
92	80.86111	6.284362
93	80.86127	6.285812
94	80.86209	6.286505
95	80.8661	6.28949
96	80.87002	6.29258
97	80.87254	6.294498
98	80.87158	6.297568
99	80.87199	6.301261
100	80.87041	6.304059
101	80.8692	6.30582
102	80.86555	6.309091
103	80.86442	6.313411
104	80.86262	6.317618
105	80.86286	6.317777
106	80.86198	6.31938
107	80.86122	6.320893
108	80.86062	6.320658
109	80.86132	6.323204

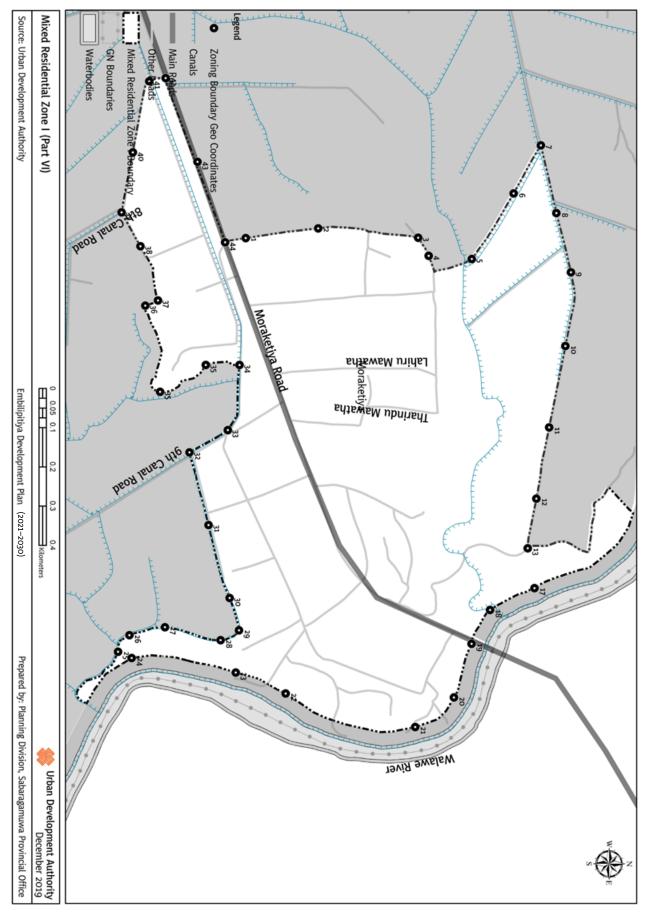
Mix Residential Zone - IV - Zoning Boundary - Geo Coordinates

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Point No.	X Coordinate	Y Coordinate
1	80.875024	6.338052
2	80.875564	6.338033
3	80.875847	6.338024
4	80.876214	6.338011
5	80.876751	6.337989
6	80.877248	6.337967
7	80.877753	6.337945
8	80.878115	6.337931
9	80.878382	6.337921
10	80.879099	6.337896
11	80.879522	6.337877
12	80.879874	6.33781
13	80.880402	6.337709
14	80.880763	6.337625
15	80.88114	6.337535
16	80.881536	6.337441
17	80.881849	6.337366
18	80.882333	6.337256
19	80.882975	6.337024
20	80.883205	6.33697
21	80.883624	6.336547
22	80.883408	6.336142
23	80.883097	6.335605
24	80.882773	6.335059
25	80.881771	6.334382
25	80.882193	6.334442
26	80.881557	6.333719
27	80.881603	6.333343
28	80.881643	6.332893
29	80.881623	6.332265
30	80.881614	6.331437
31	80.881653	6.330387
32	80.881659	6.329806
33	80.880655	6.329788
34	80.879889	6.32973
35	80.87933	6.329724

Point No.	X Coordinate	Y Coordinate	
36	80.878819	6.329715	
37	80.87823	6.329739	
38	80.878006	6.33016	
39	80.877872	6.330444	
40	80.87765	6.330949	
41	80.877396	6.331282	
42	80.876947	6.331498	
43	80.876451	6.331711	
44	80.876269	6.331839	
45	80.876104	6.332284	
46	80.875924	6.333046	
47	80.875786	6.333708	
48	80.875589	6.334616	
49	80.875383	6.335577	
50	80.875217	6.336292	
51	80.875096	6.336999	
52	80.87502	6.337498	



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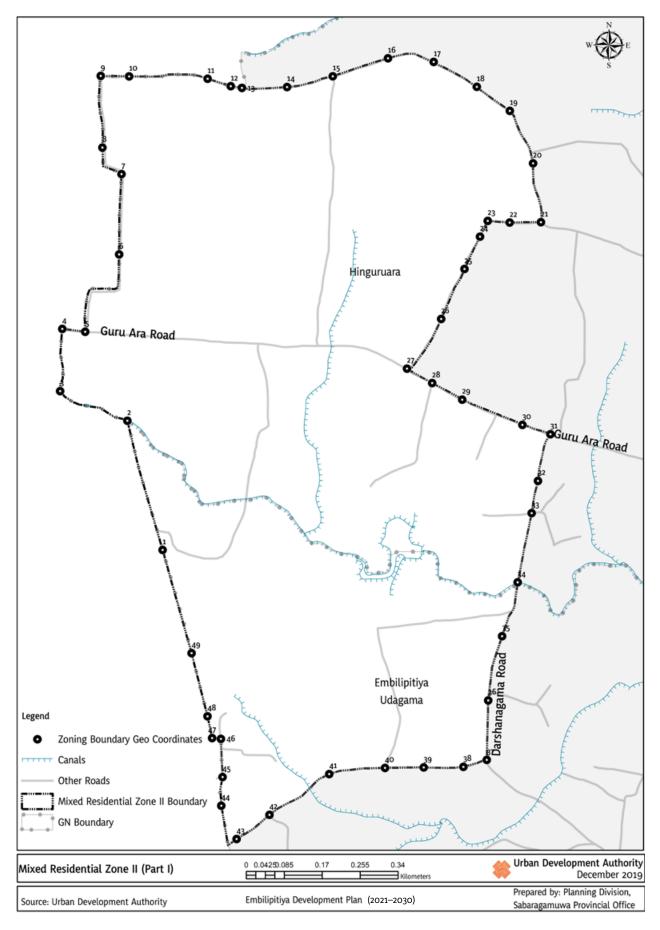
Map No. 11 : Mix Residential Zone I (Part VI)

Point No.	X Coordinate	Y Coordinate
1	80.891724	6.339513
2	80.891499	6.341185
3	80.891717	6.34349
4	80.892134	6.343733
5	80.892208	6.344728
6	80.890695	6.345694
7	80.889586	6.346323
8	80.891149	6.346682
9	80.892515	6.347016
10	80.894218	6.346889
11	80.896095	6.346512
12	80.89774	6.346218
13	80.898883	6.346016
17	80.899805	6.346173
18	80.900306	6.345149
19	80.901087	6.344722
20	80.902325	6.344314
21	80.903006	6.343419
22	80.902234	6.34043
23	80.901749	6.33928
24	80.901414	6.336878
25	80.901267	6.336562
26	80.900885	6.336824
27	80.900704	6.337646
28	80.901001	6.338929
29	80.900775	6.339354
30	80.90003	6.339138
31	80.898346	6.338652
32	80.896668	6.338211
33	80.896154	6.339096
34	80.894652	6.339369
35	80.894653	6.338589
35	80.895271	6.337534

Mix Resid	dential Zone - VI	- Zoning Bounda	ry - G	eo Coord	inates	
Point No	X Coordinate	V Coordinate		Point No	X Coordinate	

Point No.	X Coordinate	Y Coordinate
36	80.893282	6.337193
37	80.893162	6.337486
38	80.89191	6.33708
39	80.891129	6.336648
40	80.889745	6.336906
41	80.888106	6.337284
42	80.888032	6.337664
43	80.889963	6.338398
44	80.891822	6.339035

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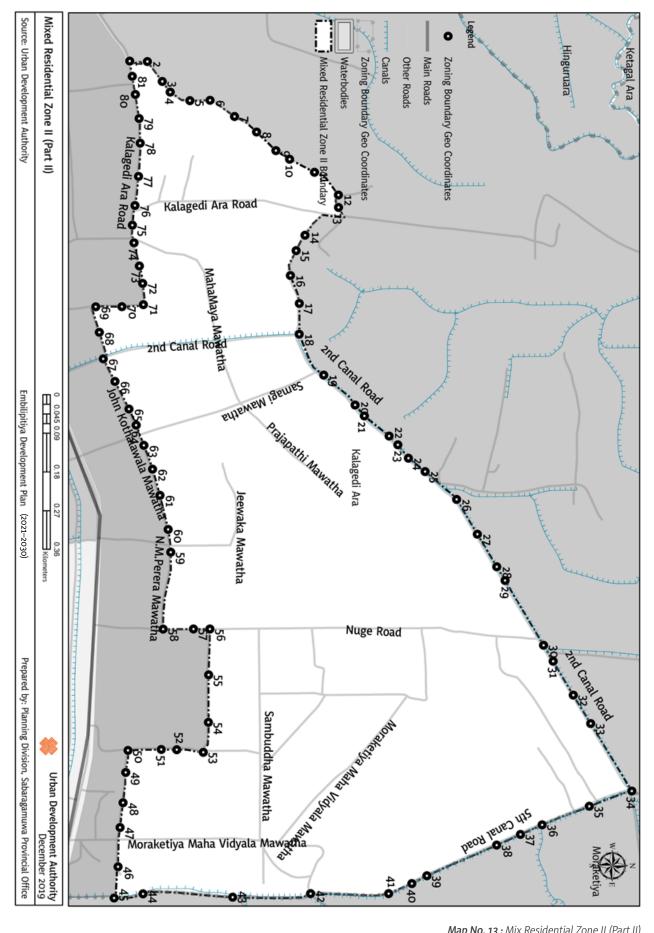
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Map No. 12 : Mix Residential Zone II (Part I)

