



POLONNARUWA

URBAN DEVELOPMENT PLAN

2021 - 2030



Urban Development Authority
Ministry of Urban Development & Housing



“THE GREEN GLORIOUS HERITAGE CITY IN KINGDOM OF RICE”

POLONNARUWA URBAN DEVELOPMENT PLAN
2021 - 2030



Urban Development Authority
Ministry of Urban Development and Housing

Polonnaruwa Urban Development Plan 2021 - 2030

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“Polonnaruwa Urban Development Plan 2021–2030” mainly consists of three parts as Part I, II and III. The Part I consists of the background study, preliminary studies, the need of the plan, the planning framework, the SWOT analysis and the plan. The Part II consists of the Planning and Building Regulations and Zoning Regulations pertaining to the planning boundary for the period of 2021–2030. The part III consist of the zoning boundaries with the coordinates and all the annexures.

“Polonnaruwa Urban Development Plan 2021 – 2030” has been prepared by the Planning Division of the Polonnaruwa District Office.

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- GIS Division – UDA (Providing Arc GIS Spatial data layer)
- Research and Development Division – UDA (Conduct awareness programs to introduce new techniques)

ACKNOWLEDGEMENT

Preparation of “Polonnaruwa Urban Development Plan 2021-2030” was carried out under the initial supervision of the Planning Division of the Polonnaruwa District Office of the Urban Development Authority. The objective of this plan is to formally develop the city of Polonnaruwa as the “The Green Glorious, Heritage City in Kingdom of Rice” by the year 2030. The vision of the Polonnaruwa Development Plan 2021–2030 is in line with the ‘Vistas of Prosperity and splendour’ the government policy direction of His Excellency the President Gotabaya Rajapaksa.

It is our proud privilege to Honourable Mahinda Rajapaksa subject Minister of Urban Development & Housing for approving the Polonnaruwa Urban Development Plan 2021–2030 under the provision of Urban Development Authority Act No. 41 of 1978 as amended by the Act No. 04 of 1982.

Further, it is our privilege to Dr. Nalaka Godahewa, State Minister of Urban Development, Coast Conservation, Waste Disposal and Community Cleanliness and Mr. Sirinimal Perera, Secretary to the Ministry of Urban Development & Housing for their guidance and support in this process.

The Urban Development Authority would like to extend its special thanks to the entire staff for their generous support including the Commissioner and the Mayor of Polonnaruwa Municipal Council, the staff including the secretary and the Chairman of Polonnaruwa Pradeshiya Sabha, the Staff including the Divisional Secretary of the Thamankaduwa Divisional Secretariat who assisted in the formulation of a more practical city development plan with a view to restoring the historical pride and prosperity of the city.

Our special thanks go to the urban dwellers of Polonnaruwa, the daily migrants, the business community, the tourists and the Grama Niladharis of the urban area who assisted us in making Polonnaruwa a beautiful and comfortable city. The Urban Development Authority also pays special tribute to government and non-government organizations for their support in providing the data, advice and knowledge in compiling this plan.

Appreciatively thankful to the Chairman of UDA Archt. Harshan De Silva, Director General of UDA Plnr. N.P.K. Ranaweera, Additional Director General of UDA Plnr. H.A. Dayananda, Deputy Director General (Planning) of UDA Plnr. M.P.Ranatunga, Consultant (Legal) of UDA Attorney at Law C. Jayawardena, Director (Strategic Planning) of UDA Plnr. Priyani Nawarathne on behalf of the planning team for their incomparable courage, guidance and welcoming support.

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

The planning team would also like to thank all staff of the Polonnaruwa District Office for their support in making this plan a success.

Hon. Minister's Forward



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

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

The city of Polonnaruwa serves a large number of people within and outside the district. It also has the potential to make the Polonnaruwa Urban Planning Area a further developed tourist destination. The natural ecosystem of the area around the city of Polonnaruwa and the location of places of historical value further enhance this potential. These development plans are intended to develop the Polonnaruwa urban area by utilizing those potentials.

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

Accordingly, I commend the Chairman of the Urban Development Authority, the Director General, the planning teams and all the officers of the Urban Development Authority who assisted in making this work a success. Further, I also appreciate and believe through the support and contribution of the relevant Local Government Institutions, Public and Private Sector Institutions and the general public, Polonnaruwa Urban Development plan 2021-2030 would be successfully implemented.

Hon. Mahinda Rajapaksa (M. P)

Minister of Urban Development & Housing

Hon. State Minister's Forward



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

The development plans thus formulated are primarily aimed at building a productive citizen, a happy family, a dignified society and a prosperous nation, which are the core aspirations of the vistas of prosperity. I also believe that these development plans will go a long way in achieving the objectives of urban development and regulation through a formal reurbanization plan that will bring economic stability to the urban population.

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

Dr. Nalaka Godahewa (M.P)

*State Minister of Urban Development, Coast Conservation,
Waste Disposal and Community Cleanliness*

Hon. Chairman's forward – Urban Development Authority



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

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

According to the present government's manifesto, it is compulsory to prepare development plans for areas which have been declared as urban development areas by the subject minister as per section 8 A (1) under part II of Urban Development Authority Act No. 04 of 1982 (Amendment).

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

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

Archt. Harshan De Silva

Chairman

Urban Development Authority

Message from the Hon. Mayor of Polonnaruwa Municipal council



The city of Polonnaruwa, which has a proud and prosperous history as the second Kingdom of Sri Lanka, is currently undergoing rapid development under the vision of His Excellency the President's Vision of Prosperity. The Polonnaruwa Municipal Council has also launched a number of special projects with the vision of a 'Sustainable city for a comfortable life'.

Against such a backdrop, the Urban Development Authority (UDA) has formulated this plan for the next 10 years with the vision of a “The Green glorious heritage City in Kingdom of Rice” by analyzing the problems and development potential of the area.

The plan aims to preserve eco-sensitive areas and ecological beauty and to create new economic opportunities highlighting the identity of Polonnaruwa. I thank the Urban Development Authority for developing a timely and practical plan and I hope this plan will guide us in achieving the vision of a "sustainable city for a comfortable life".

Chanaka Sidath Ranasinghe

Mayor

Polonnaruwa Municipal Council

Message from the Hon. Chairman of the Polonnaruwa Pradeshiya Sabha



Polonnaruwa is a historic city with full of beauty. The Polonnaruwa Pradeshiya Sabha is working with the vision of making all the people living there a satisfied community.

It can be seen that the Urban Development Authority has prepared a plan for the Polonnaruwa Urban area and fulfilled the current needs with the vision of “The Green Glorious Heritage City in Kingdom of Rice” in order to enhance the welfare and well-being of the people while preserving the identity of the area.

It is fortunate that this plan, which has been formulated taking into account the existing problems of the city and the positive potential for solving them, has given priority to the economic development of the city and has also taken into account the maintenance of environmental balance.

I would like to extend our congratulations to the Urban Development Authority for providing the opportunity to guide the people of the area on the right path of development through the Polonnaruwa Urban Development Plan 2021-2030.

I would also like to express my sincere support to the Polonnaruwa Pradeshiya Sabha in its journey towards the world of the future with a new development vision and timely development objectives.

Premasiri Munasinghe

Chairman

Polonnaruwa Pradeshiya Sabha

PREFACE

Polonnaruwa, with a proud history as the second kingdom of Sri Lanka, is a living testament to the excellence of ancient Sri Lankan urban City Planning. During the reign of King Parakramabahu the Great, the city was balanced in all aspects of the economy, education, health, social and security, while maintaining the ecological balance and highlighting the natural beauty. Polonnaruwa was the center that brought the nickname "Granary of the East" to Sri Lanka.

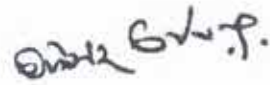
The present city of Polonnaruwa is functioning as the main economic and administrative center of the district and is facing various problems in the face of gradual urbanization. The economy of the city and the district is based on the rice industry as in the past, but the urban population is raising the need for alternative economic opportunities.

Therefore, the Polonnaruwa Urban Plan is geared towards achieving the vision of "The Green Glorious Heritage City in Kingdom of Rice" by scientifically analyzing the existing problems, unused strengths and potentials in the Polonnaruwa Urban Area.

The main objective of this plan is to preserve the ecological balance of the Polonnaruwa Urban Area for the next 10 years and to create the physical environment required to revive the historical prosperity by creating new economic opportunities. It includes all other objectives and strategic plans attached to it and this development plan is valid till 2030.12.31.

**APPROVAL OF THE DEVELOPMENT PLAN FOR THE URBAN DEVELOPMENT AREA
OF POLONNARUWA MUNICIPAL COUNCIL AREA & PART OF THE POLONNARUWA
PRADESHIYA SABH AREA**

I, Mahinda Rajapaksa, Minister of Urban Development and Housing do hereby approve the development plan for the Urban Development Area of Polonnaruwa Municipal Council Area & Part of the Polonnaruwa Pradeshiya Sabha Area, having considered the recommendation made by the Board of Management of the Urban Development Authority on 24th September, 2020 by virtue of the powers vested in me under section 8 "F" of the Urban Development Authority (Amendment) Act No.4 of 1982.



Mahinda Rajapaksa (M.P)

Minister of Urban Development and Housing

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

Date: 27th April, 2021.

GAZETTE NOTIFICATION



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The Gazette of the Democratic Socialist Republic of Sri Lanka

EXTRAORDINARY

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No.. 2236/20 – TUESDAY, JULY 13, 2021

(Published by Authority)

PART I : SECTION (I) — GENERAL

Government Notifications

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

I, Mahinda Rajapaksa, Minister of Urban Development and Housing do hereby approve the development plan for the Urban Development Area of Polonnaruwa Municipal Council Area and Part of the Polonnaruwa Pradeshiya Sabha Area, having considered the recommendation made by the Board of Management of the Urban Development Authority on 24th September, 2020 by virtue of the powers vested in me under section 8 "F" of the Urban Development Authority (Amendment) Act, No. 4 of 1982.

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

Ministry of Urban Development and Housing,
17th and 18th Floors,
"Suhurupaya",
Sri Subhuthipura Road,
Battaramulla.
27th April, 2021.

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PART I : Sec (I) - GAZETTE EXTRAORDINARY OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA - 13.07.2021

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

NOTICE is here by given to the General Public of the Democratic Socialist Republic of Sri Lanka under Section 8 (G) of the Urban Development Authority Law No. 41 of 1978 as amended by the Act No. 4 of 1982 that I, Mahinda Rajapaksa, the Minister in charge of the subject of Urban Development, Housing, by virtue of the powers vested in me under Section 8 (F) of the said Act, have approved the Development Plan for the Urban Development Area of the Urban Council of Polonnaruwa and a part of the Pradeshiya Sabha limit of Polonnaruwa, prepared under Section 8 (A) of the said Act, on the 27th day of April, 2021.

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

Ministry of Urban Development & Housing,
17th and 18th Floors,
"Suhurupaya",
Subhuthipura Road,
Battaramulla.
12th July, 2021.

07 - 572/2

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

PUBLIC are hereby informed that the Development Plan prepared for the Urban Development area of the Urban Council of Polonnaruwa and a part of the Pradeshiya Sabha limit of Polonnaruwa 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 27th April, 2021, by Hon. Mahinda Rajapaksa, Minister of Urban Development and Housing, by virtue of powers vested on him under Section 8 (F) of the said Act.

Arch. **HARSHAN DE SILVA,**
Chairman,
Urban Development Authority.

12th July, 2021.

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Part I

THE DEVELOPMENT PLAN

Chapter 01

BACKGROUND OF THE DEVELOPMENT PLAN

1.1 Introduction

The Urban Development Authority is the regulatory apparatus for urban development in Sri Lanka. Thus, the Urban Development Authority Act No. 41 of 1978 seeks to make it the leading urban planning and implementing agency in the country. The Polonnaruwa Urban Development Plan has been published in terms of the powers and functions acquired with the Authority under Section 8 of the Urban Development Authority Act No. 4 of 1982. The mission of the Authority is to implement, coordinate and develop the economic, social, environmental and physical development of the declared urban areas. The above prospects were the main intention in formulating this development plan.

The study area of this development plan is located in the Polonnaruwa District of the North Central Province of Sri Lanka and in 34 selected Grama Niladhari Divisions. Those areas belong to two local authorities namely “Polonnaruwa Municipal Council as a whole” and part of “Polonnaruwa Pradeshiya Sabha”.

The Town Council Area of Polonnaruwa was first declared as an Urban Development Area in the Extraordinary Gazette Notification No. 38/16 dated June 10, 1979. Again, the Extraordinary Gazette Notification No. 1397/1 dated 13.06.2005 amended 56.7 square kilometers of the Thamankaduwa Pradeshiya Sabha area (22 Grama Niladhari Divisions) as Urban area. Therefore, a development plan drafted by the Urban Development Authority for the period from 2008 to 2018 was implemented in this area.

Recently, the Tamankaduwa Pradeshiya Sabha area was divided into two Local Government Institutions as Polonnaruwa Municipal Council and Polonnaruwa Pradeshiya Sabha by the gazette notification dated 19.12.2016. After changing the administrative boundaries of the city and analyzing the development orientation and the impact of development, the Urban Development Authority proposed to expand the urban boundary in 2018.

That is, the Municipal Council area was fully designated (16 Grama Niladhari Divisions) and a part of the Polonnaruwa Pradeshiya Sabha area (18 Grama Niladhari Divisions) was declared as an Urban area by the Extraordinary Gazette Notification No. 2084/4 dated 14.08.2018.

Subsequently, this “Polonnaruwa Urban Development Plan 2021 - 2030” was published for that urban area.

This development plan covers the overall framework for planning physical development in the Polonnaruwa urban area for the period 2021 - 2030. Therefore, arrangements have been made in the Polonnaruwa Development Plan 2021-2030 to promote and enforce the

Chapter 01 physical development and integrated planning of lands and buildings in the Polonnaruwa
Background of the urban area and to establish infrastructure related services and facilities for the benefit of
development plan the migrant population and residents of Polonnaruwa.

Introduction This development plan is in effect from 2021 to 2030-12-31, after which it will be subject
to necessary updates and revisions.

Stakeholders **1.2 Main stakeholders**

- Polonnaruwa Municipal Council
- Polonnaruwa Pradeshiya Sabha
- Thamankaduwa Divisional Secretariat

Chief Consulting Agencies

- Department of Census and Statistics
- Central Cultural Fund
- Department of Archeology
- Sri Lanka Tourist Board
- Department of Irrigation
- Department of Agrarian Development
- Department of National Physical Planning
- Meteorological Department
- Board of Investment of Sri Lanka
- Central Environmental Authority
- Department of Agriculture
- National Water Supply and Drainage Board
- Department of Forest Conservation
- Department of Railways
- Road Development Authority
- Department of Land Use Policy Planning
- Department of Wildlife Conservation
- Polonnaruwa Disaster Management Center
- Ceylon Electricity Board
- Hector Kobbekaduwa Agrarian Research and Training Institute
- Mahaweli Authority of Sri Lanka
- Sri Lanka Police
- Survey Department
- Industrial Development Board

Other relevant stakeholders

- Shasthrapathi Panditha Anunayaka of the Asgiriya Chapter, Most Venerable Vendaruwe Upali Thero, The Chief incumbent of Uththararamaya, Polonnaruwa
- Most Venerable Udagama Dhammananda Thero, The Chief Incumbant of Isipathanaramaya, Polonnaruwa
- Most Venerable Kanduruwela Dhammapala Mahanayake Thero, The Chief Incumbant of Jayanthi Viharaya, Kanduruwela, Polonnaruwa
- Chief Moulavi, Jumma Mosque, Kanduruwela
- Honorable Archbishop Norbert Marshall Androdi, Nirmali Church, New Town, Polonnaruwa
- District Secretariat Office - Polonnaruwa
- North Central Provincial Council
- District Director, District Samurdhi Office, District Secretariat Polonnaruwa
- Secretary, Chamber of Commerce, Polonnaruwa Group, Nalini Studio, Main Road, Kanduruwela
- Chairman, Sanasa Society, Jaya Sevana, Kanduruwela, Polonnaruwa
- Chairman, Progressive Three Wheeler Society, Hospital Junction, Polonnaruwa
- Manager, Bank Office, Provincial Office, Polonnaruwa, New Town
- Manager, Sampath Bank, Kanduruwela, Polonnaruwa
- Owners of small and large scale rice mills located in the Polonnaruwa urban area

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1.3 Scope of Development Plan

The Urban Development Authority promotes and regulates the urban development process to facilitate economic growth, protect natural and man-made heritage and thereby improve the quality of life of all its inhabitants.

Therefore, the Polonnaruwa Urban Development Plan 2021-2030 is primarily aimed at directing the physical planning process in the area to achieve the overall planning goals. Physical development means changes in land use, settlement and expansion of settlements, location and relocation of human activities, improvement and installation of physical infrastructure, improvement or conservation of any land based on resources or heritage. Any other development activities that are not directly related to the physical environment of the area will not be covered within the scope of this development plan.

When drafting the 2021-2030 city development plan, the draft development plan 2008 - 2018 used so far has also been considered. The master plan concept of the plan and many projects were implemented under the “Awaken Polonnaruwa” District Development Plan

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guided by the Presidential Secretariat, which led to the development of the entire district through social, economic and physical infrastructure projects. The Polonnaruwa urban area was highly affected as the capital of the district with it.

Scope of the
Development
Plan

The finalized “Awaken Polonnaruwa” projects and their future implications were also analyzed in the formulation of the new development plan and the new project proposals required to create a new planned city were included.

The planning
process

1.4 The Planning Process

Figure 1.1: Planning process



Prepared by: Strategic planning division of Urban Development Authority

1.4.1 Background study

The background study was conducted in March 2017 through surveys, office observations, internet, drone surveys, Google maps and satellite technology on four major social, physical, environmental and economic aspects of Polonnaruwa. It covers population information, land use, economy, industry, agriculture, housing, health, education, roads, transportation, infrastructure, archeology and heritage, special projects, open space, and more.

Background of the development plan
The Planning process
Background study

After collecting a satisfactory level of primary and secondary information by July 2017, basic analyzes were performed using Excel, Geographic Information System, Drone based software, Google Maps, and SPSS computer technology to determine the current state of the city.

1.4.1 Determining the Scope of the Development Plan

Scope of the development plan

Conceptual framework

Five significant key areas have been selected in framing the scope of the development plan. Accordingly, the historical background of the city of Polonnaruwa, the pre-planning approaches and their contradictions, the regional and provincial, national and international significance of the city of Polonnaruwa and its contacts and the National Physical Plan and Policy of Sri Lanka 2019-2050 as well as the government Policy Statement “Vistas of Prosperity and Splendour” have been considered.

Physical Framework: Determining the design boundary

After analyzing the urban development orientation and development pressure and the unused potential of the city, 34 complete Grama Niladhari Divisions have been declared as Urban Development Areas by the Additional Gazette Notification No. 2084/4 dated 14th August 2018 for the future development plan. That area was selected as the design boundary of this development plan.

1.4.2 Identify problems and potentials

Problems and potentials in the area need to be identified in order to introduce a practical and successful development plan. It is done through two methods: identifying them with analytical information from the designer's point of view and identifying the stakeholder's perspective on the problem from another perspective. To that end, the first meeting of stakeholders was held on 28 September 2017 with governmental and non-governmental organizations with NVIVO analytical facilities.

Identify problems and potentials

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1.4.3 Formulation of Vision and Goals

problem and potential identification Approach

A methodology was needed to frame the issues and potentials of the area based on their context, size, and importance, and divided the minimum population that would meet the city's needs into four sections. Namely, residents and farmers of Polonnaruwa, daily commuters, foreign tourists and other Sri Lankans and local tourists.

The impact of each problem on each of the selected groups was large, moderate, and minimally weighted. Accordingly, it was possible to compile a list of fundamental problems to be solved and key potentials that could be used. In analyzing this list, the potential for problem solving was explained, so that the direction of the urban development plan could be determined accordingly.

Development Orientation Approach

In adapting the urban development plan to the development trends of the modern world, it is imperative to focus on solving the problems by considering the 2030 National Physical Plan, "The Awakening Polonnaruwa District Development Program" and the "United Nations 2030 Sustainable Development Agenda" (United Nations Conference on Sustainable Development on 25 September 2015). The facts were selected and studied.

Common Stakeholder Vision Approach

All stakeholders enjoying the amenities of the city were asked about the look, vision, and image of the city they would like to experience by 2030.

The vision of the Polonnaruwa Development Plan 2021-2030 was created as a result of the aggregation of the above three pronged approaches. Three main goals have been identified to achieve that vision.

Detailed
Analysis

1.4.4 Detailed Analysis (Based on Goals and Objectives to Achieve Vision)

Information on strengths, weaknesses, opportunities, and threats was studied separately for each target. A detailed analysis based on strengths, weaknesses, opportunities, and threats was then performed. Those descriptive analyzes also included living fitness analysis, potential analysis, and sensitivity analysis. The final objectives were then determined based on the details of each goal.

