## **KULIYAPITIYA DEVELOPMENT PLAN 2023-2033**

"Opulent Agro - Techno City"





# KULIYAPITIYA DEVELOPMENT PLAN (2023 - 2033)



URBAN DEVELOPMENT AUTHORITY

MINISTRY OF URBAN DEVELOPMENT AND HOUSING

#### Kuliyapitiya Development Plan 2023 - 2033

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#### **Publication**

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Website - www.uda.gov.lk, E - Mail - info@uda.gov.lk Phone Number - +94112873637

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The Kuliyapitiya Development Plan for 2023–2033 consists of three main parts: Part I, Part II, and Part III. Part I includes the introduction of the Development Plan, Preliminary Study, Need for the Development Plan, vision of the development plan, goals and objectives, conceptual plan, and development strategy plan. Part II of the development plan contains planning and building development regulations and zoning regulations effective for the period of 2023–2033. The final section of the development plan, Part III, encompasses zoning boundaries with coordinates and all relevant annexures.

The Kuliyapitiya Development Plan for 2023–2033 was prepared by the North Western Provincial Office of the Urban Development Authority.

#### **Supervision**

Mr. Nimesh Herath - Chairman - U.D.A., Plnr. N.P.K. Ranaweera - Director General - U.D.A., Architect Mahinda Vithanarachchi - Additional Director General - U.D.A., Plnr. M.P. Ranatunga - Deputy Director General (Planning - Zone I) Plnr. Mr. N.A.S.N. Nissanka - Deputy Director General (Projects) - U.D.A., Plnr. E.M.S.B. Ekanayake - Director - Central Province - U.D.A., Lawyer D. M Kirivattuduwa, Director (Legal), U.D.A., Plnr. Roopa Ranjani - Director (Strategic Planning)

#### **Planning Team**

Plnr. Mrs.R.L.P.P. Nawarathne - Director (North Western Province) - U.D.A., Plnr. R.M.J.B. Rathnayake - Deputy Director (Planning) - U.D.A., W.M.U. Somasiri - Deputy Director (Planning Suport) - U.D.A., Plnr. I. M. P. Jayathilake - Assistant Director (Planning) - U.D.A., Plnr. B.G.U. Dayangani - Town Planner - U.D.A., N.P.A. Thilakaratne - Enforced Planner - U.D.A., Plnr. P.P.D. Rajapakshe - Town Planner U.D.A., - Plnr. A.G.D.D. Rathnayake - Town Planner - U.D.A., N.P.A. Kumarihami - Seniour Draftmen - U.D.A., M.T.U. Premathilaka - Computer Operator - U.D.A.

#### **Supporting Team - Urban Development Authority**

- Strategic Planning Division Urban Development Authority (Supervision, Regulating and gazetting)
- Environment and Landscape Division Urban Development Authority (Prepare the PORS, DRR and Conservation Plans)
- Geographical Information Systems Division, Urban Development Authority (Provide Technical assistance and the GIS data base)
- Research and Development Division Urban Development Authority (Awareness programs for the introduction of new technologies)

#### Acknowledgement

The Kuliyapitiya Development Plan (2023–2033) was prepared under the initial supervision of the North Western Provincial Office of the Urban Development Authority with the objective of achieving sustainable environmental, social, economic, and physical development to the people of the area.

We extend our respectful thanks to the Honorable Minister of Urban Development and Housing, Mr. Prasanna Ranatunga, for approving the Kuliyapitiya Development Plan (2023–2033) under the provisions of the Urban Development Authority Act No. 41 of 1978 as amended by Act No. 04 of 1982.

We express gratitude to the former Chairman of the Kuliyapitiya Urban Council, Mr. A.M. Lakshman Adhikari, the former Chairman of the Kuliyapitiya Pradeshiya Sabha, Mr. Wijayasiri Ekanayake, and the Secretary and all officers of the office on behalf of the Planning Team and the Urban Development Authority.

Our extended special thanks to Mr. Nimesh Herath, Chairman of the Urban Development Authority; Plnr. N.P.K. Ranaweera, Director General of the Urban Development Authority; Archt. Mahinda Vithanachi, Additional Director General; Plnr. M.P. Ranatunga, Deputy Director General (Planning - Zone I); Plnr. N.A.S.N. Nissanka, Deputy Director General (Projects); Lawyer D.M. Kirivattuduwa, Director (Legal); and Plnr. Roopa Ranjani, Director (Strategic Planning), for their courage and guidance in preparing this plan.

We also acknowledge Chartered Landscape Architect C.K.E. Kalupana, Director of the Environmental and Landscape Division, and all officers of the division, as well as the Director of the Geographical Information Systems (GIS) Division, Plnr. J.P.S. Somasekara, and all officers of the division and Strategic Planning Division and staff members of all divisions are gratefully acknowledged on behalf of the planning team for their support in the successful completion of this task.

#### Honorable Minister's Foreword



"Kuliyapitiya Development towards reality."

The President Ranil Wickremesinghe's vision policy underscores the necessity of implementing new development plans to direct the nation towards achieving its objectives of fully developing Sri Lanka by 2048. The Urban Development Authority (UDA) plays a crucial role in implementing and enforcing urban development plans to address gaps and disparities between districts within the same province and cities within the same district, stemming from the rapid urbanization process in the country.

In line with this vision, the Urban Development Authority (UDA) has already gazette development plans for 26 identified cities, with plans to prepare and legalize development plans for an additional 50 cities by the end of the year. The Kuliyapitiya Urban Development Plan is among those slated for implementation. The Urban Development Authority aims to prepare a total of more than 130 urban development plans by 2024.

The Kuliyapitiya Development Plan places priority on the services provided to the urban area's residents and aims to develop it further as a service center. The plan identifies the area's natural ecosystem and economic assets for the benefit of the urban population in a systematic manner.

During the preparation of this plan, input was gathered from professionals, experts, stakeholders, and the community, incorporating modern analytical techniques and approaches.

I extend my appreciation to the Chairman, Director General of the Urban Development Authority, planning teams, and all officers involved in making this plan a success. I am confident that with the cooperation and participation of relevant local authorities, public and private sector institutions, and the general public, the Kuliyapitiya Development Plan (2023–2033) will be successfully implemented.

#### **Prasanna Ranatunga**

Minister of Urban Development and Housing

#### Hon. Chairman's Foreword - Urban Development Authority



The Urban Development Authority is the main responsible agency for the preparation and implementation of plans related to the management of urban areas in Sri Lanka. The primary objective of establishing the Urban Development Authority in 1978 was to develop and regulate developments in those areas through integrated planning and implementation.

Accordingly, under Section 8 (1) of the Urban Development Authority Amendment Act (Part IIA) No. 4 of 1982, the Authority is empowered to prepare development plans for the urban areas which are declared by the Minister in charge of the subject. Accordingly, the Kuliyapitiya Development Plan has been prepared by considering the physical, economic social and environmental aspects of the area.

The Urban Development Authority has prepared the Kuliyapitiya Development Plan to be effective from 2023 to 2033 by using the modern planning strategies.

Kuliyapitiya Development Plan has adopted a strategic approach to optimally utilize the potential to ensure favorable developments in the planning area by identifying the problems in the planning area and further regulating the development zones and zoning regulations through the prepared development plan. I, therefore, call upon all stakeholders and the public to contribute towards the realization of this vision through the implementation of this plan in order to serve the needs of the general public.

I would like to express my heartfelt thanks to the planning team of the Urban Development Authority who supported the successful completion of the Kuliyapitiya Development Plan within the stipulated time. I am also grateful to all the stakeholders and the community who have supported and contributed to the successful completion of this task and hope that all of you will continue to extend their utmost support for the successful implementation of the plan.

#### **Nimesh Herath**

Chairman

Urban Development Authority.

### Foreword by former Presidents of Kuliyapitiya Urban Council and Pradeshiya Sabha





The Urban Development Authority, a pioneer agency in Sri Lanka's urban development for over four decades, has partnered with local administrative institutions to create a livable urban area with a well - planned land use pattern to meet all urban needs and well-being of the inhabitants.

The Kuliyapitiya Urban Council, spanning 20 Grama Niladhari divisions, and with the western part of the Pradeshiya Sabha area declared as an urban development area in 2020, shapes our strategy towards fostering holistic and fair advancement. This requires seamless cooperation between local authorities to ensure balanced development across physical, economic, social, and environmental realms. As the local development agency, the Kuliyapitiya Urban Council (UC) and Pradeshiya Sabha (PS) holds a central role in propelling this agenda forward, prioritizing the well-being of its community above all else.

The Kuliyapitiya Urban Development Plan for the period 2023–2033 has been prepared by the North Western Provincial Office of the Urban Development Authority, aligning with legal frameworks to steer the area's development in a positive direction. The plan aims to cater to the future residential and urban communities, addressing their daily living needs and maximizing economic and social benefits through existing development potential.

Representatives of the Kuliyapitiya urban council and Pradeshiya Sabha, including us, are dedicated to realizing the vision of transforming the Kuliyapitiya urban development area into a thriving urban area through this urban development plan. We are committed to fulfilling our responsibilities and duties toward this noble purpose.

A.M. Lakshman Adhikari Former Chairman Urban Council Kuliyapitiya Vijayasiri Ekanayake Former Chairman Pradeshiya Sabha (West) Kuliyapitiya

#### **Preface**

Kuliyapitiya Urban Council area was declared the as an Urban Development Area by the Extraordinary Gazette Notification No. 100/04 on 04<sup>th</sup> August 1980, and an area of about 39.74 square kilometers, which is part of the Kuliyapitiya Pradeshiya Sabha area, was declared as an Urban Development Area by the Gazette Extraordinary No. 2209/12 dated 04<sup>th</sup> January 2021. Accordingly, an area of 44 square kilometers has been declared as an urban development area at present.

The Kuliyapitiya Development Plan for 2023–2033 consists of three main parts: Part I, Part II, and Part III. Part I includes the introduction of the Development Plan, Preliminary Study, Need for the Development Plan, vision of the development plan, goals and objectives, conceptual plan, and development strategy plan. Part II of the development plan contains planning and building development regulations and zoning regulations effective for the period of 2023–2033. The final section of the development plan, Part III, encompasses zoning boundaries with coordinates and all relevant annexures.

In Part I, the first chapter elucidates the background of the development plan, introducing its nature, stakeholders involved, the scope it encompasses, and the planning process employed. Chapters two and three offer a comprehensive analysis of the study area, including its historical context, the delineation of the planning area, and the pressing need for the development plan. Chapter four delineates the overarching vision and objectives of the plan, while chapter five conducts a detailed SWOT analysis, identifying the strengths, weaknesses, opportunities, and threats. Chapter six proceeds to detail the conceptual plan and proposed land use plans, along with the Infrastructure Development Strategy Plan, Social Infrastructure Development Strategic Plan, Transportation Plan, Economic Development Strategy Plan, Sustainable Environmental Strategic Plan, and Project Implementation Strategy Plan.

In Part II, chapter seven delineates plans and building regulations, chapter eight specifies identified zones and zoning regulations, and chapter nine includes proposed road widths, building lines, and details of protected areas.

Therefore, the relevant authority and the Government of Sri Lanka anticipate the implementation of the Kuliyapitiya Development Plan 2023–2033, relying on the comprehensive framework delineated within the plan.

#### Hon. Minister's Approval

#### APPROVAL OF THE DEVELOPMENT PLAN FOR THE LIMIT OF KULIYAPITIYA URBAN COUNCIL, PART OF THE PRADESHIYA SABHA LIMIT OF KULIYAPITIYA

I, Prasanna Ranathunga, Minister of Urban Development and Housing do hereby approve the Development Plan for the limit of Kuliyapitiya Urban Council, Part of the Pradeshiya Sabha limit of Kuliyapitiya after consideration of recommendation made by the Board of Management of the Urban Development Authority on 11th May 2023 by virtue of the powers vested in me under section 8(F) of the Urban Development Authority (Amendment) Act No. 4 of 1982.

Minister of Urban Development and Minister of Urban Development and Minister of Urban Development and Washington Setheringsya Battarameter

Minister of Urban Development & Housing

Ministry of Urban Development & Housing, 17th and 18th Floors,

"Suhurupaya",

Subhuthipura Road,

Battaramulla,

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#### **Gazette Notification**



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#### PART I: SECTION (I) - GENERAL

#### **Government Notifications**

APPROVAL OF THE DEVELOPMENT PLAN FOR THE LIMIT OF KULIYAPITIYA URBAN COUNCIL, PART OF THE PRADESHIYA SABHA LIMIT OF KULIYAPITIYA

I, Prasanna Ranathunga, Minister of Urban Development and Housing do hereby approve the Development Plan for the limit of Kuliyapitiya Urban Council, Part of the Pradeshiya Sabha limit of Kuliyapitiya after consideration of recommendation made by the Board of Management of the Urban Development Authority on 11th May 2023 by virtue of the powers vested in me under section 8(F) of the Urban Development Authority (Amendment) Act, No. 4 of 1982.

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

Ministry of Urban Development & Housing, 17th and 18th Floors, "Suhurupaya", Subhuthipura Road, Battaramulla, 21st July, 2023.



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#### F 105.1

### NOTICE OF APPROVAL OF THE DEVELOPMENT PLAN FOR LIMIT OF KULIYAPITIYA URBAN COUNCIL, PART OF THE PRADESHIYA SABHA LIMIT OF KULIYAPITIYA

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, Prasama Ranathunga, the Minister in charge of the subject of Urban Development & Housing, by virtue of the powers vested in me under Section 8 (F) of the said Act No. 4 of 1982 have approved the Development Plan for Limit of Kuliyapitiya Urban Council, Part of the Pradeshiya Sabha Limit of Kuliyapitiya prepared under Section 8 (A) of the said Act on the day of 28th, April 2023.

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

Ministry of Urban Development & Housing, 17th and 18th Floors, "Suhurupaya", Subhuthipura Road, Battaramulla, 28th July, 2023.

#### APPROVAL OF THE DEVELOPMENT PLAN FOR THE LIMIT OF KULIYAPITIYA URBAN COUNCIL, PART OF THE PRADESHIYA SABHA LIMIT OF KULIYAPITIYA

PUBLIC are hereby informed that the Development Plan prepared for the Limit of Kuliyapitiya Urban Council, Part of The Pradeshiya Sabha Limit of Kuliyapitiya 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 31st October 2022, by Hon. Prasama Ranathunga, Minister of Urban Development & Housing, by virtue of powers vested on him under Section 8 (F) of the said Act.

Nimesh Herath, Chairman, Urban Development Authority.

28th July 2023.

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## Part I

Background of the Development Plan

#### Background of the development plan

Chapter 01

Background of development plan

Introduction

#### 1.1 Introduction

The Urban Development Authority is granted with the authority to undertake physical development and implementation of the development plans within spatial regions which are declared as Urban Development areas, as outlined in Sections 3 (1) and (2) of the Urban Development Authority Act No. 41 of 1978. Furthermore, the Urban Development Authority is empowered to formulate development plans for these declared areas, pursuant to Section 8 II A of the Urban Development Authority (Amendment) Act No. 4 of 1982.

The jurisdiction of the Kuliyapitiya urban development declared area originally encompassed three Grama Niladhari divisions: Meegahakottuwa, Kuliyapitiya Town, and Assadduma. However, due to rapid commercial expansion beyond the Kuliyapitiya Urban Council area and significant growth in the education sector, the development area has been expanded. As a result, the authority's jurisdiction now includes 23 Grama Niladhari divisions, covering a total area of 44.4 square kilometers. This expansion is officially documented in Gazette Notification No. 2209/12, dated January 4<sup>th</sup>, 2021.

The Kuliyapitiya Urban Council area was declared as an Urban Development Area by Extraordinary Gazette Notification No. 100/04 on August 4<sup>th</sup>, 1980, encompassing an area of approximately 39.74 square kilometers, which includes 03 Grama Niladhari divisions (Meegahakottuwa, Kuliyapitiya Town, Assadduma). Additionally, a portion of the Kuliyapitiya Pradeshiya Sabha area was declared an Urban Development Area by Gazette Extraordinary No. 2209/12 dated January 4<sup>th</sup>, 2021. Consequently, the current urban development area spans a total of 44 square kilometers.

Recognizing the proposed area's fertile agricultural nature, the Urban Development Authority has designated Kuliyapitiya as an urban area for

Background of development plan

Stakeholders of the Development Plan

systematic development, with a strategic focus on integrating the agricultural economy into its urban development plan, thereby ensuring the preservation and enhancement of the region's agricultural heritage and economic potential.

#### 1.2 Stakeholders of the Development Plan

In the process of preparing the development plan, the views and suggestions of the relevant stakeholders was obtained at various times from its inception to the end. Accordingly, at various stages of the plan preparation process i.e., data collection, identification of issues and potential related to areas, data analysis, preparation of strategic plans and formulation of regulations, assistance of relevant stakeholders was sought.

#### **Key Stakeholder**

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

#### **Basic Consultancy Agencies**

#### **Consultancy Institutions related to Economic Affairs**

- 1. Provincial Department of Agriculture Kurunegala
- 2. Three-Wheeler Owners Association Kuliyapitiya
- 3. Trade Union Kuliyapitiya
- 4. Department of Agrarian Services Kuliyapitiya
- 5. Coconut Development Board Kuliyapitiya
- 6. Department of Valuation Kurunegala

#### **Environmental Consultancy Agencies**

- 1. Central Environmental Authority Kurunegala
- 2. Department of Wildlife conservation Kurunegala
- 3. National Building Research Organization (NBRO) Kurunegala
- 4. Disaster Management Centre (DMC) Kurunegala
- 5. Sri Lanka Land Development Corporation

Background of development plan

Stakeholders of the Development Plan

#### **Infrastructure Related Consultancy Institutions**

- 1. Sri Lanka Telecom Kuliyapitiya
- 2. Road Development Authority Kurunegala
- 3. Private Bus Owners Association Kuliyapitiya
- 4. Road Passenger Transport Authority Kurunegala
- 5. Sri Lanka Transport Board Kuliyapitiya
- 6. Sri Lanka Electricity area Board Kuliyapitiya
- 7. Provincial Road Development Authority Kurunegala
- 8. Office of the Medical Officer of Health Kuliyapitiya
- 9. Teaching Hospital Kuliyapitiya
- 10. Chief Public Health Inspector Kuliyapitiya
- 11. National Housing Development Authority Kurunegala
- 12. National Water Supply and Drainage Board
- 13. Department of Irrigation Katugampola
- 14. Solid Waste Management Centre Kuliyapitiya
- 15. Agrarian Service Centre Kuliyapitiya
- 16. Police (Traffic/Crime) Kuliyapitiya
- 17. Zonal Education Office Kuliyapitiya

#### **Other Stakeholder Groups**

- 1. Department of National Physical Planning
- 2. Community Leaders
- 3. Community Based Organizations (CBOs)

#### 1.3. Scope of the Development Plan

A development plan serves as a legal framework that directs the physical, social, economic, and environmental aspects of an area according to a formal strategy. In doing so, the development agency guides the lives of area residents towards sustainable existence through strategic initiatives. During the preparation of development plans, it is expected that the plan will align with a long - term development vision by analyzing generally accepted data. Accordingly, the aim of this plan is to establish economic, physical, social, and environmental interconnectedness within the area, addressing future challenges in line with current government policies and the potential for development.

The National Physical Development Plan 2017 - 2050 has designated Kuliyapitiya as a suitable area for agricultural development and as a center for innovation - based services. Additionally, with the establishment of the Wayamba University, a rapid development is occurring in this region. Concurrently, the development plan has outlined strategies for the growth and integration of technical schools, medical faculties, and the education sector within this context.

A key focus of the plan is to create a comfort and favorable living environment for inhabitants, strengthen economic activities, and preserve the natural and ecological areas and other elements of the region. To achieve this, the plan emphasizes the development of low and middle housing density in residential areas and aims to lay the ground for new development projects that will attract investment to the area. Moreover, the land use plan is considered to encompass physical and social infrastructure development, economic growth strategies, sustainable environmental practices, and an implementation strategy by emphasizing economic, social, environmental, and physical components of the area.

It is noteworthy that the Kuliyapitiya Urban Development Plan (2023 - 2033) has been prepared to promote sustainable development by integrating these development objectives and creating a framework for both long - term and short

Chapter 01

Background of development plan

Scope of the Development Plan

Kuliyapitiya Development Plan 2023-2033 Urban Development Authority

Chapter 01

Background of development plan

Scope of the Development Plan

- term development projects. This comprehensive approach aims to steer Kuliyapitiya towards sustainable growth and prosperity.

All water resources such as tanks, rivers, oyas, canals, etc., should be maintained by the relevant institutions to implement the reserves declared by those institutions. In the absence of proper maintenance, measures have been taken to protect water resources by implementing the relevant Building Lines regulated by the Urban Development Authority. Additionally, a new drinking water supply project is underway, led by the National Water Supply and Drainage Board (NWSDB). The strategies and projects presented have focused on optimizing the development of buildings, infrastructure, and physical resources within the area to realize the vision of the development plan,

The environmental plan was introduced to integrate into the development plan prepared for the Kuliyapitiya Urban Area. This plan encompasses the following components:

- Wetland plan
- Landscape Management Plan
- Disaster Mitigation Plan
- Proposed Public Recreation and Open Space Plan

In the aforementioned plans, there is an expectation to preserve the existing paddy fields, wetlands, and forests. The development plan aims to establish a zone with a sustainable environmental policy to ensure the conservation of these natural resources.

Aligned with the policy of fostering productive citizens and community, the development plan incorporates policies promoting wise citizenship and a knowledgeable society. It emphasizes innovations in school education, universities, and higher professional education to foster a higher education system that produces skilled professional technologists. These policies are integral components of the development plan aimed at shaping a progressive and forward - looking community.

#### 1.4. Planning Process

The Kuliyapitiya Development Plan for 2023 - 2033 has been prepared by using strategic planning methodologies, structured around three key strategies:

Chapter 01

Background of development plan

**Planning Process** 

#### Where are we now?

This phase involves an in - depth assessment of the current situation. Laws and regulations are reviewed and updated to align with new policies aimed at achieving past, present, and future development objectives. Through background studies and stakeholder feedback, data is collected and analyzed to identify the area's potential and existing challenges. This analysis helps define the fundamental factors influencing these challenges and potentials, including their context, impact, and significance.

#### Where do we want to go?

Based on the identified issues and developments, a vision for the development during 2023 - 2033 is formulated, along with specific development goals and objectives to realize this vision. A SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis is conducted for each target area to assess its internal and external dynamics.

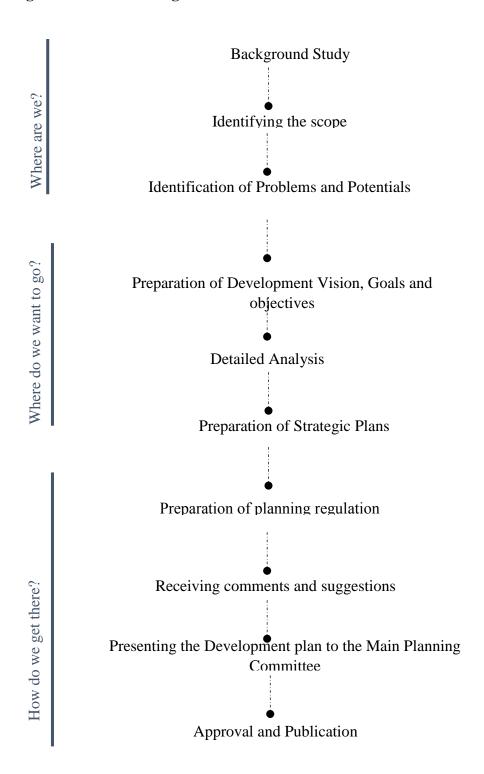
#### How do we get there?

After establishing the vision, goals, and objectives, the Kuliyapitiya Development Plan for 2023 - 2033 proceeds to develop strategic planning approaches tailored to each goal. These strategies are informed by data gathered from the SWOT analysis and other assessments, shaping the direction of physical, economic, social, and environmental development in Kuliyapitiya. Specific projects are then identified and planned as part of the overall strategy. Additionally, laws and regulations are prepared to facilitate the smooth implementation of these development plans. Throughout this process, stakeholder input is actively sought and integrated to ensure that community needs and aspirations are aligned with the proposed strategies. This collaborative approach helps in realizing the identified vision for the area's development in a way that is inclusive and reflective of local priorities.

Background of development plan

**Planning Process** 

Figure No. 1.1: Planning Process



Source: Urban Development Authority, 2023

#### **Step 01 - Background Study**

During the preparation of the Kuliyapitiya urban area development plan 2023 – 2033, data related to the physical, social, economic, and environmental sectors was analyzed. Relevant required information from various agencies such as the National Physical Planning Department, Road Development Authority, Provincial Road Development Authority, Divisional Secretariats, and Health and Educational Offices, as well as the Ceylon Electricity area Board, National Water Supply and Drainage Board, was collected and analyzed. This data included maps depicting land use, infrastructure expansion, housing growth, population trends, and the environmental status of the urban area.

#### **Step 02 - Identifying Scope**

In this stage, the urban area's location within the urban hierarchy was assessed based on the needs identified by national - level plans concerning the Kuliyapitiya development area and the ongoing and proposed development activities in the region.

#### Step 03 - Identifying Issues and Development Potential

Development potential and problematic situations within the urban area were identified by analyzing views expressed by resource persons, stakeholders from public and private sectors, and societal companies regarding the urban area's development possibilities. Similarly, an awareness program was conducted at Kuliyapitiya Town Hall on 10.02.2020, and problems and concerns were validated through NVIVO analysis (Annexure No. 01).

#### Step 04 - Identify Vision, Goals, and Objectives

The vision, goals, and objectives were formulated to drive the urban area towards balanced development across environmental, economic, social, and physical sectors while addressing existing problematic situations.

#### **Step 05 - Detailed Analysis / Data Analysis**

Data analysis was conducted to establish objectives, particularly focusing on economic, social, physical, and environmental patterns analyzed primarily through Geographic Information Systems (GIS). Multi - model analysis identified sensitive zones, development trends, and directions using sensitivity analysis, spatial network analysis, integration analysis, regional connectivity,

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and connectivity analysis. This data analysis was conducted through SWOT analysis, NVIVO, and Spatial Network Analysis.

#### Step 06 - Identifying the Development Plan and Strategy

To achieve the goals, proposed land use plans, zoning plans, road and transport plans, and agricultural development plans were prepared in a manner integrating physical, environmental, economic, and social aspects.

#### **Step 07 - Preparation of Planning Regulations:**

A legal framework was established, comprising laws and regulations related to building development, land use regulations necessary for development plan implementation, and addressing current and anticipated future problems to align with the development plan's vision.

#### **Step 08 - Obtaining Views of the Local Authority**

The Draft Development Plan was presented to the public and local authorities to gather public awareness, opinions, and suggestions over a 60 - day period. The development plan was also made available for public comments on the official website of the Urban Development Authority (www.uda.gov.lk). Furthermore, workshops were organized at the head office where the Draft Development Plan was presented to Urban Development Authority officials, gathering final views and suggestions from them.

### Step 09 - Presenting the Development Plan to the Main Planning Committee

At this stage, the Draft Development Plan, incorporating views and suggestions from local authorities and stakeholders, was submitted for approval to the Main Planning Committee. The final development plan was prepared considering the views and suggestions of the Main Planning Committee.

#### **Step 10 - Declaration of Approval**

After considering stakeholder and Main Planning Committee feedback, revised plans were approved by the responsible Minister and published for implementation in the Gazette.

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## Chapter 02

### **Preliminary Study**

#### **Preliminary Study**

Chapter 02

Preliminary Study

Study Area

#### 2.1. Study Area

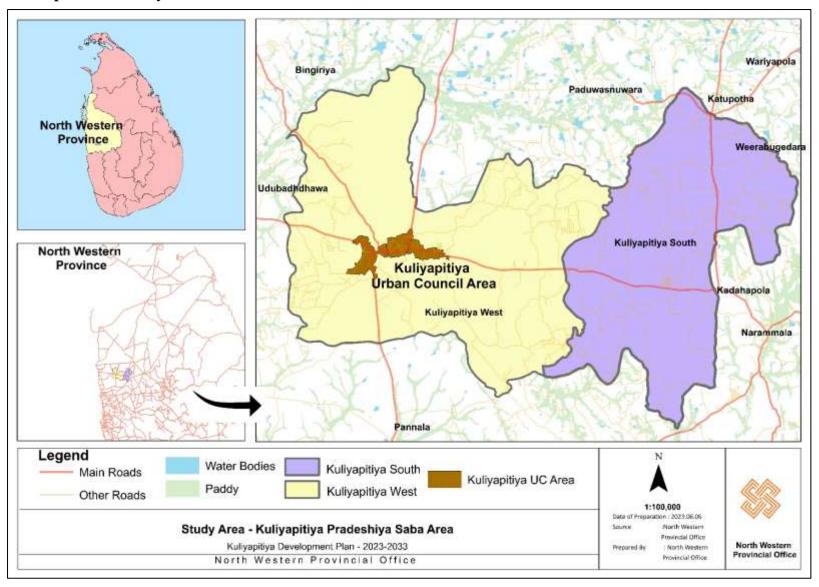
Kuliyapitiya is the second largest urban area in the Kurunegala district of the Northwestern Province of Sri Lanka. It is situated 82 kilometers northeast of Colombo and 39 kilometers from Kurunegala. Kuliyapitiya comprises two Divisional Secretariat Divisions: Kuliyapitiya West and Kuliyapitiya East. Kuliyapitiya West Divisional Secretariat Division includes 68 Grama Niladhari Divisions, while Kuliyapitiya East Divisional Secretariat Division comprises 45 Grama Niladhari Divisions. The area covers 277.2 km², accounting for 5.6% of the total area of the Kurunegala district.

Kuliyapitiya West and East are bordered by the Paduwasnuwara Pradeshiya Sabha (PS) to the north, Panala Pradeshiya Sabha (PS) to the south, Narammala Pradeshiya Sabha (PS) to the east, and Udubaddawa Pradeshiya Sabha (PS) to the west. (Refer map No. 2.1.1. Study Area)

In addition, the Wayamba University, established in January 1999, is the thirteenth National University of Sri Lanka and is located in Kuliyapitiya. The Kuliyapitiya geographically situated at an elevation of 75 - 100 feet above sea level, and it is positioned at north latitude 7° 28′ 14" N and east longitude 80° 2′ 44" E. The climate in Kuliyapitiya is characterized as temperate and tropical throughout the year.

The main economic activities in this region include animal husbandry, coconut cultivation, and paddy cultivation. These activities play a significant role in the local economy and livelihoods of the people in Kuliyapitiya.

Map No. 2.1: Study Area



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Study Area

Source: Urban Development Authority, 2023

**Preliminary Study** 

Planning and Situational Context

#### 2.2. Planning and Situational Context

A brief study was conducted to explore the historical evoluation of the Kuliyapitiya Planning Area within the context of planning context and situational analysis. The study also examined the linkages of the Planning Area with other regions at national and regional levels. Additionally, the study provided comprehensive information on the physical, economic, social, and environmental aspects of the area.

#### 2.2.1. Historical Background and Evolution

Kuliyapitiya is an area of historical significance located in the Kurunegala district of the North - Western Province. The Sri Sudharmarama Viharaya, situated in the village of Dandagamuwa within this area, has a history dating back to the Anuradhapura period. It is believed that this land served as a fortress during the Portuguese or Dutch periods. Part of the "Dambagolla Oya" flowing to the north of this temple is still referred to as the "Cannon Wall."

It is worthwhile to study the history of the Kurunegala district itself to understand the history of Kuliyapitiya. The evolution of Kurunegala as a kingdom dates back to the 14<sup>th</sup> century when the Dalada was captured and made the Kingdom of Kurunegala during the reign of King Bhuvanekabahu II. Subsequently, it was ruled by his son Prince Parakramabahu, anointed as Parakramabahu IV (1302 - 1326).

Notably, four of the kingdoms in Sri Lanka were situated within the Kurunegala district: Paduasnuwara, Dambadeniya, Yapahuwa, and Kurunegala itself. Kurunegala's selection as a kingdom was due to the presence of rocks, including Athugala, forming a natural protective ring, coupled with the area's security and fertile land. The ruins of rajavasale and the Dalada palace belonging to the Kurunegala kingdom are said to be located at the base of Athugala, though currently obscured by modern settlements.

Kurunegala was recognized as a significant protected urban area in Sri Lanka due to its unique geographical features, serving as the main administrative urban area of Sri Lanka for over 54 years. This capital city contributed significantly to religious and academic activities in the country. Legends abound in

Kurunegala, including the story of Kuveniya's palace in Kurunegala stone, surrounded by sapta rock, where King Vijaya resided. About 400 years ago, Kurunegala was a center of control in the old Seven Korala, a sparsely populated habitat since the monarchical era.

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The origion of Kuliyapitiya's history can be traced to the Dandagamuwa Oya. During the Dambadeniya period beginning in 1236 and the subsequent Kingdom of Kandy, Kuliyapitiya functioned as a major operational center. A notable figure, Migasthenne Adhikaram, lived in Migasthane Adhikaram Walawa and ruled over the Satkorala from this area.

In 1833, the English recognized the Sat Korala region as conducive to coconut production, with Kuliyapitiya being a focal point in the coconut triangle. The expansion of coconut cultivation from that year led to the development of new road systems connecting Chilaw, Madampe, Negombo, and Puttalam. By 1847, coconut cultivation had rapidly spread across the Four Koralas, with a suitable climate seen in The Seven Corals.

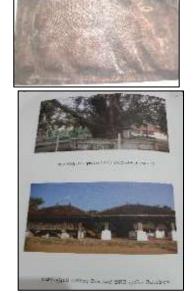
Governor Edward Barnes, succeeding Governor Browning, constructed roads like the Colombo - Kandy road, fostering development in suburbs connecting Kurunegala, Kuliyapitiya, and Madampe to Puttalam. Kuliyapitiya experienced significant development due to enhanced transportation facilities and increased urbanization trends.

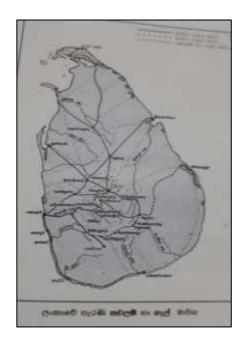
As a result of road development, Kurunegala, the capital urban area of the North - Western Province, and Kuliyapitiya, considered the capital urban area of Sath Korala joined in the development process. Although Kuliyapitiya has been honored with the Modern Swarnapuravara Award, some qualifications for being anointed as Swarnapura can be discerned in the exploration of ancient Vatagotha. Cultural and Ancient Places (Annexure No. 2)

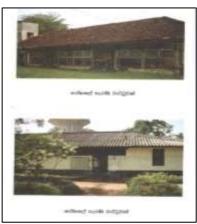
- i. Dandagamuwa Sri Sudharmaramapurana Tampita Viharaya.
- ii. Sri Bodhi Dharmarama Purana Viharaya at Konghagara.
- iii. Yakarawatta Purana Siddha Pathini Temple.
- iv. Udayagama Sri Nagabodhi Tampita Viharaya.
- v. Koduruwapola Rajamaha Viharaya.
- vi. Ganagamuwa Sri Poorvarama Tampita Viharaya.
- vii. Annaruwa Sri Vijayasundararama Archaeological Site.

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Figure No 2.2.1: Old Photos - Kuliyapitiya









Source: Sumanasiri Thero of Apaladeniya

#### Becoming an urban area in Kuliyapitiya

Kuliyapitiya transitioned into an urban area during the 1940s and 1950s. Historical records indicate that Kuliyapitiya was formerly known as Dandagamuwa. Locations like Kurunegala, Naramala, Kuliyapitiya, and Madampe served as pivotal stops for transportation between the upcountry and lowlands for bullock carts during that era.

On January 15<sup>th</sup>, 1943, Governor Alexander Olcott officially declared Kuliyapitiya as an Urban Council through Gazette No. 9066. Subsequently, on January 1<sup>st</sup>, 1945, Governor Moor confirmed the establishment of the

Kuliyapitiya Urban Council. The first Chairman of the Urban Council was M. Jayasuriya, succeeded by Mr. R. de Silva. Kuliyapitiya was designated as a specified jurisdiction under the Urban Development Authority through Gazette No. 100/4 dated August 4<sup>th</sup>, 1980.

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In terms of infrastructure development, the Kuliyapitiya urban area received a formal water supply system from the Udubadwa Kahadenigama pipeline, with the foundation stone laid on August 31<sup>st</sup>, 1963.

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Kuli/Sarnath Maha Vidyalaya, established in 1882 near the urban area, plays a significant role in the local education system and can be considered a key educational institution. The development of Kuliyapitiya was further bolstered by the evolution of Kuliyapitiya Base Hospital, which began as a dispensary in 1917 and expanded to include five wards by the 1960s, witnessing notable transformations in the 2000s.

Kuliyapitiya has experienced rapid growth over the past three to four decades, emerging as one of the fastest - growing cities in the North - Western Province. Notably, out of the 43 Urban Councils in the country, Kuliyapitiya received the prestigious Swarnapura Award for Best Urban Council continuously for five years (2008 - 2012), followed by another recognition in 2016.

#### 2.2.2. Present Situation of Kuliyapitiya

Physical, economic, social and environmental aspects have been described as follows to identify the current planning context of Kuliyapitiya area.

#### 2.2.2.1 Physical Environment

The land use pattern, transport plan, services and infrastructure facilities in Kuliyapitiya Urban Council area are discussed deeply under the physical section.

#### a) Land use pattern

The land use in the Kuliyapitiya planning area encompasses a diverse mix of commercial, agricultural, educational, religious, and open spaces. Also,

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Planning and Situational Context agriculture plays a significant role, with widespread cultivation of coconut, paddy, vegetables, fruits, and grains. Specifically, 29% of the total land is allocated for coconut cultivation, while 15% is dedicated to paddy cultivation, making agriculture cover 44% of the area. Additionally, 8% of the land is reserved for cultivating other crops.

Moreover, the residential land use constitutes 43% of the area, reflecting a predominantly residential environment. Clustered residential growth is observed outside the urban center, with many of these residential clusters situated amidst paddy fields and wetlands. This distribution underscores the integration of agriculture and residential development within the Kuliyapitiya planning area.

Coconuts
29%

Residential
4396

Coconuts
29%

Residential
8%

Graph No: 2.2.2.1.1: Land Use Percentage 2022

Source: Urban Development Authority – 2023

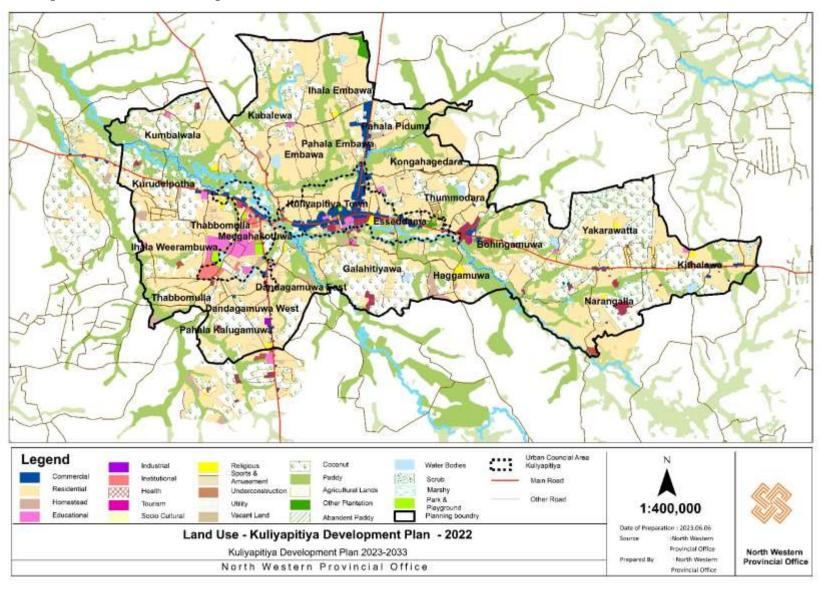
However, the large - scale land parcels with coconut plantations in the area are currently experiencing rapid subdivision for residential use. As we consider the prevalence of eco - sensitive land uses such as forests, paddy fields, and water bodies scattered throughout the area, it becomes crucial to develop appropriate strategies and guidance for conserving and protecting these physically sensitive zones during the development planning process. There is no wasteland that can be used for development and in the preparation of the Development strategies, attention should be paid to the possibility of using the existing land under conservation methods.

Figure No 2.2.2.1.2: Land Uses



Source: Urban Development Authority - 2023

Map No: 2.2.2.1.1 Land use pattern



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Source: Urban Development Authority, 2023

#### b) National and Regional Linkages

The linkages of the Kuliyapitiya can be described as a well - connected area both nationally and regionally.

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Kuliyapitiya is home to one of the major universities in Sri Lanka, the Wayamba University, and its Faculty of Medicine, establishing a national connection. Additionally, the presence of the Kuliyapitiya Teaching Hospital and the recognition of Kuliyapitiya as a second-tier urban area in the North Western Province have contributed significantly to enhancing connectivity both regionally and nationally. (Refer to Figure No. 2.2.2.1.3: National and Regional Linkages)

Also, considering the agriculture of this area, it is located at the center point of the National Coconut Triangle and is known for its cultivation.

Puttalam

Puttalam

Dambulla

Kuliyapitiya

Colombo

Legend

E Class Road

A Class Road

B Class Road

C Class Road

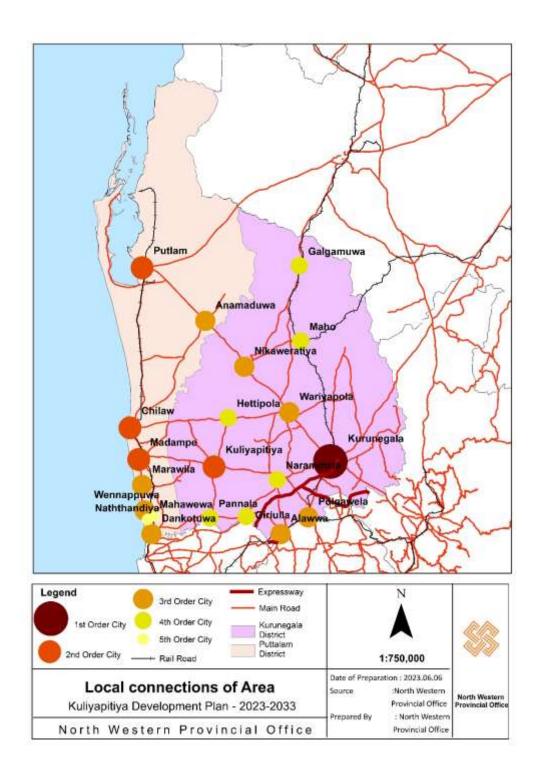
Figure No 2.2.2.1.3: National and Regional Linkages

Source: Urban Development Authority - 2023

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Map No 2.2.2.1.2: Regional Connections



Source: Urban Development Authority - 2023

#### B) Transport System

Also, considering other infrastructure facilities in this area, the road system belonging to group "B" is spread as the main road. (Map No. 2.2.2.1.3.: Road System)

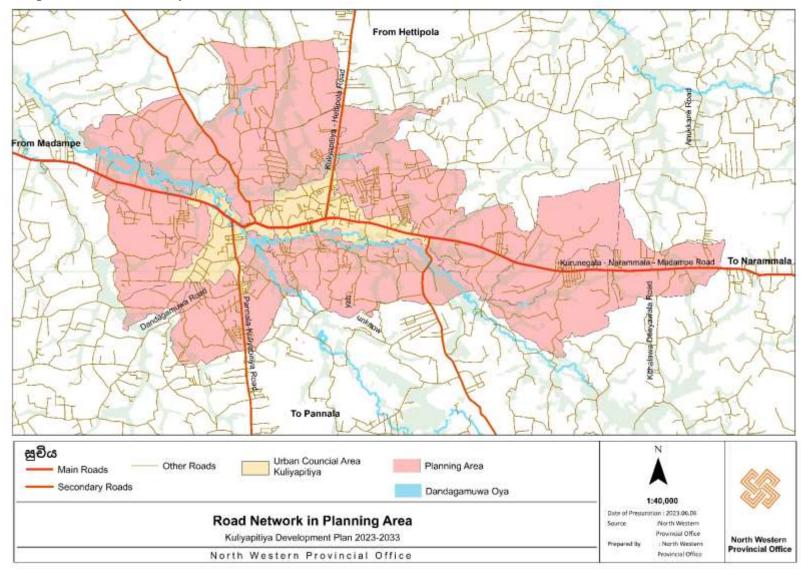
Table No 2.2.2.1.1.: Main Roads

	Name of Road	Distance within the
		area km
01	Naramala - Kuliyapitiya	15.63 km
	Road	
02	Kuliyapitiya - Hettipola	2.28 km
	Road	
03	Panala - Kuliyapitiya Road	5.01 km

Source: Urban Development Authority - 2023

Considering the other major cities of the North - Western Province which are correlated with Kuliyapitiya urban area, Hettipola urban area has a distance of 1 km. 15 km from Wariyapola town. 34 km from The Urban area of Panala area. 16 km from Udubadwa town and 08 km from Naramala town. 19 km from Bowatta. It's 15 miles away. (Map No. 2.2.2.1.2: Regional Links)

Map No 2.2.2.1.3.: Road System



Source: Urban Development Authority, 2023

#### C) Service and Infrastructure Facilities

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#### Water and Electricity Facilities

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Regarding the area's electricity supply, the current availability for residential use is 99.3%, and it is fully supplied to all business establishments and workplaces.

As for water supply, 140,000 gallons of water per day are sourced from the Dandagamuwa Oya for the Urban Council area. This supply is managed through two water tanks located near Meegahakotta and the Kuliyapitiya Base Hospital. The project is funded by the Kuliyapitiya Urban Council and provides water to all public and private institutions as well as residential and commercial establishments within the council's jurisdiction. No specific water supply project has been implemented in the Pradeshiya Sabha (PS) area; instead, water needs are fulfilled using wells, streams, and rainwater.

As of 2020, the total residential population of the Kuliyapitiya planning area was approximately 36,000, with an average daily water requirement of about 4,320,000 liters. By 2033, the anticipated residential population is expected to reach 42,508, with a projected water requirement of about 5,100,960 liters per day.

#### **Solid Waste Management**

The solid waste management practices in the Kuliyapitiya Urban Council area is conducted systematically. Approximately 7 tons of solid waste are generated daily within the Urban Council area. This waste is collected twice a day by the Urban Council using 4 tractors and 2 waste collection trucks. The Solid Waste Management Centre, situated in Kanadulla, comprises three main sections: an organic compost production yard, a solid waste dumping area, and a biogas production yard. The sale of organic fertilizers from this facility generates around Rs. 44,372.00 per month as of 2020.

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Planning and Situational Context In contrast, solid waste management in the Kuliyapitiya Pradeshiya Sabha (PS) area is concentrated at two locations. Firstly, a biogas production yard operates within the Kuliyapitiya Pradeshiya Sabha premises, processing approximately 7 kg of decomposing waste daily to produce biogas and fertilizer. Around 150 kg of compost fertilizer is produced monthly from this facility. However, the capacity of this biogas production yard has currently been exceeded.

Secondly, a non - degradable solid waste collection center is established in Ambawa, collecting about 150 kg of non - degradable waste per month, which is then provided to Holcim. The main issue here is the limited space available at the non - degradable waste collection center. Additionally, non - degradable waste collection centers have been established within the Kuliyapitiya divisional secretariat area.

Figure No 2.2.2.1.4: Solid Waste Management



Degradable Garbage Collection Centre in Kuliyapitiya Urban Council Area



Decaying Garbage Collection Centre at Kuliyapitiya Pradeshiya Sabha Premises



Non-Degradable Garbage Collection Centre in Ambawa

Source: Urban Development Authority – 2023

#### 2.2.2.2. Economic Sector

Agriculture is the predominant economic activity in the Kuliyapitiya planning area, which is situated in the North Western Province, where agriculture plays a significant role in the province's gross domestic product, contributing 15.3% in 2019. Kuliyapitiya contributes about 38% of the agricultural output to the North Western Province, particularly in sectors such as poultry and egg production. Specifically, the regions of Panala, Udubaddawa, Narammala, and

Paduwasnuwara are major contributors to the animal production sector in the North Western Province.

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Kuliyapitiya is strategically positioned at the center of the National Coconut Triangle and is renowned for its cultivation of Betel, making it a focal point within this coconut - rich region. (Refer to Figure No. 2.2.2.2.1 for its location at the center of the National Coconut Triangle.)

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Figure No 2.2.2.2.1.: Located at the middle point of the National Coconut Triangle



Source:

 $\underline{https://www.facebook.com/photo/?fbid=867245690597260\&set=a.325541758100992}$ 

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**Table No 2.2.2.2.1: Coconut Yield (Million)** 

Year	Area	Coconut Yield (Million)
2018	Kuliyapitiya West	41.5
	Kuliyapitiya East	25.4
2019	Kuliyapitiya West	40.9
	Kuliyapitiya East	25.3
2020	Kuliyapitiya West	40.0
	Kuliyapitiya East	25.0
2021	Kuliyapitiya West	39.5
	Kuliyapitiya East	25.0

Source: Urban Development Authority - 2023

In the year 2022, the coconut yield in Kuliyapitiya was approximately 25 million. However, the rapid conversion of cultivated land for residential purposes has led to a decline in coconut yield over time. (Refer to Table No. 2.2.2.2.1 for Coconut Yield in Millions.)

About 15% of the total land area, equivalent to 762 hectares, is allocated for paddy cultivation in Kuliyapitiya. The primary water source for these crops is the Dandagamuwa Oya.

Animal husbandry is also a significant sector contributing to the economic development of the area, with 6 main poultry farms located within the Kuliyapitiya planning area, in addition to numerous small - scale poultry operations.

Furthermore, there is a growing trend towards various coconut - based manufacturing industries in the region, utilizing coconut stalks, shells, and other by - products. This includes the production of mattress materials from coconut coir, as well as products such as kerosene and coir - related rice products.

Figure No 2.2.2.2: Main Economic Pattern of Kuliyapitiya Planning Area

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Source: https://www.srilankabusiness.com/emarketplace/coconut-and coconut – products

Kuliyapitiya Betel Pola (Betel market) is a significant contributor to the urban economy of Kuliyapitiya. It held six days a week on Hettipola Road in Kuliyapitiya town, this market involves around 1475 traders per week, along with approximately 250 intermediaries who purchase Betel through 10 major institutions. The price of Betel typically ranges between Rs. 20/ - to Rs. 25/ - during dry climates, with slight fluctuations during the rainy season. There is a notable demand for black bulls grown in the area, often exported to countries like Pakistan for consumption, painting, and chemical production.

Betel cultivation represents a unique economic component that enhances the urban economy of Kuliyapitiya.

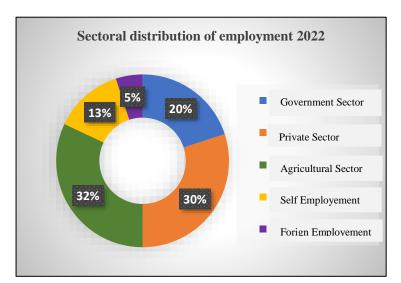
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Additionally, under - planting cultivation (including pineapple, Betel, Aloe Vera (Komarica), ginger, turmeric, and cinnamon) is successfully practiced in coconut lands throughout the Kuliyapitiya area. Animal husbandry, particularly chicken farming, is common on large coconut estates, providing fertilizer for crop cultivation. Perennial crops and other food crops are also cultivated in this region.

The annual income from one acre of coconut cultivation is typically around Rs. 180,000.00, while incorporating under - planting can increase the average annual income to about Rs. 400,000.00 per acre.

Regarding employment expansion in the Kuliyapitiya planning area in 2022, 30% of the population is employed in the government sector, and 45% are engaged in agriculture. Breaking this down further, 22% are farmers and laborers, 13% are self - employed in agriculture - related sectors, and 10% are directly employed in agriculture. (Refer to Graph No. 2.2.2.2.1 for Sectoral Expansion of Employment 2022.)

The monthly income for individuals in this area typically exceeds Rs. 10,000/-.



Graph No 2.2.2.2.1: Sectoral Expansion of Employment 2022

Source: Resource Profile, Divisional secretariat division, Kuliyapitiya - 2022

#### 2.2.2 Social sector

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In studying the social background of Kuliyapitiya area, population, health, educational facilities and public open space are discussed.

#### (A) Residential Population

The population of the planned area was 36,099 in 2020. Analyzing the population by age group reveals that 10% of the total population is under 5 years old, while 20% comprises school - age children. Additionally, 58% of the population falls within the labor force age group of 19 - 60 years, and 12% are aged 60 years and above.

#### **Population Growth Rate**

The natural population growth rate in the Kuliyapitiya planning area was approximately 0.95% between 2001 and 2011, which increased to 1.3% from 2012 to 2022. Based on this growth rate, the total population in the planned area is projected to reach 42,508 by the year 2033. Projections for the population in 2033 were derived using a Population Model based on population data from 2015 to 2022. This data indicates the anticipated growth trajectory of the population within the planning area over the specified time frame.

**Table No 2.2.2.3.1.: Population Forecasting** 

Year	2001	2012	2015	2018	2020	2033
Natural growth rate = 0.95%	28,473	31,330			34,113	38,212
High population growth rate = 1.3%	-	-	33,998	35,423	36,099	42,508

Source: Urban Development Authority - 2023

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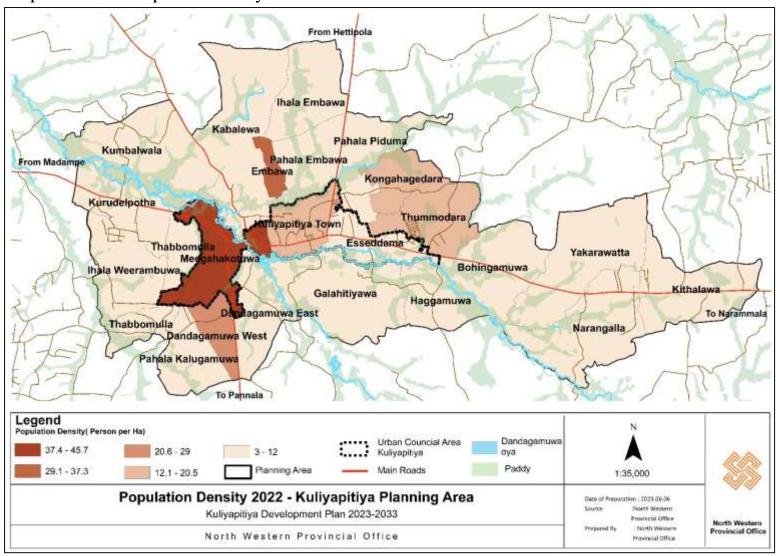
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#### **Population Density**

As of the year 2022, the population density in the Kuliyapitiya planning area is estimated to be 16 persons per hectare. Within the Kuliyapitiya Urban Council area specifically, the population density is higher, at approximately 24 people per hectare.

Certain Grama Niladhari divisions within the area exhibit notably high population densities. These include Meegahakotuwa, Kuliyapitiya Town, Galathiwa, Kabalewa, and Pahala Kalugamuwa. (Refer to Map No. 2.2.2.3.1 for a visualization of Population Density in 2022.) This data provides insights into the distribution and intensity of human settlement within different parts of the planning area and urban council jurisdiction.

Map No 2.2.2.3.1.: Population Density 2022



Source: Urban Development Authority-2023

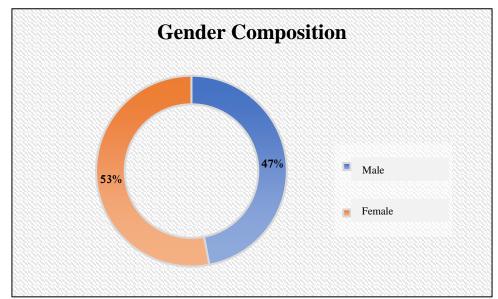
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#### Population by gender

53% of the total population in the area is female and 47% represents the male population.

Graph No: 2.2.2.3.1. Gender Composition 2022



Source: Resource Profile - 2022, Divisional Secretariat, Kuliyapitiya

#### Population by age groups

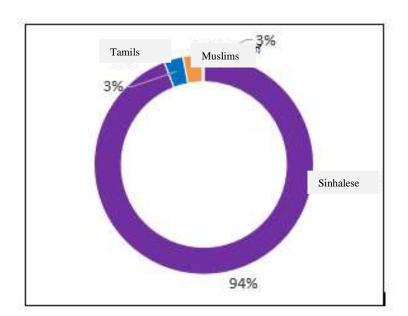
A significant portion of the population within the Kuliyapitiya Planning Area falls within the age range of 19 - 60 years, constituting 58% of the total population. This demographic represents a substantial labor force that plays a pivotal role in the development of the area.

#### **Population by Race**

The ethnic composition of the population in the Kuliyapitiya Planning Area is predominantly Buddhist, accounting for 94% of the total population. The remaining 6% belong to other ethnic groups. (Refer to Graph No. 2.2.2.3.2 for a breakdown of Ethnic Composition in 2022.)

Graph No 2.2.2.3.2.: Ethnic Composition 2022

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Source: Resource Profile - 2022, Divisional Secretariat, Kuliyapitiya

#### (b) Migrant Population

The Kuliyapitiya area has experienced an increase in its migrant population, primarily due to the establishment of higher educational institutions such as the Wayamba University, Kuliyapitiya Technical College, and Yakarawatta Teacher's College, as well as the development of the Kuliyapitiya Hospital. Additionally, the conversion of large coconut lands in Kuliyapitiya for residential use has contributed to this influx of migrants.

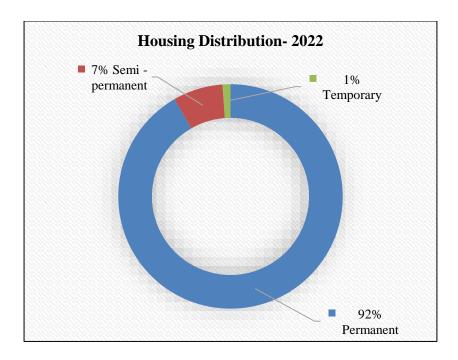
#### (c) Housing Condition

As of the year 2022, there are a total of 10,314 houses in the Kuliyapitiya area. Of these, 92% are permanent houses, 7% are semi - permanent, and 1% are temporary housing structures. Looking ahead to 2033, the projected housing requirement for the area is estimated to be 12,145, assuming a moderate population growth rate. Grama Niladhari divisions such as Kuliyapitiya town, Meegahakotuwa, and Kabalewa are identified as areas with high housing density. (Refer to Graph No. 2.2.2.3.3 for details on Housing Expansion in 2022.) This data highlights the evolving housing landscape in Kuliyapitiya, driven by demographic shifts and developmental initiatives.

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Graph No 2.2.2.3.3.: Housing Extension 2022



Source: Resource Profile - 2022, Divisional Secretariat, Kuliyapitiya

#### (d) Educational Facilities

The Kuliyapitiya Planning Area boasts a network of educational institutions that cater to the local population. A total of 14 schools have been established in the area, offering educational opportunities to residents. Among these schools, Kuliyapitiya Saranath College holds the distinction of being the oldest, established approximately 130 years ago in 1882. Other notable schools in the region include St. Joseph's College, Muslim College, Vishakha College, Ananda Women's College, and Dharmaraja Model College.

The student - teacher ratio in this area is reported to be 18:1, indicating a manageable class size conducive to effective learning. The school system in Kuliyapitiya covers a broad spectrum of educational needs and serves as a vital component of the area's social infrastructure. (Refer to Map No. 2.2.2.3.2 for details on School Expansion.) This comprehensive educational framework underscores the commitment to providing quality education and fostering academic development within the Kuliyapitiya community.

Figure No 2.2.2.3.1.: Schools in Kuliyapitiya Planning Area



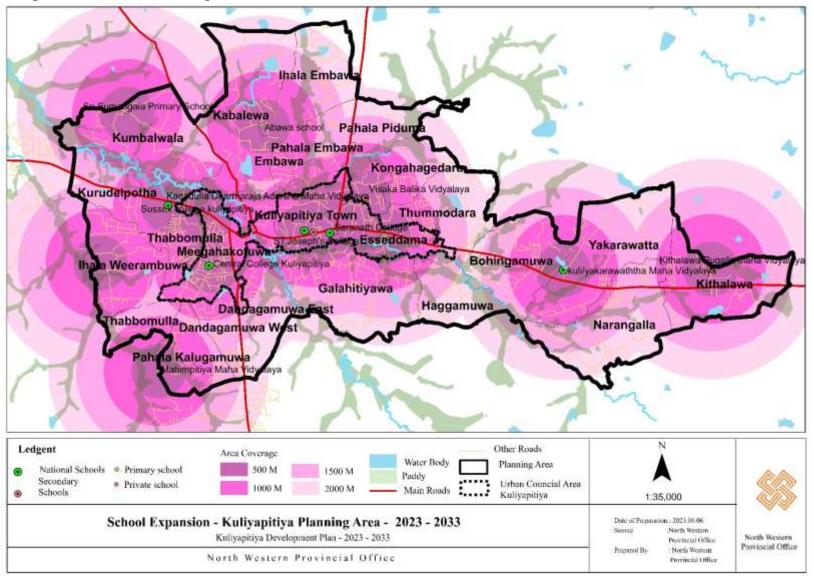




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Source: Urban Development Authority - 2023

Map No 2.2.2.3.2.: School Expansion



Source: Urban Development Authority-2023

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Wayamba University is recognized as the principal higher education institution in the region. There are six main faculties: The Faculty of Agriculture and Plantation, the Faculty of Applied Sciences, the Faculty of Business Studies and Financial Technology, the Faculty of Technology, the Faculty of Livestock and Fisheries, and the Faculty of Medicine, located outside the premises of Wayamba University. Additionally, The Wayamba University is situated near the Panala Kuliyapitiya Road, and the Faculty of Medicine is positioned at the Labuya intersection on the Naramala Kuliyapitiya Road. Besides these, there is also a technical college and a vocational teacher's college in this area. Consequently, Kuliyapitiya can be identified as an area where notable higher educational institutions are situated within the North Western Province (Map No. 2.2.2.3.3.: Major Higher Educational Institutions of the Area).

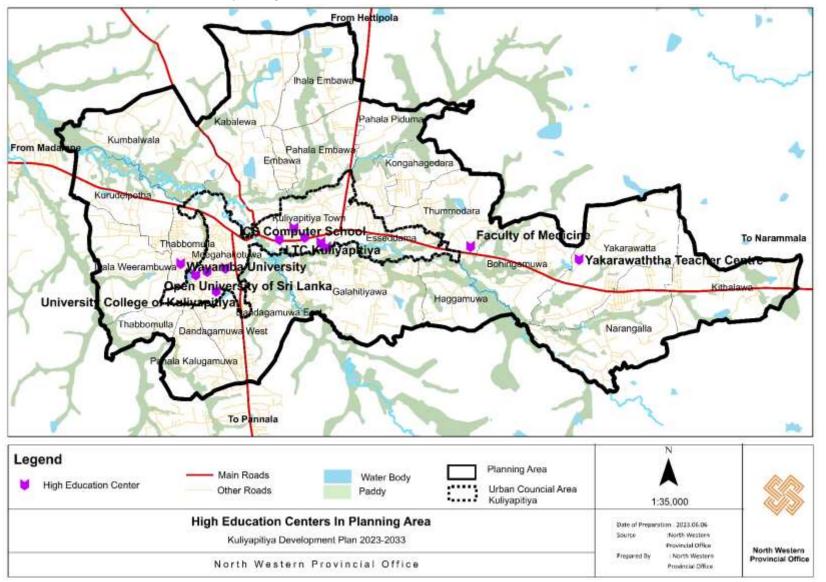
Figure No 2.2.2.3.2. Major Higher Education Institutions in Kuliyapitiya Planning Area



Source: Urban Development Authority - 2023

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Map No 2.2.2.3.3.: Major Higher Education Institutions in the Area



Source: Urban Development Authority-2023

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#### (e) Health Facilities

The Kuliyapitiya District Hospital is the primary healthcare facility serving the Kuliyapitiya area. Alongside the Kurunegala General Hospital, the Kuliyapitiya Teaching Hospital plays a pivotal role in delivering healthcare services to the North Western Province. Currently, the hospital boasts 679 beds and 15 residential treatment buildings. In addition to the teaching hospital, several private hospitals like Oseth and Siasi operate in the vicinity, catering to the healthcare needs of the Kuliyapitiya planning area. The presence of this teaching hospital, coupled with higher education institutions and a well established school system, contributes to the increased population density of the Kuliyapitiya urban area.