Point No.	X Coordinate	Y Coordinate	
1	80.818991	6.347675	
2	80.818278	6.3503	
3	80.816916	6.350902	
4	80.81696	6.352166	
5	80.817424	6.352108	
6	80.818112	6.353678	
7	80.81816	6.35531	
8	80.817773	6.355849	
9	80.81774	6.357305	
10	80.818313	6.357296	
11	80.819904	6.357247	
12	80.820374	6.357095	
13	80.8206	6.357061	
14	80.821512	6.35708	
15	80.82244	6.357297	
16	80.823558	6.357662	
17	80.824483	6.357588	
18	80.825356	6.357082	
19	80.826025	6.356594	
20	80.826495	6.355528	
21	80.826654	6.354333	
22	80.826023	6.354324	
23	80.825576	6.354359	
24	80.825421	6.35404	
25	80.825106	6.353381	
26	80.824634	6.352366	
27	80.823941	6.351358	
28	80.824453	6.351065	
29	80.825059	6.350728	
30	80.82628	6.350214	
31	80.826846	6.350025	
32	80.826595	6.349077	
33	80.826466	6.348424	
34	80.826182	6.347016	
35	80.825869	6.345923	

Residential Zone - I -	- Zoning Boundary -	Geo Coordinates
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Point No.	X Coordinate	Y Coordinate
36	80.825586	6.344618
37	80.825558	6.34341
38	80.825084	6.343269
39	80.824279	6.343256
40	80.823497	6.343248
41	80.822367	6.343122
42	80.821156	6.342295
43	80.82049	6.341803
44	80.820179	6.34248
45	80.820205	6.343063
46	80.820173	6.343837
47	80.819995	6.343854
48	80.819901	6.344296
49	80.81958	6.345579



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Map No. 13 : Mix Residential Zone II (Part II)

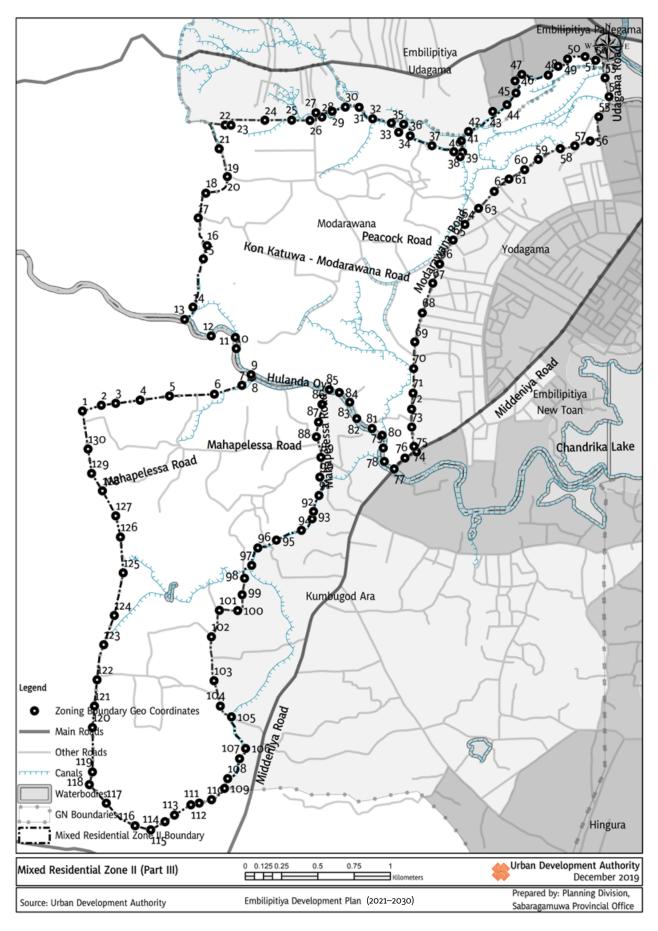
Point No.	X Coordinate	Y Coordinate	
1	80.864904	6.338664	
2	80.864914	6.339035	
3	80.865331	6.339348	
4	80.865555	6.339515	
5	80.865734	6.339928	
6	80.865727	6.340351	
7	80.86607	6.340867	
8	80.866395	6.341332	
9	80.866785	6.341736	
10	80.866967	6.342025	
11	80.867243	6.342549	
12	80.867719	6.343051	
13	80.867982	6.343053	
14	80.868565	6.342349	
15	80.868889	6.342163	
16	80.869411	6.342042	
17	80.87	6.34223	
18	80.870648	6.342226	
19	80.871505	6.342743	
20	80.872136	6.343403	
21	80.872365	6.343596	
22	80.872788	6.344116	
23	80.872973	6.344301	
24	80.873255	6.344522	
25	80.873536	6.344874	
26	80.874119	6.345535	
27	80.874852	6.345972	
28	80.875536	6.34638	
29	80.875826	6.346553	
30	80.877186	6.347363	
31	80.877524	6.347565	
32	80.878234	6.347988	
33	80.878833	6.348353	
34	80.880252	6.349217	
35	80.880574	6.348323	

Point No.	X Coordinate	Y Coordinate
36	80.880962	6.347332
37	80.881166	6.346876
38	80.88139	6.346377
39	80.882032	6.344909
40	80.882197	6.344593
41	80.882408	6.344105
42	80.882407	6.342464
43	80.882483	6.340825
44	80.882412	6.338939
45	80.882499	6.338332
46	80.881842	6.338414
47	80.881015	6.338456
48	80.880497	6.338519
49	80.879858	6.338575
50	80.879397	6.338623
51	80.879375	6.339324
52	80.879382	6.33965
53	80.879436	6.340207
54	80.878805	6.340316
55	80.877809	6.34032
56	80.876845	6.340349
57	80.876845	6.340002
58	80.876847	6.339364
59	80.875229	6.339524
60	80.874752	6.339468
61	80.874035	6.339296
62	80.873484	6.339141
63	80.872983	6.33896
64	80.872557	6.338797
65	80.87222	6.338645
66	80.87164	6.338351
67	80.871165	6.338105
68	80.870607	6.338023
69	80.870069	6.337948
70	80.870066	6.338499

Point No.	X Coordinate	Y Coordinate
71	80.870023	6.338949
72	80.869579	6.338934
73	80.869213	6.338864
74	80.868724	6.338752
75	80.868353	6.338717
76	80.867941	6.338773
77	80.86733	6.338846
78	80.866628	6.338882
79	80.866112	6.33886
80	80.865606	6.33878
81	80.865226	6.338715

Residential Zone - II - Zoning Boundary - Geo Coordinates

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Map No. 14 : Mix Residential Zone II (Part III)

Point No.	X Coordinate	Y Coordinate
1	80.81323	6.313024
2	80.81441	6.313387
3	80.8153	6.313505
4	80.81682	6.313709
5	80.81865	6.313965
6	80.82145	6.314078
7	80.82316	6.314634
8	80.82378	6.315145
9	80.82373	6.315296
10	80.82281	6.316928
11	80.82275	6.317627
12	80.82125	6.317718
13	80.8196	6.318748
14	80.82012	6.319519
15	80.82076	6.322527
16	80.821	6.323359
17	80.82045	6.325092
18	80.82092	6.326632
19	80.82227	6.327655
20	80.82225	6.327672
21	80.82175	6.329412
22	80.82211	6.330894
23	80.82249	6.330884
24	80.8246	6.331192
25	80.82627	6.331199
26	80.8274	6.331179
27	80.82778	6.331661
28	80.82816	6.331391
29	80.82879	6.331751
30	80.82961	6.332015
31	80.83047	6.332003
32	80.83131	6.331284
33	80.83247	6.331014
34	80.83294	6.330435
35	80.83324	6.330938
36	80.83365	6.330218
37	80.83501	6.329599
38	80.83637	6.329226

Point No.	X Coordinate	Y Coordinate
39	80.83676	6.32891
40	80.83691	6.329199
41	80.83684	6.329908
42	80.83728	6.330484
43	80.83879	6.331738
44	80.83968	6.332163
45	80.84024	6.332897
46	80.84018	6.333653
47	80.84061	6.334055
48	80.84225	6.334013
49	80.84287	6.334563
50	80.84345	6.335016
51	80.84455	6.335167
52	80.8452	6.334936
53	80.84579	6.333833
54	80.84604	6.332663
55	80.8454	6.331409
56	80.84485	6.329894
57	80.8439	6.329594
58	80.843	6.329419
59	80.84163	6.328745
60	80.84078	6.3281
61	80.83981	6.327515
62	80.83889	6.326748
63	80.83791	6.325689
64	80.83706	6.324682
65	80.83633	6.323702
66	80.83548	6.322206
67	80.83505	6.321008
68	80.8344	6.319148
69	80.83394	6.317342
70	80.833865	6.31567
71	80.833827	6.31414
72	80.833734	6.313141
73	80.83374	6.312025
74	80.833884	6.31081
75	80.83405	6.310471
76	80.833322	6.310086

Point No.	X Coordinate	Y Coordinate
77	80.832652	6.309404
78	80.832032	6.309872
79	80.831968	6.310712
80	80.831901	6.311508
81	80.831273	6.311931
82	80.83032	6.312552
83	80.829884	6.31357
84	80.829234	6.314178
85	80.828611	6.314355
86	80.828155	6.313436
87	80.827936	6.312325
88	80.827805	6.311411
89	80.828084	6.310133
90	80.828016	6.308891
91	80.827965	6.307749
92	80.827623	6.306748
93	80.827533	6.306287
94	80.826873	6.30557
95	80.825313	6.304954
96	80.824158	6.304469
97	80.823771	6.303384
98	80.823324	6.302571
99	80.823178	6.301542
100	80.822895	6.300552
101	80.821761	6.300571
102	80.821266	6.298921
103	80.821426	6.296175
104	80.82182	6.294588
105	80.822515	6.293916
106	80.823395	6.291937
107	80.823018	6.291302
108	80.822278	6.29006
109	80.822078	6.289446
110	80.821268	6.288741
111	80.820499	6.288529
112	80.81998	6.288425
113	80.818962	6.28778
114	80.818373	6.287363