Plan -
Formulation
of strategies

1.4.5 Plan - Formulation of strategies

The Detailed analysis had done to economic, socia, physical and environmental factors in order to formulate strategies in accordance to achieve the Vision 2021-2030

1.4.6 Planning regulations

Building Regulations, General Regulations, Special Regulations, Guiding plan Regulations and Zonal Regulations were prepared in relation to the vision of the plan. Considering the City's targeted development trends, A new zoning based methodology has followed for maximum use in limited resources.

1.4.7 Inquiry and Consent

According to the Urban Development Authority Act, the Draft Urban Development Plan should obtained the approval from "Main Planning Committee of the Urban Development Authority" and the relevant "Local Government Institutions". Therefore, the draft plan has submitted to the representatives of "Polonnaruwa Municipal Council" and "Polonnaruwa pradeshiya sabha" and Interpretations and comments were obtained.

Thereafter, the draft plan were displayed in the Local Government Institutions for 60 days to public comments and awareness and obtained the approval from the local authorities.

Also, the draft development plan was amended by obtaining ideas and suggestions of the "Main Planning Committee" of the Urban Development Authority.

1.4.8 Submission

The revised plan was submitted to the Ministry for necessary activities.

1.4.9 Approval and publication

Accordingly, the final plan with Sinhala, Tamil and English translations were Published by the Extraordinary Gazette Notification No. 2236/20 on July 13th of 2021.

Chapter 02

PRELIMINARY SURVEYS

2.1 Study Area

Polonnaruwa is an urban area located in the Polonnaruwa District of the North Central Province of Sri Lanka. Known as one of the cleanest and most beautiful cities among foreign tourists. The green environment, the paddy fields, the amazing ancient construction, wild elephants, the large lakes such as the "Parakrama Samudraya" create a unique and memorable experience.

Polonnaruwa Planning Area consisting of 34 Grama Niladhari Divisions in two local authorities namely "Polonnaruwa Municipal Council" (18 Grama Niladhari Divisions) and part of "Polonnaruwa Pradeshiya Sabha" (16 Grama Niladhari Divisions) (Annexures No.12).

Throughout history, Polonnaruwa has been somewhat hidden due to the need to cross natural barriers such as forests and rivers to enter the city, and has thus become a kingdom inheriting its own unique characteristics.

The town of Polonnaruwa is located 216 km from Colombo and 122 km from Kurunegala. The most popular way to get to Polonnaruwa is to take the A11 route to Habarana and about 45 miles to the east via the Minneriya National Wildlife Sanctuary. If coming by rail the Colombo-Batticaloa railway line is via Polonnaruwa town. (Colombo, Ma Oya Junction, Polonnaruwa and Batticaloa) This old railway line established in 1928, which made the Kanduruwela to be a major commercial city.

When considering the climate of the area Polonnaruwa falls under the dry zone of Sri Lanka with an annual rainfall of 1678 mm. With tropical climate characteristics the annual average temperature marks as 27-30 degrees Celsius. May is considered to be the hottest month with an average of 36°C and the lowest temperature of the year marks as 25.1°C in January (Annexes 10.02 and 10.03). District topography varies from 5 feet to 500 feet above sea level and is a relatively steep plain.

2.2 Planning and situational context

Anuradhapura is currently the first tier city in the North Central Province while Polonnaruwa is the second tier city (Annexure 10.04). The city of Polonnaruwa has been declared a Town Council since 1979, and since then the urban boundaries have changed over the years.

Currently, the city's role is slightly different from the "National Physical Planning Policy and Plan 2019 - 2030". The National Physical Policy was formulated in 2006 and revised by the National Physical Planning Department for the period 2017-2050. According to

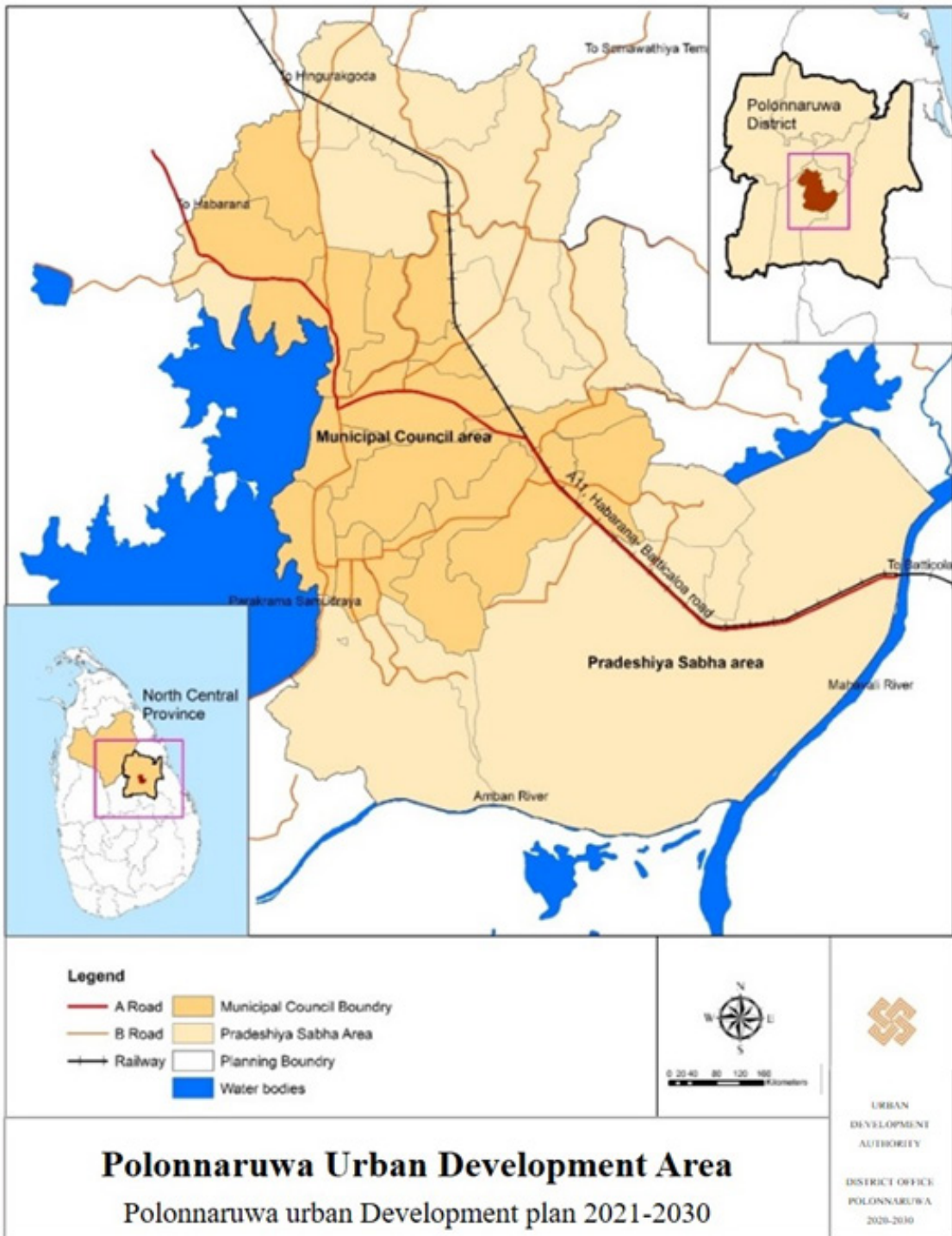
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Preliminary Surveys

Planning and situational context

The location map

Map 2.1: The location map of the urban development area



Source: Pre-Survey Data Collection 2020, Polonnaruwa Development Plan, District Office, UDA

the National Physical Planning Policy and Plan, the physical development of the country is expected to be divided into four physical development zones, two Mega zones and nine major cities. Polonnaruwa is one of the nine major cities. The physical plan describes a major city as follows.

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“A major city is one that provides a very high level of service to every area of significant size. Economic activities, urban facilities are relatively largely focused on the resident population. Within this policy, a major city should be defined as an area with a minimum population of 100,000 and a gross residential population of not more than 5,000 people per square kilometer.” (Section 2.3.1 / 2019- 2050 Department of National Physical Planning / Amendment Plan / Department of National Physical Planning)

NPPD Plan
2019-2030

According to the analysis, with the natural growth, the Polonnaruwa urban area will reach a population of only 77000 by 2030, and Polonnaruwa will be in line with other criteria besides population as a major city from the targets of the National Physical Plan.

Today, the urban space of Polonnaruwa is shaped as a result of the aforementioned historical activities. The city has now developed into three major intersections with distinctive features.

Considering the activity in the city, the entire urban area is mostly active from 7 am to 7 pm during the day. The city is considered the capital of the district and a major hub for all roads, but activity and population are very low after 8 p.m.

2.2.1 Historical evolution

Historic
evolution

Polonnaruwa is one of the most popular ancient kingdoms in Sri Lanka. The city of Polonnaruwa is a unique landmark in the historical journey of the country and as the present city has been established as a result of historical activities, it is essential to have a prudent understanding in the formulation of urban development planning.

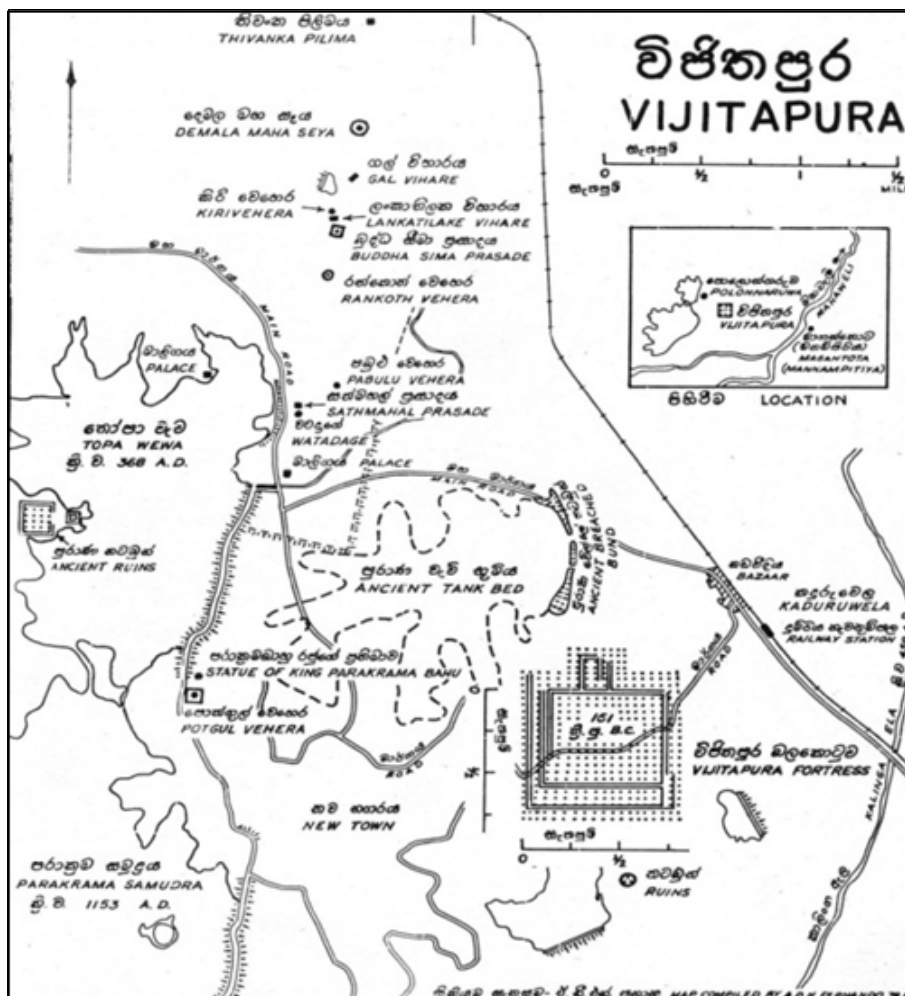
The story of this city begins before the arrival of the Aryans in Lanka and the establishment of settlements (1300 years ago). There is evidence of a civilization of people who cultivated paddy on both sides of the Mahaweli River during the reign of King Rawana. The popular statue in the Pothugal Vihara is believed to have belonged to Pulathisi Rishi, the grandfather of King Rawana, the head of the Pothugal Vihara Ashram located on the banks of the Mahaweli Lake. (Source: Mahaweli and Historic Polonnaruwa ISBN 955-96585 -8-1, 2007 First Edition, J. Balasuriya)

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The well-documented history of the city began with the arrival and settlement of the Aryans. During the Anuradhapura Kingdom, a brother of Princess Baddakachchayana established settlements on the banks of the Mahaweli River and created a village called Vijithagama. It was located close to the present day town of Kanduruwela. Also, AD 161 there was a sustainable and well-designed fort called Vijithapura which belonged to King Elara. The paddy field where King Dutugemunu camped to fight with Vijithapura is now known as the Commercial City of Kanduruwela. Folklore has it that the name of the town “Kanduruwela” was developed as “Kandavuru Bedi wela”, “Kandawuru wela” to “Kanduruwela” as a result.

With the beginning of King Agbo IV, in 658 AD. Polonnaruwa became the second kingdom of Sri Lanka. The Golden Age of Polonnaruwa began with King Parakramabahu the Great during the period 1153-1186 AD.

Figure 2.1: Conceptual drawing of the ancient city by A. D. N Fernando



Source: Mahaweli and Historic Polonnaruwa ISBN 955-96585 -8-1, 2007 First Edition, J. Balasuriya

During the reign of King Parakramabahu the Great, Polonnaruwa was a well-planned and sustainable city with three parks called Nandana Uyana, Laksha Uyana and Deepa Uyana. Cultural and educational prosperity was also completed with the construction of new Buddhist temples such as Alahana Pirivena, Lankathilake, Thuparamaya, Kirivehera and Jethavanaramaya. More than 2000 lakes, canals, irrigation system, created the famous name of the “granary of the East” of Sri Lanka. The ancient city of Polonnaruwa still bears witness to the above story.

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Historical evolution

After the reign of King Parakramabahu the Great King Nissankamalla built many beautiful buildings during the period 1187-1196 that reflected the unique identity of the city. During the year 1214 AD the kingdom of Polonnaruwa was abandoned with the activities of Kalinga Magha for forty years.

Polonnaruwa later functioned as a suburb of other kingdoms and played a vital role as a battleground when kingdoms needed change. Even When signing the Kandyan Pact in 1815 the leader of Polonnaruwa signed it as “Thamankaduwa Disawea”. Thus, there are ample evidences that the city of Polonnaruwa was not completely inactive throughout the history of Sri Lanka.

The city was heavily influenced by the post-British colonial period. No written document can be found on the city plan. But on closer inspection, one can imagine how the city has evolved to its present state with the establishment of several very important centers.

In 1870, the British government built a tourist lounge on the bank of the “Parakrama samudraya” for government agents, which is now the Echo Lake Hotel. It is now functioning as one of the star class hotels in the Polonnaruwa hotel classification.

1927 The railway station and post office are opened, with which Kanduruwela gradually began to become a commercial city. The Ceylon Transport Board also commenced its service in 1969 with 5 buses at Kanduruwela. With the evolution of the city, the Transport Board currently operates 869 daily routes on 16 routes, operating 148 public transport buses and 178 private vehicles.

By 1958, the Polonnaruwa Hospital was established as a rural hospital and was administered by the Matale Health Director's Office. Since its inception, the land use pattern in the Hospital Junction area has changed to healthcare and related activities.

The flow of urbanization towards the new city as an administrative center began in 1961 with the establishment of the Tamankaduwa Kachcheri for administrative activities in the Tamankaduwa Pattu and Sinhala Pattu areas. The New Town area was most severely affected by the commencement of construction of the Royal College in 1959 and its opening in 1965. In the same year the New Town Water Board was also established.

At present, the spatial use of the city of Polonnaruwa has been established as three main centers with distinct features as a result of the aforementioned historical activities.

2.2.2 National Importance

The city of Polonnaruwa has a number of nationally significant values and the following are five key points. Those values have a huge impact on the development of the city.

- (i) Since 1982, it has been a UNESCO World Heritage Site by the United Nations and has become a popular ancient tourist destination in Sri Lanka. According to the Central Cultural Fund, 180,000 foreign tourists visited the country in 2016 alone.
- (ii) Polonnaruwa has been the leading producer of paddy and rice in the country for centuries. The largest paddy cultivation in year 2018 has been reported in the Polonnaruwa district, which is 16% of the total paddy cultivation in the country (61559 ha). Also, 18% of the country's paddy production is produced in the Polonnaruwa district, which is the highest paddy production in 2018. (268472 metric tons of paddy) (Statistics / 2018 Yala; Department of Census and Statistics of Sri Lanka) Also, more than 55% of the total paddy production in the country is converted into rice in this city. (Over 1.48MT of metric tons).
- (iii) The Parakrama Samudraya and the Irrigation System plays a vital role in the economy of the district as the identity of the ancient city which has strong connection with paddy cultivation.
- (iv) The Mahaweli River and “Flood plain National Park” which location in southern boundary of the urban area are very sensitive land uses. This park nominated as a nature reserve in August 7, 1984 and wild elephant uses this valley as a corridor to travel between Wasgamuwa and Somawathiya forest reserves.
- (v) The “Manampitiya Sand”, most popular sand bed in the construction industry in Sri Lanka, is located at the eastern end of the urban area. High in quality and constantly updated, this sand bed is a national asset.

2.2.3 As the Commercial, Administrative and Service Center of the District

The declared urban area functions as the main administrative, commercial and service center of the district, serving the population of the district and the surrounding area around 600,000 people. (Annexure 10.05) District level Education, Health and Administrative Offices are located here. The Commercial Center provides primary consumer goods and services and secondary level commercial facilities (agricultural, chemical, automotive, construction, electrical).

2.2.4 Demographic information

The city has a residential population of 65,329 (2016) and is projected to grow to 76,905 by 2030 at an annual growth rate. The population of the district was 419,000 in 2012, and the population growth rate of 1.16 seems to be higher than the national average. (Annex 10.06) However, considering the natural growth alone, the population of the Polonnaruwa District will be 516,200 by 2030, which is the minimum population required for the existence of the service in the district.

Kanduruwela South, Parakum Place, Kuruppu Junction, Udawela, Nissankamalla Place, have a very high population density of not more than 1600 per square kilometer. Comparing the 2001 and 2012 statistics, the population density growth along the A11 road from Kanduruwela to Polonnaruwa Junction to the new urban area can be seen. The lowest population density is recorded in the western part of Kotaliya and Aluthwewa with less than 200 people per square kilometer.

76% of the total population is Sinhalese. The city is home to a multi-cultural community of 22% Muslims, 1% Tamils and 1% Catholics and other religions.

2.2.5 Housing

There are currently 16684 houses. 93% of the total population owns their own home. 92% of houses are permanent, 7% are semi-permanent and 1% are temporary. 12% of the total number of houses belong to the category of apartments. There is currently a shortage of 497 homes in the city, which is 3% of the total households. The highest housing density was recorded in the Mahaweli area and in the Kanduruwela South Grama Niladhari area.

2.2.6 The economy of the city

In terms of the economically active working class (population over 15), it is 46% of the total population, which is lower than the national average (52%). 76% of families have a monthly income of less than Rs. 25,000. However, for many years Polonnaruwa remained above the National Poverty Index. (Annexure 10.07, Annexure 10.08). Matale, Matara and Mullaitivu districts are similar when compared to the national level.

2.2.7 Water supply

Piped water is the main source of water in the area and is supplied by the National Water Supply and Drainage Board. (The two main sources of water they use are the Mahaweli River and the Parakrama Samudra.) Currently, 83% of the population draws water from the National Water Supply and Drainage Board and 13% from groundwater wells. Although the supply of water is standardized, there is a tendency to use treated water for drinking purposes due to the threat of kidney disease. The cost per liter of water is Rs. 2.00.

Chapter 02 When studying fire safety, the entire area is prepared with 6 fire water supply units.
Preliminary (Kanduruwela 3, Hospital Junction 1, Pola Junction 1, New Town 1) (Annexure 10.09)
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2.2.8 Electricity and Telecommunications

When considering the supply of electricity, according to the reports of the Ceylon Electricity Board, the people in the Polonnaruwa urban area have adequate electricity connections and 99% of the area receives electricity from the CEB. (Annexure 10.11) In the telecommunications sector, SLT (SLT) provides their service to the entire city, with CDMA and ADSL currently available. There are 18 private telecommunication towers located within the urban area, including 4G coverage.

2.2.9 Health

In terms of the social infrastructure sector, it occupies an important place as the district center of the health and education sector. The District Base Hospital is located in an urban area and has a total of 885 beds, 210 doctors, 22 wards and 46 units. In addition to basic specialties, it offers specialized services in orthopedics, ophthalmology, ENT, cardiology, dermatology, rheumatology, nephrology and mental health, radiology, hematology, ophthalmology and histology. The outpatient department also meets the needs of those in need of medical care and emergencies. According to 2012 statistics, half of the district's population is hospitalized, with 223,849 admissions through the admission unit (292,063 outpatients).

A National Level Hospital with a Kidney Transplant Facility is currently under construction in the area, mainly for paddy farmers and to treat patients with undiagnosed kidney disease (near the 28th mile post on the A11 road). The project is a donation from the Chinese government and the kidney hospital will have 200 beds, 100 blood purifiers and a operation center. When the construction of this hospital was completed. It will worth around 12 billion rupees.