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Figure No 2.2.2.3.3.: Kuliyapitiya Teaching Hospital

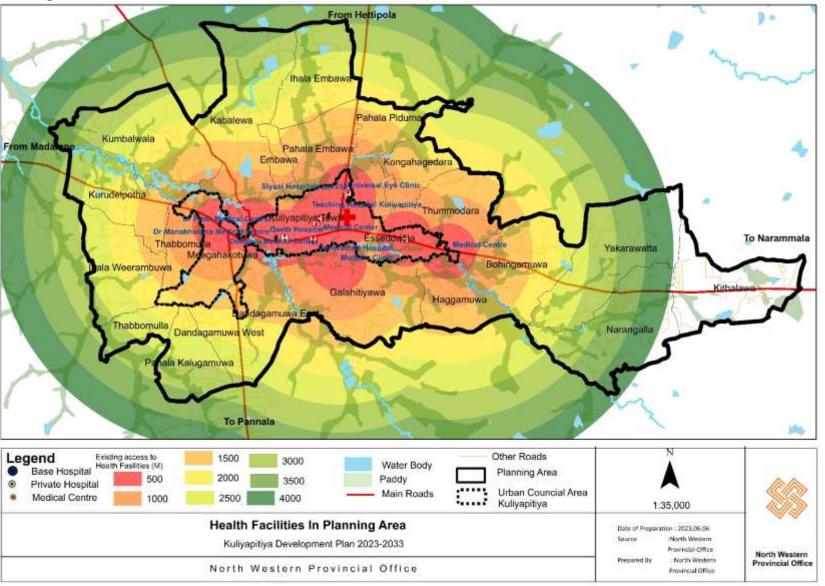






Source: Urban Development Authority - 2023

Map No: 2.2.2.3.4.: Health facilities in the area



Source: Urban Development Authority-2023

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#### (f) Value of land

The value of land in the Kuliyapitiya planning area varies, with particularly high values observed around strategic locations such as Labuya Junction in the urban center, Meegahakotta, Kanadulla area, and near the Medical Faculty.

#### 2.2.2.4 Environmental Sector

In the environmental context of the Kuliyapitiya urban area, approximately 851 hectares of the total land area are designated as eco - sensitive areas. These areas primarily consist of reserve forests, marshes, paddy fields (both active and abandoned), tanks, and waterways. Notable eco - sensitive locations within this area include Digalla Reserve Forest, Kabalewa Lake, Kitalawa Lake, Yakkarawatta Lake, Kanadula Lake, Tummodara Lake, Embawa Lake, Dilan Lake, Midella Lake, and the tank located at Narangala Farm. These natural features contribute to the ecological diversity and environmental significance of the Kuliyapitiya region, highlighting the importance of conserving and managing these areas sustainably (Table No. 2.2.2.4.1.: Environmental Sensitive Areas in the Area).

#### A) Ecosystem

Table No 2.2.2.4.1. : Sensitive areas in the area

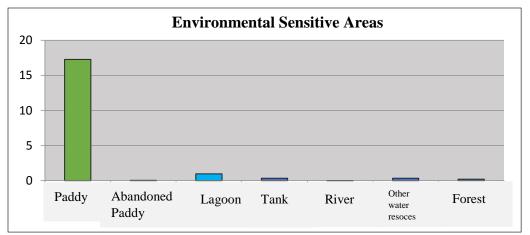
Usage	Size (hec.)	Percentage (%)
Paddy Fields	767	17.27
Abandoned Paddy Fields	2	0.05
Marshy land	43	0.97
Water Tanks	15	0.34
Canal	0.43	0.01
Other sources of water	15.43	0.35
Reserve Forests	09	0.20
Total	851.86	19.18

Source: Urban Development Authority, Field Survey Data - 2022

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## Graph No. 2.2.2.4.1 :Environmental Sensitive Areas in Kuliyapitiya Pradeshiya Sabha



Source: Urban Development Authority, Field Survey Data – 2022

#### b) Climate Pattern of the Area

The average annual rainfall in the Kuliyapitiya area ranges between 1500 - 2000 millimeters. The annual temperature typically hovers around 28 degrees Celsius (°C), with slightly higher temperatures of about 30 degrees Celsius (°C) experienced in August and September. These climate conditions are conducive to agriculture, with a significant emphasis on paddy cultivation as well as the cultivation of coconut, vegetables, and fruits. The geographical landscape features predominantly flat terrain with red yellow podsolic soil, which further supports various agricultural activities.

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#### c) Open Space Facilities

The current population of the Kuliyapitiya urban area stands at approximately 36,099 residents, requiring approximately 36 hectares of public outdoor open land. However, only 11 hectares of such land are currently available in the area. Looking ahead to the predicted population of 42,508 by 2033, the projected requirement for common outdoor open land increases to 60 hectares (as per Annexure No. 3). This indicates a significant shortfall in accessible public open spaces relative to the population's needs, highlighting a potential area for future development and planning.

#### d) Natural Disasters

The Kuliyapitiya urban area faces challenges related to annual flooding and water scarcity, significantly impacting residents' lives. These issues have been observed to worsen over time. Approximately 85% of the existing roads in the area lack a systematic drainage system, exacerbating flooding during rainy periods. Encroachments on roads and adjacent low - lying areas for commercial development further contribute to instant flooding even with minor rainfall occurrences. Specific flood - prone areas, such as the Kuliyapitiya town and Meegahaforta intersection, have been identified as particularly susceptible to these natural disasters (refer to Chapter 3 - The Need for Development Plan). Addressing these challenges will require comprehensive planning and infrastructure improvements to enhance the area's resilience to natural hazards and ensure the safety and well - being of residents.

## Chapter 02 Preliminary Study Pre - planning

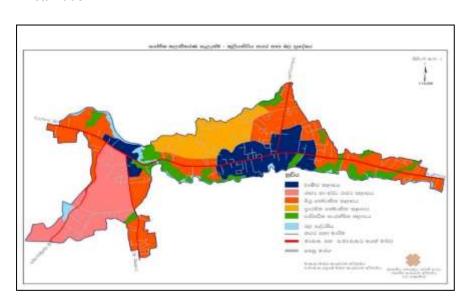
efforts

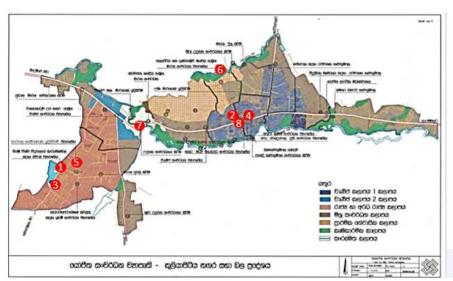
#### 2.2.3. Pre - planning efforts

#### 2.2.3.1. Draft Development Plan for Kuliyapitiya Urban Council Area 2008

In 2007, the Urban Development Authority (UDA) formulated a Draft Development Plan for the Kuliyapitiya Urban Council area as part of previous planning studies. This plan likely aimed to guide and manage the growth, development, and improvement of the urban area in a structured and sustainable manner.

Figure No 2.2.3.1: Draft Development Plan for Kuliyapitiya Urban Council Area 2008





Source: Urban Development Authority - 2023

The objective of the plan is to make Kuliyapitiya a central urban area in the higher education sector of the North - Western Province. Plans have been prepared to develop the Kuliyapitiya urban area across seven major development zones.

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- 1. Commercial Zone i
- 2. Commercial Zone ii
- 3. Administrative Zone
- 4. Mixed Development Zone
- 5. Primary Residential Zone
- 6. Conservation Zone
- 7. Agricultural Zone

The zoning plan for the Kuliyapitiya Urban Council Area is structured around the nature of activities in the region (refer to Figure No. 2.2.3.1: Draft Development Plan for Kuliyapitiya Urban Council Area 2008).

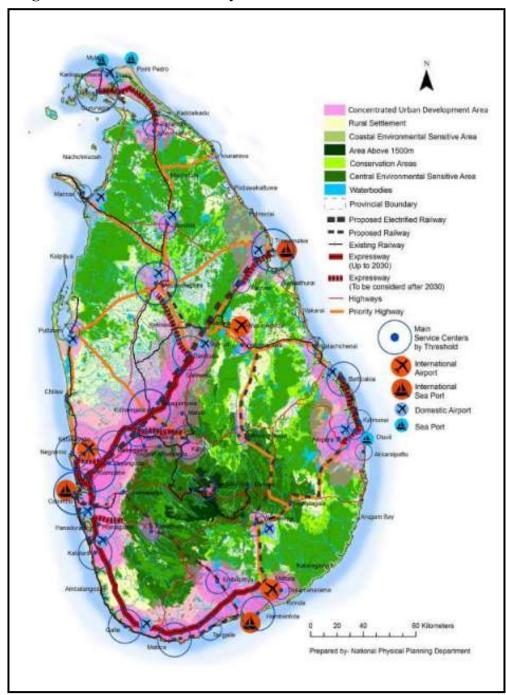
As part of this development initiative, eight main projects were identified. It is noteworthy that 90% of these projects have been successfully completed to date, indicating significant progress towards achieving the objectives outlined in the development plan.

#### 2.2.3.2. National Physical Plan – 2017 - 2050

According to the National Physical Plan for the period 2017 - 2050, strategic policies, geographical considerations, and sectoral approaches have been identified to establish a sustainable and well - planned physical environment in Sri Lanka. The objective is to achieve balanced development across physical, social, economic, and environmental dimensions. As part of this plan, four key development corridors have been identified: The Northern Development Corridor, Southern Development Corridor, East - West Development Corridor, and Eastern Development Corridor. These corridors serve as focal points for targeted development initiatives and infrastructure investments to enhance connectivity, economic opportunities, and overall development across different regions of Sri Lanka.

# Chapter 02 Preliminary Study Pre - planning efforts

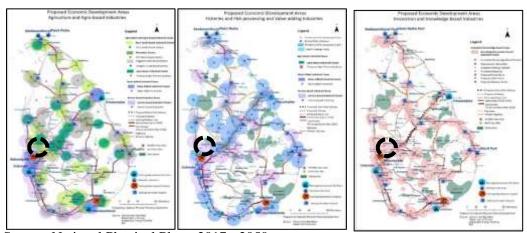
Figure No 2.2.3.2: National Physical Plan - 2017 – 2050



Source: National Physical Plan - 2017 - 2050

According to the National Physical Development Plan prepared by the Department of National Physical Planning for the year 2050, the Kuliyapitiya area has been designated for service - based industries and plantation clusters, positioning it as a center for service - based knowledge and innovation. Additionally, Kuliyapitiya has been categorized as a second - class urban area within the urban hierarchy established by the Urban Development Authority. This classification reflects the town's level of development and the range of services and facilities it offers relative to other urban centers in Sri Lanka. The plan likely outlines strategies and guidelines to support Kuliyapitiya's growth and development within the context of national urban planning objectives and priorities.

Figure No 2.2.3.3: National Physical Plan - 2017 - 2050



Source: National Physical Plan - 2017 - 2050

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Kuliyapitiya Development Plan 2023-2033 Urban Development Authority

Chapter 02

**Preliminary Study** 

Determination of the Planning Boundry

#### 2.3 Determination of the Planning Boundry

In determining the boundaries of the Development Planning Area, the final plan limit was determined using Geographical Information System (GIS) techniques by conducting functional boundaries, geographical boundaries and administrative boundaries separately and other detailed studies.

Considering the current land consumption in kuliyapitiya area, there is a possibility of population mobilization both regionally and regionally in the future. With the expansion of the divisions of Wayamba University, it can be identified that the existing land use pattern needs to be systematically planned to expand the service facilities, especially for the daily commuter population and the intended residential population.

A Draft Development Plan has been planned by the Urban Development Authority in 2015 for the Kuliyapitiya Urban Council area. As a result of the study of the plan and the extensive background study of the Kuliyapitiya area, the Urban Development Authority's jurisdiction was expanded to 23 Grama Niladhari divisions in the year 2021.

#### **2.3.1. Functional boundary**

The development of the Kurunegala urban area is expanding into the surrounding regions, with Kuliyapitiya emerging as a key population center. Within the Kuliyapitiya Planning Area, significant development intensity is observed along the main roads. The Development Pressure Analysis (Annexure No. 4) underscores this trend.

Kuliyapitiya is also characterized by a robust agriculture - based economy, with prominent regional agricultural activities occurring in Panala, Udubadawa, Hettipola, Narammala, Katupota, and Paduwasnuwara.

The functional influence of the Kuliyapitiya Urban Area extends throughout Sri Lanka, anchored by institutions such as the Wayamba University, Kuliyapitiya Technical College, and Yakarawatta Teachers' College.

#### 2.3.2. Geographical boundary

The primary water source in the Kuliyapitiya area is the Dandagamuwa Oya. The secondary waterways stemming from the Dandagamuwa Oya irrigate the wetlands and paddy fields, and the current administrative boundaries are delineated based on the environmental sensitivity analysis of the area (Sensitivity Analysis - Annexure No. 5).

**2.3.3.** Administrative boundary

Under Gazette Notification No. 100/04 dated 04.08.1980, three Grama Niladhari divisions (Meegahakotta, Kuliyapitiya Town, Assadduma) were designated as part of the jurisdiction of the Kuliyapitiya Urban Development Authority. This decision was made to accommodate the rapid commercial development occurring outside the Kuliyapitiya Urban Council area and the growth in the education sector.

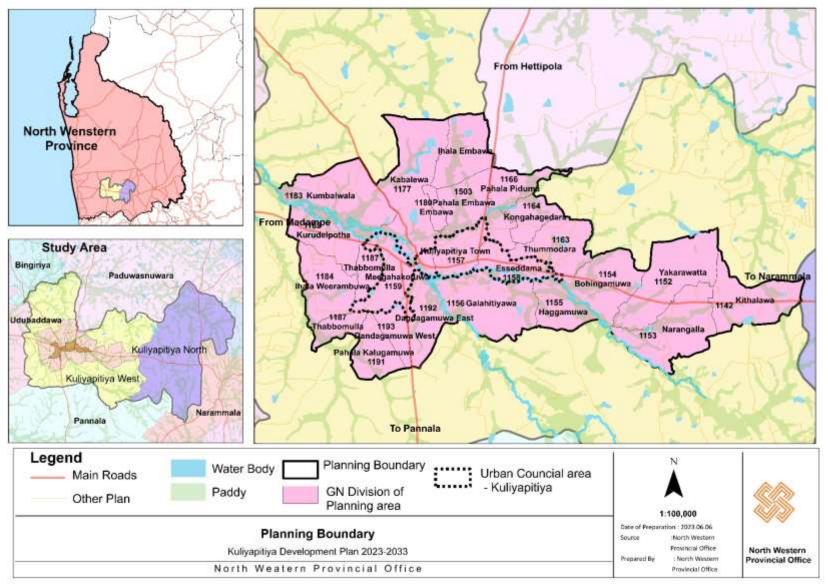
Subsequently, the jurisdiction of the Kuliyapitiya Urban Development Authority was expanded to encompass 23 Grama Niladhari divisions, covering an area of 44.4 square kilometers, under Gazette Notification No. 2209/12 dated 04.01.2021 (Map No: 2.3.1. Planning Area).

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Determination of the Planning Boundry

Map No: 2.3.1. Planning Area



Source: Urban Development Authority-2023

Chapter 02

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Determination of the Planning Boundry

# The need for a Development Plan

Need for Development Plan

#### 03 Chapter

#### **Need for Development Plan**

Introduction

#### 3.1. Introduction

During the preparation of the Kuliyapitiya Development Plan, specific data was collected through a background study of the area and stakeholder meetings to identify key issues and potential priorities using various analytical methods aligned with planning principles. The aim of this development plan is to address existing challenges and opportunities in the area, contributing to environmental, economic, and social development.

The identification of specific challenges and issues was carried out meticulously through workshops to gather stakeholder perspectives and surveys conducted with Grama Niladhari officers and other stakeholders. The insights and recommendations provided by these stakeholders are documented in Annexure No. 1 (NVIVO Analysis).

The fundamental goal of this development plan is to achieve balanced development by emphasizing the rural aspects of urbanization, creating a safe and comfortable environment, and preserving eco - sensitive areas within the region.

There is a recognized need for a comprehensive Development Plan to guide sustainable growth and prevent unregulated development without a clear vision. Although a non - gazetted Draft Development Plan for 2008 - 2018 exists, it lacks the vision necessary to steer the area's development in a controlled manner. Linear development along main roads are anticipated in the new plan, which has not yet been gazetted due to its focused scope. However, interim measures were taken in 2008 to modify zoning regulations and secure approval to develop and implement a general zoning plan through the Main Planning Committee of the Authority.

Therefore, the preparation and gazetting of a comprehensive development plan are essential to facilitate systematic and visionary development in the Kuliyapitiya area.

Chapter 03

Need for
Development Plan

Identified issues

#### 3.2. Identified issues

### Problem 01: Haphazard Development Encroaching on Eco - Sensitive Zones in the Kuliyapitiya Area

The Kuliyapitiya area relies heavily on agriculture, with coconut cultivation and paddy farming serving as primary economic sectors. Approximately 29% of the total land area is designated for coconut cultivation and 15% for paddy cultivation. The Dandagamuwa Oya serves as the main water source for these agricultural activities.

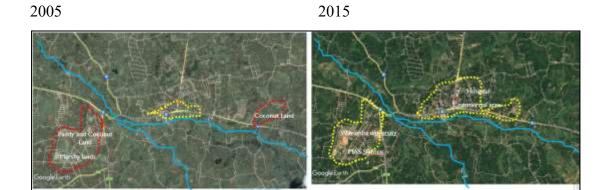
Currently, there is a concerning trend of haphazard development occurring outside the Kuliyapitiya Urban Council area. This unregulated development is encroaching upon agricultural lands and highly environmentally sensitive areas. This poses significant risks to the ecological balance and sustainability of the region, threatening vital agricultural resources and the integrity of eco-sensitive zones.

Chapter 03

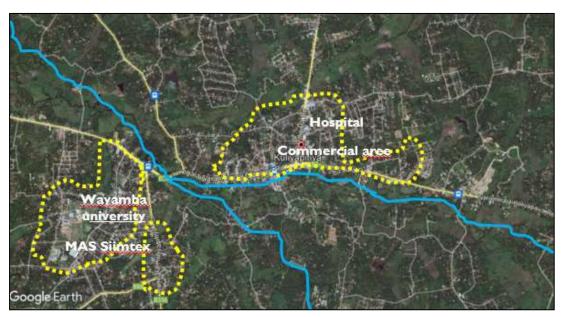
Need for Development Plan

Identified issues

Figure No 3.2.1.: Haphazard unregulated development of eco - sensitive zones in the area - Google Maps



2020



Source: Google Maps 2005,2015,2020

The haphazard and extensive development occurring beyond the jurisdiction of the Kuliyapitiya Urban Council, particularly around the Dandagamuwa Oya, is evident when analyzing Google Maps as shown in Figure 3.2.1.

This uncontrolled expansion towards areas abundant in agricultural land has significantly contributed to the decline of the agricultural economy in Kuliyapitiya. Furthermore, an analysis of development potential indicates a

concerning trend of development encroaching upon eco - sensitive zones. Figure 3.2.2 illustrates this trend, highlighting land fragmentation along the Dandagamuwa Oya.

Chapter 03

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Identified issues

The lack of a legal framework to guide and regulate development towards ecosensitive zones and agricultural land - rich areas is a pressing issue. Consequently, there is an urgent need for a comprehensive development plan encompassing both the Kuliyapitiya Urban Council area and the Pradeshiya Sabha (PS) area. Such a plan must facilitate development under vigilant supervision and control to protect eco - sensitive zones and agricultural land from further degradation.

Figure No 3.2.2.: Pictures of development activities being carried out in eco - sensitive zones



Source: Field Inspection Report, Urban Development Authority - 2023

The photographs above also highlight a plot of land near Dandagamuwa Oya that is attracting development activities towards eco - sensitive zones. This development plan aims to manage such activities in a systematic manner.

#### **Problem 02: Environmental Degradation**

The Kuliyapitiya area suffers from environmental degradation, worsened by year - round flooding that disrupts residents' lives. These conditions are worsening annually. Approximately 85% of the existing roads in the area lack proper drainage systems, leading to encroachments on roads and adjacent low -

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Identified issues

lying areas for commercial development. This situation results in flash floods even with minor rainfall, particularly affecting areas like Kuliyapitiya town and Meegahakotta, which have been identified as flood disaster sites.

**Figure No 3.2.4.: Flood conditions 2018, 2021** 













Source: Urban Council - Kuliyapitiya 2021

In addition, the areas of Galathiwa, Ambawa, and Asvedduma have also experienced severe damage from flooding. Kuliyapitiya was heavily impacted by floods in May 2018, affecting 2,038 residents from 581 families. Among them, 76 houses were damaged, with 6 completely destroyed. Additionally, 84 commercial buildings sustained damage during the floods.

On June 3, 2021, Kuliyapitiya was flooded again, affecting 208 residents from 76 families, with damage reported to two commercial buildings.

The primary cause of flooding in this area is attributed to the reclamation of low - lying areas, including paddy fields, and the obstruction of canals connected to the Dandagamuwa Oya. Furthermore, the lack of proper maintenance of drainage systems along main roads and underpasses in the urban center of Kuliyapitiya exacerbates flooding even with minor rainfall. Dandagamuwa, being at a low elevation and characterized by flat terrain, experiences reduced water flow intensity depending on its geographical location. The development plan also identified the sites where Construction works have been undertaken by blocking the under - canals that are currently linked to the Dandagamuwa Oya. Given this situation, there is an urgent need to develop a comprehensive plan to guide the area toward sustainable development, focusing on preserving the green environment and waterway system. It is imperative to address the physical conditions that could lead to flooding.

Problem 03: Infrastructure Limitations in the Area (Road Network, Water Supply, Public Parking Facilities, Waste Management)

Water scarcity has become a significant issue for locals. Although the Dandagamuwa Oya remains a vital water source, the absence of a proper water supply system (including water treatment and distribution) is a major concern. This shortage results in acute drinking water problems during water shortages. Specifically, there is no piped water supply to the Kuliyapitiya Urban Council area.

Moreover, solid waste management efforts are confined to the urban council limits, and within the local council area, the existing non - degradable solid waste collection center is insufficient in size.

In terms of road infrastructure development, while the road system within the Kuliyapitiya Urban Council area has been systematically improved, there are challenges with developing the internal road network. Many roads connecting urban and rural areas are in various stages of development. The road system must efficiently facilitate transportation, particularly for moving agricultural produce from villages to markets. Roads are the primary mode of transportation in the Kuliyapitiya area. Access to a highway requires reaching the entrance of the Nakalagamuwa Highway in Narammala, located 24 km away. Access to

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Identified issues

Kuliyapitiya Development Plan 2023-2033 Urban Development Authority

Chapter 03

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Identified issues

railway lines necessitates reaching Madampe or Nattandiya railway stations, which are respectively 23 km and 25 km away.

Furthermore, there is a shortage of parking space within the Kuliyapitiya Urban Council area. Vehicles often park on both sides of the road due to the absence of public parking facilities. Presently, the public market complex can accommodate only 10 vehicles.

#### **Problem 04: Economic Sector Challenges**

Kuliyapitiya primarily relies on coconut - based industries and poultry farms, but the necessary infrastructure for these sectors is inadequate. Water supply and waste disposal pose significant challenges for these industries.

While Kuliyapitiya is agriculturally self - sufficient, the harvested crops are primarily supplied as raw materials to industries in the region. However, there has been limited expansion of agriculture - based industries within the Kuliyapitiya area. Additionally, there is insufficient storage for agricultural produce and a lack of a proper market system.

Although several small coconuts - related industries exist within the planning area, the shortage of skilled labor necessary for their enhancement is hindering the development of the industrial sector.

#### 3.3 Identified Potentials

#### **Opportunity for Economic Development**

The plantations in Kuliyapitiya present a significant opportunity for agricultural development and innovation - based services. This area has been identified as having strong potential for growth and diversification.

Kuliyapitiya holds a prominent position within the North - Western Province due to the presence of esteemed higher educational institutions like Wayamba University and the Technical College. Research and innovation conducted by these institutions can greatly contribute to the area's development. For instance,

the Kuliyapitiya Technical College offers approximately 33 courses (as of 2023), including agricultural production technology and food technology. Similarly, the agriculture and plantation faculty at Wayamba University contributes to the potential emergence of skilled workers in this sector.

Development Plan

Situated at the heart of the coconut triangle, coconut cultivation is the primary economic activity in Kuliyapitiya. The high demand for coconut products and copra represents a strong economic potential for the area. Furthermore, there is substantial foreign demand for bulat (young coconut) which can further boost the local economy. Kuliyapitiya also plays a vital role in supplying approximately 80% of the poultry and egg production in the North - Western Province. The availability of suitable land further enhances the area's agricultural capabilities.

Identified Potentials

Chapter 03

Need for

Moreover, Kuliyapitiya offers a conducive environment for residential living, which further supports and strengthens the area's overall development trajectory.

## Development Planning Framework

### Chapter 04

#### Vision of Development Plan

Vision of Development Plan

#### 4.1. Vision of Development Plan



#### **4.2 Vision Statement**

The vision for Kuliyapitiya's urban development entails the establishment of an opulent agro - techno city, integrating industrial urbanization with agricultural prowess. In essence, this signifies the evolution of an urban landscape nourished not only by agricultural productivity but also by innovation - driven higher education.

Kuliyapitiya Development Plan 2023-2033 Urban Development Authority

Chapter 04

Vision of Development Plan

Vision Statement

Kuliyapitiya stands as a fertile expanse abundant with agricultural produce, complemented by well - organized animal husbandry practices tailored to the prevailing climatic conditions. While Kuliyapitiya occupies a central position within the coconut triangle, encompassing Puttalam, Chilaw, and Panala as major coconut - producing regions, its own agricultural significance is evident.

While Wayamba University in Kuliyapitiya plays a significant role in the local educational landscape, it's true that Kurunegala's urban area tends to garner more attention due to its pronounced focus on educational sector development. Additionally, Kurunegala General Hospital serves as the primary healthcare facility in the North-Western Province, reflecting the region's emphasis on healthcare services. Nevertheless, Kuliyapitiya Hospital also holds a notable position as the second most distinguished hospital in the area, contributing to the region's healthcare infrastructure.

Drawing upon these factors, Kuliyapitiya's urban planning area emerges as a multifaceted domain rich in resources and potential. The overarching vision of the Kuliyapitiya Urban Development Plan is to foster its transformation into a thriving agro - technical urban center, leveraging its agricultural abundance, educational institutions, and healthcare facilities for holistic prosperity.

#### **4.3. Goals**

#### 1. Strengthening city economy based on the Agriculture sector

Kuliyapitiya is evolving as an urban area with a foundation in agricultural economy, particularly centered around bull farming, coconut cultivation, pineapple farming, and animal husbandry. The objective by 2033 is to enhance the urban economy further by increasing the contribution of the industrial sector through the adoption of new machinery and equipment in agricultural production.

### 2. Becoming a Hub of Innovation and Knowledge - Based Vocational and Higher Education

Chapter 04

Vision of Development Plan

Kuliyapitiya has been designated as a hub for innovative and knowledge - based vocational and higher education in accordance with the National Physical Plan 2017 - 2050. By 2033, Kuliyapitiya aims to solidify its position as a prominent center for higher education and vocational training.

Goals

### 3. Creating a Livable and Convenient city for the Residences and Committees

This goal focuses on developing essential infrastructure for the resident population within Kuliyapitiya's urban area. It aims to address the main issues faced by residents, including drinking water shortages, improving internal road systems, and enhancing waste management facilities. The objective is to transform the area into a comfortable and well - equipped urban space that offers maximum services to both local residents and visitors, leveraging the resources of Kuliyapitiya Hospital and Wayamba University. The primary aim of this plan is to achieve the status of a desirable urban area with a high quality of life by 2033.

### 4. Promoting Environmental Sustainability by Preserving Sensitive Ecosystems

Kuliyapitiya is susceptible to flooding during the rainy season and faces challenges related to water scarcity. The Kuliyapitiya Urban Development Plan includes objectives to mitigate flood impacts by 2033. This involves developing plans to protect the catchment area and surrounding protected areas of the Dandagamuwa Oya, restoring drainage systems, and safeguarding wetlands within the Kuliyapitiya Planning Area.

Vision of Development Plan

#### Objectives

#### 4.4. Objectives

### Goal 1: 1. Strengthening city economy based on the Agriculture sector Objectives:

- Establish an agricultural production center in Yakarawatta area to cultivate a robust market for agricultural and value added products within the regional market by 2033.
- ii. Implement modern technology and promote the use of organic fertilizers through waste management initiatives to enhance agricultural practices and production by 2033.
- iii. Develop regulations to mitigate the fragmentation of coconut lands in the area, aiming to consolidate land parcels (2 1/2 acres and more land parcel) by 2025.

### **Goal 2: Becoming a Hub of Innovation and Knowledge - Based Vocational** and **Higher Education**

#### **Objectives:**

- Plan and execute the construction of an IT Park or similar commercial project on a designated one - acre plot (under the Land Reforms Commission) in Kithalawa area by 2033.
- ii. Enhance pedestrian and cycling roads along AshokaMawatha in the Administrative Zone, covering a distance of 3 kilometers, by 2033.

### Goal 3: Creating a Livable and Convenient city for the Residences and Committees

#### **Objectives:**

 Ensure 100% access to drinking water across the entire development area by 2033 through the implementation of the Bingiriya Udubadwa and Makadura Kuliyapitiya Water Supply Project.

- Establish two public parking facilities within Kuliyapitiya town by 2033 to address parking issues and enhance convenience for residents and visitors.
- iii. Allocate 14 acres of land at Kumbukkotta Watta for solid waste management purposes within the Kuliyapitiya Pradeshiya Sabha area by 2030 to improve waste disposal and environmental cleanliness.
- iv. Develop and upgrade five identified roads and construct two bridges by 2026 to enhance connectivity and accessibility within the urban area.

### **Goal 4: Promoting Environmental Sustainability by Preserving Sensitive Ecosystems**

#### **Objectives:**

- i. Enact regulations mandating the conservation of 810 hectares of existing wetlands (including paddy fields) to manage and mitigate floods in the area by 2025.
- Develop plans to restore and safeguard 10 identified catchment water bodies within Dandagamuwa Oya by 2033 to preserve water resources and natural ecosystems.
- iii. Designate protected areas surrounding Dandagamuwa Oya within the next two years and officially recognize them through publication in the Gazette to ensure long - term conservation and environmental sustainability.

Analysis of strengths,
weaknesses,
opportunities and
threats
(SWOT Analysis)

### Analysis of strengths, weaknesses, opportunities and threats (SWOT Analysis)

Chapter 05
SWOT Analysis

Summary SWOT Analysis

#### **5.1 Summary SWOT Analysis**

A SWOT analysis was conducted to identify the strengths, weaknesses, opportunities, and threats across physical, economic, social, and environmental aspects. This analysis aims to support Kuliyapitiya in achieving its vision of becoming an **"opulent agro - techno city"** by 2033, aligning with its development goals. Below is the SWOT analysis conducted for each objective.

### Goal 01 Strengthening city economy based on the Agriculture sector

#### **Strengths**

- 01. 45% of the total land area is occupied by coconut land and agricultural land.
- 02. Kuliyapitiya area is located at the central point of the Coconut Triangle.
- 03. Having suitable soil and favorable climatic conditions for cultivation of perennial crops and minor export crops.
- 04. Cultivation of vegetables in the area for multi-crops, supplementary food crops and

#### Weaknesses

- 01. Most of the roads from the urban area centre to the peripheral area are in poor condition and the width is inadequate.
- 02. Lack of adequate water supply for industries.
- 03. Lack of systematic programme for solid waste management in the Local Council area.

Chapter 05	
SWOT Analysis	

Summary SWOT Analysis

- other economic crops such as minor export crops.
- 05. 52% of the population belongs to the labor force.
- 06. Several small and medium scale industries have already been established in the area.
- 07. The Betel Pola (betel leaf market) is held in Kuliyapitiya town.

#### **Opportunities**

### 01. Inflowing investment in large manufacturing industries

02. The National Physical Plan
2050 has identified
Kuliyapitiya as a service based
industrial and plantation zone
and a service-based
knowledge/innovation-based
zone.

#### **Threats**

- 01. Water scarurban area and sometimes risk of flooding.
- 02. Agricultural land is being degraded day by day.

## Goal 02 Becoming a Hub of Innovation and Knowledge - Based Vocational and Higher Education

Chapter 05
SWOT Analysis

Summary SWOT Analysis

#### **Strengths**

- 01. Wayamba University, Technical College and higher educational institutions are located.
- 02. Kuliyapitiya Technical College currently offers about 33 courses (by the year 2023), including courses such as agricultural production technology and food technology.
- 03. The presence of courses related to agriculture such as agriculture and plantation faculty at Wayamba University can also be identified as a potential for the emergence of trained workers in this area.

#### Weaknesses

01. Inadequate infrastructure.

#### **Opportunities**

01. National Physical Plan 2017 - 2050 identified Kuliyapitiya as a service based industrial and plantation zone and service-based knowledge/innovation-based zone.

#### **Threats**

01. The current economic crisis

**SWOT** Analysis

Summary SWOT Analysis

#### Goal 03

#### Creating a Livable and Convenient city for the Residences and Committees

#### **Strengths**

- 01. Presence of environmental and climatic factors conducive to residential development.
- 02. The planning area is equipped with essential public facilities.
- 03. Strong main and minor bus services and roads to major cities.
- 04. Existence of renowned national and private schools.
- 05. Existence of institutions of higher learning.
- 06. Access to health services.
- 07. Existing Development Projects

  (Market Building Project)
- 08. Proposed Housing Project for University Staff

#### Weaknesses

- 01. Poor road system for peripheral areas.
- 02. Water supply and solid waste management are not sufficient for future development.
- 03. Due to lack of sufficient parking space, the urban area is heavily congested.
- 04. Non operation of tap
  water system for
  peripheral areas.

#### **Opportunities**

01. The National Physical Plan 2017 - 2050 has been identified as a location for service-based industries and plantation clusters and service-based knowledge/innovation-based centers.

#### Threats

01. Water scarurban area and sometimes the risk of flooding.

Goal 04

Promoting Environmental Sustainability by Preserving Sensitive
Ecosystems

Chapter 05
SWOT Analysis

Summary SWOT Analysis

Strengths	Weaknesses
01. Eco - sensitive area of	01. Haphazard development to
836.43 hectares.	sensitive areas.
02. Presence of major water sources as Dandagamuwa Oya and Halpane Canal.	<ul><li>02. Dandagamuwa doesn't have those reserves.</li><li>03. Allotment of agricultural land</li></ul>
03. Presence of reclaimable canals.	for development purposes.  04. Blocking canals and carrying
04. Having public and private open spaces.	out developments.
05. The presence of lakes.  (Kanadulla Lake,  Kandahena Lake)	
Opportunities	Threats
01. Having wetland conservation policies	01. Water scarurban area

### The Development Plan

#### The Development Plan

#### 6.1 Conceptual Plan

The proposed conceptual plan focuses around establishing a spatial structure on the ground that optimizes the benefits derived from prevailing economic forces such as agriculture and residential practices in the area. Additionally, the impact of existing geographical conditions and development projects was considered in preparing the proposed conceptual plan.

**Chapter 06**Development Plan

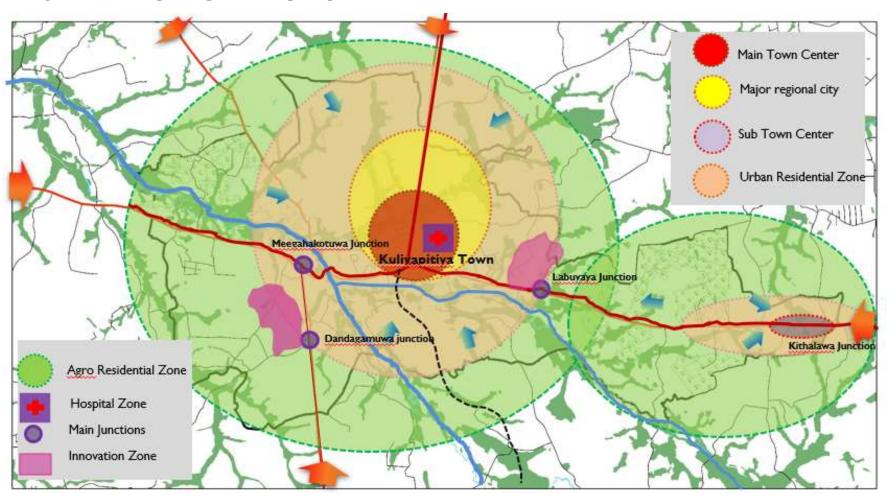
Conceptual Plan

Considering expected population growth and housing expansion within the planning zone, the relevant residential characteristics of the conceptual plan have been delineated. The primary objective of the vision for the future is to develop the area sustainably, aiming to protect hypersensitive wetlands and paddy fields that contribute to flood control, urban temperature regulation, natural beauty, and ecological balance.

In the conceptual plan, space will be allocated for the development of the Dandagamuwa Oya area, along with other streams and lakes, as a wetland eco - zone that facilitates the use of public spaces.

Furthermore, the plan aims to protect all agricultural lands, particularly those designated for coconut and paddy cultivation. Strengthening the urban economy of Kuliyapitiya, particularly through the coconut industry which is the area's main economic driver, will contribute to realizing this future vision of developing Kuliyapitiya into a prosperous urban area.

Figure No 6.1: Proposed spatial conceptual plan.



**Chapter 06**Development Plan

Conceptual Plan

Source: Urban Development Authority - 2023

#### **6.2 Proposed Land Use Plan**

The proposed land use plan reflects the urban model derived from strategic projects outlined in the strategic plan to develop the Kuliyapitiya Planning Area into a prosperous urban center, focusing on economic, environmental, health, and waste infrastructure facilities. This plan aims to enrich the area by harnessing its potential as a region characterized by an agricultural economic pattern.

The overall land use plan prioritizes development across commercial, agricultural, and residential sectors. It proposes vertical development for commercial purposes along both sides of the main road, aiming to provide high - quality services to residents and visitors. Enhancements to existing bypasses, alternative roads, and new roads will improve traffic flow, facilitating the transportation of agricultural and industrial products to and from the urban area and surrounding regions, thereby promoting sustainable urban expansion into interior areas. Further development of internal roads is intended to alleviate urban congestion and open up land for economic, residential, and educational purposes.

The objective is to sustainably carry out development activities while preserving the area's paddy fields and coconut plantations. The Kuliyapitiya Development Plan is designed to enhance the beauty and attractiveness of the area by incorporating open spaces associated with water sources, particularly highlighting the Dandagamuwa Oya, to create an urban environment characterized by its blue - green aesthetics.

Zoning plans and regulations have been introduced based on current land use, development trends, environmental sensitivity, land suitability for residential purposes, existing and potential development areas, disaster - prone areas, and the anticipated urban model. A five - tier workplace hierarchy has been identified for the Kurunegala District, with Kuliyapitiya designated as a second - class urban area. Given urban expansion within the Kuliyapitiya Planning Area, Kuliyapitiya is developed as the primary urban area, with Kitlawa positioned as its suburb.

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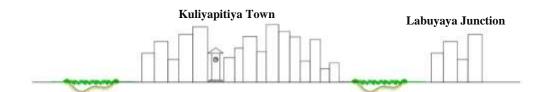
Development Plan

Proposed Land Use Plan

Development Plan

Proposed Land Use Plan According to the Kuliyapitiya Urban Development Plan, the planning area has been divided into six main zones, with the area encompassing the Kuliyapitiya urban core identified as the commercial zone. Kuliyapitiya will be further designed as an urban area where residents, businessmen, and visitors can easily access economic, banking, financial, and service facilities.

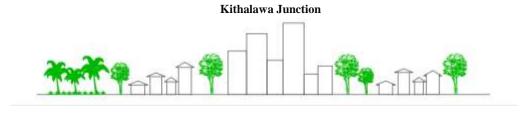
Figure No 6.2.1: Proposed Cross section 2033 - Urban area Central Zone



Source: Urban Development Authority - 2023

The other commercial zone in the zoning plan is the mixed development zone which has been zoned with a focus on the Kithalawa area.

Figure No 6.2.2: Proposed Cross section 2033 - Mixed Development Zone

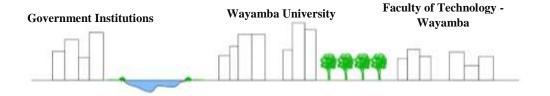


Source: Urban Development Authority - 2023

The administrative zone is planned on the basis of government institutions and educational services in the zoning plan.

Figure No 6.2.3: Proposed Cross section 2033 - Administrative zone

Development Plan



Proposed Land Use Plan

Source: Urban Development Authority - 2023

Also, three different residential zones have been planned in the zoning plan and the cross - chart of the high-density residential zone can be shown as follows.

Figure No 6.2.4: Proposed Cross section 2033 - High Density Residential Zone



Source: Urban Development Authority - 2023

Figure No 6.2.5: Proposed Cross section 2033 - Medium Density Residential Zone



Source: Urban Development Authority - 2023

Kuliyapitiya Development Plan 2023-2033 Urban Development Authority

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Proposed Land Use Plan

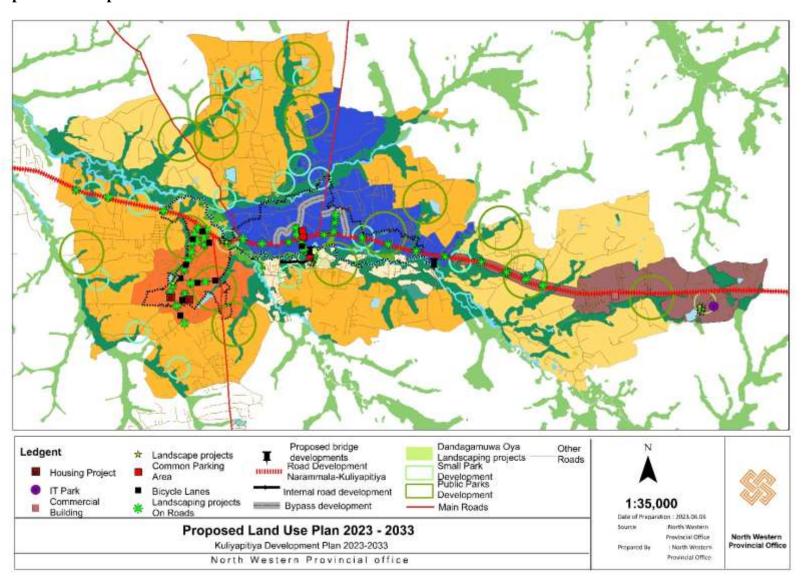
### Figure No 6.2.6: Proposed Cross section 2033 - Low Density Residential Zone



Source: Urban Development Authority - 2023

Accordingly, it is clear that by 2033, the vision of the "an opulent agro - techno city" will be achieved through this proposed land use plan.

Map No. 6.1: Proposed Land Use Pattern 2033



**Chapter 06**Development Plan

Proposed Land Use Plan

Source: Urban Development Authority, 2023

Development Plan

Infrastructure Development Strategy Plan

#### 6.3 Infrastructure Development Strategy Plan

The infrastructure development strategy aims to develop facilities that provide suitable living conditions for all residents of the Kuliyapitiya Planning Area in an equitable manner. The primary objective is to reduce inequality not only within the urban center of Kuliyapitiya but also in its peripheral areas by ensuring high road connectivity, an efficient transportation system, housing, health, and education facilities.

The strategic plan for infrastructure development is divided into two main areas: physical infrastructure facilities and social infrastructure facilities. Social and physical infrastructure will be addressed under the Service Plan, which includes analyses of housing, prioritization of service centers, education, health, public trade services, and public leisure facilities as part of social infrastructure. Transportation, water supply, electricity supply, road development, sewage drainage and sewerage systems, waste management, and other facilities will be discussed under physical infrastructure.

#### 6.3.1 Social Infrastructure Development Strategic Plan

Development strategies for the year 2033 have been identified through a study of residential, health, and educational infrastructure facilities as part of the social infrastructure development plan.

#### 6.3.1.1. Residential plan

According to the Kuliyapitiya Urban Development Plan, population forecasting was conducted using two main methods. The population was predicted based on general population growth trends and the envisioned impact of national, regional, and local development activities. Projections were made considering regional trends and the median growth rates at national, regional, and local levels.

Table No 6.3.1.1: Population and population density prediction

	2001	2012	2015	2018	2020	2033
Population Growth	28,473	31,330	33,998	35,423	36,099	42,508
Rate (1.3%)						

Source: Urban Development Authority - 2023

The predicted population, as shown in the table above, and the proposed housing density to be achieved by the development plan, were divided into density periods in accordance with the results of environmental analyses and development potential. Population growth rates have been considered based on assumptions regarding priorities that will be encouraged in the future within density zones. Based on these calculations, the expected residential population of the Kuliyapitiya Urban Area by the year 2033 is projected to be 42,508. This population estimate has been determined regionally based on housing projects and housing density, considering the minimum number of people per family unit. (Map No. 6.3.1: Housing Density 2023)

Table No 6.3.1. Expected residential population by 2033 in Kuliyapitiya Urban Area - By Zone

Zone	Residential Population	Density of residential population (Per Hec)
Commercial Zone	4,130	16
Administrative Zone	4,117	17
Mixed Development Zone	2,774	6
High Density Residential Zone	18,495	13
Medium Density Residential Zone	11,492	8
Low Density Residential Zone	1,500	4

Source: Urban Development Authority - 2023

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#### **Strategies**

- I. Identifying places where housing schemes can be started to meet the needs of middle-class housing and implementing housing schemes.
- II. Implementation of Lakshmipura Housing Development Project.
- III. Create a conducive environment to maintain the mental health of the people by providing outdoor recreational facilities.

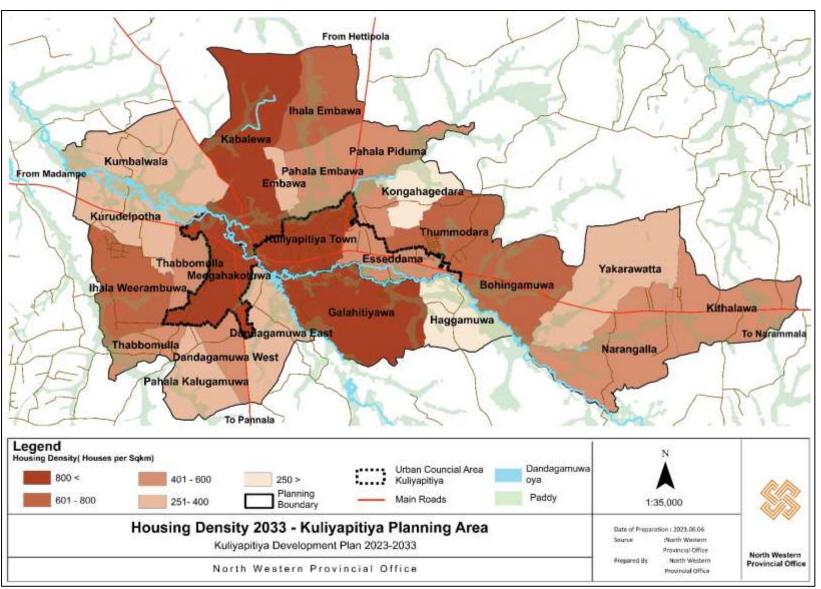
### 6.3.1.2. Providing residential facilities for commuter population or transient individuals.

In addition to addressing the residential population, the settlement plan will also include provisions for temporary residents attracted to the area, including those associated with the MAS Attachment Factory and Kuliyapitiya Hospital. The plan will discuss the accommodation needs for these temporary stopovers.

The student enrollment at Wayamba University was 2,798 in 2021 and is expected to increase by approximately 50% by 2033 due to the introduction of new educational courses. Other educational institutions are also anticipated to see a 5% increase in student numbers by 2033. Additionally, the workforce, excluding temporary residents, is projected to grow by about 25%. Presently, the Institute of Higher Education provides hostel facilities for students and faculty, with plans to expand these facilities further.

Local residents currently generate income by offering accommodation to temporary residents. The Housing Plan aims to establish healthy, comfortable, and well - regulated hostels for such occupants. As part of this effort, the designated area accommodating temporary residents has been zoned as a residential zone in the zoning plan.

Map No. 6.3.1: Housing Density 2023



Source: Urban Development Authority - 2023

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#### 6.3.1.3. Education Facility Plan

In the realm of education facilities overseen by the Kuliyapitiya Urban Development Authority, there are a total of 14 schools comprising national and provincial schools. Administrative functions for all these schools fall under the Kuliyapitiya Education Division. Among these schools, there is 1 boys' school, 2 girls' schools, and the remaining 11 schools are co - educational. Additionally, the area hosts several international schools. The student - to - teacher ratio in this region is 1:18, ensuring adequate coverage across the school system.

Map 2.2.2.3.2 shows that the existing primary and secondary education facilities, along with their service areas, are optimally positioned to meet both current and future demands within the Kuliyapitiya jurisdiction.

Regarding tertiary education planning, there are currently 6 faculties situated in the North Western Province, with a proposal in place to establish an Engineering Faculty. Plans are also underway to develop new hostels within university premises to expand and regulate official housing facilities for students and staff members.

Moreover, Kuliyapitiya Technical College attracts a substantial number of students from outside the North Western Province, particularly for specialized courses like Agricultural Production Technology, which is exclusive to this college. Annually, between 150 to 400 students enroll in these courses. Additionally, there is a Vocational Teacher's College contributing to the area's higher education landscape.

These educational institutions are positioned optimally to meet both present and future educational needs within Kuliyapitiya.

#### 6.3.1.4. Health Facility Plan

The Kuliyapitiya General Hospital serves as the main healthcare institution within the Kuliyapitiya Planning Area and has gained teaching hospital status with the presence of the Medical Faculty of Wayamba University. Currently, the hospital comprises 15 residential treatment wards with 679 hospital beds. As of 2021, the hospital staff consists of 612 members, including 22 Medical Consultants, 119 Medical Officers, 297 Nurses, and 13 Ward Sisters. The hospital has demonstrated exceptional service to the local community, especially during the recent COVID - 19 pandemic.

One primary challenge faced by Kuliyapitiya Hospital is the provision of adequate drinking water for patients and staff. This issue is being addressed through ongoing water projects in Bingiriya, Udubadwa, Makadura, Panala, and Kuliyapitiya, which aim to alleviate the water supply problem.

In addition to Kuliyapitiya General Hospital, the area is supported by 1 regional hospital, 12 private dispensaries, 3 clinic centers, and 3 private hospitals. Furthermore, there is an Ayurvedic dispensary available. Map 2.2.2.3.4 confirms that the health facilities within the Kuliyapitiya jurisdiction are currently sufficient and positioned well to meet future demands.

The water supply problem is a significant obstacle affecting the expansion of services at Kuliyapitiya Teaching Hospital. However, this issue is being addressed through the Bingiriya, Udubadwa, Makadura, Panala, Kuliyapitiya water project implemented by the National Water Supply and Drainage Board (NWSDB), as depicted in Figure No. 6.3.1.6.1: Water Supply Plan.

Furthermore, the Solid Waste Management Plan outlines the necessary steps for effective waste management at Kuliyapitiya General Hospital, ensuring proper disposal and handling of hospital waste.

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Infrastructure Development Strategy Plan

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#### 6.3.1.5. Public Trade Service Facilities

Kuliyapitiya Urban Area serves as the primary hub for daily market needs within the jurisdiction of the Kuliyapitiya Urban Development Authority. An analysis of the service area indicates that it currently operates at an optimal level to fulfill these requirements. Additionally, the presence of supermarkets within the area further ensures that the needs of residents are adequately met for day - to - day trade necessities, even considering the expected population growth.

However, a notable issue arises from the lack of a dedicated trading center for agricultural products. To address this concern, there are plans underway to construct a building in the Yakarawatta Mansandiya area of Kuliyapitiya. This facility will serve as a centralized location for the sale of various agricultural products, enhancing accessibility and efficiency in the trading process.

#### 6.3.1.6. Water Supply Plan

The water supply plan for Kuliyapitiya urban areas will include discussions on proposed projects aimed at meeting future water consumption needs. Until the year 2023, the Kuliyapitiya Urban Council supplied 140,000 gallons of water daily within its area, drawing from the Dandagamuwa Oya as its water source. This water was distributed through two main water tanks—one located in the Meegahakotta area and the other near Kuliyapitiya Hospital.

Residents receive their water supply from the Meegahakotta water tank, while water from the tank near the hospital is primarily directed towards the hospital and commercial sectors. However, the water supply within the urban council area is not functioning optimally. Outside the Urban Council area, there is no piped water supply, and residents rely on safe wells for their daily water needs. However, during periods of water scarcity, especially affecting the Kuliyapitiya region, accessing safe drinking water becomes a significant challenge. This scarcity also impacts agricultural activities, such as poultry farming, due to inadequate water availability.

As a solution, the Bingiriya, Udubadwa, Makadura, Panala, and Kuliyapitiya water project initiated by the National Water Supply and Drainage Board aims

to provide sufficient water supply by 2025, covering the Kuliyapitiya Pradeshiya Sabha area. Ma Oya is utilized as the primary water source for this project, with a targeted daily water supply of 40,000 cubic meters. This initiative seeks to alleviate water shortages and ensure sustainable water access for both residential and agricultural needs in the Kuliyapitiya region.

Table No 6.3.1.6.1.: Predicted Daily Water Requirement 2033

Zone	Residential	Residential	Total
	Population -	water	Residential
	2033	requirement	Water
		per person	Requirement
		(Liters)	(Liters)
Commercial Zone	4,130		495,600L
Institutional Zone	4,117		494,040L
Mixed Development Zone	2,774		332,880L
High Density Residential Zone	18,495	X 120	2,219,400L
Medium Density Residential Zone	11,492		1,379,040L
Low Density Residential Zone	1,500		180,000L
Total	42,508		5,100,960L
			(5,100 m3)

Gross commuter population of the area =  $7,6842 \times 18 = 1,383,156 \text{ L}$ 

Expected Future Water Demand = 6,484,116 L (6484.12 m3)

Source: Urban Development Authority - 2023

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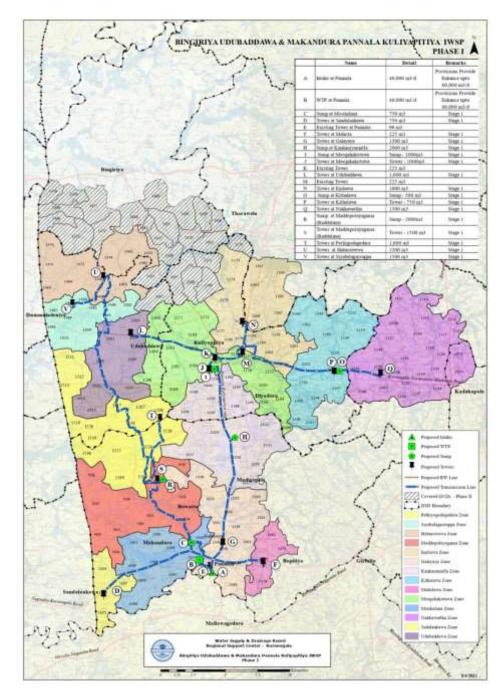
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Figure No 6.3.1.6.1.: Water Supply Plan



Source: Bingiriya, Udubadwa, Makadura, Panala, Kuliyapitiya Water Project, National Water Supply Water Transport Board, 2023 By the year 2033, the desired residential population and commuter population can meet the water requirement through the above project (Figure No. 6.3.1.6.1: Water Supply Plan).

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#### 6.3.1.7. Electricity area Supply Plan

By the year 2033, the planned water supply project (depicted in Figure No. 6.3.1.6.1: Water Supply Plan) aims to meet the water requirements of both the desired residential population and commuter population in Kuliyapitiya.

According to the 2018 Census of Kuliyapitiya Pradeshiya Sabha, 99.3% of households in the area have access to electricity. The classification of housing units based on their proximity to main roads with electricity supply indicates widespread coverage of electricity services throughout the region. Additionally, business establishments, industries, and animal husbandry operations in the area are adequately supplied with electricity.

This comprehensive electricity coverage contributes to the overall development and functioning of residential, commercial, and industrial activities within the Kuliyapitiya Pradeshiya Sabha area.

#### 6.3.1.8. Sewerage and Waste Water Management Plan

The Waste Water Management Plan for Kuliyapitiya urbanity addresses the disposal of wastewater within the area. Presently, there is no sewage disposal pipeline covering the entire urban council area, necessitating the management of household wastewater within individual premises.

However, given the high density of buildings in the Kuliyapitiya Urban Council area and the annual occurrence of floods, there is a need for a comprehensive plan to manage both solid and wastewater within the urban council by the year 2033. This plan should encompass strategies for the safe disposal of wastewater to mitigate environmental pollution and health hazards associated with improper waste disposal practices.

Kuliyapitiya Development Plan 2023-2033 Urban Development Authority

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#### 6.3.1.9. Solid Waste Management Plan

Solid waste management is a crucial aspect discussed under the physical waste infrastructure facilities plan, focusing on measures and proposed projects for managing solid waste in the Kuliyapitiya urban area. The Kuliyapitiya Urban Council and Kuliyapitiya Pradeshiya Sabha bear primary responsibility for solid waste management within the urban council area.

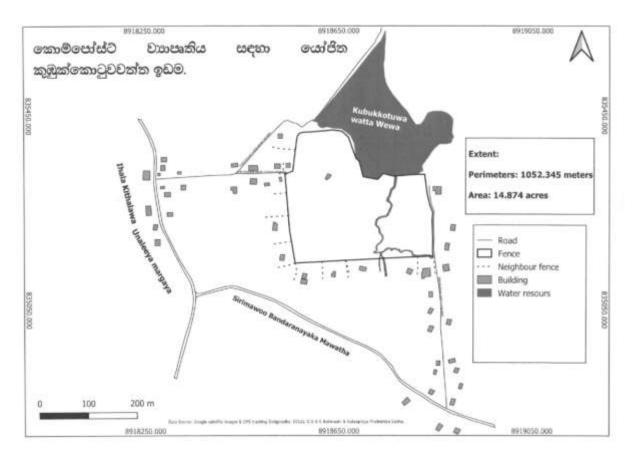
Currently, a solid waste management center operates systematically within the urban council premises, with a daily solid waste collection capacity of 7 tons. This facility produces organic fertilizers, generating an annual revenue of approximately Rs. 44,372.00 through fertilizer sales. It is estimated that the available land for waste management will suffice for the next decade, with approximately 20% of the land being utilized by 2021.

Additionally, there is a degradable garbage collection center located within the Pradeshiya Sabha premises, with a daily capacity of 70 cubic meters. This facility produces carbon fertilizer and biogas, but its current capacity has been exceeded.

Furthermore, a non - degradable garbage collection and recycling center operates in Ambawa.

As a solution for the growing waste management needs, the development plan proposes the initiation of a solid waste management project on 14 acres of land known as Kumbukkotta Watta. This project is deemed essential for the Kuliyapitiya Plan area and aims to manage waste from various sources, including the Kuliyapitiya General Hospital, animal husbandry waste, as well as waste from industrial, commercial, and residential establishments.

Figure No 6.3.1.9.1: Land proposed for solid waste management



Source: Pradeshiya Sabha - Kuliyapitiya - 2023

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#### Chapter 06

Development Plan

Transportation Plan

#### 6.4. Transportation Plan.

The development plan for the Kuliyapitiya Planning Area recognizes the need for improved road infrastructure to address existing challenges, particularly the condition of narrow internal roads that reflect poor urban development. Enhancing road connectivity is crucial to realizing the vision of developing the area into a sustainable and technologically advanced urban center. Kuliyapitiya's transportation system predominantly relies on buses, with the Kuliyapitiya - Narammala - Madampe road serving as a key arterial route, part of the B - class road network. This road, spanning 20 kilometers from the center of Kuliyapitiya to Narammala town, facilitates access to the Central Highway, easing transportation for residents and visitors seeking services and residential facilities in Kuliyapitiya.

The development plan proposes several initiatives to enhance internal road infrastructure within the Kuliyapitiya Plan area. One significant project involves transforming Ananda Mawatha and Suratissa Mawatha, situated between Kuliyapitiya - Narammala Road and Hettipola Road, into underpasses. This initiative aims to improve access to Kuliyapitiya Hospital and the weekly Betel Pola market, enhancing transportation convenience.

Similarly, redevelopment of the bridge behind Tissa Mawatha bus stand and Asvedduma Bridge is planned to improve connectivity to rural areas and facilitate transportation for villagers, contributing to broader urban development efforts.

Furthermore, the strategy outlines the development of Ashoka Mawatha and Lionel Jayathilaka Mawatha (covering a distance of 3.4 kilometers) to create bicycle and pedestrian - friendly pathways. This initiative aims to enhance comfort and safety for individuals accessing residential and service facilities in Kuliyapitiya.

In addition to road enhancements, the plan proposes allocating 30 perches of land owned by the Kuliyapitiya Urban Council in the heart of the urban area, as well as an area near Kandalanda Lake (20 perches), to address the shortage of public transportation stops in the area. These measures collectively contribute

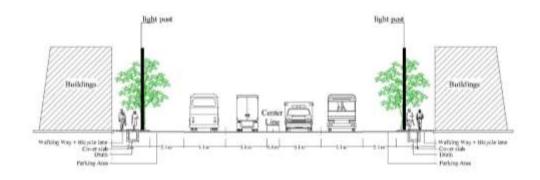
to the goal of establishing Kuliyapitiya as a welcoming and accessible urban environment for residents and visitors alike.

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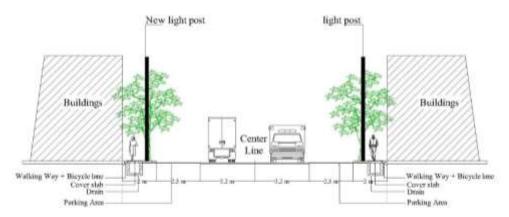
Figure No 6.4.1.: Proposed development for urban area centre Kuliyatipiya - Narammala - Madampe road

Transportation Plan



Source: Urban Development Authority - 2023

Figure No 6.4.2.: Proposed development for Ashoka Mawatha, Lionel Jayathilake Mawatha

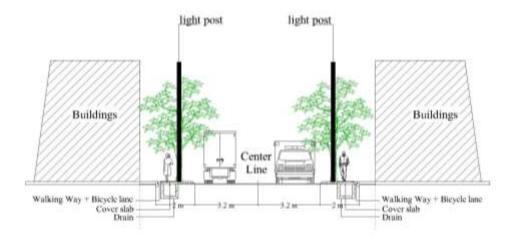


Source: Urban Development Authority - 2023

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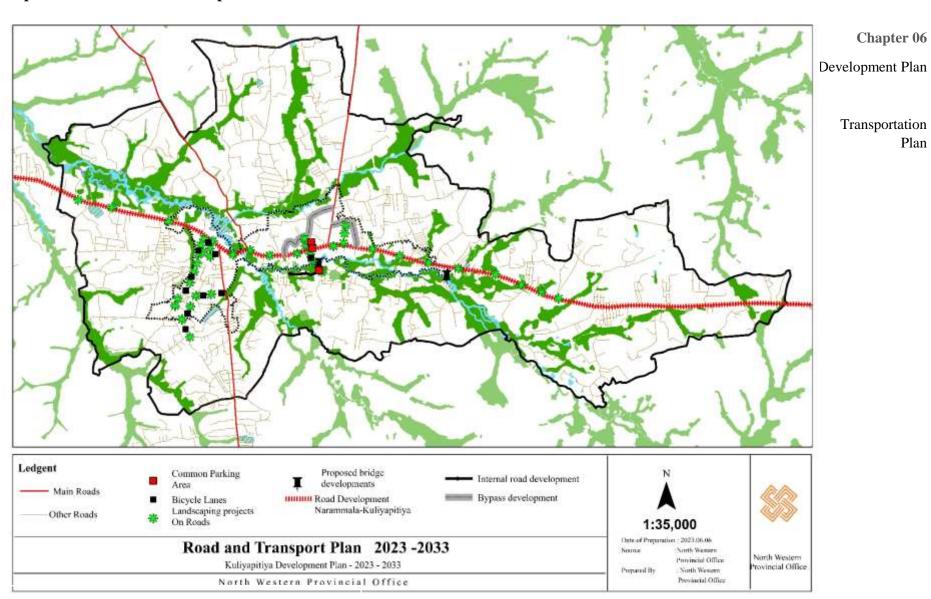
Transportation Plan

## Figure No 6.4.3.: Proposed Sub roads development



Source: Urban Development Authority - 2023

Map No. 6.4.1: Road and Transport Plan 2023



Source: Urban Development Authority, 2023

Development Plan

Economic Development Strategy Plan

#### 6.5. Economic Development Strategy Plan.

Agriculture plays a central role in the economic landscape of the Kuliyapitiya Urban Development Authority area, with Kuliyapitiya positioned as a key hub within the Coconut Triangle and ranking third in coconut production in the North Western Province. The area boasts a robust coconut - related industry, encompassing the production of coconut oil, coconut coir, coir fiber, and other coconut - based products, predominantly located in the Karmantha area of Kuliyapitiya. This development plan aims to bolster these industries by providing essential infrastructure such as water supply, electricity, and waste management facilities.