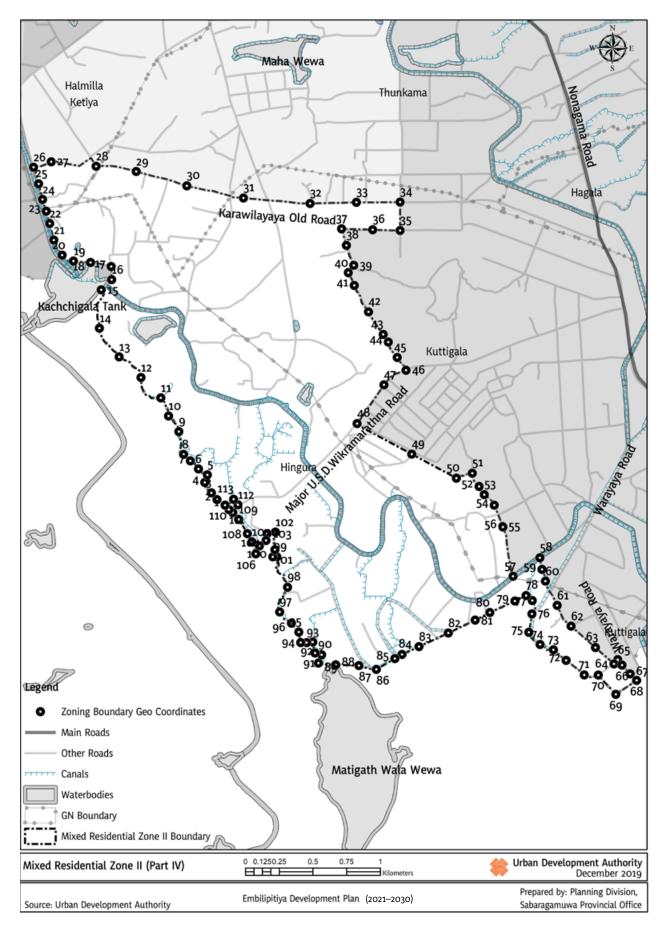
Residential Zone - III - Zoning Boundary - Geo Coordinates

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Point No.	X Coordinate	Y Coordinate
115	80.817483	6.286856
116	80.816508	6.287115
117	80.814715	6.288519
118	80.81366	6.289679
119	80.813853	6.290473
120	80.813853	6.293252
121	80.81398	6.29459
122	80.814137	6.296236
123	80.814558	6.298425
124	80.815214	6.300251
125	80.81577	6.302917
126	80.8156	6.305151
127	80.815305	6.306479
128	80.81447	6.308038
129	80.813798	6.309122
130	80.813576	6.310651

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Map No. 15 : Mix Residential Zone II (Part IV)

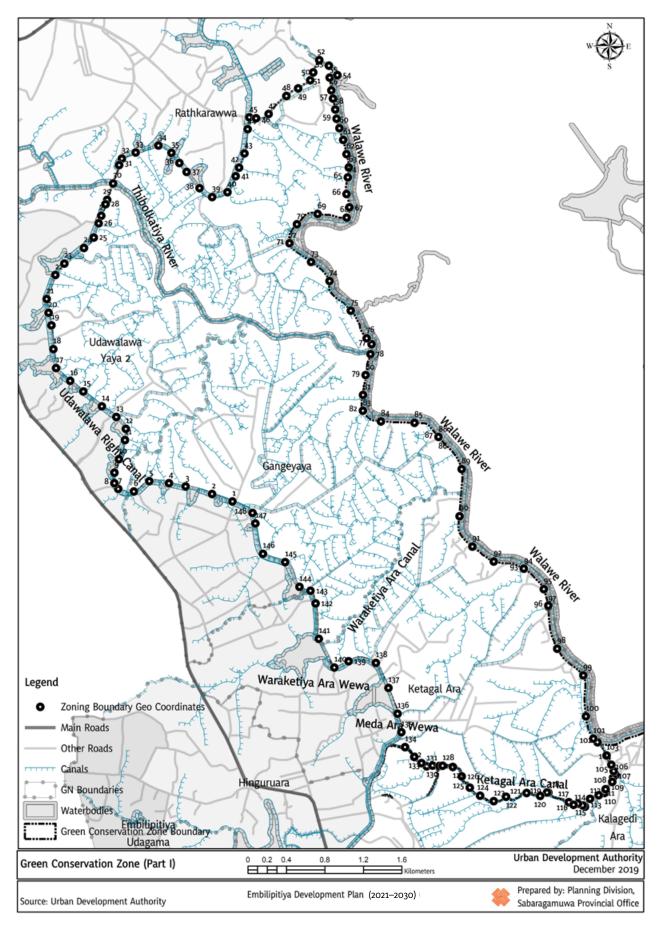
Residential Zone - IV - Zoning Boundary - Geo Coordinates

Point No.	X Coordinate	Y Coordinate
1	80.875025	6.257485
2	80.874477	6.257864
3	80.874104	6.258318
4	80.873665	6.25902
5	80.87384	6.259524
6	80.873241	6.259922
7	80.872702	6.260465
8	80.872244	6.260907
9	80.87193	6.26243
10	80.871235	6.263487
11	80.870717	6.264705
12	80.869386	6.266071
13	80.867922	6.26746
14	80.866602	6.269389
15	80.866728	6.271966
16	80.867426	6.27265
17	80.867392	6.273532
18	80.866013	6.273804
19	80.864867	6.273901
20	80.864111	6.274296
21	80.86355	6.275314
22	80.863273	6.276427
23	80.863044	6.277253
24	80.862795	6.278039
25	80.862531	6.279093
26	80.862191	6.280205
27	80.863375	6.280572
28	80.866386	6.280272
29	80.869074	6.279922
30	80.872467	6.278956
31	80.876259	6.278133
32	80.880722	6.277772
33	80.883828	6.277847
34	80.886753	6.277859
35	80.886756	6.275949
36	80.884915	6.276001
37	80.88283	6.27606
38	80.883157	6.274949

Point No.	X Coordinate	Y Coordinate
39	80.883654	6.273609
40	80.883283	6.273116
41	80.883682	6.27226
42	80.884638	6.270481
43	80.885623	6.268969
44	80.885966	6.268447
45	80.88656	6.267417
46	80.887155	6.266552
47	80.885671	6.265575
48	80.883871	6.262969
49	80.887533	6.26092
50	80.890526	6.259303
51	80.891594	6.259633
52	80.892041	6.258742
53	80.89239	6.258196
54	80.893061	6.257481
55	80.893621	6.25607
56	80.89364	6.256019
57	80.894317	6.252705
58	80.896115	6.253951
59	80.896258	6.253165
60	80.896491	6.252376
61	80.89728	6.250743
62	80.898211	6.249349
63	80.899838	6.247907
64	80.901083	6.246808
65	80.901339	6.247097
66	80.901625	6.246732
67	80.902166	6.24614
68	80.902603	6.245701
69	80.901206	6.244762
70	80.900033	6.24606
71	80.899094	6.246073
72	80.897878	6.247052
73	80.897026	6.247764
74	80.896136	6.248121
75	80.895376	6.248936
76	80.895584	6.250177

Point No.	X Coordinate	Y Coordinate
77	80.895604	6.251069
78	80.895196	6.251411
79	80.894443	6.251039
80	80.892766	6.25027
81	80.891778	6.249758
82	80.889979	6.248893
83	80.888014	6.247978
84	80.886876	6.247448
85	80.8864	6.247171
86	80.885158	6.246447
87	80.883985	6.246707
88	80.882433	6.24675
89	80.881276	6.24687
90	80.881488	6.24743
91	80.881052	6.247551
92	80.880903	6.248286
93	80.880489	6.248251
94	80.880093	6.248249
95	80.879963	6.24896
96	80.87947	6.249555
97	80.878677	6.25031
98	80.879203	6.251966
99	80.878487	6.254015
100	80.87822	6.254014
101	80.878363	6.254494
102	80.878392	6.255679
103	80.877841	6.255572
104	80.877765	6.255113
105	80.877322	6.254748
106	80.877085	6.254216
107	80.876819	6.255017
108	80.87652	6.255572
109	80.875927	6.256533
110	80.875537	6.256995
111	80.875284	6.257183
112	80.875885	6.257517
113	80.875598	6.257884

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Map No. 16 : Green Conservation Zone (Part I)