In addition to the national hospitals, there are 4 government dispensaries, 4 private Ayurvedic hospitals in the area, 1 private hospital and 3 referral centers for specialist medical care.

2.2.9 Education

Polonnaruwa Urban Area belongs to Polonnaruwa Education Zone and Thamankaduwa Education Division. There are a total of 30 schools spread within the urban area. Royal Central College is the only national level school in the area and is fully equipped. "Pulathisi College of Education", "Technical College", "Bediwewa Open University", "National Apprentice and Industrial Training Authority (NAITA)", "National Vocational

Training Center” are located within the area for the purpose of higher education. These institutions register 200,500,470,100 students per year respectively.

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2.2.11 The land use of the city

The urban area covers an area of 103 square kilometers, of which 62% is ecologically or historically sensitive land use (30% is paddy land or lowland, and other half is sacred and lakes, and reserve land). Therefore, only 38% of the land that can be developed exists. those Lands are located primarily on both sides of the main roads. (Annexure 10.13)

Other than above character, The city has three main centers namely Kanduruwela, Nawagaraya and Pooja Nagaraya. Prior to 2005, these three main centers were isolated by paddy fields and lowland areas which make those centers identical. The Land values were high in centers.

The "Nawa nagaraya " has shown very little development in the last few decades. But after 2015, with the new infrastructure development projects, the land use patterns of all three centers changed drastically. If the situation continues in this manner, there is a high risk that the identity of the sacred city will be damaged due to the collision of these three centers.

2.3 Determining planning boundaries.

Planning boundaries were determined by considering the following three-dimensional analysis. After “overlapping” the areas obtained from all three analysis, the common area was selected as the city boundary in the 2030 Urban Development Plan.

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2.3.1 The functional boundry

As mentioned above, the Polonnaruwa urban area is concentrated in three main centers and the small junctions called Hospital Junction, Gallella, Bandiwewa and Sewagama are also rapidly urbanizing. Considering these, various studies were conducted to determine the active zone of the city. These include road connectivity and settlement pattern, area integration and network core assessment and development compression analysis. Those studies show that the existing urban area needs to be further expanded. (Figure 2.3, Figure 2.4)

Development pressure could be seen in 12 Grama Niladhari Divisions outside the gazzeted urban area in 2005. But it could found that in some of Grama Niladhari Divisions only 1/3 of the total land of such GN division had high development pressure.

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2.3.2 Geographical features

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In selecting the planning boundary, human settlements that can be identified as clusters were considered along with their identifiable natural boundaries, vegetation pattern, watershed area, etc. The Mahaweli River and the National Water Gall Valley to the east, the Ambanganga to the south and the Parakrama Samudra to the west were identified as naturally formed boundaries of the existing settlements. Therefore, in determining the final design boundaries, the east, west and south directions were determined based on the above mentioned geographical features.

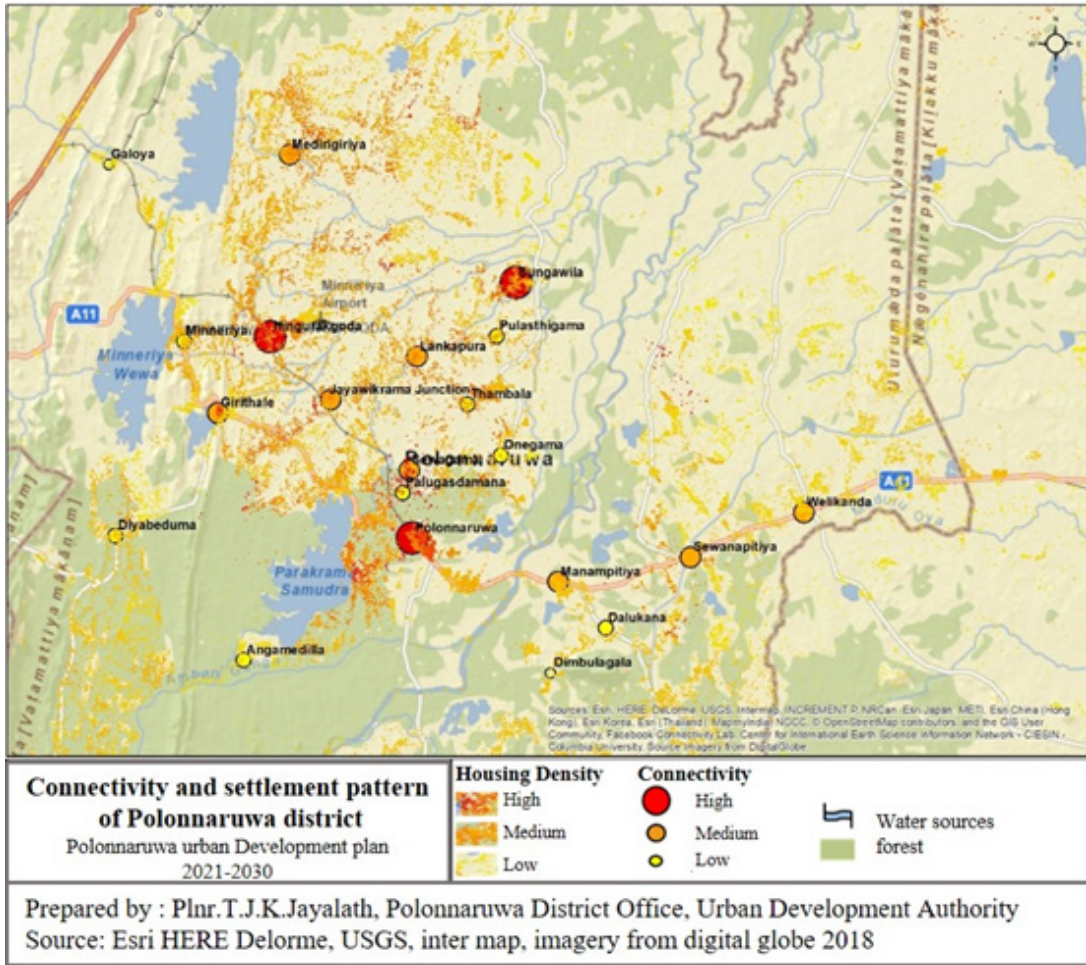
2.3.3 Administrative limitations

The gazetted 22 GN divisions had been belonged to the Thamankaduwa pradeshiya sabha. However, in 2016 the Pradeshiya Sabha was divided into 16 Grama Niladhari Divisions as the "Polonnaruwa Municipal Council" and 37 Grama Niladhari Divisions as the "Polonnaruwa Pradeshiya Sabha".

As explained in selection of functional boundary some Grama Niladhari Divisions only had high development pressure in 1/3 of the total land of such GN division.in order to avoid administrative complications in practising the plan whole GN division has declared as urban (Map 2.1).

The finalized planning area consists of 34 Grama Niladhari Divisions (18 belonging to the Municipal Council and 16 belonging to the Pradeshiya Sabha) with a population of 65329 and 16684 families. The land area is 103.2 square kilometers. (Appendix No.14).

Figure 2.2: The pattern of settlement distribution in the district and the relationship



Source: Esri, "Center for International Geological Information Network" 2018, "Contact Analysis" Polonnaruwa Development Plan 2021 - 2030

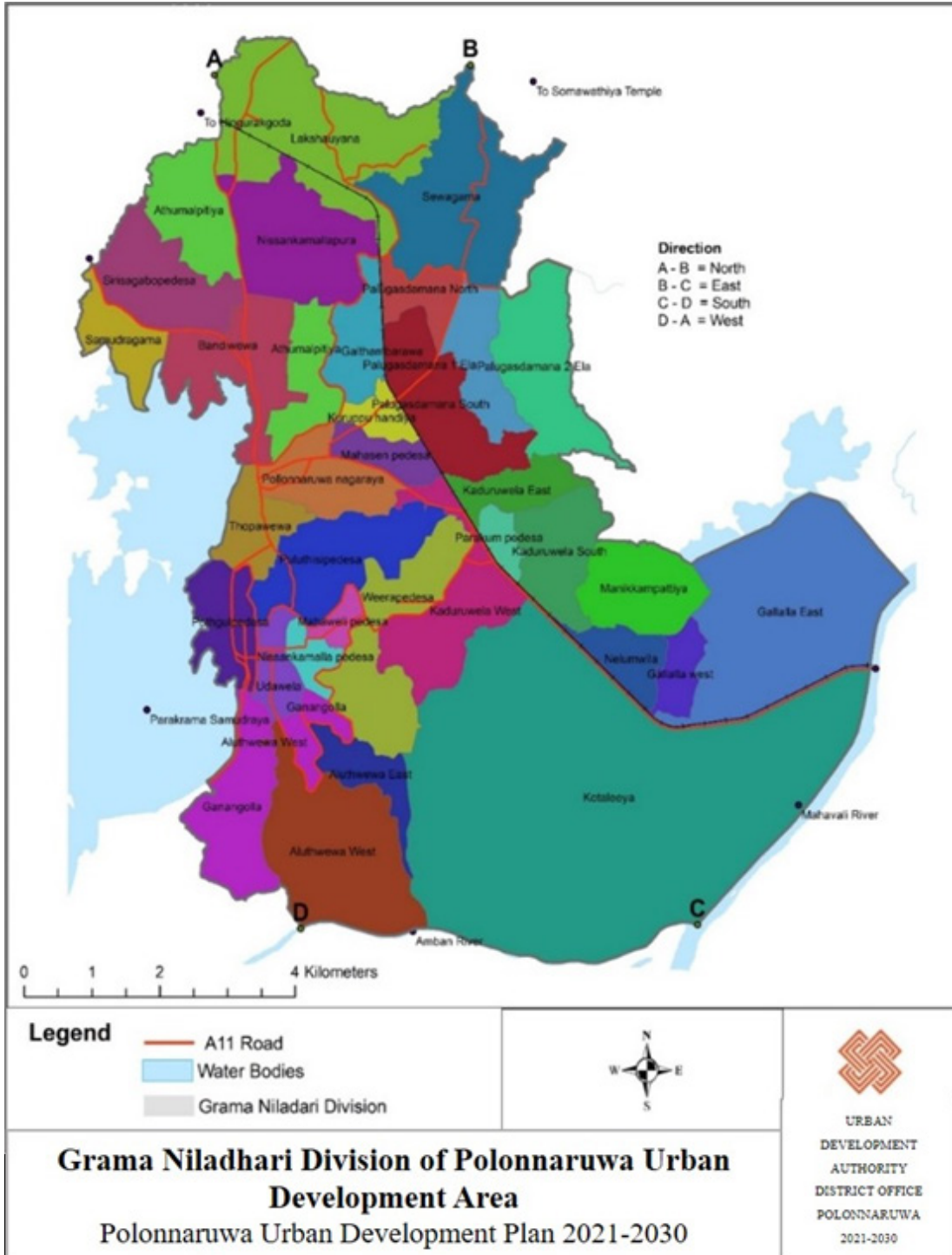
Chapter 02
Preliminary Surveys
Planning and situational context
Determining planning boundaries

Chapter 02 **Map 2.2: Finalized planning boundary according to the Grama Niladhari Divisions**

Preliminary Surveys

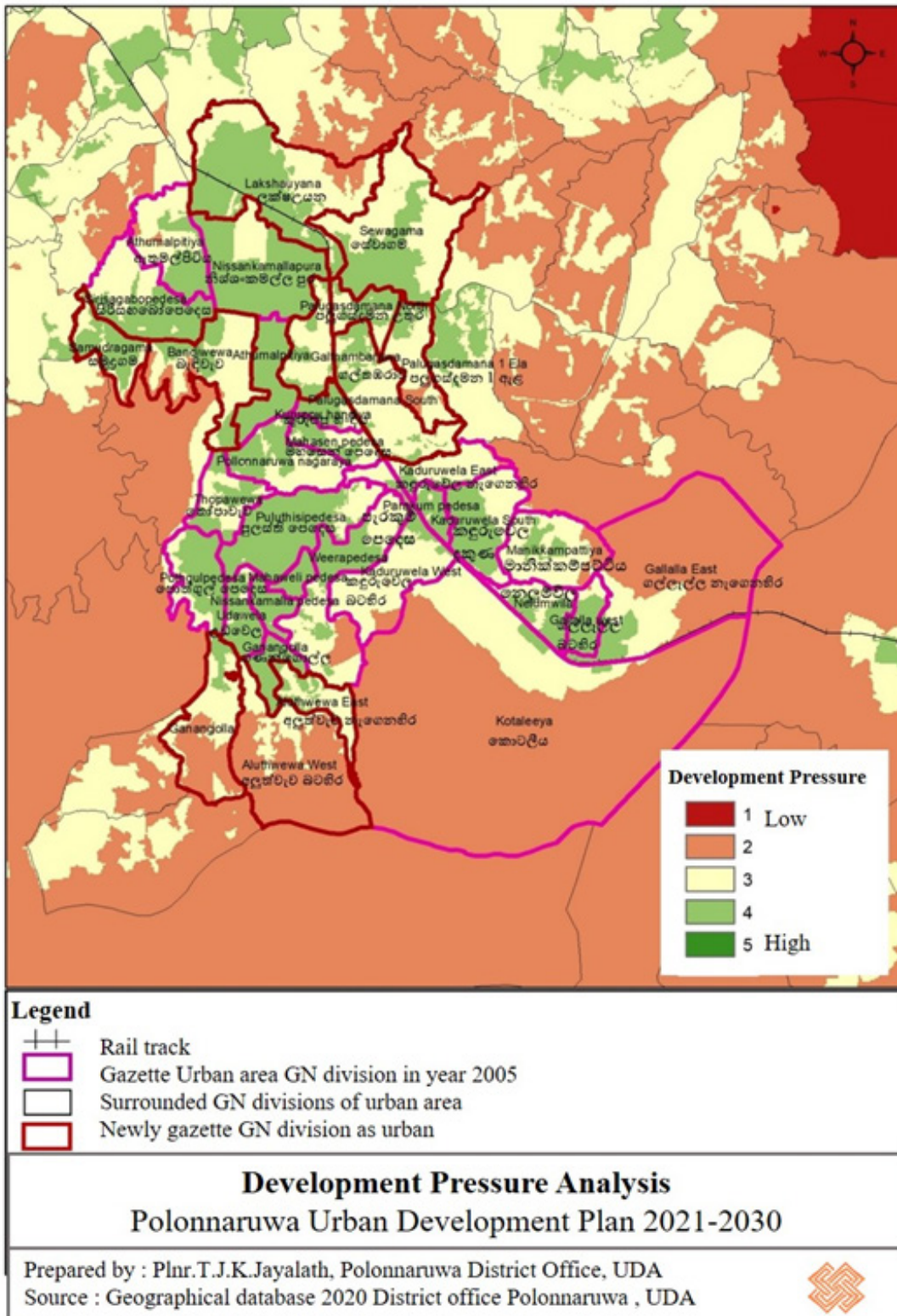
Planning and situational context

Determining planning boundaries



Source: Pre-Survey Data Collection 2020, Polonnaruwa Development Plan, District Office UDA

Figure 2.3: Development pressure analysis



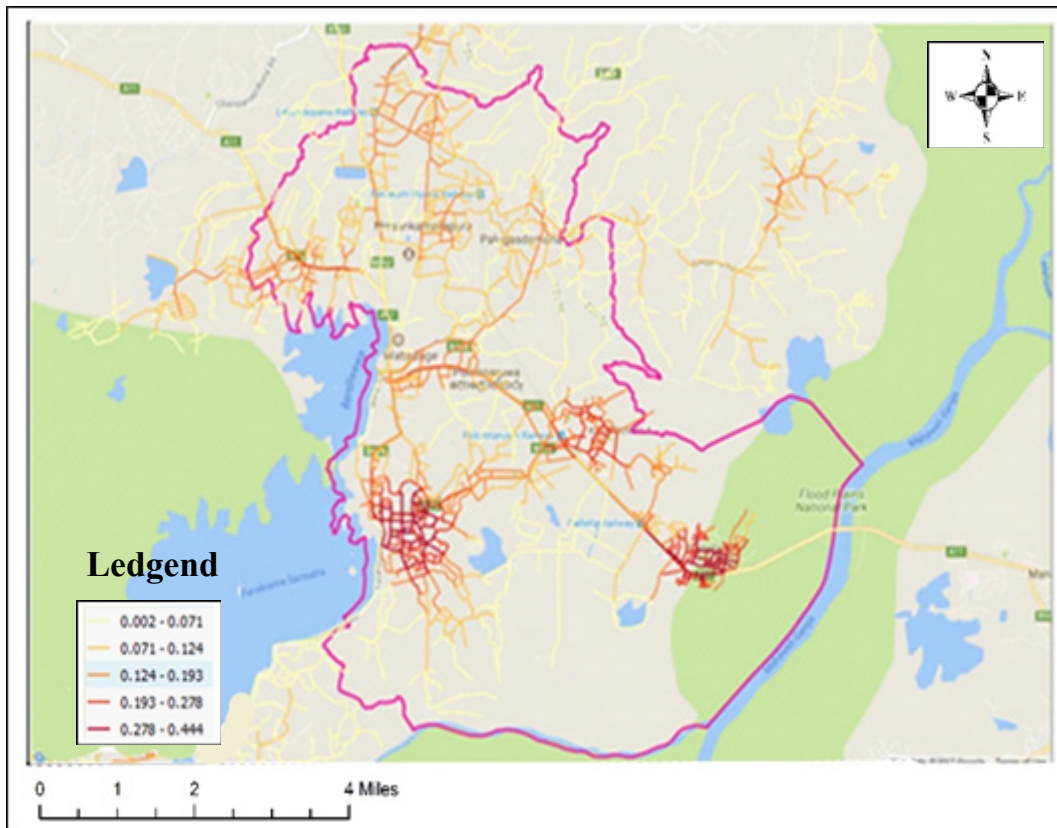
Source: Pre-Survey Data Collection 2020, Polonnaruwa Development Plan, District Office UDA

Chapter 02 **Figure 2.4: Area integration by road network priority assessment (proximity)**

Preliminary
Surveys

Planning and
situational
context

Determining
planning
boundaries



Source: Pre-Survey Data Collection 2020, Polonnaruwa Development Plan, District Office UDA

Chapter 03

NEED OF THE DEVELOPMENT PLAN

3. Need of the development plan

Preparation of a development plan for an area gazetted as an urban area is a legal requirement mentioned in Section 8 of the Urban Development Authority (Amendment) Act No. 04 of 1982. The plan should also cover the role assigned to the city in the National Physical Plan for 2050.

The main objective of formulating this type of urban development plan is to provide a better living environment for the people of the city. That is, to achieve a better living environment by facilitating economic growth, protecting natural and built heritage and improving the living standards of all its inhabitants.

Unplanned development in general leads to a number of environmental and other problems and gradually leads to failed dilapidated settlements. Sometimes planned developments also lead to unintended consequences due to the lack of awareness of the existing social, economic, physical and environmental conditions and special needs of the city dwellers.

The Urban Development Authority (UDA) adopted a scientific methodology in formulating this Urban Development Plan to avoid the aforementioned irregularities.

Polonnaruwa urban area has a total residential population of 64,299 (2017 resource profile) and covers an area of 103 square kilometers. After analyzing the primary and secondary information obtained from the consultative discussions of the stakeholders in each section of the city, a list of issues to be addressed from the 2030 plan was obtained. After analyzing the issues, potential and stakeholder vision, the basic requirements of the Polonnaruwa Development Plan could be identified. Accordingly, in order to achieve sustainable and livable goals in the city of Polonnaruwa, this development plan should focus on four main areas.

The first is the city's need for greater trade and economic opportunities. According to statistics, only 46% of workers in the area (over 15 years of age) are economically active (52% of the national average). Also, 76% of families have an average monthly income of less than Rs. 25,000.00. Unprecedented potentials associated with the tourism industry can be used to increase household income in the area. At present, the potential of the tourism industry can be utilized to generate income without harming the environment by utilizing formal strategies using existing physical infrastructure on agro-tourism and cultural experience and associated heritage.

Secondly, it is essential for the city to protect and improve the identity of the city. The city of Polonnaruwa has a dual identity. One of them is that Polonnaruwa is a World Heritage Site and it is a unique city with historical features that show advanced settlements

beyond the Anuradhapura era and the arrival of the Aryans. The other is paddy cultivation, irrigation and related culture, which has been around for over 100 centuries. Known as the "Eastern Granary" during the reign of King Parakramabahu, the city still produces more than 55% of the national rice production. But while the physical model of the city does not reflect these two-types of identities, it has become a waste of enormous development potential. That is to say, the existing tourism heritage of Polonnaruwa as a World Heritage Site has not been utilized to create new economic opportunities by further linking it with identity and directing it in different directions.

For example, the city of Polonnaruwa has not yet been properly exploited as the main city passing through the Eastern Province via the A11 road. Even travelers whom passing the city to reach eastern Beach , can be stopped by a successful strategic plan. For that, the identity of the city should be well reflected attractively, especially on both sides of the road.