Another significant economic activity is the cultivation of "Betel" (betel leaves), with the Kuliyapitiya Betel Pola serving as a prominent market held five days a week. Betel leaves from Kuliyapitiya, particularly the native black variety, are in high demand and exported to countries like Pakistan. Betel leaves find applications in food production, paints, chemicals, and pharmaceuticals, contributing to the area's economic strength. The development plan seeks to enhance the infrastructure of the Betel Pola building and address traffic congestion issues associated with this market, located near Hettipola Road in the center of Kuliyapitiya.

Additionally, the development plan supports the cultivation of paddy, grains, vegetables, and fruits by improving market access and developing necessary infrastructure facilities.

Animal husbandry, particularly poultry and egg production, is another significant economic sector in Kuliyapitiya, supported by large land holdings such as coconut plantations, vacant lands, and gardens. Challenges faced by this sector include inadequate storage facilities, limited market infrastructure, and transportation issues. The development plan aims to address these challenges by proposing plans to enhance storage, market facilities, and overall infrastructure.

Furthermore, encouraging under - planting in coconut plantations is envisioned as a strategy to boost the agricultural economy.

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To address the lack of a dedicated agricultural center for harvesting and produce, a key problem affecting Kuliyapitiya's agricultural economy, the development plan proposes the construction of business buildings in Yakarawatta. Additionally, road and transport plans are outlined to facilitate the movement of livestock into the urban area, supporting the growth and

Sustainable Environmental Strategic Plan

**6.6 Sustainable Environmental Strategic Plan** 

sustainability of the agricultural sector in Kuliyapitiya.

The objective of the Environmental Conservation Plan is to preserve eco-sensitive areas by establishing systematic land use practices based on sensitivity analysis. This strategy aims to implement necessary measures for conserving major water sources, waterways connected to these sources, catchment areas, and various natural landscapes including canals, streams, tanks, ponds, and reserve forests within the plan area.

Specific eco - sensitive areas identified within the Kuliyapitiya urban area include the Dandagamuwa Oya, paddy fields, and marshlands.

The proposed Environmental Conservation Plan is crucial for protecting the natural environment in response to increased threats and disasters resulting from irregular development activities. By prioritizing the preservation of ecosensitive areas, the plan seeks to mitigate the adverse impacts of human activities on the environment and ensure the sustainability of valuable natural resources for future generations. This plan aligns with broader environmental conservation efforts aimed at promoting ecological resilience and enhancing overall environmental quality within the Kuliyapitiya region.

### 6.6.1 Environmental Protection Plan

The environmental protection plan for the Kuliyapitiya Urban Area aims to utilize wetlands for sustainable social, economic, and environmental purposes. It considers their potential for water retention and other environmental benefits

Kuliyapitiya Development Plan 2023-2033 Urban Development Authority

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Sustainable Environmental Strategic Plan to prevent unauthorized encroachments and inappropriate uses. The plan also seeks to achieve forest - based economic, social, and environmental benefits while protecting biodiversity.

The objective is to create eco - friendly cities by mitigating the impact of floods caused by both natural phenomena and human activities within the Kuliyapitiya Urban Area. It aims to utilize eco - sensitive areas for scientific research and educational awareness, and to wisely use these areas to enhance environmental, tourism, and recreational opportunities by fostering biodiversity. The plan specifically includes wetlands with high biodiversity value and those that help reduce and control flood risks, as well as areas designated for catchment and drainage purposes.

The reserves along the water bodies, indicated by the Building Line for the canals/streams outlined in Chapter 09, must be maintained as recommended by the Department of Irrigation and the Sri Lanka Land Reclamation and Development Corporation.

All reserve forests falling under the jurisdiction have been identified and included in the zoning plan as hypersensitive conservation zones. The permitted uses for this hypersensitive conservation zone and related regulations are specified in Chapter 08 of the Zoning regulations. Accordingly, no development activities are Permitted in this zone, and any activities within the buffer zones of these protected areas are permitted only for "prescribed projects" outlined in the Environment Protection Act.

#### 6.6.2 Spatial plan for public outdoor leisure activities

Based on the census data and development plan analysis for Kuliyapitiya Urban Council area, with a predicted population of 45,508 by 2033, the Urban Development Authority stipulates that at least 60 hectares of land should be allocated for public outdoor leisure activities by that year. This requirement translates to a minimum of 1.4 hectares of open land per 1000 population.

The current area under cultivation in the region is 767 hectares, which can potentially be used for recreational activities during non - cultivation periods, thus serving as dry weather playgrounds as needed. Additionally, the presence

of extensive coconut plantations and gardens in the Kuliyapitiya divisional area provides ample space for public outdoor recreational activities.

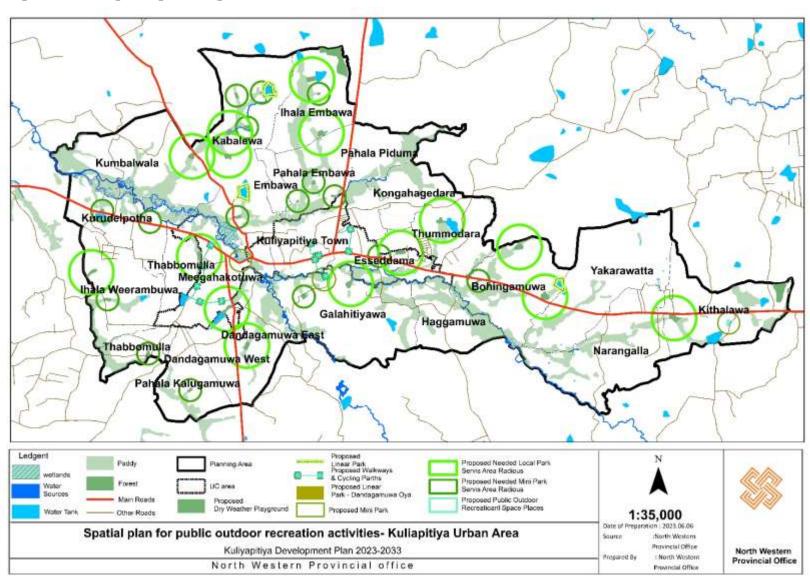
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Despite existing natural spaces, the development plan prioritizes allocating land for public outdoor recreation based on community needs and population density within the urban council area. This allocation process involves classifying existing parks and playgrounds, as well as identifying suitable land for further development as open ground, as depicted in Map No. 6.6.2.1 (Location of the Gardens).

Key projects integrated into the plan to enhance the landscape include the Dandagamuwa Oya Landscape Project, Thura Vadula Project, and Kanda Hena Lake Landscape Project. These projects aim to optimize available natural resources and create recreational opportunities in line with the evolving needs of the community.

Map No 6.6.2.1 Spatial plan for public outdoor leisure activities



Source: Urban Development Authority - 2023

#### 6.6.3 Disaster Risk Reduction Plan

In the context of the development plan for Kuliyapitiya, the flood situation along the Dandagamuwa Oya is identified as a critical issue impacting the regional economy and livelihoods. The analysis highlights that floods significantly affect the economy of the area at a regional level and pose direct threats to the lives of residents, particularly in Grama Niladhari divisions such as Kuliyapitiya town, Meegahakotta, and Dandagamuwa. Given these challenges, there is an urgent need to establish a comprehensive disaster management plan within the Kuliyapitiya urban planning area. This plan is essential to mitigate the impact of recurring floods and safeguard the community from associated risks.

The Disaster Management Plan is intricately linked to the strategies proposed under the Sustainable Environmental Development Strategy. For instance, the conservation of sensitive wetlands as outlined in the environmental protection plan plays a crucial role in retaining more water within the urban area during flood situations. By protecting and conserving these wetlands, the plan aims to enhance natural flood resilience.

Moreover, efforts are underway to address flood control measures, including repairing under - canals and waterways connected to the Dandagamuwa Oya. These actions are being conducted within a legal framework to ensure effective flood management and minimize adverse impacts on the local population and economy.

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Sustainable Environmental Strategic Plan

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Strategic Plan for Project Implementation

#### 6.7. Strategic Plan for Project Implementation

The Project Implementation Strategy Plan is introduced as a crucial component of the development plan for the Kuliyapitiya planning area for the year 2033. This plan outlines specific projects necessary for the area's development, aiming to address existing and potential future challenges. Projects will be executed in phases, with priority given to urgent issues. Funding for these projects is expected to come from the General Treasury, the Urban Development Authority, and the private sector.

The prioritization of projects within the Kuliyapitiya Development Plan for 2033 is based on input from various stakeholders. These projects are aligned to consider physical, social, economic, and environmental impacts, as well as project timelines, costs, and adherence to the desired development concept.

Through systematic implementation, these projects are anticipated to provide solutions to current and future challenges, driving sustainable development in the Kuliyapitiya area. This approach reflects a commitment to addressing local issues efficiently and advancing the overall well - being of the community.

Table No 6.7.1: Prioritized alignment of proposed projects

Serial		Implementing	
Number	Name of Project	Agency	Location
	First Prior	rity Proposed Projects	
01.	Opening of all canels	Pradeshiya Sabha	Ambawa,
	connected to	- Kuliyapitiya,	Dandagamuwa,
	Dandagamuwa Oya.	Department of	Kalugamuwa,
		Irrigation	Kithalawa, Galathiwa,
		Urban Council -	Meegahakotuwa,
		Kuliyapitiya	Kambalewa
02.	Development of	Urban Council -	Urban Council Limits
	drainage system	Kuliyapitiya	and Pradeshiya Sabha
			Limits

03.	Proposed Information	Pradeshiya Sabha -	Kitalawa - Behind the
	Technology Centre	Kuliyapitiya	ground
05.	Proposed Commercial	Pradeshiya Sabha -	Narangalla
	Building	Kuliyapitiya	
06.	Proposed Water	Pradeshiya Sabha -	Kuliyapitiya
	Supply Project	Kuliyapitiya	
07.	Improvement of	National Water	Kuliyapitiya
	Dandagamuwa Oya	Supply and	
	Based Water Supply	Drainage Board	
	Project.		
	Second Prior	ority Proposed Project	S
08.	Develop Naramala	Road Development	From Kuliyapitiya
	Kuliyapitiya Road.	Authority	town to Naramala
09.	Development of	Urban Council -	Kuliyapitiya
	bypasses	Kuliyapitiya	
	i. Ananda Mawatha		
	ii. Subharati Road -		
	Jayanti Road		
10.	Development of	Provincial Road	Kuliyapitiya
	Bridges	Development	Asvedduma
	i. Bridge on the	Authority	
	road behind	Pradeshiya Sabha -	
	Kuliyapitiya	Kuliyapitiya	
	Bus Stand.		
	ii. Bridge on		
	Asvedduma		
	Road		
11.	Development of roads	Provincial Road	Meegahakotuwa,
	to make it easier for	Development	Kanadulla
	walking and biking.	Authority.	
	i. Ashoka Mawatha	Urban Council -	
	ii. Lionel Jayathilake	Kuliyapitiya	
	Mawatha		

		Pradeshiya Sabha -	
		Kuliyapitiya	
12.	Improvement of public	Urban Council -	Kuliyapitiya
	parking facilities.	Kuliyapitiya	
	i. Land belonging to		
	Urban Council		Galahitiyawa
	near CIB Building		
	ii. Development of		
	Public Parking		
	Centre near		
	Kandalanda Lake.		
13.	Waste Management	Pradeshiya Sabha -	Kumbukkotta
	Project	Kuliyapitiya	
14.	Improvement of non -	Pradeshiya Sabha -	Ambawa
	biodegradable waste	Kuliyapitiya	
	management project.		
15.	Housing Development	National Housing	Kanadulla
	Project	Development	
		Authority	
	Third Prior	rity Proposed Projects	
16.	Dandagamuwa Oya	Urban Council -	Kuliyapitiya
	Landscape Project	Kuliyapitiya	
17.	Kandalanda Lake	Pradeshiya Sabha -	Galahitiyawa
	Landscape Project	Kuliyapitiya	
18.	Surplus Water	Pradeshiya Sabha -	Galahitiyawa
	Retention Project -	Kuliyapitiya	
	Kandalanda Lake		
19.	Providing space for	Department of	Galahitiyawa
	public outdoor	Irrigation	
	recreation		
20.	Development of	Pradeshiya Sabha -	Urupitiya
	Urapitiya Playground.	Kuliyapitiya	

21.	Thuravadula Project	Urban Council -	Kuliyapitiya Town
		Kuliyapitiya	
22.	Lakshmipura Housing	National Housing	Kanadulla
	Development Project	Development	
		Authority, Urban	
		Council -	
		Kuliyapitiya	

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Development Plan

Strategic Plan for Project

Implementation

Source: Urban Development Authority - 2023

- 1. Opening of all canels connected to Dandagamuwa Oya.
  - 1. The old canal road that traverses through private land from the mill to the lower paddy fields is located in Ambawa.
  - 2. The canal line stretching from Senanigama Wadduwawatta to the Main Road is situated in Dandagamuwa.
  - 3. The Idunilwatta Water supply is found in Kalugamuwa.
  - 4. There is a natural canal road situated in front of private land in Kitlawa.
  - 5. The Water Basana behind Wayamba University is located in its vicinity.
  - 6. Water supply extending from private land to Kongollawatta road can be found in Galathiwa.
  - 7. Water flowing through private land on Samadhi Mawatha to the paddy fields via Meegahakotta road is situated in Meegahakotta.
  - 8. Water supply extends up to Kambalawewa and Kambalawewa Lake through private land on Midella Road in Kambalewa.
  - 9. The Water supply from Pugallawatta to the Drain on Naramala Kuliyapitiya Main Road is located in Kitalawa.
  - 10. Restoration of the rainwater drain flowing into the main road near Anandagiri Gardens close to Central Hardware Shop on Kuliyapitiya Madampe Road is underway.

Development Plan

Project Ident	tification 01								
Project Title	Opening of	Opening of all canels connected to Dandagamuwa Oya.							
Project	Releasing w	Releasing water from identified water tanks associated with Dandagamuwa							
Proposal	Oya to redu	ice the	e risk of flo	ods.					
Location	Province	Dist	rict	Divisional	Local Authority	Name			
				Secreteriat					
				e Division					
	North	Kuru	ınegala	Kuliyapitiy	Urban Council/ Prad	leshiya			
	Western			a - West	Sabha - Kuliyapitiy	⁄a			
	Province								
Project	Conservation	on	\ \	Nature o	f New	V			
Types	Landscapes	<b>,</b>		Project					
	Heritage				Development of				
					land				
	Relocation				Economic				
	Housing				Social				
	Road				Environmental	V			
	Developme	nt							
	Other				Physical	$\sqrt{}$			
Project Goal	S		Reducing the risk of floods in the area.		ods in the area.				
Implement	Project	Urb	) an	Zone	All Zones				
ation plan	Implementi	Cou	ıncil -						
of the	ng Agency	Kul	liyapitiya						
project		Pra	deshiya	Zoning	Yes	✓			
		Sab	ha-	Compatibilit	t				
		Kul	liyapitiya	y					
		Dep	partment		No				
		of I	rrigation						
	Project	Dep	partment	Approving	Department of Irri	gation			
	Fund Plan	of	Irrigation,	Agencies					
		Pra	deshiya						
		Sab	ha, Urban						
		Cou	ıncil -						
		Kul	liyapitiya						

## **Benefits provided by the Project**

- Protection of the area from floods.
- Easy to manage waste water.

## Implementation and Maintenance of the Project

After completion of the project, maintenance and maintenance will be carried out by Kuliyapitiya Urban Council/ Pradeshiya Sabha.

# 02. Improvement of sewerage system.

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Project Identification 02								
<b>Project Title</b>	Imp	Improvement of sewerage system						
<b>Project Proposal</b>	Dev	elopment of dr	ainage system	in	Kuliyapitiy	a t	own with the o	bjective
	of r	educing the risk	of floods.					
Location	Pro	vince	District	Ι	Divisional		Local Author	rity
				S	Secretariat		Name	
				Ι	Division			
	Nor	th Western	Kurunegala	ŀ	Kuliyapitiya	-	Urban Counci	il/
	Pro	vince		V	West		Pradeshiya Sa	ıbha -
							Kuliyapitiya	
<b>Project Types</b>	Con	servation		I	Nature	N	ew	
					of			
	Lan	dscapes			Project	In	nprovement	
	Her	itage				D	evelopment	
						of	land	
	Rele	ocation				Е	conomic	
	Hou	ising				Sc	ocial	
	Roa	d				Eı	nvironmental	V
	Dev	elopment						
	Oth	er	V			Pł	nysical	V
<b>Project Goals</b>			Reducing the	ri	sk of floods	in 1	the area.	
Implementation p	olan	Project	Kuliyapitiya		Zone		Commercial	Zone
of the project	of the project		Urban		Zoning		Yes	✓
ու		ng Agency	Council		Compatib	ili	No	
					ty			
Project		Kuliyapitiya		Approvin	g	-		
		Fund Plan	Urban		Agencies			
			Council					

Development Plan

## Benefits provided by the Project

- Protection of the area from floods.
- Easy to manage waste water.

Strategic Plan for Project Implementation

## Implementation and Maintenance of the Project

After completion of the project, maintenance and maintenance will be carried out by Kuliyapitiya Urban Council/ Pradeshiya Sabha.

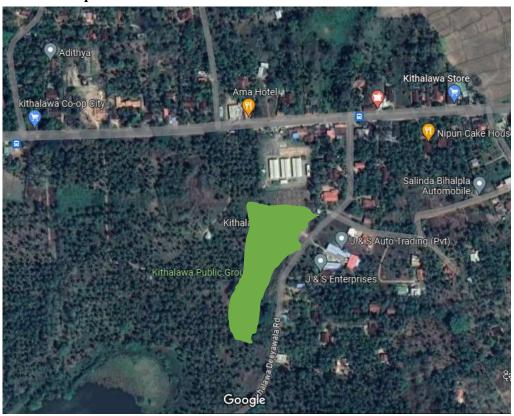
Development Plan

Strategic Plan for Project Implementation

# 03. Proposed Information Technology Centre

Project Identification 03						
Project Title	Proposed IT Centre or any other similar commercial project					
Project type	Commercial Development					
Location	Province	District	Divisional	Local Authority Name		
			Secretariat			
			Division			
	North	Kurunegala	Kuliyapitiya -	Urban Council/		
	Western		West	Pradeshiya Sabha -		
	Province			Kuliyapitiya		

## **Location Map**



<b>Project Types</b>	Conservation	Nature	of	New	$\sqrt{}$
	Landscape	Project			
	Heritage			Development of land	1
	Relocation			Economic	$\checkmark$
	Housing			Social	

	Road			Environmental	
	development				
		Economic		Physical	√
	Other	Development			
<b>Project Goals</b>	1	Expansion of	urban servi	ice needs in	the Mixed
		Development Z	Zone.		
		Creating a job	opportunity.		
Current	Urban		Survey	Number	
ownership	Developmen		Plan		
of the land	t Authority				
	(UDA)				
	State			Date	
	Other	Land Reform		Land extent	1 Acre
		Commission			
Implementa	Project	Board of	Zone	Mixed Develop	pment Zone
tion plan of	Implementi	Investment - Sri	Zoning	Yes	✓
the project	ng Agency	Lanka	Compatibil	No	
			ity		
	Project	Board of	Approving	Land Reform (	Commission
	Fund Plan	Investment - Sri	Agencies		
		Lanka			

Development Plan

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Strategic Plan for Project Implementation

# **04. Proposed Commercial Centre**

Project Identification 04							
Project Title	Proposed Com	Proposed Commercial Centre					
Project type	Commercial D	Commercial Development					
Location	Province	District	Divisional	<b>Local Authority Name</b>			
			Secretariat				
			Division				
	North	Kurunegala	Kuliyapitiya -	Pradhesiya sabha-			
	Western		West	Kuliyapitiya			
	Province						

# **Location Map**



Project Types	Conservation  Landscape	Nature of Project	New	V
	Heritage		Land Development	V
	Relocation		Economic	V
	Housing		Social	
	Road Development		Environmental	

		Economic		Physical	V
	Other	Development			
Project Goals	5	Expansion of	urban serv	ice needs in	the Mixed
		Development 2	Zone.		
		Creating a job	opportunity.		
		Construction o	f an agricultura	al harvesting cen	tre.
Current	Urban		Survey	No	
ownership	Development		Plan		
of the land	Authority				
	Goverment			Date	
	Other	Kuliyapitiya		Land extent	01 R
		Pradhesiya			
		sabha			
Implement	Project	Kuliyapitiya	Zone	Mixed Develo	pment Zone
ation plan	Implementin	Pradhesiya	Zoning	Yes	✓
of the	g Agency	sabha	Compatibil	No	
project			ity		
	<b>Project Fund</b>	Kuliyapitiya	Approving		
	Plan	Pradhesiya	Agencies		
		sabha			

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# 05. Proposed Water Supply Project.

Project Id	lentifica	ation 05							
Project T		Bingiriya, Ud	dubadwa	and Ma	kadura -	- Pana	la - Kuli	vapitiva Wate	er
9		Supply Proje					•	, i	
Project		The National	ne National Water Supply Board has implemented a program to						
Proposal		provide wat				_			
		Accordingly,	Kuliya	pitiya a	nd Udu	badda	have b	een identifie	ed
		among the ar	eas wher	e water	is expec	ted to	be suppli	ied.	
Location		Province	Distric	:t	Divisio	nal	Local A	Authority	
					Secreta	ariat	Name		
					Divisio	n			
		North	Kurune	egala	Kuliya	pitiy	Urban (	Council/	
		Western			a - Wes	st	Pradesh	iya Sabha -	
		Province					Kuliyap	oitiya	
Project	Conse	ervation		Nature	Ne Ne			Marie	
Types				of					
	Lands	-		Projec	t Lai	له م		V	
	Herita	age		Ü	La	na velopi	mont	٧	
	Reloc	ention				onomi		2/	
	Housi					cial			
	Provi	•					nental	V	
		lopment			En	VIIOIII	nemai		
	Other	-	√		Phy	ysical			
	Julion		٧		111,	Joicai			

Project Goal	ls		Ensure the availability of clean drinking water					
The basis of the project Kuliya				Kuliyapitiya is a service urban area with a high				
			contribu	ition from the edu	cation sector	r. Due to the		
			increase	in the presence of	of Kuliyapiti	ya University		
			and hig	gh-quality schools	and the a	vailability of		
			suitable	urban social and e	conomic stat	us, residential		
			units ha	ave become more	widespread	. This water		
			project 1	has already been p	lanned in co	nnection with		
			the Wat	ter Supply Board 1	by connectin	g Ma Oya to		
			meet the	e water requiremen	t.			
Implement	Project	Na	ational	Zone	All Zones			
ation plan	Implement	W	ater	Zoning	Yes	✓		
of the	ing Agency	Su	pply	Compatibility	No			
project		an	d		110			
		Dr	ainage					
		Во	oard					
	Project	Na	ational	Approving	-			
	Fund Plan	W	ater	Agencies				
		Supply						
		an	d					
		Dr	rainage					
		Во	oard					

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# 06. Improvement of Dandagamuwa Oya Sourced Water Supply Project.

<b>Project Identific</b>	eation 06						
Project Title	Improvement of Dandagamuwa Oya Sourced Water Supply Project.						
Project	Further i	improveme	ent of	the water pr	oject being imple	emented by	
Proposal	Kuliyapi	tiya Urban	Coun	cil connecting	g Dandagamuwa (	Oya.	
Location	Province	e Distri	ict	Divisional	Local Autho	rity Name	
				Secretaria	nt		
				Division			
	North	Kurur	negala	Kuliyapiti	y Urban Counci	i1 -	
	Western			a - West	Kuliyapitiya		
	Province	;					
<b>Project Types</b>	Conserv	ation		Nature of	New		
	Landsca	pe		Project			
	Heritage	<del>-</del> ;			Land	<b>√</b>	
					Development		
	Relocati	on	$\sqrt{}$		Economic	√	
	Housing				Social	√	
	Provinci	al road			Environmental		
	develop	ment					
					Physical		
	Other						
<b>Project Goals</b>			Ensu	are the availal	oility of clean drin	nking water	
The basis of the	project		Kuliyapitiya is a service urban area with a high				
			contribution from the education sector. Due to				
			the increase in the presence of Kuliyapitiya				
			University and high-quality schools and the				
			availability of suitable urban social and				
			economic status, residential units have become				
					l. This is the ba	asis of the	
			proje	ect to meet th	e water demand.		
1	oject	National		Zone	Commercial Zo	one	
_	plement	Water	_	Zoning	Yes	✓	
	g Agency	Supply ar		Compatibi	No		
project		Drainage		lity			
		Board and	d				

	Kuliyapitiya			
	Urban			
	Council			
Project	National	Approving	-	
Fund Plan	Water Supply	Agencies		
	and Drainage			
	Board			
	Kuliyapitiya			
	Urban			
	Council			

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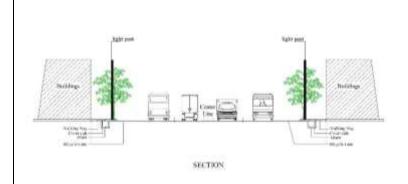
# 07. Development of Naramala Kuliyapitiya Road.

Project Identification 07							
<b>Project Title</b>	Road Devel	Road Development Project - Naramala - Kuliyapitiya Road					
Location	Province	District	Divisional	Local Authority Name			
			Secretariat				
			Division				
	North	Kurunegala	Kuliyapitiya	Urban Council/			
	Western		- West and	Pradeshiya Sabha -			
	Province		East	Kuliyapitiya			

# **Location Map**



**Proposed cross section** 



Project	Conservation	Nature	of	New	
Types	Landscape	Project			
	Heritage			Land Development	
	Relocation			Economic	

	Housing				Social		$\sqrt{}$	
	Road				Environmental			
	Development							
	Other				Physical		V	
<b>Project Goals</b>	8		Improver	Improvement of traffic movement.				
			Reducing road congestion.					
The basis of t	he project		Providing	g easy access	to Nakalagamuw	va h	ighway	
			access to	passengers.				
			To reduce	e traffic conges	tion near schools	in th	e urban	
			area cen	area centre and to improve the safety facilities				
			(footpaths) of school children.					
Current	Urban			Survey	No			
ownership	Developmen			Plan				
of the land	t Authority							
	Government				Date			
	Other		V		Land extent			
Implement	Project	Roa	d	Zone	Commercial Zor	ne		
ation plan	Implementin	Dev	relopmen	Zoning	Yes		$\sqrt{}$	
of the	g Agency	t Au	ıthority	Compatibili	No			
project				ty				
	Project	Roa	d	Approving	-			
	Fund Plan	Dev	relopmen	Agencies				
		t Au	ıthority					

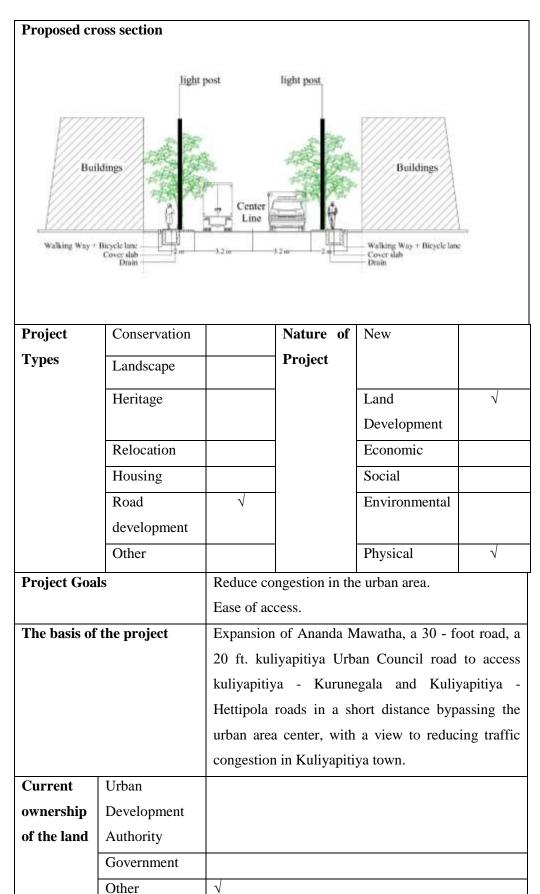
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# 08. Development of Underpasses (Ananda Mawatha)

<b>Project Identific</b>	eation 08						
<b>Project Title</b>	Alternative	Alternative Road					
Project nature	Proposed D	evelopment Pr	oject - Kuliyapitiya Ananda N	Mawatha			
Project	Expansion	of Ananda M	lawatha, which is currently	accessible,			
Proposal	connecting	Naramala - K	uliyapitiya and Kuliyapitiya	- Hettipola			
	road as a 30	) - foot road an	d developing it as an alternati	ive route.			
Location	Province	District	Divisional Secretariat	Local			
			Division	Authorit			
				y Name			
	North	Kurunegala	Kuliyapitiya - West	Urban			
	Western			Council -			
	Province			Kuliyapit			
				iya			
Location Map							



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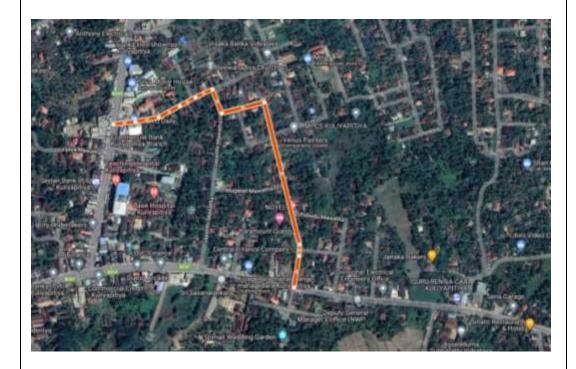
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Implement	Project	Kuliyapi	Zone	Commercial Zone,
ation plan	Implementing	tiya		Mixed
of the	Agency	Urban		Development Zone
project		Council	Zoning	Yes ✓
			Compatibility	No
	Project Fund	Kuliyapi	Approving	-
	Plan	tiya	Agencies	
		Urban		
		Council		

# 09. Development of Underpasses (Subharati Road - Jayanti Road)

Project Identifica	Project Identification 09							
Project Title	Existing Altern	Existing Alternative Road Widening Project Development of						
	Subharathi Road	l, Jayanti Road co	onnecting Kul	liyapitiya - Hettipola				
	road and Kuliyap	oitiya - Narammala	a road.					
Project	Expansion and	Expansion and development of Subharathi Mawatha and Jayanti						
Proposal	Mawatha to 30	feet connecting	Kuliyapitiya -	Hettipola road and				
	Kuliyapitiya - Narammala road to connect kuliyapitiya hospital and							
	pola without con	nection to the urba	an area.					
Location	Province	District	Divisional	Local Authority				
			Secretariat	Name				
			Division					
	North Western	Kurunegala	Kuliyapitiy	Urban Council -				
	Province		a West	Kuliyapitiya				

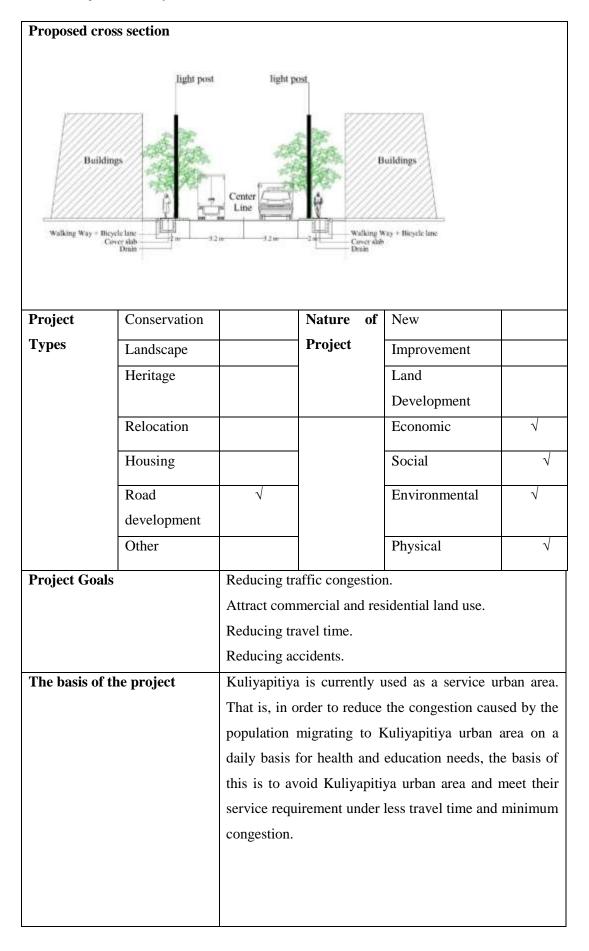
**Location Map** 



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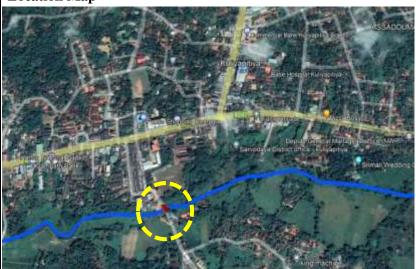
Development Plan

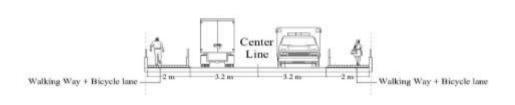
Strategic Plan for Project Implementation

# 10. Development of bridges. (Bridge on the road behind Kuliyapitiya bus stand.)

Project Identification 10							
Project Title	Development of the bridge.						
Project	Development of bridge on the road behind Kuliyapitiya Bus Stand						
Proposal							
Location	Province	District	Divisional	Local Authority			
			Secretariat				
			Division				
	North	Kurunegala	Kuliyapitiya -	Urban Council -			
	Western		West	Kuliyapitiya			
	Province						

# **Location Map**





Project	Conservation	Nature	of	New	
Types	Landscape	Project			
	Heritage			Land Development	
	Relocation			Economic	$\sqrt{}$

	Housing			Social	√
	Road	V		Environmental	
	development				
				Physical	√
	Other				
Project Goals	S	Providing easy	access to the u	rban area for the	residents.
		Providing fac	cilities for tra	ansportation of	agricultural
		produce in the	villages to the	urban area.	
The basis of t	the project	The basis of the	is project is to f	acilitate the easy	access of the
		resident population to kuliyapitiya town on the basis of daily			
		health and education needs of the kuliyapitiya area and to			
		bring the agricultural produce of Kuliyapitiya area to the			
		urban area, which is the main economy of the agriculture			
		industry.			
Implement	Project	Road	Zone	Commercial Z	one
ation plan	Implementi	Development	Zoning	Yes	✓
of the	ng Agency	Authority	Compatibil	No	
project			ity	110	
	Project	Road	Approving		
	Fund Plan	Development	Agencies		
		Authority			

Development Plan

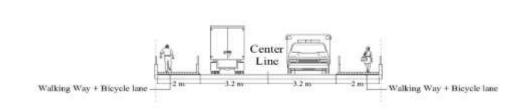
Development Plan

Strategic Plan for Project Implementation

# 11. Development of bridges. (The bridge on the Road.)

Project Identifie	cation 11						
Project Title	Development of	the bridge.					
Proposal	Development of	Development of bridge on Aswadduma road.					
Location	Province	District	Divisional	Local Authority			
			Secretariat	Name			
			Division				
	North Western	Kurunegala	Kuliyapitiya	Urban Council/			
	Province		- West	Pradeshiya Sabha -			
				Kuliyapitiya			





Project	Conservation	Nature	of	New	
Types		Project			
	Landscape			Improvement	
	Heritage			Land Development	

	Relocation			Economic	V	
	Housing			Social	√ V	
	Road	V		Environmental	V	
	Developemt					
	Other			Physical	V	
Project Goals	S	Providing easy	access to the u	rban area for the	residents.	
		Providing fac	cilities for tra	ansportation of	agricultural	
		produce in the	villages to the	urban area.		
The basis of t	the project	The basis of this program is to facilitate the easy access of				
		the resident population to kuliyapitiya urban area on a daily				
		basis for health and education needs.				
Implement	Project	Provincial	Zone	Commercial	Zone, High	
ation plan	Implementi	Road		Density Reside	ential Zone	
of the	ng Agency	Development	Zoning	Yes	✓	
project		Authority	Compatibil	No		
			ity	NO		
	Project	Provincial	Approving	-		
	Fund Plan	Road	Agencies			
		Development				
		Authority				

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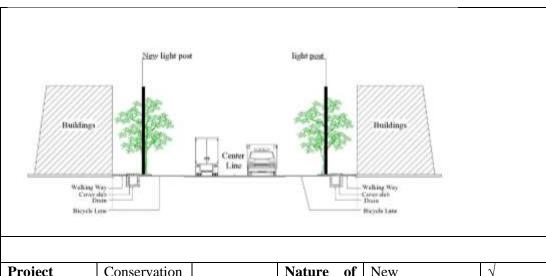
Development Plan

Strategic Plan for Project Implementation

# 12. Develop roads that are convenient for walking and biking.

Project Identification 12							
Project Title	Landscape Proje	ct and Road D	evelopment				
Project	Development of	roads to make	it easier for walk	ing and biking.			
Location	Province	District Divisional Local Authority					
			Secretariat	Name			
			Division				
	North Western	Kurunegala	Kuliyapitiya -	Urban Council/			
	Province		West	Pradeshiya Sabha -			
				Kuliyapitiya			





	New Light post Light post.							
100	1	Center Line	/ =	Huildings  NaBing Way  Long sides  Discycle Lane				
Project	Conservation	1	Nature of	New				
Types	Landscape	-   V	Project					
	Heritage			Land	√			
				Development				
	Relocation			Economic				
	Housing			Social	√			
	Road	V		Environmental	√			
	Developmen	t						
	Other			Physical				
Project Goals	8		-	to provide easy a				
			people coming to the Administrative zone. It is also					
			expected to provide easy and attractive access to the					
			students and other persons visiting The Wayamba					
TD1 1 * C4	1 • 4	University.	C A 1 1 N	r ,1 , 1	• • •			
The basis of t	ine project	•	Development of Ashoka Mawatha to make it easier to walk and cycle. It also aims to design the Administrative					
		-	tractive manner	_	mmstrative			
Implement	Project	Kuliyapitiya	Zone	Institutional zon	ne			
ation plan	Implementi	Urban	Zoning	Yes	<b>✓</b>			
of the	ng Agency	Council and	Compatibil	No				
project		Provincial	ity					
		Road						
		Development						
		Authority						

Implement	Project	Kuliyapitiya	Zone	Institutional z	one
ation plan	Implementi	Urban	Zoning	Yes	✓
of the	ng Agency	Council and	Compatibil	No	
project		Provincial	ity		
		Road			
		Development			
		Authority			
		-			

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Project	Kuliyapitiya	Approving	-
Fund Plan	Urban	Agencies	
	Council and		
	Provincial		
	Road		
	Development		
	Authority		

# 13. Improvement of public parking facilities.

Project Identifi	Project Identification 13							
Project Title	Construction of	a public parking	lot.					
Proposal	Construction of	Construction of a Public Vehicle paking area - Kuliyapitiya						
Location	Province	rovince District Divisional Local Authority						
			Secretariat	Name				
			Division					
	North Western	Kurunegala	Kuliyapitiya	Urban Council -				
	Province	Province - West Kuliyapitiya						
Access	Narammala Mad	lampe Road	•	•				

#### **Location Map**



Project Types	Conservation  Landscape		Nature of Project	New	V
	Heritage			Land Development	V
	Relocation			Economic	V
	Housing			Social	
	Road Development			Environmental	
				Physical	
	Other				
<b>Project Goals</b>	Development of infrastructure facilities within kuliyapitiya urban limits.				

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The basis of	The basis of the project Sin			Since there is no proper place for parking public			
			vehicles within Kuliyapitiya urban limits, 33				
			perche	es of land locate	ed in kuli	yapitiya town	
			centre	belonging to Ku	liyapitiya	UC for public	
			parking				
Current	Urban			Survey Plan	No		
ownership	Development						
of the land	Authority						
	Government				Date		
	Other	Kuliyapi	tiya		Land	33 Perch	
		Urban Co	ouncil		extent		
Implement	Project	Kuliyapi	tiya	Zone	Commer	cial Zone	
ation plan	Implementing	Urban Co	ouncil	Zoning	Yes	✓	
of the	Agency			Compatibility	No		
project					INO		
	<b>Project Fund</b>	Kuliyapi	tiya	Approving	-	I	
	Plan	Urban Co	ouncil	Agencies			

# 14. Improvement of public parking facilities.

Project Identification 14							
Project Title	Construction of	a public parking	lot.				
Project	Construction of	Construction of a Public Vehicle paking area - Aswedduma					
Location	Province	District	Divisional Secretariat Division	Local Authority			
	North Western Province	Kurunegala	Kuliyapitiya - West	Urban Council			
Accessibility	Narammala Mad	lampe Road	•				

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Project	Conservation		Nature	of	New	<b>V</b>
Types	Landscape		Project			
	Heritage				Land	V
					Development	
	Relocation				Economic	V
	Housing				Social	V
	Road				Environmental	
	Development					
	Other	V			Physical	
<b>Project Goals</b>		Developme	ent of	infra	structure facilitie	es within
		Kuliyapitiy	a Urban L	Limit	S	

Development Plan

The basis of	the project	Constructi	on of a public	parking lot in k	kuliyapitiya as			
		there is no	proper place f	or parking pub	lic vehicles in			
		Kuliyapiti	Kuliyapitiya urban limits. Construction of a public					
		parking lo	parking lot so that a part of the Asavedduma well					
		belonging	belonging to the Asaveduma temple will be used for					
		public par	public parking.					
		Since this	paddy field is r	not currently und	der cultivation			
		due to the	dumping of gar	bage in Kuliyap	oitiya Rohal, it			
		is appropri	iate to develop i	t as a public par	king area after			
		the constru	uction of a suita	ble water loggir	ng plan.			
Current	Urban		Survey	No				
ownership	Developmen		Plan					
of the land	t Authority							
	Government			Date				
	Other	Sri		Land extent	Perches 20			
		Sasanalankara						
		Maha						
		Viharaya						
		Kuliyapitiya						
Implement	Project	Kuliyapitiya	Zone	Commercial 2	Zone			
ation plan	Implementi	Urban	Zoning	Yes	✓			
of the	ng Agency	Council	Compatibil	No				
project			ity	110				
	Project	Sri	Approving	-	•			
	Fund Plan	Sasanalankara	Agencies					
		Maha						
	Vi							
		, Kuliyapitiya						
		Urban						
		Council						
I	1	i	1	1				

#### 15. Waste Management Project.

Project Id	lentification 15							
Project Ti	itle Waste M	lanagem	ent Project.					
Project	Construc	ction of	a waste manaş	gement ce	ntre for wast	e management in		
	Kuliyap	itiya Pra	deshiya Sabha	area.				
Location	Provinc	e	District	Division	nal Lo	cal Authority		
				Secretar	riat Na	ime		
				Division	ı			
	North V	Vestern	Kurunegala	Kuliyapi	itiya Ku	lliyapitiya		
	Province	•			Pra	adeshiya Sabha		
Project Types	Conservation	200 im		Nature of	Extent: Perimeters: 1052.245 s Area: 14.874 acres  Road Ferce: Building Water resours  New	No. 100 to 100 t		
	Landscape		]	Project	Land			
	Heritage				Developme	nt \		
	Relocation				Economic	<b>√</b>		
	Housing				Social	V		
	Road				Environme	ntal $\sqrt{}$		
	Development							
	Other		$\sqrt{}$		Physical			
Project Goals  The basis of the project			opment of infi	rastructure	e facilities in	Kuliyapitiya L		
		It is proposed to construct this project as there is no proper						
			waste management project in kuliyapitiya Pradeshiya Sabha					

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(PS) area. This proposed land belongs to the Land Reform

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		Commission named Kumbukkotta Watta, which belongs to						
		the Grama Niladh	ari Named I	Kumbukkotta, w	hich does not			
		come under the jurisdiction of the Urban Development						
		Authority. However, waste management was included in the						
		plan as it was a project to be carried out quickly during the						
		development of K	uliyapitiya a	rea.				
Curren	Urban		Survey	No				
t	Development		Plan					
owners	Authority							
hip of	Government			Date				
the land	Other	Land Reform	ı	Land extent	14 Acre			
		Commission						
Implem	Project	Kuliyapitiya	Zone	-				
entatio	Implementing	Pradeshiya	Zoning	Yes	✓			
n plan	Agency	Sabha	Compati	No				
of the			bility	110				
project								
	Project Fund	Kuliyapitiya	Approvi	-	<u> </u>			
	Plan	Pradeshiya	ng					
		Sabha	Agencies					
				J				

#### 16. Improvement of non - degradable waste management project.

#### **Project Identification 16 Project Title** Improvement of Non - Biodegradable Waste Management Project **Proposal** Improvement of the existing waste management centre for non degradable waste management in Kuliyapitiya Pradeshiya Sabha area. Location District **Divisional Province Local Authority** Secretariat Name **Division** North Western Kurunegala Kuliyapitiya -Kuliyapitiya Province West Pradeshiya Sabha Access Hettipola Road **Location Map** Google **Project** Nature of New Conservation **Types Project** Land Landscape Development Heritage $\sqrt{}$ Relocation Economic Social Housing $\sqrt{}$ Road Environmental Development $\sqrt{}$ Other Physical

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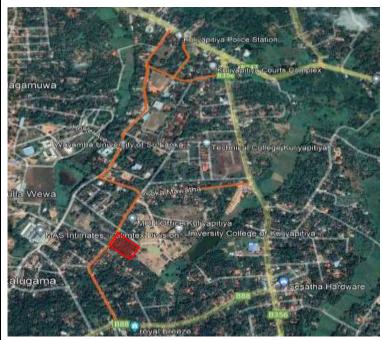
Project Go	oals	Development	of infrastructure fa	cilities in I	Kuliyapitiya			
		PS						
The basis	of the project	Further development of non - degradable waste						
		management project at Ambawa area of Kuliyapitiya						
		Pradeshiya Sa	bha Area					
Current	Urban		Survey Plan	No				
ownershi	Development							
p of the	Authority							
land	Government			Date				
	Other	Kuliyapitiya		Land	2 Rood			
		Pradeshiya		extent				
		Sabha						
Impleme	Project	Kuliyapitiya	Zone	Commer	cial Zone			
ntation	Implementing	Pradeshiya	Zoning	Yes	✓			
plan of	Agency	Sabha	Compatibility	No				
the				NO				
project	Project Fund	Kuliyapitiya	Approving	-				
	Plan	Pradeshiya	Agencies					
		Sabha						

#### 17. Housing Development Project.

Project Identification 17								
Project Title	Housing Deve	Housing Development Project.						
Proposal	Middle incon	Middle income housing project proposed to be constructed in						
	Kanadulla area	ì.						
Location	Province	District	Divisional	Local Authority				
			Secretariat					
			Division					
	North	Kuruneg	Kuliyapitiya - West	Kuliyapitiya Urban				
	Western	ala		Council				
	Province							

Accessibility Lionel Jayathilake Mawatha

#### **Location Map**



Project Types	Conservation  Landscape  Heritage		Nature of Project	New Land Development	√ √
	Relocation  Housing	<b>√</b>		Economic Social	√ √
	Road Development Other			Environmental Physical	

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Project Go	oals	Me	Meeting the housing requirement in Kuliyapitiya.				
The basis	of the project	and	The project has already been planned to be implemented and can be described as an immediate solution to meet the housing demand in Kuliyapitiya. The house is planned to be built in 48 units.				
Current	Urban			Survey Plan	No		
ownershi	Development						
p of the	Authority						
land	Government				Date		
	Other	Housin	ıg		Land	2.6 Acre	
		Develo	pment		extent		
		Author	ity				
Impleme	Project	Housin	ıg	Zone	Instituti	onal zone	
ntation	Implementin	Develo	pment	Zoning	Yes	✓	
plan of	g Agency	Author	ity	Compatibility	No		
the					INO		
project	<b>Project Fund</b>	Housin	ıg	Approving	-		
	Plan	Develo	pment	Agencies			
		Author	rity				

#### 18. Dandagamuwa Oya Landscape Project.

<b>Project Iden</b>	tifica	tion 18							
Project Type	2	Public Recr	eat	ion and Open	Space Pro	ject			
Project		Dandagamı	ıwa	o Oya Landscape Project.					
Location		Province	D	istrict	Divisiona	ıl	Local Authority		
					Secretari	at			
					Division				
		North	K	urunegala	Kuliyapit	iya -	Kuliy	apiti	ya Urban
		Western			West		Coun	cil	
		Province							
Access	Na	ramala Madar	npe	road	I		I		
Project	Con	servation			Nature	New			
Types	Lan	dscape			of				
		itage			Project	Land			
		C				Devel	Development		
-	Relo	ocation				Econo			√
	Han					Socia	1		
	Hou	sing				Socia	L		V
	Roa	d Developmen	nt			Envir	onment	tal	$\sqrt{}$
-	Othe	er				Physic	cal		
Project Goal	s			Providing rea	creational	and le	isure	spac	e to the
<b>J</b>				Providing recreational and leisure space to the residents of Kuliyapitiya and the people coming to get					
				services.	J 1 J				2 2
				Protection of 1	Dandagamı	ıwa Oy	a Resei	rve.	
				Providing Aes	C	•			
The basis of	the p	oroject		The project is	still in ope	ration a	nd the 1	rema	ining part
	•	-		of the project	-				
				Here as projec	et elements				
				Walkways, Se			lscape l	Featı	ıres
Implement	Pro	oject		Kuliyapitiya	Zone		Comr	nerc	ial Zone
ation plan	Im	plementing		Urban	Zoning		Yes		✓
	Ag	ency		Council	Compati	bility	NT-		
							No		

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of	the	Project	Fund	Kuliyapitiya	Approving	-
project		Plan		Urban	Agencies	
				Council		

#### 19. Kandalanda Lake Landscape Project.

<b>Project Identif</b>	Project Identification 19							
Project Title	Public Rec	Public Recreation and Open Space Project						
Project	Kandaland	Sandalanda Lake Landscape Project.						
Location	Province	District	Divisional	Local				
			Secretariat	Authority				
			Division					
	North	Kurunegala	Kuliyapitiya - West	Kuliyapitiya				
	Western			Pradeshiya				
	Province			Sabha				
Accessibility	Galathiva	Road						

Accessibility Galathiva I



Project	Conservation		Nature	New	
Types	Landscape	$\sqrt{}$	of	Land	$\sqrt{}$
	TT *		Project	Development	
	Heritage			1	
	Relocation			Economic	$\sqrt{}$
	Housing			Social	V
	Road			Environmental	$\sqrt{}$
	Development				

on

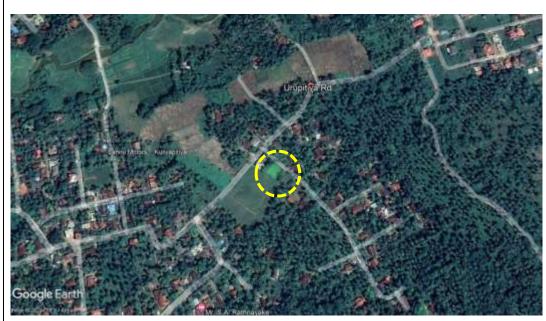
	Other		Phy	vsical		
<b>Project Goals</b>	S	Providing	Providing recreational and leisure space to the			
		residents	of Kuliyapitiya and	d the people of	coming to	
		get service	ces.			
		Protection	n of Kandalanda L	ake Reserve.		
		Providing	g Aesthetic to the u	rban area.		
		To maint	ain Kuliyapitiya a	rea as a wate	er storage	
		tank in ca	ase of flood disaste	r.		
The basis of t	the project	The proje	ect is still in operat	ion and the r	emaining	
		part of th	e project should be	started imm	ediately.	
		Project el	ements			
		1. Childre	en's Playground			
		2. Aesthe	tic Project			
		3. Walkw	ays			
		4. Seating	4. Seating places			
		5. Parkin	5. Parking Lots			
		6. Bicycl	6. Bicycle paths are proposed.			
Current	Urban		Survey Plan	No		
ownership	Developmen					
of the land	t Authority					
	State			Date		
	Other	Kuliyapitiya		Land	10	
		Pradeshiya		extent	Perch	
		Sabha				
Implement	Project	Kuliyapitiya	Zone	Low	Density	
ation plan	Implementin	Pradeshiya		Residentia	l Zone	
of the	g Agency	Sabha	Zoning	Yes	<b>✓</b>	
project			Compatibility	No		
	Project Fund	Kuliyapitiya	Approving	-		
	Plan	Pradeshiya	Agencies			
		Sabha				

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# 20. Development of UraPitiya Playground.

<b>Project Type</b>	Public Rec	reation and O	pen Space Project			
Project	Developme	Development of UraPitiya Playground.				
Location	Province	District	Divisional	Local Authority		
			Secretariat	Name		
			Division			
	North	Kurunegala	Kuliyapitiya - West	Kuliyapitiya		
	Western			Pradeshiya Sabha		
	Province					



Project	Conservation		Nature	New	
Types	Landscape		of		
			Project		
	Heritage		, and the second	Land	$\sqrt{}$
				Development	
	Relocation			Economic	
	Housing			Social	V
	Road			Environmental	
	Development				
	Other	V		Physical	V

Project Goals		Providing	recreational and	leisure	space to the
		residents.			
The basis of t	the project	At present,	there is a playgro	und in this	proposed land
		and it is fu	rther developed.		
Current	Urban		Survey Plan	No	
ownership	Development				
of the land	Authority				
	State			Date	
	Other	Kuliyapitiya		Land	40 Perch
		Pradeshiya		extent	
		Sabha			
Implement	Project	Kuliyapitiya	Zone	Medium	Density
ation plan	Implementing	Pradeshiya		Residenti	al Zone
of the	Agency	Sabha	Zoning	Yes	✓
project			Compatibility	No	
				NO	
	<b>Project Fund</b>	Kuliyapitiya	Approving	-	•
	Plan	Pradeshiya	Agencies		
		Sabha			

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# 21. Thuravadula Project.

Project Identification 21							
Project Type	Public Recreati	Public Recreation and Open Space Project					
Project	Thuravadula Pro	Thuravadula Project.					
Location	Province	District	Divisional	Local Authority			
			Secretariat	Name			
			Division				
	North Western	Kurunegala	Kuliyapitiya -	Kuliyapitiya Urban			
	Province		West	Council			
Access	Narammala Mada	ampe Road					



Project	Conservation		Nature of	New	
Types		,	Project		,
	Landscape		· ·	Land	$\sqrt{}$
	XX			Development	
	Heritage				
	Relocation			Economic	V
					,
	Housing			Social	V
	Road			Environmental	V
	Roau			Environmental	V
	Development				
	Other	V		Physical	V

<b>Project Goals</b>	Providing recreational and leisure space to the residents of				
	Kuliyapiti	Kuliyapitiya and the people coming to get services.			
The basis of the project	At present, there is a multipurpose building in this				
	proposed	land and the remai	ning part of the	project should	
	be started	immediately.			
	Here as pi	roject elements			
	1. Seating	places			
	2. Walkwa	ays			
	3. Parking	g Lots			
	4. Bicycle	paths			
Current Urban		Survey Plan	No		
ownership Development					
of the land Authority					
State			Date		
Other	Kuliyapi		Land extent	3 Acre 2 R	
	tiya				
	Urban				
	Council				
Implement Project	Kuliyapi	Zone	Commercial 2	Zone	
ation plan Implementing	tiya	Zoning	Yes	✓	
of the Agency	Urban	Compatibility	No		
project	Council		110		
Project Fund	Kuliyapi	Approving	-		
Plan	tiya	Agencies			
	Urban				
	Council				

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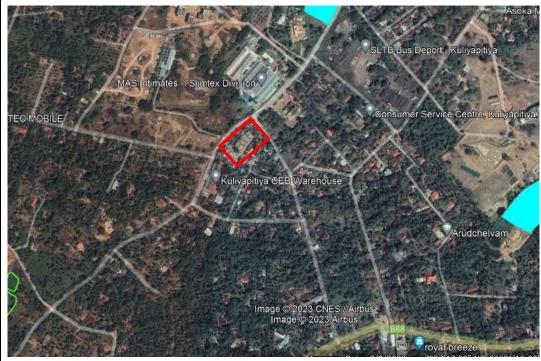
Plan

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#### 22. Lakshmipura Housing Development Project.

Project Identification 22						
<b>Project Title</b>	Lakshmipu	ra Housing Deve	lopment Project.			
Project	Low Incom	e Housing Const	ruction Project prop	osed to be constructed		
Proposal	in Kanadull	in Kanadulla area.				
	Province	District	Divisional	Local Authority		
			Secretariat			
			Division			
	North	Kurunegala	Kuliyapitiya -	Kuliyapitiya Urban		
	Western		West	Council		
	Province					



Project	Conservation	Nature of	New	$\sqrt{}$
Types	Landscape	Project	Land	2
	Heritage		Development	V
	Relocation		Economic	V
	Housing		Social	√
	Road		Environmental	
	Development			

	Other			Physical	
<b>Project Goals</b>		Fulfill the need for low income housing in Kuliyapitiya.			
The basis of	the project	Development of this housing complex, which is now spread with less facilities, with facilities.			
Current	Urban		Survey	Number	
ownership	Development		Plan		
of the land	Authority				
	Goverment			Date	
	Other	Kuliyapitiya Urban Council		Land extent	1\2 Acre
Implement	Project	Kuliyapitiya	Zone	Institutional z	one
ation plan	Implementin	Urban	Zoning	Yes	✓
of the project	g Agency	Council	Compatibil ity	No	

Development Plan

# Part II

# Development zones and zoning regulations

Development Zones and Zoning Regulations

#### Introduction

#### Chapter 07

#### **Development Zones and Zoning Regulations**

#### 7.1 Introduction

In order to achieve the vision outlined in this development plan over the next ten years, specific goals and objectives have been established. Strategic plans have been prepared to implement these goals and objectives, and development zones along with zoning regulations have been introduced to facilitate their realization within the defined scope. Notably, the current land use will be leveraged for development based on anticipated land use and population density projections by 2033, aiming to establish the proposed urban area model.

This chapter primarily delineates development zones and zoning factors, detailing special regulations for zones, boundaries of development zones with associated zoning factors and coordinates, and general regulations applicable to them.

It is important to highlight that the formulation of this zoning plan and its demarcation result from several specific factors or analyses. Main considerations include the planning concept of the Kuliyapitiya development plan and the priority practices expected to be emphasized. Furthermore, the goals and objectives essential for realizing this conceptual plan are articulated here.

The environmental sensitivity analysis is grounded in the identification of sensitive wetland ecosystems across the Kuliyapitiya urban area through preliminary studies. Environmental and development potential analyses have been employed to delineate these zones. Subsequently, the outcome derived from integrating these analyses, along with other pertinent factors, determines the primary land use and density for the identified zones.

#### 7.2 Development Zones

According to Kuliyapitiya development plan, 06 major development zones have been divided into 06 major development zones and these major development zones have been redistributed into sub - zones based on the expected development density.

**Table No 7.2.1: Development Zones** 

Serial	Development Zone	Sub Development Zone	
Number			Zone Code
	Residential Zone	High Density Residential Zone	R1
01		Medium Density Residential	R2
01		Zone	
		Low Density Residential Zone	R3
02	Commercial Zone	Commercial Zone	C1
	Mixed Development	Mixed Development Zone	MD1
03	Zone		
04	Institutional Zone	Institutional zone	I1
05	Agricultural Zone	Agricultural Zone	A1
06	Conservation Zone	Sensitive Conservation Zone	Cn1

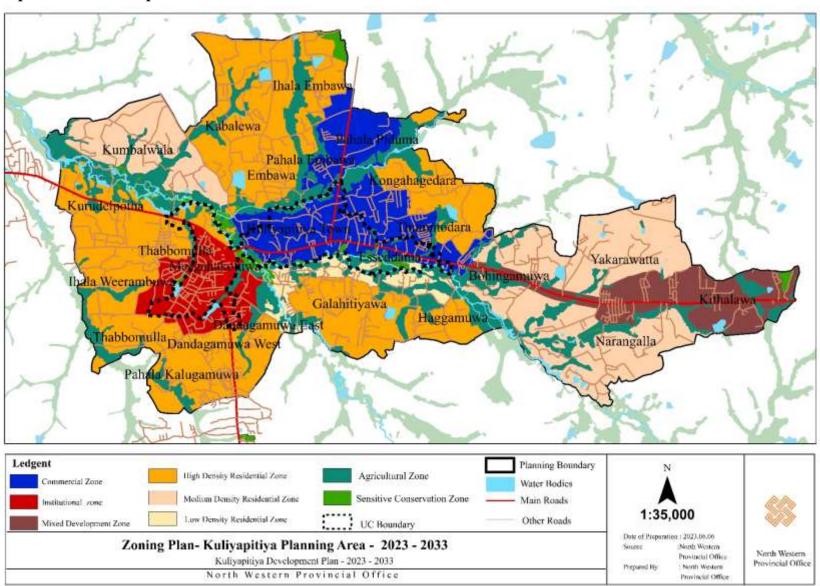
Source: Urban Development Authority - 2023

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Development Zones and Zoning Regulations

Development Zones

**Map No 7.2.1.: Development Zones** 



Source: Urban Development Authority, 2023

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Development Zones

#### 7.3 Zoning Factor

The zoning factor was determined based on the expected development density for the development zone and the available land suitable for development.

The calculation considered areas designated for commercial, residential, institutional, vacant land, and other cultivated spaces as potential development areas. Conversely, areas such as environmental protection zones, water bodies, religious and archaeological sites, highways, and non - developable lands were excluded from the analysis.

When referring to the density related to the zoning factor, the zoning factor between 0.5 and 1 can be identified as low - density zones, the zoning factor between 1 and 1.9 as medium - density zones, and the zones above 2 are identified as high - density zones.

**Table No 7.3.1: Zoning Factor** 

Serial	Development Zone	Sub Development Zone	Zone	Zoning
Number			Code	Factor
01	Residential Zone	High Density Residential	R1	2
		Zone		
		Medium Density	R2	1.2
		Residential Zone		
		Low Density Residential	R3	0.5
		Zone		
02	Commercial Zone	Commercial Zone	C1	2.5
03	Mixed	Mixed Development Zone	MD1	2.5
	Development Zone			
04	Institutional zone	Institutional zone	I1	2.2
05	Agricultural Zone	Agricultural Zone	A1	0
06	Conservation Zone	Sensitive Conservation	Cn1	0
		Zone		

Source: Urban Development Authority - 2023

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Development Zones and Zoning Regulations

**Zoning Factor** 

Kuliyapitiya Development Plan 2023-2033 Urban Development Authority

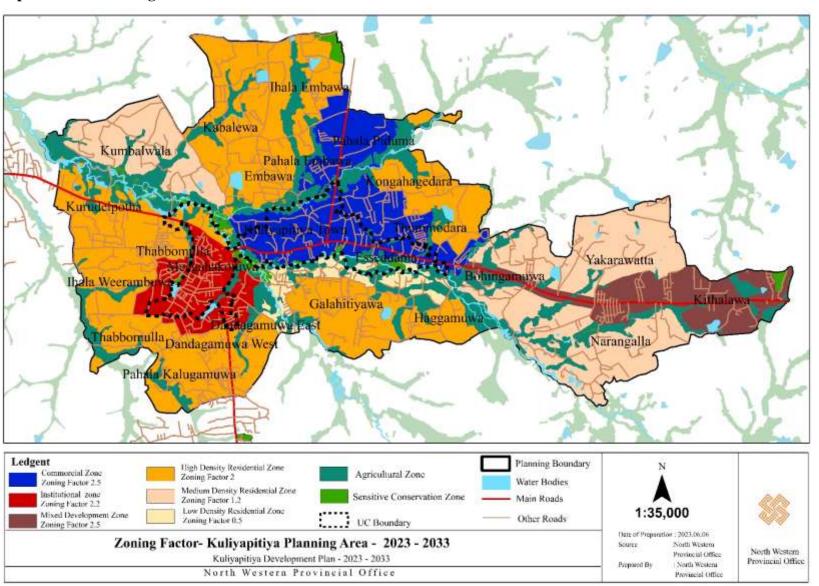
Chapter 07

Development Zones and Zoning Regulations

**Zoning Factor** 

According to the table above, the Kuliyapitiya Development Plan has introduced a separate zone factor for each zone shown in the proposed Zoning Plan. The change of the city form is determined by the change in the zone factor for these zones.