Green Conservation Zone I - Zoning Boundary - Geo Coordinates

Point No. X Coordinate Y Coordinate 1 80.832723 6.377544 2 80.830808 6.378242 3 80.828321 6.378957 4 80.826754 6.379264 5 80.82491 6.379451 6 80.823462 6.378478 7 80.821984 6.379259 9 80.821633 6.379259 9 80.821636 6.380258 10 80.822053 6.381531 11 80.822053 6.384386 13 80.821812 6.3855 14 80.820453 6.386499 15 80.818713 6.38789 16 80.817472 6.3889 17 80.816154 6.390106 18 80.815888 6.391887 19 80.815717 6.394432 20 80.815645 6.399863 21 80.816932 6.399863 23 80.816932 6.399939	_		
2 80.830808 6.378242 3 80.828321 6.378957 4 80.826754 6.379264 5 80.82491 6.379451 6 80.823462 6.378478 7 80.821984 6.37828 8 80.821633 6.379259 9 80.821636 6.380258 10 80.822053 6.381531 11 80.822053 6.384386 13 80.821636 6.3855 14 80.820453 6.386499 15 80.81713 6.38789 16 80.817472 6.3889 17 80.816154 6.390106 18 80.815888 6.391887 19 80.815717 6.394132 20 80.8158267 6.399863 21 80.815267 6.399863 23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26	Point No.	X Coordinate	Y Coordinate
3 80.828321 6.378957 4 80.826754 6.379264 5 80.82491 6.379451 6 80.823462 6.378478 7 80.821984 6.378728 8 80.821633 6.379259 9 80.821636 6.380258 10 80.822053 6.381531 11 80.82262 6.383322 12 80.821812 6.386499 13 80.821812 6.38789 16 80.817472 6.3889 17 80.816154 6.390106 18 80.815888 6.391887 19 80.815717 6.394432 20 80.815267 6.396605 21 80.815267 6.399863 23 80.816082 6.399399 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820391 6.404436 28	1	80.832723	6.377544
4 80.826754 6.379264 5 80.82491 6.379451 6 80.823462 6.378478 7 80.821984 6.378728 8 80.821633 6.379259 9 80.821636 6.380258 10 80.822053 6.381531 11 80.822053 6.384386 13 80.822705 6.384386 13 80.821812 6.3855 14 80.820453 6.38789 15 80.817472 6.3889 17 80.81654 6.390106 18 80.815888 6.391887 19 80.815717 6.394132 20 80.81567 6.396605 21 80.815267 6.399863 23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820803 6.405525 29	2	80.830808	6.378242
5 80.82491 6.379451 6 80.823462 6.378478 7 80.821984 6.378728 8 80.821633 6.379259 9 80.821636 6.380258 10 80.822053 6.381531 11 80.822053 6.383322 12 80.822705 6.384386 13 80.821812 6.3855 14 80.820453 6.386499 15 80.818713 6.38789 16 80.817472 6.3889 17 80.816154 6.390106 18 80.815888 6.391887 19 80.815717 6.394132 20 80.815267 6.396605 21 80.815267 6.3998863 23 80.816082 6.399939 24 80.818766 6.402391 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820391 6.405525 29	3	80.828321	6.378957
6 80.823462 6.378478 7 80.821984 6.378728 8 80.821633 6.379259 9 80.821636 6.380258 10 80.822053 6.381531 11 80.82262 6.383322 12 80.822705 6.384386 13 80.821812 6.3855 14 80.820453 6.386499 15 80.818713 6.38789 16 80.817472 6.3889 17 80.816154 6.390106 18 80.815888 6.391887 19 80.815717 6.394132 20 80.815445 6.399306 21 80.815267 6.396605 22 80.816082 6.399883 23 80.816932 6.399939 24 80.818766 6.401412 25 80.820154 6.402391 26 80.820391 6.405525 29 80.820803 6.405525 29 <t< td=""><td>4</td><td>80.826754</td><td>6.379264</td></t<>	4	80.826754	6.379264
7 80.821984 6.378728 8 80.821633 6.379259 9 80.821636 6.380258 10 80.822053 6.381531 11 80.822053 6.383322 12 80.822705 6.384386 13 80.821812 6.3855 14 80.820453 6.38789 15 80.81713 6.38789 16 80.817472 6.3889 17 80.816154 6.390106 18 80.815888 6.391887 19 80.815717 6.394132 20 80.815267 6.398603 21 80.815267 6.399863 23 80.816082 6.399939 24 80.818766 6.402391 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820803 6.405525 29 80.820803 6.405935 30 80.821511 6.40747	5	80.82491	6.379451
8 80.821633 6.379259 9 80.821636 6.380258 10 80.822053 6.381531 11 80.82262 6.383322 12 80.822705 6.384386 13 80.822705 6.384386 13 80.821812 6.3855 14 80.820453 6.386499 15 80.818713 6.38789 16 80.817472 6.3889 17 80.816154 6.390106 18 80.815888 6.391887 19 80.815717 6.394132 20 80.815445 6.399306 21 80.815267 6.396605 22 80.816082 6.399883 23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820803 6.405525 29 80.820803 6.405935 30	6	80.823462	6.378478
9 80.821636 6.380258 10 80.822053 6.381531 11 80.822053 6.383322 12 80.822705 6.384386 13 80.821812 6.3855 14 80.820453 6.38789 15 80.81713 6.38789 16 80.817472 6.3889 17 80.816154 6.390106 18 80.815888 6.391887 19 80.815717 6.394132 20 80.815267 6.396605 21 80.815267 6.399863 23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820803 6.405525 29 80.820803 6.405935 30 80.821511 6.40747	7	80.821984	6.378728
10 80.822053 6.381531 11 80.82262 6.383322 12 80.822705 6.384386 13 80.821812 6.3855 14 80.820453 6.386499 15 80.818713 6.38789 16 80.817472 6.3889 17 80.816154 6.390106 18 80.815717 6.394132 20 80.815717 6.394306 21 80.815267 6.396605 22 80.816082 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820803 6.405525 29 80.820803 6.405935 30 80.821511 6.40747	8	80.821633	6.379259
11 80.82262 6.383322 12 80.822705 6.384386 13 80.821812 6.3855 14 80.820453 6.386499 15 80.818713 6.38789 16 80.817472 6.3889 17 80.816154 6.390106 18 80.815888 6.391887 19 80.815717 6.394132 20 80.815267 6.396605 21 80.815267 6.399883 23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820803 6.405525 29 80.820803 6.405935 30 80.821511 6.40747	9	80.821636	6.380258
12 80.822705 6.384386 13 80.821812 6.3855 14 80.820453 6.386499 15 80.818713 6.38789 16 80.817472 6.3889 17 80.816154 6.390106 18 80.815717 6.394132 20 80.815717 6.396605 21 80.815267 6.398863 23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820391 6.405525 29 80.820803 6.405935 30 80.821511 6.40747	10	80.822053	6.381531
13 80.821812 6.3855 14 80.820453 6.386499 15 80.818713 6.38789 16 80.817472 6.3889 17 80.816154 6.390106 18 80.815888 6.391887 19 80.815717 6.394132 20 80.815445 6.395306 21 80.815267 6.396605 22 80.816082 6.399883 23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820391 6.405525 29 80.820803 6.405935 30 80.821511 6.40747	11	80.82262	6.383322
3 6.386499 14 80.820453 6.386499 15 80.818713 6.38789 16 80.817472 6.3889 17 80.816154 6.390106 18 80.815888 6.391887 19 80.815717 6.394132 20 80.815445 6.395306 21 80.815267 6.396605 22 80.816082 6.3998863 23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820391 6.404436 28 80.820803 6.405525 29 80.820954 6.405935 30 80.821511 6.40747	12	80.822705	6.384386
15 80.818713 6.38789 16 80.817472 6.3889 17 80.816154 6.390106 18 80.815888 6.391887 19 80.815717 6.394132 20 80.815445 6.395306 21 80.815267 6.396605 22 80.816082 6.3998863 23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820391 6.404436 28 80.820803 6.405525 29 80.820954 6.405935 30 80.821511 6.40747	13	80.821812	6.3855
16 80.817472 6.3889 17 80.816154 6.390106 18 80.815888 6.391887 19 80.815717 6.394132 20 80.815445 6.395306 21 80.815267 6.396605 22 80.816082 6.3998863 23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820391 6.404436 28 80.820803 6.405525 29 80.820954 6.405935 30 80.821511 6.40747	14	80.820453	6.386499
17 80.816154 6.390106 18 80.815888 6.391887 19 80.815717 6.394132 20 80.815717 6.395306 21 80.815267 6.396605 22 80.816082 6.3998863 23 80.816932 6.399939 24 80.818766 6.401412 25 80.820154 6.402391 26 80.820154 6.403729 27 80.820391 6.404436 28 80.820803 6.405525 29 80.820954 6.405935 30 80.821511 6.40747	15	80.818713	6.38789
18 80.815888 6.391887 19 80.815717 6.394132 20 80.815717 6.395306 21 80.815267 6.396605 22 80.816082 6.399883 23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820391 6.404436 28 80.820803 6.405525 29 80.820954 6.40747	16	80.817472	6.3889
19 80.815717 6.394132 20 80.815717 6.395306 21 80.815267 6.396605 22 80.816082 6.398863 23 80.816932 6.399939 24 80.818766 6.401412 25 80.820154 6.402391 26 80.820391 6.404436 28 80.820803 6.405525 29 80.82054 6.40747	17	80.816154	6.390106
20 80.815445 6.395306 21 80.815267 6.396605 22 80.816082 6.398863 23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820391 6.404436 28 80.820803 6.405525 29 80.820954 6.40747	18	80.815888	6.391887
21 80.815267 6.396605 22 80.816082 6.398863 23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820391 6.404436 28 80.820803 6.405525 29 80.820954 6.405935 30 80.821511 6.40747	19	80.815717	6.394132
22 80.816082 6.398863 23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820391 6.404436 28 80.820803 6.405525 29 80.820954 6.405935 30 80.821511 6.40747	20	80.815445	6.395306
23 80.816932 6.399939 24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820391 6.404436 28 80.820803 6.405525 29 80.820954 6.405935 30 80.821511 6.40747	21	80.815267	6.396605
24 80.818766 6.401412 25 80.819692 6.402391 26 80.820154 6.403729 27 80.820391 6.404436 28 80.820803 6.405525 29 80.820954 6.405935 30 80.821511 6.40747	22	80.816082	6.398863
25 80.819692 6.402391 26 80.820154 6.403729 27 80.820391 6.404436 28 80.820803 6.405525 29 80.820954 6.405935 30 80.821511 6.40747	23	80.816932	6.399939
26 80.820154 6.403729 27 80.820391 6.404436 28 80.820803 6.405525 29 80.820954 6.405935 30 80.821511 6.40747	24	80.818766	6.401412
27 80.820391 6.404436 28 80.820803 6.405525 29 80.820954 6.405935 30 80.821511 6.40747	25	80.819692	6.402391
28 80.820803 6.405525 29 80.820954 6.405935 30 80.821511 6.40747	26	80.820154	6.403729
29 80.820954 6.405935 30 80.821511 6.40747	27	80.820391	6.404436
30 80.821511 6.40747	28	80.820803	6.405525
5 7 7 M	29	80.820954	6.405935
31 80.822078 6.409208	30	80.821511	6.40747
	31	80.822078	6.409208
32 80.822332 6.409814	32	80.822332	6.409814
33 80.823634 6.410396	33	80.823634	6.410396
34 80.825774 6.411046	34	80.825774	6.411046
35 80.826991 6.410357	35	80.826991	6.410357
36 80.827742 6.409402	36	80.827742	6.409402
37 80.828422 6.408569	37	80.828422	6.408569
38 80.829632 6.407042	38	80.829632	6.407042