Third, the protection and conservation of historic features and ecologically sensitive areas were identified in order to establish the identity and sustainability of the city in the context of the need for an urban development plan.

Polonnaruwa became a World Heritage Site in 1985 due to three main criteria. The first is the extraordinary dimensions of the city of King Parakramabahu and its foundation due to its very special connection with the natural environment. Polonnaruwa bears witness to several civilizations with Chola and Brahmanical principles and their distinctive styles, as well as to the sovereign rule of the Sinhalese between the 12th and 13th centuries. Thirdly, this area is one of the sacred location in the history of Buddhists and Sinhalese. Damage to the above key features is a threat to the World Heritage City and if so, there is a possibility of removing the ancient city of Polonnaruwa from the World Heritage List. This will affect not only the city but the entire country that benefits from the tourism sector.

Today, the demand for land in the main three centers of the urban area is increasing, and many of the development projects currently underway are gradually threatening the city's identity and natural environment. The protection and conservation of ecologically sensitive areas is very important to protect the viability and sustainability of the city.

The fourth point in need of a development plan is to improve comfortability, liveability and coordination of everything within the city. Tropical climates, such as heavy rainfall and high temperatures, reduce the city's comfort level. The "Kanduruwela city center's heat is unbearable and even walking 100 meters on A11 road is a very stressful experience. Also, it increases unexpected traffic. There is no organized open or recreational space in the city center for leisure and finding a green shady spot during the

day is also a challenge.

Another major issue considered in selecting the above section as the fourth requirement of the city plan is the heavy traffic at Hospital Junction and the commercial city. The analysis found that the reasons for this were the lack of awareness about alternative routes, the lack of a regular public transport circulation at the three junctions, the unfavorable environment for pedestrians, the irregular use of parking lots, and the lack of roundabouts.

Also, the lack of well design and maintained drainage and the lack of a wastewater treatment system in the city center is polluting the entire irrigation system. Untreated wastewater which flows from city with Solid particles blocks the canals and increase the issues in heavy rainfall since the city has minimal slope. Statistically, 3/5 of households suffer from this problem due to sewage. Better connectivity of drainage, irrigation system and transportation will improve the future livability of the city.

The only solution to the problems of the major sectors mentioned above is an integrated and comprehensive physical development plan, which will make Polonnaruwa a healthy, prosperous and green heritage city.

Chapter 04

THE PLANNING FRAMEWORK

4.1 Vision

Vision for Polonnaruwa Urban Area 2030 is;

“The Green Glorious Heritage City in kingdom of Rice”.

The vision can be explained on following way.

- “In the kingdom of Rice” means the centuries-old identity and economic base of the district and the city.
- “Glorious” means a city that is glorious, rich, and healthy.
- "Heritage" means the rich history associated with the city, the preservation of antiquities, the identity of the city and thus the promotion of the tourism industry.
- The word "green" refers to a calm and pleasant green environment that successfully copes with the design climate and a tendency to adopt green environmental standards in the future.
- “City” refers to the Polonnaruwa urban area.

4.2 Vision statement

"Provides a comfortable life in a tropical climate and reaps the benefits of being a heritage city and the country's leading paddy producer, without losing the uniqueness and nature of the city."

4.3 Goals

1. To create more economic opportunities for the city by making Polonnaruwa “the best heritage tourist destination in Sri Lanka” by the year 2030 (along with the existing ruins and paddy based agricultural tourism).
2. Protection of historic and green sensitive areas.
3. To create a Sustainable environment for city dwellers and visitors to live in an efficient, productive, comfortable and pleasant environment in tropical climates.

4.4 Objectives

4.4.1 Objectives for the first goal:

"To create more economic opportunities for the city by making Polonnaruwa the best heritage tourist destination in Sri Lanka by the year 2030 (along with the existing ruins and paddy based agricultural tourism)"

- 1) Reorganization of all existing elements in either side of A11 road as per the features of the ancient heritage, from Hathamuna Junction to Kanduruwela town By the year 2025.
- 2) Prepare a list of stakeholders involved in tourism by 2023 and facilitate online access to it.
- 3) Registration of all stakeholders, residences, hotels, facilitators in the tourism industry by 2025 by the Tourism Development Authority.
- 4) Construction of a "Paddy Museum" and a "Specialized Rice Trade Center" by the year 2025.
- 5) Introducing one of the alternative tourist routes for tourists visiting the city by 2025 to visit other attractions besides the ancient ruins.
- 6) Construction of a farming village using traditional farming methods on selected land in the city center by the year 2030.
- 7) Establishment of at least one factory to process rice related "value added products" by 2030.

4.4.2 Objectives for the Second goal:

"Protection of historic and environmentally sensitive areas."

- 1) "Physically" demarcate reservation boundaries of all lakes, forests historic sites and Heritage Reserves in the urban Area by 2025.

4.4.3 Objectives for the Third goal:

“To create a Sustainable environment for city dwellers and visitors to live in an efficient, productive, comfortable and pleasant environment in tropical climates”.

- 1) To create a physical environment where the administrative, health and commercial needs of the citizens can be fulfilled quickly and easily.
- 2) Reduce traffic time by 20 minutes from Kaduruwela to New town by upgrading the transportation system.
- 3) Create a blue-green space (irrigation and paddy land) network connecting the three major city centers by 2030.
- 4) Provide a organized open space or green shade within a walking distance of 500 meters by 2025.
- 5) Taking necessary steps to reduce the high temperature prevailing in the Kanduruwela town center to the normal ambient temperature by the year 2030.
- 6) Improve the irrigation network by 2030.
- 7) Preparation and implementation of a Drainage Master plan for the urban area by 2030.
- 8) Provide a wastewater treatment plan and implement it by 2025.
- 9) Increase green space by more than 40% in every plot of land by 2025 and improve the green experience of the city by 2030.
- 10) Ensure a “green development” in the Polonnaruwa urban area by eco-friendly planning practices while improving awareness of green energy and energy conservation.

Chapter 05

"SWOT" ANALYSIS

5. "SWOT" Analysis

Achieving the vision of "Green glorious heritage city in kingdom of rice" has three main goals to be achieved. But in achieving those goals, we need to identify the potential and capacity the city. Accordingly, the practicality of those goals can be verified. That is, we need to identify the strengths, weaknesses and opportunities, threats that the city has in order to achieve each goal. A strategic plan can then lead to managing the strengths and opportunities to overcome weaknesses and the opportunities and strengths to prepare for threats.



5.1 SWOT Analysis for Goal 1

To create more economic opportunities for the city by making Polonnaruwa “the best heritage tourist destination in Sri Lanka” by the year 2030 (along with the existing ruins and paddy based agricultural tourism).

Table 5.1 SWOT analysis for Goal 1

Strengths	<ol style="list-style-type: none"> 1) Declared as World Heritage Site by UNESCO. 2) Proximity of other UNESCO World Heritage Cities and sites to Polonnaruwa. 3) Recognition of Ellangawa Tank Cascade Systems in Sri Lanka as a World Heritage Site by the United Nations on 19.04.2018. 4) Having a proud history with ancient ruins. 5) Completed Awake Polonnaruwa Program. 6) Existing tourism base and hotels. 7) Existing Paddy Production and Processing Units (Rice Production Industry). 8) Ecologically important sites are located in close proximity to the city. 9) Existing road network.
Weaknesses	<ol style="list-style-type: none"> 1) Lack of alternative travel plans connected to the Sacred City (including other special attractions). 2) Less organized Tourist Information Center. 3) About 80% of the accommodation facilities available in city for tourism industry are not on standards level. 4) Lack of widespread use of traditional paddy cultivation methods.
Opportunities	<ol style="list-style-type: none"> 1) Political willingness. 2) Arrival of foreign tourist in Sri Lanka. 3) “Sri Lanka Tourism Strategic Plan” prepared by the Sri Lanka Tourism Development Authority and the Ministry of Christian Affairs. 4) Local and international demand for rice. 5) The concept of agro-tourism with the culture associated with paddy production. 6) Low probability of natural disasters.
Threats	<ol style="list-style-type: none"> 1) Decreased tendency of tourists visiting Sri Lanka to experience heritage cities / culture. 2) The covid -19 situation.

5.1.1 Goal 1 – Strengths

1. Declared a World Heritage Site by UNESCO

A World Heritage Site is a culturally, historically, scientifically or otherwise important landmark or territory selected by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and legally protected by international treaties. These places are determined by the importance of the collective needs of mankind.

These World Heritage Sites can be removed from the list due to armed conflict and war, natural disasters, pollution, seasickness or urbanization or human development. According to UNESCO ICOMOS Paris, MAS 1982, World Heritage Document No. 201, the following criteria have been used to declare the city of Polonnaruwa as a World Heritage Site.

- Created by King Parakramabahu I in the 12th century, the Sovereign Capital is one of the most spectacular cities in history and has a strong connection with the natural environment.
- The city of Polonnaruwa is a treasure trove unique to several civilizations. Among them, the cultural features of the Cholas and Brahmins in the 12th and 13th centuries and the factors found in the physical environment as a sovereign Sinhala city provide evidence of this.
- Becoming a sacred place of worship for Sinhala and Buddhism, King Vijayabahu buried the Tooth Relic which was considered to be the pinnacle of the Sinhalese and made Atadage and Polonnaruwa degenerated by removing it by King Bhuvanekabahu II.

The very definition of "heritage tourism" can be taken as a strength for Plan 1 goal. United States "Heritage Tour" means "a tour of places, activities, and artifacts that represent people and stories of the past"; It can also include cultural, natural resources and historical sites. However, the overall purpose here is to appreciate the past.

2. Other UNESCO World Heritage Cities and Places in the vicinity of Polonnaruwa.

There are eight UNESCO World Heritage Sites in Sri Lanka. That is,

- I. Polonnaruwa Heritage City (1982)
- II. Sigiriya Heritage City (1982)
- III. Sacred City of Anuradhapura (1982)
- IV. Sacred City of Kandy (1988)
- V. Sinharaja Forest (1988)
- VI. Old Galle City and its Fortress (1988)
- VII. Dambulla Raja Maha Viharaya (1991)
- VIII. Central Highlands of Sri Lanka (2010)

Figure 5.1: UNESCO Heritage Cities in Sri Lanka



Among these heritages, Sigiriya, Dambulla, Anuradhapura and Kandy are about a 4-hour drive from Polonnaruwa. In addition, the Seruwila Mangala Raja Maha Viharaya and the route of pilgrims from Seruwila to Sri Pada along the Mahaweli River have been included in the UNESCO World Heritage List. Accordingly, Polonnaruwa can be described as a hub of World Heritage Cities in Sri Lanka.

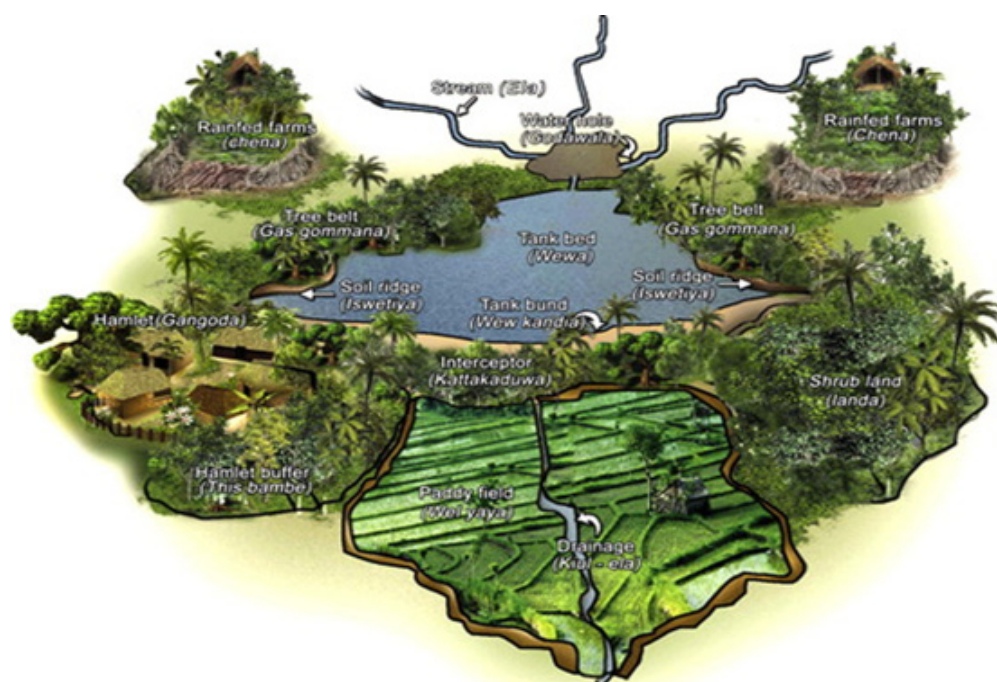
Source: Ministry of Housing, Construction and Cultural Affairs Web Page 2019

3. Recognition of Ellangawa Tank Cascade Systems in Sri Lanka as a World Heritage Site by the United Nations on 19.04.2018.

The Food and Agriculture Organization of the United Nations (FAO) has designated the “Ellanga Villages” in the Arid Zone, a Sri Lankan agricultural system, as a Global Significant Agricultural Heritage System (GIAHS). Sri Lanka's Ellanga Village System was recognized at the International Forum for New GIAHS Sites and Awards in Rome, Italy.

Led by the FAO, the program aims to protect and promote valuable agricultural heritage, protect biodiversity and traditional knowledge, as well as create resistant ecosystems.

Figure 5.2: Components of the Ellanga tank village system in Sri Lanka and their relative locations



Source: Dr. P.B. Dharmasena 2010: “Ellanga Tank Village Systems for Rural Sustainability”

Ellanga villages, which are the foundation for the largest part of the country's agricultural production, provide an excellent heritage of agro-biodiversity and wildlife diversity and are a unique cover against natural disasters and climate change. The global importance of this system is high because it can absorb the shocks of natural disasters such as floods and contribute to the survival of the surrounding ecosystem by storing water.

The Ellanga Village System also contributes to the efficient management of water flowing from one tank to another through a network of tanks and streams, minimizing water loss from tanks due to drought.

However, the continuation of the Ellanga tank village system is threatened by poor incomes of farmers, rural-urban migration of youth, deforestation and deterioration of the tank ecosystem. The security of the Ellanga tank village system is essential to ensure the integrity and improvement of the food and livelihood security of the country as well as sustainable rural development. The Government of Sri Lanka has taken a policy decision to strengthen this system and is preparing a master plan for the conservation and development of the system. (Source: <http://www.fao.org/srilanka/news/detail-events/en/c/1118377>)

The design zone includes three medium-sized tanks and about 45 small-scale lakes operating under the Ellanga concept. Parakrama Samudra is located on the western boundary of the design zone and does not belong to the planning area but the two main irrigation canals and the irrigation network starting from the sea tank bund belong to the planning area. The ancient technology of irrigation from the city of Polonnaruwa can be shown in real places and can also be used as a great potential for agro-tourism.

4. Being a city with ancient ruins with a proud history

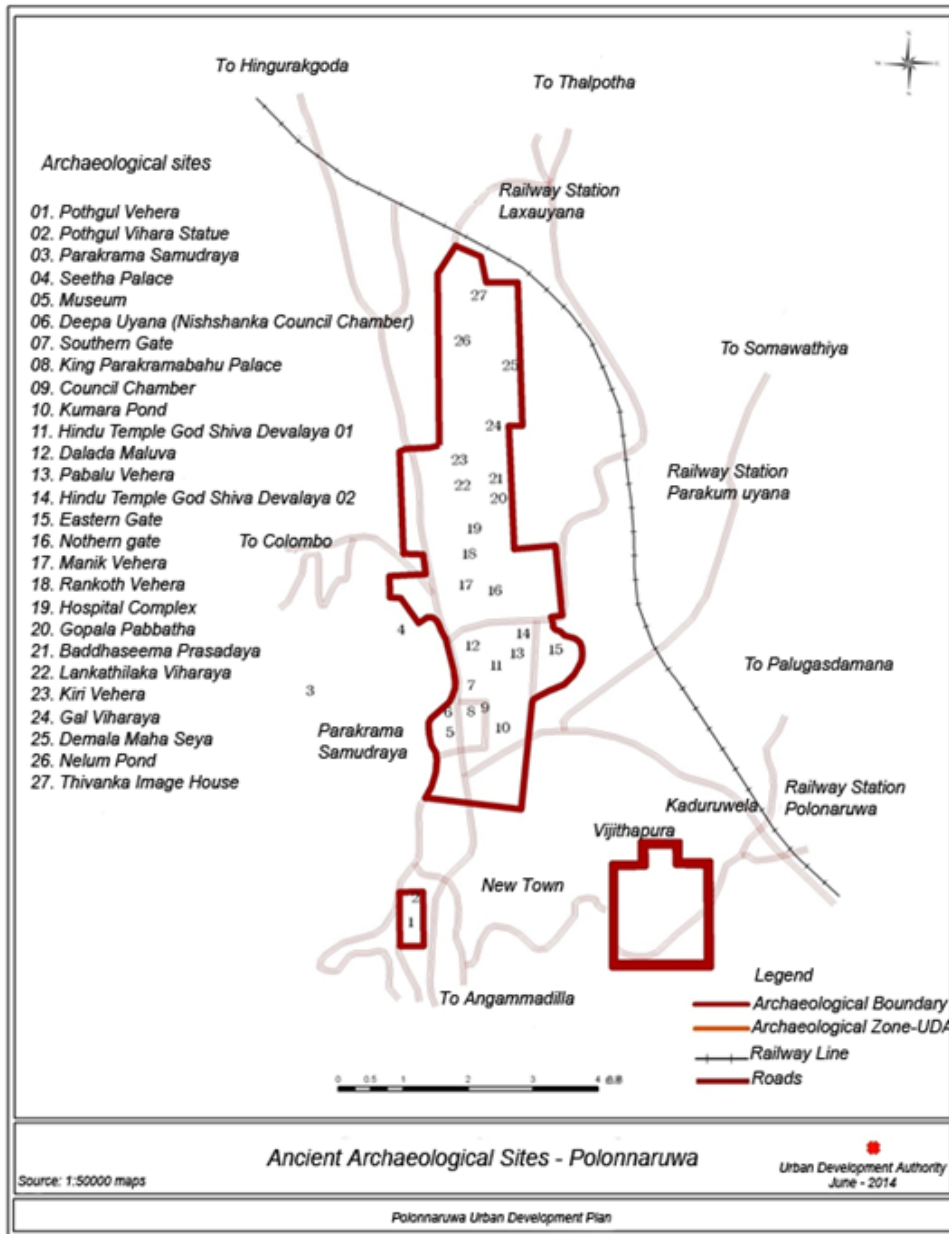
The Sacred City and Museum of Polonnaruwa is a testament to the city's glorious history. There is still evidence of building construction technology, irrigation system, cultural affiliation, ecological balance, economic activities, health sector, educational facilities and many more. Being a UNESCO World Heritage Site, this city has the potential to become one of the best heritage sites in Sri Lanka by 2030.

Polonnaruwa has been inhabited and developed since BC. Vijithapura where the Dutugemunu-Elara battle took place is also located in Polonnaruwa.

Ancient archeological evidences (now known as the Stone Temple) have been found at "Gopala Pabbatha" in Polonnaruwa dating back to the 1st century. During the reign of King Upatissa during the Polonnaruwa period (365-406 AD), the writing of "history" in chronicles began. King Aggabodhi III built the Maha Pranadeepa Temple in Polonnaruwa.

Foreign invasions and internal struggles have taken place in the country on several occasions since the 7th century, leading to the relocation of the kingdom from Anuradhapura to Polonnaruwa as a center of temporary control. King Aggabodhi IV moved the capital to Polonnaruwa as a temporary center of control, where he died. King Mahinda II (777 - 797 AD) built the Dama Vihara Pirivena and Thambilithota Pirivena and King Udaya (797 - 801 AD) built the Polonnaruwa Hospital.

Figure 5.3: Location of the ruins of the Polonnaruwa Sacred City.



Source: "Polonnaruwa World Heritage City" Pamphlet 2014: Central Cultural Fund

In 1017 AD, the “Soli” people defeated King Mahinda V and the kingdom was renamed “Jananathapuram” to Polonnaruwa. According to the “Culavamsa”, Polonnaruwa was an independent state from the beginning to the time of King Vijayabahu, destroying the “Soli” culture and the country has reached state of anarchy. During this period a large number of buildings were constructed for Hindu administration and religious activities and the present “Shiva Devalaya” was also constructed during that period.

King Vijayabahu (1055-1110 AD) liberated the country from foreign invasions. He was crowned at the newly built palace in Anuradhapura, but chose Polonnaruwa as the capital of his kingdom. From here onwards more than fifteen successful and unsuccessful kings and queens ruled the country from Polonnaruwa and the kingdom of Polonnaruwa collapsed after the Kalinga-Māgha invasion.

King Parakramabahu the Great (1153-1186 AD) erected a number of buildings in the ancient city of Polonnaruwa. Among them, the "Royal Palace", the "Auditorium" (administrative building), the religious buildings, mainly the "Ālāhana Pirivena", the "Parakrama Samudraya", "Angammadilla" (Irrigation technology) together form a perfect city. Under the king, tanks and irrigation canals that were broken during the war were restored.