Map No .2 .7.2 : Zoning Factor



Source: Urban Development Authority, 2023

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**Zoning Factor** 

Kuliyapitiya Development Plan 2023-2033 Urban Development Authority

Chapter 07

Development Zones and Zoning Regulations

**Zoning Factor** 

The determination of the permitted maximum floor ratio/floor size, open spaces, maximum height, and permitted maximum plot cover for development aligns with the factors specified in the Kuliyapitiya Development Plan. These factors are outlined in accordance with forms "A," "B," and "C" of the 6th Schedule of Part IV of the Extraordinary Gazette Notification No. 2235/54 dated 08th July 2021, as detailed in Table No. 7.3.

Table No 7.3.2: Schedule 6 - Form "A" - Permissible floor area ratio for published by the Urban Development Authority vide Gazette No. 2235/54 dated 08th July 2021

Schedule 6 Form A - Permissible Floor Area Ratio																
Land extent (Sq.M)	Zone factor = 0.50 - 0.74				Zone factor = 0.75-0.99				Zone factor = 1.00-1.24				Zone factor = 1.25-1.49			
	Minimum Road Width				Minimum Road Width				Minimum Road Width				Minimum Road Width			
	**6m	9m	12m	15m or above	**6 m	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	1.3	1.3	1.4	1.4	1.6	1.7	1.8	1.9	2.0	2.2	2.3	2.4
250 less than 375	0.9	1.0	1.2	1.3	1.3	1.6	1.8	2.0	1.8	2.2	2.4	2.7	2.2	2.7	3.0	3.3
375 less than 500	0.9	1.0	1.2	1.4	1.3	1.6	1.9	2.1	1.9	2.2	2.5	2.8	2.3	2.8	3.2	3.4
500 less than 750	1.0	1.1	1.3	1.5	1.4	1.7	2.0	2.2	2.0	2.3	2.7	3.0	2.4	3.0	3.4	3.5
750 less than 1000	1.0	1.2	1.4	1.7	1.5	1.8	2.2	2.5	2.1	2.4	2.9	3.3	2.6	3.0	3.6	4.0
1000 less than 1500	1.1	1.3	1.5	1.8	1.6	1.9	2.3	2.7	2.2	2.5	3.0	3.6	2.7	3.1	3.8	4.5
1500 less than 2000	1.1	1.4	1.7	2.0	1.7	2.1	2.5	3.0	2.3	2.7	3.4	4.0	2.9	3.4	4.2	5.0
2000 less than 2500	1.2	1.5	1.8	2.1	1.8	2.3	2.7	3.1	2.4	2.8	3.5	4.2	3.0	3.5	4.4	5.4
2500 less than 3000	1.2	1.6	2.0	2.4	1.9	2.4	3.0	3.6	2.5	3.2	4.0	4.7	3.1	3.8	4.7	5.8
3000 less than 3500	1.3	1.7	2.1	2.5	2.0	2.5	3.1	3.7	2.6	3.4	4.2	5.0	3.2	4.0	5.0	6.2
3500 less than 4000	1.4	1.8	2.2	2.6	2.2	2.6	3.3	3.9	2.8	3.6	4.3	5.3	3.3	4.3	5.5	6.6
More than 4000	1.5	1.9	2.3	2.8	2.5	2.8	3.5	4.0	3.0	3.8	4.5	5.5	3.5	4.5	6.0	7.0

	Z	r = 1.50-1	.74	Zone factor = 1.75-1.99				Zone factor = 2.00-2.24				Zone factor = 2.25-2.49				
Land extent (Sq.M)	Minimum Road Width				Minimum Road Width				Minimum Road Width				Minimum Road Width			
	**6m	9m	12m	15m or above	**6 m	9m	12m	15m or above	** 6m	9m	12m	15m or above	** 6m	9m	12m	15m or above
150 less than 250	2.4	2.6	2.7	2.8	2.8	3.0	3.2	3.3	3.0	3.4	3.6	3.8	3.0	3.4	3.6	4.0
250 less than 375	2.6	3.2	3.6	4.0	3.0	3.4	4.3	4.7	3.2	3.6	4.5	4.5	3.5	3.8	4.5	5.0
375 less than 500	2.7	3.3	3.8	4.2	3.2	3.5	4.5	5.0	3.4	3.7	4.8	5.2	3.6	4.5	4.7	5.5
500 less than 750	2.8	3.4	4.0	4.5	3.4	3.6	4.7	5.5	3.5	4.0	5.0	6.0	3.7	5.0	5.0	6.0
750 less than 1000	3.1	3.6	4.3	5.0	3.5	3.8	5.1	6.0	3.6	4.5	5.7	6.5	3.8	5.1	6.0	6.5
1000 less than 1500	3.2	3.8	4.6	5.5	3.6	4.0	5.4	6.5	3.7	5.0	6.1	8.0	3.9	5.3	6.5	8.5
1500 less than 2000	3.4	4.0	5.0	6.0	3.7	4.2	5.8	7.0	3.8	5.1	6.7	9.0	4.0	5.4	7.0	*10
2000 less than 2500	3.5	4.2	5.2	6.5	3.8	4.4	6.2	7.5	3.9	5.2	7.1	*10	4.0	5.5	7.5	*10.5
2500 less than 3000	3.6	4.4	5.5	7.0	3.9	4.6	6.5	8.0	4.0	5.3	7.4	*10.5	4.0	5.6	7.5	*11
3000 less than 3500	3.7	4.6	6.0	7.5	4.0	4.8	6.9	8.5	4.0	5.4	7.6	*11	4.0	5.7	8.0	*11.5
3500 less than 4000	3.8	4.8	6.3	7.7	4.0	5.0	7.3	9.0	4.0	5.5	7.8	*11.5	4.0	5.8	8.0	*12
More than 4000	4.0	5.0	6.5	8.0	4.0	5.2	7.5	9.5	4.0	5.6	8.0	*12	4.0	5.9	8.0	*UL

	Zo	ne facto	r = 2.50-	2.74								
$\Box$	Minimum Road Width											
or e	**6m	9m	12m	15m or above								
$\dashv$	3.0	3.4	3.6	4.0								
$\dashv$	3.5	4.0	5.0	5.5								
$\dashv$	3.6	4.6	5.2	6.0								
$\dashv$	3.7	5.1	5.5	6.5								
$\dashv$	3.8	5.2	6.5	7.0								
_	3.9	5.4	7.0	9.0								
Ц	4.0	5.5	7.5	*10.5								
5	4.0	5.6	7.5	*11								
_	4.0	5.7	8.0	*11.5								
5	4.0	5.8	8.0	*12								
	4.0	5.9	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 of FAR indicated under the zoning regulation.

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

Clearance shall be taken from National Building Research Organization for the lands having slope more than 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

Source: Gazette No. 2235/54, Urban Development Authority - 2021

<sup>\*\*</sup> Minimum road width of 7m shall be consideded for the roads identified as 7m wide in the particular Development Plans

**Table No 7.3.3:** Schedule 6 - Form "B" - Permitted floor sizes published by the Urban Development Authority vide Gazette No. 2235/54 dated 08th July 2021

Form "B

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

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

Source: Gazette No. 2235/54, Urban Development Authority - 2021

**Table No 7.3.4:** Schedule 6 - Form "C" Open Spaces published by the Urban Development Authority vide Gazette No. 2235/54 dated 08th July 2021

Form "E"

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

NLV - Natural Light & Ventilation

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

These specifications are applicable only to the areas for which Forms A, B, C and D are in effect.

Source: Gazette No. 2235/54, Urban Development Authority - 2021

<sup>\*</sup> Where no Plot Coverage specified under the zoning regulations

<sup>\*\*</sup> The entire development is for non-residential activities

<sup>\*\*\* 65%</sup> plot coverage can be allowed only for the podium level not exceeding 20% of the tower height or 12 floors whichever is less

<sup>\*\*\*\*</sup> Minimum area shall be increased by 1 m2 for every additional 3m height

Development Zones and Zoning Regulations

General Zoning Regulations for the Planning Area

#### 7.4 General Zoning Regulations for the Planning Area

This chapter describes the general guidelines for the planning area, in addition to that the permissible uses and Zoning Regulations that have been introduced in each zone of the Proposed zoning plan as outlined in chapter 08

- 01. These Regulations and guidelines shall apply to all areas within the administrative limits of the Kuliyapitiya Urban Development Authority area which have been declared as an Urban Development Area in the Gazette Extraordinary No. 1171/10 and 04.08.1980 dated 04.08.2021 under Section 3(i) of the Urban Development Authority Act No. 41 of 1978.
- 02. The Planning and Development Regulations published in Gazette No. 2235/54 dated 8th July 2021 will be effective in the Kuliyapitiya Planning Area, particularly where the plans and development regulations applicable to any development activity have not been altered in the Zoning Plan. This includes adherence to Regulation 73 concerning Parking Spaces and Regulation 75 concerning Standards for Sanitation Facilities. Additionally, the 10th and 13th Schedules have been amended in accordance with the Kuliyapitiya Development Plan, as outlined in Annexure 06.
- 03. If development work is proposed in flood affected areas, the Authority has the jurisdiction to approve the development contingent upon an appropriate water transport plan.
- 04. In cases where a lot of land falls within two or more zones, the determination of the applicable zone for the plot is based on the region that includes the main access road leading to that plot.
  - a. If the plot is accessed by two or more roads of the same width, the zone in which most of that plot belongs should be applied.
  - b. \*This rule does not apply to conservation zones.
- 05. If the owner of any land grants a portion of land for the street line/proposed road width without compensation, the entire plot size will be considered for the

permissible house area ratio for the proposed development work. However, in calculating the percentage of plot coverage, the remaining area of the land should be considered, excluding the portion that belongs to the street line/proposed road width.

- 06. For renovation of buildings and sites of archaeological value in this planning area, approval from the Urban Development Authority and relevant agencies is required.
- 07. Approval from relevant institutions must be obtained before carrying out development activities in land or reserve areas belonging to the Department of Archaeology, Department of Forestry, Department of Irrigation, Department of Agrarian Services Development, Land Development Corporation, Geological Survey, Bureau of Mines, etc., in this planning area.
- 08. If there is an underpass to the boundary of a land (for access roads less than 4.5 meters), if a retaining wall is constructed there, a boundary of 1 meter should be maintained from the road reserve.
- 09. All low lying areas, paddy fields, water retention, and water control areas in all zones must comply with the regulations of the Agricultural Zone and Conservation Zone of this plan.
- 10. A wastewater management plan should be submitted when seeking permission for all water - based constructions. Additionally, a landscape plan for land adjacent to the banks of the Oya should be submitted along with relevant building plans during development activities near Dandagamuwa Oya.
- 11. Approval from the Urban Development Authority is required for special development projects and special development areas introduced in this area.
- 12. If there is a tap water facility in the subdivision of forest land among the children, the minimum area of a group of lands should be 5.06 perches; otherwise, it should not be less than 10 perches.

- 13. All excavation activities should adhere to the recommendations of relevant agencies, including the Geological Survey and Bureau of Mines. After completion of work, excavated sites should be restored or appropriate action taken as per agency recommendations.
- 14. When a block boundary crosses the first plot of an approach road, it should be considered as the zoning boundary to the farthest boundary away from the approach road of that plot.
- 15. For boundaries indicated in the zoning plan defined by physical boundaries and geographical coordinates, the final decision rests with the Planning Committee of the Urban Development Authority.
- 16. The Zoning Plan does not specify permitted use categories, but the Authority has the discretion to approve uses similar to those permitted in the zone.
- 17. Permission will only be considered for the continuation of existing practices not approved in the proposed zoning plan. However, the Authority may grant approval for further expansion of existing uses if deemed detrimental to continuation.
- 18. If a boundary wall or fence is constructed within the building boundary, a 1 meter setback from the road boundary towards the land can be considered for approval, subject to signing a secular agreement with the relevant institution.
- 19. Various religious statues, symbols, signs, or similar constructions are not permitted at intersections, road widening limits, or reserves in the area, and no compensation will be provided for their removal.
- 20. Recommendations of the concerned local authority must be obtained if land is allotted for a cemetery/crematorium.

- 21. When developing low lying areas, marshes, paddy fields, Puran paddy fields, Deniya, Ovita, or other related lands not identified in the development plan, a settlement certificate should be obtained from the Urban Development Authority.
- 22. Building lines and proposed minimum road widths for all roads within the Pradeshiya Sabha (PS) limits and protected areas related to Dandagamuwa Oya and canals should comply with Chapter 09.
- 23. Building height is measured from ground level to the top of the roof (ridge level). If no roof is constructed, the height from the ground level to the roof's top is considered the building's height.
- 24. Development activities in all proposed planning zones must comply with acts, gazette notifications, and circulars issued by other government agencies.

# **Zoning Regulations**

# **Zoning Regulations**

Chapter 08

Zoning Regulations

Commercial

Zone

The Zoning Plan of the Kuliyapitiya Development Plan identifies 6 zones, each with specific zoning regulations.

#### 8.1. Commercial Zone

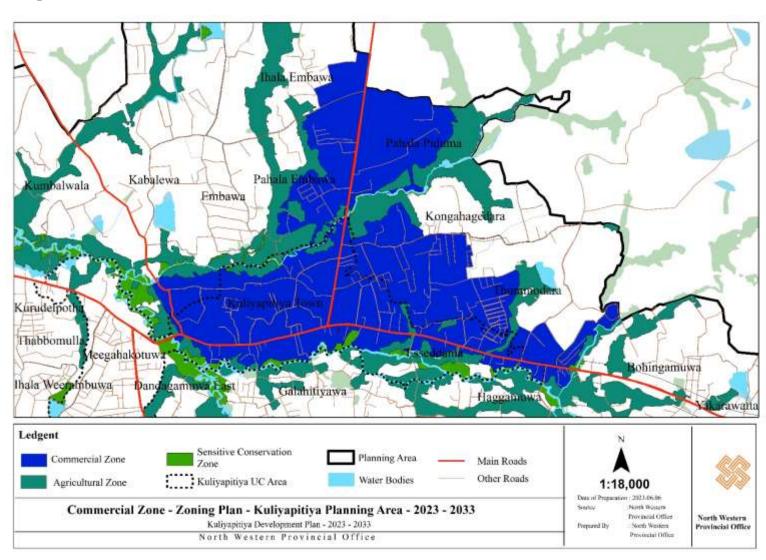
A commercial zone centered around Kuliyapitiya town is proposed, where development activities will be encouraged through the preparation of development plans and building regulations aimed at promoting commercial use. This zone serves as the primary commercial hub of the planning area, with a higher zoning factor compared to all other zone.

Table No 8.1.1. Regulations for Commercial Zone

7	Providing goods and services and being high in
Zoning Definition	density as well as the main zone of the planning area.
Zoning Boundaries	Shown under Annexure No. 7.
Zone Factor	2.5
Main Use	Commercial and Service
Minimum land area	Within Urban Council limits - Perches 06
	Within the the Kuliyapitiya Pradeshiya Sabha limits -
	10 Perches
Permitted Maximum Floor	The provisions should adhere to the format specified
Ratio / Floor Size	in Form "A", "B" and "C" as detailed in Schedule 6 of
	Gazette No. 2235/54 published on 08.07.2021.
Permitted maximum plot	The provisions should adhere to the guidelines
cover	specified in Form "B" and "C" as detailed in Schedule
	6 of Gazette No. 2235/54 published on 08.07.2021.
Open spaces and maximum	The provisions should adhere to the guidelines
height	specified in Form "C" as detailed in Schedule 6 of
	Gazette No. 2235/54 published on 08.07.2021.
Permitted uses	The provisions should adhere to the guidelines
	specified in Form "G" mentioned in section 8.9.

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Map No 8.1.1: Commercial Zone



Chapter 08

Zoning Regulations

Commercial Zone

Zoning Regulations

Administrative Zone

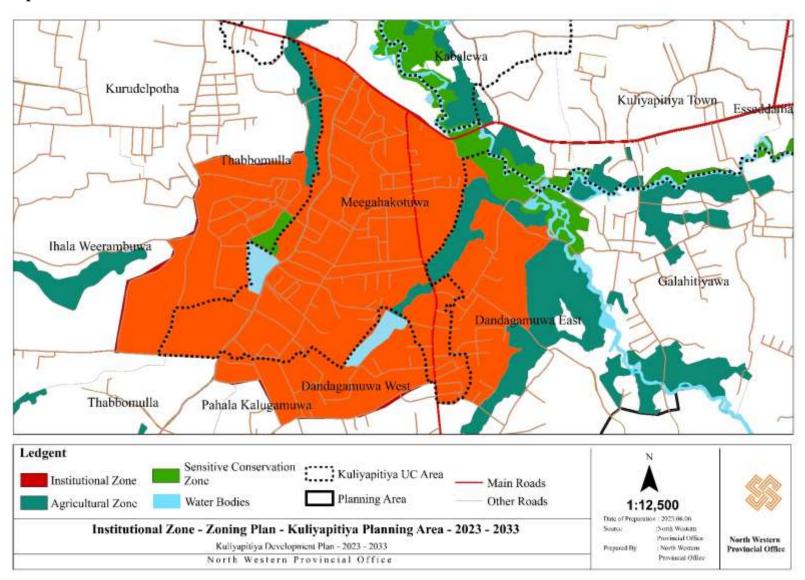
#### 8.2 Institutional Zone

This zone is strategically designed to prioritize the administrative domain, particularly emphasizing the Migahakotuwa Grama Niladhari division. Notably, the presence of institutions such as Wayamba University, North Western Technical College, and other higher educational establishments in this area further attracts administrative functions, leading to the delineation of this region as an administrative zone. The plan also aims to foster the development of administrative institutions within the Kuliyapitiya Urban Development Authority area in this region.

Table No 8.2.1. Zoning Regulations of the Institutional Zone

<b>Zoning Definition</b>	Development zone as administrative and educational
	center of the area.
Zoning	Shown under Annexure No. 7.
Boundaries	
Zone Factor	2.2
Main Use	Service
Minimum land	Residential - 10 Perches
area	Non - Residential - 06 Perches, (if piped water is supplied)
	otherwise 10 perches
Permitted	The provisions should adhere to the format specified in
Maximum Floor	Form "A", "B" and "C" as detailed in Schedule 6 of
Ratio / Floor Size	Gazette No. 2235/54 published on 08.07.2021.
Permitted	The provisions should adhere to the guidelines specified in
maximum plot	Form "B" and "C" as detailed in Schedule 6 of Gazette No.
cover	2235/54 published on 08.07.2021.
Open spaces and	The provisions should adhere to the guidelines specified in
maximum height	Form "C" as detailed in Schedule 6 of Gazette No. 2235/54
	published on 08.07.2021.
Permitted uses	The provisions should adhere to the guidelines specified in
	Form "G" mentioned in section 8.9.

Map No 8.2.1: Institutional Zone



Chapter 08

Zoning Regulations

Commercial Zone

Zoning Regulations

Mixed Development Zone

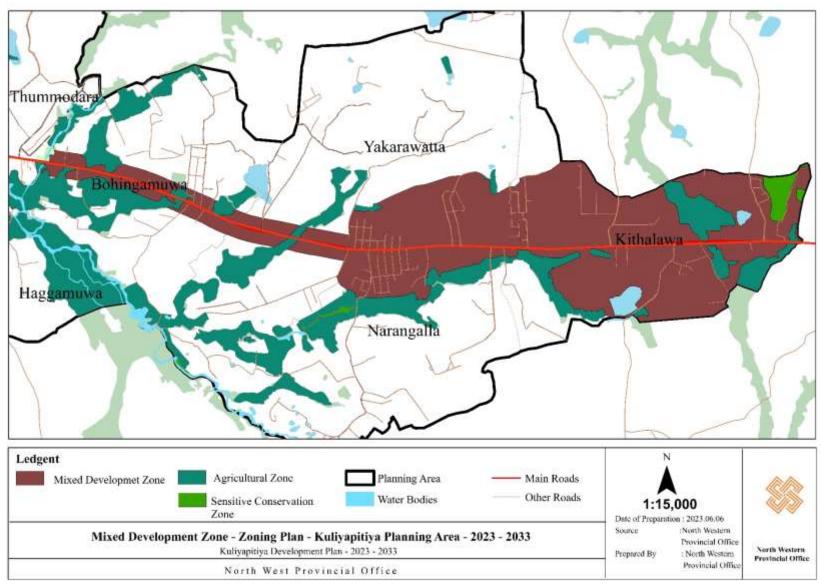
#### **8.3 Mixed Development Zone**

It is expected to develop Kitalawa and Yakarawatta area, which is currently being developed as a sub - town connected to Kuliyapitiya town, as a mixed development zone. Vertical development is encouraged and residential, commercial, service and other ancillary practices are all expected to be integrated.

Table No 8.3.1. Zoning Regulations of mixed development Zone

Zoning Definition	The aim here is to develop Kuliapitiya as a support center.
Zoning	Shown under Annexure No. 7.
Boundaries	
Zone Factor	2.5
Main Use	Residential, commercial, service and other ancillary uses
Minimum land	Residential – 10 Perches
area	Non - Residential - 06 perches (if piped water is supplied)
	otherwise 10 perches
Permitted	The provisions should adhere to the format specified in
Maximum Floor	Form "A", "B" and "C" as detailed in Schedule 6 of Gazette
Ratio / Floor Size	No. 2235/54 published on 08.07.2021.
Permitted	The provisions should adhere to the guidelines specified in
maximum plot	Form "B" and "C" as detailed in Schedule 6 of Gazette No.
cover	2235/54 published on 08.07.2021.
Open spaces and	The provisions should adhere to the guidelines specified in
maximum height	Form "C" as detailed in Schedule 6 of Gazette No. 2235/54
	published on 08.07.2021.
Permitted uses	The provisions should adhere to the guidelines specified in
	Form "G" mentioned in section 8.9.
Zoning	If the proposed practices do not match the surrounding
regulations	practices, and for the uses that arise in the environment, the
	basic plans of the Urban Development Authority should be
	resolved.

Map No 8.3.1: Mixed Development Zone



#### 8.4 High Density Residential Zone

Residential use in this area is identified as a high-density residential zone. Haggamuwa, Pahala Kalugamuwa, Dandagamuwa West, Dandagamuwa East Ihala Weeramuwa, Ihala Ambawa, Pahala Piduma, Ambawa, Pahala Kongahagara, Kurujalpotha and Tabbogamulla areas have been identified as high-density residential zones. It aims to encourage residential development.

Table No 8.4.1. Zoning Regulations of high-density residential zone

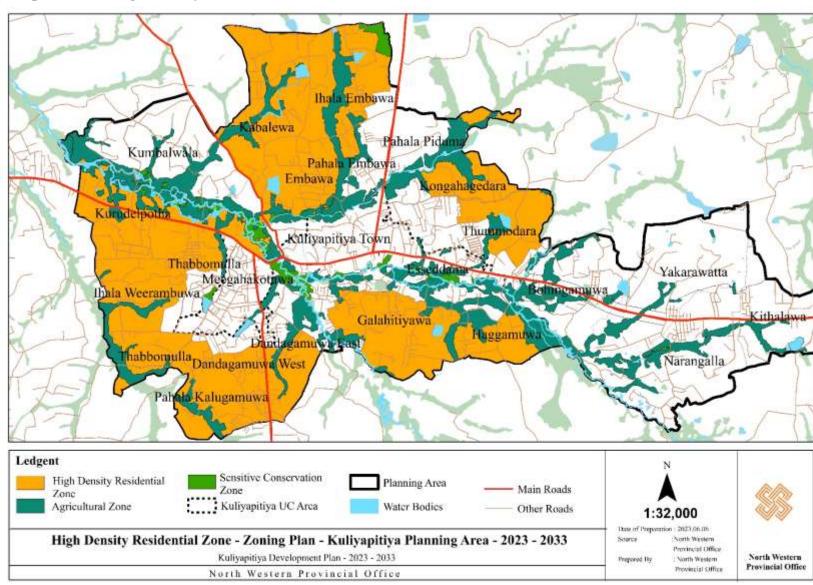
Zoning Definition	It is proposed to encourage the development of residential
	land and the development of residential facilities.
Zoning Boundaries	Shown under Annexure No. 7.
Zone Factor	2
Main Use	Residential
Minimum land	Residential - 10 Perches
area	Non - Residential - 06 perches, (if piped water is supplied) otherwise 10 perches
Permitted	The provisions should adhere to the format specified in Form
Maximum Floor	"A", "B" and "C" as detailed in Schedule 6 of Gazette No.
Ratio / Floor Size	2235/54 published on 08.07.2021.
Permitted	The provisions should adhere to the guidelines specified in
maximum plot	Form "B" and "C" as detailed in Schedule 6 of Gazette No.
cover	2235/54 published on 08.07.2021.
Open spaces and	The provisions should adhere to the guidelines specified in
maximum height	Form "C" as detailed in Schedule 6 of Gazette No. 2235/54
	published on 08.07.2021.
Permitted uses	The provisions should adhere to the guidelines specified in
	Form "G" mentioned in section 8.9.

Zoning Regulations

High Density Residential Zone

Zoning	Agriculture - related industries and animal husbandry
Regulations	will be Permitted in this region so as not to disturb existing residential practices and do not cause social problems.
	<ul> <li>Subdivision of 1 hectare or more of coconut land is not permitted.</li> </ul>

Map No 8.4.1: High Density Residential Zone



Zoning Regulations

Medium Density Residential Zone

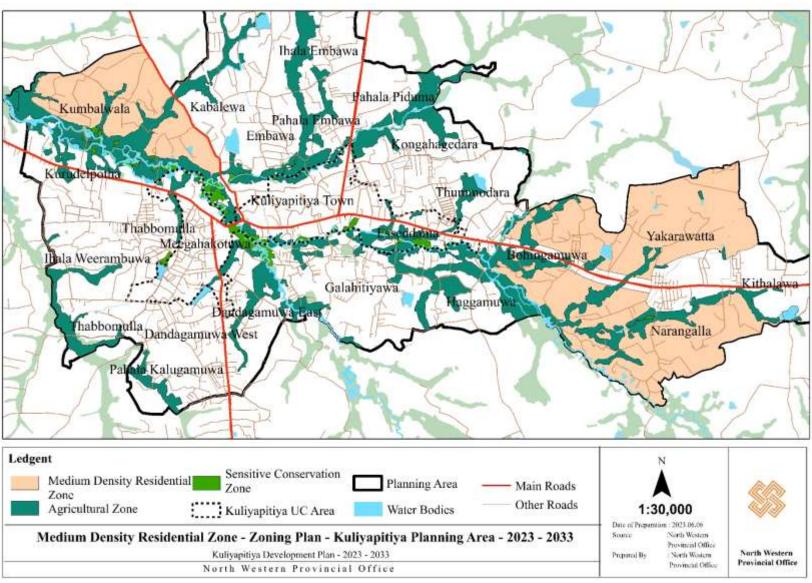
#### 8.5 Medium Density Residential Zone

The medium density residential zone has been designated as a transition between the low density and high - density residential zones. The primary objective of this zone is to promote residential development while accommodating some industrial activities. It includes the Grama Niladhari divisions of Narangolla, Yakarawatta, Bohingamuwa, and Kumbalwala.

Table No 8.5.1: Medium Density Residential Zone Regulations

Zoning Definition	The aim is to promote residential use with an emphasis on		
	home gardening.		
Zoning Boundaries	Shown under Annexure No. 7.		
Zone Factor	1.2		
Main Use	Home Gardening & Residential		
Minimum land area	Residential - Perches 15 Non - Residential - 10 perches		
Permitted	The provisions should adhere to the format specified in		
Maximum Floor	Form "A", "B" and "C" as detailed in Schedule 6 of Gazette		
Ratio / Floor Size	No. 2235/54 published on 08.07.2021.		
Permitted maximum	The provisions should adhere to the guidelines specified in		
plot cover	Form "B" and "C" as detailed in Schedule 6 of Gazette No.		
	2235/54 published on 08.07.2021.		
Open spaces and	The provisions should adhere to the guidelines specified in		
maximum height	Form "C" as detailed in Schedule 6 of Gazette No. 2235/54		
	published on 08.07.2021.		
Permitted uses	The provisions should adhere to the guidelines specified in		
	Form "G" mentioned in section 8.9.		
Zoning Regulations	In this region, agriculture - related industries and		
	animal husbandry are permitted, provided they do		
	not disrupt existing residential practices or cause		
	social issues.		
	• Subdivision of coconut land measuring 1 hectare or		
	more is not allowed.		

Map No 8.5.1: Medium Density Residential Zone



Chapter 08

Zoning Regulations

Medium Density Residential Zone

#### 8.6 Low Density Residential Zone

This is a very low-density residential area.

Table No 8.6.1. Low Density Residential Zone

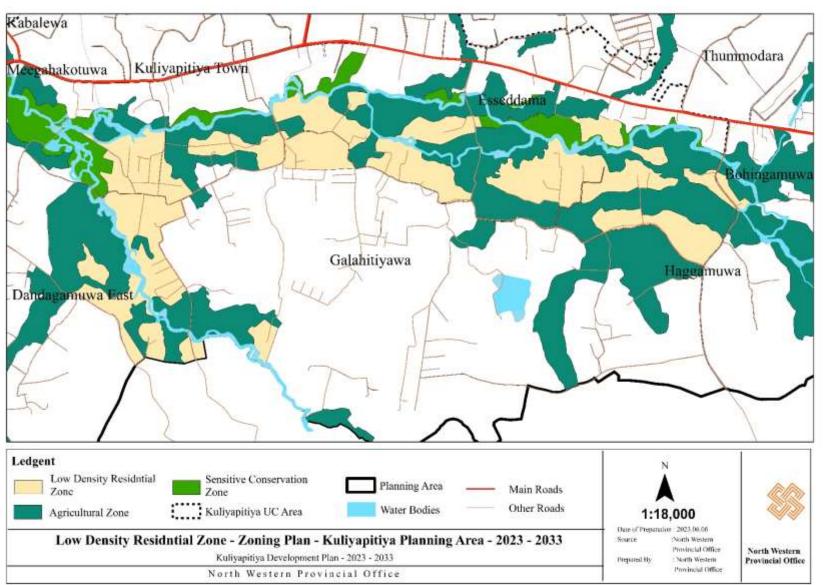
Zoning Definition	The purpose is to improve agriculture by limiting the
	development activities in this region as it is a flood
	affected area.
Zoning Boundaries	Shown in Annexure No. 7.
Zone Factor	0.5
Main Use	Residential
Minimum land area	Residential - Perches 15
	Non - residential - 10 perches
Permitted Maximum	The provisions should adhere to the format specified in
Floor Ratio / Floor	Form "A", "B" and "C" as detailed in Schedule 6 of
Size	Gazette No. 2235/54 published on 08.07.2021.
Permitted maximum	The provisions should adhere to the guidelines specified
plot cover	in Form "B" and "C" as detailed in Schedule 6 of Gazette
	No. 2235/54 published on 08.07.2021.
Open spaces and	The provisions should adhere to the guidelines specified
maximum height	in Form "C" as detailed in Schedule 6 of Gazette No.
	2235/54 published on 08.07.2021.
Permitted uses	The provisions should adhere to the guidelines specified
	in Form "G" mentioned in section 8.9.
Zoning Regulations	Subdivision of 1 hectare or more of coconut land is not permitted.

Source: Urban Development Authority - 2023

Zoning
Regulations

Low Density
Residential
Zone

Map No 8.6.1: Low Density Residential Zone



Chapter 08

Zoning
Regulations

Low Density Residential Zone

# 8.7. Agricultural Zone

# **Table No 8.7 .1: Agricultural Zone**

	This makes a surface of makes at the state of the state o
	This region consists of network systems including existing cultivated paddy fields, abandoned paddy fields, connected areas such as Deniya and Ovita, and
Zone Definition	tanks, canals.
Zone Demicion	It also includes the Naga Land belonging to the
	Kuranagala Plantations located in this area and the
	farm owned by the National Livestock Development
	Board belonging to the Land Reforms Commission.
	Paddy Fields
	Environmental Education
	Research Activities
	Eco - tourism based on nature
	Eco - friendly Aquaculture Ponds
	Wetlands Natural Parks
	• Government approved public
	infrastructure projects of national
	importance
	Construction of New Irrigation /
Permitted uses	Construction of Flood Control
	Protection
	Animal husbandry activities and
	related factories carried out in
	coconut plantations
	<ul> <li>Coconut Based Factories</li> </ul>
	for paddy fields;
	i. Raising a dairy farm and farm animals
	ii. Plants and Fruit Nurseries
	iii. Bee Keeping
	iv. Freshwater Fish Farming

Chapter 08

Zoning
Regulations

Agricultural Zone

- v. To collect rainwater in small ponds, ponds, mounds etc. as well as to provide necessary facilities for filtering of silt and iron water.
- vi. Use of paddy fields filled due to lack of water supply for maintaining plant nurseries, temporary guard rooms, cultivation of flower plants etc.
- vii. Cultivation of vegetables.
- viii. Cultivation of edible fruits such as Kangkung,
  Mukukuwana, Gotukola, Sarana,
  Asamodagam, Nivithi, Kohila, Neem Stalk,
  Kekatia, Mada Koku, Karenkoku,
  Neeramulliya etc. in the low lying areas with
  poor drainage.
- ix. Cultivation of sri lankan varieties of potatoes such as kandala, dandila, milk potato, vine potato, poultry potato, country potato, ja aloo, mango, etc.
- x. Cultivation of crops such as turmeric and ginger
- xi. Cultivation of necessary types of grass.
- xii. Cultivation of additional crops such as corn, chilli and peanuts on land with good drainage.
- xiii. Introduction of short term mixed crops or by crops
- xiv. Banana cultivation and
- xv. Freshwater fish farming is permitted use.

Zoning Regulations

Conservation Zone

#### 8.8. Conservation Zone

This zone covers all forest reserves and wetlands that fall under the planning area. The purpose of establishing this zone is to keep the sensitive forest environment, the existing catchment areas, animal and plant species safe for the future.

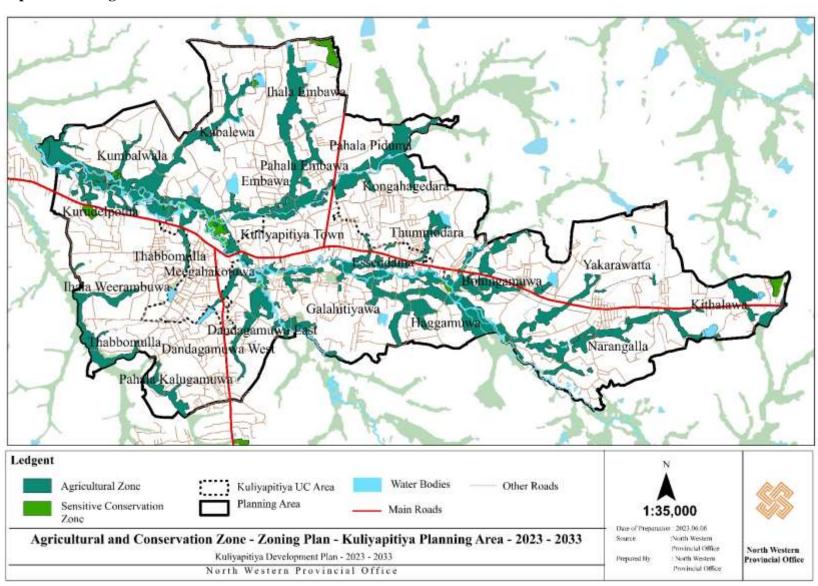
**Table No 8.8.1: Conservation Zone** 

Zone	All sensitive areas are included in it.
Definition	
Zoning	Considering the intensity of extreme weather conditions due to climate change and the intensity of rainwater flow due to reclamation and construction carried out on
	wetlands, the maintenance of flood capaurban area and other development activities should be carried out in accordance with the decisions taken through the coordination of the institutions mentioned in the Schedule.
	2. Alternative sites should be properly established in every wetland where water holding capaurban area is particularly important, in order to reduce the water holding capaurban area and affect the environmental services (other impacts). For this, the approval of the relevant institutions mentioned in the Schedule should be obtained.
	3. Developers should take the services of professionally qualified professionals to prepare plans and carry out design and

- supervision. (For prescribed projects under the Environment Act)
- 4. Wastewater should not be pumped into wetlands. However, only treated water can be released subject to the recommendation of the Central Environmental Authority.
- 5. These guidelines should be included as conditions in the license of the institutions mentioned in the Schedule while carrying out development activities in relation to the Conservation Zone and any breach of such conditions will lead to cancellation or penalty of such license.
- 6. According to the Forest Conservation Ordinance under the Department Forestry, the development activities carried out in the protected areas and buffer zones of those protected areas published in the Gazette are permitted only for "prescribed projects" mentioned in the Environmental Protection Act (No. 772/22 24th June 1993) and dated **Impact** [(Environmental **Impact** assessment Assessment (EIA)] will be approved.
- 7. Any development activities carried out in other natural forest areas identified under this plan should be carried out subject to the approval of the relevant institutions.

	i. Afforestation Projects (Non -			
	Commercial)			
	ii. Academic and Research Activities			
	iii. Eco - tourism based on nature			
	iv. Eco - friendly Aquaculture Ponds			
	v. Wetlands Natural Parks			
	vi. Government approved public			
	infrastructure projects of national			
	importance			
	vii. Construction of New Irrigation /			
	Construction of Flood Control			
	Protection			
Agencies	Sri Lanka Land Development Corporation,			
	2. Department of Irrigation			
	3. Central Environmental Authority,			
	4. Urban Development Authority,			
	5. Concerned Local Authority/ Institutions			
	6. National Building Research Institute			
	7. Department of Agrarian Development			
	8. Department of Archaeology			
	9. National Aquatic Resources Research and			
	Development Authority			
	10. Bureau of Geology and Mining			
	11. Water Resources and Water Transport			
	Board			
	12. Aquaculture Development Authority			
	13. Sri Lanka Electricity area Board			
	14. Department of Buildings of Sri Lanka			
	15. Road Development Authority			
	16. District Secretariat and Divisional			
	Secretariat			

Map No 8.7.1: Agricultural and Conservation Zone



### 8.9. Permitted uses for zones

**Table No 8.9.1:** Form "G" - Minimum plot of land applicable to approved uses

"G" Fo	orm - N	Minimum plot of land applicable	to approved uses	le (C1)	(MD2)	(In 1)	le (R1)	ll Zone (R2)	le (R3)	e (A1)	(Cn 1)
Main Use	No	Sub Use	Minimum Plot Size (M <sup>2)</sup>	Commercial Zone (C1)	Mixed Development Zone (MD2)	Intitutional zone	High Density Residential Zone	Medium Density Residential	Low Density Residential Zone	Agricultural Zone (A1)	Conservation Zone
Residential	1	Dwelling Units / Houses	150 (6 Perch)	250 (10 Perch) - For the Pradeshiya Sabha (PS) Limits)	25	0 (10 )	Perch)	375 (15 Perch)			
Re	2	Apartment complexes	250 (10 Perch)					375 (15 Perch)			
	3	Apartment Complexes	If there are more than 10 housing								

		units, the				
		minimum area of				
		land will be				
		decided by the				
		Authority.				
		Determined by the				
4	Housing Projects	number of housing				
		units.				
	Official					
5	Residences/Employees'	250 (10 Perch)				
	Quarters					
6	Service apartments	500 (20 Perch)				
7	Studio apartments	500 (20 Perch)				
8	Dormitory	500 (20 Perch)				
9	Hostels	500 (20 Perch)				
10	Daycare centers	250 (10 Perch)				
11	Ambulance Service Centers	500 (20 Perch)				
12	Elders Homes	500 (20 Perch)				
13	Children's Homes	500 (20 Perch)				
14	Disability Rehabilitation	500 (20 Perch)				
11	Homes	500 (20 Telell)				
15	Rehabilitation Homes/	500 (20 Perch)				
13	Probation					
16	Community Halls	300(12 Perch)				
17	Resorts/Tourist	500( Perch 20)				
1 /	Bungalows/Home Stay	300(10101120)				

	18	Guest house	250 (10 Perch)				
	19	Lodge	250 (10 Perch)				
	20	Guest Inn	1000 (40 Perch)				
	21	Rest house	250 (10 Perch)				
	1	Hospitals (Private)	1000 (40 Perch)				
	2	Medical Centers (with only one doctor)	150 (6 Perch)				
	3	Medical Centers (with two or more doctors)	250 (10 Perch)				
	4	Sample Collection Centers	150 (6 Perch)				
	5	Laboratories	150 (6 Perch)				
Health	6	Osusala	150 (6 Perch)				
Нея	7	Veterinary Clinics	250 (10 Perch)				
	8	Veterinary Hospitals	500 (20 Perch)				
	9	Quarantine Centers	500 (20 Perch)				
	10	Child and Maternity/Family Clinic Centers	250 (10 Perch)				
	11	Other Medical Institutions	250 (10 Perch)				
	12	Medical Counseling Service Centers	500 (20 Perch)				
	13	Animal Protection Centre	500 (20 Perch)				

	14	Ayurvedic Hospitals	1000 (40 Perch)					
	1	Offices	150 (6 Perch)					
& ion	2	Professional Offices	150 (6 Perch)					
Office & Institution	3	Office Complex	1000 (40 Perch)					
Of	4	Banks/Insurance Financial Institutions	500 (20 Perch)					
Commercial and services	1	Shopping Malls (If the size of the building is more than 400 square meters, the minimum area should be more than 500 square meters)	500 (20 Perch)					
ial	2	Retail Stores	150 (6 Perch)					
nerc	3	Wholesale Stores	250 (10 Perch)					
Comn	4	Department Stores	500 (20 Perch)					
es	5	Supermarkets (Super Markets)	500 (20 Perch)					
rvic	6	Showrooms	150 (6 Perch)					
l sei	7	Restaurants - Take Away	250 (10 Perch)					
and	8	Restaurants - Restaurants	1000 (40 Perch)					
sial	9	Festival Halls	2000 (80 Perch)					
Commercial and services	10	Star Class Hotels	500 (20 Perch)					
amc	11	Hotels	500 (20 Perch)					
ŭ	12	Cabana Hotels	500 (20 Perch)				Coconut plantations	

13	<b>Broadcasting Studios</b>	500 (20 Perch)				
14	Studio (Non - Broadcasting)	150 (6 Perch)				
15	Barber Shops	150 (6 Perch)				
16	Customer Service Centers	150 (6 Perch)				
17	Massage Centers	150 (6 Perch)				
18	Tailor Shops	150 (6 Perch)				
19	Funeral Parlor	500 (20 Perch)				
20	FPahala Halls	150 (6 Perch)				
21	Laundry/ Clothing Cleaning Centers	150 (6 Perch)				
22	Hardware/ Building Materials Sales Shops	250 (10 Perch)				
23	Liquor Shops	150 (6 Perch)				
24	Auto Parts Stores	150 (6 Perch)				
25	Taxi Service Centers	250 (10 Perch)				
26	Vehicle Service Centers Bicycles/ Three Wheelers	375 (15 Perch)				
26	Light Vehicles	500 (20 Perch)				
	Heavy Vehicles	1000 (40 Perch)				
	Garage					
27	Bicycles/ Three Wheelers	375 (15 Perch)				
21	Light Vehicles	500 (20 Perch)				
	Heavy Vehicles	1000 (40 Perch)				
28	Auto Fuel Stations	1000 (40 Perch)				

	29	Smoke Testing Centers	1000 (40 Perch)				
	30	Betting Centers	150 (6 Perch)				
	31	Presses	150 (6 Perch)				
	1	Preschool / Early Childhood Development Centres	500 (20 Perch)				
	2	Primary Schools	4000 (160 Perch)				
	3	Secondary School	8000 (320 Perch)				
	4	Tertiary School	8000 (320 Perch)				
	5	Private Schools / International Schools	4000 (160 Perch)				
	6	Higher Education Centers (Campus)	3000 (120 Perch)				
	7	Public/ Private Universities	4000 (160 Perch)				
	8	Technical Colleges / Vocational Training Centers / Training Centers	1000 (40 Perch)				
	9	Private tuition - Less than 50 square meters	150 (6 Perch)				
	10	Private tuition - between 50 square meters and 500 square meters	500 (20 Perch)				
ional	11	Private tuition more than 500 square meters	1000 (40 Perch)				
Educational	12	Arts Institutes/ Theatre Institutes	1000 (40 Perch)				

	13	Research and Development Centers	250 (10 Perch)					
(sn	1	Religious Places	1000 (40 Perch)					
igio	2	Religious Education Centers	1000 (40 Perch)					
Rel	3	Museums	250 (10 Perch)					
8	4	Social and Cultural Centres	500 (20 Perch)					
Social & Religious)	5	Community Development Centres	300 (12 Perch)					
	6	Auditorium	500 (20 Perch)					
	7	Conference Halls	1000 (40 Perch)					
	8	Travel Information Centres	150 (6 Perch)					
	1	Vehicle Assembly/ Repair Centers	500 (20 Perch)					
	2	Stores for distribution purposes	500 (20 Perch)					
	3	Warehouses/Warehouses	1000 (40 Perch)					
	4	Service Industry	1000 (40 Perch)					
Industrial	5	Domestic Industries	250 (10 Perch)				Coconut plantations	
Ind	6	Packaging Industry	500 (20 Perch)					
	7	Recycling Industries	1000 (40 Perch)					
	8	Value Added Industries	1000 (40 Perch)				Coconut plantations	
	9	Waste Collection Centers	1000 (40 Perch)					
	10	Bakery Products Wood Porridge	500 (20 Perch)					

	11	Bakery Products Electric	250 (10 Perch)					
	12	Concrete Based Products Industries	500 (20 Perch)					
	13	Tile and Brick Industries	1000 (40 Perch)					
	14	Industries related to timber products	500 (20 Perch)					
	15	Ambaramhal	250 (10 Perch)					
	16	Lathe straps, welded workstations	500 (20 Perch)					
	17	Other non - polluting industries (as defined by CEA)	500 (20 Perch)				Coconut plantations	
	18	Pollutants Other Industries (as defined by CEA)	1000 (40 Perch)					
	19	Paddy Mill	1000 (40 Perch)					
	20	Natural Aquarium Factories					Coconut plantations	
ure	1	Indoor Stadiums	1000 (40 Perch)					
Leisure	2	Open Theatre	1000 (40 Perch)					
	3	Libraries	250 (10 Perch)					
	4	Gym	300 (12 Perch)					
	5	Children's Parks	500 (20 Perch)					
	6	Open Field	1000 (40 Perch)					
	7	Cinema Halls	1000 (40 Perch)					

	8	Swimming Pools	1000 (40 Perch)					
	9	Gardens	-					
	10	Body Fitness Areas / Exercise Facilities	-					
Agricultural	1	Animal and Farm Farms	2000 (80 Perch)				Coconut plantations	
Agric	2	Agricultural Produce Collection Centers (If the size of the building is more than 400 square meters, the minimum area should be more than 500 square meters)	500 (20 Perch)				Coconut plantations	
	3	Animal and Seed Breeding Centers	1000 (40 Perch)				Coconut plantations	
	4	Greenhouse	150 (6 Perch)					
	5	Agriculture Related Research and Training Centres	1000 (40 Perch)				Coconut plantations	
	1	Roof Antenna Towers	-					
<b>5</b>	2	Antenna Towers	250 (10 Perch)					
Other	3	Communication Towers	250 (10 Perch)					
	4	Auto Parking Lot	500 (20 Perch)					
	5	Electrical Substations	-					
	6	Soil Cutting/ Clay Cutting	-					

Kuliyapitiya Development Plan 2023-2033 Urban Development Authority

7	Sanitation Buildings	300 (12 Perch)					
8	A.T.M. Centers	Not applicable					
9	Electric Charging Stations	Not applicable					
10	Compost Structure/Waste Recycling Centers	2000 (80 Perch)				Coconut plantations	
11	Multi - storey parking lot	1000 (40 Perch)					

Permitted uses for zones

## Chapter 09

## Proposed road width, Building lines and reservations

Chapter 09
Proposed road
width,
Building lines
and
reservations

The width of the proposed roads and roads for road widening on a priority basis during road network development has been included in the Kuliyapitiya Development Plan based on the data collected from the Urban Council and related institutions.

#### 9.1. Identified roads for development

According to the existing road classification, it is proposed to expand the road width of all roads declared by Kuliyapitiya Urban Council and Pradeshiya Sabha which do not belong to categories A, B and C, roads not declared by the Gazette maintained by the Urban Council and The Pradeshiya Sabha (PS) and public roads where private ownership cannot be confirmed to a minimum of 6 meters. Also, the sixth chapter describes the roads identified by this development plan to be developed quickly.

### 9.1.1. Roads owned by Road Development Authority

Table No 9.1.1.1: Road and Building Lines of Road Development Authority

Road	Road Width (meters)	Building Line (meters)
Kuliyapitiya - Nikaweratiya Road	15	15
Kuliyapitiya - Madampe Road	15	15
Kuliyapitiya - Panala Road	15	15

Source: - Road Development Authority - 2023

### Chapter 09

Proposed road width, Building lines and reservations

# 9.1.2. Details of roads owned by The Provincial Road Development Authority

Table No 9.1.2.1: Details of roads owned by The Provincial Road Development Authority

Road Name	Road Width (meters)	<b>Building Line (meters)</b>
Kirindawa Road	3	10
College Road	4	10
Ambawa Galayala Road	5	10
Karaghadera Digalla Road	4.6	10
Kuliyapitiya - Haggamuwa Road	2.4	10
Labuyaya - Tummodara Road	3	10
Kitlawa Anukkane road	3	10
Ambawa Kos Hena Road	5	10
Dambadeniya Labuyaya Road	3.3	10
Pallewela Weeramuwa Road	3.6	10
Narangalla Vadugedera Road	3	10
Kitlawa Ihala Anuruwa Road	3	10
Kumbalwala Meenawa Road	3	10
Dikwela - Iguruwatta Road	3	10
Kumbalwala - Meenawa Road	3	10
Dikwela - Iguruwatta Road	3	10
Yakarawatta – Le Polawa Road	3	10
Bowatta - Kuliyapitiya Road	06	10
Dandagamuwa - Udawela Road	05	10

Source: Provincial Road Development Authority - 2023

### 9.1.3. Roads owned by Kuliyapitiya Urban Council

Table No 9.1.3.1: Roads and Building lines of Kuliyapitiya Urban Council

Distance Road Name Normal Developed Proposed of road width width of Building of the Limit(m) (meters) the road road (meters) (meters) Anuladevi Mawatha 139.22 3 6 Sanka Mawatha 146.46 6 3 6 Eksath Mawatha 172.57 3 6 6 Narada Mawatha 374.15 4 6 6 4 Narada Mawatha Cross Road 48.84 6 6 331.24 8 7 Subharathipura Road 6 Subharathipura Road Lane 1 46.96 5 3 6 Subharathipura Road Lane 2 160.56 7 3 6 Subharathupura Road Lane 4 113.02 3 6 6 Subharathipura Road Lane 3 113.84 6 4 6 Sri Wikrama Mawatha 209.73 5 2 6 Assedduma Cemetry Road 104.62 7 3 6 Sugaladevi Mawatha 165.22 4 4 6 Leelavathi mawatha 116.02 4 3 6 Gemunu Mawatha 155.27 6 4 6 Assedduma Galahitiya Road 178.19 3 6 6 192.73 7 3 Kassapa Mawatha 6 Piyabharathi Nahimi Mawatha 324.82 7 5 6 5 3 Piyabharathi nahimi Mawatha 85.13 6 Lane 1 Sucharitha Mawatha 3 100.04 6 6 Sucharitha Mawatha Lane 1 3 92.09 6 6 3 Sucharitha Mawatha Lane 2 89.41 6 6 Subharathi Mawatha 566.94 6 6

Chapter 09
Proposed road width,
Building lines and reservations

Subharathi Mawatha Lane 1 105.75 5 3 6 7 3 Sumangala Mawatha 148.64 6 Sudarshana Mawatha 214.81 7 5 6 Mettha Mawatha 179.78 3 6 6 Subharathi Mawatha Lane 2 21.05 6 4 6 7 Asiri Mawatha 128.65 4 6 Asiri Mawatha Lane 1 38.35 7 4 6 Aswedduma Temple Road 162.91 4 4 6 Jayanthi Mawatha 703.93 5 6 6 Mugalan Mawatha 182.08 8 6 6 Jayanthi Mawatha Lane 1 22.4 6 6 Sangathissa Mawatha 152.64 5 6 Chithradevi mawatha 109.78 4 4 6 Sarvodaya Road 107.93 4 6 6 Coop Hospital Road 60.26 3 6 6 Mihidu Mawatha 429.3 7 4 6 Sumudu Mawatha 153.95 5 3 6 Sumudu Mawatha Lane 1 5 3 33.27 6 Mihidu Mawatha Lane 1 139.46 6 3 6 Mihidu Mawatha Lane 2 3 87.51 6 6 **Shopping Complex Road** 191.89 4 6 6 Kuliyapitiya Playground Road 43.68 4 4 6 Kuliyapitiya Library Road 92.68 5 4 6 Tissa Mawatha 360.03 5 5 6 Rawana Mawatha 174.32 5 3 6 Pathima Mawatha 397.07 7 3 6 Road Near the Muslim School 69.58 4 4 6 Road Near the Muslim School 3 3 44.7 6 Lane 1 Suradutha Balika Vidyalaya Road 78.09 4 3 6 Darmashoka Mawatha 116.66 4 3 6 Wikramabhahu Mawatha Road 137.39 5 6

Chapter 09
Proposed road
width,
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reservations

Wikramabhahu Mawatha Road	22.86	5	4	6
Lane 1				
Darmapala Mawatha	206.17	5	3	6
Gajaba Mawatha	136.25	5	3	6
Gajaba Mawatha Lane 01	46.63	5	5	6
Anandagiriwatta Road	690.56	5	3	6
Anandagiriwatta Road Lane 1	152.87	4	3	6
Anandagiriwatta Road Lane 2	51.4	4	3	6
Anandagiriwatta Road Lane 3	124.79	6	3	6
Anandagiriwatta Road Lane 4	31.45	6	3	6
Anandagiriwatta Road Lane 5	58.01	6	3	6
Walagamba Mawatha	251.65	6	3	6
Vihara Mawatha	389.52	5	3	6
Dutugemunu Mawatha	461.83	9	3	6
Dutugemunu Mawatha Lane 1	54.37	5	3	6
Dutugemunu Mwatha Lane 2	119.45	6	3	6
Road Infront of Kuliyapitiya	119.76	7	3	6
Police Station				
Udaya Mawatha	80.73	7	3	6
Elders Home Road	27.4	5	4	6
Hiriliyadda Road	86.65	5	3	6
Wijayaba Mawatha	83.65	6	3	6
Ilippadeniye seevali Mahanaahimi	158.33	5	3	6
Mawatha				
Kabalewa Dewala Road	68.32	7	7	6
Alahakoon Mawatha	189.95	7	3	6
Koongollawatta Road	80.38	6	3	6
Godapitiya Road	156.41	4	3	6
Kirindawa Road	113.47	11	4	6
Sapumal Mawatha	145.73	6	4	6
Sapumal Mawatha Lane 1	42.67	3	3	6
Sapumal Mawatha Lane 2	26.46	3	3	6

Pallapitiya Cemetry Road 119.79 5 6 6 5 Dewanampiyathissa Mawatha 105.36 6 6 Dewanampiyathissa 31.96 5 Mawatha 6 6 Lane 1 3 Kuliyapitiya Hospital 97.12 5 6 North **Entrance Road** Mihidu Mawatha Cross Road 71.46 7 3 6 Ananda Mawatha Lane 1 73.11 6 6 6 Parakrama Mawatha Lane 1 57.66 5 3 6 Parakrama Mawatha Lane 2 177.13 5 6 6 44.09 3 Parakrama Mawatha Lane 3 5 6 Abaya Mawatha 163.06 4 4 6 Subha Mawatha 94.32 4 6 6 Jaya Mawatha 207.73 6 3 6 Pandula Mawatha 190.59 3 6 6 Ananda Mawatha Cemetry Road 254.72 6 6 6 786.24 3 Mahasen Mawatha 6 6 Gotabaya Mawatha 171.77 8 3 6 5 3 Gotabaya Mawatha Lane 1 90.09 6 Gotabaya Mawatha Lane 2 150.79 4 3 6 Ramanayaka Mawatha 139.54 6 3 6 Mahasen Mawatha Lane 1 258.48 7 3 6 Mahasen Mawatha Lane 2 91.46 5 3 6 Ananda Mawatha Lane 2 100.13 4 4 6 Ananda Mawatha Lane 3 159.66 6 6 6 Ananda Mawatha Lane 4 139.18 3 3 6 Ananda Mawatha Lane 5 137.35 3 3 6 4 3 Pallapitiya Housing Scheme Road 257.1 6 Pallapitiya Housing Scheme Cross 73.37 6 3 6 Road Ananda Mawatha Lane 6 69.31 8 8 6 Ananda Mawatha 7 101.24 6

Chapter 09
Proposed road width,
Building lines and reservations

Sooriya Mawatha	304.17	6	5	6
Sooriya Mawatha Lane 1	40.69	4	2	6
Sooriya Mawatha Lane 2	51.72	4	2	6
Vijaya Mawatha Lane 1	42.2	5	3	6
Vijaya Mawatha Lane 2	51.61	4	3	6
Vijaya Mawatha Lane 3	57.58	4	3	6
Vijaya Mawatha Lane 4	58.01	5	3	6
Vijaya Mawatha Lane 5	100.14	5	3	6
Vijaya Mawatha Lane 6	17.06	5	3	6
Vijaya Mawatha Lane 7	57.29	4	2	6
Road Near the Mr. Kalum's House	74.31	4	3	6
Saddhathissa Mawatha	397.87	6	3	6
Saddathissa Mawatha Cross Road	135.2	6	3	6
Vishaka Mawatha	202.68	6	3	6
P.B. Banneheka Road	317.45	3	3	6
P.B. Banneheka Road Lane 1	64.85	4	3	6
P.B. Banneheka Road Lane 2	45.76	4	3	6
Ashoka Mawatha	534.13	7	7	6
Ashoka Mawatha Lane 1	70.5	6	3	6
Ashoka Mawatha Lane 2	87.43	6	3	6
Ashoka Mawatha Lane 3	67.87	5	3	6
Ashoka Mawatha Lane 4	61.97	6	4	6
Ashoka Mawatha Lane 5	61.24	4	3	6
Ashoka Mawatha Lane 6	47.64	4	3	6
MOH Road	225.3	7	3	6
Road Near the Engineer Office	78.41	6	3	6
Sudharma Mawatha	156.23	7	3	6
Road infront of Rajana Hotel	126.4	5	3	6
Jayanatha Mawatha	121.08	7	3	6
Kalinga Mawatha	133.38	6	3	6
Kalinga Mawatha Lane 1	31.98	4	3	6
Keerthi Mawatha	103.69	6	3	6
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# Chapter 09

Proposed road width, Building lines and reservations

Keerthi Mawatha Lane 1	71.69	4	4	6
Jayakodi Watta Road Lane 1	160.51	6	3	6
Jayakodi Watta Road Lane 2	182.7	6	3	6
Jayakodi Watta Road Lane 3	170.14	4	3	6
Jayakodiwatta Road Lane 4	190.01	6	3	6
Jayakodi Watta Road	34.5	6	3	6
Jayasingha Mawatha	133.96	4	3	6
Samadhi Mawatha	113.03	5	3	6
Kanchanapura Housing Scheme	272.62	4	3	6
Road				
Kanchanapura Housing Scheme	109.91	4	3	6
Road Lane 1				
Kanchapura Housing Scheme	110.05	4	3	6
Road Lane 2				
Labour Office Road	375.82	6	3	6
Kithsirimewan Mawatha	693.51	6	4	6
Kithsirimewan Mawatha Lane 1	127.8	7	3	6
Kithsirimewan Mawatha Lane 2	60.82	7	3	6
Kithsirimewan Mawatha Cross	120.97	7	3	6
Road				
Kithsirimewan Mawatha Lane 3	74.31	6	3	6
Kithsirimewan Mawatha Lane 4	170.85	5	3	6
Dostharawatta Road	62.87	6	2	6
Kithsirimewan Mawatha Lane 5	48.05	5	3	6
Lakshmipura Housing Scheme	46.54	3	3	6
Road				
Solid Waste Management Center	184.31	4	3	6
Road				
Road Near the Star Jewellery	40.76	3.5	4	6
Kandulla Dharmaraja Mawatha	99.44	5	3	6

Source: Urban Development Authority /Kuliyapitiya Urban Council - 2023

This includes the list of Kuliyapitiya Urban Council roads published by the Kuliyapitiya Urban Council through Gazette No. 2323 (10.03.2023). If there is any problem with the proposed building boundary, the Planning Committee of the Kuliyapitiya Urban Council will be empowered to take a final decision.