Point No.	X Coordinate	Y Coordinate
39	80.83082	6.406201
40	80.832258	6.406653
41	80.833025	6.408164
42	80.833345	6.408964
43	80.833855	6.410308
44	80.834148	6.412593
45	80.834308	6.4137
46	80.834944	6.413615
47	80.836127	6.414011
48	80.837799	6.41571
49	80.838898	6.416421
50	80.840033	6.417197
51	80.840313	6.417932
52	80.840888	6.419093
53	80.84179	6.418559
54	80.842585	6.417668
55	80.84187	6.417442
56	80.842023	6.416233
57	80.84218	6.415461
58	80.842388	6.41444
59	80.842514	6.413574
60	80.842781	6.412682
61	80.843133	6.411577
62	80.843446	6.41023
63	80.843657	6.408985
64	80.843566	6.408041
65	80.843568	6.408047
66	80.843452	6.406476
67	80.84371	6.405225
68	80.843462	6.404255
69	80.840726	6.404605
70	80.83879	6.403634
71	80.838081	6.401849
72	80.838083	6.40183
73	80.840116	6.400092
74	80.841856	6.398293
75	80.843844	6.395505
76	80.845341	6.392909

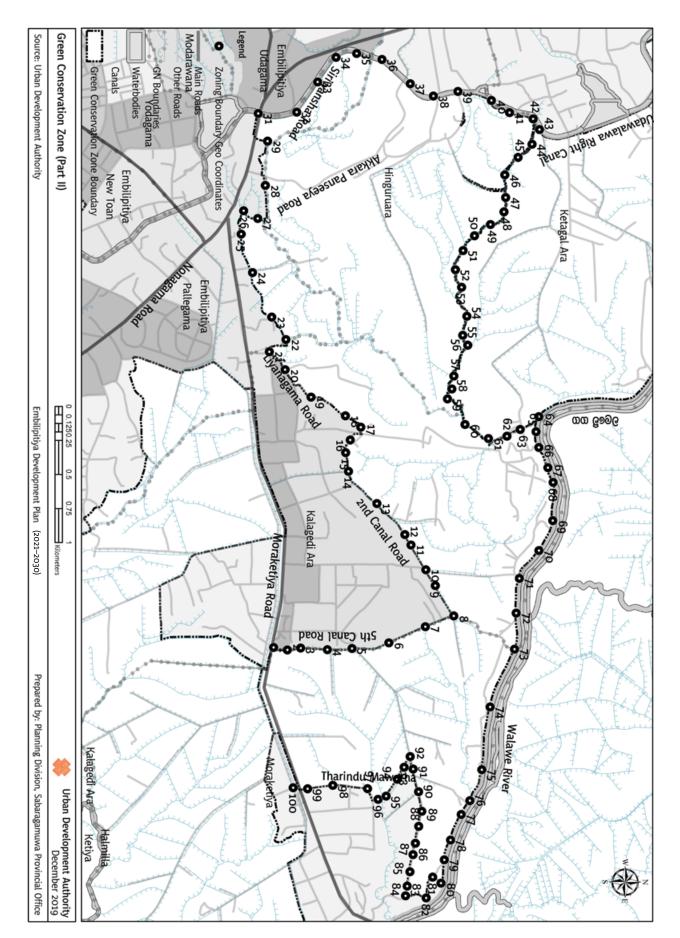
Point No.	X Coordinate	Y Coordinate
77	80.845799	6.392348
78	80.845692	6.391414
79	80.845239	6.389435
80	80.845238	6.389415
81	80.844994	6.387566
82	80.844977	6.386087
83	80.844985	6.386072
84	80.846672	6.385081
85	80.849826	6.384944
86	80.852076	6.383617
87	80.85208	6.383612
88	80.85211	6.383581
89	80.854262	6.380584
90	80.85406	6.376146
91	80.855268	6.373298
92	80.857276	6.371884
93	80.860095	6.371215
94	80.860129	6.371193
95	80.861977	6.369294
96	80.862403	6.367744
97	80.8624	6.367635
98	80.863231	6.363681
99	80.865682	6.361174
100	80.865927	6.35731
101	80.86663	6.355222
102	80.867023	6.354867
103	80.867871	6.353635
104	80.868316	6.352753
105	80.868537	6.352161
106	80.868717	6.351791
107	80.868473	6.351528
108	80.868404	6.351143
109	80.867784	6.350461
110	80.867674	6.350102
111	80.867133	6.349892
112	80.86632	6.349552
113	80.865842	6.348801
114	80.865631	6.34893

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Point No.	X Coordinate	Y Coordinate
115	80.865182	6.349098
116	80.864766	6.348985
117	80.864321	6.349232
118	80.862393	6.350146
119	80.86227	6.350147
120	80.861623	6.349821
121	80.860351	6.350095
122	80.858428	6.349744
123	80.857265	6.34933
124	80.855992	6.349847
125	80.855012	6.350602
126	80.854263	6.35166
127	80.853423	6.352556
128	80.85247	6.35267

Point No.	X Coordinate	Y Coordinate
129	80.852166	6.352645
130	80.851514	6.352672
131	80.85097	6.352615
132	80.850484	6.352907
133	80.849803	6.353496
134	80.848934	6.35442
135	80.848584	6.355824
136	80.848228	6.357558
137	80.847374	6.35999
138	80.846195	6.36234
139	80.84363	6.362503
140	80.842294	6.36191
141	80.840838	6.364607
142	80.840531	6.367948

Point No.	X Coordinate	Y Coordinate
143	80.840051	6.369134
144	80.83902	6.369502
145	80.837671	6.37183
146	80.835581	6.37262
147	80.834871	6.375468
148	80.834605	6.376467



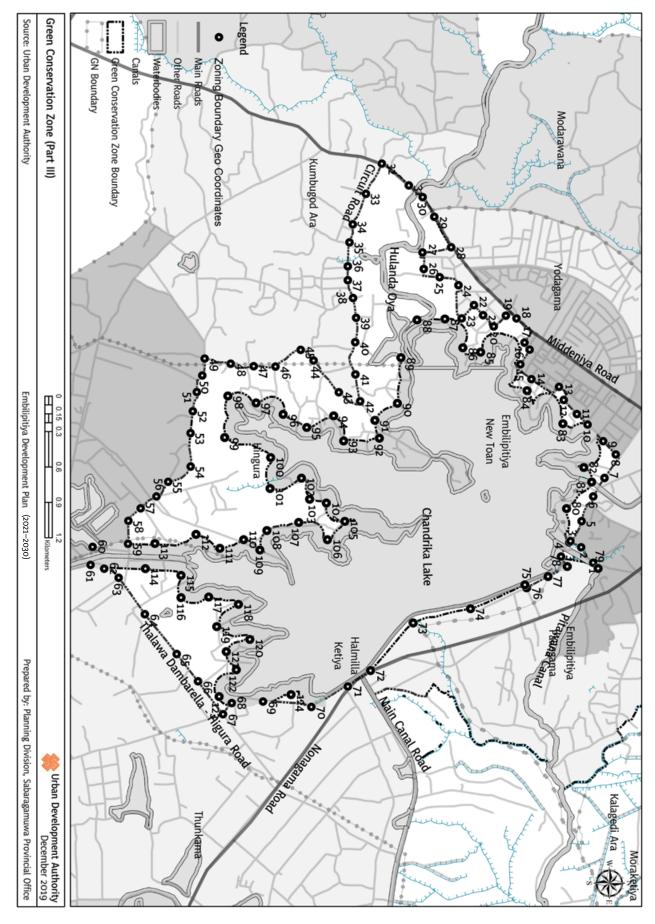
(358)

Map No. 17 : Green Conservation Zone (Part II)

Point No.	X Coordinate	Y Coordinate
1	80.882333	6.337256
2	80.882499	6.33817
3	80.882376	6.339049
4	80.882483	6.340825
5	80.882407	6.342464
6	80.882032	6.344909
7	80.880962	6.347332
8	80.880252	6.349217
9	80.878234	6.347988
10	80.877186	6.347363
11	80.875536	6.34638
12	80.874852	6.345972
13	80.872788	6.344116
14	80.870648	6.342226
15	80.869411	6.342042
16	80.868565	6.342349
17	80.867719	6.343051
18	80.866967	6.342025
19	80.865721	6.339749
20	80.863895	6.338023
21	80.86271	6.336978
22	80.861898	6.338079
23	80.86041	6.337136
24	80.857448	6.33586
25	80.854896	6.335111
26	80.853349	6.33527
27	80.853859	6.336212
28	80.851666	6.336711
29	80.848729	6.336864
31	80.846885	6.336243
32	80.8468	6.3388
33	80.844795	6.340189
34	80.843158	6.341407
35	80.842906	6.342776

Point No.	X Coordinate	Y Coordinate
36	80.843307	6.344461
37	80.844913	6.346341
38	80.845731	6.347874
39	80.845427	6.349504
40	80.846027	6.351724
41	80.846834	6.352925
42	80.847252	6.35449
43	80.847959	6.35492
44	80.848934	6.35442
45	80.849803	6.353496
46	80.85097	6.352615
47	80.85247	6.35267
48	80.853423	6.352556
49	80.854263	6.35166
50	80.855012	6.350602
51	80.855992	6.349847
52	80.857265	6.34933
53	80.858428	6.349744
54	80.860351	6.350095
55	80.861623	6.349821
56	80.86227	6.350147
57	80.864321	6.349232
58	80.865182	6.349098
59	80.865842	6.348801
60	80.86754	6.349968
61	80.868473	6.351528
62	80.868316	6.352753
63	80.867871	6.353635
64	80.867023	6.354867
65	80.868015	6.354687
66	80.869064	6.354868
67	80.870407	6.355475
68	80.871382	6.355817
69	80.873921	6.355798

Point No.	X Coordinate	Y Coordinate
70	80.875909	6.354875
71	80.877758	6.353574
72	80.880062	6.353362
73	80.882456	6.353249
74	80.886292	6.35163
75	80.890458	6.351077
76	80.892511	6.350286
77	80.89343	6.349712
78	80.895127	6.349006
79	80.896439	6.34859
80	80.897992	6.348364
81	80.897592	6.347818
82	80.89897	6.347381
83	80.898833	6.34601
84	80.898188	6.346126
85	80.897233	6.346308
86	80.896095	6.346512
87	80.895338	6.346664
88	80.894217	6.346889
89	80.89322	6.34709
90	80.891921	6.34688
91	80.89041	6.346517
92	80.889586	6.346323
93	80.890293	6.345919
94	80.891086	6.345467
95	80.892208	6.344728
96	80.892425	6.34419
97	80.891717	6.34349
98	80.891499	6.341185
99	80.891724	6.339513
100	80.891649	6.338554