During this period, Sri Lanka became known as the "Granary of the East” due to the prosperity of paddy cultivation. The hospital, which was built in the "Ālāhana Pirivena", represents the advancement of medicine during that period, and it is clear from the surgical instruments that the hospital was relatively advanced today.

King Parakramabahu the Great was honored to make Polonnaruwa a beautiful and perfect city. Second place went to King Nissankamalla (1187 - 1196 AD). He has restored what was broken and added new buildings to the city.

Fifty years of "Chola rule" in Polonnaruwa show similarities between Sri Lankan and South Indian art. "Devala" were built in Polonnaruwa with the help of South Indian architecture. Even after the Chola and Sinhala rule, there is a good connection between the Hindu and Sinhala cultures and it is well reflected in the present buildings. Also, since the cow was the vehicle of Lord Shiva, the symbol of cow was removed from the carvings of the "Sandakadapahana" (Moon-stone). "Gedige", an architectural tradition in South India, has been used for the appearance of residential buildings.

Figure 5.4: Royal auditorium of King Parakramabahu



Source: <https://nerdnomads.com> 2019

Figure 5.5: Seven-storeyed palace of King Parakramabahu



Source: <https://nerdnomads.com> 2019

Figure 5.6: "Sandakadapahana" of the Polonnaruwa Period



Source: <https://nerdnomads.com> 2019

Figure 5.7: Nishshankamalla pavilion

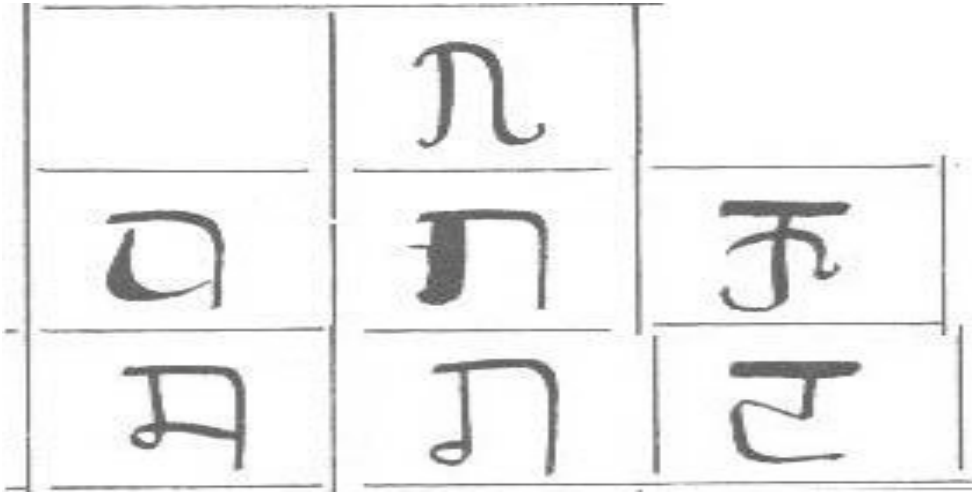


Source: <https://nerdnomads.com> 2019

Letters, symbols used for writing

It is clear that the characters used in the Polonnaruwa period were also in a very advanced state in terms of the present. The "Polonnaruwa Kathikawatha" found in the "Gal Vihāraya" was written by King Parakramabahu the Great. "Galpotha Sellipiya" (abbreviated letters in stone), "Puwaru Lipiya" (inscription on a board), "Asana Lipi" were written by King Nissankamalla. "Pana Kaduwa Tamba Sannasa", "Wellakkara" Tamil inscription made during the reign of King Vijayabahu, all of which belong to the Polonnaruwa period.

Figure 5.8: Characters used during the reign of King Parakramabahu



Source: <https://nerdnomads.com>

King Vijayabahu the Great was the first Sri Lankan king to use his name on a coin. After this time the kings issued anonymous gold coins and later gradually reduced the quality of the gold coins to silver and copper coins.

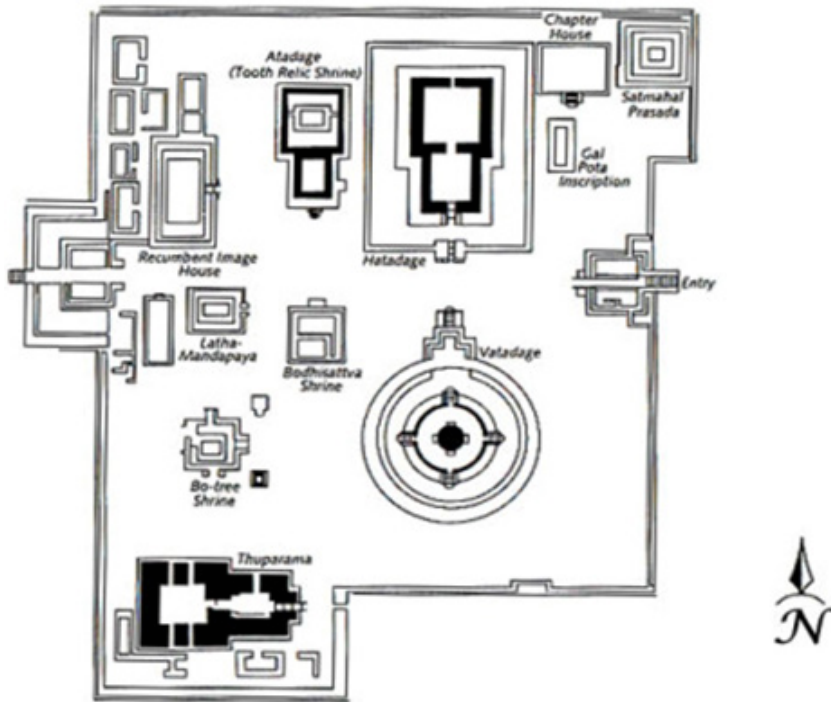
Centuries passed without the issuance of coins. The kings who came after King Vijayabahu followed him and issued metal coins with their names on them.

Figure 5.9: Coins used during the reign of King Parakramabahu



Source: *Ancient Sri Lanka - Stamp Pattern / Polonnaruwa Season / 23.06.2009 / Stamp Bureau of the Postal Department, Head Office of the Post Office, D. R. Wijewardena Mawatha, Colombo 00100, Sri Lanka*

Figure 5.10: Polonnaruwa Square

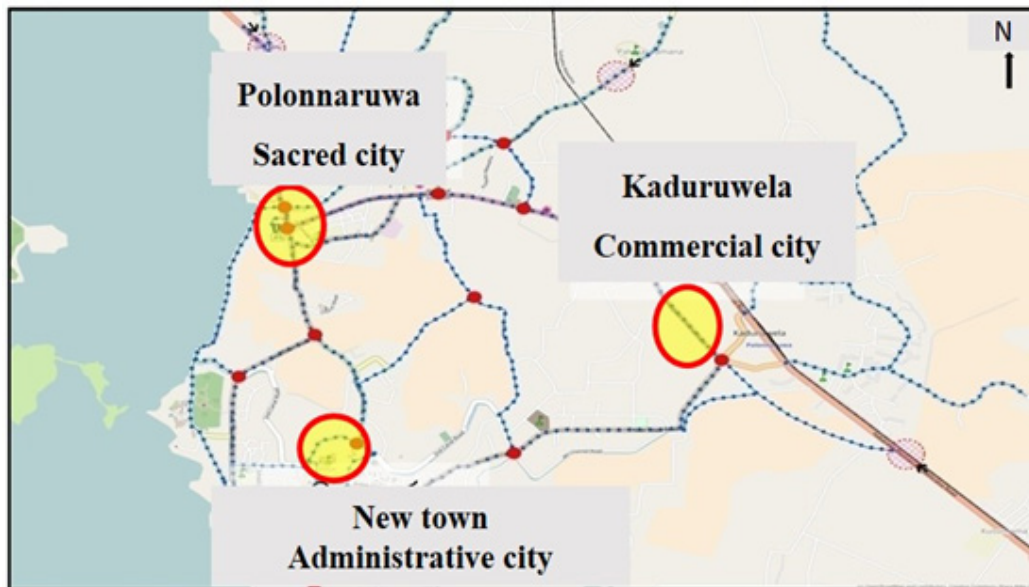


Source: Ancient Sri Lanka - Stamp Pattern / Polonnaruwa Season / 23.06.2009 / Stamp Bureau of the Postal Department. Post Office Head Office, D. R. Wijewardena Mawatha, Colombo 00100, Sri Lanka

5. Completed “Awake Polonnaruwa Program”

The main objective of the Awake Polonnaruwa program was to develop three city centers while preserving the identity of historical heritage and to provide commercial and new administrative facilities in the city of Kanduruwela as envisaged in the 2015 Polonnaruwa Draft Development Plan. Many projects have been identified for this purpose and the construction of many projects has been completed to achieve those goals. Eleven projects completed under this program will directly assist in achieving the first goal of this plan.

Figure 5.11: Development concept for urban centers



Source: Polonnaruwa Draft Development Plan 2015, Polonnaruwa District Office

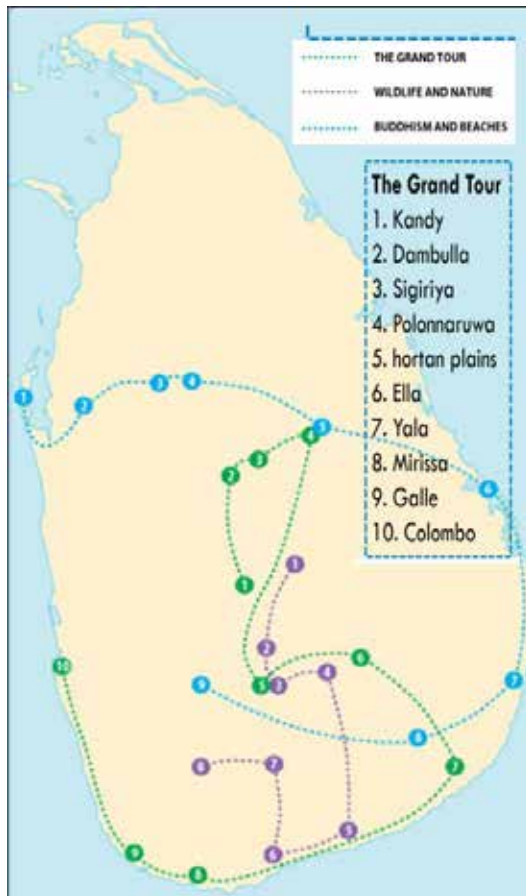
6. Existing tourism base and hotels

According to the annual report of the Tourism Development Authority for the year 2016, the city of Polonnaruwa belongs to all three major tourist routes. These are the three main types of tourist destinations: Buddhist cities and coastal destinations. The main implication is that the potential for foreign tourists to travel through the city of Polonnaruwa is high.

The majority of tourists visiting Polonnaruwa are foreigners, which is almost double the number of local tourists. It is more than the number of tourists visiting Anuradhapura. The highest number of tourists can be seen during the months of February and August.

Five star-rated hotels in the city, more than 50 medium-sized hotels and guest houses, and more than 100 lodges are advertising online.

Figure 5.12: Popular tourist routes used by foreign tourists



Source: Annual Statistical Report 2017 Sri Lanka Tourism Development Authority

Table 5.2: Polonnaruwa Annual Tourist Arrival 2016

Month	Foreign	Local
January	17386	3531
February	23661	7773
March	17899	13570
April	9740	7417
May	6301	3667
June	5910	6060
July	16885	11004
August	24489	11061
September	11992	6689
October	9921	3609
November	12948	2158
December	17035	7877
Total	174167	84416

Source: Annual Statistical Report 2017 Sri Lanka Tourism Development Authority

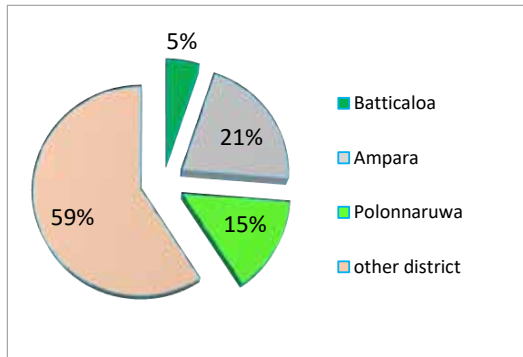
7. Existing Paddy Production and Processing Units (Rice Industry)

Paddy cultivation in Sri Lanka dates back to 161 BC and has a rich history. Paddy Cultivation is the main crop cultivated in 34% of the total cultivated land area of Sri Lanka. 725000 ha. The average area of land cultivated annually in both Yala and Maha seasons is about 870000 ha.

Paddy is cultivated as a wetland crop in almost every district of Sri Lanka and 15% of the total paddy production in Sri Lanka is produced from Polonnaruwa district. The net harvest per hectare in the Polonnaruwa District is higher than the average National Yield.

More than 55% of Sri Lanka's paddy production comes from the Polonnaruwa rice industry and there are six large scale factories and 129 medium and small scale factories located in the city. The Government Processing Farm is also located in the city and covers an area of about 200 acres. Also, the main government paddy storage complex is located in Polonnaruwa with a capacity of 12,500 metric tons.

Figure 5.13: Paddy Production in Sri Lanka during the Maha Season (2016)



Source: District Statistics Report - Polonnaruwa 2016

Table 5.4: Average yield (per hectare)

Average yield per hectare (kg)			
	District	Sri Lanka	Production metric tons
2015 Yala	5131	4527	280476
2014 / 2015 Maha	5306	4364	349625

Table 5.3: Paddy Production in Sri Lanka 2016

	Area of land prepared	%	Total Harvested (Acres)	Yield per acre	Total harvest	Total production ('000 bushels)	%
Batticaloa	155273	12	91095	48.81	80400	3624	5
Ampara	201285	15	167382	92.8	159967	14844	21
Polonnaruwa	122615	9	118072	98.53	104446	10291	15
Other Districts	861510	64	569499	-	501993	41532	59
Sri Lanka	1340683	100	946048	83.41	846806	70291	100

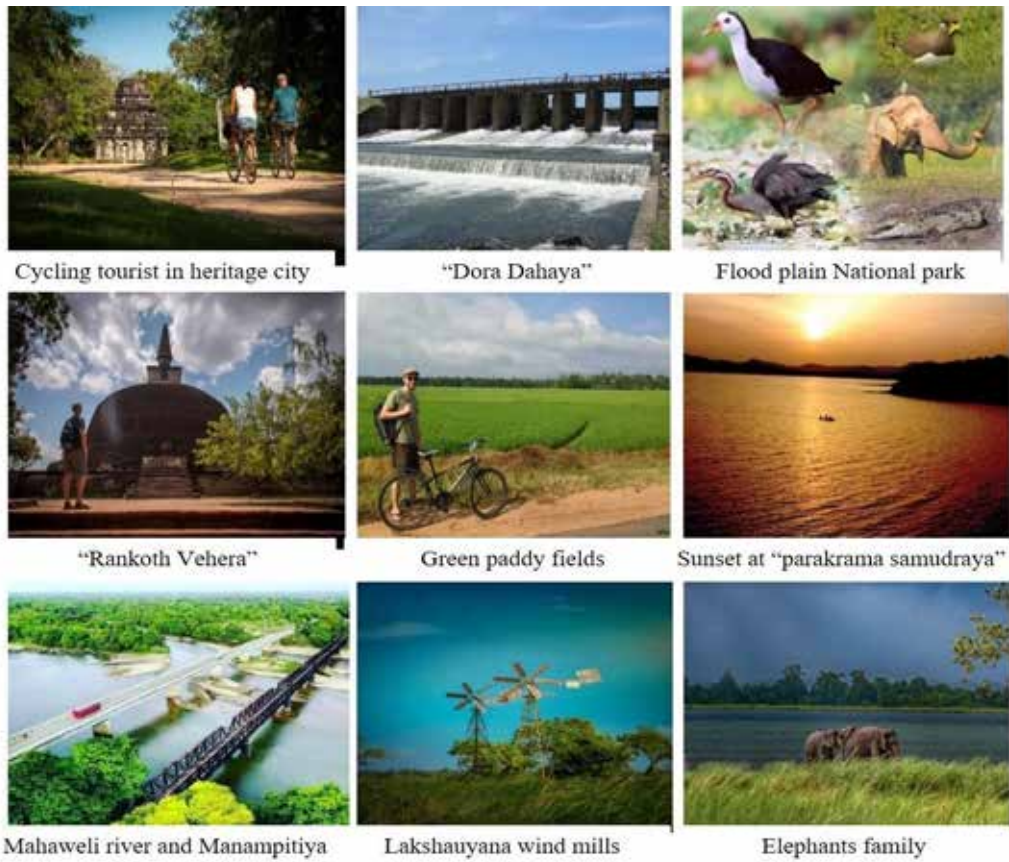
Source: Polonnaruwa District Statistical Report 2016

8. Ecologically important sites are located near the city

Six National Parks belonging to the Department of Wildlife Conservation are located near this planning jurisdiction. Minneriya and Kaudulla are two famous elephant parks. Wasgamuwa, Somawathiya, Maduruoya and Galoya National Parks are also famous tourist attractions.

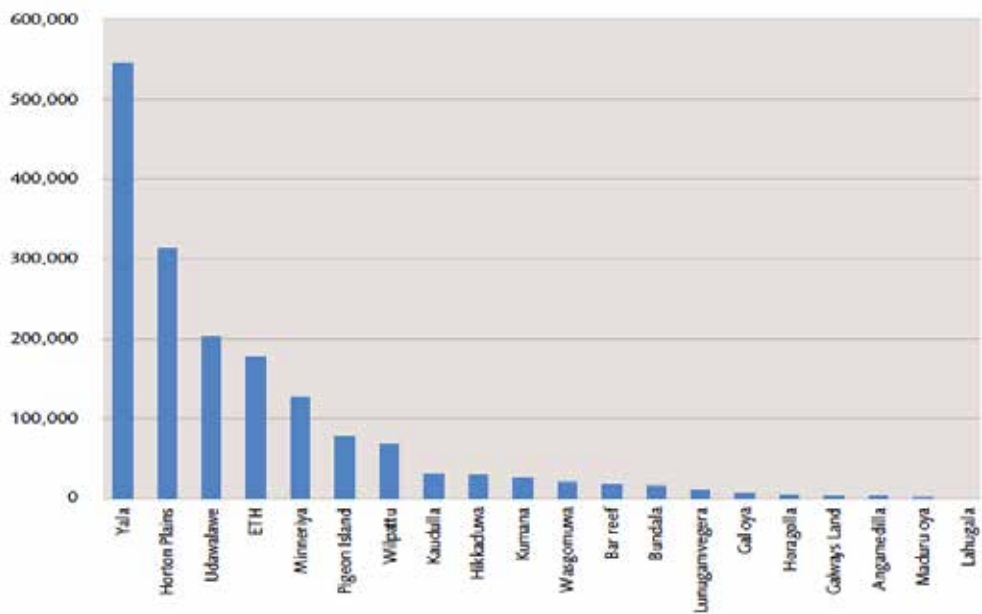
Tourists who visit these parks on a daily basis already show great potential for the tourism industry in Polonnaruwa. Apart from the sacred city, this urban area is home to a rich variety of biodiversity, including the Parakrama Samudraya, the Mahaweli flood plain national park, home to about 20 wild elephants, paddy fields and wetlands, and a variety of birds, butterflies and other flora and fauna. Tourists can benefit from this natural environment as well as the ruins in the area at the same time.

Figure 5.14: Beautiful locations within the urban area



Source: Internet

Figure 5.15: Number of tourists visiting Sri Lanka National Parks



Source: Department of Wildlife Conservation

9. Existing road pattern

High accessibility in an area is a very strong potential for its development. Polonnaruwa is also well connected to its suburbs and has a strong connection to the city center.

Figure 5.16: Area integration by road network priority evaluation (proximity)



Source: Pre-Survey Data Collection 2020, Polonnaruwa Development Plan, District Office UDA

5.1.2 Goal 1 – Weaknesses

1. Lack of alternative travel plans associated with the Sacred City.

Apart from the Sacred City, there are no other organized tourist routes for foreign tourists in the area. Interviews with foreign tourists confirmed that more than 90% of tourists have no awareness of traditional paddy cultivation and related cultural activities in the area.

About 40% of people experience cycling outside the sacred city and no billboards have been set up in the area to inform about the potential in the area.

2. Less organized Tourist Information Center

Apart from the Central Cultural Fund and the Museum, there is no other institution in the city responsible for obtaining information for tourists, from which only information about the ruins and heritage of the area can be obtained. An information center for tourists has been set up under the Awake Polonnaruwa program, which too has not been systematically organized with information and equipment.

3. 80% of the accommodation centers related to the tourism industry are not registered with the Sri Lanka Tourism Authority.

Of the existing tourist hotels and lodging centers in the planning area, only 12 hotels and lodges are registered with the Tourism Development Authority. However, there are about 100 such companies that advertise on tourism promotion websites. These unregistered lodges and unskilled labor groups could pose a detrimental effect on Sri Lanka's tourism industry in the future.