### 9.1.4. Kuliyapitiya Pradeshiya Sabha owned Roads

Table No 9.1.4.1: Roads and Building lines of Kuliyapitiya Pradeshiya Sabha

Road	Length	Road	Road	Building
	(M)	Width	Wideni	line (M)
		( <b>M</b> )	ng (M)	
Mahimpitiya I patumaga	199.45	3	5	6
Shramadana mawatha	380.76	5	8	6
Subhasadhaka mawatha	209.94	5	10	6
Dandagamuwa Horathepola road	184.81	3	5	6
Handagamuwa Horathepola I patumaga	194.63	3	5	6
Dandagamuwa Horathepola II patumaga	209.52	2.5	4	6
Dandagamuwa Horathepola III patumaga	205.57	2.6	4	6
Dandagamuwa Horathepola iv patumaga	268.96	3	4	6
Thabbomulla punchi lida road	411.16	4	12	6
Dandagamuwa Dorathepola v patumaga	99.53	2.8	5	6
Dandagamuwa Horathepola v patumage	62.72	2.6	5	6
II patumaga				
Dandagamuwa Horathepola v patumage I	72.63	2.6	5	6
patumaga				
Embawa Wendesiwaththa road	529.09	2.5	5.8	6
Embawa Wendesiwaththa I patumaga	168.73	2.5	4.2	6
Embawa Wendesiwaththa II patumaga	59.76	2.5	3.6	6
Embawa Wendesiwaththa III patumaga	98.47	2.4	3.9	6
Embawa Wendesiwaththa iv patumaga	292.36	2.8	4	6

Embawa Wendesiwaththa iv patumage I	146.83	2.2	3.2	6
patumaga				
Raigam waththa road	58.79	2.4	6.3	6
Pansal waththa road	60.23	2.5	5.5	6
Palugas junction road	83.54	2.1	5	6
Bodimaduwa road	343.79	3	6	6
Bodimaduwa I patumaga	57.04	2.9	4.5	6
Green valley estate road	177.73	3	6.2	6
Green valley estate I patumaga	24.78	3	6.2	4.5
Bodimaduwa II patumaga	113.46	2.3	3.7	6
Halpe mawatha	988.99	3.1	7	6
Halpe mawathe I patumaga	109.64	2.4	6.3	6
Halpe mawathe I patumage I patumaga	34.53	2.3	6	4.5
Halpe mawathe II patumaga	82.03	1.8	6.4	6
Halpe mawathe II patumage II patumaga	88.06	1.7	6	6
Halpe mawathe III patumaga	160.04	2.6	5.4	6
Halpe mawathe iv patumaga	55.51	2	6	6
Halpe mawathe v patumaga	177.11	2.5	5	6
Halpe mawathe vi patumaga	183.92	3	7	6
Piduma walawwa road	107.31	2.3	4.6	6
Halpe mawathe vii patumaga	140.03	3	4.5	6
Eksath mawatha	98.5	2.3	6.2	6
Samagi mawathe I patumaga	120.81	2.5	6	6
Koongolla waththa III patumaga	441.15	2.6	4.6	6
Koongolla waththa III patumage I	179.14	3.1	4.8	6
patumaga				
Koongolla waththa II patumage I	83.95	3	6.1	6
patumage				
Koongolla waththa III patumage II	213.54	3	6.1	6
patumaga				
Koongolla waththa road	390.44	3.8	6.2	6
Koongolla waththa I patumage I	131.14	2.6	6.2	6
patumaga				

Godapitiya waththa road	880.48	3.6	6.1	6
Koongolla waththa godapitiya I patumaga	110.34	2.5	5.6	6
Koongolla waththa godapitiya II	75.16	2.6	6.2	6
patumaga				
Godapitiya waththa III patumaga	134.32	2.5	5	6
Koongolla waththa III patumage III	215.7	3.1	6.1	6
patumaga				
Koongolla waththa III patumage III	195.67	3	6.7	6
patumage I patumaga				
Koongolla waththa III patumage III	191.2	2.5	6.3	6
patumage II patumaga				
Koongolla waththa III patumage III	197.84	3	6	6
patumage III patumaga				
Godapitiya waththa III patumaga	151.72	3.3	4.5	6
Samagi mawatha	368.72	4	5	6
Winrose garden road	162.26	3.8	6.4	6
Gaiyala aluth mawatha	904.12	2.8	5.3	6
Gaiyala aluth mawatha I patumaga	114.07	3.2	6	6
Gaiyala I patumaga	284.56	2	3	6
Gaiyala II patumaga	195.66	2.6	3.2	6
Gaiyala III patumaga	112.09	2.9	3.5	6
Gonawelawaththa road	274.22	2.2	4.8	6
Ggarawaththa road	235.43	3.5	4.2	6
Ggarawaththa I patumaga	133.42	3.5	4.2	6
Subharathi wedihiti niwasaya road	535.13	2.2	3.7	6
City gate road	142.27	2.4	3.4	6
Kubalwala gama meda road	970.05	3.2	6.1	6
kubalwala gama meda I patumaga	383.52	2.3	4	6
Kubalwala gama meda II patumaga	187.31	2.4	3.1	6
Kubukketiya dikhera road	847.61	2.6	3.8	6
Kubukketiya kabalewa road	1224.14	2.8	3.6	6
Green city road	291.31	3.1	6.5	6
Sumangala vidyala road	3377.9	3.8	8.2	6

	1.50.00	2.0	1.0	
Sunrise garden road	150.92	2.8	4.8	6
Mola road	140.51	4.6	8.9	6
Pasala asala road	411.46	2.4	5.1	6
Minewa road	1106.22	3.1	8.3	6
Kirigahaptiya gam maim road	149.2	2.7	4.8	6
Gunawardhana mawatha	289.35	2.9	4.6	6
Minewa othe amuna road	365.99	3	3.9	6
Kamatha road	143.14	2.7	3.8	6
Wassaulla - sumangala vidyala road	1022.71	3.3	3.4	6
Sumangala vidyala I patumaga	133.42	3.1	5.7	6
Saddharmodhaya mawatha	2362.03	3.4	7.7	6
Kabalewa konaththawa wela meda road	1401.12	3.4	7.6	6
Paddy field road	316.84	2.2	4.1	6
Kabale devigama road	278.2	2.4	5.7	6
Kanukele ginimandawala road	1045.64	3.1	3.8	6
Devigama gammanaya road	289.1	2.8	6.3	6
Devigama gammana I patumaga	173.82	2.5	4.5	6
Palliya asala road	148.94	3.1	4.6	6
Kabalewa wewa road	328.37	3	4.2	6
Wassawulla temple road	1570.33	4.1	7.3	6
Dikhera kajupuraya road	1608.96	3.2	4.1	6
Barigoda mukalana II patumaga	654.67	2	4.5	6
Unaleeya muslim palliya road	129.57	1.5	3.5	6
Sarananda mawatha	694.27	2.6	6.5	6
Sarananda mawathe I patumaga	203.43	2	6.5	6
Siththaragama road	1664.2	3	5.4	6
Kithalawa co-op city road	159.49	4	5.4	6
Pugalla niwasa 5 road	59.86	1.8	5.5	6
Pugallawaththa road	793.47	3.4	7	6
Pugallawaththa I patumaga	220.93	3.2	6	6
Pugallawaththa I patumage I patumaga	112.97	2.5	6	6
Pugallawaththa I Patumage II Patumaga	29.15	3	7	4.5
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Pugallawaththa I Patumage III Patumaga	348.09	3.8	6	6
Pugallawaththa II Patumaga	82.17	3.5	7.4	6
Pugallawaththa III Patumaga	54.54	3.2	8	6
Pugalla aramaya road	1126.08	2.4	6	6
Pugalla I Patumaga	91.11	2.3	3.4	6
Balagallawaththa road	549.46	3	6.8	6
Balagallawaththa I Patumaga	104.92	2.2	6.3	6
Balagallawaththa II Patumage I Patumaga	55.19	3.4	6.8	6
Balagallawaththa II Patumaga	764.33	2.2	6.3	6
Narangalla Kanda Uda Road	193.67	2.1	3.1	6
Sirigiriyawaththa II Patumaga	293.04	2.3	7	6
Sirigiriyawaththa Viii Patumaga	235.89	2.3	7	6
Sirigiriyawaththa Ix Patumaga	294.73	2.3	7	6
Sirigiriyawaththa III Patumaga	164	2.3	7	6
Narangalla I Patumaga	120.96	2.2	6.6	6
Sirigiriyawaththa III Patumaga	270.73	2.4	7	6
Sirigiriyawaththa Iv Patumaga	278.25	2.3	6.8	6
Sirigiriyawaththa Road	123.98	2.3	6	6
Sirigiriyawaththa Vi Patumaga	321.13	2.8	7	6
Narangalla III Patumaga	110.75	2.7	5.5	6
Sirigiriyawaththa Vii Patumaga	328.28	2.4	7	6
Narangalla Iv Patumaga	71.07	2.5	6.2	6
Narangalla V Patumaga	232.98	2.4	5.3	6
Narangalla Vi Patumage I Patumage I	55.92	2.2	6	6
Patumaga				
Yakarawaththa I Patumaga	175.15	2.3	6.6	6
Narangalla Vi Patumaga	233.82	2.4	6.3	6
Narangalla Vi Patumage I Patumaga	205.68	2.3	6	6
Yedelgodawaththa Road	1262.61	2.4	5.4	6
Yedelgodawaththa I Patumaga	167.66	2.4	5.4	6
Yedelgodawaththa	182.93	2.2	5.4	6
Yedelgodawaththa III Patumaga	432.03	2.4	5.4	6

Yedelgoda Temple Road	626.84	2.4	5.4	6
Yakarawaththa Dewala Road	1442.56	2.5	6.1	6
Yakarwaththa II Patumaga	30.32	2.2	5	4.5
Yakarawaththa Wela Meda Road	134.88	2.3	5.5	6
Yakarawaththa Wela Meda I Patumaga	67.4	2.7	7.3	6
Yakarawaththa III Patumaga	208.24	2.3	5.7	6
Yakarawaththa Dewala V Patumaga	252.71	2.4	6.3	6
Yakarawaththa Dewala Vi Patumaga	110.76	2.3	5	6
Yakarawaththa Dewala Vii Patumaga	129.08	2.4	5.8	6
Yakarawaththa Dewala Viii Patumaga	182.13	2.3	5.6	6
Yakarawaththa Dewal Ix Patumaga	67.35	2.2	5.5	6
Kurudugolla Road	340	2.4	5.4	6
Bohingamuwa Pradeshiya Sabha Road	486.18	2	11.9	6
Bohingamuwa Pradeshiya Sabha I	45.57	3	8	6
Patumaga				
Bohingamuwa Pradeshiya Sabha II	58.18	2.2	6.1	6
Patumaga				
Harithagamdora Road	431.35	3	4.8	6
Harithagamdora I Patumaga	527.44	6	6	6
Harithagamdora II Patumaga	53.78	2.2	6	6
Harithagamdora III Patumaga	55.87	2.1	5.7	6
Panyananda Road	229.33	2.4	7	6
Kahatawaththa Road	1244.91	2.6	6	6
Kahatawaththa I Patumaga	125.62	2	4	6
Kahatawaththa II Patumaga	93.98	2.4	5.5	6
Panyananda I Patumaga	69.35	2.1	6.4	6
Bhanu Prathap Mawatha	426.36	2	4	6
Bhanu Prathap Mawathe I Patumaga	165.96	1.9	5	6
Bohingamuwa Kudukanda Road	560.71	2.2	4.8	6
Bohingamuwa Kudukanda I Patumaga	168.12	2.4	3.2	6
Buddha Jayanthi Mawatha	923.56	2.6	6	6
Buddha Jayanthi I Patumaga	94.01	2.2	4	6

Buddha Jayanthi II Patumaga	51.59	2.3	6	6
Buddha Jayanthi Mawathe III Patumage	234.83	2.4	6	6
Sanka Mawatha	286.66	2.6	7	6
Sanka Mawathe I Patumaga	28.22	2.1	5	6
Eksath Mawatha	158.16	2.4	7	6
Subharathipura Road	693.45	9	9	6
Subharathipura III Patumaga	34.76	2	5.3	6
Subharathipura Iv Patumaga	241.37	2.6	7	6
Subharathipura Iv Patumage I Patumaga	186.71	3	6.5	6
Subharathipura Iv Patumage Ii Patumaga	73.48	2.1	6	6
Subharathipura V Patumaga	30	2.2	5.7	4.5
Subharathipura Vi Patumaga	44.68	2.4	6.4	6
Sri Wickrama Mawatha	444.53	2.6	6.3	6
Sri Wickrama II Patumaga	100.37	2.1	5	6
Sri Wickrma III Patumaga	46.37	2.1	5.4	4.5
Sri Wickrama Iv Patumaga	321.89	2.6	6.5	6
Sri Wickrama Mawathe Iv Patumage I	169.79	2	5.6	6
Patumaga				
Sri Wickrama Mawathe Iv Patumage II	120.9	6	7.5	6
Patumaga				
Sri Wickrama Mawathe Iv Patumage Iv	51.64	2.3	5.5	4.5
Patumaga				
Muththettuwawaththa Assedduma II	380.14	2	5	6
Patumaga				
Muththettuwawaththa Assedduma II	200.54	2.4	6	6
Patumage II Patumaga				
Muththettuwawaththa Assdduma II	55.13	2.7	6	6
Patumage I Patumaga				
Sri Wickrama Mawathe Vi Patumaga	201.74	2.1	5	6
Subharathi Mawatha	943.99	6.6	8.4	6
Meththa Mawatha	272.67	2.5	7	6
Meththa I Patumaga	180.51	2.4	6.4	6
Subharathi Mawathe Vii Patumaga	166.65	3	6	6

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Subharathi Mawathe Viii Patumaga	50.17	3	7	4.5
Subharathi Mawathe Ix Patumaga	59.38	2.7	6	6
Subharathi Mawathe X Patumaga	63.38	2.3	5	6
Kanadulla Dharmaraja Mawatha	1871.3	3.6	7.6	6
Kanadulla Dharmaraja I Patumaga	52.29	2.4	3.6	6
Kanadulla Dharmarajagama Waththa	93.08	3	4.5	6
Road				
Dharmaraja Mawathe III Patumaga	330.64	3	6	6
Dharmaraja Mawathe III Patumage I	51.48	3	6	4.5
Patumaga				
Alahakoonwaththa Samithi Shala Road	378.65	3	6	6
Alahakoonwaththa Samithi Shala I	66.1	3	3.6	6
Patumaga				
Alahakoonwaththa Samithi Shala II	45.64	2.7	3.6	4.5
Patumaga				
Gajaba Mawatha	286.57	3	6	6
Parakkrama Mawatha	168.02	2.7	6	6
Delgahakotuwa Road	1059.41	3	6	6
Delgahakotuwa I Patumaga	299.67	3	6	6
Samadhi Mawatha	122.88	2.4	3.6	6
Samadhi II Patumaga	83.68	2.7	3.6	6
Ihala Weerambuwa Road	1672.87	3	4.5	6
Ihala Weerambuwa I Patumaga	490.72	3	4.5	6
Weerambuwa Akkara 24 I Patumaga	298.46	3	4.5	6
Weerambuwa Akkara 24 I Patumage I	213.74	3	4.5	6
Patumaga				
Ihala Weerambuwa I Patumaga	74.71	2.4	3.6	6
Ihala Weerambuwa Akkara 9 Road	336.74	2.7	6	6
Ihala Weerambuwa Akkara 9 I Patumaga	210.37	3	4.5	6
Weerambuwa Akkara 24 Road	1003.98	3	5.5	6
Weerambuwa Akkara 24 I Patumaga	261.08	3	4.5	6
Ihala Weerambuwa Wewa Road	1008.85	2.7	5	6
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Weerambuwa Akkara 24 II Patumaga	164.33	2.7	3.6	6
Weerambuwa Akkara 24 III Patumaga	83.73	2.7	3.6	6
Weerambuwa Akkara 24 Iv Patumaga	76.94	2.4	3.6	6
Kanadulla Mola Road	300.45	3	6	6
Kanadulla Dharmaraja II Patumaga	64.17	2.7	3.6	6
Kanadulla Dharmaraja School Road	447.25	2.7	6	6
Kanadulla Dharmaraja School II	86.69	3	6	6
Patumaga				
Kanadulla Dharmaraja School I Patumaga	106.45	2.7	4.5	6
Kanadulla Dharmaraja III Patumaga	55.8	2.7	3.6	6
Kanadulla Dharmaraja Iv Patumaga	54.86	2.7	4.5	6
Alahakoonwaththa II Patumaga	178.48	3	6	6
Alahakoonwaththa III Patumaga	163.22	2.7	4.5	6
Kanadulla Dharmaraja V Patumaga	66.44	2.7	6	6
Alahakoonwaththa I Patumaga	199.03	2.7	6	6
Alahakoonwaththa Road	387.99	3	6	6
Alahakoonwaththa Iv Patumaga	339.88	2.7	6	6
Alahakoonwaththa Iv Patumage I	48.41	3	4.5	4.5
Patumaga				
Alahakoonwaththa Iv Patumage II	79.83	3	3.6	6
Patumaga				
Pidiwella Waththa Road	207.06	2.9	5.6	6
Kanadulla I Patumaga	71.74	4.2	6.7	6
Kurudelpotha Samithi Shala Road	1175.29	2.7	4.5	6
Madeline V Patumage I Patumaga	36.45	3	4.5	4.5
Weerapura Road	678.08	3	3.6	6
Weerapura Gama Meda Road	662.85	3	7.6	
Weerapura Gama Meda I Patumaga	114	2.7	4.5	6
Weerapura I Patumaga	217.36	3	6	6
Weeragama Gama Meda Road	642.88	3	5.4	6
Weeragama Gama Meda II Patumaga	73.69	2.7	6	6
Weeragama Gama Meda I Patumaga	93.83	3	5.4	6
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Madeline V Patumaga	111.98	3	4.5	6
Madeline State III Patumaga	391.39	2.4	4.5	6
Madeline State Iv Patumaga	144.14	2.6	4.5	6
Madeline State II Patumaga	122.37	2.7	4.5	6
Madeline State I Patumaga	119.33	3	4.5	6
Kurudelpotha I Patumaga	152.91	2.8	4.8	6
Kurudelpotha Kanadulla Waththa Road	460.55	3	4.5	6
Kurudelpotha Kanadulla Waththa I Patumaga	57.82	2.4	3.6	6
Kurudelpotha Kanadulla Waththa II	97.94	2.4	4.5	6
Patumaga				
Kurudelpotha Waththa Road	386.79	2.7	6	6
Kurudelpotha Kubalwala Road	1882.18	3	4.9	6
Kubalwala Paddy Field Road	167.82	3	6.2	6
Kubalwala Kurudelpotha II Patumaga	272.83	3	4.3	6
Bogahamulawaththa Samagi Mawatha	475.51	2.5	6.2	6
Bogahamulawaththa Samagi Mawathe I	81.83	3	6.1	6
Patumaga				
Bogahamulawaththa Samagi Mawathe II	109.8	3	7.6	6
Patumaga				
Pallewela Agro Road	350.22	4	5.5	6
Kahatagahamulahena Road	209.68	2.6	6	6
Kahatagahamulahena I Patumaga	540.23	6.6	8.5	6
Kahatagahamulahena Pallewela Road	244.03	4.6	6.1	6
Kahatagahamulahena Pallewela I	49.98	3.3	4.5	4.5
Patumaga				
Kahatagahamulahena Pallewela II	116.04	4.4	6.2	6
Patumaga				
Pallewela I Patumaga	153.49	2.4	4	6
Pahala Kalugamuwa Road	2074.46	3.6	9.1	6
Pahala Kalugamuwa Indunilwaththa	269.69	3	6	6
Road				
Delgahamulawaththa Road	88.72	2.7	5.3	6

Senanigama Waalduwaththa	740.94	3	7	6
Akkara 7 Samagi Mawatha	286.59	3	5.9	6
Kolongashenawaththa Road	170.42	2.6	4.6	6
Kolongashenawaththa I Patumaga	80.22	3	4.6	6
Pahala Kalugamuwa Mawatha Pitiya	706.76	2.4	3.6	6
Road				
Kuliyapitiya Hammalawa Road	3459.28	3.6	9	6
Hammalawa I Patumaga	851.6	2.5	5	6
Dandagamuwa Vi Patumaga	361.11	2.4	4.2	6
Dandagamuwa Vi Patumage I Patumaga	55.89	2.3	7.6	6
Galkanda I Patumaga	209.71	2.3	4.6	6
Dandagamuwa Hammalawa Road	1809.53	3.7	8	6
Dandagamuwa Village Road	141.32	3.4	7.4	6
Dandagamuwa Village I Patumaga	39.86	2.3	4.8	4.5
Dandagamuwa Hammalawa II Patumaga	193.68	2.2	4	6
Dandagamuwa Hammalawa I Patumaga	172.2	2.5	7	6
Hammalawa II Patumaga	175	2.5	7	6
Hammalawa II Patumage I Patumaga	48.82	2.1	3.5	4.5
Dandagamuwa V Patumaga	241.26	2.5	4	6
Dandagamuwa Iv Patumaga	230.4	2.1	4.7	6
Dandagamuwa III Patumaga	208.03	2.3	4.8	6
Dandagamuwa II Patumaga	76.68	2.1	3.2	6
Dandagamuwa Jayasingha Mawatha	708.77	2.8	6.6	6
Dandagamuwa Jayasingha Mawathe I	125.9	2.2	3.6	6
Patumaga				
Jayasingha Mawathe V Patumaga	84.38	2.3	4	6
Jayasingha Mawathe V Patumaga	206.34	2.4	4.6	6
Dandagamuwa Jayasingha Mawathe II	237.82	2.3	4	6
Patumaga				
Galahitiyawa Janajaya Road	615.82	2.8	5.3	6
Hammalawa Xiii Patumaga	45 11	2	1	15
Transmara va Trin T avamaga	45.11	2	4	4.5

Hammalawa Xi Patumaga	189.52	2.4	9	6
Hammalawa X Patumaga	176.15	2.3	6	6
Hammalawa Ix Patumaga	101.11	2.8	5.4	6
Hammalawa Viii Patumaga	163.59	2.3	6.5	6
Hammalawa Vii Patumaga	131.33	2.2	4.8	6
Hammalawa Vi Patumaga	71.81	2.2	3	6
Hammalawa V Patumaga	74.96	2.3	5.2	6
Diyakalamulla Hammalawa Road	262.29	4	7	6
Hammalawa Xviii Patumaga	240.1	2.7	6.7	6
Hammalawa Xvii Patumaga	83.66	2.3	3.6	6
Araliya Uyana Sripathi Lama Niwasa	887.42	3	9	6
Road				
Araliya Uyana Sripathi Lama Niwasa II	78.77	3	11	6
Patumaga				
Araliya Uyana Sripathi Lama Niwasa I	40.7	3	9	6
Patumaga				
Saru Uyana Road	433.33	4	6	6
Saru Uyana I Patumaga	98.96	4	11	6
Saru Uyana I Patumage I Patumaga	143.21	4	6	6
Setingro I Patumaga	137.28	2.6	6.5	6
Setingro II Patumaga	199.84	2.8	6	6
Setingro II Patumage I Patumaga	158.41	2.5	6	6
Saru Uyana III Patumaga	221.36	3	6	6
Saru Uyana II Patumaga	115.79	4	11	6
Saru Uyana II Patumage I Patumaga	39.13	3	6	4.5
Saru Uyana III Patumage I Patumaga	309.34	3	11	6
Saru Uyana III Patumage I Patumage I	62.53	3	6	6
Patumaga				
Kumara Patumaga	175.52	2.5	4.7	6
Mabeltan Waththa Road	157.08	3.7	6	6
Enanigama Haritha Mawatha	1030.47	3.2	6	6
Senanigama I Patumaga	156.82	3	6	6
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Senanigama II Patumaga	169.31	3	6	6
Senanigama III Patumaga	128.89	3	5	6
Senanigama Iv Patumaga	155.66	3	6	6
Senanigama Iv Patumage I Patumaga	43.19	3	5	4.5
Senanigama Iv Patumage Ii Patumaga	85.67	3	5	6
Senanigama Vi Patumaga	86.52	3	6	6
Senanigama Vi Patumage I Patumaga	38.38	3	6	4.5
Senanigama V Patumaga	139.35	3	6	6
Senanigama Vii Patumaga	53.35	3	6	6
Senanigama Viii Patumaga	73.78	3	6	6
Haritha Mawatha	106.11	3	6	6
Dandagamuwa Jayasingha Mawatha	404.42	2.8	6.9	6
Jayasingha Mawathe Iv Patumaga	34.55	3.3	6.5	4.5
Jayasingha Mawathe III Patumaga	118.07	2.2	4.4	6
Jayasingha Mawathe II Patumaga	61.21	2.4	4.3	6
Jayasingha Mawathe II Patumage I	65.33	2.2	4.7	6
Patumaga				
Jayasingha Mawathe I Patumaga	223.24	2.2	4.7	6
Jayakodiwaththa Road	292.07	2.6	5.6	6
Kalinga Mawathe II Patumaga	97.88	2.5	6	6
Kalinga Mawatha	325.11	2.6	6	6
Kalinga Mawathe I Patumaga	31.44	2.5	5	4.5
Kalinga Mawathe III Patumaga	216.79	2.5	5.6	6
Kalinga Mawathe III Patumage I Patumaga	85.13	2.5	4.8	6
Kalinga Mawathe III Patumage II	68.63	2.4	4.7	6
Patumaga				
Kalinga Mawathe Iv Patumaga	124.14	2.4	4.6	6
Kirindawa I Patumaga	134.03	2.2	4.9	6
Akkara 20 Road	983.9	3	6.2	6
Akkara 20 I Patumaga	194.98	4.2	6.1	6
Akkaraa 20 II Patumaga	56.16	2.4	5.7	6
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Kirindawa III Patumaga	276.54	2.4	3.8	6
Kirindawa III Patumage I Patumaga	291.8	2.8	4.4	6
Mirishena Road	842.24	2.5	6.7	6
Mirishena I Patumaga	121.66	2.3	4	6
Mirishena II Patumaga	104.41	2.6	5.6	6
Mirishena III Patumaga	32.64	2	4.2	4.5
Polgollewa II Patumaga	1228.48	4.4	9.5	6
Mahawela Road	3360.94	3	7	6
Dallanda Road	3004.68	2.4	7	6
Eppalapitiya Road	1461.17	2.5	7	6
Ihala Piduma I Patumaga	187.98	2.5	6	6
Akkara 20 Waththa Road	197.09	3	5	6
Eppalapitiya III Patumaga	127.24	2.5	5	6
Weralu Uyana I Patumaga	162.5	3.5	4	6
Weralu Uyana Road	177.23	2	4.5	6
Maligathenna I Patumaga	297.43	2	5	6
Maligathenna I Patumage I Patumaga	35.49	2.5	5	4.5
Maligathenna I Patumage III Patumaga	322.64	2	5	6
Maligathenna I Patumage II Patumaga	48.51	2	5	4.5
Eppalapitiya II Patumaga	224.17	2.4	6	6
Eppalapitiya Iv Patumaga	278.99	2.3	5	6
Eppalapitiya Iv Patumage I Patumaga	96.59	2	5	6
Eppalapitiya Iv Patumage II Patumaga	40.72	2	5	4.5
Thummodara X Patumaga	225.61	2.5	5.6	6
Eppalapitiya V Patumaga	173.78	2.3	5	6
Mahawaththa Road	635.75	2.6	5	6
Mahawaththa I Patumaga	188.86	2.4	5	6
Mahawaththa II Patumaga	332.76	2.3	6	6
Mahawaththa III Patumaga	224.7	2.3	5	6
Mahawaththa II Patumaga	87.75	2.3	6	6
Mahawaththa III Patumaga	100.35	2.3	6	6
Sampath Place Road	114.72	2.3	6	6

Muththettuwawaththa Road	510.01	2.6	5	6
Muththettuwawaththa I Patumaga	205.11	2.7	6	6
Muththettuwawaththa II Patumaga	180.23	2.7	7	6
Muththettuwawaththa II Patumage I	64.76	2.5	7	6
Patumaga				
Koongahagedara I Patumaga	143.65	2.8	8	6
Dikhena Road	738.16	2.7	7	6
Dikhena I Patumaga	61.65	2.3	6	6
Dikhena II Patumaga	177.86	2	6	6
Dikhena III Patumaga	62.09	2	4.5	6
Muththettuwawaththa Pela Thawana	306.72	4	11	6
Road				
Muththettuwawaththa III Patumaga	315.95	3	6	6
Muththettuwawaththa Iv Patumaga	136.45	6	6	6
Muththettuwawaththa Assedduma Road	1100.24	4	7	6
Pehesara Patumaga	249.86	2.4	7	6
Muththettuwawaththa Assedduma III	140.28	2.3	5	6
Patumaga				
Paragahapitiya I Patumaga	254.08	2.2	6	6
Pehesara II Patumaga	161.85	2.6	7	6
Muththettuwawaththa Assedduma I	121.03	2.4	6	6
Patumaga				
Muththettuwawaththa Assedduma II	462.21	6	6	6
Patumaga				
Muththettuwawathth Assedduma Iv	53.63	2.5	6	6
Patumage I Patumaga				
Viharamahadevi I Patumaga	331.21	2.4	6.2	6
Viharamahadevi I Patumage I Patumaga	168.45	2.6	5.5	6
Viharamahadevi I Patumage Ii Patumaga	187.89	2.2	6	6
Rajasingha Mawatha	626.16	6	6	6
Rajasingha Mawathe I Patumaga	42.51	2.3	6	4.5
Rajasingha Mawathe II Patumaga	148.32	2.2	6.4	6
Subharathipura I Patumaga	883.51	2.5	7	6
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Subharathipura I Patumage I Patumaga	164.83	2.4	5.9	6
Subharathipura I Patumage II Patumaga	261.63	2.3	6	6
Subharathipura I Patumage II Patumage I	51.44	2	4	6
Patumaga				
Subharathipura I Patumage III Patumaga	179.45	2.2	6	6
Subharathipura I Patumage Iv Patumaga	178.56	2.2	6	6
Subharathipura I Patumage V Patumaga	181.27	2.5	8	6
Subharathipura I Patumage Vi Patumaga	39.73	2.6	7	4.5
Rajasingha Patumaga	90.63	2.5	6	6
Mahawaththa Iv Patumaga	113.5	2.4	6	6
Muththettuwawaththa Assedduma Vi	86.05	6	6	6
Patumaga				
Muththettuwawaththa Assedduma V	90.18	2.4	5	6
Patumaga				
Kongahagedara I Patumaga	115.03	2	5	6
Koongahagedara Temple Road	277.62	2.6	7	6
Koongahagedara Temple I Patumaga	140.83	2.3	6	6
Koongahagedara Temple I Patumage I	61.91	2	5.5	6
Patumaga				
Koongahagedara Temple II Patumaga	91.94	2.3	6	6
Aluthwaththa I Patumaga	68.74	2	5	6
Paragahapitiya I Patumaga	337.19	2.3	6	6
Aluthwaththa Vii Patumaga	380.11	3.2	5.5	6
Aluthwaththa Vii Patumage I Patumaga	26.02	2.4	5.5	4.5
Aluthwaththa Vii Patumage II Patumaga	40.16	3	5	4.5
Aluthwaththa Vii Patumage III Patumaga	166.17	2.5	4.5	6
Paragahapitiya III Patumaga	245.76	2.4	5.4	6
Aluthwaththa Mawatha	141.16	2	5.5	6
Paragahapitiya II Patumaga	685.28	3	7.3	6
Paragahapitiya II Patumage I Patumaga	227.82	2.7	7	6
Paragahapitiya II Patumage I Patumage I	71.01	3	5.2	6
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Paragahapitiya II Patumage I Patumage	63.84	2.2	6	6
II Patumaga				
Paragahapitiya II Patumage I Patumage	66.84	2.3	6	6
III Patumaga				
Paragahapitiya I Patumaga	290.61	3.2	8	6
Paragahapitiya I Patumage I Patumaga	112.79	3	5.2	6
Paragahapitiya I Patumage II Patumaga	80.27	2.2	6	6
Paragahapitiya I Patumage III Patumaga	59.5	2.3	6	6
Aluthwaththa II Patumaga	319.04	2.4	5	6
Aluthwaththa I Patumaga	63.62	2.8	7.3	6
Aluthwaththa Road	187.66	2	4	6
Vidyala Mawatha	134.78	3	4	6
Gaiyala Wewa Road	291.97	2.8	5.6	6
Gaiyala Konaththawa Road	279.99	2.7	6.1	6
Gaiyala Embawa III Patumaga	137.86	2.5	4.8	6
Kabalewa Gaiyala I Patumaga	459.2	3.8	9	6
Kabalewa Waththa I Patumaga	236.86	5	7.4	6
Embawa Pasala Idiripita Road	582.42	3.3	5.5	6
Aluth Mawatha	601.53	3.1	7.8	6
Kabalewa Nisala Thenna Road	408.83	6.1	10.2	6
Gaiyala Waththa Road	173.22	2.6	6.1	6
Gaiyala Waththa II Patumaga	236.8	3.6	6.1	6
Gaiyala II Patumage I Patumaga	97.23	2.5	6.1	6
Suruwam Mawatha	117.13	3.1	6.5	6
Embawa Nari Handiya Road	1263.19	3.5	8.2	6
Vijaya Mawatha	267.6	2.8	5.6	6
Keerthi Mawatha	409.68	3.4	7.1	6
Agbo Mawatha	1206.36	3.3	6	6
Kashyapa Mawatha	286.06	3	5.1	6
Gemunu Mawatha	244.85	3.2	7.6	6
Mugalan Mawatha	236.93	2.7	6.7	6
Pahala Embawa Wendesiwaththa Road	117.39	2.7	6.4	6

Mahasen Mawatha	258.8	3.7	6.2	6
Mahasen II Patumaga	310.75	3.4	6.7	6
Abhaya Mawatha	465.46	3.3	5.8	6
Embawa Pahala Hawena Paddy Field	194.08	2.8	4.2	6
Road				
Thissa Mawatha	404.63	2.7	5.3	6
Gaiyala Embawa Ix Patumaga	90.05	2.6	3.3	6
Embawa Pahalagama Road	808.93	2.7	5.1	6
Embawa Pahalagama I Patumaga	253.14	2.6	5.1	6
Pahala Embawa Paddy Field Road	162.22	3	4.7	6
Gaiyala Embawa Xi Patumaga	82.88	3.1	5.6	6
Pahala Embawa Medagama Road	461.92	2.8	9.1	6
Pahala Embawa Medagama I Patumaga	164.65	2.5	3.8	6
Pahala Embawa Medagama I Patumage I	84.79	3	4.1	6
Patumaga				
Gaiyala Embawa Xiii Patumaga	97	3	4.5	6
Embawa Temple Road	364.61	2.6	5	6
Pahala Embawa Sangamiththarama	724.47	2.8	6.6	6
Mawatha				
Sangamiththarama I Patumaga	112.27	2.8	5.5	6
Sangamiththarama II Patumaga	120.87	3	7	6
Sangamiththarama III Patumaga	63.33	2	4.2	6
Sangamiththarama Iv Patumaga	241.95	3	5.4	6
Sangamiththarama V Patumaga	111.77	3	5.2	6
Sangamiththarama Vi Patumaga	79.12	3	6.1	6
Sangamiththarama Vii Patumaga	157.95	3	5.9	6
Embawa Mola Road	981.15	3	6.1	6
Embawa Mola I Patumaga	316.13	3.1	4.6	6
Embawa Mola II Patumaga	216.65	2.5	4.7	6
Embawa Mola II Patumage I Patumaga	169.7	3.6	4.3	6
Embawa Mola II Patumage II Patumaga	53.18	2.8	4.8	6
Embawa Mola III Patumaga	158.28	2.7	4.6	6

Embawa Mola Iv Patumaga	153.22	3	3.8	6
Embawa Mola V Patumaga	68.76	3.9	5.7	6
Ihala Embawa Wendesiwaththa Road	140.72	2.6	4.5	6
Ihala Embawa Wendesiwaththa I	70.38	2.6	4.3	6
Patumaga				
Kalatuwa Waththa Road	344.96	2.7	5.2	6
Kalatuwa Waththa I Patumaga	140.94	2.5	6.2	6
Kalatuwa Waththa II Patumaga	246.36	2.5	3.8	6
Gaiyala Embawa Xvii Patumaga	135.89	2.6	4.4	6
Deegalla Thalagahamulahena Road	461.14	3.2	7.3	6
Deegalla Thalagahamulahena I Patumaga	164.4	2.7	5.4	6
Ranaviru Sumitha Anurasiri Mawatha	211.18	3	5.7	6
Deegalla Thalagahamulahena III	98.48	2.5	3.9	6
Patumaga				
Welipillewa Ihala Embawa Road	1045.38	3.4	7.1	6
Welipillewa Ihala Embawa Ii Patumaga	170.41	2.6	4.7	6
Embawa Henyaya Road	1213.03	3.5	7.6	6
Delan Wewa Pillewa Road	133.61	3.1	6.8	6
Embawa Henyaya II Patumaga	154.91	3.1	5.5	6
Kosgas Handiya Wetiyamola Road	224.58	3	5	6
Embawa Henyaya Iv Patumaga	172.51	2.3	4.3	6
Welipillewa Ihala Embawa III Patumaga	336.17	2.6	4.9	6
Embawa Welipillewa Road	445.01	5	10.5	6
Haggamuwa Kuliyapitiya I Patumaga	522.36	3.1	4.2	6
Haggamuwa Kuliyapitiya I Patumage I	82.55	2.7	5.1	6
Patumaga				
Haggamuwa Kuliyapitiya II Patumaga	145.19	3.2	4.5	6
Haggamuwa Kuliyapitiya III Patumaga	121.45	2.8	4.3	6
Pahala Haggamuwa I Patumaga	269.26	2.4	3.7	6
Pahala Haggamuwa I Patumage I	98.24	2.2	3.5	6
Patumaga				
Pahala Haggamuwa I Patumage II	128.44	2.2	3.6	6
Patumaga				

Pahala Haggamuwa I Patumage Iii	116.08	2.1	3.8	6
Patumaga				
Haggamuwa III Patumaga	143.05	2.6	3.4	6
Haggamuwa III Patumage I Patumaga	36.69	2.4	4.5	4.5
Haggamuwa Diwala Road	762.58	2.8	4	6
Haggamuwa Diwala II Patumaga	150.33	2.1	4	6
Haggamuwa Diwala I Patumaga	244.88	2.2	4.4	6
Haggamuwa Iv Patumaga	182.46	2.4	4.3	6
Galahitiyawa Kuruvitiyawaththa Road	413.09	2.4	6	6
Kuruvitiyawaththa I Patumaga	304.64	2.4	6	6
Kuruvitiyawaththa I Patumage I	92.58	2	6.3	6
Patumaga				
Kuruvitiyawaththa I Patumage II	130.97	2.4	4.1	6
Patumaga				
Kuruvitiyawaththa II Patumaga	284.08	2.6	7	6
Kuruvitiyawaththa II Patumage I	66.62	2.3	5	6
Patumaga				
Kuruvitiyawaththa III Patumaga	151.42	2.4	4	6
Kuruvitiyawaththa Iv Patumaga	102.21	2.2	3.4	6
Galahitiyawa III Patumaga	198.86	2.4	4.4	6
Galahitiyawa III Patumage I Patumaga	35.92	2.4	4.6	4.5
Galahitiyawa Assedduma Road	744.39	2.6	6	6
Galahitiyawa Oluwalagara Road	2521.69	3	6.3	6
Galahitiyawa Oluwalagara V Patumaga	629.78	2.1	5.3	6
Galahitiyawa Oluwalagara II Patumaga	137.72	2.8	6	6
Galahitiyawa Oluwalagara I Patumaga	112.45	2.2	6	6
Galahitiyawa Green Park Road	162.59	3.7	6.7	6
Galahitiyawa Green Park I Patumaga	28.89	4.4	6	4.5
Galahitiyawa Green Park II Patumaga	91.55	3.5	4.6	6
Galahitiyawa Oluwalagara III Patumaga	126.56	2.6	6.4	6
Galahitiyawa Naththandiyawaththa Road	181.15	2.6	7	6
Galahitiyawa Oluwalagara V Patumaga	65.59	2.4	5.8	6

Galahitiyawa Oluwalagara Iv Patumaga	121.34	2.2	4.1	6
Galahitiyawa Oluwalagara III Patumaga	189.24	2.7	5.3	6
Galahitiyawa Oluwalagara II Patumaga	121.05	2.7	6.1	6
Galahitiyawa Oluwalagara I Patumaga	112.6	2.8	5.9	6
Galahitiyawa Road	1116.79	3	7	6
Galahitiyawa Wewa Road	393.66	2.5	5	6
Galahitiyawa Xi Patumaga	110.33	2	3.4	6
Galahitiyawa X Patumaga	130.65	2.3	3.8	6
Haggamuwa Galahitiyawa Road	1871.52	3.3	6.3	6
Liviniswaththa V Patumaga	164.36	2.7	5.3	6
Liviniswaththa Iv Patumaga	109.89	2.5	4.3	6
Liviniswaththa III Patumaga	143.29	3	5.1	6
Liviniswaththa II Patumaga	247.45	2.8	3.8	6
Liviniswaththa Road	29.28	2.1	3	4.5
Galahitiyawa I Patumaga	56.21	3.6	8.6	6
Galahitiyawa II Patumaga	473.43	3.6	8.6	6
Galahitiyawa II Patumage I Patumaga	115.36	3	6.2	6
Ambagahamulawaththa Road	23.15	3	5.2	4.5
Galahitiyawa Ix Patumaga	399.54	2.3	4.4	6
Hammalawa Galahitiyawa Iv Patumaga	107.14	2.5	4.1	6
Galahitiyawa Gurugewaththa Road	253.06	2.9	6.2	6
Gurugewaththa I Patumaga	77.74	2	4.4	6
Gurugewaththa II Patumaga	52.12	2.6	4.6	6
Gurugewaththa III Patumaga	51.17	2.6	5.4	6
Galahitiyawa Viii Patumaga	213.91	2.5	5	6
Galahitiyawa Iv Patumaga	58.62	2	4.6	6
Galahitiyawa V Patumaga	148.7	2.1	4.1	6
Galahitiyawa Vi Patumaga	113.5	2.2	3.6	6
Galahitiyawa Vii Patumaga	182.64	2.3	3.5	6
Galahitiyawa Xii Patumaga	156.2	2.2	4.3	6
Galahitiyawa Oluwalagara Iv Patumaga	357.21	2.1	6.4	6

Galahitiyawa Oluwalagara II Patumage I	252.39	3.6	6.6	6
Patumaga				
Galahitiyawa Oluwalagara II Patumage I	52.79	2.5	5.4	6
Patumage I Patumaga				
Galahitiyawa Oluwalagara II Patumage I	91.93	4	6.4	6
Patumage I Patumaga				
Galahitiyawa Oluwalagara Iv Patumage I	36.59	3	6	4.5
Patumaga				
Galahitiyawa Xiii Patumaga	130.96	2.8	4.8	6
Galahitiyawa Xiv Patumaga	61.37	2	4.8	6
Galahitiyawa City Reach Road	45.06	2.4	6	4.5
Galahitiyawa City Reach I Patumaga	48.28	4	5.8	4.5
Galahitiyawa Xvi Patumaga	58.07	2.4	5.5	6
Galahitiyawa Xvii Patumaga	366.67	2.3	3.4	6
Galahitiyawa Xviii Patumaga	127.03	2.2	4.4	6
Galahitiyawa Xix Patumaga	150.34	7	8.7	6
Galahitiyawa Spring Field Road	55.53	2.3	5.2	6
Galahitiyawa Spring Field I Patumaga	562.54	3	5.6	6
Galahitiyawa Spring Field III Patumaga	53.02	3.3	6	6
Galahitiyawa Spring Field II Patumaga	159.41	2.6	6.7	6
Galahitiyawa Xx Patumaga	1000.98	2.5	5	6
Galahitiyawa Xxi Patumaga	196.32	2.2	5.2	6
Urupitiya I Patumaga	68.87	2	3	6
Urupitiya Pin Lida Road	324.61	3.1	5.4	6
Urupitiya Pin Lida I Patumaga	67.26	2.2	5.4	6
Urupitiya Pin Lida II Patumaga	108.11	2.5	3.6	6
Urupitiya Pin Lida II Patumage I	33.57	2.1	3.2	4.5
Patumaga				
Urupitiya Pin Lida III Patumaga	110.6	2.7	4	6
Urupitiya Pin Lida Iv Patumaga	83.33	2.3	5.7	6
Urupitiya II Patumaga	78.59	2.1	3.8	6
Urupitiya Kuliyapitiya Road	623.71	3.1	5.3	6
Urupitiya Kuliyapitiya I Patumaga	129.7	3.1	4.3	6
		1		

Urupitiya Kuliyapitiya II Patumaga	139.15	2.8	4.3	6
Urupitiya III Patumaga	132.84	2.2	4.2	6
Urupitiya Dodamgaha Hena Road	141.94	2.4	4.8	6
Urupitiya Iv Patumaga	208.59	2.3	4	6
Urupitiya Iv Patumage I Patumaga	118.83	2.7	3.8	6
Urupitiya Cemetery Road	361.33	2.9	5.4	6
Urupitiya Diri Jaya Mawatha	157.52	3	5.1	6
Urupitiya Cemetery I Patumaga	72.33	2	4.1	6
Urupitiya Gam Sabha Road	96.08	2.2	4.2	6
Urupitiya Pinwaththa Road	63.88	2.6	3.1	6
Kaballa Pitiya Waththa Road	119.31	2.6	4.1	6
Dandagamuwa Sudarma Mawatha	99.39	3	5.6	6
Dandagamuwa I Patumaga	112.1	2.8	5.7	6
Dandagamuwa Sudarma Mawatha I	113.54	2.1	4	6
Patumaga				
Green Park Road	191.07	3	9	6
Thummodara II Patumaga	166.35	2	4	6
Thummodara III Patumaga	246.91	3	10	6
Thummodara Iv Patumaga	176.02	3	7	6
Thummodara V Patumaga	174.19	8.4	9	6
Thummodara V Patumage I Patumaga	100.34	8.4	9	6
Thummodara V Patumage I Patumage I	26.62	3.5	4	4.5
Patumaga				
Thummodara Vi Patumaga	87.88	2.3	4.5	6
Thunmodara Galkumbura Road	2352.98	2.2	6	6
Delanwaththa Temple I Patumaga	75.32	2.6	6	6
Galakumbura I Patumaga	167.76	2.2	4	6
Thummodara Viii Patumaga	60.41	2.5	6	6
Thummodara Ix Patumaga	173.4	2	4	6
Thunmodara Wewa Junction Road	467.18	2.5	5	6
Thunmodara Wewa Road	95.4	2.2	6	6
Thummodara Koongahagedara Road	442.57	2.6	6.5	6

II 1 W 1 W 11 ID	202.56	2.5	0	
Unaleeya Wendesi Waththa I Patumaga	282.56	3.5	8	6
Unaleeya Wendesi Waththa II Patumaga	43.46	3	6	4.5
Nildiya Wila III Patumaga	145.35	3	6	6
Menik Thenna Wendesi Waththa Road	99.19	3	7	6
Indipitiyawaththa Road	504.57	2.8	9	6
Indipitiya Waththa II Patumaga	297.49	1.4	4.4	6
Kubalwala Waththa Road	679.08	2.8	6.7	6
Embawa Kubalwala I Patumaga	296.29	2.4	4.7	6
Mailagahamula Hena Land Road	371.59	2.6	5.3	6
Embawa Welipillewa Road	1299.15	3.2	8.2	6
Kabalewa Waththa I Patumaga	145.98	2.6	4	6
Embawa Welipillewa II Patumaga	159.34	3.5	5.2	6
Kabalewa Madugalla Mawatha	315.92	3	5.8	6
Kabalewa Madugalla I Patumaga	63.86	2.6	5.2	6
Kubalwala Dunumuraya Road	952.3	2.9	6.3	6
Kabalewa Dunumuraya I Patumaga	119.98	2.8	4.1	6
Kabalewa Dunumuraya II Patumaga	97.69	2.4	3.4	6
Kabalewa I Patumaga	200.17	2.8	4.6	6
Kabalewa I Patumage I Patumaga	46.72	2.8	4.6	4.5
Wijaya Mahimi Mawatha	1586.65	3.2	6.3	6
Koskelewaththa Road	242.29	2.8	5.4	6
Koskelewaththa I Patumaga	52.78	3	5.5	6
Koskelewaththa II Patumaga	54.12	3.1	4.7	6
Koskelewaththa III Patumaga	39.81	3	5.2	4.5
Koskelewaththa Iv Patumaga	35	2.6	3.1	4.5
Koskelewaththa V Patumaga	53.71	2.3	3.8	6
Koskelewaththa Vi Patumaga	45.99	2.6	3.2	4.5
Paliipassa Wewa Road	283.35	2.6	4.5	6
Kabalewa - Wijaya Mahimi Road	1129.89	3	8.3	6
Pillewa Road	297.15	2.6	4.4	6
Haggamuwa Kuliyapitiya I Patumage I	69.06	3	3.7	6
Patumage I Patumaga				
t .		i	i .	

Ihala Haggamuwa Road	861.06	2.7	5.1	6
Ihala Haggamuwa V Patumaga	120.99	2.2	3.8	6
Ihala Haggamuwa Iv Patumaga	109.66	2.6	4.7	6
Ihala Haggamuwa Iv Patumage I	140.1	2	2.5	6
Patumaga				
Ihala Haggamuwa III Patumaga	195.14	2.5	5.3	6
Ihala Haggamuwa Hewana Paddy Field	404.99	2.8	4.2	6
Road				
Haggamuwa Temple Road	189.68	3.2	5	6
Galahitiyawa II Patumaga	199.54	2.5	5.2	6
Haggamuwa Temple II Patumaga	290.94	2.1	4.4	6
Haggamuwa I Patumaga	307.58	2.6	4.9	6
Haggamuwa School Road	1355.05	3.3	7	6
Haggamuwa Pahala Inguruwaththa Road	259.6	3	4.7	6
Haggamuwa Pahala Inguruwaththa I	177.81	2.2	4.8	6
Patumaga				
Haggamuwa Pahala Inguruwaththa II	259.33	2.1	5	6
Patumaga				
Thabbomulla Bibiladenigama Road	3723.15	5	7	6
Thabbomulla Mola Road	522.5	3	5	6
Thabbomulla Mola I Patumaga	127.71	2.6	4	6
Thabbomulla Mola II Patumaga	98.98	3	5	6
Thabbomulla Mola II Patumage I	27.3	3	5	4.5
Patumaga				
Thabbomulla Mola III Patumaga	137.51	4	6.1	6
Thabbomulla Mola III Patumage I	28.74	3	5	4.5
Patumaga				
Thabbomulla Iv Patumaga	105.14	2.6	4	6
Thabbomulla V Patumaga	62.28	2.6	4	6
Thabbomulla Bibiladenigama I Patumaga	121.13	3	5	6
Thabbomulla Dewala Road	305.36	2.6	4	6
Thabbomulla Bibiladenigama III	99.44	3	6	6
Patumaga				

Weerambuwa Thabbomulla Junction Xi	111.48	2.7	3.6	6
Patumaga				
Weerambuwa Thabbomulla Junction X	88.87	3	4.5	6
Patumaga				
Bliss Estate Road	119.76	3.6	6	6
Weerambuwa Thabbomulla Junction Ix	59.86	3	4.1	6
Patumaga				
Weerambuwa Thabbomulla Junction Viii	184.01	2.4	3.6	6
Patumaga				
Ihala Weerambuwa Pela Thawana Road	156.2	2.7	3.6	6
Weerambuwa Thabbomulla Junction Vii	287.84	2.7	5.4	6
Patumaga				
Weerambuwa Thabbomulla Junction Vii	312.54	2.7	4.5	6
Patumage I Patumaga				
Weerambuwa Thabbomulla Junction Vii	246.13	3	3.6	6
Patumage II Patumaga				
Weerambuwa Thabbomulla Junction III	158.01	2.4	3.6	6
Patumaga				
Weerasiripura Prajashala Mawatha	686.4	2.7	4.5	6
Weerasiripura Prajashala Mawathe I	194.56	2.6	4.5	6
Patumaga				
Weerasiripura Prajashala Mawathe I	47.27	2.6	4.5	4.5
Patumage I Patumaga				
Weerapura Samithi Shala I Patumaga	45.25	2.7	3.6	4.5
Weerapura III Patumaga	372.18	2.7	4.5	6
Weerapura II Patumaga	140.4	3	6	6
Weerasiripura Prajashala Mawathe II	383.84	2.7	4.5	6
Patumaga				
Weerapura Akkara 8 I Patumaga	76.52	2.7	4.5	6
Narangalla Temple Road	203.07	2.7	4.5	6
Ranaviru Pemarathna Road	173.2	2.4	4.5	6
Koongolla Road	662.42	3	5.4	6
Koongolla I Patumaga	428.87	3	5.4	6

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Koongolla II Patumaga	459.99	2.7	5.4	6
Koongolla II Patumage I Patumaga	33.48	3	5.4	4.5
Koongolla III Patumaga	157.86	3	5.4	6
Narangalla Daramitiyawa Road	310.79	2.2	4.8	6
Wendesiwaththa I Patumaga	139.11	3	5.5	6
Wendesiwaththa II Patumaga	114.4	3	5.7	6
Wendesiwaththa III Patumaga	204.31	3	5.3	6
Henegedara Road	769.11	3.6	6.4	6
Henegeara III Patumaga	168.08	3.3	4.9	6
Thawalandana School II Patumaga	497.34	2.7	6	6
Dodampaula Wewa Road	374.75	3.3	6.4	6
Kubalwala Minewa I Patumaga	185.19	2.7	4.2	6
Kubalwala Wela Meda Road	1129.01	4.8	6.9	6
Kubalwala Village Road	173.01	2.4	3.6	6
Paddy Field Road	297.59	2.6	5.5	6
Kubalwala Dewalaya I Patumaga	83.53	2.4	3.1	6
Elaris Fransis Mawatha	137.64	2.1	4.5	6
Botheju Mawatha	196.62	2.1	3.6	6
Pahala Bohingamuwa Road	978.68	2.4	5.1	6
Pahala Bohingamuwa I Patumaga	209.58	2.2	4.9	6
Bohingamuwa Cemetery Road	220.63	2.2	4.8	6
Bohingamuwa Cemetery I Patumaga	150.78	2.2	4.8	6
Rathmalgahakumbura Road	281.36	2.4	4.5	6
Rathmalgahakumbura I Patumaga	109.41	2.4	4.5	6
Dikwela Paragaha Road	1959.23	2.4	5.7	6
Yakarawaththa Cemetery Road	175.1	2.6	6.3	6
Yakarawaththa V Patumaga	1292.57	3	6	6
Yakarawaththa V Patumage II Patumaga	320.6	2.4	5.7	6
Yakarawaththa V Patumage I Patumaga	114.38	2.3	6	6
Bohingamuwa Temple Road	1015.85	2.5	6.4	6
Yakarawaththa Bohingamuwa Temple I	142.88	2	5.7	6
Patumaga				

Yakarawaththa Dewala Road	190.14	2.2	4	6
Yakarawaththa Le Polawa Road	147.89	2.1	5.3	6
Yakarawaththa V Patumage III Patumaga	245.79	2.4	5.7	6
Le Polawa I Patumaga	292.9	2.5	6.3	6
Le Polawa I Patumage I Patumaga	51.73	2.3	6	4.5
Le Polawa II Patumaga	267.24	2.5	6	6
Le Polawa II Patumage I Patumaga	123.63	2.3	6	6
Galakumbura Awasa Road	676.59	2.7	7	6
Galakumbura Awasa I Patumaga	41.45	2.5	4	4.5
Kongolla Vi Patumaga	76.57	3.7	6.3	6
Kongolla V Paatumaga	221.82	2	6.3	6
Kongolla Iv Patumaga	123.08	2	3.2	6
Kongolla I Patumaga	70.32	3	4.1	6
Wadugedara Nugawela Junction I	1174.52	2.2	4.8	6
Patumaga				

Source: Urban Development Authority / Kuliyapitiya Pradeshiya Sabha - 2023

Gazette No. 2341/56 (21.07.2023) has included the list of Kuliyapitiya Pradeshiya Sabha roads published by the Kuliyapitiya Pradeshiya Sabha. If there is any problem regarding the proposed building boundary, the Planning Committee of the Kuliyapitiya Pradeshiya Sabha will be empowered to take a final decision.

#### 9.2. Building boundary for canals, dandagamuwa oyas and tanks

The following building restrictions are applicable to Dandagamuwa Oya and other canals in kuliyapitiya planning area.

Table No 9.2.1: Building for Dandagamuwa Oya

Oya	<b>Proposed Building Limit (meters)</b>
Dandagamuwa Oya	A limit of 10 meters from the bank

Source: Urban Development Authority / Irrigation Department 2023

In addition to this, the distance from the boundary of both the banks of the canal should be maintained as limited by the canal reserve buildings as specified in the document below, corresponding to the surface width of all the major canals, all side canals and all feeder canals which are either drained or drained in the area or designed for the purpose of draining water.

Table No 9.2.2: Canal Reserve

width of canal (meters)	Proposed Building Line	
	For open canals	From the canal bank of
	(meters)	closed canals (meters)
1 - 1.2	1	
1.3 – 3	2	1
3.1 – 4.5		
4.6 - 6	3	-
6.1 - 9	4.5	
More than 9	Half of the width	

#### Note:

- 1. Construction of any buildings will not be permitted within the proposed Building Lines mentioned in the above table.
- Only projects undertaken for public entertainment purposes will be permitted subject to conditions. (Linear Parks, Walkways, Port Development Projects)
- 3. If an institution has declared a reserve for a source of water through a gazette, the limit will come into force if that reserve limit exceeds the proposed Building Line.

Source: Urban Development Authority / Irrigation Department 2023

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### (Kuliyapitiya Planning Area)

## Stakeholder's Meeting Results NVIVO Analysis

Urban Development Authority 9<sup>th</sup> Floor Sethsiripaya, Battaramulla

#### Information of Kuliyapitiya Stakeholder Meeting

Date – 10<sup>th</sup> of February,2020

Venue – Town Hall Building, Kuliyapitiya

#### **UDA Participation**

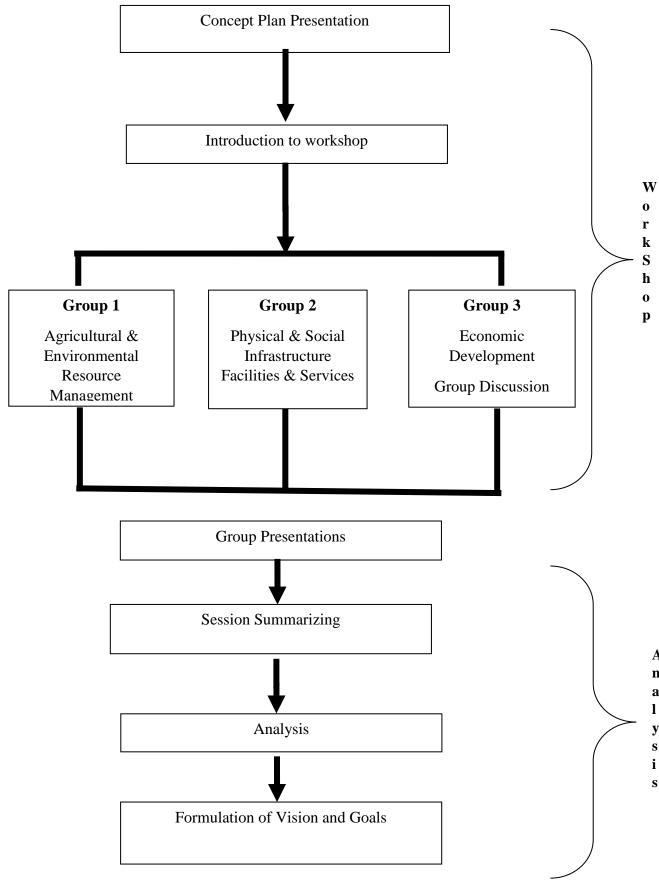
#### North Western Provincial Office, UDA

Designation	Name
Director	Plnr. E.M.S.B Ekanayake
Deputy Director (Planning)	Plnr. D.P.R.K. Gunathilake
<b>Assistant Director (Planning)</b>	Plnr. A.M.D.B. Athawuda
Planning Officer	Mrs. W.A.M.K. Chandrasena
Planning Officer	Mrs. J.M.P. Jayathilake
Planning Officer	Mrs. M.B.R. Damayanthi Mapa
Planning Officer	Mrs. N.P.A. Thilakarathne
<b>Enforcement Planner</b>	Mr. W.G.R.K. Wedagedara
Planning Officer	Mr. T.A. Ajith Kumara
Planning Officer	Mrs. Y.M.M. Jeewangani
Planning Officer	Mrs. D.M.T.D. Dissanayake
Planning Officer	Mrs. B.G. Upamalika
Planning Officer	Mrs. B.M. Nandawathi
Draughtman	Mr. H.D.T.G. Wimalasooriya
Draughtman	Mr. E.I.M. Abeyrathna

#### **Participants of Strategic Planning Division**

Designation	Name
Additional Director General	Plnr. D.M.B. Ranatunga
<b>Deputy Director (Planning)</b>	Plnr. Thamara Jayagoda
Town Planner	Plnr. Thushari Senavirathna
Town Planner	Mrs. L.H.M.K. Kumarasinghe
<b>Assistant Planning Officer</b>	Mr. Ishara Atulugama

#### **Stakeholder Meeting Conducting Process**



#### **Group Categorization**

Stakeholder meeting for the preparation of Kuliyapitiya Development Plan was held on 10<sup>th</sup> of February, 2020 with the participation of several government and non - government institutions at the Town Hall Building, Kuliyapitiya.

All stakeholders who participated to the meeting were divided into three groups and group discussions were mainly focused based on the Agricultural and Environment Sector, Physical & Social Infrastructure Facilities sector and Economic sector of the Kuliyapitiya Urban Council Area.

Accordingly, group discussions were conducted based on the following topics and following agencies were participated for each group.

#### **Group 01 - Agricultural & Environmental Resource Management**

- 1. Irrigation Department, Kurunegala
- 2. Department of Archeology, Kurunegala
- 3. Coconut Development Board, Kurunegala
- 4. Land Registry Office, Kuliyapitiya
- 5. Survey Authority
- 6. Forest Office, Kuliyapitiya
- 7. Agrarian Services, Kuliyapitiya
- 8. Central Environmental Authority, Kurunegala
- 9. National Building Research Organization, District Office, Kurunegala
- 10. Kuliyapitiya Land Parceling Association

#### **Group 02 - Physical & Social Infrastructure Facilities & Services**

- 1. Wayamba University, Kuliyapitiya
- 2. Provincial Road Development Department, Kurunegala
- 3. Road Development Authority, Kuliyapitiya
- 4. Ceylon Electricity area Board, Kuliyapitiya
- 5. National Housing Development Authority, Kurunegala
- 6. Education Department
- 7. District Secretariat, Kurunegala

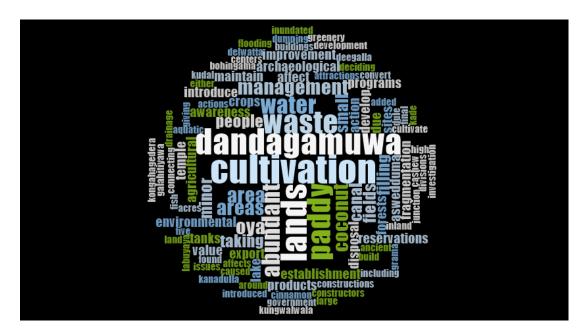
- 8. Road Passenger Transport Authority, Kuliyapitiya
- 9. Sri Lanka Telecom, Kuliyapitiya
- 10. Base Hospital, Kuliyapitiya
- 11. Building Department, Kurunegala
- 12. Prison, Kuliyapitiya
- 13. Development Committee, Kuliyapitiya

#### **Group 03 - Economic Development**

- 1. Department of Local Government, Kurunegala
- 2. Urban Council, Kuliyapitiya
- 3. Pradeshiya Sabha, Kuliyapitiya
- 4. Panduwasnuwara Pradeshiya Sabha
- 5. Trade Association, Kuliyapitiya
- 6. Three-Wheeler Association
- 7. Technical College, Kuliyapitiya
- 8. Department of Valuation, Kurunegala
- 9. People's Bank, Kuliyapitiya
- 10. IRSECAD Lab
- 11. Community Empowerment Society, Kuliyapitiya
- 12. Lions Club, Kuliyapitiya
- 13. Bopathi Villa, Kuliyapitiya

#### **NVIVO - Word Cloud of Each Group**

## 1. Analysis Results of Group 01 - Agricultural & Environmental Resource Management



The Agricultural & Environmental Resource Management group has mainly discussed regarding the problems, potentials and proposals for the **Agriculture Sector** of the area and regarding the **Dandagamuwa Oya** water way. In the second level of the hierarchy analysis, results highlighted the available **lands** including **paddy** lands and **abundant paddy lands** of the area. Further, results highlighted the issues relating to the **Waste**.

**Dandagamuwa Oya** is a main water way passing through the area, by giving value to the Kuliyapitiya area, environmentally and economically. The group has emphasized that the Flooding is a main problem they are facing with the Dandagamuwa Oya. As an example, they have highlighted that Torana Kade junction, Bohingama, Galahitiyawa, Eswedduma, Labuyaya and Delwatta Temple areas are inundated due to the overflow of Dandagamuwa Oya in the rainy season.

**Waste** and waste water have been identified as major problems of the area which polluted Dandagamuwa Oya and other water ways. Accumulation of urban waste water to the Dandagamuwa Oya, disposal of waste to the reservations and unauthorized seizure of reservations are major environmental issues of the area.

Further, group discussions were focused on cultivation of the area including **paddy lands** and **abundant paddy lands**. Filling of abundant paddy fields and fragmentation of agricultural lands are main problems for agricultural sector of the area. In addition, water and environmental issues are caused, due to the filling of such areas. Fragmentation of coconut lands are also a main issue of the area, though Kuliyapitiya is a center point of the coconut triangle.

The stakeholders highlighted that the **cultivation** of minor export crops is also a main agricultural sector of the area. Cashew, Pineapple, Cinnamon, Pepper have been identified as some major minor export crops of the area. They have discussed these as potential of the area, because of the suitable climate.

#### (Refer the page no 20 to find the Detailed problems which identified by this group)

Not only the problems and potentials, some proposals have been given by the group in order to overcome those issues, while using available potentials of the area. Mainly, their suggestion is, protecting the **Dandagamuwa** oya and other water ways while preserving the tanks located in the western area of the Dandagamuwa Oya. Disposal of waste and waste water to the Dandagamuwa Oya is an extensively focused problem and is suggested to establish waste management centers.

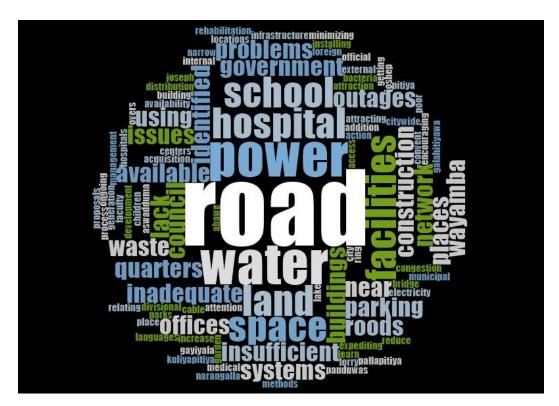
They have suggested to take actions to cultivate abundant paddy fields and to minimize the fragmentation of coconut trees. Further, participants suggested to give awareness programmes for people to introduce minor export crops on small plots of lands and to cultivate the same on uncultivated paddy lands.