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Map No. 18 : Green Conservation Zone (Part III)

Point No.	X Coordinate	Y Coordinate
1	80.86095	6.322846
2	80.85976	6.321931
3	80.86048	6.320387
3	80.85929	6.321116
4	80.85939	6.321012
5	80.85777	6.321973
6	80.85588	6.322856
7	80.85446	6.323721
8	80.85265	6.324585
9	80.85164	6.323622
10	80.85037	6.322421
11	80.84957	6.321605
12	80.84849	6.320601
13	80.84748	6.320235
14	80.84689	6.318123
15	80.84576	6.317277
16	80.84464	6.317992
17	80.84409	6.3176
18	80.84224	6.316985
19	80.84203	6.316164
20	80.84286	6.315241
21	80.84199	6.314421
22	80.84122	6.313728
23	80.84223	6.312781
24	80.8397	6.312537
25	80.83908	6.311093
26	80.83846	6.309878
27	80.83719	6.309778
28	80.83679	6.311973
29	80.83446	6.31069
30	80.83295	6.309794
31	80.83205	6.30874
32	80.83039	6.306669
33	80.8327	6.305453
34	80.83504	6.304443
35	80.83642	6.304195
36	80.83825	6.304067

Point No.	X Coordinate	Y Coordinate
37	80.83932	6.304065
38	80.84068	6.304461
39	80.84219	6.304694
40	80.84405	6.304622
41	80.84653	6.304645
42	80.84858	6.30501
43	80.8479	6.303377
44	80.84546	6.301446
45	80.84465	6.300457
46	80.84592	6.298524
47	80.8459	6.296854
48	80.84571	6.295089
49	80.84531	6.293097
50	80.84661	6.292911
51	80.84788	6.2925
52	80.84934	6.29219
53	80.85102	6.292012
54	80.85357	6.292022
55	80.85475	6.290299
56	80.85587	6.289406
57	80.85678	6.2882
58	80.85774	6.287249
59	80.85949	6.287228
60	80.85973	6.284516
61	80.86111	6.284362
62	80.8614	6.285405
63	80.86209	6.286505
64	80.86489	6.28851
65	80.86793	6.290956
66	80.87002	6.29258
67	80.87254	6.294498
68	80.87169	6.295168
69	80.87158	6.297568
70	80.87199	6.301261
71	80.87042	6.304059
72	80.8692	6.3058
73	80.8656	6.30906

Point

	80.8645 80.8626	6.31345
75 76		
76		6.31762
	80.8629	6.31775
77	80.862	6.3194
78	80.8612	6.32086
79	80.8614	6.32322
80	80.8568	6.32081
81	80.8548	6.32273
82	80.8537	6.32213
83	80.8503	6.32053
84	80.8478	6.31779
85	80.8448	6.31424
86	80.8445	6.31286
87	80.8423	6.31149
88	80.8424	6.30936
89	80.8452	6.30813
90	80.8487	6.30785
91	80.85	6.30613
92	80.8514	6.30648
93	80.8516	6.30373
94	80.8497	6.30298
95	80.8506	6.30092
96	80.8496	6.2991
97	80.8487	6.29703
98	80.8482	6.29488
99	80.8514	6.29463
100	80.8529	6.29815
101	80.8553	6.29811
102	80.8545	6.30051
103	80.8561	6.30113
104	80.8564	6.30241
105	80.8578	6.30382
106	80.8592	6.3025
107	80.8579	6.3003
108	80.8585	6.29786
109	80.86	6.29732
110	80.8592	6.29608

Green Conservation Zone III - Zoning Boundary - Geo Coordinates

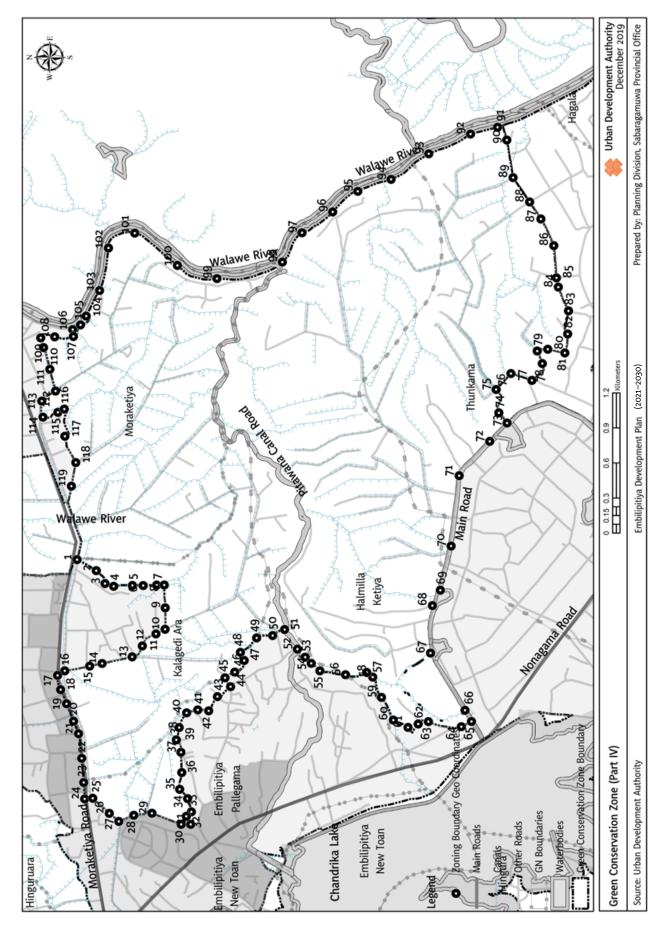
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Point No.	X Coordinate	Y Coordinate
111	80.8599	6.29425
112	80.8588	6.29243
113	80.8595	6.28928
114	80.8614	6.28854
115	80.8619	6.29128
116	80.8636	6.29128

Point No.	X Coordinate	Y Coordinate
117	80.8636	6.2934
118	80.8641	6.29567
119	80.8658	6.29402
120	80.8668	6.29655
121	80.8678	6.29474
122	80.8691	6.29552

Point No.	X Coordinate	Y Coordinate
123	80.8712	6.2942
124	80.871	6.2997



Map No. 19 : Green Conservation Zone (Part IV)

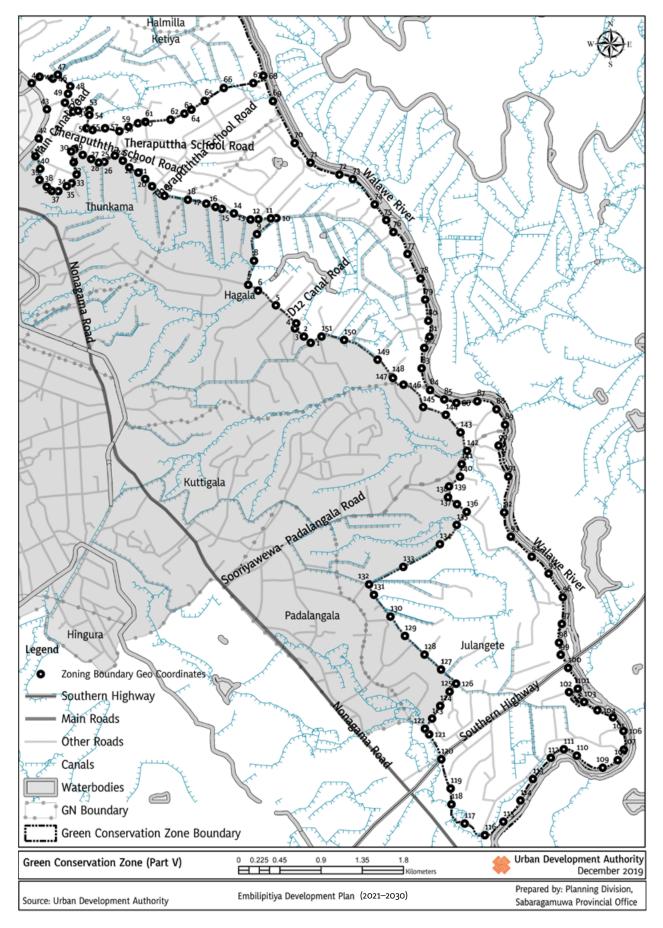
Green Conservation Zone IV - Zoning Boundary - Geo Coordinates

Point No.	X Coordinate	Y Coordinate
1	80.88362	6.336547
2	80.88277	6.335059
3	80.88177	6.334382
4	80.88156	6.333719
5	80.88162	6.332265
6	80.88161	6.331437
7	80.88165	6.330387
8	80.88166	6.329806
9	80.87989	6.32973
10	80.87823	6.329739
11	80.87787	6.330444
12	80.87695	6.331498
13	80.8761	6.332284
14	80.87559	6.334616
15	80.87538	6.335577
16	80.87502	6.337498
17	80.87467	6.338058
18	80.87356	6.337825
19	80.87247	6.337368
20	80.87113	6.336829
21	80.87015	6.336439
22	80.86825	6.336196
23	80.86639	6.336035
24	80.86511	6.335961
25	80.86517	6.335341
26	80.864	6.334055
27	80.86337	6.333323
28	80.86384	6.33216
29	80.864	6.330763
30	80.86314	6.328492
31	80.86314	6.327767
32	80.86376	6.328102
33	80.86411	6.327711
34	80.86514	6.328004
35	80.86585	6.328619
36	80.867151	6.328451
37	80.868713	6.328511
38	80.869683	6.328872
39	80.87063	6.328647
40	80.87177	6.328075
41	80.871992	6.327212