4. Lack of widespread use of traditional paddy cultivation methods

Our country has a long history of paddy cultivation of over 5000 years and this traditional method includes traditional equipment, seeds, non-chemical pesticide control methods etc. However, none of these traditional tactics are used in paddy cultivation in the area. This can be seen as a weakness in the goal of making the city a tourist paradise of historical heritage.

5.1.3 Goals 1 – Opportunities

1. Political Support / willingness

The city of Polonnaruwa is expected to be developed as a tourist city through the 'Vistas of Prosperity and Splendour', the vision of present government.

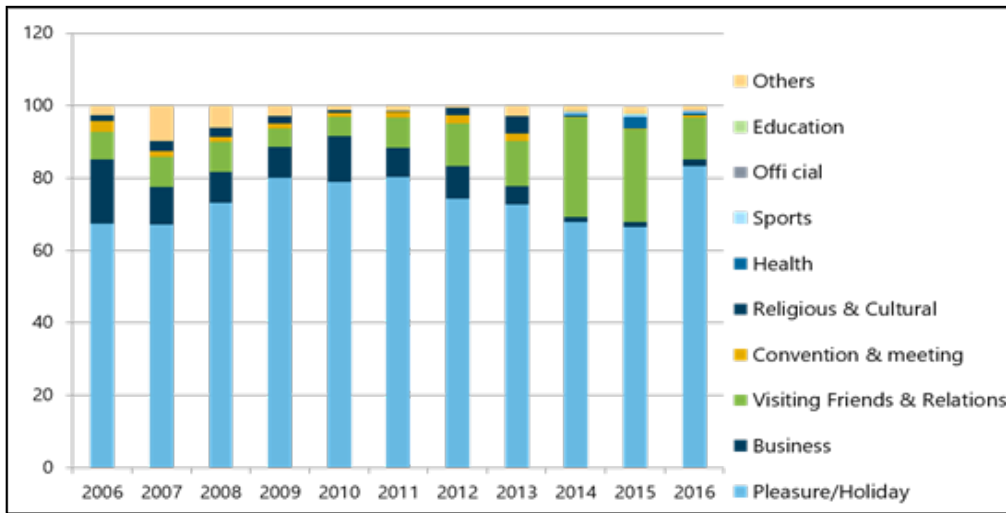
The Hon. Maithripala Sirisena, the sixth Executive President of the country is also an inhabitant of this city. The Polonnaruwa Urban Development Plan, which was drafted from 2008 to 2018, was implemented under his “Awake Polonnaruwa program” and as a result, a number of projects have been implemented through a number of Ministries.

2. Tourist arrivals to Sri Lanka

Tourism is the third largest earner in the Sri Lankan economy and also the second largest exporter of cash after garments. The past five years have seen an unprecedented growth in tourist arrivals, averaging 22% per year. The number of tourists visiting Sri Lanka during the holiday season is between 80% - 90% of the total tourists. In 2015 alone, 1.8 million foreign tourists visited Sri Lanka and their average stay in Sri Lanka was 10.1 days.

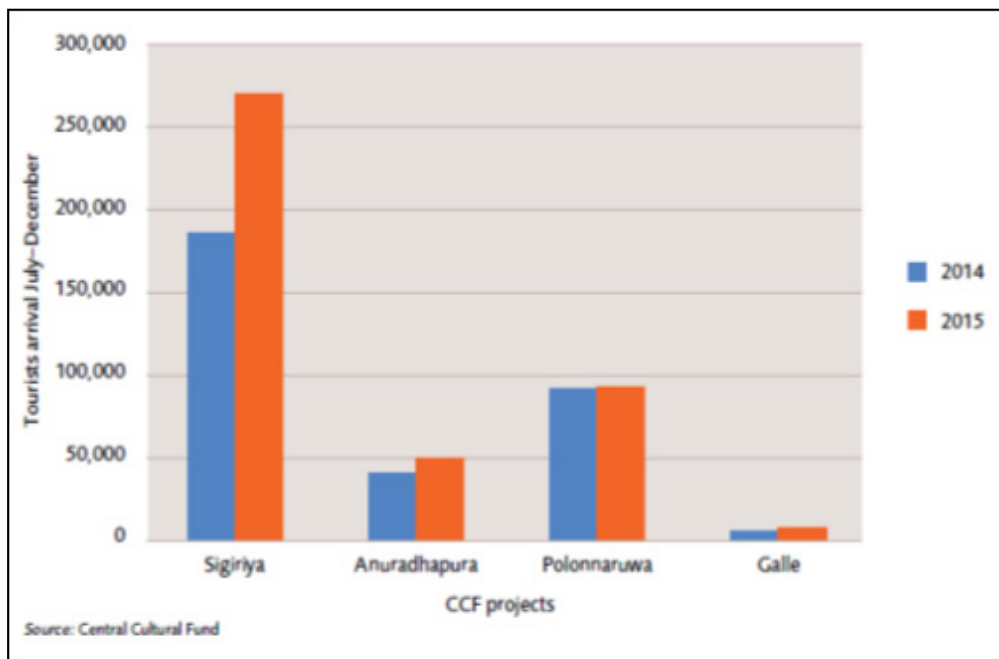
It had a revenue of US \$ 2.98 million. Tourist arrivals increased to 2 million in 2016 and generated revenue of US \$ 3.5 million. The arrival of these tourists and its attraction is a great opportunity for the 1 goals of this plan. (Figure 5.19 / 5.20 / 5.21)

Figure 5.17: Purpose of Tourist Arrivals to Sri Lanka 2006-2016



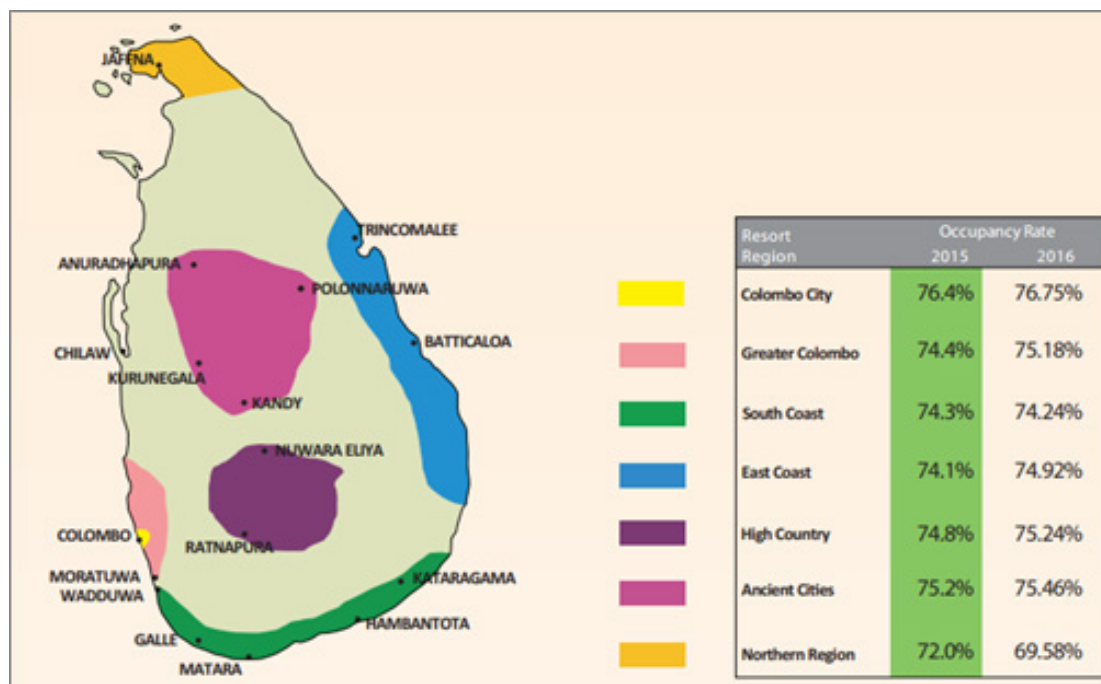
Source: Annual Report 2016: Tourism Development Authority of Sri Lanka

Figure 5.18: Number of tourists visiting major ancient cities



Source: Annual Report 2016 Central Cultural Fund

Figure 5.19 Accommodation rate at resorts 2015-2016



Source: Annual Report 2016: Tourism Development Authority of Sri Lanka

3. Sri Lanka “Tourism Strategic Plan” prepared by the Tourism Development Authority and the Ministry of Christian Affairs

This strategic tourism plan is designed to implement the United Nations Sustainable Development Goals with a long-term vision for the year 2025, with the aim of bringing the Sri Lankan tourism industry into a competitive position in the global tourism market. The main objectives of this tourism strategic plan are to increase the overall revenue of the country, support the local community and promote tourism on a sustainable vision.

Accordingly, this plan is for tourists

- Giving more value to tourism through the website, giving more opportunity to stay here for a long time and get a unique experience.
- Involve the community in active programs to share experiences.
- Provide necessary facilities for investors to operate without any inconvenience.
- Training and upgrading of workers required to engage in high value tourism services.
- Government intervention and coordination are expected to be used for decision making and reliable data use prioritizing sustainability.

This strategic plan is a great opportunity to achieve the first goal of our development plan. It will also enable Sri Lanka to have a unique position in the tourism industry by the year 2025 and it will be a great opportunity to achieve the goals of the Polonnaruwa Urban Plan.

4. Domestic and international demand for rice

Demand for rice in Sri Lanka is expected to increase by 1.1% annually and rice production should increase by 2.9% per annum. At present the annual production of rice in Sri Lanka is 2.7 million which is 95% of the domestic demand.

On average, rice provides 45% of the total protein requirement and 40% of the total calories. According to the above statistics, there is a deficit of 5% of the local rice requirement and there is a high potential for paddy production as a source of income in the district.

Unlike maize and wheat in Sri Lanka, most of the rice products do not enter the international market due to their tendency to be used for food. However, the international rice trade increased from 7.5 million tons annually in 1960 to 28.5 million tons in 2000-2009.

Rice exporters, who are a small part of the international rice trade, have to deal with a relatively large number of importers. During the first decade of the 2000s, the top five rice exporters accounted for 81% of the world market (up from 69% in the 1960s).

Following in the footsteps of Vietnam and India, Thailand became the world's largest rice exporter in the 1980s. According to forecasts from food and agriculture policy research, global rice demand is expected to reach 496 million tonnes by 2020 and 555 million tonnes by 2035.

Although rice consumption in China and India in particular is low, the rice market in Asian countries is estimated to account for 60% of total rice demand. It is also estimated that 30 million tons of rice will be needed to meet the 100% increase in demand for rice in African countries compared to 2010. In addition, total rice consumption in the United States is expected to increase by more than 30% in the coming decades.

All of the above indicate that there is a continuous demand for rice internationally and that if there is a high production there is a huge market for it in the island as well as internationally.

Table 5.5: International demand

Country	year	variable	source	value	unit
Sri Lanka	2017	Export quantity	USDA	5,000.00	Tonnes
Sri Lanka	2017	Import quantity	USDA	400,000.00	Tonnes

Source:<http://ricestat.irri.org:8080/wrsv3/entrypoint.htm>

5. Agro-tourism concept (especially for paddy cultivation)

Agro-tourism is a commercial enterprise in which the owner or operator earns extra income on a farm that is practically used for the entertainment and knowledge of tourists.

In today's world of tourism, there is a huge potential for this tourism to continue with the existing infrastructure. All that is needed is proper guidance.

Figure 5.20: Activities of the agro-tourism industry in Vietnam



Source: Internet

5.1.4 Objectives 1- Threats

1. The declining tendency of tourists to visit heritage cities / cultural experiences in Sri Lanka.

Tourists visiting Sri Lanka can be divided into ten categories. A large percentage of them are tourists who come for fun and vacation. A study of statistics from 2006 shows that there is a tendency for tourist and cultural activities to decline by about 9% by 2016. This is a threat to goal 1 (Figure 5.17: Purpose of Tourist Arrivals to Sri Lanka 2006-2016).

5.2: SWOT analysis for Goal 2

Protection of Historic and Environmentally Sensitive Areas

Table 5.6 The SWOT analysis for Goal 2

Strengths	<ol style="list-style-type: none"> 1) Polonnaruwa has been declared a World Heritage Site by UNESCO. 2) Gazzeted “Polonnaruwa Solosmasthanana Rajamaha Vihara Sacred Area”. 3) Having already conserved eco-sensitive areas. 4) Having a proud history with ruins. 5) Programs conducted by the Department of Archeology and the Central Cultural Fund.
Weaknesses	<ol style="list-style-type: none"> 1) Infrastructure development projects implemented in environmentally sensitive areas. 2) Lack of specific physical boundaries in heritage and environmental reservations .
Opportunities	<ol style="list-style-type: none"> 1) The tendency of the government to focus on protecting the environment. 2) Political Support / Motivation. 3) Tourist arrivals to Sri Lanka. 4) Agro-tourism concept - especially for paddy cultivation. 5) Low probability of occurring natural disasters.
Threats	<ol style="list-style-type: none"> 1) Drought / dry weather.

5.2.1 Goal 2 Strengths

1. Declared a UNESCO World Heritage Site

The area is protected from being declared a World Heritage City and will be heavily protected as it may be removed from the World Heritage List on the basis of a decrease or change in the selected criteria. (further explained unde goal 1: strenths)

2. Gazzeted “Polonnaruwa Solosmasthanana Rajamaha Vihara Sacred Area”.

The Polonnaruwa Solosmasthanana Rajamaha Vihara Sacred Area has been gazzeted by The Extraordinary Gazette of the Democratic Socialist Republic of Sri Lanka No. 2201/2 - Monday, November 09, 2020.

3. Already protected environmentally sensitive areas

About 31% of the total urban area consists of paddy lands which are protected and controlled by the Department of Agrarian Development. About 15% of the total land area belongs to the Flood Valley National Park under the Department of Wildlife Conservation.

4. Having a proud history with ruins.

(Explained under goal 1 strenths)

5. Programs for the preservation of ruins under the Department of Archeology and the Central Cultural Fund

The Sacred City of Polonnaruwa has been published by Gazette Notification No. 7831 dated March 9, 1931 and Gazette Notification No. 10222 dated March 9, 1951. The total land area is 446 hectares, of which 23 hectares have been developed up to exhibition level. This area is protected by law as archeological properties.

The ruins of these lands are preserved and maintained by the Central Cultural Fund. Preservation of the inner city, the walls of the northern part, the preservation of the eastern wall of the inner city, the Parakramabahu Palace, the Lankathilaka Statue House, the paintings of the Jayamaha Vihara and many other ruins are also on the list of archives of this Central Cultural Fund.

5.2.2 Goal 2 - Weaknesses

1. Implementation of Infrastructure Facility Development Projects in Environmentally Sensitive Areas

Development pressure / impact on Kanduruwela commercial city and heritage cities is very high. Most of the adjoining lands are lowland and paddy lands. Considering the last five years, about 2% of these paddy lands have been used for infrastructure development. (Lands have been filled.) Ex: 100 ft by road to A11 (Kanduruwela Kidney Hospital)

2. Lack of clear boundaries in reserves

Tank reserves, archeological reserves and reserves of the Department of Wildlife are designated in the city and only the parts belonging to the Department of Archeology have clear physical boundaries.

Due to the lack of awareness or awareness about these reserves, the lands in the reserves can be easily acquired without permission. Problems have already arisen due to illegal encroachments on historic lands in Sirisangabo Place, Nissankamallapura and Athulpitiya areas.

5.2.3 Goal 2 – Opportunities

1. The tendency of government intervention for environmental protection (Regulator for Sustainable Development 2030)

The world has signed a new agreement on sustainable development in line with the United Nations Agenda for 2030. It consists of 17 targets and 169 targets, of which 17 targets 11, 12, 13, 14 and 15 are directly related to environmental protection.

Figure 5.21: Sustainable Development Goals 2030



Source: Sustainable Development Goals 2030; United Nations Settlement Program

5.3 SWOT analysis for Goal 3

“To create a Sustainable environment for city dwellers and visitors to live in an efficient, productive, comfortable and pleasant environment in tropical climates”

Table: 5.7 SWOT analysis for Goal 3

Strengths	<ol style="list-style-type: none"> 1) Completed “Awake Polonnaruwa Program”. 2) Already protected Environmentally sensitive areas. 3) Existing green environment. 4) Existing Irrigation and Infrastructure Facility Network. 5) Existing solid waste management system.
Weaknesses	<ol style="list-style-type: none"> 1) Lack of proper drainage system. 2) Unbearable temperature in the city center. 3) Filling of essential parts of the irrigation and draiange system. 4) Less awareness of available alternative road network than A11 road.
Opportunities	<ol style="list-style-type: none"> 1) Political will / consensus. 2) Low probability of natural disasters. 3) Polonnaruwa East Water Supply Project.
Threats	<ol style="list-style-type: none"> 1) Drought / dry weather.

5.3.3 Goal 3 - Strengths

1. Completed “Awake Polonnaruwa Program”.

The main objective of the completed “Awake Polonnaruwa program” was to uplift the living standards of the city dwellers and to develop other sectors. Out of this full program, 27 projects have planned to provide social and physical infrastructure facilities to achieve the above objectives which strengthen the goal 3. (Annexure 10.1)

2. Already protected Environmentally sensitive areas.

According to the Copan climate classification, the minimum temperature in tropical countries is about 18 degrees Celsius every 12 months. In tropical climates there are two periods in a row. That is the dry season, the rainy season.

The tropical climate is snow-free and changes in the angle of the sun are minimal. In a tropical climate, temperatures remain relatively stable (warmer) throughout the year. Many green areas are needed to live comfortably in a tropical climate. Low-lying areas are also needed to absorb sudden heavy rains and to withstand surface drainage.

Covering the urban area are the Parakrama Samudraya and 4 small lakes, forested areas covering about 15% of the total land area and about 400 hectares of lush vegetation, and 31% of the area is paddy lands which will be a strength to achieve goal 3.

3. 90% of houses have home gardens.

Apart from the commercial city center and Polonnaruwa junction, houses in other areas have gardens and at least two large trees can be seen in one garden. This is a huge strength for the 3 goals.

4. Existing solid waste management system.

There is a well-designed solid waste collection system in the city, and the amount of garbage collected from the city per day is between 12-13 metric tons. The amount of garbage collected daily in the Sacred City is about 1 metric ton. Garbage is collected by the local authority using tractors and is collected only if it is divided into perishable and non-perishable.

Although this situation is 100% active in rural areas, there is only one garbage bin in urban areas. Accordingly, only 50% of the garbage collected in the city is segregated garbage.

Table 5.8: Methods of Garbage Collection by Polonnaruwa Municipal Council

Type of Waste	Amount
Desposable waste	48%
non Disposable waste	52%

Source: Polonnaruwa Municipal Council

Figure 5.22: Waste collection methods by Polonnaruwa Municipal Council



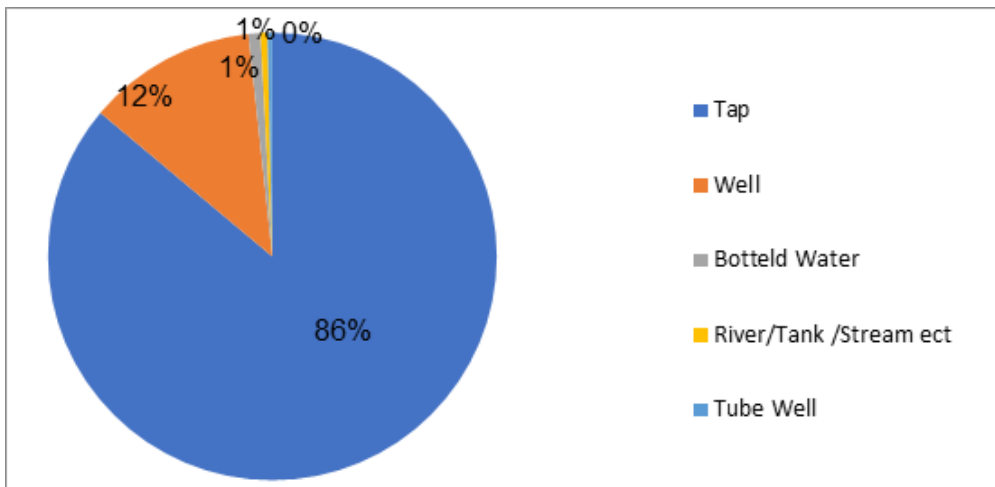
Source: Polonnaruwa Municipal Council

5. Existing Irrigation and Infrastructure Network.

The infrastructure of a city is the basis for a comfortable lifestyle. Accordingly, the existing infrastructure in this urban area is strong enough for goal 3. The city has a well-connected road network, and 86% of households have access to drinking water.

Almost every household is supplied with electricity and 98% of the total area is covered. The best services (education, health and other services) in the entire district are available within the city. The irrigation system also covers the area and during the dry season the water is distributed by the mighty sea. It also affects groundwater levels in better way.

Figure 5.23: Households by Source of drinking water



Source: Resource profile 2020 of Thamankaduwa Divisional secretariat division.

5.3.2 Goal 3 – Weaknesses

1. Lack of proper drainage system.

According to the field survey conducted by the Polonnaruwa District Office of the Urban Development Authority, about 2/5 of the existing houses have been identified as having drainage / natural drainage problems and only drains have been constructed using concrete along the main roads. Although there are soil drains covering other areas, they are not properly maintained and some parts have been filled with soil without permission.