In addition to the above, they have explained that there are archeologically valuable places within the area and those places should be used for tourist attraction, while ensuring its value.

Further, stakeholders proposed to introduce small woodlands for the area in order to achieve and continue greenery of the area.

#### (Refer page no 21 to find more suggestions of this group).

## 2. Analysis Results of Group 02 - Physical & Social Infrastructure Facilities & Services



The Physical & Social Infrastructure Facilities & Services group has mainly discussed regarding the availability of Infrastructure facilities in the area and issues are identified related to the different infrastructure sectors of the area, such as **road**, **water supply**, **power supply**, **facilities of existing buildings** like **hospital** and **schools**, available **lands** and **space** required for different works.

Kuliyapitiya is a second order urban area in Kurunegala district. Further, it connects main cities while providing main bus services via kuliyapitiya such as Colombo, Jaffna, Gampola, Anuradhepura, Kataragama, Kalpitiya and Panduwasnuwara and other bus services to the Kurunegala, Negombo, Pannala, Chilaw, Hettipola, Madampe, Bingiriya, Katupotha and Makandana.

#### Roads

However, according to the stakeholder's view, availability of poor roads is the main issue in the area. Therefore, road network should be improved by constructing internal and

external ring roods and by roads with the introduction of road signal system which is bare essential. Further it is suggested to construct fly overs to reduce traffic congestion.

#### Water

The group highlighted that current water supply to the urban area is insufficient. Further, accumulation of waste from the hospitals and Wayamba Medical Faculty is a major issue. Therefore, they have suggested that, establishment of new water sources and divisional water distribution centers is required in order to overcome the issue.

#### **Power**

Occurrence of Power outages due to problems in power network and lack of Electricity area are identified as mains issue of the area. For this particular problem, they have suggested installment of underground cable systems and consideration towards the implantation of Solar Power Generation as proposals for the above issue.

#### Hospital

The stakeholder's highlighted that available land space for the hospitals are insufficient. Therefore, it is suggested to increase the hospital land space by expediting the ongoing acquisition process.

#### **School**

Inadequate toilets facilities and building space for schools are identified as issues by the group, and as solutions they suggested to construct school buildings as vertical buildings while providing the required facilities.

(Refer the page no 23 to find the other problems and page no. 24 for proposals which identified by this group)

#### 3. Analysis Results of Group 03 - Economic Development



This group has mostly discussed on the fact how lack of facilities and systems in different fields negatively affect to the development of Economic sector of the Kuliyapitiya.

They have identified issues related to the **lands** of the area, inadequate **road** network, **water** shortage, **parking** issues and poor condition of other facilities within the urban area should be concerned for the economic development of the urban area.

**Industrial sector and Agricultural sector** are the predominant sectors which are identified by this group under the Economic sector of Kuliyapitiya and it is suggested that **Tourism Sector** of the area should be developed, since the potentials to improve the tourism sector are available throughout the area.

The group highlighted that, Kuliyapitiya is popular, based on the Fox Vagan industry and there are potential to establish **industrial zones** within the area based on the same. Kithalawa and Narangalla suggested as suitable places.

The Kuliyapitiya area is located as a main center point of the coconut triangle and this area can be developed based on **Agricultural Sector** since a suitable climate is available for the cultivation of paddy, coconut and minor export crops such as cashew, pineapple, betel, coconut etc.

Coconut and paddy cultivation are the main economic activities in this area. Currently, there are 106 coconut - based industries within the area for coir production industries, coconut milk production, coconut oil production and coconut shell production. Therefore, it is a potential for the area.

The group have highlighted that, there are sufficient lands for the minor export crops, but not getting optimum uses. Therefore, it is suggested to establish an economic center in the Kuliyapitiya town, based on the minor export crops such as pineapple and betel.

Further, group has highlighted that there are potential and facilities to attract tourists to the area and to develop **Tourism Sector** of the area based on the historical sites of the area. Therefore, group has suggested to develop tourist attraction places, such as Dambadeniya and Panduwasnuwara by giving chance to private sector investments on tourism. Further, the necessity of the establishment of tourist attraction for the enhancement of projects of small industries such as Ayurvedic Centers, etc is emphasized.

Based on the above 03 sectors (Agricultural, Industrial and Tourism), Economic Development group has identified existing issues of the Kuliyapitiya, potentials available in order to develop the area and proposals for economic sector development of the area.

(Refer the page no 25 to find the other problems and page no. 26 For proposals which identified by this group)

#### **Overall Word Cloud**



Overall word cloud of the NVIVO analysis highlighted key discussion areas of the stakeholder discussion. The analysis highlighted all 03 sectors of the area should be improved as discussed in the above. (Agricultural & Environmental Resource Management, Physical & Social Infrastructure Facilities & Services and Economic Development)

The word highlighted **Dandagamuwa** shows that Dandagamuwa Oya is a main potential of the area and should be more concerned for the future developments. Further, one of the great features of the Kuliyapitiya civilization is the Dandagamuwa Oya and it has a long history and Kuliyapitiya culture connects with Dandagamuwa Oya.

Currently, there are issues interconnected with main waterways of the area, such as dumping of waste, accumulation of waste water to the water ways and unauthorized seizure of reservations. Therefore, much attention should be given for the all water ways of the area by enhancing scenic beauty of the environment.

The words of **land**, **paddy** and **cultivation** show that more concern should be given on **agricultural sector** for the future development of the area. Especially, coconut and paddy cultivation are the main economic activities in this area and there are potentials for the improvement of minor export crops also. Therefore, much concern should be given for the agricultural sector - based industries.

Further, it is identified that, to provide **facilities** to above mentioned sectors are essential for the entire development and to strengthen each sector in future. Especially, infrastructure facilities should be improved, such as road network, provision of parking facilities, waste management, providing facilities for schools, hospital etc.

Accordingly, above key discussed areas need to be addressed by the proposed Development Plan.

#### **Nodes**

According to the overall word cloud, the below areas are identified for the NODE Analysis. And these are the most highlighted and concerned sectors in the proposed Development Plan.

#### 1. Agricultural Sector

According to the discussions and analysis, agricultural sector has been identified as a predominant economic sector of the area. Issues related to the paddy cultivation, coconut cultivation and minor export crops are the mainly highlighted areas in the discussion.

#### 2. Lands

Issues relating to the existing lands of the area, paddy lands and coconut lands should be more concerned for the future development and to boost the economy of the area.

#### 3. Infrastructure Facilities

All three groups mostly discussed to improve the facilities on several sectors consisting with; road, health, education, water, Electricity area and parking.

#### 4. Waste management

Waste management is identified as the most essential factor in order to achieve other goals.

#### 5. <u>Dandagamuwa Oya</u>

The main water source of the area is Dandagamuwa Oya and at the discussion all 03 groups highlighted that issues relate to the same. Further, group suggested to develop the area by taking this water resource as a potential of the area.

#### 6. Industrial Sector

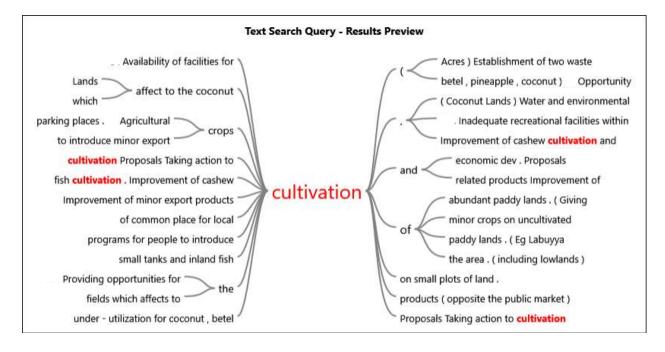
Much attention should be given for the improvement of the agricultural based industrial sector of the area.

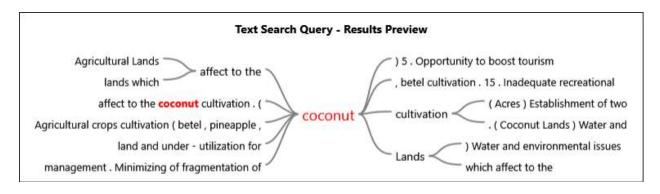
These frequency of words shows the **future directions and aspects** that should be more concerned on future Development Planning activities.

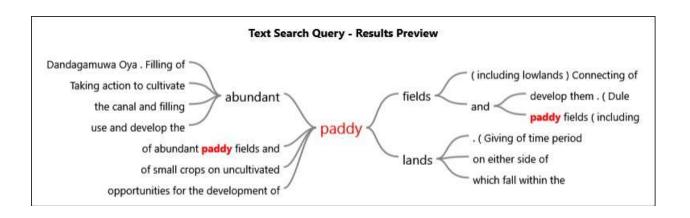
#### Below areas showing the root cause of each Identified Nodes.

Future sustainable development of Kuliyapitiya is highly depended on the agricultural Sector. Mainly paddy cultivation, coconut cultivation and minor export crops - based industries.

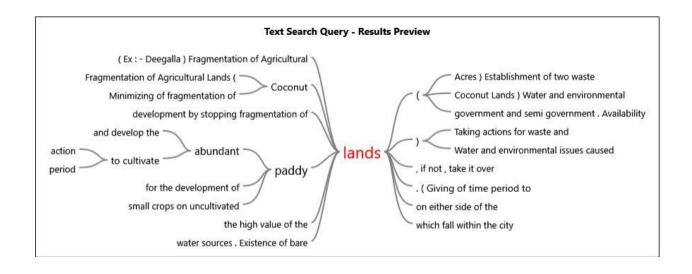
This analysis clearly shows the root cause and inter connected problems which related to agricultural sector of the area.





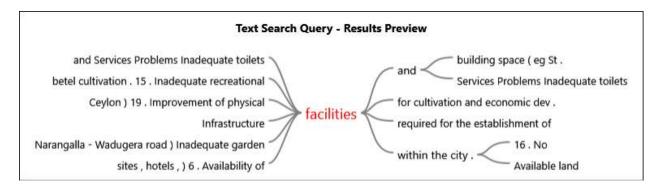


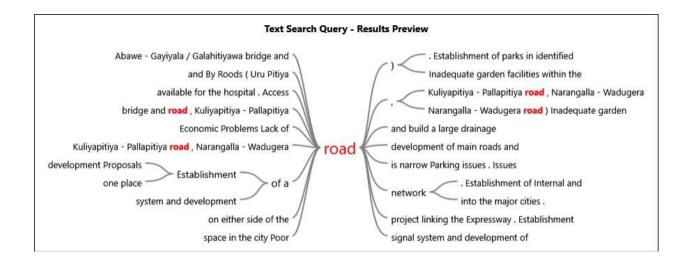
Much attention should be given for the available lands within the area by taking optimum uses for agricultural sector.



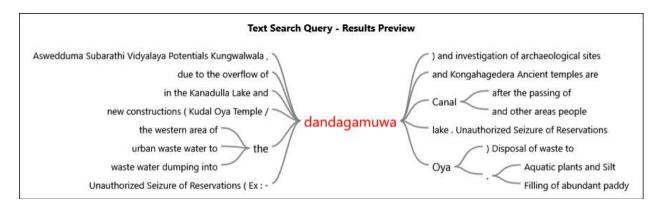
#### **Infrastructure Facilities**

Infrastructure facilities of the area should be improved since the existing facilities are not sufficient for future needs. Therefore, provision of required infrastructure facilities for every sector such as road, health, education, water, Electricity area and parking should be concerned in the future development plan.

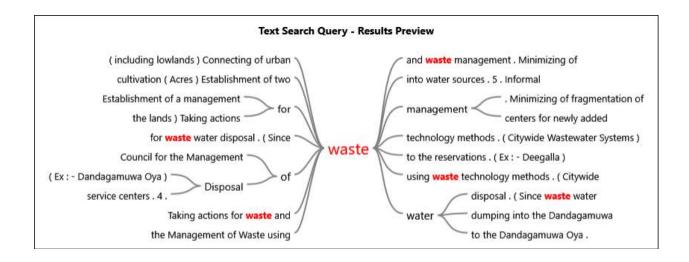




Dandagamuwa Oya is a main water resource of the area and agriculture sector depends on the same. Therefore, protection of Dandagamuwa Oya is an essential requirement and it should be mainly concerned in the proposed development plan.



Waste and waste water management have to be much concerned, since the water resources of the area are getting polluted due to improper waste management.



#### **Identified Vision**

#### Examples

A vibrant and Opulence agricultural Center of the North Western Region.

Kuliyapitiya will be an energetic agrarian center of the North Western Region while increasing the prosperity of the area. It will also be a strategic location for the cultivation while increasing the minor export crop products contributing to the national economy.

Or

A Mini gateway to the Minor Export Crop Based Industry.

Cultivation is the main economic income of the area, especially for minor export crop products. Accordingly, Kuliyapitiya will be a mini industrial urban area for the value - added quality minor export crop products contributing to the national economy.

#### **Vision Statement**

A Productive Agriculture based town while enhancing the development upon the area.

#### **Identified Goals**

- Create a center for the value added quality minor export crop products.
- Improve the quality and quantity of infrastructure system throughout the urban area.
- Increase Agriculture based Industrial Sector contribution to the national economy.
- Protect the waterways within the urban area and create a greenery town.

#### **Conclusion**

According to the above key discussed areas, Kuliyapitiya Planning area needs to be developed by taking necessary actions for the advancement of **Agricultural Sector** of the area as it is a main potential for the area and attracting **tourists** by fulfilling relevant **infrastructure facilities** (Utilities) to achieve economic development. Because, agriculture is the main potential and there are resources to attract tourists and every other sector are facing problems due to lack of infrastructure facilities, presently.

The above given sample vision terms also highlight the same requirements. If concern on the above aspects on future, it will strengthen the Kuliyapitiya with an efficient economic development along with the potentials as discussed in the above.

The conclusions and suggestions are the future Development plan should be more concerned on Agricultural Sector, Tourism Sector based on the agriculture and historical places and Infrastructure sectors, much more to achieve economic development of the Kuliyapitiya Planning Area.

Prepared By;

Checked By;

Mrs.Thamara Jayagoda Deputy Director (Planning) UDA

Strategic Planning Division

2= 105 /202

**Town Planner** 

**UDA** 

#### **Annexure**

#### **Information generated by stakeholders**

#### **Agriculture and Environmental Resource Management**

#### **Problems**

- 1. Flood situation
- Due to the overflow of Dandagamuwa, areas such as Tomb Shop Junction, Bohingamuwa, Galathiwa, Asvedduma, Labuyaya, Delwatta Temple etc. have been submerged.
- 2. Reclamation of paddy fields and paddy fields (including low lying areas)
- 3. Adding municipal waste water to Dandagamuwa Oya.
- 4. Aquatic branch/silt meeting at Kanadulla Lake and Dandagamuwa Lake.
- 5. Reserve Encroachment (Dandagamuwa Oya)
- 6. Disposal of garbage in reserves

(E.g., Digalla.)

- 7. Fragmentation of agricultural land (e.g. coconut land)
- 8. Water and environmental problems arising due to reclamation of areas around Asveduma Subharathi College.

#### **Potential**

- 01. Ancient temples of Kungwalla, Dandagamuwa and Konghagara of archaeological value are located in this region.
- 02. The ability to develop small tanks and cultivate freshwater fish.
- 03. Improvement of cashew cultivation, pineapple cultivation and related products.

#### **Suggestions**

- 01. Taking steps to cultivate paddy fields. (If not, take over the paddy fields to the government.)
- 02. Conservation of some of the unused tanks in the Western Region after passing the urban area and retaining the water in the Dandagamuwa Canal in those tanks. (This can be found in the final gum.)
- 03. To determine the suitable areas for development and use of purankumbura land on both sides of the road and to build a large drainage canal around it and build those paddy fields and carry out development works. (Since the value of the land is very high)
- 04. Taking measures and improving the management of garbage and sewage.
- 05. Reducing the acreage of coconut land fragmentation.
- 06. Establishment of two Waste Management Centers for the newly incorporated Grama Niladhari divisions.
- 07. Establishment of a wastewater disposal management centre (Waste water is discharged into the Dandagamuwa canal and the water is used by people in other areas)
- 08. Taking measures to maintain the gomu for the maintenance of green population. For this purpose, the builders in this area have proposed to bring laws such as planting 05 trees in the forest gomu.
- 09. To convert archaeological sites into tourist attractions and to protect their value during new constructions (Kudal Oya Temple/ Dandagamuwa) and to explore whether there are sites of archaeological value in the present urban area.
- 10. Educating people to cultivate minor export crops on small plots of land. (Cinnamon/Pepper)
- 11. Educating the people to cultivate by crops on uncultivable paddy fields. (Ginger/Corn/Moong/Cowpea/Vegetables)

#### **Infrastructure & Services**

#### **Problems**

- 1. Inadequate toilets, toilets, building space (e.g. St. Joseph's Convent)
- 2. Power outages and insufficient power supply due to power outages
- 3. Insufficient land available for the hospital.
- 4. Narrowing of approach road/ severe obstruction.
- 5. Parking problems.
- 6. Official housing problems. (Professionals are the problem of retention in the area)
- 7. Inadequate water supply,
- 8. Accumulation of dead bacteria in water (e.g. Hospital, North Western Medical College)
- 9. Government offices are scattered at different places.
- Presence of dilapidated roads (e.g. Ambewa Gaiyala / Galathiwa Bridge and Road,
   Kuliyapitiya Palpitiya Road, Narangala Vadu Ghara Road)
- 11. Inadequate park facilities in the urban area.
- 12. Laying of a usable land near the Urban Council.
- 13. Lack of attention to tourist attraction.

#### **Solutions**

- 1. Construction of school buildings as floor buildings.
- 2. Seek the assistance of the Urban Council for waste management through technical methods. (Underground sewage systems networked throughout the urban area)
- 3. Construction of flyovers to reduce traffic congestion (e.g. near Aswadduma School and Near St. Joseph's School)
- 4. Reduce power outages by installing ground power line systems.

- 5. Directing solar power generation.
- 6. To increase the space in the hospital premises by expediting the ongoing acquisition process.
- 7. (Establishment of hospital and university quarters in a spacious place.
- 8. Identification of new water sources and establishment of regional water distribution centers (e.g. Lehelo Lake Restoration Identified by Wayamba University)
- 9. Establishment of government offices as much as possible in one place.
- 10. Establishment of road signalling system and development of road system
- 11. To have Ring Roods and By Roods (Urupitiya Road) internally and externally.
- 12. Establishment of gardens in identified places.
- 13. Use of places such as Paduas Nuwara, Navakada for tourist attraction.
- 14. Encouraging children to learn foreign languages.

#### **Economic**

#### **Existing Issues**

- 1. Major cities do not have a road network through the urban area.
- 2. Water scarurban area and flooding.
- 3. Service providers should be scattered.
- 4. Discharge of waste into water bodies.
- 5. Informal development programmes.
- 6. High tariff.
- 7. Absence of ITIs.
- 8. Lack of land to build an industrial town to boost tourism.
- 9. Limitation of land due to presence of ponds and paddy fields on both sides of the road.
- 10. Lack of space for Parking Spaces in the urban area.
- 11. Development of side and main roads is at a poor stage.
- 12. Vertical development is limited due to the presence of government owned land, row houses and municipal houses.
- 13. Problems of subdivision of land.
- 14. Adequate land and under use for coconut cultivation, mulberry cultivation.
- 15. Lack of recreational facilities in the urban area.
- 16. Lack of sales points for small scale industries and self employment.
- 17. Lack of fire fighting station in the urban area.
- 18. Absence of a place of employment of The Urban Development Authority in Kuliyapitiya.

#### **Potential**

- 01. Presence of water sources.
- 02. Existence of vacant lands (State and Semi Government)
- 03. Location of parking lots.
- 04. Agricultural Crops (Betel, Pineapple Coconut etc.)
- 05. Opportunity to promote tourism (historical places, hotels, etc.)
- 06. To facilitate cultivation and economic development.

#### Suggestions

- 01. Establishment of a road project connecting the highway.
- 02. Establishment of industrial zone. (Kitlawa and Narangala)
- 03. Establishment of a public place for parking (Asvedduma Wela)
- 04. Establishment of a reservoir in the vicinity of the junction well of the tomb shop.
- 05. Collection of vehicle related service points at one place
- 06. Construction of a water treatment plant at the junction of 6 waterways.
- 07. Creating recreational and relaxing places on both sides of the oyas. (Restaurants, entertainment venues, walkways, etc. from Labuya to Sohonakade Junction)
- 08. Construction of a public place to sell regional products (in front of the public market)
- 09. Construction of a town hall.
- 10. Establishment of a fire safety system in the urban area.
- 11. Establishment of an Economic Centre (based on main products such as pineapple, bark etc.)
- 12. Construction of an apartment complex. (Adjacent to Lakshmipura Housing Complex)
- 13. To create night restaurants and associated places and to make it a night action urban area.
- 14. Establishment of an Office of the Urban Development Superintendent in Kuliyapitiya.

- 15. Development of tourist attractions such as Dambadeniya, Paduasnuwara for private sector investment in tourism.
- 16. To set up projects to improve tourist attractions for small industries. (E.g. Ayurveda Centers, Betel Koratu)
- 17. Providing opportunities for development of paddy fields separating the urban area limits. (e.g. Labuya area)
- 18. Establishment of Parking Spaces in and around the urban area limits. (E.g. Land near Bank of Ceylon)
- 19. Development of physical facilities required for starting business places by carrying out developments along the by lanes. (E.g. Ananda Mawatha)
- 20. Encourage vertical development by stopping land fragmentation.

#### Annexure No. 2 - Archaeological Places in Kuliyapitiya Pradeshiya Sabha

Several buildings of archaeological and historical value are to be identified in the Kuliyapitiya Pradeshiya Sabha area and they are shown in Map No. 01. This plan only provides information about the locations currently on record.

#### 1.) Dandagamuwa Sri Sudharmaramapurana Tampita Viharaya.

Sri Sudharmarama Purana Viharaya is a Buddhist temple with an ancient Temple dating back to the Kandy period. The temple is located 3.5 km from Kuliyapitiya, 24 km from Naramala and 24 km from Madampe. Mee. 25 km away from Dandagamuwa village. Tampita Viharaya of Dandagamuwa Sri Sudharmarama Vihara is built on 16 black stone pillars built on a high platform filled with gravel. The year 1900 is engraved on a pillar near the temple building. A wooden platform has been installed to climb the wooden platform at Temple. A narrow enclosure has been built around the image house with wide space in the front. The outer wall of the gallery is covered with paintings of the Suvisi commentary. The roof of the building is roofed with flat clay tiles unique to kandy era buildings. There is also a pavilion in front of the Temple of Tampita. The roof of the pavilion is covered with six large black stone pillars. The temple was recently renovated, but some paintings, including exterior wall paintings, remain in original condition. The Temple of Tampita has been declared as a protected archaeological monument under No. 1486 on 23.02.2007.



Photo No. 1



Photo No. 2

#### 2.) Sri Bodhi Dharmarama Purana Viharaya in Konghagara.

The Sri Bodhi Dharmarama Temple in Konghagara belongs to the Kandy era. However, it is an ancient Buddhist temple with a history dating back to the Anuradhapura period. This temple is located at a distance of 1km from Kuliyapitiya Junction. It's less than two miles away. Mee. 19 km from Naramala 22 miles away. This Temple of Tampita is built on 16 black stone pillars in 4 rows. The roof is placed on 14 wooden pillars on the edges of the platform and wall of the image house. These towers are carved in various designs that were popular during the Kandy period. Each tower is decorated with pillar heads. They are also carved and even cross - buckets are carved on the top of the roof. The entrance of the Pratima House is beautifully carved. On either side of the gate there are two figures of guards. An arch with a dragon horn is also designed on the top. There is a statue in the middle of the house. Four large Statues of Buddha, about 7 feet high, are built on the side walls facing each other. The roofs and walls of the gallery are covered with upland - style murals. This temple has been declared as an archaeological protected monument under No. 1612 on 24.07.2009.



Photo No. 3



Photo No. 4



Photo No. 5

#### 3.) Yakarawatta Purana Siddha Pathini Temple

Yakarawatta Purana Siddha Pathini Temple is one of the oldest and most revered Pathini temples in Satkorala. This temple is located in yakarawatta village of West Kuliyapitiya Pradeshiya Sabha area. Legend has it that the Yakarawatta Temple is more than 500 years old. Due to frequent infectious diseases and difficulties in raising children in the villages around Yakarawatta, the villagers went to the Navagamuwa Pathini Temple and took a golden pattini and a golden mango, placed them in a crab tree and offered the necessary offerings and then built a temple covering the place. Today it is roofed with sheets.



Photo No. 6



Photo No. 7

#### 4.) Udayanegama Sri Nagabodhi Tampita Viharaya.

Udayanegama Sri Nagabodhi Tampita Viharaya is an ancient temple with a Temple belonging to the Kandy era. This temple is located at a distance of 1km from Kuliyapitiya. 10 km away from Kuliyapitiya Naramala Road. About 5 miles away. This temple is small compared to other Temples and a large tent has been built in front of it. The platform is situated on four stone pillars. On the wall of the Temple of Tampita, there were two buddha statues near the main samadhi statue, one of which was completely destroyed. The other statue is somewhat protected. Beside these two statues are paintings of Lord Saman and Kataragama. Although the Department of Archaeology has started the restoration work, it is clear that it has been stopped midway. On 24.07.2009, this temple has been declared as an archaeological protected monument under No. 1612.



Photo No. 8



Photo No. 9



Photo No. 10

Photo No. 11

#### 5) Koduruwapola Rajamaha Viharaya.

Koduruwapola Rajamaha Viharaya has been constructed on 11 blocks of black stone of different heights to balance the disparity in the rock floor. Its structure is 23 feet 8 inches long and 18 feet wide and 6 inches. It is 13 feet long, 2 inches long and 11 feet wide. Since the outer wall of the structure is completely covered, 04 small windows are placed on the back side of the wall. At the entrance of the image house, a dragon is seen. There is a samadhi statue in the center of the statue house. On both sides of the Buddha statue, there are two muggles. On the outer wall of the house there are two statues of Vishnu and Natha. It is said that this place was made up of the word "Kedurumpola", which means that this place was a secret place kept by kings and ministers. Legend has it that this temple was built on the instructions of Meegasthenne Adikaram. The Temple in this temple has been declared as an archaeological protected monument under No. 1612 on 24.07.2009.



Photo No. 12



Photo No. 13



Photo No. 14

#### 6.) Ganagamuwa Sri Poorvarama Tampita Viharaya.

The Sri Poorvarama Purana Viharaya in Ganagamuwa is located at a distance of 11 km from Kuliyapitiya in the village of Gangamuwa. The Tampita Viharaya in this temple is a small building located on 06 blocks of black stone. It was built during the Kandy era and was declared an archaeological protected monument under No. 1612 on July 24, 2009.



Photo No. 15

#### 7.) Annaruwa Sri Vijayasundararama Archaeological Site.

Annaruwa Sri Vijayasundararama is located about 2 miles south of the Kitalawa intersection on the road running from Kuliyapitiya to Kurunegala. This ancient Rajamaha Viharaya belongs to the Diyawala Grama Niladhari area of Kuliyapitiya West Divisional Secretary's Office. According to historical information, the history of this temple dates back to the Anuradhapura period. An inscription confirming this is found on the rock behind the new temple of the temple. The ancient temples here have been renovated from time to time. Since that time, there are many books in the temple in such a way that the mission of the temple to the ministry is still visible. The old Dharmashala, Sanghavasa and two inscriptions in this temple have been declared as archaeological protected monument on 24.07.2009 under No.

1612.



Photo No. 16

These sites and some other buildings of archaeological value can be identified in the Kuliyapitiya Pradeshiya Sabha area and they are given below in the numbers in Map No. 01. Only a few of these details are given above. There is no information to find in other places.

Legend

Logend

Logend

Acchaeological Monuments & Cultural Places - Kuliyapitiya Planning Area

Sulfurpit Developes The 2822-2311

Acchaeological Monuments & Cultural Places - Kuliyapitiya Planning Area

Sulfurpit Developes The 2822-2311

Map No 01 - Buildings and religious sites of archaeological value

Source: Urban Development Authority, Environment and Landscape Division

#### Festivals and arts of historical and cultural value.

Among the historical and cultural festivals, the annual Nanumura festival of the Yakarawatta Purana Siddha Pathini Temple is special.

#### Nanumura Festival at Yakarawatta Pathini Temple

Kuliyapitiya Yakarawatta ancient Tampita Siddha Pathini Temple occupies an important place among the oldest and most historic temples in Sri Lanka. There have been many miracles in this temple since time immemorial. It is well known that such miracles are experienced today. It is a special event of this temple that according to the tradition of Nanumura, which has been going on since ancient times, it is also held annually in the present day. Festivals are held every year on an appropriate day in The Month of July. The rituals of the festival begin with the removal of the ancient gold mangoes and the ornaments of the gods, including the gold cloak, and the cleaning of the nose. All the rituals are held including cooking of rice and milking. Thousands of people come from all over the island to witness the occasion and seek god's blessings on that day.

#### Related books.

- 1. Our Cultural Heritage K.D.P. Wickremasinghe
- 2. Buddhasarana 28 April 2008 A.P. Gunaratne
- 3. The Internet.
- 4. Hela History Mark and Buddhist View of History Mr. Sri Fernando

#### Annexure No. 3 - Proposed Public Outdoor Recreational Activities

## Table No. 01 - Proposed Public Outdoor Recreational Activities in Kuliyapitiya Urban Council Area

Table No 02 - - Proposed Linear Parks (PLIP)

No	Park Type	Number	Extent (Ha)
01	PLiP (Proposed Linear Parks)	03	14.46
02	PPP (Proposed Pocket Parks)	01	0.06
03	` '		
	PMP (Proposed Mini Parks)	03	1.08
04	Proposed dry weather play ground (Stadiums that can only be played in	31	28.18
	dry season)		
		Total	43.78

Source: Urban Development Authority, Environment and Landscape Division

No	Park Type	Extent (Ha)
01	PLiP 01	0.06
02	PLiP 02	0.33
03	PLiP 03	0.35
04	PLiP 04	0.48
05	PLiP 05	1.27
06	PLiP 06	2.73
07	PLiP 07	2.81
08	PLiP 08	2.16
09	PLiP 09	4.27
	Total	14.46

Source: Urban Development Authority, Environment and Landscape Division

Table No 03 - Proposed Pocket Parks (PPP)

No	Park	Grama Niladhari Division	Extent (Ha)
	Type		
01	PPP 01	Galahitiyawa	0.06
Total			0.06

Source: Urban Development Authority, Environment and Landscape Division

Table No 04 - Proposed mini Parks (PMP)

No	Park	Grama Niladhari Division	Extent (Ha)
	Туре		
01	PMP 01	Kambelawa	0.43
02	PMP 02	Galahitiyawa	0.25
03	PMP 03	Kithlawa	0.4
			1.08
	Т	otal	

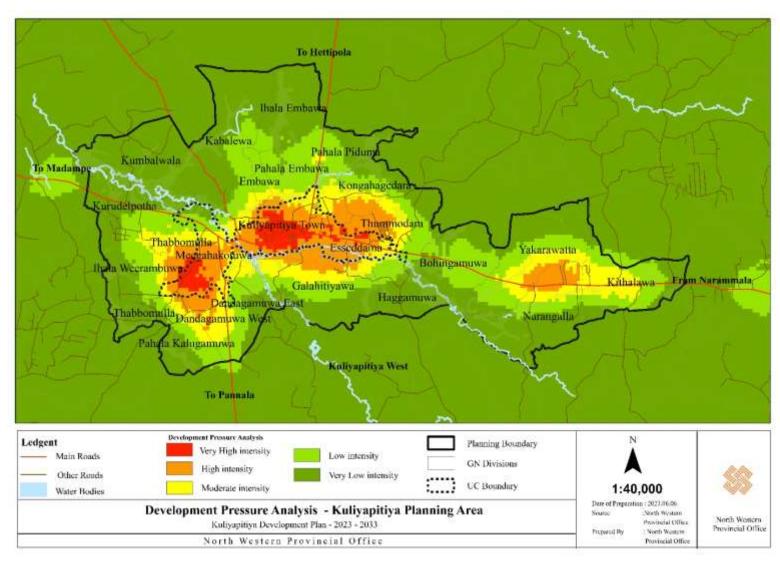
Source: Urban Development Authority, Environment and Landscape Division

Table No 05 Stadiums that can only be played in dry season (Proposed need Parks)

No	Park Type	Extent
01	Need 01	1
02	Need 02	1
03	Need 03	0.63
04	Need 04	0.38
05	Need 05	1.31
06	Need 06	0.2
07	Need 07	1
08	Need 08	0.26
09	Need 09	1.54
10	Need 10	0.51
11	Need 11	0.55
12	Need 12	1.1
13	Need 13	0.72
14	Need 14	1.5
15	Need 15	0.7
16	Need 16	1.2
17	Need 17	0.44
18	Need 18	0.7
19	Need 19	0.46
20	Need 20	0.35
21	Need 21	1
22	Need 22	1.4
23	Need 23	1.12
24	Need 24	1.78
25	Need 25	0.62
26	Need 26	1.47
27	Need 27	1.23
28	Need 28	1.78
29	Need 29	1.15
30	Need 30	0.49
31	Need 31	0.59
Total	·	28.18

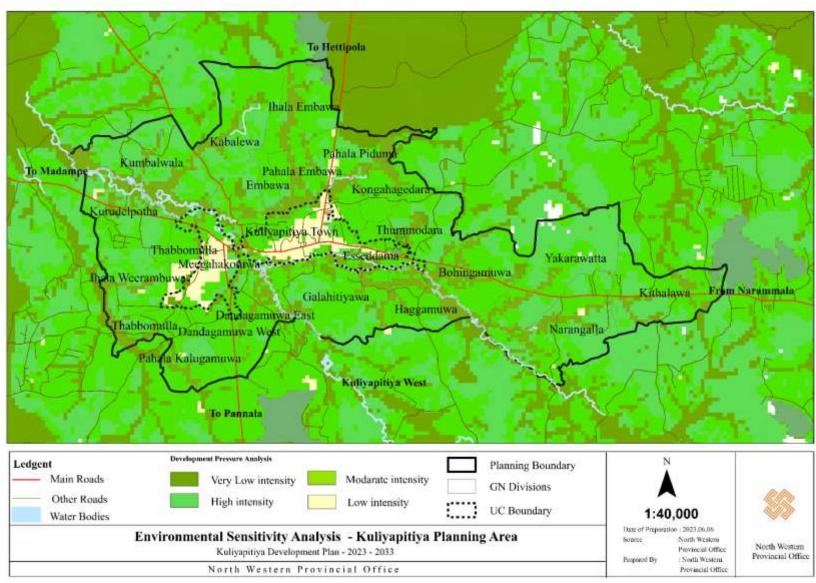
Annexure No. 4 - Development Pressure Analysis

Map No .2: Development Pressure Analysis - Kuliyapitiya Planning Limit



#### Annexure No. 5 – Environmental Sensitivity Analysis

Map No .3: Environmetal Sensitivity Analysis - Kuliyapitiya Planning Area



#### Annexure No. 6 - Schedule 10 - Requirement of Parking Spaces and Schedule 13

### **Requirements for Sanitation Facilities**

10th Schedule

Requirement of Parking Spaces (Regulation 73)

			$\mathbf{S}_{\mathbf{j}}$	pecification	ns	Park	king Space R	Requirement	Ţ
Serial Number	Use	Туре	Minimum width of the road (meters)	Size of house (square meters)	Minimum Floor area (square meters)	Standard Vehicles	Buses	Lorry	multiple
.01	Residential	Single Housing Unit/Circuit Bungalow	03	-	150	One space per unit and if the area of the house is more than 400 Sq.m, additional parking space should provide,	ı	-	-

Residential	Apartment/Flats with or	9	-	1000	One space per		
Apartments	without pool, gym,				unit and if the		
- 1 <sup>st</sup>	super markets				area of the		
category					house is more		
					than 400 Sq.m,		
					additional		
					parking space		
					should provide		
					and one		
					parking lot for		
					visitors to		
					every 10		
					residential		
					units added.		
					(Considering		
					use)		
Residential	Service Apartment	9*	-	1000	One space per		
	Studio Apartment				unit and		
	Quarters				additional		
					space		
					requirement		
					will be		
					considered in		
					terms of other		
					uses.		

	Hostels	6	-	500	One space for	
					10 rooms.	
	Hostels on the premises	-	-	-	One space for	
	for service				05 rooms.	
	requirements					
	Hostels outside the	6		250	One space for	
	campus				05 rooms.	
	Dormitories outside the	3		150	One space for	
	premises				200 square	
					meters	
	Elders Homes/	6		500	One space for	
	Children's Homes				10 rooms	
					(minimum one	
					space)	
	Government	6		1000	15% of the	
	Resettlement Project				total area (sq.	
					m.) excluding	
					service areas	
2	Retail store grocery and	4.5	Up to 25	150	One space	
	similar uses	6	Up to 50		Two space for	
					50 square	
					meters	
	Retail store grocery and	6			One space for	
	similar uses				100 square	
					meters	
					(excluding	
					service areas)	

	Shopping Complexes,	9		1000	One space for	One
Commorcial	Supermarkets/				100 square	space for
	Departmental				meters	500
	Stores/Shopping Malls				(excluding	square
					service areas)	meters
						and
						maximum
						2
	Vehicale show	9		1000	One space for	One
	rooms/Tool				200 square	space for
	equipments/ home base				meters and	200
					minimum one	square
					space should	meters
					provide	and
						maximum
						4 can be
						provided
	Hardware	6	≥ 50	250	2 space	One
						space for
		9	50 <	1000	3 space up to	500
					500 square	square
					meters	meters
						and
					And one space	maximum
					for every 100	5 can be
					square meters	provided
					for additional	

	Cinema halls	6		1000	One space for			
					10 seats			
	Theatres, Auditorium	*9		1000	More than one	One space	One	
	conference halls, and				space for 10	with more	space for	
	similar uses				seats or one	than 100	500	
					space for 20	seats	square	
					square meters		meters	
Commercial	Salons/ Beauty	4.5	Up to 15		One place.			
	Parlours/ Customer		square					
	care services/ tailor		meters	150				
	Shops	6	15 to 30		Two spaces.			
			square		One space for			
			meters		30 square			
					meters			
		6	More		One space for			
			than 30		every 30			
			square		square meters			
			meters		and one space			
					for every 50			
					square meters.			
Commercial	Vehicle spare parts	6	-	150	One space for		One	
	shops				50 square		space if it	
					meters		exceeds	
							500	
							square	
							meters	
Commercial	Funeral Halls	9	_	1000	5 space per unit	One space	_	

Comn	nercial	Betting Centers	6		150	One space for	One space		
						50 square			
		D 1 1 0 0 1			<b>7</b> 00	meters			
Comn	nercial	Broadcasting Studios	9		500	One space for			
						50 square			
						meters			
						excluding			
	. 1	N D 1 d	0		1000	service areas			
Comn	nercial	Non-Broadcasting	9		1000	One space for			
		Studio				50 square			
		D. II I.E	0		2000	meters		3.6'	
Comn	nercial	Dedicated Economic	9		2000	One space for 2		Minimum	
		Center/fish market				shop rooms		space and	
								maximum	
								5 space	
								per 10	
	• •	C'. II . 1	0		1000	6		shops	
	nercial	City Hotels	9		1000	One room for	One space		
Hotels	S					05 rooms	close to		
							the service		
		**		77. 1	1000		area		
	nercial	Hotels	6	Hotels	1000	One space for	One space	One	
Hotels	S			from		each room.	near the	space	
				rooms 1			service		
				to 20			area		
	nercial	Hotels	9	Hotels		One room for	One space	One	
Hotels	S			from		each room up	near the	space	

			rooms 1	to 20 rooms +	service		
			to - 100	one space for	area		
				21 to 100			
				rooms			
Commercial	Hotels	9	Hotels		One space	One	
Hotels			with		near the	space	
			more	One space for	service		
			than 100	each room up	area		
			rooms	to 20 rooms +			
				one space for 2			
				rooms from 21			
				to 100 rooms +			
				one space for 5			
				rooms from			
				101 rooms			
Commercial	Hotels	6	Seating	One space for 5	-	One	
Hotels			capacity	seats		space	
			up to				
			100				
Commercial	Banquet Hall (Boutique	9	Seating	One space for 5	One space	One	
Hotels	Hall)		capacity	seats	near the	space	
			more		service		
			than 100		area		
Commercial	Hotels in Banquet Halls	6	Rooms/	One space per			
Hotels	(Boutique Hall/ Villa)		Up to 5	room/unit, up			
			units	to a maximum			
				of 3 and one			

						space for 5			
						1			
						seats for			
						festival halls			
	Commercial	Hotels/ Lounges/	9	Rooms/		One space per			
	Hotels	Lounges/ Lounges/		More		room/unit			
		Spas/ Banquet Halls/		than 5					
		Boutique Hotel/Villas/		units					
		Rest House/ Spa							
	Commercial	Restaurants	6	Up to 50		More than one			
	Hotels			square		space for 10			
				meters		square meters			
						or one space			
						for 5 seats			
						excluding the			
						service area.			
			9	More		More than one	If more		
				than 50		space for 20	than 500		
				square		square meters	square		
				meters		or one space	meters,		
						for 5 seats	one land		
						excluding the			
						service area.			
	Commercial	Banks	6		500	One space for			
	Offices				square	100 square			
İ					meters	meters			
	1		l		l		l	l	l

	Commercial	Financial Institutions/	6	500	One space for			
	Offices	Insurance Institutions		square	100 square			
				meters	meters			
	Commercial	Offices/ Establishments	6	150	One space for	Space for		
	Offices	(General)		square	100 square	every 500		
				meters	meters	square		
						meters		
	Commercial	Offices/Establishments	6	150	One space for			
	Offices	(Offices/Establishments		square	150 square			
		that do not provide		meters	meters			
		customer service e.g.						
		Information						
		Technology)						
	Commercial	Office Complexes	9		One space for	Space for	One	
	Offices	(more than 10,000			100 square	every 500	space	
		square meters)			meters	square		
						meters		
.3	Health	Government Hospitals	9*		One space for	One space	One	
		(with all facilities)			10 beds and		space	
					30% of the			
					total space			
					required for			
					public parking.			
	Health	Nursing Homes and	9*		More than one			
		Private Hospitals			space for 2			
					beds or one			

					anaga for 10		
					space for 10		
	** 1.1	1.5 11 1.5 1	O.t.		square meters.		
	Health	Medical Laboratories,	9*		One space for		
		Outpatient Departments			square		
		and Similar Uses			meters		
	Health	Medical Consultation	9*		10 spaces for		
		Centres/ Channeling			one consulting		
		Centers/ Medical			service room		
		Centers					
	Health	Dispensaries/ Animal	6*	Up to 30	Two spaces for		
		Clinics		square	30 square		
				meters	meters		
			9*	More	Two rooms per		
				than 30	room.		
				square			
				meters			
.4	Education	Universities,	9		One space for	One space	
		Private Universities/			one permanent	for each	
		Private Higher			academic	faculty	
		Education Institutions			lecturer and		
					one parking		
					space for 100		
					students.		
		Government Schools	9		Provision of	One space	
		Government Schools	,		one space in	one space	
					four		
					classrooms and		

	1	1		I			ı	
					three space for			
					landing and			
					climbing and a			
					merging lane			
					through the			
					proposed			
					ground parallel			
					to the road.			
Education	Government	6			One space for	One space		
	Vocational Training				two lecturers	•		
	Centres/ Technical				and two spaces			
	Colleges				for landing and			
					climbing and			
					one merging			
					lane through			
					the proposed			
					ground parallel			
					to the road and			
					one space for			
					200 students **			
Education	Private Schools	9			Provision of			
					one space for			
					two classrooms			
					and one space			
					per 500 square			
					meters for			
					permanent			
 1		l	1		1			

areas other than classrooms and three spaces for students to board and unload through the proposed land parallel to the road.  Education Pre - Schools/ Day 6 Provision of one space and three floors for climbing and unloading through the proposed ground parallel to the throad.  Private tuition less than 6 Provision of one space for a classroom and two spaces for landing and climbing and				I	1 .	l	I	1
than classrooms and three spaces for students to board and unload through the proposed land parallel to the road.  Education Pre - Schools/ Day 6 Provision of one space and three floors for climbing and unloading through the proposed ground parallel to the road.  Private tuition less than 6 Provision of one space of a classroom and two spaces for landing and climbing					construction			
Education Pre - Schools/ Day 6 Provision of climbing and unloading through the proposed ground parallel to the road.  Private tuition less than Education 100 children Clare Centres Cla								
three spaces for students to board and unload through the proposed land parallel to the road.  Education Pre - Schools/ Day 6 Provision of one space and three floors for climbing and unloading through the proposed ground parallel to the road.  Private tuition less than 6 Provision of one space for a classroom and two spaces for landing and climbing								
Education Pre - Schools/ Day 6 Provision of one space and three floors for climbing and unloading through the proposed ground parallel to the road.  Education Pre - Schools/ Day 6 Provision of one space and three floors for climbing and unloading through the proposed ground parallel to the road.  Private tuition less than 6 Provision of one space for a classroom and two spaces for landing and climbing								
Education Pre - Schools/ Day 6 Provision of one space and three floors for climbing and unloading through the proposed ground parallel to the road.  Education Pre - Schools/ Day 6 Provision of one space and three floors for climbing and unloading through the proposed ground parallel to the road.  Private tuition less than 6 Provision of one space for a classroom and two spaces for landing and climbing					three spaces for			
Education Pre - Schools/ Day 6 Provision of one space and three floors for climbing and unloading through the proposed ground parallel to the road.  Private tuition less than 6 Provision of one space for a classroom and two spaces for landing and climbing					students to			
the proposed land parallel to the road.  Education Pre - Schools/ Day 6 Provision of one space and three floors for climbing and unloading through the proposed ground parallel to the road.  Private tuition less than 6 Provision of one space for a classroom and two spaces for landing and climbing					board and			
Education Pre - Schools/ Day 6 Provision of one space and three floors for climbing and unloading through the proposed ground parallel to the road.  Private tuition less than 6 Provision of one space for a classroom and two spaces for landing and climbing and climbing and climbing and climbing and climbing					unload through			
Education Pre - Schools/ Day 6 Provision of one space and three floors for climbing and unloading through the proposed ground parallel to the road.  Private tuition less than 100 children 6 Provision of one space for a classroom and two spaces for landing and climbing					the proposed			
Education Pre - Schools/ Day 6 one space and three floors for climbing and unloading through the proposed ground parallel to the road.  Private tuition less than 6 Provision of one space for a classroom and two spaces for landing and climbing					land parallel to			
Care Centres  one space and three floors for climbing and unloading through the proposed ground parallel to the road.  Private tuition less than 6 Provision of one space for a classroom and two spaces for landing and climbing					the road.			
three floors for climbing and unloading through the proposed ground parallel to the road.  Private tuition less than 6 Provision of one space for a classroom and two spaces for landing and climbing	Education	Pre - Schools/ Day	6		Provision of			
Climbing and unloading through the proposed ground parallel to the road.  Private tuition less than 6 Education 100 children 6 Education 100 children 6 Education 100 children		Care Centres			one space and			
unloading through the proposed ground parallel to the road.  Private tuition less than 6 Provision of one space for a classroom and two spaces for landing and climbing					three floors for			
through the proposed ground parallel to the road.  Private tuition less than Education 100 children 6 Provision of classroom and two spaces for landing and climbing					climbing and			
proposed ground parallel to the road.  Private tuition less than 6 Provision of one space for a classroom and two spaces for landing and climbing					unloading			
Private tuition less than Education 100 children 6 Provision of classroom and two spaces for landing and climbing					through the			
Education Private tuition less than 6 Provision of one space for a classroom and two spaces for landing and climbing					proposed			
Education Private tuition less than 100 children 6 Provision of one space for a classroom and two spaces for landing and climbing					ground parallel			
Education 100 children one space for a classroom and two spaces for landing and climbing					to the road.			
classroom and two spaces for landing and climbing		Private tuition less than	6		Provision of			
two spaces for landing and climbing	Education	100 children			one space for a			
landing and climbing					classroom and			
landing and climbing					two spaces for			
climbing								

				proposed		
				ground parallel		
				to the road.		
	Private tuition more	9		Provision of		
	than 100 children			one space per		
				classroom, one		
				space for 500		
				students and		
				two spaces for		
				landing and		
				climbing		
				through the		
				proposed		
				ground parallel		
				to the road. **		
Education	Lecture halls with more	9		One space per		
	than 100 children			100 square		
				meters and 2		
				spaces for		
				climbing the		
				landing line		
				parallel to the		
				proposed		
				ground to		
				provide a		
				merging lane		
				and one space		
				and one space		

						for 200			
						students.			
	Education				Up to 500	Three spaces			
			3						
		Libraries	6		More than	Three space up			
					500	to 500 square			
						meters and one			
						space for every			
						500 square			
						meters			
						exceeding			
	Education	Other Educational	6			One space for a			
		Institutions				classroom			
.5	Factories					One per 100		One	
			6	Less	500	square meters		space for	
		Small Scale		than 300				300	
								square	
								meters	
						One per 300	Up to 100	One	One space
		Medium Scale -	9	Between	1000	square meters	employees	space for	when it
		Industries based on		300 and		1	with one	500	exceeds
		human labour		1500			space and	square	1000
							up to 5	meters	square
							vacancies		meters
		Medium Scale -				One for every	One space		
		Automatic Machine				300 square	r		

	Based Industries (Industries with minimum use of human labour)				meters and one space for every 500 square meters.			
	Large Scale - Industries based on human labour  Large Scale - Automatic Machine Based Industries (Industries that use minimum human labour)	9	More than 1500	2000	One per 200 square meters  Up to 10,000 square meters one for 2000 square meters and one for every 3000 square meters	Up to 100 employees with one space and up to 10 vacancies One per 3000 square meters	03 space up to 1500 square meters and one space for every 1000 square meters increased	One space per 2500 square meters (maximum space of five)
Industry	Stores with stores	9		1000	One space up to 100 square meters and then one space for every 200 square meters.		One space for 500 square meters	

	Industry	Warehouse	6	Less		One space for		One	One space
				than 500		200 square		space per	for 2500
				square		meters		500	square
				meters				square	meters and
								meters up	up to a
			9	Less	1000	One space for		to 3000	maximum
				than 500		500 square		square	of three
				square		meters		meters	
				meters				and one	
								space for	
								every	
								1000	
								square	
								meters	
								growing	
.6	Leisure &	Leisure and Recreation	6			One space for	One space	One	
	Recreation	and Theme Parks				100 square		space per	
	& Sports	(Themes Parks)				meters		1000	
								square	
								meters	
								and a	
								maximum	
								of four	
								space.	
	Leisure &	Sports Complexes /	6			If there is two	One space		
	Recreation	Indoor Stadiums				space for each			
	& Sports					ground and a			

	Recreation & Sports	Pools/ Gyms/ Fitness Centres		100 square meters and one		
	& Sports	Centres		space for 10		
				seats if a sports		
				pavilion is		
	Leisure &	Outdoor Stadiums	6	provided One space for	One space	
	Recreation	Outdoor Stadiums	U	100 seats	for 1,000	
	& Sports			100 seats	seats and	
	1				a	
					maximum	
					of 10	
.7	Other Uses	Religious Places	6	One space for		
				200 square		
				meters		
	Other Uses	Other uses (the width of	6	One space for	One space	
		the road and parking		100 square	for 500	
		space can be considered		meters	square	
		according to usage.)			meters	

<sup>\*</sup>The minimum width of the road should be 06 meters and the building boundary should be 4.5 meters or more.

<sup>\*\*</sup> Approved parking space for bicycles and motorcycles.

# Schedule 13 Requirements for Sanitation Facilities

Regulation 75

	Uses	Extent (Sq.M.)	Fem	ale		Male	
			Toilets	Washing	Toilets	Urinal	Washing Basin
				Basin			
01	Restaurants, hotels	Less than 100	Minimum 01	Minimum 01	Minimum 01 unit	Minimum 01 unit	Minimum 01 unit
	and similar uses		unit	unit			
		100 to 500	Minimum 02	Minimum 01	Minimum 02 unit	Minimum 02 unit	Minimum 01 unit
			unit	unit			
		500 to 1000	Minimum of 5	Minimum 02	Minimum 03	Minimum 03	Minimum 02
		More than 1000	01 for every	01 for every	01 for every	01 for every	01 for every
			addtional	addtional	addtional 2,000	addtional 1,000	addtional 2,000
			1,000 Sq.M	2,000 Sq.M	Sq.M	Sq.M	Sq.M
.02	Cinemas, Theaters,		Minimum 02	Minimum 01	Minimum 02 for 20	Minimum 01 for 20	Minimum 01 for
	Conference Halls		for 20 seats	for 20 seats	seats	seats	20 seats

			01 for every	01 for every	01 for every	01 for every	01 for every
			additional 50	additional 50	additional 50 seats	additional 50 seats	additional 50 seats
			seats	seats			
.03	Shopping malls, department stores, supermarkets and similar uses	Up to 800	Minimum 01 unit up to 800 square meters 01 and 01 unit should be provided for every additional 1,500 Sq.M	Minimum 01 unit up to 800 square meters 01 and 01 unit should be provided for every additional 1,500 Sq.M	Minimum 01 unit up to 800 square meters 01 and 01 unit should be provided for every additional 1,500 Sq.M	Minimum 01 unit up to 800 square meters 01 and 01 unit should be provided for every additional 1,500 Sq.M	Minimum 01 unit up to 800 square meters 01 and 01 unit should be provided for every additional 1,500 Sq.M
.04	Offices	Area less than 200 square meters	Minimum 02	Minimum 01	Minimum 01	Minimum 01	Minimum 01
		Area more than 200 square meters	02 for 200 square meters and And for every additional 500 square meters should include 01 unit	02 for 200 square meters and And for every additional 500 square meters should	02 for 200 square meters and And for every additional 500 square meters should include 01 unit	02 for 200 square meters and And for every additional 500 square meters should include 01 unit	02 for 200 square meters and And for every additional 500 square meters should include 01 unit

				include 01 unit			
05.	Schools / International Schools		Number of students at least 02 students per 60 students		Number of students at least 01 per 60 students	Number of students at least 01 per 60 students	Minimum 01 per 100 students
06.	Private Educational Institutions/	Up to 500	01 for 100 square meters	01 for 200 square meters	01 for 100 square meters	01 for 200 square meters	01 for 200 square meters
	Support Classes	More than 500 square meters	01 for 100 square meters and 01 each for every additional 200 square meters	01 for 200 square meters and 01 each for every additional 500 square meters	01 for 100 square meters and 01 each for every additional 200 square meters	01 for 200 square meters and 01 each for every additional 200 square meters	01 for 200 square meters and 01 each for every additional 500 square meters
07.	Public places, gatherings of the general public		If land extent is less than 150 square meters or 150 square meters,	If land extent is less than 150 square meters or 150 square	If land extent is less than 150 square meters or 150 square meters, minimum 01	If land extent is less than 150 square meters or 150 square meters, minimum 01	If land extent is less than 150 square meters or 150 square meters,

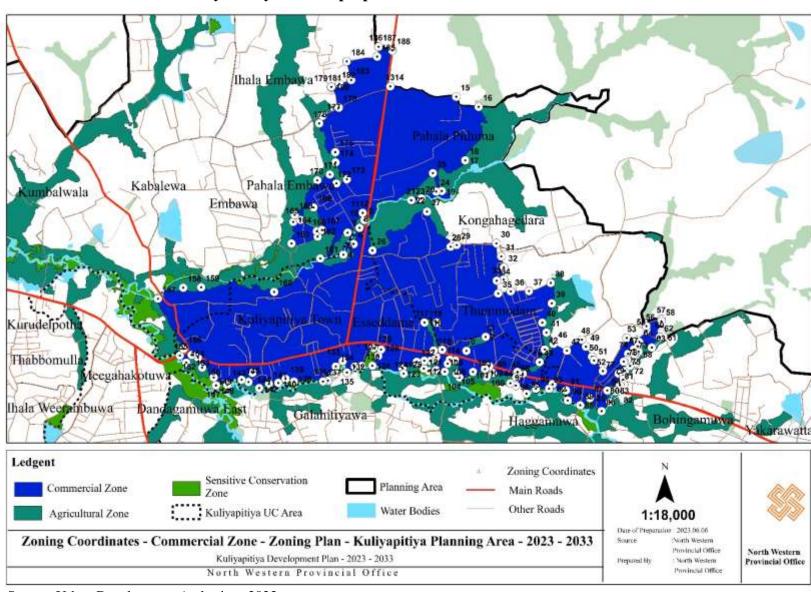
places, parks and	minimum 01	meters,	unit should be	unit should be	minimum 01 unit
similar uses	unit should be	minimum 01	provided	provided	should be provided
Siliniar ases	provided	unit should be			
		provided			
	If the land	If the land	If the land extent is	If the land extent is	If the land extent
	extent is	extent is	between 150 - 400	between 150 - 400	is between 150 -
	between 150 -	between 150 -	square meters, the	square meters, the	400 square meters,
	400 square	400 square	minimum is 02 unit	minimum is 02 unit	the minimum 01
	meters, the	meters, the	should be provided	should be provided	unit should be
	minimum is 03	minimum is			provided
	unit should be	01 unit			
	provided	should be			
		provided			
	If the land	If the land	If the land extent is	If the land extent is	If the land extent
	extent is more	extent is more	more than 400	more than 400	is more than 400
	than 400	than 400	square meters, the	square meters, the	square meters, the
	square meters,	square	minimum is 01 unit	minimum is 01 unit	minimum is 01
	the minimum	meters, the	should be provided	should be provided	unit should be
	is 01 unit	minimum is	for each additional	for each additional	provided for each
	should be	01 unit	200 sq.m (should be	200 sq.m (should be	additional 200
	provided for	should be	installed at	installed at	sq.m
	each additional	provided for	appropriate	appropriate	
	200 sq.m	each	locations)	locations)	
	(should be	additional			
	installed at	200 sq.m			
	appropriate				
	locations)				

08.	Hotels and Similar		Minimum of	Minimum of	Minimum of 03units	Minimum of	Minimum of
	uses to hospitals		03units should	03units	should be provided	03units should be	03units should be
	uses to hospitals		be provided	should be	for 50 beds	provided for 50	provided for 50
			for 50 beds	provided for		beds	beds
				50 beds			
09.	Industry	If less than 100	Minimum 01	Minimum 01	Minimum 01	Minimum 01	Minimum 01
		square meters					
		Between 100 and	01 for 100	Minimum 02	01 for 200 square	01 for 200 square	Minimum 01
		600 square	square meters	or	meters	meters	or
		1	or	*01 for 40	or	or	*01 for 40 people
		meters	*01 for 40	people	*01 for 40 people	*01 for 40 people	
			people				
			Up to 600	Increase	01 to 200 sq. mtrs up	01 to 200 sq. mtrs up	Minimum 02
		More than 600	square meters	every 500	to 600 sq. mtrs	to 600 sq. mtrs	
			to 100 square	square meters	and	and	or
		square meters	meters 01 unit	01 unit	01 for every 300	01 for every 300	
			and	or	square meters of	square meters of	* 01 for less than
			Every 300	*Less than 01	increase	increase	40 people
			square meters	for 40 people	or a	or a	
			of increase, 01		*The value is lower	*The value is lower	
			or		than the value of 01	than the value of 01	
			*01 for less		in 40 people	in 40 people	
			than 40 people				

10.	Other	*Minimum for	*Minimum	*Minimum for 1 for	*Minimum for 1 for	*Minimum for 1
		1 for 40	for 1 for 40	40 persons	40 persons	for 40 persons
		persons	persons	or	or	or
		or	or	At least 1 per 200	At least 1 per 200	At least 1 per 100
		At least 1 per	At least 1 per	square meters	square meters	square meters
		100 square	100 square			
		meters	meters			

<sup>\*</sup> On the basis of written confirmation submitted by the applicant regarding the worker

Annexure No. 7 - Coordinate system systems for proposed zones



Point	X	V.Coordinata
No.	Coordinate	Y Coordinate
1	80.05340749	7.470444094
2	80.05340441	7.470457455
3	80.05340319	7.470457025
4	80.04158081	7.477246363
5	80.04158081	7.477246363
6	80.04242839	7.478131748
7	80.04192884	7.479067037
8	80.04291956	7.479467745
9	80.04332999	7.480123806
10	80.04320627	7.48071122
11	80.04319093	7.480709281
12	80.04318384	7.480709552
13	80.04543394	7.491197229
14	80.04545124	7.491193248
15	80.05092505	7.490345842
16	80.05279347	7.489510294
17	80.05168305	7.485075783
18	80.05168261	7.485075441
19	80.0497377	7.482532926
20	80.04804613	7.481912289
21	80.0472427	7.481743608
22	80.04722734	7.481752196
23	80.0472139	7.481761744
24	80.04927293	7.482481442
25	80.04900382	7.484014171
26	80.04399541	7.477595423
27	80.04852158	7.480823288
28	80.05048022	7.477917633
29	80.05099034	7.478059467
30	80.05428315	7.478205689

31	80.05468545	7.477120209
32	80.05490735	7.476214599
33	80.05488936	7.475203629
34	80.05431523	7.475106362
35	80.05443466	7.474052094
36	80.05547774	7.474227165
37	80.05699419	7.474255493
38	80.05880071	7.474932759
39	80.05888651	7.47324263
40	80.05810031	7.47164102
41	80.05844648	7.470826542
42	80.05831235	7.46942331
43	80.05788674	7.468368685
44	80.05603938	7.467554486
45	80.05649292	7.46742327
46	80.05903919	7.469887211
47	80.0601546	7.469321152
48	80.06139245	7.470234917
49	80.06172742	7.469660795
50	80.06223125	7.468823718
51	80.0624042	7.468520915
52	80.06314084	7.467638643
53	80.06512019	7.470382129
54	80.06597078	7.470193329
55	80.06677841	7.470967107
56	80.06675104	7.471367864
57	80.06798853	7.471960429
58	80.06799011	7.471765011
59	80.06801482	7.47093059
60	80.06804632	7.470722485
61	80.06814311	7.47050449
62	80.06785696	7.470439754

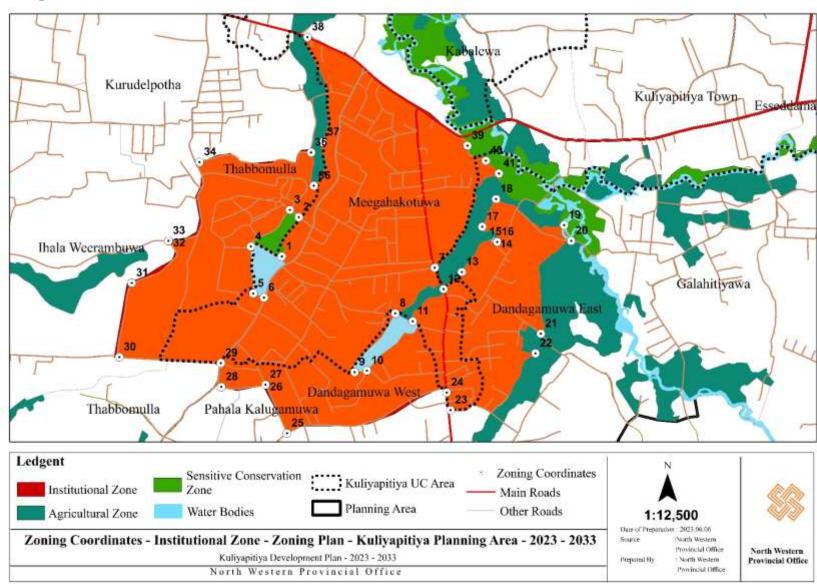
64       80.06614828       7.47006019         65       80.06603378       7.46970112         66       80.06570817       7.4694374         67       80.06570902       7.46943416         68       80.06610162       7.46925859         69       80.06585519       7.46894716         70       80.06584903       7.46830833	21 15
66 80.06570817 7.4694374 67 80.06570902 7.46943416 68 80.06610162 7.46925859 69 80.06585519 7.46894716 70 80.06584903 7.46830833	15
67 80.06570902 7.46943416 68 80.06610162 7.46925859 69 80.06585519 7.46894716 70 80.06584903 7.46830833	
68       80.06610162       7.46925859         69       80.06585519       7.46894716         70       80.06584903       7.46830833	
69     80.06585519     7.46894716       70     80.06584903     7.46830833	68
70 80.06584903 7.46830833	99
	67
+	34
71 80.0649836 7.46766253	36
72 80.06539288 7.4680759	14
73 80.06572935 7.4690382	76
74 80.06522946 7.46907330	65
75 80.06513679 7.46856000	05
76 80.0648709 7.468426	79
77 80.06444817 7.4674319	99
78 80.06483428 7.4672396	13
79 80.06481109 7.46693593	32
80 80.06486927 7.46653400	69
81 80.0645673 7.46647610	63
82 80.06449066 7.46597439	95
83 80.06418894 7.46598203	52
84 80.06350987 7.46603219	95
85 80.06372656 7.46505718	86
86 80.06303774 7.46432230	61
87 80.0620669 7.4654021	16
88 80.06126435 7.46480675	51
89 80.06126393 7.46480542	23
90 80.06023092 7.4651976	71
91 80.06008572 7.46603723	37
92 80.05896656 7.46654146	67
93 80.05867229 7.46617492	25
94 80.05758272 7.46617310	66