Point No.	X Coordinate	Y Coordinate
42	80.871918	6.326373
43	80.873017	6.325687
44	80.873791	6.32467
45	80.874477	6.325102
46	80.874915	6.324352
47	80.875818	6.323618
48	80.876449	6.32391
49	80.877563	6.322656
50	80.87775	6.321421
51	80.878216	6.320491
52	80.876696	6.319501
53	80.876065	6.318903
54	80.875596	6.318433
55	80.875018	6.317759
56	80.874718	6.315788
57	80.874888	6.314135
58	80.874534	6.313676
59	80.872964	6.312997
60	80.871208	6.312087
61	80.870633	6.310949
62	80.870899	6.310161
63	80.87109	6.309366
64	80.870689	6.306824
65	80.871095	6.306036
66	80.871968	6.306539
67	80.876388	6.309201
68	80.880063	6.309055
69	80.881253	6.308441
70	80.884671	6.307603
71	80.89011	6.306985
72	80.89276	6.304621
73	80.89419	6.303281
74	80.89497	6.30391
75	80.89677	6.304125
76	80.89801	6.302973
77	80.89748	6.301353
78	80.89878	6.300545
79	80.89975	6.300946
80	80.89989	6.300126
81	80.8996	6.29881
82	80.90107	6.298585

Point No.	X Coordinate	Y Coordinate
83	80.90285	6.298525
84	80.90469	6.299307
85	80.90541	6.299453
86	80.90791	6.299657
87	80.90996	6.300652
88	80.91128	6.301522
89	80.91316	6.302808
90	80.91607	6.303288
91	80.91706	6.304006
92	80.91654	6.306099
93	80.91501	6.309336
94	80.91303	6.31225
95	80.91211	6.314825
96	80.91052	6.316761
97	80.9089	6.319143
98	80.90664	6.320659
99	80.90536	6.325721
100	80.90638	6.328777
101	80.90889	6.332082
102	80.90773	6.334117
103	80.90444	6.334801
104	80.90246	6.335838
105	80.90178	6.336277
106	80.90141	6.336878
107	80.90089	6.336824
108	80.90085	6.338272
109	80.90077	6.339354
110	80.90003	6.339138
111	80.89835	6.338652
112	80.89667	6.338211
113	80.89588	6.339272
114	80.89465	6.339187
115	80.89502	6.338031
116	80.89527	6.337534
117	80.89316	6.337485
118	80.89113	6.336648
119	80.88931	6.33699

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Map No. 20 : Green Conservation Zone (Part V)

Green Conservation Zone V - Zoning Boundary - Geo Coordinates

Point No.	X Coordinate	Y Coordinate
1	80.91975	6.277172
2	80.91907	6.277793
3	80.9182	6.278594
4	80.91831	6.279112
5	80.9163	6.2809
6	80.91455	6.282355
7	80.91357	6.282923
8	80.91415	6.285302
9	80.91445	6.287948
10	80.91637	6.289527
11	80.91582	6.289502
12	80.91458	6.289429
13	80.91381	6.289395
14	80.91217	6.290002
15	80.91097	6.290433
16	80.91036	6.290628
17	80.90944	6.290959
18	80.90762	6.291352
19	80.90531	6.291734
20	80.9041	6.292694
21	80.90341	6.293402
22	80.90273	6.294034
23	80.90184	6.29456
24	80.90121	6.295221
25	80.90041	6.295729
26	80.89937	6.295111
27	80.89882	6.295039
28	80.89807	6.295378
29	80.89725	6.295801
30	80.89642	6.296364
31	80.89611	6.296134
32	80.89636	6.295057
33	80.89664	6.293864
34	80.89615	6.292996
35	80.89568	6.292701
36	80.89483	6.292204
37	80.89419	6.292221
38	80.8937	6.292641

Point No.	X Coordinate	Y Coordinate
39	80.89298	6.293329
40	80.89305	6.294415
41	80.89256	6.295662
42	80.89289	6.297431
43	80.8937	6.300314
44	80.8922	6.302902
45	80.89298	6.303532
46	80.89429	6.303358
47	80.89478	6.303747
48	80.89602	6.302595
49	80.89579	6.301848
50	80.89549	6.300975
51	80.89629	6.300066
52	80.89679	6.300167
53	80.89792	6.300237
54	80.8979	6.299747
55	80.89761	6.298432
56	80.89822	6.298259
57	80.89945	6.298435
58	80.90086	6.298146
59	80.90176	6.29858
60	80.9027	6.298928
61	80.90342	6.299074
62	80.90592	6.299278
63	80.90728	6.299877
64	80.90797	6.300274
65	80.90929	6.301144
66	80.91118	6.30243
67	80.91409	6.30291
68	80.91508	6.303628
69	80.91603	6.301117
70	80.91818	6.296968
71	80.91974	6.295025
72	80.92258	6.293844
73	80.92391	6.293393
74	80.92608	6.290888
75	80.92721	6.289342
76	80.92792	6.288141

Point No.	X Coordinate	Y Coordinate
77	80.92932	6.285978
78	80.9306	6.283546
79	80.93105	6.281455
80	80.93136	6.279356
81	80.9315	6.277779
82	80.93096	6.276662
83	80.9307	6.274651
84	80.93154	6.272507
85	80.93292	6.271579
86	80.93412	6.271223
87	80.93619	6.271385
88	80.93809	6.270588
89	80.93893	6.269063
90	80.9383	6.266993
91	80.93926	6.26394
92	80.93884	6.260378
93	80.9395	6.25797
94	80.94157	6.255993
95	80.94323	6.254326
96	80.94463	6.251983
97	80.94455	6.249327
98	80.94427	6.247474
99	80.94442	6.246281
100	80.94516	6.244969
101	80.94611	6.242911
102	80.94524	6.242576
103	80.94673	6.241596
104	80.94805	6.240781
105	80.94958	6.240081
106	80.95063	6.238717
107	80.95066	6.236875
108	80.95004	6.235837
109	80.94857	6.235082
110	80.94601	6.236286
111	80.94473	6.236909
112	80.94345	6.236065
113	80.94168	6.23397
114	80.94045	6.231851

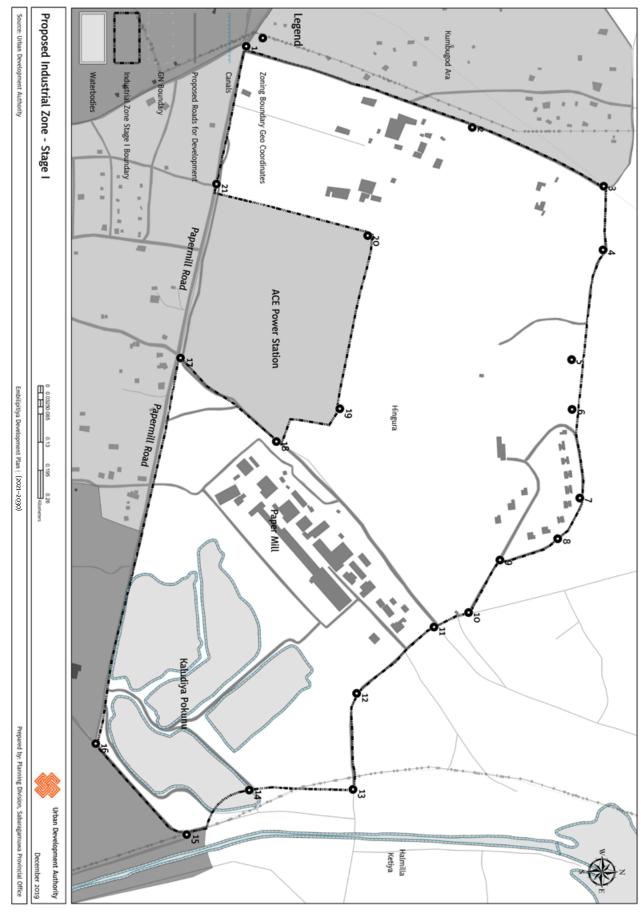
(366)

Point No.	X Coordinate	Y Coordinate
115	80.93875	6.229744
116	80.93693	6.228412
117	80.93494	6.22956
118	80.93363	6.231467
119	80.93355	6.233036
120	80.93263	6.235931
121	80.93143	6.238401
122	80.93101	6.238951
123	80.93172	6.239951
124	80.93253	6.241221
125	80.93345	6.24263
126	80.93409	6.243414
127	80.93261	6.244819
128	80.93098	6.246295
129	80.92904	6.248146

Point No.	X Coordinate	Y Coordinate
130	80.92762	6.250058
131	80.92598	6.252218
132	80.9255	6.253255
133	80.92888	6.254986
134	80.93249	6.257236
135	80.93416	6.259135
136	80.93514	6.260432
137	80.93419	6.261193
138	80.9333	6.261883
139	80.93339	6.262948
140	80.93448	6.26391
141	80.93466	6.26516
142	80.93518	6.266467
143	80.93453	6.2683
144	80.93308	6.270035

Point No.	X Coordinate	Y Coordinate
145	80.93086	6.270817
146	80.92892	6.27303
147	80.92786	6.273685
148	80.92781	6.273773
149	80.92636	6.275512
150	80.92305	6.27745
151	80.92082	6.277796

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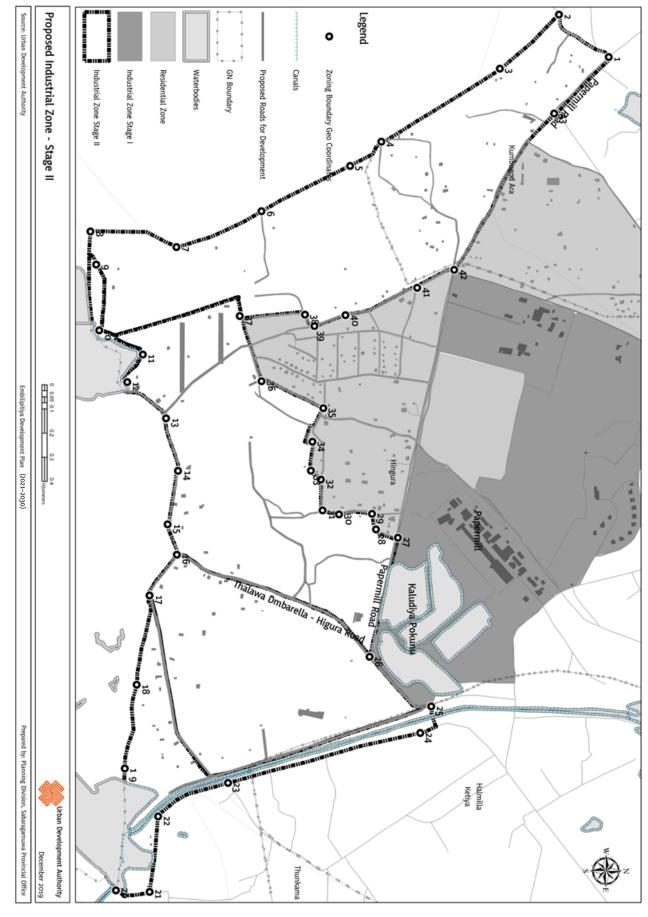
(368)