Also, the road improvement projects that are currently being implemented will raise the ground level of the road, thereby lowering the land level on both sides of the road.

Also, there is no sewage system in the city, and the wastewater generated by the commercial city mixes with rainwater and overflows into the backyard.

2. Rising / unbearable temperature in the Kanduruwela commercial city.

Polonnaruwa belongs to the dry zone of Sri Lanka and its average temperature is between 28°C - 32°C. But especially in the hilly city, the temperature rises by about 5°C, for a variety of reasons. This can be seen as an increase in the local temperature in the city. The main reasons for this are blockage of airways by buildings, building materials and lack of green cover.

- **Blockage of airways by buildings**

The existing street pattern in the city and its existing construction have blocked the wind direction in the city throughout the year. The area experiences dry weather during the period from May to August with southwest monsoon winds prevailing during the northeast monsoon. Existing buildings block the direction of the natural wind and there is no space left between those buildings for any purpose.

For example, the left side of the A11 road, the first crossroads, from the commercial town of Kanduruwela to the Polonnaruwa Hospital Junction. Buildings block airways to prevent cooling caused by convection. Pollution from cars, air conditioners, industry and other sources also contributes to the city's heat.

Figure 5.24: Wind direction from May to August (Yala monsoon)



Source: Google Maps 2020

- **Building Materials**

Urban warming is mainly caused by changes in land conditions. As darker surfaces absorb significant amounts of solar radiation, daytime urban areas tend to have higher temperatures compared to suburban and rural areas. In Kanduruwela, the building materials used for roofs, pavements and roads are concrete, asbestos roofing sheets and asbestos.

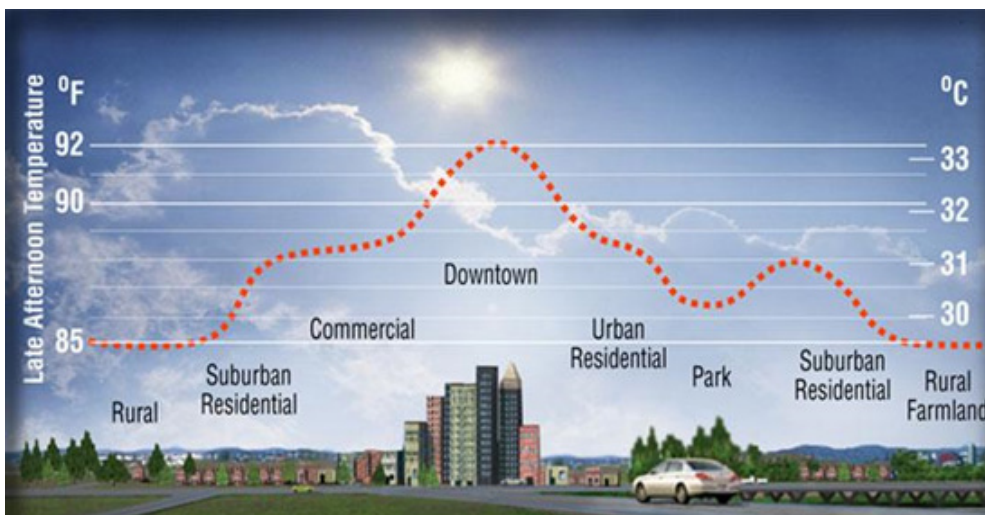
Waste generated by energy use also plays a secondary role in city warming.

- **Lack of green cover within the city**

Due to the lack of trees in the town of Kanduruwela, the city has lost the coolness, shade and absorption of carbon dioxide from the plants.

Plants are an essential factor in reducing the temperature in a city, thereby reducing the ambient temperature from 10°F or 5. 5° C to 10°F or 20.45° or 11.25° C. The use of white or reflective material for residential buildings, roofs, pavements, roads, etc., and the opening of green enclosures and windbreaks can minimize the impact of thermal islands.

Figure 5.25: Aspect profile of daytime temperature impact in a city



Source: <https://www.accuweather.com/en/weather-glossary>

3. Filling the essential parts of the drainage system

Polonnaruwa urban area is located in a relatively flat area and the water flows at a low slope. Therefore, even a minor blockage can block the entire drainage system. The major components of this drainage system are the Parakrama Sea, irrigation canals, storm drains, paddy fields and lowlands. The paddy lands absorb the water and the excess water goes through small canals and joins the small tanks. Rain water falling in the city is also added to these paddy lands. Currently under construction infrastructure projects such as the 100 ft A11 road and city widening projects have covered about 32 acres of paddy land and the impact has not yet been calculated.

4. less awareness on alternative road network

The A11 is heavily congested on a daily basis and is used by passing vehicles and commuters on a daily basis. According to surveys, 95% of the people who come to the three major city centers to get goods and services use this main road.

A closer look at the existing road network reveals that there is a network of alternative routes connecting the three major cities and passing through those city centers, and the problem is that they are not aware of those alternative routes. For example, there are three subways to access the commercial city, bypassing Hospital Junction. But those roads are used by less than 5% of the total traffic.

5.3.3 Goals 3 – Opportunities

1. “Polonnaruwa town East Water Project” implemented by the Water Supply and Drainage Board

Considering the present demand for water, the water requirement in the Tamankaduwa Divisional Secretariat is 16100 cubic meters per day. The total water requirement in Polonnaruwa is 80,000 cubic meters per day. This was calculated on the assumption that per capita water consumption would be 120 liters per day and that 8% of total household consumption would be for industrial and 10% for commercial purposes. Considering the population growth, based on the population growth rate of 1.5%, the water requirement of the Tamankaduwa Pradeshiya Sabha area itself is 19,500 cubic meters per day. This Eastern Water Project will cover about 65% of the water requirement of the Tamankaduwa Divisional Secretariat in the Polonnaruwa District and will increase the capacity of the existing water pumping station at Galle to 13500 cubic meters.

Existing water projects and Eastern City water projects will enable the city to meet its 2030 water needs. Also, the National Water Supply and Drainage Board has confirmed that the purified and distributed water does not cause kidney disease

Table 5.9: Water Treatment and Distribution Centers by National Water Supply and Drainage Board in Polonnaruwa Urban Area

Location	Current demand (m ³ /day)	Supply (m ³ / 3day)	Future planned capacity (m ³ /day)	Water source
Gallella	10100	8800	13500	Mahaweli River
Polonnaruwa	5000	3800	6500	Parakrama Samudraya

Source: National Water Supply and Drainage Board

2. Low probability of occurring natural disasters

The Polonnaruwa urban area has recorded very few natural disasters compared to other cities in the island. Drought, floods, high winds and lightning have been reported as natural disasters in the area (Appendix 11) and no deaths have been reported so far.

The Mahaweli River, floods in December every year have had a major impact on urban activity. However, it is assumed that the impact of the floods will be minimal in the future due to the Moragahakanda project.

Although the drought has affected paddy cultivation in the entire district to some extent during the dry season, with the construction of the Moragahakanda Reservoir, water can be supplied to the relevant irrigation canals along the Parakrama Samudra. This will increase the groundwater level and minimize the impact of the drought on the entire district in the future.

5.3.4. Goal 3 – Threats

1. Climate change / Drought and high winds

Climate change in the world can be a threat to a comfortable life in an urban area. Located in a tropical climate zone, any change to reduce global warming could reduce the impact of global warming.

Strong winds have been reported every 30 years, and are likely to recur in 2026 after 1996. Such disasters can have social, physical and especially economic impacts, most felt in the Polonnaruwa metropolitan area, the main service center.

Chapter 06

THE PLAN

6.1 Introduction

Making Polonnaruwa the “Green Glorious Heritage City in Kingdom of Rice” requires well-planned strategic development. Accordingly, it is essential to achieve a comfortable life in a tropical climate by providing new economic opportunities and to highlight the identity of the city as it shows the culture and ancient heritage associated with paddy cultivation while preserving the natural environment. Improving livability, coordination between major centers and aesthetics will make the city more affluent to its residents and help attract local and foreign tourists. At the same time, it is expected that the maximum utilization of the existing infrastructure will provide a significant advantage in achieving the future vision.

A "conceptual plan" has been developed to achieve the city's future vision in physical space. Towards the 2030 Future Vision, it has identified six strategies that cover every aspect of town planning by dividing it into three goals. Economic development strategy is the main strategy, while others have been developed to support it. The cultural and management strategy will enhance the identity of the city, while the social and physical infrastructure development strategy will provide services to achieve the vision. The Environmental Sustainability Strategy will strengthen safety in sensitive areas and reduce the hassle of living in tropical climates.

Overall, the tools and technologies that come with urban planning have been used to the fullest to make Polonnaruwa the best ancient tourist destination by 2030.

Apart from being a UNESCO heritage City, the strategy also proposes to use Polonnaruwa's 5,000-year-old cultural heritage of paddy cultivation for economic development. The potential of "agro-tourism", the current global tourism trend, can be used to the fullest within that scenario. Local and foreign tourists will have the opportunity to experience paddy cultivation, ancient techniques, tools, ancient irrigation technology, social values, practices, ethics and standards in the city of Polonnaruwa by 2030. There will be a unique opportunity in the city to taste and buy a variety of old and modern rice dishes and dishes made from them. As the lifestyle of the city dwellers already inherits a culture related to paddy farming, they will be able to generate income through housing and parking with minimal investment. Accordingly, the city is expected to become a wealthy, healthy and pleasurable heritage city by 2030.

6.2 Conceptual Plan

The conceptual plan for the city has been developed to achieve the vision of “The Green Glorious Heritage City in Kingdom of Rice”. Conceptual planning is the conceptual model designed to achieve the desired physical spatial use (vision) of the city. (Map No. 6.1) In designing it, it has explored the city's environmental sensitivity (Map No. 6.2), livability (Map No. 6.3) and potential analysis (Map 6.4) and the evolution of the city's spatial use from the past to the present.

The best model was selected after analyzing several conceptual designs and their pros and cons. That is, five new suburbs will be upgraded while maintaining the existing utility space of the three existing main centers.

The proposed conceptual plan is expected to provide the necessary facilities to the daily commuter population while protecting paddy lands and environmental-sensitive zones. The new concept aims to create new economic opportunities and create a comfortable living environment by 2030, while making the most of existing infrastructure. The main centers and cluster cities are as follows. (Map No. 6.1)

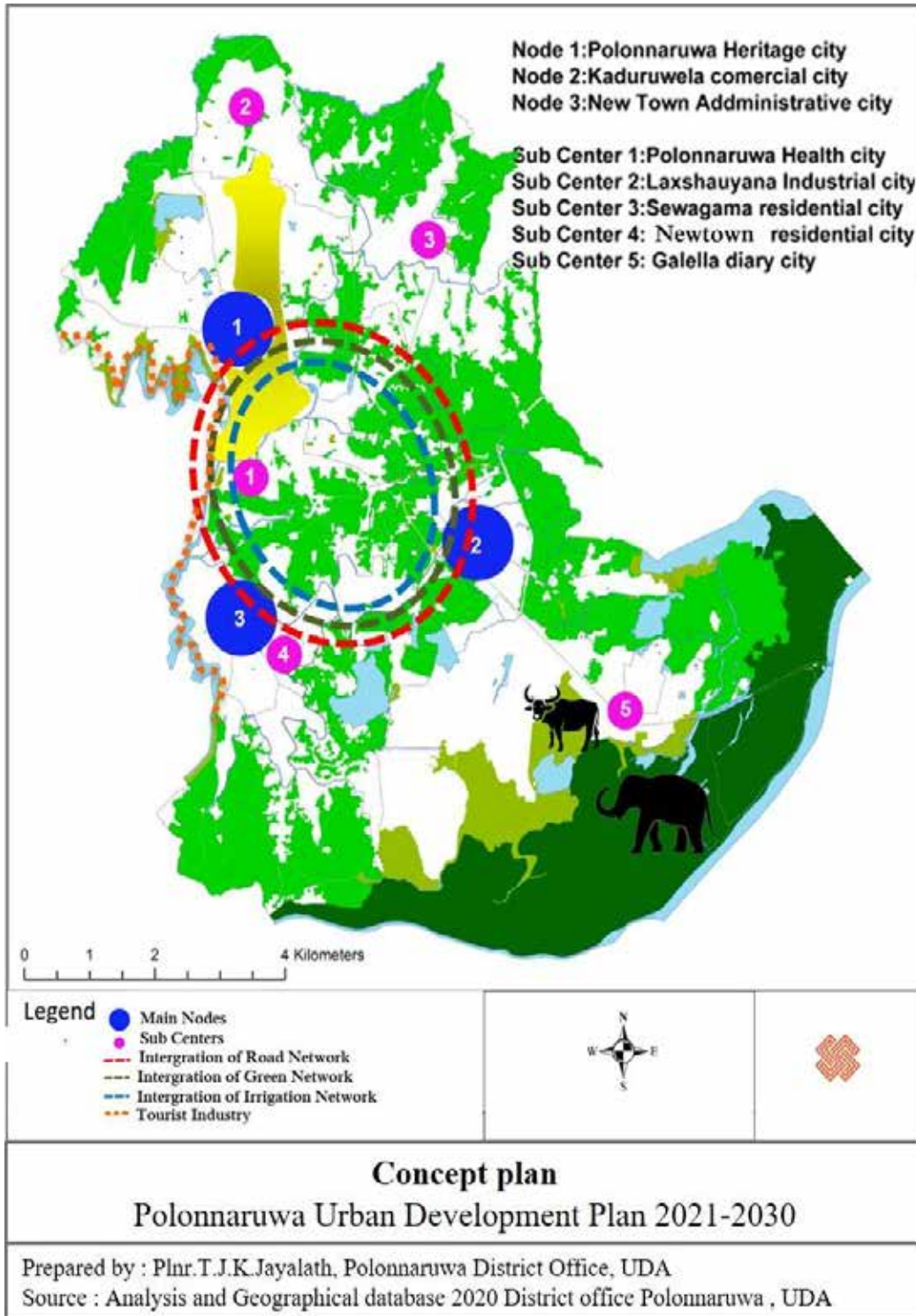
❖ Main Centers

1. Polonnaruwa Heritage City
2. Kaduruwela Commercial City
3. New Town Administrative City

❖ Clusters

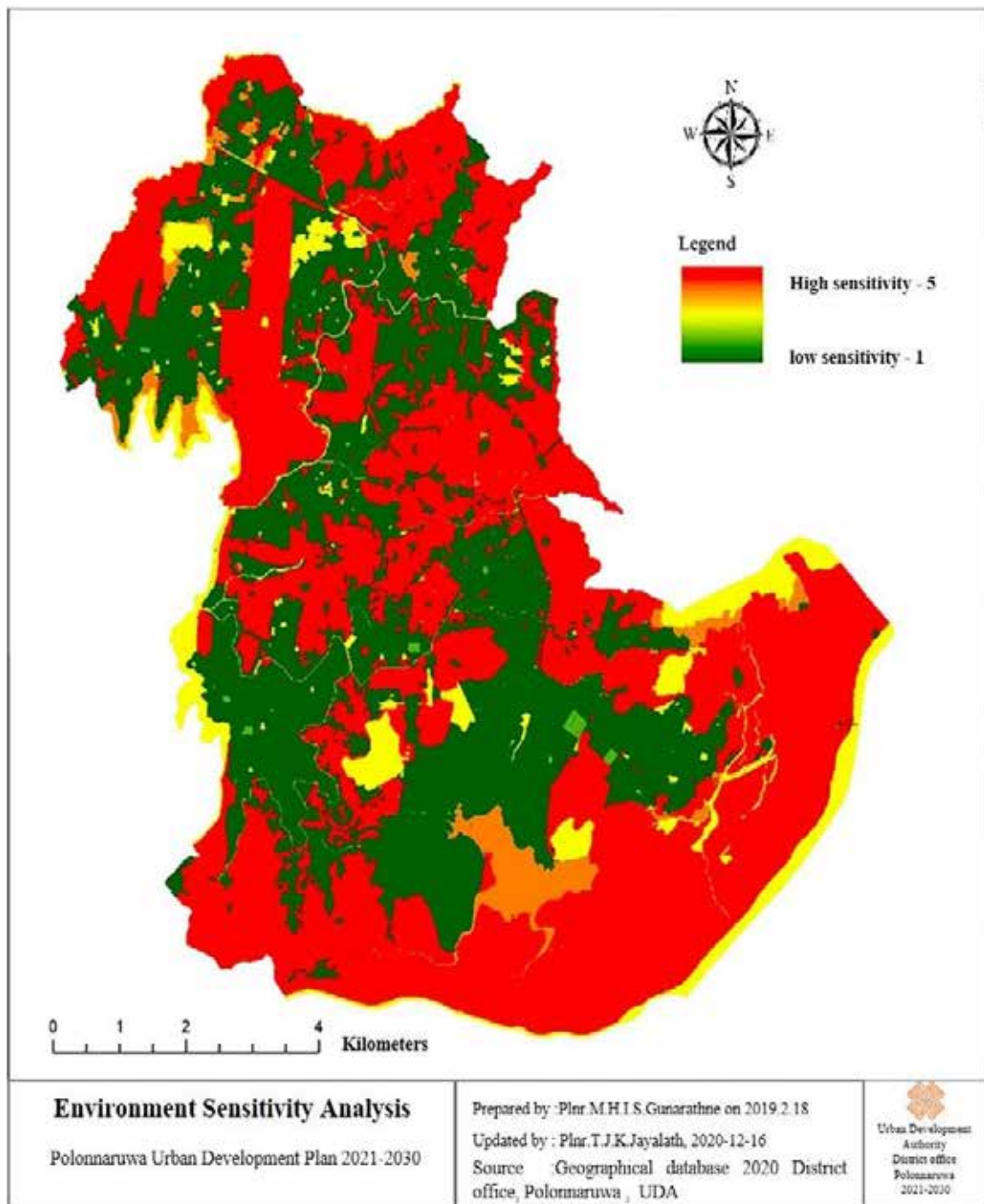
1. Polonnaruwa Health Cluster
2. Laksha Uyana Industrial Cluster
3. Sewagama Residential Cluster
4. New Town Residential Cluster
5. Gallalla Dairy Farm Cluster

Map No. 6.1: Conceptual Plan



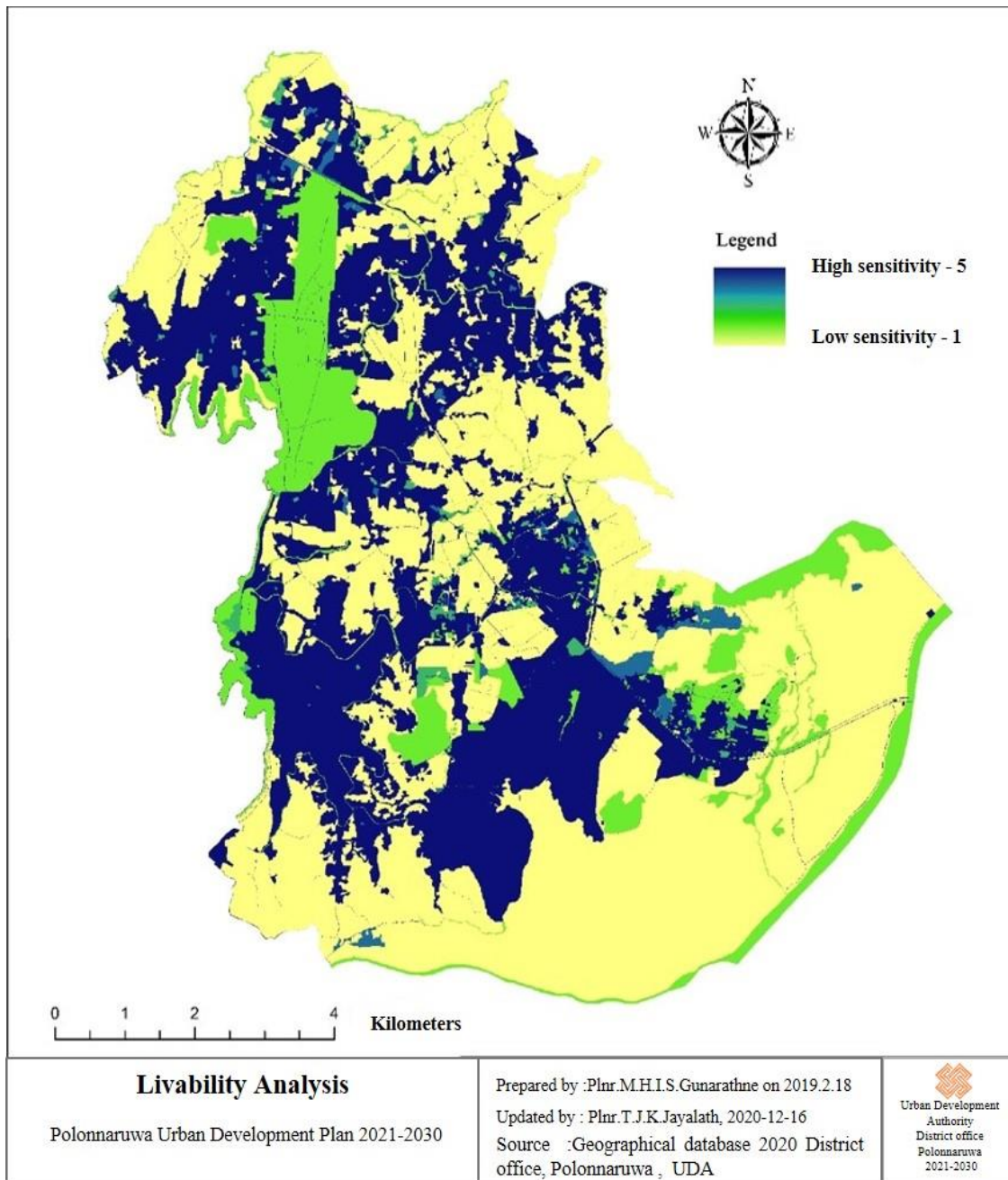
Source: Analysis and Polonnaruwa Geographical data Collection 2020 Polonnaruwa District Office - UDA