95	80.05680667	7.465755599
96	80.05591466	7.466427644
97	80.05546377	7.466628222
98	80.05594638	7.46711017
99	80.05401838	7.467467971
100	80.05348209	7.467137388
101	80.05370746	7.468030865
102	80.05334808	7.467788746
103	80.05236128	7.467555963
104	80.05124075	7.467075981
105	80.05100176	7.467394932
106	80.05087768	7.468502499
107	80.05042999	7.468562296
108	80.05025723	7.46822873
109	80.05000998	7.467566318
110	80.04930321	7.467704965
111	80.04881543	7.467682593
112	80.04875209	7.467855149
113	80.04920163	7.467823585
114	80.04980195	7.469385913
115	80.04935259	7.471637362
116	80.04831443	7.471653082
117	80.04831452	7.47165241
118	80.04832235	7.471639248
119	80.04909052	7.469331156
120	80.04878825	7.468460134
121	80.04831716	7.468471326
122	80.04768442	7.46838296
123	80.04650103	7.467845078
124	80.04659828	7.467399123
125	80.04659737	7.467399261
126	80.0440066	7.46805344

127	80.04448773	7.468858441
128	80.04472386	7.469392834
129	80.04408739	7.469525826
130	80.04311454	7.468033845
131	80.04255088	7.467981853
132	80.04189005	7.467487889
133	80.04154995	7.468434777
134	80.04096948	7.467984784
135	80.04096664	7.46740727
136	80.04032525	7.466815045
137	80.03990981	7.466744872
138	80.03749001	7.466720352
139	80.03680477	7.466958112
140	80.03619646	7.466616691
141	80.03542634	7.466523937
142	80.03460921	7.466190177
143	80.03372378	7.466687074
144	80.03405692	7.467448471
145	80.03315076	7.46687365
146	80.03196766	7.46644572
147	80.03102391	7.466395265
148	80.0310227	7.466399654
149	80.03083307	7.467059372
150	80.02987383	7.467876204
151	80.02952124	7.468692941
152	80.029519	7.468698111
153	80.02899688	7.468916765
154	80.02855298	7.468281439
155	80.02801813	7.468870382
156	80.02833101	7.469415199
157	80.02619467	7.473566592
158	80.02828654	7.474485553

159	80.02978311	7.474524056
160	80.03584449	7.474156995
161	80.0396645	7.476929603
162	80.03944066	7.478735441
163	80.03726992	7.478165608
164	80.03741557	7.479951673
165	80.03801594	7.48012745
166	80.03937543	7.479182066
167	80.03979709	7.479287087
168	80.03909635	7.481151898
169	80.03753446	7.480532908
170	80.03940901	7.483401004
171	80.0404474	7.48388055
172	80.04099583	7.483144664
173	80.04185975	7.483489192
174	80.04091993	7.484887894
175	80.04089358	7.485735781
176	80.03955615	7.488116658
177	80.03983724	7.488744986
178	80.04118205	7.489421548
179	80.04055724	7.491113712
180	80.04054627	7.491133298
181	80.04055911	7.491138178
182	80.04122632	7.491391809
183	80.04220912	7.49171803
184	80.04183776	7.493253378
185	80.04435625	7.493654111
186	80.0444663	7.494478919
187	80.04447931	7.494474157
188	80.04560968	7.494171671
189	80.05180996	7.46929671
	han Davalanman	

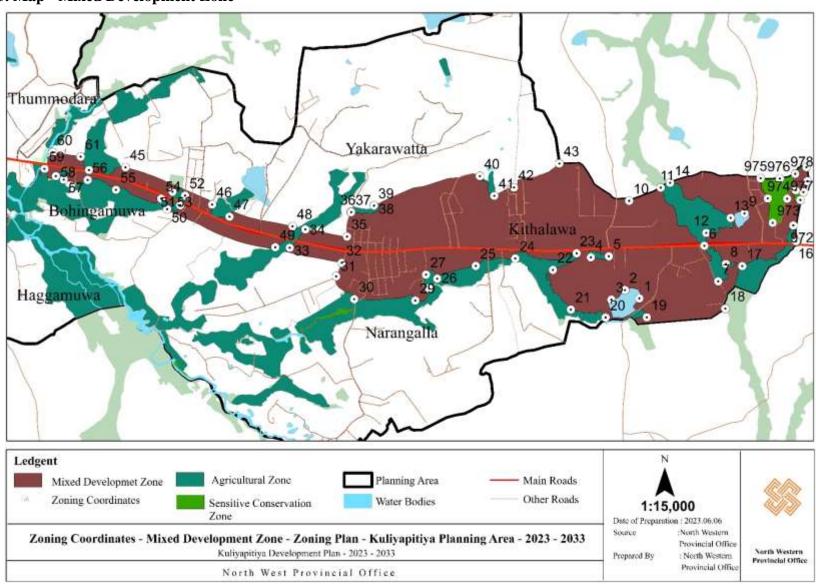
## 2. Map – Administrative Zone



Point	X	Y
No.	Coordinate	Coordinate
1	80.01815765	7.462743133
2	80.01893833	7.464553244
3	80.01852525	7.464886741
4	80.01673031	7.463198117
5	80.01684542	7.461038573
6	80.01733949	7.460846079
7	80.02520725	7.462235828
8	80.02339388	7.460133736
9	80.02152264	7.457426955
10	80.02208887	7.457493711
11	80.02420065	7.459773108
12	80.02562068	7.461255819
13	80.02646215	7.462044413
14	80.02801557	7.463466665
15	80.02806957	7.463434456
16	80.02808744	7.463429138
17	80.02739778	7.464127938
18	80.0280339	7.465403057
19	80.03117592	7.464208854
20	80.0315044	7.463483265
21	80.03010832	7.459212337
22	80.02986166	7.458305634
23	80.02595178	7.455686946
24	80.02577084	7.456496752
25	80.01841255	7.454611221
26	80.01742581	7.456845762
27	80.01741504	7.456842953
28	80.01537658	7.456737597
29	80.01535441	7.457832538
30	80.01067096	7.458099478

31	80.0112384	7.46151423
32	80.01293815	7.463444788
33	80.01292935	7.463457155
34	80.01435385	7.46707944
35	80.01950375	7.467534501
36	80.01963093	7.466001132
37	80.02004027	7.468009482
38	80.01932105	7.472837337
39	80.02670804	7.467855667
40	80.0275612	7.467168048
41	80.02816272	7.466576898

### 3. Map - Mixed Development Zone -

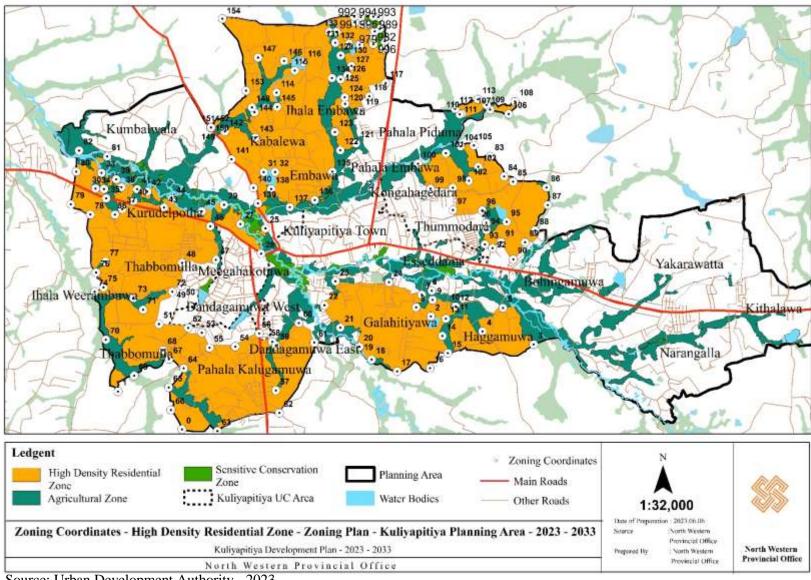


**Table - Coordinate systems for mixed** 

Point	X	Y
No.	Coordinate	Coordinate
1	80.10549319	7.456755921
2	80.10450046	7.457325662
3	80.10356053	7.456663283
4	80.10213664	7.459585075
5	80.10337833	7.459656339
6	80.10998673	7.460394911
7	80.11094581	7.457937256
8	80.11148153	7.459136833
9	80.11275962	7.462629017
10	80.10477677	7.463485139
11	80.10695814	7.464401966
12	80.11011735	7.461279079
13	80.11180229	7.462322388
14	80.10760694	7.464735142
15	80.11703981	7.465829454
16	80.1163289	7.460713832
17	80.11261207	7.458992849
18	80.11144342	7.456059209
19	80.10601272	7.455448469
20	80.10315749	7.455428529
21	80.10075566	7.455977237
22	80.09951445	7.458712019
23	80.10115311	7.459856891
24	80.09690544	7.459497727
25	80.09417608	7.458977595
26	80.09150568	7.458094211
27	80.09072854	7.458369361
28	80.09093655	7.457430343
29	80.08999373	7.456577145

30	80.08576809	7.456670474
31	80.08451865	7.458244205
32	80.08490783	7.459180797
33	80.08129973	7.460211559
34	80.08237845	7.461479294
35	80.08526284	7.460989301
36	80.0855316	7.462681978
37	80.08555113	7.462677263
38	80.08714411	7.463123124
39	80.08712867	7.463129775
40	80.09444326	7.465172905
41	80.09544809	7.463816813
42	80.09681047	7.464395005
43	80.09994473	7.466053746
44	80.06740322	7.465552485
45	80.06992865	7.4657473
46	80.07593258	7.463187318
47	80.07712776	7.462347002
48	80.08149405	7.461689632
49	80.08029881	7.460242893
50	80.07281933	7.462861107
51	80.07372388	7.463131704
52	80.0740555	7.463799601
53	80.07318796	7.464066457
54	80.07240475	7.463587702
55	80.06927151	7.464194142
56	80.06731424	7.464868131
57	80.06566082	7.464886318
58	80.06511226	7.465130552
59	80.06432753	7.465634135
60	80.06489266	7.466769742
61	80.06682612	7.466477107

62	80.11630065	7.464236014
63	80.1168327	7.464110928
64	80.11662845	7.463561022
65	80.11711012	7.464857851
66	80.11710345	7.464850285
67	80.11711012	7.464857851
68	80.11571133	7.463650029
69	80.11500873	7.461914456
70	80.11447493	7.46205844
71	80.11437205	7.463666035
72	80.11387201	7.465057805
73	80.1152007	7.465032921
74	80.11627544	7.465378412
75	80.11627208	7.465368753



# Kuliyapitiya Development Plan 2023-2033 Urhan Development Authority **Table - Coordinate systems for high density residential zone**

Point	W. G. 11	Y
No.	X Coordinate	Coordinate
1	80.01304176	7.44530648
2	80.01397456	7.447147868
3	80.0037877	7.44938455
4	80.0510788	7.459263094
5	80.06624984	7.455171324
6	80.05869746	7.45706919
7	80.06172101	7.460526388
8	80.05119326	7.463047269
9	80.04973526	7.462446558
10	80.04890053	7.460595775
11	80.05133145	7.461707647
12	80.05464189	7.460811659
13	80.05469833	7.460747856
14	80.05471643	7.460736259
15	80.05329649	7.458938422
16	80.05277325	7.456390957
17	80.05358609	7.453861292
18	80.0509642	7.451647977
19	80.04611814	7.451159276
20	80.0423513	7.452896647
21	80.04055743	7.454755568
22	80.04053736	7.45477977
23	80.03771732	7.457578256
24	80.03536952	7.460885998
25	80.03698892	7.464413174
26	80.04559958	7.464906388
27	80.02664787	7.472182361
28	80.05924062	7.473055463
29	80.02294228	7.472809607
30	80.02601149	7.468466429

31	80.02051911	7.475653614
32	80.00154538	7.478013999
33	80.02636087	7.480471
34	80.02805818	7.480481044
35	80.00243254	7.480319197
36	80.00279979	7.477933277
37	80.00312588	7.476571704
38	80.00443013	7.474176949
39	80.00550032	7.474989888
40	80.00537618	7.478222072
41	80.00460475	7.479380019
42	80.00714971	7.476196628
43	80.00769852	7.477925565
44	80.0091977	7.477579115
45	80.01166797	7.475229197
46	80.0128282	7.476475825
47	80.01724594	7.474702133
48	80.01850267	7.472478052
49	80.01934166	7.467540765
50	80.01435385	7.46707944
51	80.01427001	7.463717798
52	80.01426513	7.463703716
53	80.0109515	7.458065029
54	80.01527528	7.457523508
55	80.01728187	7.456808217
56	80.01841255	7.454611221
57	80.01841837	7.454598212
58	80.02574819	7.456717758
59	80.02822489	7.448322503
60	80.02819744	7.454788013
61	80.0282303	7.454847883
62	80.03158737	7.458264346

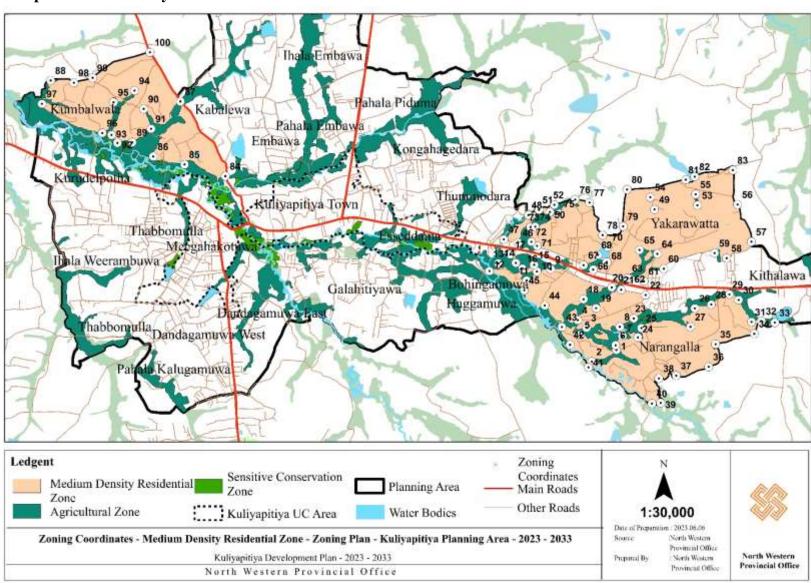
63	80.03387262	7.455390455
64	80.0287447	7.445015691
65	80.01965279	7.44311796
66	80.01533674	7.451293235
67	80.01381359	7.448475311
68	80.01379345	7.448476712
69	80.01241882	7.452897473
70	80.01156802	7.454237775
71	80.00650868	7.451854431
72	80.00370957	7.456286776
73	80.00860115	7.460179496
74	80.01160889	7.463084156
75	80.00719333	7.4619101
76	80.00290816	7.462296185
77	80.00275273	7.463458391
78	80.00165936	7.465647278
79	80.00303557	7.467245367
80	80.00080142	7.474182877
81	79.99791815	7.475685935
82	79.99870075	7.48048598
83	80.00326752	7.482745754
84	79.99911069	7.483598257
85	80.05982614	7.482858035
86	80.06186451	7.47989399
87	80.06317904	7.479121844
88	80.06811357	7.478268084
89	80.06830158	7.475695374
90	80.06644982	7.471944692
91	80.06496889	7.470207504
92	80.06323824	7.467689634
93	80.06140249	7.470217723
94	80.06015848	7.469326881

95	80.05903919	7.469887211
96	80.05924313	7.471999601
97	80.06224295	7.47320783
98	80.0586202	7.474886453
99	80.05432269	7.474939132
100	80.05428315	7.478205689
101	80.05099034	7.478059467
102	80.04913334	7.481749156
103	80.05326478	7.483304048
104	80.05665651	7.479250926
105	80.05803473	7.481300618
106	80.05541647	7.484317206
107	80.05737558	7.484456644
108	80.0625107	7.489082383
109	80.05977673	7.489732683
110	80.0634519	7.490932202
111	80.0592561	7.490425006
112	80.05561855	7.48912277
113	80.05529562	7.489035932
114	80.05459529	7.48982009
115	80.05797411	7.491237928
116	80.02824869	7.492178075
117	80.03093398	7.49543777
118	80.03220103	7.496630976
119	80.04434942	7.493611905
120	80.04194344	7.491661597
121	80.04072446	7.489541549
122	80.03836881	7.490550366
123	80.03999192	7.48472629
124	80.0376779	7.483711662
125	80.03686749	7.486391233
126	80.03831775	7.491512125

127	80.03770725	7.494157031
128	80.03871917	7.494753872
129	80.03929608	7.496140961
130	80.03770496	7.497669334
131	80.04049731	7.49926143
132	80.03892922	7.499401952
133	80.03689408	7.499539575
134	80.03704484	7.501138071
135	80.03601384	7.50113688
136	80.03641949	7.494350475
137	80.03650849	7.480546153
138	80.0339159	7.476368486
139	80.03022968	7.475316605
140	80.02747625	7.477987596
141	80.02553297	7.475875827
142	80.02486292	7.478149981
143	80.02161212	7.482359221
144	80.02063226	7.486445328
145	80.02511089	7.485541981
146	80.02499077	7.489283285
147	80.02835074	7.490090362
148	80.02934584	7.496855053
149	80.02550929	7.497343004
150	80.02461364	7.489996589
151	80.01855649	7.487007316
152	80.01854988	7.487017597
153	80.01857044	7.487045895
154	80.01858062	7.487030058
155	80.02374536	7.492455282
156	80.02023806	7.503068669
157	80.04330296	7.503353906
158	80.01602305	7.442365175

159	80.0434882	7.501622172
160	80.04419305	7.499784893
161	80.04405708	7.498630974
162	80.04248703	7.500592013
163	80.04271856	7.501237419
164	80.04171123	7.50215169
165	80.04092297	7.50227056
166	80.04066307	7.503316376
167	80.04251283	7.503408205
168	80.04100676	7.503202253
169	80.04093963	7.503236061
170	80.04385972	7.498741512
171	80.01397456	7.447147868

## 5. Map - Medium Density Residential Zone



Kuliyapitiya Development Plan 2023-2033 Urban Development Authority **Table – Coordinate system for medium density residential zone** 

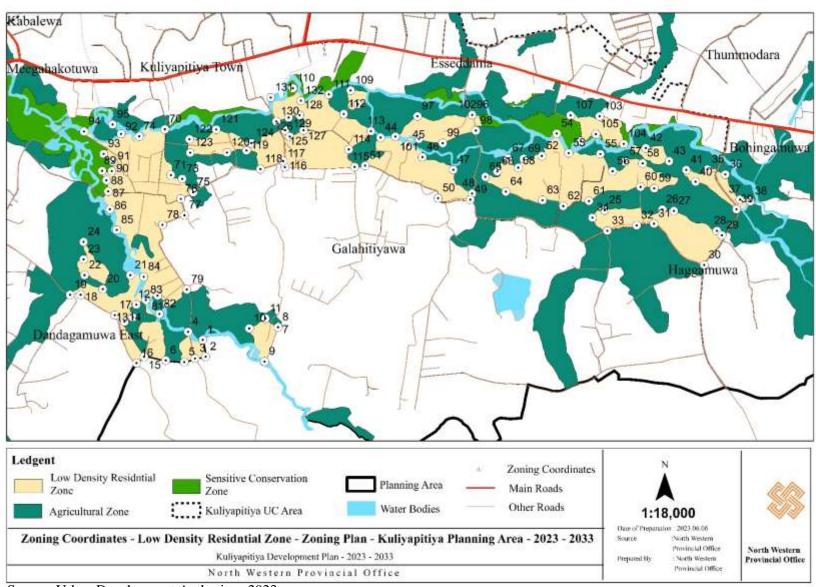
Point	X	Y
No.	Coordinate	Coordinate
1	80.08145328	7.449168321
2	80.08153103	7.449116762
3	80.07654375	7.454468311
4	80.07557306	7.453437008
5	80.07560755	7.453452375
6	80.0806599	7.452007028
7	80.08065547	7.452080234
8	80.08066685	7.452160643
9	80.07145907	7.462733342
10	80.07161491	7.462727608
11	80.07179471	7.46272191
12	80.07193255	7.462728111
13	80.07202837	7.462770133
14	80.07214218	7.462806202
15	80.072274	7.462830336
16	80.0723639	7.462830479
17	80.07251375	7.462818753
18	80.0761059	7.458503522
19	80.07788821	7.457233975
20	80.08132596	7.459875343
21	80.08143649	7.459840981
22	80.08488889	7.459100137
23	80.08321848	7.45579936
24	80.08381131	7.453117652
25	80.08431222	7.454445675
26	80.08919916	7.455347084
27	80.08927708	7.455338232
28	80.09419349	7.457792083
29	80.09756218	7.459087543
30	80.09806752	7.458434667

31	80.09990081	7.455337112
32	80.10128654	7.455459443
33	80.10319906	7.455236975
34	80.10030537	7.453660886
35	80.09482166	7.452186369
36	80.09384387	7.448985001
37	80.08925449	7.44772275
38	80.08679291	7.447332206
39	80.08705684	7.443881879
40	80.08581826	7.443773758
41	80.0817831	7.446114123
42	80.07297972	7.454543351
43	80.07305111	7.454568826
44	80.07062799	7.457610859
45	80.06772074	7.459764778
46	80.06682277	7.466477723
47	80.06481109	7.466935932
48	80.06828608	7.470369226
49	80.08613865	7.471196119
50	80.07132818	7.470803032
51	80.06976828	7.471127751
52	80.07195139	7.471830634
53	80.09220319	7.471803327
54	80.08553752	7.472924154
55	80.09195305	7.473343718
56	80.09789283	7.471917685
57	80.09986675	7.466655158
58	80.09636631	7.464329611
59	80.0946551	7.465038224
60	80.0855316	7.462681978
61	80.08465756	7.461065228
62	80.08265372	7.461427181

63	80.08233991	7.461486643
64	80.0865373	7.464914681
65	80.08402124	7.465458998
66	80.08343573	7.462561239
67	80.08331729	7.462417498
68	80.08326351	7.462313335
69	80.08309101	7.462248467
70	80.08243342	7.461949562
71	80.06950442	7.466030521
72	80.06870761	7.466591993
73	80.06858099	7.468673033
74	80.06925733	7.468735918
75	80.07267282	7.470578726
76	80.07490044	7.472570814
77	80.07692947	7.472151491
78	80.07879782	7.467546966
79	80.08169659	7.468796853
80	80.08224968	7.474010795
81	80.09055206	7.47539952
82	80.09182483	7.475836974
83	80.09722341	7.476764091
84	80.02536275	7.475805828
85	80.01958766	7.477445099
86	80.01514669	7.478558247
87	80.0170881	7.482467288
88	80.00060742	7.489278104
89	80.01380199	7.485313114
90	80.01378682	7.485281768
91	80.01387658	7.485098724
92	80.01006956	7.480466654
93	80.00924388	7.481598889
94	80.01248972	7.487862408

95	80.0095051	7.486216912
96	80.00793657	7.481858365
97	79.999381	7.485982897
98	80.00389432	7.488954292
99	80.00655093	7.489674156
100	80.01466468	7.493281429

### 6. Map - Low Density Residential Zone



# Kuliyapitiya Development Plan 2023-2033 Urban Development Authority **Table – Coordinate system for low density residential zone**

Point	X	Y
No.	Coordinate	Coordinate
1	80.03722108	7.456199516
2	80.03735829	7.455426802
3	80.03686636	7.455347227
4	80.03654447	7.456570046
5	80.03637387	7.455177146
6	80.03551689	7.455252151
7	80.04070253	7.456812994
8	80.040694	7.456788576
9	80.03975193	7.455504386
10	80.0400905	7.457199374
11	80.0401097	7.457189836
12	80.03415516	7.45781536
13	80.03398905	7.45723213
14	80.03361182	7.457031122
15	80.03451668	7.455421919
16	80.03416952	7.455128503
17	80.03316601	7.457332123
18	80.03158737	7.458264346
19	80.03109689	7.45826496
20	80.03260485	7.458529347
21	80.03387545	7.459173002
22	80.031764	7.459172421
23	80.03171783	7.45989909
24	80.03171349	7.460700598
25	80.05575087	7.46219589
26	80.05840953	7.462238363
27	80.05894363	7.462171433
28	80.06092646	7.461258263
29	80.06102247	7.461186639
30	80.06034028	7.459685634

31	80.05737841	7.461534572
32	80.05722864	7.461497244
33	80.05587098	7.461249808
34	80.05559178	7.462366104
35	80.06048382	7.464079417
36	80.06131355	7.463852174
37	80.06146772	7.463388258
38	80.06196393	7.462665295
39	80.06182833	7.462250731
40	80.06055939	7.463227403
41	80.06050536	7.46328474
42	80.05764236	7.465058218
43	80.05687265	7.465014601
44	80.04540683	7.465525577
45	80.04667725	7.465189312
46	80.04733909	7.464629476
47	80.04876283	7.464050208
48	80.04963169	7.462957291
49	80.04955329	7.462676023
50	80.04806504	7.462736827
51	80.0446976	7.46423088
52	80.05372588	7.4653631
53	80.05408515	7.464824681
54	80.05417626	7.464820044
55	80.05554064	7.464786479
56	80.05611128	7.463997848
57	80.05668532	7.464431837
58	80.05724704	7.464561467
59	80.0580316	7.463203742
60	80.05739815	7.463275298
61	80.05502501	7.462617365
62	80.05383791	7.462383572

63	80.05287886	7.462651249
64	80.0511904	7.463043763
65	80.05054993	7.46338846
66	80.05074955	7.463723748
67	80.05088717	7.463859153
68	80.05175989	7.464145895
69	80.05201044	7.464563571
70	80.03545998	7.46589038
71	80.03574011	7.463779973
73	80.03626181	7.463607379
74	80.03637894	7.463446075
75	80.03676913	7.462988889
76	80.03619911	7.462685914
77	80.03637533	7.461932322
78	80.03535602	7.461486462
79	80.03648385	7.45851897
80	80.03556948	7.457871466
81	80.03513471	7.458237883
82	80.03507454	7.458224349
83	80.03503498	7.458227872
84	80.03449449	7.459097269
85	80.0332467	7.461250903
86	80.03293214	7.462204778
87	80.03285015	7.46302769
88	80.03276784	7.463536268
89	80.03256634	7.463969586
90	80.03301585	7.463958375
91	80.03307805	7.464395125
92	80.03303895	7.464475809
93	80.03263395	7.464750279
94	80.03172822	7.465779402
95	80.03304921	7.466104396

96	80.0496313	7.466574968
97	80.05009705	7.466059125
98	80.04980142	7.465851769
99	80.04827501	7.465272083
100	80.04794057	7.465282301
101	80.04666322	7.46537949
102	80.0496313	7.466574968
103	80.05596262	7.466418151
104	80.0566238	7.465252006
105	80.05533687	7.465697038
106	80.05464891	7.465366575
107	80.05465365	7.465799386
108	80.04402106	7.467689221
109	80.04402106	7.467689221
110	80.04173023	7.467214677
111	80.04332956	7.466775668
112	80.04370874	7.466606654
113	80.04496133	7.465818915
114	80.04393889	7.464978015
115	80.044212	7.464170033
116	80.04099638	7.46415449
117	80.04096248	7.464166256
118	80.03986862	7.464061261
119	80.03922367	7.464918977
120	80.03917571	7.464926075
121	80.03910377	7.464935527
122	80.03904382	7.464949783
123	80.03901505	7.464949735
124	80.03944638	7.46526024
125	80.04100757	7.465849866
126	80.04122087	7.465553948
127	80.04133964	7.465601671

128	80.04147362	7.465676517
129	80.0411664	7.466435592
130	80.0406017	7.466257116
131	80.04073288	7.467210202
132	80.04173023	7.467214677

#### 7. Map - Agriculture and Conservation Zone

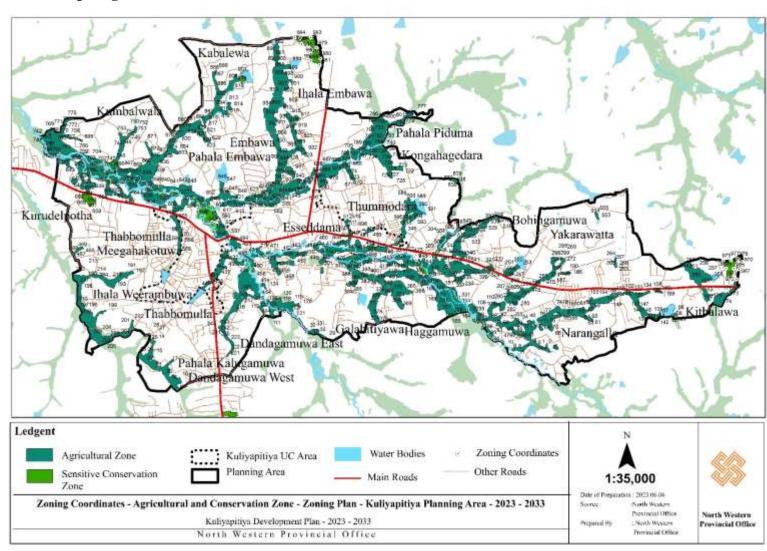


Table - Coordinate systems for the agricultural and conservation

Point	X Coordinate	Y Coordinate
No.		
1	80.08320307	7.450128427
2	80.0835898	7.45001837
3	80.08397731	7.449402876
4	80.0824871	7.449747885
5	80.08076015	7.450352318
6	80.07996629	7.450041315
7	80.07931302	7.449293801
8	80.07825916	7.449471597
9	80.07754733	7.449380759
10	80.07761483	7.449901256
11	80.0786897	7.450078796
12	80.07996553	7.450525816
13	80.08098454	7.451418202
14	80.01533186	7.449155047
15	80.01798302	7.447288669
16	80.01827249	7.447127195
17	80.01997674	7.444700882
18	80.01965279	7.44311796
19	80.01927287	7.442600466
20	80.01701197	7.445320873
21	80.01555869	7.445985393
22	80.01366724	7.447432059
23	80.01279337	7.448186615
24	80.0133335	7.448890983
25	80.01485836	7.450822248
26	80.01533674	7.451293235
27	80.01538379	7.451330701
28	80.04397327	7.453056336
29	80.04471956	7.451662103

arar ana	conservation	
30	80.04356928	7.452429089
31	80.04260675	7.452439298
32	80.04188244	7.452671008
33	80.04263966	7.45297906
34	80.07764783	7.45380297
35	80.07765752	7.453740778
36	80.07822856	7.452877095
37	80.07969066	7.452834798
38	80.08070281	7.454556991
39	80.07871597	7.454460218
40	80.07955073	7.454131345
41	80.0810463	7.452897133
42	80.08101955	7.452837755
43	80.08062635	7.45136155
44	80.0795139	7.451599551
45	80.07830885	7.452125943
46	80.07739625	7.452871005
47	80.07680163	7.452932279
48	80.07638866	7.453343159
49	80.07548295	7.45341964
50	80.07453883	7.453780393
51	80.07470519	7.454088822
52	80.07618718	7.454381617
53	80.07714219	7.454413742
54	80.07810668	7.455013391
55	80.10597416	7.455582398
56	80.10520077	7.455306582
57	80.10504259	7.455682466
58	80.10563679	7.456131414
59	80.09113242	7.456336025
60	80.09073331	7.455149214
61	80.0913473	7.454901883

62	80.09122577	7.454489014
63	80.09063522	7.454634652
64	80.08980783	7.455111752
65	80.08814407	7.455533872
66	80.08743198	7.455593895
67	80.08618012	7.455444333
68	80.08455699	7.453027891
69	80.08266533	7.453664799
70	80.08233614	7.454157162
71	80.08283613	7.454823086
72	80.08328604	7.455316185
73	80.08535337	7.455941369
74	80.08462077	7.455860199
75	80.08301099	7.455106418
76	80.08210249	7.455176369
77	80.08277243	7.45553419
78	80.08541216	7.45712906
79	80.08703445	7.45663574
80	80.08794726	7.456679261
81	80.08931633	7.456840245
82	80.08975716	7.457015106
83	80.08999373	7.456577145
84	80.07442365	7.455132988
85	80.07539704	7.455558015
86	80.07549348	7.455099023
87	80.07543356	7.455089359
88	80.07429442	7.454390121
89	80.0728004	7.454253176
90	80.07281937	7.454236364
91	80.07282692	7.454207901
92	80.07372047	7.452679172
93	80.07418509	7.452206169
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94	80.07400234	7.451800335
95	80.07356365	7.451947028
96	80.07267624	7.453469338
97	80.07202441	7.454728118
98	80.07124152	7.455494007
99	80.07092691	7.45585479
100	80.06996614	7.456285112
101	80.06992215	7.456391332
102	80.06990761	7.456491798
103	80.06998314	7.45739671
104	80.07057819	7.457674581
105	80.07219945	7.455512654
106	80.07221683	7.455511934
107	80.07339794	7.455390184
108	80.07324179	7.456666166
109	80.07415685	7.457757905
110	80.07560798	7.457862717
111	80.03638327	7.455180393
112	80.03542046	7.455275124
113	80.03463067	7.457017868
114	80.03428396	7.456487931
115	80.03397412	7.457202198
116	80.03388668	7.45752505
117	80.03748481	7.457851581
118	80.03930663	7.457902454
119	80.0401402	7.457441586
120	80.0408676	7.457016638
121	80.0401097	7.457189836
122	80.03866693	7.456375882
123	80.03700582	7.456245416
124	80.03550066	7.457685647
125	80.03489459	7.458091616

127         80.03488406         7.458166609           128         80.03491635         7.45820614           129         80.03496666         7.458227758           130         80.03686089         7.458435904           131         80.09722188         7.459920426           132         80.09810766         7.4593619072           133         80.09920476         7.459396434           134         80.10063032         7.459677126           135         80.10092549         7.459345617           136         80.09935274         7.458639995           137         80.09981728         7.457082158           138         80.10018901         7.456560175           139         80.10200826         7.455762603           140         80.10275677         7.455914271           141         80.102924         7.455663778           142         80.10231505         7.455012384           143         80.10188638         7.455116413           144         80.10188649         7.455392105           146         80.09987675         7.458975355           148         80.09551323         7.458742613           149         80.094514         7.457607088	126	80.03486732	7.458125031
129         80.03496666         7.458227758           130         80.03686089         7.458435904           131         80.09722188         7.459920426           132         80.09810766         7.459619072           133         80.09920476         7.459396434           134         80.10063032         7.459677126           135         80.10092549         7.459345617           136         80.09935274         7.458639995           137         80.09981728         7.457082158           138         80.10218901         7.456560175           139         80.10200826         7.455762603           140         80.10275677         7.455914271           141         80.10231505         7.455012384           143         80.10188638         7.455116413           144         80.10128649         7.455392105           146         80.09987675         7.458975355           148         80.09954974         7.4582762           150         80.09369514         7.457607088           151         80.09232378         7.457686332           152         80.09056535         7.457550079           153         80.099549774         7.4589464122 </td <td>127</td> <td>80.03488406</td> <td>7.458166609</td>	127	80.03488406	7.458166609
130         80.03686089         7.458435904           131         80.09722188         7.459920426           132         80.09810766         7.459619072           133         80.09920476         7.459396434           134         80.10063032         7.459677126           135         80.10092549         7.459345617           136         80.09935274         7.458639995           137         80.09981728         7.457082158           138         80.10018901         7.456560175           139         80.10200826         7.455914271           141         80.10275677         7.455914271           141         80.10231505         7.455012384           143         80.10188638         7.455116413           144         80.10188638         7.455116413           144         80.09987675         7.455392105           146         80.09987675         7.458975355           148         80.09551323         7.458742613           149         80.09472254         7.4582762           150         80.09369514         7.457607088           151         80.09232378         7.457686332           152         80.0956535         7.457550079	128	80.03491635	7.45820614
131         80.09722188         7.459920426           132         80.09810766         7.459619072           133         80.09920476         7.459396434           134         80.10063032         7.459677126           135         80.10092549         7.459345617           136         80.09935274         7.458639995           137         80.09981728         7.457082158           138         80.10018901         7.456560175           139         80.10200826         7.455762603           140         80.10275677         7.455914271           141         80.102924         7.455663778           142         80.10231505         7.455012384           143         80.10188638         7.455116413           144         80.10128649         7.455492341           145         80.09987675         7.455392105           146         80.09990489         7.456673358           147         80.09764716         7.458975355           148         80.09551323         7.4582762           150         80.09369514         7.457607088           151         80.09232378         7.457686332           152         80.0995535         7.458577817	129	80.03496666	7.458227758
132         80.09810766         7.459619072           133         80.09920476         7.459396434           134         80.10063032         7.459677126           135         80.10092549         7.459345617           136         80.09935274         7.458639995           137         80.09981728         7.457082158           138         80.10018901         7.456560175           139         80.10200826         7.455762603           140         80.10275677         7.455914271           141         80.10231505         7.455012384           142         80.10231505         7.455012384           143         80.10188638         7.455116413           144         80.10128649         7.455492341           145         80.09987675         7.455392105           146         80.0999489         7.456673358           147         80.09764716         7.458975355           148         80.09551323         7.4582762           150         80.09369514         7.457607088           151         80.09232378         7.457686332           152         80.09056535         7.457550079           153         80.09230654         7.458577817	130	80.03686089	7.458435904
133         80.09920476         7.459396434           134         80.10063032         7.459677126           135         80.10092549         7.459345617           136         80.09935274         7.458639995           137         80.09981728         7.457082158           138         80.10018901         7.456560175           139         80.10200826         7.455762603           140         80.10275677         7.455914271           141         80.102924         7.455663778           142         80.10231505         7.455012384           143         80.10188638         7.455116413           144         80.10128649         7.455492341           145         80.09987675         7.455392105           146         80.099909489         7.456673358           147         80.09764716         7.458975355           148         80.09551323         7.458742613           149         80.09472254         7.4582762           150         80.09369514         7.457607088           151         80.0923055         7.457550079           153         80.09092239         7.458577817           154         80.09549774         7.459464122	131	80.09722188	7.459920426
134         80.10063032         7.459677126           135         80.10092549         7.459345617           136         80.09935274         7.458639995           137         80.09981728         7.457082158           138         80.10018901         7.456560175           139         80.10200826         7.455762603           140         80.10275677         7.455914271           141         80.102924         7.455663778           142         80.10231505         7.455012384           143         80.10188638         7.455116413           144         80.10128649         7.455492341           145         80.09987675         7.455392105           146         80.09909489         7.456673358           147         80.09764716         7.458975355           148         80.09551323         7.458742613           149         80.09472254         7.4582762           150         80.09369514         7.457607088           151         80.09232378         7.457686332           152         80.09056535         7.457550079           153         80.09092239         7.458577817           154         80.09451369         7.459464122	132	80.09810766	7.459619072
135         80.10092549         7.459345617           136         80.09935274         7.458639995           137         80.09981728         7.457082158           138         80.10018901         7.456560175           139         80.10200826         7.455762603           140         80.10275677         7.455914271           141         80.102924         7.455663778           142         80.10231505         7.455012384           143         80.10188638         7.455116413           144         80.10128649         7.455492341           145         80.09987675         7.455392105           146         80.099909489         7.456673358           147         80.09764716         7.458975355           148         80.09551323         7.458742613           149         80.09472254         7.4582762           150         80.09369514         7.457686332           151         80.09232378         7.457686332           152         80.09056535         7.458577817           153         80.099230654         7.458519577           155         80.09451369         7.459464122	133	80.09920476	7.459396434
136         80.09935274         7.458639995           137         80.09981728         7.457082158           138         80.10018901         7.456560175           139         80.10200826         7.455762603           140         80.10275677         7.455914271           141         80.102924         7.455663778           142         80.10231505         7.455012384           143         80.10188638         7.455116413           144         80.10128649         7.455492341           145         80.09987675         7.455392105           146         80.0998764716         7.458975355           148         80.09551323         7.458742613           149         80.09472254         7.4582762           150         80.09369514         7.457607088           151         80.09232378         7.457686332           152         80.09056535         7.458577817           153         80.0992239         7.458579817           154         80.09230654         7.459247281           156         80.09549774         7.459464122	134	80.10063032	7.459677126
137         80.09981728         7.457082158           138         80.10018901         7.456560175           139         80.10200826         7.455762603           140         80.10275677         7.455914271           141         80.102924         7.455663778           142         80.10231505         7.455012384           143         80.10188638         7.455116413           144         80.10128649         7.455492341           145         80.09987675         7.455392105           146         80.09909489         7.456673358           147         80.09764716         7.458975355           148         80.09551323         7.458742613           149         80.09369514         7.457607088           151         80.09232378         7.457686332           152         80.09056535         7.457550079           153         80.090230654         7.458519577           154         80.09230654         7.459247281           156         80.09549774         7.459464122	135	80.10092549	7.459345617
138         80.10018901         7.456560175           139         80.10200826         7.455762603           140         80.10275677         7.455914271           141         80.102924         7.455663778           142         80.10231505         7.455012384           143         80.10188638         7.455116413           144         80.10128649         7.455492341           145         80.09987675         7.455392105           146         80.09909489         7.456673358           147         80.09764716         7.458975355           148         80.09551323         7.458742613           149         80.09472254         7.4582762           150         80.09369514         7.457607088           151         80.09232378         7.457686332           152         80.09056535         7.457550079           153         80.09230654         7.458519577           154         80.09230654         7.459247281           156         80.09549774         7.459464122	136	80.09935274	7.458639995
139       80.10200826       7.455762603         140       80.10275677       7.455914271         141       80.102924       7.455663778         142       80.10231505       7.455012384         143       80.10188638       7.455116413         144       80.10128649       7.455492341         145       80.09987675       7.455392105         146       80.09909489       7.456673358         147       80.09764716       7.458975355         148       80.09551323       7.458742613         149       80.09472254       7.4582762         150       80.09369514       7.457607088         151       80.09232378       7.457686332         152       80.09056535       7.457550079         153       80.09092239       7.458577817         154       80.09230654       7.458519577         155       80.09451369       7.459464122         156       80.09549774       7.459464122	137	80.09981728	7.457082158
140         80.10275677         7.455914271           141         80.102924         7.455663778           142         80.10231505         7.455012384           143         80.10188638         7.455116413           144         80.10128649         7.455492341           145         80.09987675         7.455392105           146         80.09909489         7.456673358           147         80.09764716         7.458975355           148         80.09551323         7.458742613           149         80.09472254         7.4582762           150         80.09369514         7.457607088           151         80.09232378         7.457686332           152         80.09056535         7.457550079           153         80.09092239         7.458577817           154         80.09230654         7.458519577           155         80.09451369         7.459464122           156         80.09549774         7.459464122	138	80.10018901	7.456560175
141         80.102924         7.455663778           142         80.10231505         7.455012384           143         80.10188638         7.455116413           144         80.10128649         7.455492341           145         80.09987675         7.455392105           146         80.09909489         7.456673358           147         80.09764716         7.458975355           148         80.09551323         7.458742613           149         80.09472254         7.4582762           150         80.09369514         7.457607088           151         80.09232378         7.457686332           152         80.09056535         7.457550079           153         80.09092239         7.458577817           154         80.09230654         7.458519577           155         80.09451369         7.459464122           156         80.09549774         7.459464122	139	80.10200826	7.455762603
142       80.10231505       7.455012384         143       80.10188638       7.455116413         144       80.10128649       7.455492341         145       80.09987675       7.455392105         146       80.09909489       7.456673358         147       80.09764716       7.458975355         148       80.09551323       7.458742613         149       80.09472254       7.4582762         150       80.09369514       7.457607088         151       80.09232378       7.457686332         152       80.09056535       7.457550079         153       80.09092239       7.458577817         154       80.09230654       7.458519577         155       80.09451369       7.459464122         156       80.09549774       7.459464122	140	80.10275677	7.455914271
143       80.10188638       7.455116413         144       80.10128649       7.455492341         145       80.09987675       7.455392105         146       80.09909489       7.456673358         147       80.09764716       7.458975355         148       80.09551323       7.458742613         149       80.09472254       7.4582762         150       80.09369514       7.457607088         151       80.09232378       7.457686332         152       80.09056535       7.457550079         153       80.09092239       7.458577817         154       80.09230654       7.458519577         155       80.09451369       7.459464122         156       80.09549774       7.459464122	141	80.102924	7.455663778
144       80.10128649       7.455492341         145       80.09987675       7.455392105         146       80.09909489       7.456673358         147       80.09764716       7.458975355         148       80.09551323       7.458742613         149       80.09472254       7.4582762         150       80.09369514       7.457607088         151       80.09232378       7.457686332         152       80.09056535       7.457550079         153       80.09092239       7.458577817         154       80.09230654       7.458519577         155       80.09451369       7.459247281         156       80.09549774       7.459464122	142	80.10231505	7.455012384
145       80.09987675       7.455392105         146       80.09909489       7.456673358         147       80.09764716       7.458975355         148       80.09551323       7.458742613         149       80.09472254       7.4582762         150       80.09369514       7.457607088         151       80.09232378       7.457686332         152       80.09056535       7.457550079         153       80.09092239       7.458577817         154       80.09230654       7.458519577         155       80.09451369       7.459247281         156       80.09549774       7.459464122	143	80.10188638	7.455116413
146         80.09909489         7.456673358           147         80.09764716         7.458975355           148         80.09551323         7.458742613           149         80.09472254         7.4582762           150         80.09369514         7.457607088           151         80.09232378         7.457686332           152         80.09056535         7.457550079           153         80.09092239         7.458577817           154         80.09230654         7.458519577           155         80.09451369         7.459247281           156         80.09549774         7.459464122	144	80.10128649	7.455492341
147       80.09764716       7.458975355         148       80.09551323       7.458742613         149       80.09472254       7.4582762         150       80.09369514       7.457607088         151       80.09232378       7.457686332         152       80.09056535       7.457550079         153       80.09092239       7.458577817         154       80.09230654       7.458519577         155       80.09451369       7.459247281         156       80.09549774       7.459464122	145	80.09987675	7.455392105
148       80.09551323       7.458742613         149       80.09472254       7.4582762         150       80.09369514       7.457607088         151       80.09232378       7.457686332         152       80.09056535       7.457550079         153       80.09092239       7.458577817         154       80.09230654       7.458519577         155       80.09451369       7.459247281         156       80.09549774       7.459464122	146	80.09909489	7.456673358
149       80.09472254       7.4582762         150       80.09369514       7.457607088         151       80.09232378       7.457686332         152       80.09056535       7.457550079         153       80.09092239       7.458577817         154       80.09230654       7.458519577         155       80.09451369       7.459247281         156       80.09549774       7.459464122	147	80.09764716	7.458975355
150       80.09369514       7.457607088         151       80.09232378       7.457686332         152       80.09056535       7.457550079         153       80.09092239       7.458577817         154       80.09230654       7.458519577         155       80.09451369       7.459247281         156       80.09549774       7.459464122	148	80.09551323	7.458742613
151       80.09232378       7.457686332         152       80.09056535       7.457550079         153       80.09092239       7.458577817         154       80.09230654       7.458519577         155       80.09451369       7.459247281         156       80.09549774       7.459464122	149	80.09472254	7.4582762
152     80.09056535     7.457550079       153     80.09092239     7.458577817       154     80.09230654     7.458519577       155     80.09451369     7.459247281       156     80.09549774     7.459464122	150	80.09369514	7.457607088
153       80.09092239       7.458577817         154       80.09230654       7.458519577         155       80.09451369       7.459247281         156       80.09549774       7.459464122	151	80.09232378	7.457686332
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156 80.09549774 7.459464122	154	80.09230654	7.458519577
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i I	157	80.09690544	7.459497727

158	80.10214795	7.460034904
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170	80.06427986	7.458511656
171	80.06431199	7.459026117
172	80.11639007	7.460685212
173	80.11468512	7.459101006
174	80.11348661	7.457136803
175	80.11208861	7.457664329
176	80.11486548	7.459828834
177	80.11570506	7.460531868
178	80.11603965	7.46176855
179	80.1163289	7.460713832
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181	80.06492917	7.461662639
182	80.06322075	7.460854542
183	80.06296955	7.46107579
184	80.06250312	7.461681325
185	80.08718505	7.463003557
186	80.08722343	7.462989261
187	80.08637061	7.462588373
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189	80.0855316	7.462681978

190	80.08699305	7.463144423
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192	80.01196325	7.462617297
193	80.00850458	7.460091202
194	80.00577572	7.461944743
195	80.00414018	7.461751785
196	80.00285303	7.459179335
197	80.00299124	7.458008175
198	80.00485611	7.455354708
199	80.0071581	7.456074548
200	80.00562917	7.45510052
201	80.00943893	7.45259616
202	80.01189149	7.454326856
203	80.01056201	7.451684635
204	80.00805224	7.451096048
205	80.00704632	7.450636742
206	80.00619265	7.450285803
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208	80.00452681	7.451994778
209	80.00282018	7.454771296
210	80.00226731	7.457560159
211	80.00232556	7.45986031
212	80.00153654	7.462385966
213	80.00399245	7.462265381
214	80.00585124	7.462407245
215	80.00816483	7.461639118
216	80.03212707	7.458678324
217	80.03073893	7.457854419
218	80.03026159	7.4573117
219	80.02770682	7.45336161
220	80.02932283	7.450110804
221	80.02822489	7.448322503
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222	80.02804105	7.448591359
223	80.02891767	7.44975036
224	80.02668753	7.453188766
225	80.02667792	7.453203105
226	80.0266743	7.453221044
227	80.02667187	7.453236591
228	80.02666823	7.453262903
229	80.0266634	7.453285625
230	80.02666094	7.453321509
231	80.0266567	7.453343019
232	80.02665282	7.453367896
233	80.02664896	7.453384159
234	80.02664894	7.4533966
235	80.02664892	7.453407128
236	80.02664986	7.453421485
237	80.02664983	7.453436797
238	80.02664981	7.453449238
239	80.0266498	7.453453067
240	80.02666129	7.453465527
241	80.02666799	7.453470324
242	80.0266766	7.453480865
243	80.02668905	7.453491414
244	80.02670054	7.453501961
245	80.02922248	7.457612827
246	80.03004578	7.459260326
247	80.07726356	7.462883158
248	80.07671788	7.462310468
249	80.0758943	7.463139405
250	80.07629888	7.463498933
251	80.07715274	7.463682592
252	80.07810585	7.464330091
253	80.07875647	7.463725784

255         80.10854843         7.463830011           256         80.10953834         7.463793748           257         80.11056778         7.463052684           258         80.11168692         7.462523196           259         80.10911282         7.461163088           260         80.10820093         7.461771838           261         80.1078663         7.463099238           262         80.10711588         7.463938518           263         80.09537691         7.464895772           264         80.09536743         7.464826372           265         80.09505397         7.464624349           266         80.09487844         7.464782556           267         80.09484485         7.464804039           268         80.08512707         7.465409875           269         80.08625817         7.465432367           270         80.08646873         7.464924265           271         80.0865373         7.464914681           272         80.08616017         7.464479599           273         80.08484518         7.463012743           274         80.08284057         7.460684236           277         80.08178072         7.460684236 <th>254</th> <th>80.1077231</th> <th>7.464660207</th>	254	80.1077231	7.464660207
257         80.11056778         7.463052684           258         80.11168692         7.462523196           259         80.10911282         7.461163088           260         80.10820093         7.461771838           261         80.1078663         7.463099238           262         80.10711588         7.463938518           263         80.09537691         7.464895772           264         80.09536743         7.464826372           265         80.09505397         7.464624349           266         80.09487844         7.464782556           267         80.09484485         7.46490875           269         80.08625817         7.465409875           269         80.08646873         7.464914681           272         80.08616017         7.464479599           273         80.08484518         7.463012743           274         80.08284057         7.461429805           276         80.08178072         7.460684236           277         80.08120992         7.460151604           278         80.08040184         7.459516301           279         80.08033592         7.459513207	255	80.10854843	7.463830011
258         80.11168692         7.462523196           259         80.10911282         7.461163088           260         80.10820093         7.461771838           261         80.1078663         7.463099238           262         80.10711588         7.463938518           263         80.09537691         7.464895772           264         80.09536743         7.464826372           265         80.09505397         7.464624349           266         80.09487844         7.464782556           267         80.09484485         7.465409875           269         80.08625817         7.465432367           270         80.08646873         7.464914681           272         80.08616017         7.464479599           273         80.08484518         7.463012743           274         80.08475616         7.462449146           275         80.08284057         7.461429805           276         80.08178072         7.460684236           277         80.08120992         7.460151604           278         80.08040184         7.459513207	256	80.10953834	7.463793748
259         80.10911282         7.461163088           260         80.10820093         7.461771838           261         80.1078663         7.463099238           262         80.10711588         7.463938518           263         80.09537691         7.464895772           264         80.09536743         7.464826372           265         80.09505397         7.464624349           266         80.09487844         7.464782556           267         80.09487844         7.465409875           269         80.08625817         7.465409875           269         80.08625817         7.465432367           270         80.08646873         7.464914681           272         80.08616017         7.464479599           273         80.08484518         7.462449146           275         80.08284057         7.461429805           276         80.08178072         7.460684236           277         80.08120992         7.460151604           278         80.08040184         7.459513207	257	80.11056778	7.463052684
260         80.10820093         7.461771838           261         80.1078663         7.463099238           262         80.10711588         7.463938518           263         80.09537691         7.464895772           264         80.09536743         7.464826372           265         80.09505397         7.464624349           266         80.09487844         7.464782556           267         80.09484485         7.465409875           269         80.08625817         7.465409875           269         80.08646873         7.464924265           271         80.08646873         7.464914681           272         80.08616017         7.464479599           273         80.08484518         7.463012743           274         80.08475616         7.462449146           275         80.08284057         7.460684236           277         80.08178072         7.460151604           278         80.08040184         7.459516301           279         80.08033592         7.459513207	258	80.11168692	7.462523196
261         80.1078663         7.463099238           262         80.10711588         7.463938518           263         80.09537691         7.464895772           264         80.09536743         7.464826372           265         80.09505397         7.464624349           266         80.09487844         7.464782556           267         80.09484485         7.464804039           268         80.08512707         7.465409875           269         80.08625817         7.465432367           270         80.08646873         7.464914681           272         80.08616017         7.464479599           273         80.08484518         7.463012743           274         80.08475616         7.462449146           275         80.08284057         7.460684236           277         80.08178072         7.460684236           277         80.08120992         7.460151604           278         80.08033592         7.459513207	259	80.10911282	7.461163088
262         80.10711588         7.463938518           263         80.09537691         7.464895772           264         80.09536743         7.464826372           265         80.09505397         7.464624349           266         80.09487844         7.464782556           267         80.09484485         7.464804039           268         80.08512707         7.465409875           269         80.08625817         7.465432367           270         80.08646873         7.464924265           271         80.0865373         7.464914681           272         80.08616017         7.464479599           273         80.08484518         7.463012743           274         80.08284057         7.461429805           276         80.08178072         7.460684236           277         80.08120992         7.460151604           278         80.08033592         7.459513207	260	80.10820093	7.461771838
263         80.09537691         7.464895772           264         80.09536743         7.464826372           265         80.09505397         7.464624349           266         80.09487844         7.464782556           267         80.09484485         7.464804039           268         80.08512707         7.465409875           269         80.08625817         7.465432367           270         80.08646873         7.464914681           272         80.08616017         7.464479599           273         80.08484518         7.462449146           275         80.08284057         7.461429805           276         80.08178072         7.460684236           277         80.08120992         7.460151604           278         80.08040184         7.459516301           279         80.08033592         7.459513207	261	80.1078663	7.463099238
264         80.09536743         7.464826372           265         80.09505397         7.464624349           266         80.09487844         7.464782556           267         80.09484485         7.464804039           268         80.08512707         7.465409875           269         80.08625817         7.465432367           270         80.08646873         7.464924265           271         80.0865373         7.464914681           272         80.08616017         7.464479599           273         80.08484518         7.463012743           274         80.08475616         7.462449146           275         80.08284057         7.460684236           277         80.08178072         7.460151604           278         80.08040184         7.459516301           279         80.08033592         7.459513207	262	80.10711588	7.463938518
265         80.09505397         7.464624349           266         80.09487844         7.464782556           267         80.09484485         7.464804039           268         80.08512707         7.465409875           269         80.08625817         7.465432367           270         80.08646873         7.464924265           271         80.0865373         7.464914681           272         80.08616017         7.464479599           273         80.08484518         7.463012743           274         80.08475616         7.462449146           275         80.08284057         7.460684236           277         80.08178072         7.460684236           277         80.08040184         7.459516301           278         80.08033592         7.459513207	263	80.09537691	7.464895772
266         80.09487844         7.464782556           267         80.09484485         7.464804039           268         80.08512707         7.465409875           269         80.08625817         7.465432367           270         80.08646873         7.464924265           271         80.0865373         7.464914681           272         80.08616017         7.464479599           273         80.08484518         7.463012743           274         80.08475616         7.462449146           275         80.08284057         7.460684236           277         80.08178072         7.460684236           277         80.08040184         7.459516301           279         80.08033592         7.459513207	264	80.09536743	7.464826372
267         80.09484485         7.464804039           268         80.08512707         7.465409875           269         80.08625817         7.465432367           270         80.08646873         7.464924265           271         80.0865373         7.464914681           272         80.08616017         7.464479599           273         80.08484518         7.463012743           274         80.08475616         7.462449146           275         80.08284057         7.460684236           277         80.08178072         7.460684236           277         80.08040184         7.459516301           279         80.08033592         7.459513207	265	80.09505397	7.464624349
268         80.08512707         7.465409875           269         80.08625817         7.465432367           270         80.08646873         7.464924265           271         80.0865373         7.464914681           272         80.08616017         7.464479599           273         80.08484518         7.463012743           274         80.08475616         7.462449146           275         80.08284057         7.460684236           276         80.08178072         7.460684236           277         80.08120992         7.460151604           278         80.08040184         7.459516301           279         80.08033592         7.459513207	266	80.09487844	7.464782556
269         80.08625817         7.465432367           270         80.08646873         7.464924265           271         80.0865373         7.464914681           272         80.08616017         7.464479599           273         80.08484518         7.463012743           274         80.08475616         7.462449146           275         80.08284057         7.461429805           276         80.08178072         7.460684236           277         80.08120992         7.460151604           278         80.08040184         7.459516301           279         80.08033592         7.459513207	267	80.09484485	7.464804039
270       80.08646873       7.464924265         271       80.0865373       7.464914681         272       80.08616017       7.464479599         273       80.08484518       7.463012743         274       80.08475616       7.462449146         275       80.08284057       7.461429805         276       80.08178072       7.460684236         277       80.08120992       7.460151604         278       80.08040184       7.459516301         279       80.08033592       7.459513207	268	80.08512707	7.465409875
271       80.0865373       7.464914681         272       80.08616017       7.464479599         273       80.08484518       7.463012743         274       80.08475616       7.462449146         275       80.08284057       7.461429805         276       80.08178072       7.460684236         277       80.08120992       7.460151604         278       80.08040184       7.459516301         279       80.08033592       7.459513207	269	80.08625817	7.465432367
272       80.08616017       7.464479599         273       80.08484518       7.463012743         274       80.08475616       7.462449146         275       80.08284057       7.461429805         276       80.08178072       7.460684236         277       80.08120992       7.460151604         278       80.08040184       7.459516301         279       80.08033592       7.459513207	270	80.08646873	7.464924265
273       80.08484518       7.463012743         274       80.08475616       7.462449146         275       80.08284057       7.461429805         276       80.08178072       7.460684236         277       80.08120992       7.460151604         278       80.08040184       7.459516301         279       80.08033592       7.459513207	271	80.0865373	7.464914681
274       80.08475616       7.462449146         275       80.08284057       7.461429805         276       80.08178072       7.460684236         277       80.08120992       7.460151604         278       80.08040184       7.459516301         279       80.08033592       7.459513207	272	80.08616017	7.464479599
275     80.08284057     7.461429805       276     80.08178072     7.460684236       277     80.08120992     7.460151604       278     80.08040184     7.459516301       279     80.08033592     7.459513207	273	80.08484518	7.463012743
276       80.08178072       7.460684236         277       80.08120992       7.460151604         278       80.08040184       7.459516301         279       80.08033592       7.459513207	274	80.08475616	7.462449146
277     80.08120992     7.460151604       278     80.08040184     7.459516301       279     80.08033592     7.459513207	275	80.08284057	7.461429805
278         80.08040184         7.459516301           279         80.08033592         7.459513207	276	80.08178072	7.460684236
279 80.08033592 7.459513207	277	80.08120992	7.460151604
	278	80.08040184	7.459516301
<u> </u>	279	80.08033592	7.459513207
280 80.07939578 7.458625874	280	80.07939578	7.458625874
281 80.0781393 7.45732433	281	80.0781393	7.45732433
282 80.07667299 7.457657432	282	80.07667299	7.457657432
283 80.07618215 7.458790754	283	80.07618215	7.458790754
284 80.07625882 7.458821978	284	80.07625882	7.458821978
285 80.07634748 7.458843652	285	80.07634748	7.458843652

286	80.07641398	7.458871604
287	80.07650519	7.459773338
288	80.07661884	7.459911091
289	80.07819403	7.459493065
290	80.07843243	7.459545518
291	80.07854026	7.459572603
292	80.0785762	7.459587614
293	80.07912974	7.460117845
294	80.08070595	7.460500735
295	80.08125541	7.461018197
296	80.08243342	7.461949562
297	80.08385653	7.462867649
298	80.08400748	7.464672407
299	80.08402742	7.465336387
300	80.04544777	7.464660784
301	80.0445644	7.464190206
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307	80.06577878	7.464007755
308	80.06575189	7.46395986
309	80.06585998	7.463828439
310	80.06677441	7.463539797
311	80.06682873	7.463562054
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313	80.06664631	7.464667933
314	80.06783555	7.464934758
315	80.06855876	7.464666743
316	80.06897631	7.464401829
317	80.06919231	7.464251438