Map No. 21 : Proposed Industrial Zone - Stage I

Point No.	X Coordinate	Y Coordinate
1	80.844	6.28504
2	80.8457	6.28975
3	80.8469	6.29249
4	80.8482	6.29247
5	80.8505	6.29182
6	80.8516	6.29183
7	80.8534	6.29199
8	80.8543	6.29153
9	80.8547	6.29032
10	80.8558	6.28967
11	80.8561	6.28895
12	80.8575	6.28734
13	80.8595	6.28726
14	80.8595	6.2851
15	80.8604	6.2838

Proposed Industrial Zone - Stage I - Geo Coordinates	

Point No.	X Coordinate	Y Coordinate
16	80.8585	6.2819
17	80.8505	6.28367
18	80.8522	6.28567
19	80.8516	6.28699
20	80.8479	6.28757
21	80.8469	6.28442



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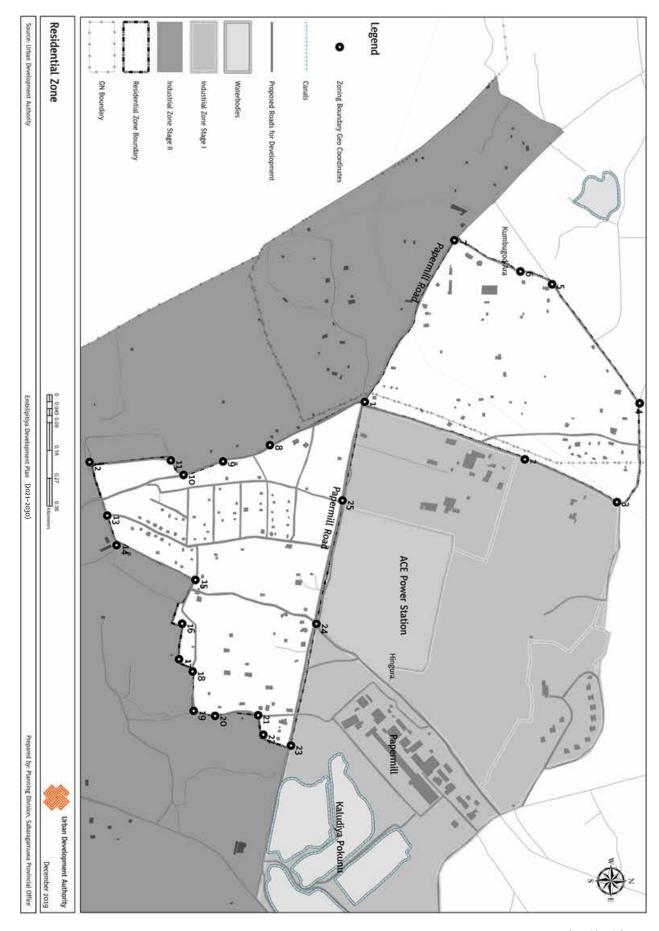
Map No. 22 : Proposed Industrial Zone - Stage II

Point No.	X Coordinate	Y Coordinate
1	80.83607	6.290803
2	80.83448	6.28894
3	80.8365	6.28673
4	80.83923	6.282294
5	80.84013	6.281129
6	80.84184	6.277811
7	80.84317	6.274628
8	80.84259	6.271412
9	80.84383	6.271628
10	80.84628	6.27174
11	80.84719	6.27337
12	80.84822	6.272787
13	80.84958	6.274238
14	80.85154	6.274685
15	80.85355	6.274297
16	80.85468	6.274642
17	80.8562	6.27362
18	80.85954	6.27314
19	80.86267	6.272693
20	80.86723	6.272361
21	80.86729	6.27362
22	80.86446	6.273941
23	80.86321	6.276556
24	80.86134	6.283748
25	80.86035	6.28416

Proposed Industrial Zone - Stage II - Geo Coordinates

Point No.	X Coordinate	Y Coordinate
26	80.8585	6.281853
27	80.85404	6.282914
28	80.85373	6.282094
29	80.85315	6.281943
30	80.85317	6.28071
31	80.85302	6.280095
32	80.85187	6.280031
33	80.85153	6.279658
34	80.85045	6.279716
35	80.8492	6.280124
36	80.84819	6.277812
37	80.84575	6.276997
38	80.8457	6.279436
39	80.84613	6.27979
40	80.84572	6.280952
41	80.8447	6.283635
42	80.84402	6.285022
43	80.83818	6.288763





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Map No. 23 : Proposed Residential Zone

Point No.	X Coordinate	Y Coordinate
1	80.844	6.28507
2	80.8457	6.28975
3	80.8469	6.29244
4	80.844	6.29311
5	80.8406	6.29055
6	80.8402	6.28963
7	80.8393	6.28769
8	80.8453	6.2823
9	80.8457	6.28093
10	80.8461	6.27977
11	80.8457	6.2794
12	80.8457	6.27702
13	80.8473	6.27754
14	80.8482	6.27781
15	80.8492	6.28012

Proposed Residential Zone - Geo Coordinates

Point No.	X Coordinate	Y Coordinate
16	80.8505	6.27973
17	80.8515	6.27964
18	80.8519	6.28004
19	80.853	6.28007
20	80.8532	6.28069
21	80.8531	6.28195
22	80.8537	6.2821
23	80.854	6.28291
24	80.8505	6.28366
25	80.8469	6.28442

Annexture 09 : Zoning Metrics

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	Uses	Commercial Zone I	Commercial Zone II	Administrative Zone	Tourist Service Zone	Agriculture Service Zone	Industrial Zone	Mix Residential Zone I	Mix Residential Zone II	Green Conservation Zone
	Residential Buildings									$\sqrt{*}$
	Flats									
ential	quarters									
Residential	Employee houses									
	Hostels									
	Housing Projects									
	Hospital									
	Private Hospitals									
	Medical Consulting Centers									
Health	Medical Centers									
He	laboratory Service Centers									
	Pharmacy									
	Ayurveda Spa									
	Gymnasium									
	Schools									
	Educational Institutions									
Education	Tuition									
Educ	Training Centers (Institutional/ Residential)									
	Vocational Training Center									
	Preschools									

	Uses		Commercial Zone II	Administrative Zone	Tourist Service Zone	Agriculture Service Zone	Industrial Zone	Mix Residential Zone I	Mix Residential Zone II	Green Conservation Zone
	Government Semi – Government and Private Institutions									
ıl	Administrative Complex									
Institutional	Professionals' offices									
Insti	Commercial Institutions									
	Banks and financial Institutions									
	Insurance Companies									
	Libraries									
	Playgrounds									$\sqrt{*}$
/ice	Indoor Stadiums									
Social Service	Theaters									
Soc	Auditorium, Conference Halls									
	Daycare Centers									
	Community Halls, Cultural Centers									
	Shops									
	Supermarkets									
	Commercial Complexes									
	Showrooms									
Commercial	Printing Presses									
Comn	Warehouses									
	Bakery									
	Fuel Filling Stations									
	Gas Filling Stations									
	Vehicle charging stations									

	Uses		Commercial Zone II	Administrative Zone	Tourist Service Zone	Agriculture Service Zone	Industrial Zone	Mix Residential Zone I	Mix Residential Zone II	Green Conservation Zone
	Tourist Hotels									
	Camping sites									
	Restaurants									$\sqrt{*}$
	Holiday Resorts									
u	Reception Halls									$\sqrt{*}$
Tourism	Hotels									
	Lodges									$\sqrt{*}$
	Guesthouse									
	Homestay									
	Tourist Information Centers									
	Small Scale Zoo									
	Vehicle Parts Sale Stores									
	Vehicle Sale Centers and Showrooms									
	Vehicle showrooms (Agricultural activities relate vehicles)									
Vehicle	Vehicle Parts and Machinery sale stores									
Ve	Garage									
	Vehicle Service Stations									
	Vehicle Parks									
	Multi story Vehicle Parks									
	Domestic Industries									
stry	Agro-based grinding industries and packaging industries									
Industry	Animal product Ind									
	Small, medium and Large Scale Industries, warehouses (production and Raw materials)									

Uses		Commercial Zone I	Commercial Zone II	Administrative Zone	Tourist Service Zone	Agriculture Service Zone	Industrial Zone	Mix Residential Zone I	Mix Residential Zone II	Green Conservation Zone
	Parks									
tion	Open Spaces									
Leisure and Recreation	Adventure Parks									
ure and	Leisure Parks									
Leis	Cinema									
	Social Club									
	Breeding Centers									
Agriculture	Plant Nursery									
Agricu	Agriculture Related Research and Training Centers									
	Agricultural Production Collection Centers									

 $\sqrt[]{*}$ – These uses are permitted only for all highlands in the Green Conservation Zone.

Abbreviation

Hon.	Honorable
plnr.	Planner
UDA	Urban Development Authority
EUC	Embilipitiya Urban Council
Sqkm	Square Kilometers
m	Meters
O/L	Ordinery Level
A/L	Advance Level
DSD	Divisional Secretariat Division
E- waste	Electronic Waste
GPS	Global Positioning System
ha	hectares
SWOT	Strengths, Weakness, Opportunities, Threats
Rs.	Rupees

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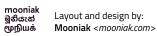
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Urban Development Authority Ministry of Urban Development & Housing