318	80.06927151	7.464194142
319	80.06991144	7.464288469
320	80.07160797	7.463383069
321	80.07255458	7.463587939
322	80.07360724	7.464222638
323	80.07408545	7.463500828
324	80.07352663	7.462802409
325	80.07214218	7.462806202
326	80.07019792	7.462591375
327	80.0691258	7.462176949
328	80.06899554	7.461949225
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330	80.06885692	7.461668094
331	80.06865385	7.46122514
332	80.06833624	7.46120669
333	80.06827029	7.46122453
334	80.06819837	7.461224416
335	80.06796656	7.461029041
336	80.06795845	7.461019224
337	80.06728027	7.461549762
338	80.06695249	7.46227001
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343	80.0620669	7.465402116
344	80.06370182	7.465044793
345	80.06372656	7.465057186
346	80.05907291	7.465867925
347	80.06004525	7.465810252
348	80.06078302	7.464769404
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350	80.06136152	7.46383311
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352	80.05939548	7.463982785
353	80.06050536	7.46328474
354	80.06247452	7.461630772
355	80.06182886	7.46054331
356	80.06126124	7.460990147
357	80.059883	7.461657343
358	80.05779259	7.462016052
359	80.05543317	7.462234255
360	80.05551246	7.461388004
361	80.05558444	7.461352231
362	80.05702377	7.46143351
363	80.05737841	7.461534572
364	80.05916671	7.46024847
365	80.05928076	7.460128882
366	80.06033491	7.459666938
367	80.05818686	7.458812032
368	80.05869734	7.457140968
369	80.0580692	7.456652912
370	80.05649892	7.459574546
371	80.05578168	7.45890185
372	80.05454061	7.4590345
373	80.05389208	7.456428753
374	80.05448253	7.454511848
375	80.05396554	7.45397614
376	80.05339708	7.454928781
377	80.05254508	7.45665078
378	80.05271821	7.457672648
379	80.05438975	7.459539275
380	80.05385915	7.461355662
381	80.05303182	7.461378488
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383         80.05073116         7.461728509           384         80.05028715         7.460651899           385         80.04943587         7.460589823           386         80.04862783         7.460859144           387         80.04988104         7.461843811           388         80.04951663         7.463043563           389         80.04876283         7.464050208           390         80.04799862         7.464460084           391         80.04956487         7.465054783           392         80.04958981         7.465054823           393         80.05299799         7.465499031           394         80.05223396         7.464509384           395         80.05092603         7.464243905           396         80.05125325         7.4630216           398         80.05186599         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463102773           403         80.05728654         7.463302663           405         80.05728821         7.463302663           406         80.05728838         7.463302683	382	80.0528458	7.461406026
385         80.04943587         7.460589823           386         80.04862783         7.460859144           387         80.04988104         7.461843811           388         80.04951663         7.463043563           389         80.04876283         7.464050208           390         80.04799862         7.464460084           391         80.04956487         7.465054783           392         80.04958981         7.465054823           393         80.05299799         7.465499031           394         80.05223396         7.464509384           395         80.05092603         7.464243905           396         80.05045401         7.463403855           397         80.05125325         7.4630216           398         80.05186599         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463102773           403         80.05728654         7.463302661           404         80.05728786         7.463302683           406         80.05728838         7.463676861           408         80.05857015         7.463719019	383	80.05073116	7.461728509
386         80.04862783         7.460859144           387         80.04988104         7.461843811           388         80.04951663         7.463043563           389         80.04876283         7.464050208           390         80.04799862         7.464460084           391         80.04956487         7.465054783           392         80.04958981         7.465054823           393         80.05299799         7.465499031           394         80.05223396         7.464509384           395         80.05092603         7.463403855           397         80.05125325         7.4630216           398         80.05186599         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463102773           403         80.05728654         7.463306611           404         80.05728786         7.463302963           405         80.05728838         7.463719019           408         80.05857015         7.463719019           409         80.05692343         7.464544195	384	80.05028715	7.460651899
387         80.04988104         7.461843811           388         80.04951663         7.463043563           389         80.04876283         7.464050208           390         80.04799862         7.464460084           391         80.04956487         7.465054783           392         80.04958981         7.465054823           393         80.05299799         7.465499031           394         80.05223396         7.464509384           395         80.05092603         7.464243905           396         80.05045401         7.463403855           397         80.05125325         7.4630216           398         80.05186599         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463081641           402         80.05632415         7.463102773           403         80.05728654         7.463302963           404         80.05728821         7.463302963           406         80.05728838         7.463719019           409         80.05857015         7.463719019           409         80.05692343         7.464544195	385	80.04943587	7.460589823
388         80.04951663         7.463043563           389         80.04876283         7.464050208           390         80.04799862         7.464460084           391         80.04956487         7.465054783           392         80.04958981         7.465054823           393         80.05299799         7.465499031           394         80.05223396         7.464509384           395         80.05092603         7.464243905           396         80.05125325         7.4630216           398         80.05125325         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463102773           403         80.05728654         7.463306611           404         80.05728786         7.463302963           406         80.05728838         7.463302683           407         80.05857015         7.463719019           409         80.05692343         7.464544195	386	80.04862783	7.460859144
389         80.04876283         7.464050208           390         80.04799862         7.464460084           391         80.04956487         7.465054783           392         80.04958981         7.465054823           393         80.05299799         7.465499031           394         80.05223396         7.464509384           395         80.05092603         7.463403855           397         80.05125325         7.4630216           398         80.05186599         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463081641           402         80.05632415         7.463102773           403         80.05728654         7.463302661           404         80.05728786         7.463302963           406         80.05728838         7.463302683           407         80.05857015         7.463719019           409         80.05692343         7.464544195	387	80.04988104	7.461843811
390         80.04799862         7.464460084           391         80.04956487         7.465054783           392         80.04958981         7.465054823           393         80.05299799         7.465499031           394         80.05223396         7.464509384           395         80.05092603         7.464243905           396         80.05045401         7.463403855           397         80.05125325         7.4630216           398         80.05186599         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463102773           403         80.05728654         7.463306611           404         80.05728786         7.463302963           405         80.05728821         7.463302963           406         80.05728838         7.463676861           408         80.05857015         7.463719019           409         80.05692343         7.464544195	388	80.04951663	7.463043563
391         80.04956487         7.465054783           392         80.04958981         7.465054823           393         80.05299799         7.465499031           394         80.05223396         7.464509384           395         80.05092603         7.464243905           396         80.05045401         7.463403855           397         80.05125325         7.4630216           398         80.05186599         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463081641           402         80.05632415         7.463102773           403         80.05728854         7.463303652           405         80.05728786         7.463302963           406         80.05728838         7.463302683           407         80.05913358         7.463676861           408         80.05857015         7.463719019           409         80.05692343         7.464544195	389	80.04876283	7.464050208
392         80.04958981         7.465054823           393         80.05299799         7.465499031           394         80.05223396         7.464509384           395         80.05092603         7.464243905           396         80.05045401         7.463403855           397         80.05125325         7.4630216           398         80.05186599         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463102773           403         80.05632415         7.463306611           404         80.05728654         7.463302963           405         80.05728821         7.463302963           406         80.05728838         7.463676861           408         80.05857015         7.463719019           409         80.05692343         7.464544195	390	80.04799862	7.464460084
393         80.05299799         7.465499031           394         80.05223396         7.464509384           395         80.05092603         7.464243905           396         80.05045401         7.463403855           397         80.05125325         7.4630216           398         80.05186599         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463081641           402         80.05632415         7.463102773           403         80.05728654         7.463303652           404         80.05728786         7.463302963           406         80.05728838         7.463302683           407         80.05913358         7.463719019           408         80.05857015         7.463719019           409         80.05692343         7.464544195	391	80.04956487	7.465054783
394         80.05223396         7.464509384           395         80.05092603         7.464243905           396         80.05045401         7.463403855           397         80.05125325         7.4630216           398         80.05186599         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463081641           402         80.05632415         7.463102773           403         80.05728654         7.463306611           404         80.05728786         7.463302963           405         80.05728838         7.463302683           407         80.05913358         7.463676861           408         80.05857015         7.463719019           409         80.05692343         7.464544195	392	80.04958981	7.465054823
395         80.05092603         7.464243905           396         80.05045401         7.463403855           397         80.05125325         7.4630216           398         80.05186599         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463081641           402         80.05632415         7.463102773           403         80.05728654         7.463306611           404         80.05728786         7.463302963           405         80.05728838         7.463302683           407         80.05913358         7.463719019           408         80.05857015         7.463719019           409         80.05692343         7.464544195	393	80.05299799	7.465499031
396         80.05045401         7.463403855           397         80.05125325         7.4630216           398         80.05186599         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463081641           402         80.05632415         7.463102773           403         80.05728654         7.463306611           404         80.05728786         7.463303652           405         80.05728821         7.463302963           406         80.05728838         7.463302683           407         80.05913358         7.463719019           408         80.05692343         7.464544195	394	80.05223396	7.464509384
397         80.05125325         7.4630216           398         80.05186599         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463081641           402         80.05632415         7.463102773           403         80.05728654         7.463306611           404         80.05728786         7.463302963           405         80.05728821         7.463302963           406         80.05728838         7.463302683           407         80.05913358         7.463676861           408         80.05857015         7.463719019           409         80.05692343         7.464544195	395	80.05092603	7.464243905
398         80.05186599         7.462790075           399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463081641           402         80.05632415         7.463102773           403         80.05728654         7.463306611           404         80.05728786         7.463303652           405         80.05728821         7.463302963           406         80.05728838         7.463302683           407         80.05913358         7.463676861           408         80.05857015         7.463719019           409         80.05692343         7.464544195	396	80.05045401	7.463403855
399         80.0534239         7.462633413           400         80.05457996         7.46259797           401         80.05583334         7.463081641           402         80.05632415         7.463102773           403         80.05728654         7.463306611           404         80.05728786         7.463303652           405         80.05728821         7.463302963           406         80.05728838         7.463302683           407         80.05913358         7.463676861           408         80.05857015         7.463719019           409         80.05692343         7.464544195	397	80.05125325	7.4630216
400         80.05457996         7.46259797           401         80.05583334         7.463081641           402         80.05632415         7.463102773           403         80.05728654         7.463306611           404         80.05728786         7.463303652           405         80.05728821         7.463302963           406         80.05728838         7.463302683           407         80.05913358         7.463676861           408         80.05857015         7.463719019           409         80.05692343         7.464544195	398	80.05186599	7.462790075
401       80.05583334       7.463081641         402       80.05632415       7.463102773         403       80.05728654       7.463306611         404       80.05728786       7.463303652         405       80.05728821       7.463302963         406       80.05728838       7.463302683         407       80.05913358       7.463676861         408       80.05857015       7.463719019         409       80.05692343       7.464544195	399	80.0534239	7.462633413
402       80.05632415       7.463102773         403       80.05728654       7.463306611         404       80.05728786       7.463303652         405       80.05728821       7.463302963         406       80.05728838       7.463302683         407       80.05913358       7.463676861         408       80.05857015       7.463719019         409       80.05692343       7.464544195	400	80.05457996	7.46259797
403       80.05728654       7.463306611         404       80.05728786       7.463303652         405       80.05728821       7.463302963         406       80.05728838       7.463302683         407       80.05913358       7.463676861         408       80.05857015       7.463719019         409       80.05692343       7.464544195	401	80.05583334	7.463081641
404       80.05728786       7.463303652         405       80.05728821       7.463302963         406       80.05728838       7.463302683         407       80.05913358       7.463676861         408       80.05857015       7.463719019         409       80.05692343       7.464544195	402	80.05632415	7.463102773
405       80.05728821       7.463302963         406       80.05728838       7.463302683         407       80.05913358       7.463676861         408       80.05857015       7.463719019         409       80.05692343       7.464544195	403	80.05728654	7.463306611
406       80.05728838       7.463302683         407       80.05913358       7.463676861         408       80.05857015       7.463719019         409       80.05692343       7.464544195	404	80.05728786	7.463303652
407       80.05913358       7.463676861         408       80.05857015       7.463719019         409       80.05692343       7.464544195	405	80.05728821	7.463302963
408     80.05857015     7.463719019       409     80.05692343     7.464544195	406	80.05728838	7.463302683
409 80.05692343 7.464544195	407	80.05913358	7.463676861
	408	80.05857015	7.463719019
410 80.05652052 7.464058326	409	80.05692343	7.464544195
	410	80.05652052	7.464058326
411 80.05572672 7.464607336	411	80.05572672	7.464607336
412 80.05444264 7.464893671	412	80.05444264	7.464893671
413 80.05450931 7.464923466	413	80.05450931	7.464923466

414	80.05454044	7.464945049
415	80.0553429	7.465339597
416	80.05622531	7.464852293
417	80.05862326	7.464437728
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422	80.05856851	7.465992722
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425	80.05206623	7.465851981
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427	80.05059477	7.466015683
428	80.0511953	7.466198635
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436	80.02808744	7.463429138
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443	80.02663233	7.464258273
444	80.02710226	7.465638824
445	80.02786489	7.466452389

446	80.02861799	7.465534906
447	80.0411664	7.466435592
448	80.04161768	7.46657822
449	80.04176131	7.46581285
450	80.03966732	7.464824009
451	80.03968696	7.464548703
452	80.03972557	7.464036717
453	80.03952394	7.464013654
454	80.03904063	7.464093482
455	80.03797754	7.464307271
456	80.03718082	7.464338725
457	80.03762245	7.462886284
458	80.03717169	7.46235486
459	80.03674457	7.462956055
460	80.03626181	7.463607379
461	80.03574011	7.463779973
462	80.03777795	7.466344999
463	80.03889366	7.466622907
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466	80.00253509	7.466583928
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469	80.00222021	7.466965822
470	80.03381663	7.467071238
471	80.03512211	7.465889589
472	80.04564827	7.467473585
473	80.04567131	7.467454482
474	80.04570394	7.467441137
475	80.0493628	7.466486755
476	80.04935523	7.466460298
477	80.04934817	7.466461963

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479	80.04315911	7.466918943
480	80.04385822	7.467969301
481	80.05363969	7.468096222
482	80.05371242	7.468076078
483	80.05370746	7.468030865
484	80.05363944	7.467739254
485	80.05524782	7.466453213
486	80.0552104	7.466468944
487	80.05430834	7.466585195
488	80.05213434	7.466408645
489	80.0521068	7.466393048
490	80.05208045	7.466381043
491	80.05042999	7.468562296
492	80.05112769	7.468081811
493	80.03035531	7.467759068
494	80.03007647	7.467122882
495	80.02835991	7.467619565
496	80.05340749	7.470444094
497	80.05339813	7.470017447
498	80.0518923	7.469375321
499	80.05208496	7.470011107
500	80.06701755	7.469160768
501	80.06552415	7.467582858
502	80.06487519	7.46799613
503	80.06509317	7.468847046
504	80.06581853	7.469384954
505	80.06658006	7.469893401
506	80.04919834	7.470485757
507	80.04936411	7.469731645
508	80.04650103	7.467845078
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511         80.04907424         7.470143413           512         80.04832235         7.471639248           513         80.04885347         7.471928441           514         80.07499844         7.472313802           515         80.07537801         7.471819133           516         80.07514104         7.471586677           517         80.07419502         7.472153431           518         80.07415473         7.472166287           519         80.07410441         7.472150417           520         80.07405696         7.472140293           521         80.07399087         7.472092814           523         80.07397217         7.472088479           524         80.07393622         7.472085551           525         80.07389016         7.47210127           526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07901709         7.468930142           534         80.06982471         7.468930142 <th>510</th> <th>80.04909431</th> <th>7.469359873</th>	510	80.04909431	7.469359873
513         80.04885347         7.471928441           514         80.07499844         7.472313802           515         80.07537801         7.471819133           516         80.07514104         7.471586677           517         80.07419502         7.472153431           518         80.07415473         7.472166287           519         80.07410441         7.472150417           520         80.07405696         7.472140293           521         80.07399087         7.472092814           522         80.07399087         7.472088479           524         80.07397217         7.472088479           525         80.07389016         7.47210127           526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.470465714           532         80.06982471         7.468930142           534         80.06977679         7.468912839           535         80.06848054         7.467323687 <td>511</td> <td>80.04907424</td> <td>7.470143413</td>	511	80.04907424	7.470143413
514         80.07499844         7.472313802           515         80.07537801         7.471819133           516         80.07514104         7.471586677           517         80.07419502         7.472153431           518         80.07415473         7.472166287           519         80.07410441         7.472150417           520         80.07405696         7.472140293           521         80.07402104         7.472112961           522         80.07399087         7.472092814           523         80.07397217         7.472088479           524         80.07393622         7.472085551           525         80.07389016         7.47210127           526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.469454536           533         80.06982471         7.468912839           535         80.06899217         7.468923107           536         80.06950442         7.466030521 <td>512</td> <td>80.04832235</td> <td>7.471639248</td>	512	80.04832235	7.471639248
515         80.07537801         7.471819133           516         80.07514104         7.471586677           517         80.07419502         7.472153431           518         80.07415473         7.472166287           519         80.07410441         7.472150417           520         80.07405696         7.472140293           521         80.07402104         7.472112961           522         80.07399087         7.472092814           523         80.07397217         7.472088479           524         80.07393622         7.472088479           525         80.07389016         7.47210127           526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.470465714           532         80.0799893         7.468930142           534         80.06977679         7.468912839           535         80.06848054         7.4669323687           537         80.06950442         7.466030521 <td>513</td> <td>80.04885347</td> <td>7.471928441</td>	513	80.04885347	7.471928441
516         80.07514104         7.471586677           517         80.07419502         7.472153431           518         80.07415473         7.472166287           519         80.07410441         7.472150417           520         80.07405696         7.472140293           521         80.07402104         7.472112961           522         80.07399087         7.472092814           523         80.07397217         7.472088479           524         80.07393622         7.472085551           525         80.07389016         7.47210127           526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.470465714           532         80.07998993         7.468930142           534         80.06977679         7.468912839           535         80.06848054         7.467323687           537         80.06950442         7.466030521           538         80.06952378         7.465913793 <td>514</td> <td>80.07499844</td> <td>7.472313802</td>	514	80.07499844	7.472313802
517         80.07419502         7.472153431           518         80.07415473         7.472166287           519         80.07410441         7.472150417           520         80.07405696         7.472140293           521         80.07402104         7.472112961           522         80.07399087         7.472092814           523         80.07397217         7.472088479           524         80.07393622         7.472085551           525         80.07389016         7.47210127           526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.470465714           532         80.0799893         7.468930142           534         80.06977679         7.468912839           535         80.06899217         7.468923107           536         80.06848054         7.465913793           538         80.06952378         7.465913793	515	80.07537801	7.471819133
518         80.07415473         7.472166287           519         80.07410441         7.472150417           520         80.07405696         7.472140293           521         80.07402104         7.472112961           522         80.07399087         7.472092814           523         80.07397217         7.472088479           524         80.07393622         7.472085551           525         80.07389016         7.47210127           526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.470465714           532         80.07998993         7.468930142           534         80.06977679         7.468912839           535         80.0689217         7.468923107           536         80.06848054         7.467323687           537         80.06950442         7.466030521           538         80.06952378         7.465913793	516	80.07514104	7.471586677
519         80.07410441         7.472150417           520         80.07405696         7.472140293           521         80.07402104         7.472112961           522         80.07399087         7.472092814           523         80.07397217         7.472088479           524         80.07393622         7.472085551           525         80.07389016         7.47210127           526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.470465714           532         80.07098993         7.468930142           534         80.06977679         7.468912839           535         80.06899217         7.468923107           536         80.06848054         7.467323687           537         80.06950442         7.466030521           538         80.06952378         7.465913793	517	80.07419502	7.472153431
520         80.07405696         7.472140293           521         80.07402104         7.472112961           522         80.07399087         7.472092814           523         80.07397217         7.472088479           524         80.07393622         7.472085551           525         80.07389016         7.47210127           526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.470465714           532         80.07098993         7.469454536           533         80.06982471         7.468930142           534         80.06977679         7.468912839           535         80.06848054         7.467323687           537         80.06950442         7.466030521           538         80.06952378         7.465913793	518	80.07415473	7.472166287
521         80.07402104         7.472112961           522         80.07399087         7.472092814           523         80.07397217         7.472088479           524         80.07393622         7.472085551           525         80.07389016         7.47210127           526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.470465714           532         80.07098993         7.4689454536           533         80.06982471         7.468930142           534         80.06977679         7.468912839           535         80.06848054         7.467323687           537         80.06950442         7.466030521           538         80.06952378         7.465913793	519	80.07410441	7.472150417
522         80.07399087         7.472092814           523         80.07397217         7.472088479           524         80.07393622         7.472085551           525         80.07389016         7.47210127           526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.470465714           532         80.07098993         7.469454536           533         80.06982471         7.468930142           534         80.06977679         7.468912839           535         80.06848054         7.467323687           537         80.06950442         7.466030521           538         80.06952378         7.465913793	520	80.07405696	7.472140293
523         80.07397217         7.472088479           524         80.07393622         7.472085551           525         80.07389016         7.47210127           526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.470465714           532         80.07098993         7.469454536           533         80.06982471         7.468930142           534         80.06977679         7.468912839           535         80.06848054         7.467323687           537         80.06950442         7.466030521           538         80.06952378         7.465913793	521	80.07402104	7.472112961
524         80.07393622         7.472085551           525         80.07389016         7.47210127           526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.470465714           532         80.07098993         7.469454536           533         80.06982471         7.468930142           534         80.06977679         7.468912839           535         80.06848054         7.467323687           537         80.06950442         7.466030521           538         80.06952378         7.465913793	522	80.07399087	7.472092814
525         80.07389016         7.47210127           526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.470465714           532         80.07098993         7.469454536           533         80.06982471         7.468930142           534         80.06977679         7.468912839           535         80.06848054         7.467323687           537         80.06950442         7.466030521           538         80.06952378         7.465913793	523	80.07397217	7.472088479
526         80.0738729         7.472104113           527         80.07384989         7.472102641           528         80.07382977         7.472088254           529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.470465714           532         80.07098993         7.469454536           533         80.06982471         7.468930142           534         80.06977679         7.468912839           535         80.06899217         7.468923107           536         80.06848054         7.467323687           537         80.06950442         7.466030521           538         80.06952378         7.465913793	524	80.07393622	7.472085551
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529         80.07369332         7.471961709           530         80.07300164         7.470938495           531         80.07201709         7.470465714           532         80.07098993         7.469454536           533         80.06982471         7.468930142           534         80.06977679         7.468912839           535         80.06899217         7.468923107           536         80.06848054         7.467323687           537         80.06950442         7.466030521           538         80.06952378         7.465913793	527	80.07384989	7.472102641
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531       80.07201709       7.470465714         532       80.07098993       7.469454536         533       80.06982471       7.468930142         534       80.06977679       7.468912839         535       80.06899217       7.468923107         536       80.06848054       7.467323687         537       80.06950442       7.466030521         538       80.06952378       7.465913793	529	80.07369332	7.471961709
532       80.07098993       7.469454536         533       80.06982471       7.468930142         534       80.06977679       7.468912839         535       80.06899217       7.468923107         536       80.06848054       7.467323687         537       80.06950442       7.466030521         538       80.06952378       7.465913793	530	80.07300164	7.470938495
533       80.06982471       7.468930142         534       80.06977679       7.468912839         535       80.06899217       7.468923107         536       80.06848054       7.467323687         537       80.06950442       7.466030521         538       80.06952378       7.465913793	531	80.07201709	7.470465714
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535       80.06899217       7.468923107         536       80.06848054       7.467323687         537       80.06950442       7.466030521         538       80.06952378       7.465913793	533	80.06982471	7.468930142
536       80.06848054       7.467323687         537       80.06950442       7.466030521         538       80.06952378       7.465913793	534	80.06977679	7.468912839
537       80.06950442       7.466030521         538       80.06952378       7.465913793	535	80.06899217	7.468923107
538 80.06952378 7.465913793	536	80.06848054	7.467323687
	537	80.06950442	7.466030521
	538	80.06952378	7.465913793
539   80.0691601   7.465472976	539	80.0691601	7.465472976
540 80.06914467 7.465463133	540	80.06914467	7.465463133
541 80.06863961 7.465184048	541	80.06863961	7.465184048

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635	80.04101787	7.477225891
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642         80.00168947         7.478830672           643         80.00173548         7.478840322           644         80.04177539         7.479081138           645         80.01007203         7.476730234           646         80.01012962         7.476697795           647         80.01121036         7.475697303           649         80.010013342         7.475666028           650         80.01002355         7.47574826           651         80.01001783         7.47576531           652         80.00855692         7.476058734           653         80.00809889         7.478214626           654         80.00537021         7.47752104           655         80.00537021         7.47752104           655         80.00455634         7.476036191           657         80.00499522         7.474989888           659         80.00443013         7.474176949           660         80.00410902         7.47456947           661         80.00373823         7.475022713           662         80.0036735         7.475015361           664         80.00296634         7.479145972           666         80.04287587         7.479449772	640	80.00178622	7.478065859
643         80.00173548         7.478840322           644         80.04177539         7.479081138           645         80.01007203         7.476730234           646         80.01012962         7.476697795           647         80.01121036         7.475730941           648         80.01103342         7.475697303           649         80.0100133         7.475666028           650         80.01002355         7.47574826           651         80.01001783         7.47576531           652         80.00855692         7.476058734           653         80.00809889         7.478214626           654         80.00537021         7.47752104           655         80.00599215         7.477503808           656         80.00499522         7.475549737           658         80.00499522         7.474989888           659         80.00443013         7.474176949           660         80.00410902         7.47456947           661         80.0036735         7.4750226           663         80.0036735         7.475015361           664         80.004287587         7.479449772           666         80.04265503         7.480042299	641	80.0016319	7.478847798
644         80.04177539         7.479081138           645         80.01007203         7.476730234           646         80.01012962         7.476697795           647         80.01121036         7.476730941           648         80.01103342         7.475697303           649         80.0100131         7.475666028           650         80.01002355         7.47574826           651         80.01001783         7.47576531           652         80.00855692         7.476058734           653         80.00809889         7.478214626           654         80.00537021         7.47752104           655         80.00537021         7.477503808           656         80.00455634         7.476036191           657         80.00499522         7.474989888           659         80.00443013         7.474176949           660         80.0043013         7.47456947           661         80.00373823         7.475022713           662         80.00363735         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04265503         7.480042299	642	80.00168947	7.478830672
645         80.01007203         7.476730234           646         80.01012962         7.476697795           647         80.01121036         7.476730941           648         80.01103342         7.475697303           649         80.0101131         7.475666028           650         80.01002355         7.47574826           651         80.01001783         7.47576531           652         80.00855692         7.476058734           653         80.00809889         7.478214626           654         80.00537021         7.47752104           655         80.00537021         7.477503808           656         80.00455634         7.476036191           657         80.00499522         7.475549737           658         80.00550032         7.474989888           659         80.00443013         7.474176949           660         80.00410902         7.47456947           661         80.0036735         7.475022713           662         80.0036735         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04265503         7.480042299	643	80.00173548	7.478840322
646         80.01012962         7.476697795           647         80.01121036         7.476730941           648         80.01103342         7.475697303           649         80.0101131         7.475666028           650         80.01002355         7.47574826           651         80.01001783         7.47576531           652         80.00855692         7.476058734           653         80.00809889         7.478214626           654         80.00537021         7.47752104           655         80.00509215         7.477503808           656         80.00455634         7.476036191           657         80.00499522         7.474589888           659         80.0043013         7.474176949           660         80.0043013         7.47456947           661         80.0036735         7.475022713           662         80.0036735         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04261301         7.479911556           667         80.04265503         7.480042299           668         80.04899165         7.481444936     <	644	80.04177539	7.479081138
647         80.01121036         7.476730941           648         80.01103342         7.475697303           649         80.0101131         7.475666028           650         80.01002355         7.47574826           651         80.01001783         7.47576531           652         80.00855692         7.476058734           653         80.00809889         7.478214626           654         80.00537021         7.47752104           655         80.0059215         7.477503808           656         80.00455634         7.476036191           657         80.00499522         7.474989888           659         80.00443013         7.474176949           660         80.00410902         7.47456947           661         80.00373823         7.475022713           662         80.0036735         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04265503         7.480042299           668         80.04899165         7.481444936	645	80.01007203	7.476730234
648         80.01103342         7.475697303           649         80.0101131         7.475666028           650         80.01002355         7.47574826           651         80.01001783         7.47576531           652         80.00855692         7.476058734           653         80.00809889         7.478214626           654         80.00537021         7.47752104           655         80.00509215         7.477503808           656         80.00455634         7.476036191           657         80.00499522         7.475549737           658         80.00550032         7.474989888           659         80.00443013         7.474176949           660         80.00410902         7.47456947           661         80.00373823         7.475022713           662         80.0036735         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04261301         7.479911556           667         80.04265503         7.480042299           668         80.04899165         7.481444936	646	80.01012962	7.476697795
649         80.0101131         7.475666028           650         80.01002355         7.47574826           651         80.01001783         7.47576531           652         80.00855692         7.476058734           653         80.00809889         7.478214626           654         80.00537021         7.47752104           655         80.00509215         7.477503808           656         80.00455634         7.476036191           657         80.00499522         7.474589888           659         80.00443013         7.474176949           660         80.00410902         7.47456947           661         80.00373823         7.475022713           662         80.0036735         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04261301         7.479911556           667         80.04265503         7.480042299           668         80.04899165         7.481444936	647	80.01121036	7.476730941
650         80.01002355         7.47574826           651         80.01001783         7.47576531           652         80.00855692         7.476058734           653         80.00809889         7.478214626           654         80.00537021         7.47752104           655         80.00509215         7.477503808           656         80.00455634         7.476036191           657         80.00499522         7.475549737           658         80.00550032         7.474989888           659         80.00443013         7.474176949           660         80.00410902         7.47456947           661         80.00373823         7.475022713           662         80.0036735         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04261301         7.479911556           667         80.04265503         7.480042299           668         80.04899165         7.481444936	648	80.01103342	7.475697303
651         80.01001783         7.47576531           652         80.00855692         7.476058734           653         80.00809889         7.478214626           654         80.00537021         7.47752104           655         80.00509215         7.477503808           656         80.00455634         7.476036191           657         80.00499522         7.474549737           658         80.00550032         7.474989888           659         80.00443013         7.474176949           660         80.00410902         7.47456947           661         80.00373823         7.475022713           662         80.0036735         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04261301         7.479911556           667         80.04265503         7.480042299           668         80.04899165         7.481444936	649	80.0101131	7.475666028
652         80.00855692         7.476058734           653         80.00809889         7.478214626           654         80.00537021         7.47752104           655         80.00509215         7.477503808           656         80.00455634         7.476036191           657         80.00499522         7.474549737           658         80.00550032         7.474989888           659         80.00443013         7.474176949           660         80.00373823         7.475022713           662         80.0036735         7.4750226           663         80.00363755         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04261301         7.479911556           667         80.04265503         7.480042299           668         80.04899165         7.481444936	650	80.01002355	7.47574826
653         80.00809889         7.478214626           654         80.00537021         7.47752104           655         80.00509215         7.477503808           656         80.00455634         7.476036191           657         80.00499522         7.475549737           658         80.00550032         7.474989888           659         80.00443013         7.474176949           660         80.00410902         7.47456947           661         80.00373823         7.475022713           662         80.0036735         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04261301         7.479911556           667         80.04265503         7.480042299           668         80.04899165         7.481444936	651	80.01001783	7.47576531
654         80.00537021         7.47752104           655         80.00509215         7.477503808           656         80.00455634         7.476036191           657         80.00499522         7.475549737           658         80.00550032         7.474989888           659         80.00443013         7.474176949           660         80.00410902         7.47456947           661         80.00373823         7.475022713           662         80.0036735         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04261301         7.479911556           667         80.04265503         7.480042299           668         80.04899165         7.481444936	652	80.00855692	7.476058734
655         80.00509215         7.477503808           656         80.00455634         7.476036191           657         80.00499522         7.475549737           658         80.00550032         7.474989888           659         80.00443013         7.474176949           660         80.00410902         7.47456947           661         80.00373823         7.475022713           662         80.0036735         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04261301         7.479911556           667         80.04265503         7.480042299           668         80.04899165         7.481444936	653	80.00809889	7.478214626
656         80.00455634         7.476036191           657         80.00499522         7.475549737           658         80.00550032         7.474989888           659         80.00443013         7.474176949           660         80.00410902         7.47456947           661         80.00373823         7.475022713           662         80.0036735         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04261301         7.479911556           667         80.04265503         7.480042299           668         80.04899165         7.481444936	654	80.00537021	7.47752104
657         80.00499522         7.475549737           658         80.00550032         7.474989888           659         80.00443013         7.474176949           660         80.00410902         7.47456947           661         80.00373823         7.475022713           662         80.0036735         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04261301         7.479911556           667         80.04265503         7.480042299           668         80.04899165         7.481444936	655	80.00509215	7.477503808
658         80.00550032         7.474989888           659         80.00443013         7.474176949           660         80.00410902         7.47456947           661         80.00373823         7.475022713           662         80.0036735         7.4750226           663         80.00363755         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04261301         7.479911556           667         80.04265503         7.480042299           668         80.04899165         7.481444936	656	80.00455634	7.476036191
659       80.00443013       7.474176949         660       80.00410902       7.47456947         661       80.00373823       7.475022713         662       80.0036735       7.4750226         663       80.00363755       7.475015361         664       80.00296634       7.475721368         665       80.04287587       7.479449772         666       80.04261301       7.479911556         667       80.04265503       7.480042299         668       80.04899165       7.481444936	657	80.00499522	7.475549737
660         80.00410902         7.47456947           661         80.00373823         7.475022713           662         80.0036735         7.4750226           663         80.00363755         7.475015361           664         80.00296634         7.475721368           665         80.04287587         7.479449772           666         80.04261301         7.479911556           667         80.04265503         7.480042299           668         80.04899165         7.481444936	658	80.00550032	7.474989888
661       80.00373823       7.475022713         662       80.0036735       7.4750226         663       80.00363755       7.475015361         664       80.00296634       7.475721368         665       80.04287587       7.479449772         666       80.04261301       7.479911556         667       80.04265503       7.480042299         668       80.04899165       7.481444936	659	80.00443013	7.474176949
662       80.0036735       7.4750226         663       80.00363755       7.475015361         664       80.00296634       7.475721368         665       80.04287587       7.479449772         666       80.04261301       7.479911556         667       80.04265503       7.480042299         668       80.04899165       7.481444936	660	80.00410902	7.47456947
663       80.00363755       7.475015361         664       80.00296634       7.475721368         665       80.04287587       7.479449772         666       80.04261301       7.479911556         667       80.04265503       7.480042299         668       80.04899165       7.481444936	661	80.00373823	7.475022713
664       80.00296634       7.475721368         665       80.04287587       7.479449772         666       80.04261301       7.479911556         667       80.04265503       7.480042299         668       80.04899165       7.481444936	662	80.0036735	7.4750226
665       80.04287587       7.479449772         666       80.04261301       7.479911556         667       80.04265503       7.480042299         668       80.04899165       7.481444936	663	80.00363755	7.475015361
666     80.04261301     7.479911556       667     80.04265503     7.480042299       668     80.04899165     7.481444936	664	80.00296634	7.475721368
667     80.04265503     7.480042299       668     80.04899165     7.481444936	665	80.04287587	7.479449772
668 80.04899165 7.481444936	666	80.04261301	7.479911556
	667	80.04265503	7.480042299
669 80 04904573 7 481355303	668	80.04899165	7.481444936
00.07,07373   7.701333303	669	80.04904573	7.481355303

671         80.05003456         7.479297263           672         80.04984364         7.478767591           673         80.04896524         7.48000934           674         80.0482122         7.480894559           675         80.04734525         7.480353607           676         80.045322         7.479302897           677         80.04572299         7.479161824           678         80.04533085         7.479265256           679         80.04510716         7.477795284           680         80.04399541         7.477595423           681         80.04363967         7.478877261           683         80.04363967         7.478877261           683         80.04399511         7.479947333           684         80.0442502         7.480372438           685         80.04425037         7.481313137           687         80.0445037         7.481406548           688         80.0445037         7.48149684           690         80.04781564         7.48149684           690         80.04799179         7.481536606           691         80.00324504         7.477096415           693         80.00255307         7.481681493     <	670	80.04966979	7.480175583
673         80.04896524         7.48000934           674         80.0482122         7.480894559           675         80.04734525         7.480353607           676         80.04639522         7.479302897           677         80.04572299         7.479161824           678         80.04533085         7.479265256           679         80.04510716         7.4777975284           680         80.04399541         7.477595423           681         80.04363967         7.478877261           683         80.04363967         7.478877261           683         80.04399511         7.479947333           684         80.0442502         7.480372438           685         80.04425569         7.480386881           686         80.04450037         7.481313137           687         80.045603076         7.48149684           690         80.04781564         7.48149684           690         80.04799179         7.481888341           692         80.00324504         7.477096415           693         80.00270175         7.481681493           695         80.00255307         7.481777878           696         80.00373211         7.481931964	671	80.05003456	7.479297263
674         80.0482122         7.480894559           675         80.04734525         7.480353607           676         80.04639522         7.479161824           678         80.04572299         7.479161824           678         80.04533085         7.479265256           679         80.04510716         7.477595284           680         80.04399541         7.477595423           681         80.04377815         7.478877261           683         80.04363967         7.478877261           683         80.04399511         7.479947333           684         80.0442502         7.480372438           685         80.04425569         7.480386881           686         80.04450037         7.481313137           687         80.04456135         7.481406548           688         80.04781564         7.48149684           690         80.04799179         7.481536606           691         80.00728563         7.481888341           692         80.0024504         7.47753905           694         80.00255307         7.481777878           696         80.00373211         7.481931964           698         80.00134816         7.482558564	672	80.04984364	7.478767591
675         80.04734525         7.480353607           676         80.04639522         7.479302897           677         80.04572299         7.479161824           678         80.04533085         7.479265256           679         80.04510716         7.477975284           680         80.04399541         7.477595423           681         80.04363967         7.478877261           683         80.04363967         7.478947333           684         80.04399511         7.479947333           684         80.0442502         7.480386881           685         80.0442569         7.481313137           687         80.04450037         7.481406548           688         80.04603076         7.481517831           689         80.04781564         7.48149684           690         80.04799179         7.481536606           691         80.00728563         7.481888341           692         80.00324504         7.477096415           693         80.00270175         7.47753905           694         80.00255307         7.481777878           696         80.00373211         7.481931964           698         80.00134816         7.482558564	673	80.04896524	7.48000934
676         80.04639522         7.479302897           677         80.04572299         7.479161824           678         80.04533085         7.479265256           679         80.04510716         7.477595284           680         80.04399541         7.477595423           681         80.04377815         7.478501854           682         80.04363967         7.478877261           683         80.04399511         7.479947333           684         80.0442502         7.480372438           685         80.0442569         7.480386881           686         80.04456135         7.481406548           688         80.04603076         7.481517831           689         80.04781564         7.48149684           690         80.04799179         7.481536606           691         80.00728563         7.481888341           692         80.00324504         7.47753905           694         80.00270175         7.47753905           694         80.00255307         7.481777878           696         80.00373211         7.481931964           698         80.00134816         7.482558564           699         80.0031911         7.48329862	674	80.0482122	7.480894559
677         80.04572299         7.479161824           678         80.04533085         7.479265256           679         80.04510716         7.477975284           680         80.04399541         7.477595423           681         80.04377815         7.478877261           682         80.04363967         7.478877261           683         80.04399511         7.479947333           684         80.0442502         7.480372438           685         80.04425569         7.480386881           686         80.0445037         7.481313137           687         80.04456135         7.481406548           688         80.04603076         7.481517831           689         80.04781564         7.48149684           690         80.04799179         7.481536606           691         80.00728563         7.481888341           692         80.00324504         7.477096415           693         80.00270175         7.47753905           694         80.00255307         7.481681493           695         80.00255307         7.481777878           696         80.00373211         7.481931964           698         80.00134816         7.482558564	675	80.04734525	7.480353607
678         80.04533085         7.479265256           679         80.04510716         7.477975284           680         80.04399541         7.477595423           681         80.04377815         7.478501854           682         80.04363967         7.478877261           683         80.04399511         7.479947333           684         80.0442502         7.480372438           685         80.04425569         7.480386881           686         80.04450037         7.481313137           687         80.04456135         7.481406548           688         80.04603076         7.481517831           689         80.04781564         7.48149684           690         80.04799179         7.481536606           691         80.00728563         7.481888341           692         80.00324504         7.477096415           693         80.00270175         7.47753905           694         80.00216247         7.481681493           695         80.00255307         7.481777878           696         80.00373211         7.481931964           698         80.00134816         7.482558564           699         80.00645138         7.481671755	676	80.04639522	7.479302897
679         80.04510716         7.477975284           680         80.04399541         7.477595423           681         80.04377815         7.478501854           682         80.04363967         7.478877261           683         80.04399511         7.479947333           684         80.0442502         7.480372438           685         80.04425569         7.480386881           686         80.04450037         7.481313137           687         80.04450135         7.481406548           688         80.04603076         7.481517831           689         80.04781564         7.48149684           690         80.04799179         7.481536606           691         80.00728563         7.481888341           692         80.00324504         7.477096415           693         80.00270175         7.47753905           694         80.00216247         7.481681493           695         80.00255307         7.481777878           696         80.00373211         7.481931964           698         80.00134816         7.482558564           699         80.0031911         7.48329862           700         80.00645138         7.481671755	677	80.04572299	7.479161824
680         80.04399541         7.477595423           681         80.04377815         7.478501854           682         80.04363967         7.478877261           683         80.04399511         7.479947333           684         80.0442502         7.480372438           685         80.04425569         7.480386881           686         80.04450037         7.481313137           687         80.04456135         7.481406548           688         80.04603076         7.481517831           689         80.04781564         7.48149684           690         80.04799179         7.481536606           691         80.00728563         7.481888341           692         80.00324504         7.477096415           693         80.00270175         7.47753905           694         80.00255307         7.481681493           695         80.00373211         7.4811057           697         79.99887336         7.481931964           698         80.00134816         7.483258564           699         80.00645138         7.481671755	678	80.04533085	7.479265256
681       80.04377815       7.478501854         682       80.04363967       7.478877261         683       80.04399511       7.479947333         684       80.0442502       7.480372438         685       80.04425569       7.480386881         686       80.04450037       7.481313137         687       80.04456135       7.481406548         688       80.04603076       7.481517831         689       80.04781564       7.48149684         690       80.04799179       7.481536606         691       80.00728563       7.481888341         692       80.00324504       7.477096415         693       80.00270175       7.47753905         694       80.00216247       7.481681493         695       80.00255307       7.48177878         696       80.00373211       7.4811057         697       79.99887336       7.481931964         698       80.00134816       7.482558564         699       80.00645138       7.481671755	679	80.04510716	7.477975284
682       80.04363967       7.478877261         683       80.04399511       7.479947333         684       80.0442502       7.480372438         685       80.04425569       7.480386881         686       80.04450037       7.481313137         687       80.04456135       7.481406548         688       80.04603076       7.481517831         689       80.04781564       7.48149684         690       80.04799179       7.481536606         691       80.00728563       7.481888341         692       80.00324504       7.477096415         693       80.00270175       7.47753905         694       80.00216247       7.481681493         695       80.00255307       7.481777878         696       80.00373211       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	680	80.04399541	7.477595423
683       80.04399511       7.479947333         684       80.0442502       7.480372438         685       80.04425569       7.480386881         686       80.04450037       7.481313137         687       80.04456135       7.481406548         688       80.04603076       7.481517831         689       80.04781564       7.48149684         690       80.04799179       7.481536606         691       80.00728563       7.481888341         692       80.00324504       7.477096415         693       80.00270175       7.47753905         694       80.00216247       7.481681493         695       80.00255307       7.481777878         696       80.00373211       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	681	80.04377815	7.478501854
684       80.0442502       7.480372438         685       80.04425569       7.480386881         686       80.04450037       7.481313137         687       80.04456135       7.481406548         688       80.04603076       7.481517831         689       80.04781564       7.48149684         690       80.04799179       7.481536606         691       80.00728563       7.481888341         692       80.00324504       7.477096415         693       80.00270175       7.47753905         694       80.00216247       7.481681493         695       80.00255307       7.481777878         696       80.00373211       7.4811057         697       79.99887336       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	682	80.04363967	7.478877261
685       80.04425569       7.480386881         686       80.04450037       7.481313137         687       80.04456135       7.481406548         688       80.04603076       7.481517831         689       80.04781564       7.48149684         690       80.04799179       7.481536606         691       80.00728563       7.481888341         692       80.00324504       7.477096415         693       80.00270175       7.47753905         694       80.00216247       7.481681493         695       80.00255307       7.481777878         696       80.00373211       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	683	80.04399511	7.479947333
686       80.04450037       7.481313137         687       80.04456135       7.481406548         688       80.04603076       7.481517831         689       80.04781564       7.48149684         690       80.04799179       7.481536606         691       80.00728563       7.481888341         692       80.00324504       7.477096415         693       80.00270175       7.47753905         694       80.00216247       7.481681493         695       80.00255307       7.481777878         696       80.00373211       7.4811057         697       79.99887336       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	684	80.0442502	7.480372438
687       80.04456135       7.481406548         688       80.04603076       7.481517831         689       80.04781564       7.48149684         690       80.04799179       7.481536606         691       80.00728563       7.481888341         692       80.00324504       7.477096415         693       80.00270175       7.47753905         694       80.00216247       7.481681493         695       80.00255307       7.481777878         696       80.00373211       7.4811057         697       79.99887336       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	685	80.04425569	7.480386881
688       80.04603076       7.481517831         689       80.04781564       7.48149684         690       80.04799179       7.481536606         691       80.00728563       7.481888341         692       80.00324504       7.477096415         693       80.00270175       7.47753905         694       80.00216247       7.481681493         695       80.00255307       7.481777878         696       80.00373211       7.4811057         697       79.99887336       7.481931964         698       80.00134816       7.48329862         700       80.00645138       7.481671755	686	80.04450037	7.481313137
689       80.04781564       7.48149684         690       80.04799179       7.481536606         691       80.00728563       7.481888341         692       80.00324504       7.477096415         693       80.00270175       7.47753905         694       80.00216247       7.481681493         695       80.00255307       7.481777878         696       80.00373211       7.4811057         697       79.99887336       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	687	80.04456135	7.481406548
690       80.04799179       7.481536606         691       80.00728563       7.481888341         692       80.00324504       7.477096415         693       80.00270175       7.47753905         694       80.00216247       7.481681493         695       80.00255307       7.481777878         696       80.00373211       7.4811057         697       79.99887336       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	688	80.04603076	7.481517831
691       80.00728563       7.481888341         692       80.00324504       7.477096415         693       80.00270175       7.47753905         694       80.00216247       7.481681493         695       80.00255307       7.481777878         696       80.00373211       7.4811057         697       79.99887336       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	689	80.04781564	7.48149684
692       80.00324504       7.477096415         693       80.00270175       7.47753905         694       80.00216247       7.481681493         695       80.00255307       7.481777878         696       80.00373211       7.4811057         697       79.99887336       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	690	80.04799179	7.481536606
693       80.00270175       7.47753905         694       80.00216247       7.481681493         695       80.00255307       7.481777878         696       80.00373211       7.4811057         697       79.99887336       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	691	80.00728563	7.481888341
694       80.00216247       7.481681493         695       80.00255307       7.481777878         696       80.00373211       7.4811057         697       79.99887336       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	692	80.00324504	7.477096415
695       80.00255307       7.481777878         696       80.00373211       7.4811057         697       79.99887336       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	693	80.00270175	7.47753905
696       80.00373211       7.4811057         697       79.99887336       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	694	80.00216247	7.481681493
697       79.99887336       7.481931964         698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	695	80.00255307	7.481777878
698       80.00134816       7.482558564         699       80.0031911       7.48329862         700       80.00645138       7.481671755	696	80.00373211	7.4811057
699     80.0031911     7.48329862       700     80.00645138     7.481671755	697	79.99887336	7.481931964
700 80.00645138 7.481671755	698	80.00134816	7.482558564
	699	80.0031911	7.48329862
701 80.00645118 7.481640064	700	80.00645138	7.481671755
	701	80.00645118	7.481640064

702	80.00643067	7.481631327
703	80.00536956	7.481535348
704	80.00534718	7.481563067
705	80.04877257	7.482350465
706	80.04876689	7.482304518
707	80.04770192	7.482811698
708	80.04841015	7.483479172
709	80.04914453	7.483587563
710	80.05532216	7.484384927
711	80.05541021	7.484314664
712	80.05541647	7.484317206
713	80.05559115	7.484148829
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715	80.05655291	7.482971959
716	80.05649968	7.482682848
717	80.05655667	7.481990046
718	80.05655382	7.481903311
719	80.05651531	7.48162511
720	80.05743267	7.481198197
721	80.05815942	7.481283594
722	80.05851355	7.480518538
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724	80.05667533	7.480601579
725	80.05663461	7.47981614
726	80.05629097	7.479288375
727	80.055886	7.479469555
728	80.05580486	7.479829269
729	80.05562008	7.480844868
730	80.05485232	7.48150577
731	80.0543981	7.482234013
732	80.05366648	7.482780247
733	80.05281319	7.483256034
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734	80.05084596	7.483188428
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736	80.05437049	7.484822567
737	80.054543	7.484885054
738	80.05494608	7.484761709
739	80.0552003	7.484472816
740	80.05532216	7.484384927
741	79.99758781	7.485835408
742	79.99612315	7.486255479
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746	80.01118099	7.486231274
747	80.00927251	7.481681243
748	80.00835441	7.48190647
749	80.01210584	7.488032097
750	80.01211117	7.48803037
751	80.01248972	7.487862408
752	80.01249168	7.4878337
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754	80.01236499	7.486995765
755	80.00013726	7.487731279
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757	80.002023	7.485671791
758	80.00199351	7.485599266
759	80.00214762	7.483771821
760	80.00215252	7.483768843
761	80.00006818	7.483061608
762	79.99998305	7.483074618
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765	79.99757838	7.482955918
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771       80.00150474       7.489215782         772       80.00168428       7.489366827         773       80.00158365       7.489327892         774       80.00156784       7.489322122         775       80.00151181       7.489281829         776       80.06034538       7.490474739         777       80.05970701       7.489841585         778       80.05836057       7.488478548         779       80.05709619       7.488537963         780       80.05556278       7.486998769         782       80.0552476       7.486158427	
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774       80.00156784       7.489322122         775       80.00151181       7.489281829         776       80.06034538       7.490474739         777       80.05970701       7.489841585         778       80.05836057       7.488478548         779       80.05709619       7.488537963         780       80.05556278       7.486938836         781       80.05558186       7.486998769         782       80.0552476       7.486158427	
775       80.00151181       7.489281829         776       80.06034538       7.490474739         777       80.05970701       7.489841585         778       80.05836057       7.488478548         779       80.05709619       7.488537963         780       80.05556278       7.488038836         781       80.05558186       7.486998769         782       80.0552476       7.486158427	
776       80.06034538       7.490474739         777       80.05970701       7.489841585         778       80.05836057       7.488478548         779       80.05709619       7.488537963         780       80.05556278       7.488038836         781       80.05558186       7.486998769         782       80.0552476       7.486158427	
777       80.05970701       7.489841585         778       80.05836057       7.488478548         779       80.05709619       7.488537963         780       80.05556278       7.488038836         781       80.05558186       7.486998769         782       80.0552476       7.486158427	
778       80.05836057       7.488478548         779       80.05709619       7.488537963         780       80.05556278       7.488038836         781       80.05558186       7.486998769         782       80.0552476       7.486158427	
779       80.05709619       7.488537963         780       80.05556278       7.488038836         781       80.05558186       7.486998769         782       80.0552476       7.486158427	
780         80.05556278         7.488038836           781         80.05558186         7.486998769           782         80.0552476         7.486158427	
781     80.05558186     7.486998769       782     80.0552476     7.486158427	
782         80.0552476         7.486158427	
783 80.05488396 7.48542018	
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796 80.05279347 7.489510294	
797 80.05488387 7.489841087	

799         80.05603167         7.488659279           800         80.05679168         7.488868222           801         80.0578604         7.489195347           802         80.05903843         7.490120796           803         80.02794344         7.492205033           804         80.02670502         7.494403784           805         80.02767853         7.494312121           806         80.02836159         7.495852299           807         80.02957563         7.497075559           808         80.03027903         7.496512097           809         80.02780149         7.493910377           810         80.02777751         7.493912729           811         80.02675617         7.492520915           812         80.02716985         7.49103295           813         80.02728968         7.490918793           814         80.0279051         7.489924522           816         80.02653375         7.489108466           818         80.02461323         7.489108466           818         80.02332458         7.4891034           820         80.02336424         7.487953828           821         80.02485981         7.485724828	798	80.05551788	7.489113037
801         80.0578604         7.489195347           802         80.05903843         7.490120796           803         80.02794344         7.492205033           804         80.02670502         7.494403784           805         80.02767853         7.494312121           806         80.02836159         7.495852299           807         80.02957563         7.497075559           808         80.03027903         7.496512097           809         80.02780149         7.493910377           810         80.027780149         7.493912729           811         80.02675617         7.492520915           812         80.02716985         7.49103295           813         80.02728968         7.490918793           814         80.0279051         7.489924522           816         80.02653375         7.490557688           817         80.02461323         7.48911034           819         80.02332458         7.488015968           820         80.02336424         7.487953828           821         80.02485981         7.485724828           822         80.0251284         7.485724828           823         80.02410681         7.4859724845	799	80.05603167	7.488659279
802         80.05903843         7.490120796           803         80.02794344         7.492205033           804         80.02670502         7.494403784           805         80.02767853         7.494312121           806         80.02836159         7.495852299           807         80.02957563         7.497075559           808         80.03027903         7.496512097           809         80.02780149         7.493910377           810         80.02776985         7.493912729           811         80.02675617         7.492520915           812         80.02716985         7.49103295           813         80.02728968         7.490918793           814         80.0279051         7.489924522           816         80.0279051         7.489924522           816         80.02461323         7.48910344           819         80.02332458         7.48911034           819         80.02336424         7.487953828           821         80.02336424         7.485724828           822         80.0251284         7.485395586           823         80.02410681         7.485974845           824         80.02256368         7.486974845	800	80.05679168	7.488868222
803         80.02794344         7.492205033           804         80.02670502         7.494403784           805         80.02767853         7.494312121           806         80.02836159         7.495852299           807         80.02957563         7.497075559           808         80.03027903         7.496512097           809         80.02780149         7.493910377           810         80.02777751         7.493912729           811         80.02675617         7.492520915           812         80.02716985         7.49103295           813         80.02728968         7.490918793           814         80.0279051         7.489924522           816         80.02653375         7.490557688           817         80.02461323         7.489108466           818         80.02332458         7.48911034           819         80.02336424         7.487953828           821         80.02336424         7.485724828           822         80.0251284         7.485395586           823         80.02410681         7.485462831           824         80.0226155         7.486974845           826         80.02255362         7.486989095	801	80.0578604	7.489195347
804       80.02670502       7.494403784         805       80.02767853       7.494312121         806       80.02836159       7.495852299         807       80.02957563       7.497075559         808       80.03027903       7.496512097         809       80.02780149       7.493910377         810       80.02777751       7.493912729         811       80.02675617       7.492520915         812       80.02716985       7.49103295         813       80.02728968       7.490918793         814       80.0279051       7.489924522         816       80.02653375       7.489108466         817       80.02461323       7.489108466         818       80.02459021       7.48911034         819       80.02332458       7.488015968         820       80.02336424       7.487953828         821       80.02336424       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095	802	80.05903843	7.490120796
805       80.02767853       7.494312121         806       80.02836159       7.495852299         807       80.02957563       7.497075559         808       80.03027903       7.496512097         809       80.02780149       7.493910377         810       80.02777751       7.493912729         811       80.02675617       7.492520915         812       80.02716985       7.49103295         813       80.02728968       7.490918793         814       80.02741214       7.490804156         815       80.0279051       7.489924522         816       80.02653375       7.490557688         817       80.02461323       7.489108466         818       80.02459021       7.48911034         819       80.02332458       7.48015968         820       80.02336424       7.487953828         821       80.02336424       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.0226155       7.486974845         826       80.02256368       7.486974845         826       80.02256368       7.486989095         <	803	80.02794344	7.492205033
806       80.02836159       7.495852299         807       80.02957563       7.497075559         808       80.03027903       7.496512097         809       80.02780149       7.493910377         810       80.02777751       7.493912729         811       80.02675617       7.492520915         812       80.02716985       7.49103295         813       80.02728968       7.490918793         814       80.0279051       7.489924522         816       80.02653375       7.490557688         817       80.02461323       7.489108466         818       80.02459021       7.48911034         819       80.02332458       7.48015968         820       80.02336424       7.487953828         821       80.02485981       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485974845         825       80.0226155       7.486974845         826       80.02255362       7.486989095         828       80.0208692       7.486765528	804	80.02670502	7.494403784
807       80.02957563       7.497075559         808       80.03027903       7.496512097         809       80.02780149       7.493910377         810       80.02777751       7.493912729         811       80.02675617       7.492520915         812       80.02716985       7.49103295         813       80.02728968       7.490918793         814       80.0279051       7.489924522         816       80.02653375       7.490557688         817       80.02461323       7.489108466         818       80.02459021       7.48911034         819       80.02332458       7.487953828         820       80.02336424       7.487953828         821       80.02485981       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485974845         825       80.0226155       7.486974845         826       80.02255362       7.486989095         828       80.0208692       7.486765528	805	80.02767853	7.494312121
808       80.03027903       7.496512097         809       80.02780149       7.493910377         810       80.02777751       7.493912729         811       80.02675617       7.492520915         812       80.02716985       7.49103295         813       80.02728968       7.490918793         814       80.02741214       7.490804156         815       80.0279051       7.489924522         816       80.02653375       7.490557688         817       80.02461323       7.489108466         818       80.02459021       7.48911034         819       80.02332458       7.488015968         820       80.02336424       7.487953828         821       80.02336424       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485974845         825       80.0226155       7.486974845         826       80.02256368       7.486989095         828       80.0208692       7.486765528	806	80.02836159	7.495852299
809         80.02780149         7.493910377           810         80.02777751         7.493912729           811         80.02675617         7.492520915           812         80.02716985         7.49103295           813         80.02728968         7.490918793           814         80.02741214         7.490804156           815         80.0279051         7.489924522           816         80.02653375         7.490557688           817         80.02461323         7.489108466           818         80.02459021         7.48911034           819         80.02332458         7.488015968           820         80.02336424         7.487953828           821         80.02485981         7.485724828           822         80.0251284         7.485395586           823         80.02414871         7.485462831           824         80.02410681         7.485570426           825         80.0226155         7.486974845           826         80.02256368         7.486989095           828         80.0208692         7.486765528	807	80.02957563	7.497075559
810       80.02777751       7.493912729         811       80.02675617       7.492520915         812       80.02716985       7.49103295         813       80.02728968       7.490918793         814       80.02741214       7.490804156         815       80.0279051       7.489924522         816       80.02653375       7.490557688         817       80.02461323       7.489108466         818       80.02459021       7.48911034         819       80.02332458       7.488015968         820       80.02336424       7.487953828         821       80.02485981       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485570426         825       80.0226155       7.486974845         826       80.02256368       7.486989095         828       80.0208692       7.486765528	808	80.03027903	7.496512097
811       80.02675617       7.492520915         812       80.02716985       7.49103295         813       80.02728968       7.490918793         814       80.02741214       7.490804156         815       80.0279051       7.489924522         816       80.02653375       7.490557688         817       80.02461323       7.489108466         818       80.02459021       7.48911034         819       80.02332458       7.488015968         820       80.02336424       7.487953828         821       80.02485981       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485974845         825       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	809	80.02780149	7.493910377
812       80.02716985       7.49103295         813       80.02728968       7.490918793         814       80.02741214       7.490804156         815       80.0279051       7.489924522         816       80.02653375       7.490557688         817       80.02461323       7.489108466         818       80.02459021       7.48911034         819       80.02332458       7.488015968         820       80.02336424       7.487953828         821       80.02485981       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485570426         825       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	810	80.02777751	7.493912729
813       80.02728968       7.490918793         814       80.02741214       7.490804156         815       80.0279051       7.489924522         816       80.02653375       7.490557688         817       80.02461323       7.489108466         818       80.02459021       7.48911034         819       80.02332458       7.488015968         820       80.02336424       7.487953828         821       80.02485981       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.486974845         825       80.0226155       7.486974845         826       80.02256368       7.486989095         828       80.0208692       7.486765528	811	80.02675617	7.492520915
814       80.02741214       7.490804156         815       80.0279051       7.489924522         816       80.02653375       7.490557688         817       80.02461323       7.489108466         818       80.02459021       7.48911034         819       80.02332458       7.488015968         820       80.02336424       7.487953828         821       80.02485981       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485570426         825       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	812	80.02716985	7.49103295
815       80.0279051       7.489924522         816       80.02653375       7.490557688         817       80.02461323       7.489108466         818       80.02459021       7.48911034         819       80.02332458       7.488015968         820       80.02336424       7.487953828         821       80.02485981       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485570426         825       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	813	80.02728968	7.490918793
816       80.02653375       7.490557688         817       80.02461323       7.489108466         818       80.02459021       7.48911034         819       80.02332458       7.488015968         820       80.02336424       7.487953828         821       80.02485981       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485570426         825       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	814	80.02741214	7.490804156
817       80.02461323       7.489108466         818       80.02459021       7.48911034         819       80.02332458       7.488015968         820       80.02336424       7.487953828         821       80.02485981       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485570426         825       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	815	80.0279051	7.489924522
818       80.02459021       7.48911034         819       80.02332458       7.488015968         820       80.02336424       7.487953828         821       80.02485981       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485570426         825       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	816	80.02653375	7.490557688
819       80.02332458       7.488015968         820       80.02336424       7.487953828         821       80.02485981       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485570426         825       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	817	80.02461323	7.489108466
820       80.02336424       7.487953828         821       80.02485981       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485570426         825       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	818	80.02459021	7.48911034
821       80.02485981       7.485724828         822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485570426         825       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	819	80.02332458	7.488015968
822       80.0251284       7.485395586         823       80.02414871       7.485462831         824       80.02410681       7.485570426         825       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	820	80.02336424	7.487953828
823       80.02414871       7.485462831         824       80.02410681       7.485570426         825       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	821	80.02485981	7.485724828
824       80.02410681       7.485570426         825       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	822	80.0251284	7.485395586
825       80.0226155       7.486974845         826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	823	80.02414871	7.485462831
826       80.02256368       7.486991984         827       80.02255362       7.486989095         828       80.0208692       7.486765528	824	80.02410681	7.485570426
827     80.02255362     7.486989095       828     80.0208692     7.486765528	825	80.0226155	7.486974845
828 80.0208692 7.486765528	826	80.02256368	7.486991984
	827	80.02255362	7.486989095
829 80.01909956 7.485749745	828	80.0208692	7.486765528
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842	80.0209892	7.477712195
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845	80.02681888	7.476330147
846	80.02679518	7.478473933
847	80.02751471	7.478283742
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849	80.02983088	7.475803591
850	80.02508766	7.474798647
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1	•	

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903	80.03831775	7.491512125
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907	80.03751704	7.483852556
908	80.0397051	7.484206624
909	80.03960321	7.485931386
910	80.03884671	7.488660241
911	80.03862548	7.489129863
912	80.03794696	7.490061495
913	80.03836881	7.490550366
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919	80.04006094	7.486618668
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924	80.03934396	7.483354469
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929         80.03979132         7.479514133           930         80.03730304         7.479650583           931         80.03730341         7.479641886           932         80.03722908         7.477991816           934         80.03781234         7.477975882           935         80.03785453         7.477995484           936         80.03944066         7.478735441           937         80.04052115         7.479061169           938         80.04073786         7.47906759           939         80.04043679         7.477517634           940         80.03955224         7.476829496           941         80.03883854         7.476113885           942         80.0383103         7.476319727           943         80.03767804         7.475408099           945         80.03642945         7.47900161           946         80.03641885         7.480675496           948         80.03688033         7.481805629           949         80.03668825         7.482997861           950         80.03613635         7.485419582           951         80.03558687         7.486633138           952         80.03495881         7.487492369	927	80.03927062	7.48087106
930         80.03730304         7.479650583           931         80.03730341         7.479641886           932         80.03722908         7.478215783           933         80.03780602         7.477991816           934         80.03781234         7.477975882           935         80.03785453         7.477995484           936         80.03944066         7.478735441           937         80.04052115         7.479061169           938         80.04073786         7.47906759           939         80.04043679         7.477517634           940         80.03955224         7.476829496           941         80.03883854         7.476113885           942         80.0383103         7.476319727           943         80.03767804         7.475408099           944         80.03767804         7.47900161           946         80.03641885         7.480675496           948         80.03688033         7.481805629           949         80.03688033         7.482997861           950         80.03613635         7.486633138           952         80.03495881         7.489245799           954         80.0355569         7.491149887	928	80.03979949	7.480001636
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933         80.03780602         7.477991816           934         80.03781234         7.477975882           935         80.03785453         7.477995484           936         80.03944066         7.478735441           937         80.04052115         7.479061169           938         80.04073786         7.47906759           939         80.04043679         7.477517634           940         80.03955224         7.476829496           941         80.03883854         7.476113885           942         80.0383103         7.476319727           943         80.03780414         7.475408099           945         80.03642945         7.47900161           946         80.03641885         7.479604523           947         80.03659458         7.480675496           948         80.03688033         7.481805629           949         80.03688033         7.485419582           951         80.03558687         7.486633138           952         80.03495881         7.487492369           953         80.03476168         7.489245799           954         80.03505576         7.491149887           956         80.035569         7.492282734	931	80.03730341	7.479641886
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936         80.03944066         7.478735441           937         80.04052115         7.479061169           938         80.04073786         7.47906759           939         80.04043679         7.477517634           940         80.03955224         7.476829496           941         80.03883854         7.476113885           942         80.0383103         7.476319727           943         80.03780414         7.475472884           944         80.03767804         7.475408099           945         80.03642945         7.47900161           946         80.03641885         7.480675496           948         80.03688033         7.481805629           949         80.03668825         7.482997861           950         80.03613635         7.485419582           951         80.03558687         7.486633138           952         80.03495881         7.487492369           953         80.03476168         7.489245799           954         80.03505576         7.491149887           956         80.035569         7.492282734	934	80.03781234	7.477975882
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