Map 6.2: Environmental Sensitivity Analysis



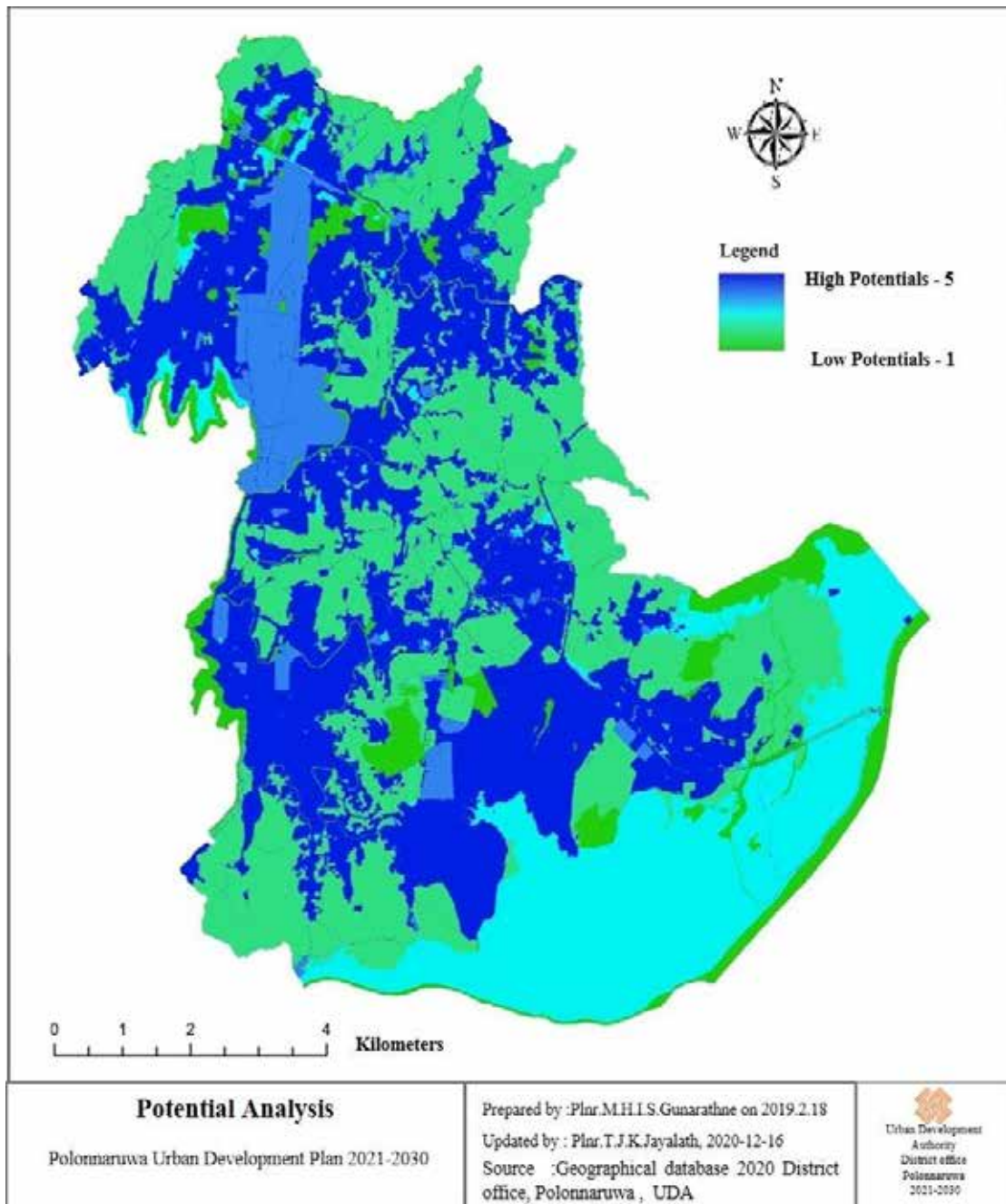
Source: Polonnaruwa Geographical Information Collection 2020: Polonnaruwa District Office

Map 6.3: Livability Analysis



Source: Polonnaruwa Geographical Information Collection 2020: Polonnaruwa District Office

Map 6.4: Potential analysis



Source: Polonnaruwa Geographical Information Collection 2020: Polonnaruwa District Office UDA

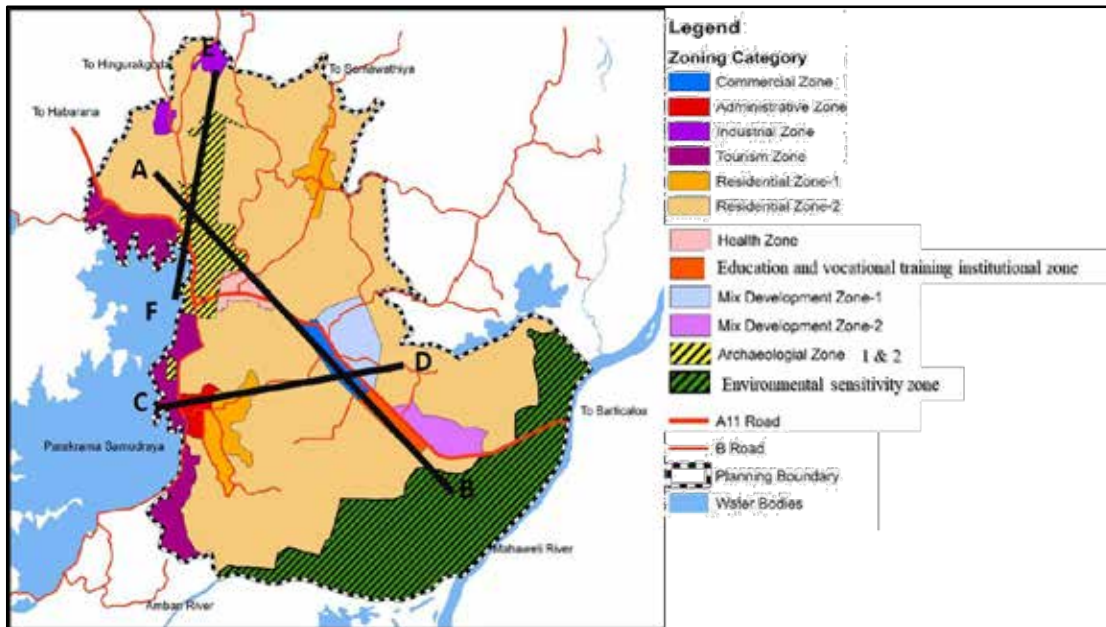
6.3 Proposed Land Use Plan

The proposed land use plan for 2030 is designed to achieve the vision of a “The green glorious heritage city in kingdom of rice”. It also covers all five areas identified as the need for an urban development plan for the city.

Polonnaruwa Administrative City, Polonnaruwa Heritage City and Kaduruwela Commercial City will be developed as major centers covering their identities. In order to increase the tourist attraction, it is planned to improve the infrastructure of the entire city and to exclude paddy lands, sacred city and water gallon valley national park from physical development activities to protect the natural environment.

The proposed zoning plan is a key planning tool used to achieve the expected land use of the area. The land use plan is illustrated using three different aspects (AB, CD, EF) within the design area. (Figure 6.1) This profile makes it easy to understand the land use pattern and its application varies within the relevant zones of the design area. (Figure 6.2, Figure 6.3, Figure 6.4)

Figure 6.1: Zone map for city cross-section



Source: Polonnaruwa Geographical Information Collection 2020: Pol

Figure 6.2: Cross section from A to B



Source: Polonnaruwa Geographical Information Collection 2020: Polonnaruwa District Office

By entering Polonnaruwa from the Colombo-Habarana A11 road, visitors will feel the low density residential area and the greenery. They can also experience the beauty of the sacred city due to the aesthetic appearance of the “Prakrama samudraya” and the “Deepa uyana” . Foreign tourists on bicycles as well as pedestrians at Polonnaruwa Junction can experience the ancient but more urbanized features. As you move up to Hospital Junction, the feeling of antiquity will transform into a more active urban space with the Cluster.

Then you can pass through green paddy fields and low density residential area and proceed to Kanduruwela Commercial City. This is an area with taller buildings and a higher population density than other regions. However, the air circulation on the main road, which is connected to the paddy fields through the crossings, will be improved and it will be a pedestrian friendly city that facilitates walking for passengers.

When passing the commercial city back to Batticaloa, the construction of tall buildings will be minimized, while the Mix development zone in the Gallella area will consist mainly of medium density buildings for corporate purpose. Eventually, the urban area will meet the “mahaweli Flood planin Valley” and the “Mahaweli River”.

The CD profile (Figure 6.3) covers land use in the tourism zone, administrative zone, central residential zone, commercial zone, mixed development zone and lower residential zone. The opening of windbreaks will help control the temperature in the city center, as will the lower residential area with paddy fields near the commercial city.

Figure 6.3: Cross section C to D



Source: Polonnaruwa Geographical Information Collection 2020: Polonnaruwa District Office – UDA

The tourist zone around the Parakrama Sea highlights the natural beauty and identity of the area and attracts many tourists to the city. Indirectly it helps wind to enter the city and reduces the heat of the sacred city. The lower residential zone at the end of D is introduced because of the annual flood focus.

The EF Cross section (Figure 6.4) covers the specific setting of the industrial zone, the archeological zone, and the tourism zone. The Archaeological Zone and the Integrated Tourism Zone will benefit from the tourism industry that has been used as a strategy to preserve the natural environment and ancient value of those areas. The industrial zone is expected to be minimal pollution zone since it is surrounded by paddy lands with green.

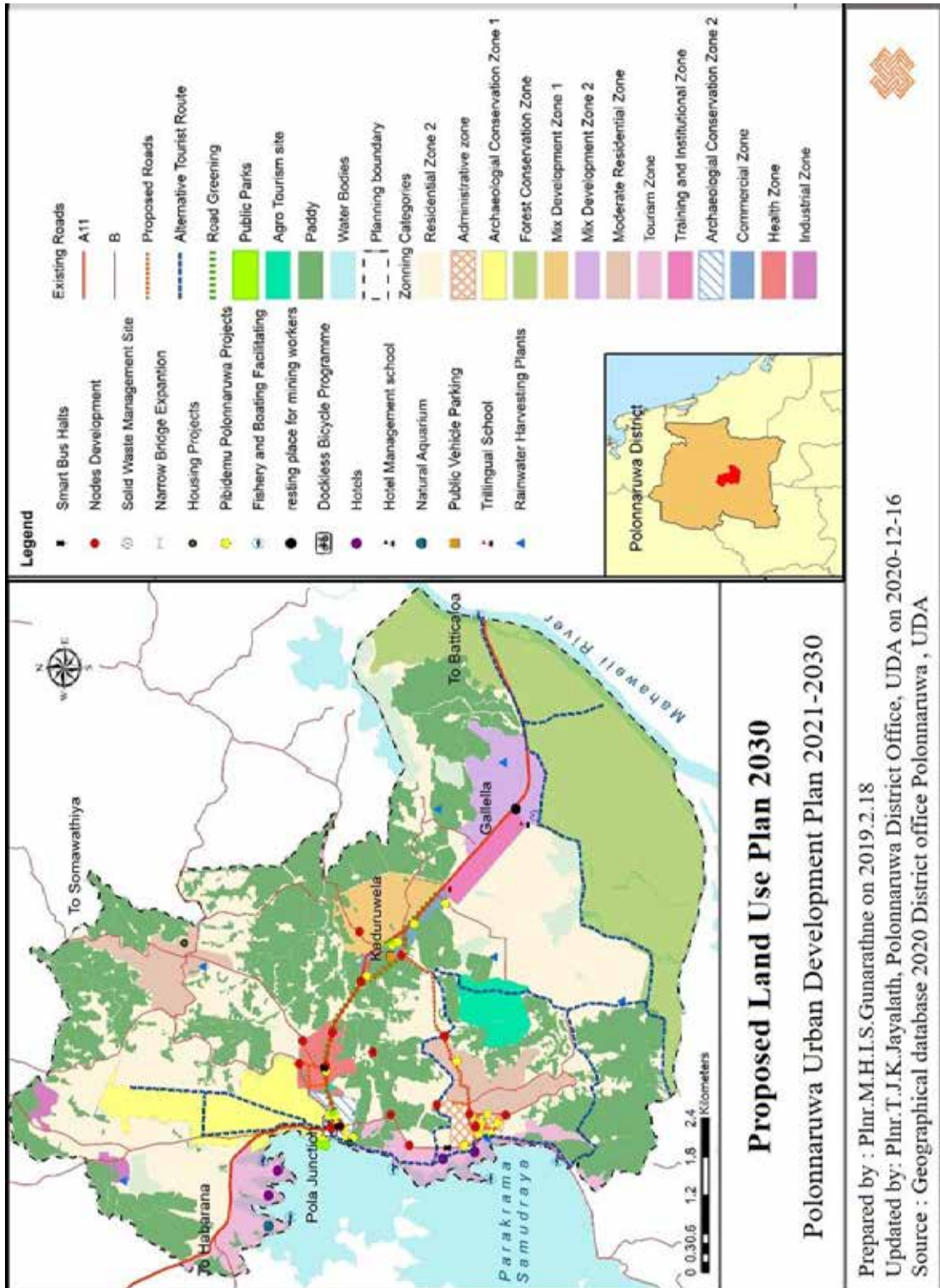
The zoning plan and design regulations to achieve the 2030 vision are introduced in Part II, and each region has a zonal coefficient allocated to those zones to achieve the desired physical space shape. The zoning plan and planning regulations are the foremost strategy to achieve the aforementioned land use by 2030.

Figure 6.4: Cross section from E to F.



Source: Polonnaruwa Geographical Data Collection 2020: Polonnaruwa District Office - UDA

Map 6.5: Proposed Land Use Plan 2030



Source: Polonnaruwa Geographical Data Collection 2020: Polonnaruwa District Office – UDA

6.4 Strategies

The complete Polonnaruwa Development Plan is a combination of six broad strategies as outlined below. That is,

- Economic Development Strategy
- Physical development strategy
- Cultural and Heritage Management Strategy
- Social and physical infrastructure development strategy
- Environmental Sustainability Strategy
- Implementation strategy

6.4.1 Economic Development Strategy

6.4.1.1 Identifying key economic processes and future trends

The economic development strategy serves as the basic foundation for the city's economy. It will take the initial steps towards sustainable economic recovery and financial stability of the city. It will also determine the quality of employment, investment and quality of life. The purpose of formulating an economic strategic plan is to provide a better, more livable environment for city dwellers while gaining potential that is not being used for the economic process. Facilitating economic growth and therefore protecting natural and building heritage can achieve a quality of life for all residents.

North Central Province contributes 5.12% to the GDP. The contribution of GDP to each sector of the province is 8.73%, agriculture 3.67% and services 5.34%. The division of the labor force in the Polonnaruwa District from each sector is only 45% for the agricultural sector, 45% for the services and only 10% for the industries.

The unemployment rate in the Polonnaruwa district in 2016 was 2.5. (Appendix 10.07 and 10.08) The national unemployment rate for the same year was 4.4. Therefore, the Polonnaruwa district has a relatively low unemployment rate. The employment rate within the Polonnaruwa planning area is 55% of the total population. Therefore, the unemployment rate is 45% of the total population. About 49% of the total number of families are Earns between 5000- 25000 Rs per month.

- Chapter 06 The following are the major economic mechanisms identified in the city of Polonnaruwa.
- The Plan Strategies
- Economic Development Strategy
- ❖ Ancient ruins with a great history that enhances the tourism industry
 - ❖ City located between the main tourist route and the existing road network.
 - ❖ Rice Production and Processing Units (Rice Industry)
 - ❖ Important Ecological Places (Forests and Water System) located very close to the city
 - ❖ Manpower (Related to Tourism)

Detailed information on the above-mentioned economic mechanisms is discussed in Chapter 5, a detailed analysis of strengths, weaknesses, opportunities and threats. Table 6: 1 shows the forecast for the Polonnaruwa economy.

Table 6.1: Economic forecasts.

Activity	Exsisting 2021	Proposed 2030
Tourist arrivals	697 people per day	2154 people per day
Paddy lands	31.71 km	Cultivation of barren paddy lands 32.02 km ²

6.4.1.2 Proposed Economic Strategic Plan

The vision of the 2021 - 2030 Polonnaruwa Development Plan is “the Green glorious heritage city in kigdom of rice. The heritage City and the Rice Kingdom are two dual identities that can be used to improve the city's economy and the city's major potential. But there is a possibility of it being removed from the United Nations World Heritage List as its identity as an ancient city is deteriorating due to the pressure of development.

An integrated and complex physical plan can overcome these threats and make Polonnaruwa a healthy, prosperous and sacred ancient city. The proposed economic strategy is designed to uplift the economy of the urban population with maximum utilization of the existing infrastructure system giving more space for the development of paddy farming and tourism.

The proposed economic plan consists of the following strategies.

- ❖ Introduction of a special zone for tourism and its special projects.
- ❖ Agro-tourism program
- ❖ Introducing an alternative tourism route to cover new tourist areas.
- ❖ Economic Plan for Kaduruwela Town (Trade / Commerce / Finance / Services)
- ❖ Economic plan for the new city
- ❖ Economic Plan for Polonnaruwa Pola Junction / Sacred City
- ❖ Economic plan for Gallella town
- ❖ Industrial Plan (Production)
- ❖ Agricultural plan

Determining different zones for other industries and tourism will encourage the promotion of rice processing and tourism related activities in those zones. However, some tourism strategic projects will be set up outside the above zones to create more economic opportunities for the entire city.

Strategic projects such as the Museum of Culture Related to Paddy Cultivation, the Museum of Irrigation, and the Eco Village, which practically implements the culture associated with historic paddy farming, will provide examples of new income generating methods for its residents.

6.4.1.3 Introduction of a special zone for tourism and special projects within it.

Promoting the tourism industry is one of the significant contributions to the development of the city's economy. It is imperative that Polonnaruwa highlight its identity as a World Heritage Site to attract more tourists. The following strategic projects have been identified to enrich the economy of the city by considering the tourism needs and preferences.

(A) Introduction of new star class hotels and legalization of existing hotels.

Although there are more than 100 hotels (small to large) around the Sacred City, most of them are not registered with the Tourist Board. This will ensure that all information on tourism industry stakeholders with local authorities is registered and registered with the Tourist Board to provide enhanced safe accommodation for tourists. Considering the future tourist arrivals and demand, four large star class hotels have been proposed near the Parakrama Ocean in this travel plan. Those hotels must keep their carbon footprint to a minimum, and it is essential that the model blends in with the natural environment. (Figure 6.5)

Figure 6.5: “Uga Hotel” blending in with nature, Yala, Sri Lanka



Source: <https://www.ugaescapes.com/destinations/yala.html>

(B) Fisheries and boat services for pet fishing and commercial purposes

The freshwater fishing industry is one of the most popular industries in Polonnaruwa. Accordingly, this strategy will be promoted by introducing locations for the pet fishing industry for tourists and the commercial fishing industry for the residential community, which will facilitate this near the Parakrama Sea. (Figure 6.6) It is also proposed to introduce swan boat facilities to the Bay areas in the high seas.

Figure 6.6 : Fishing in Parakramasamudraya



Source: https://manishamishra.files.wordpress.com/2012/04/img_3561.jpg

Figure 6.7 : Swan boat service in Lake Gregory



Source: <https://www.dhanushamarinelanka.com/img/about/paddle-500-swan-07.jpg>

(C) Introducing a bicycle rental program.

This cycling system is a way to reduce traffic congestion within the Sacred City, and also improves the health of people while enjoying the beauty of the Sacred City. Those relevant bike applications can find the nearest bicycle service and use the QR code to unlock them. Charges will be levied for an hour after a person starts the journey. This system will ensure the security and transparency of both buyers and sellers. Also, this will encourage foreign tourists to park their vehicles outside the sacred city and also give a new experience of the old ruins while cycling.

Figure 6.8: Bicycle exchange locations



Source: <https://altaplanning.com/dockless-bike-share>

(D) Natural Aquarium and Freshwater Fish Village

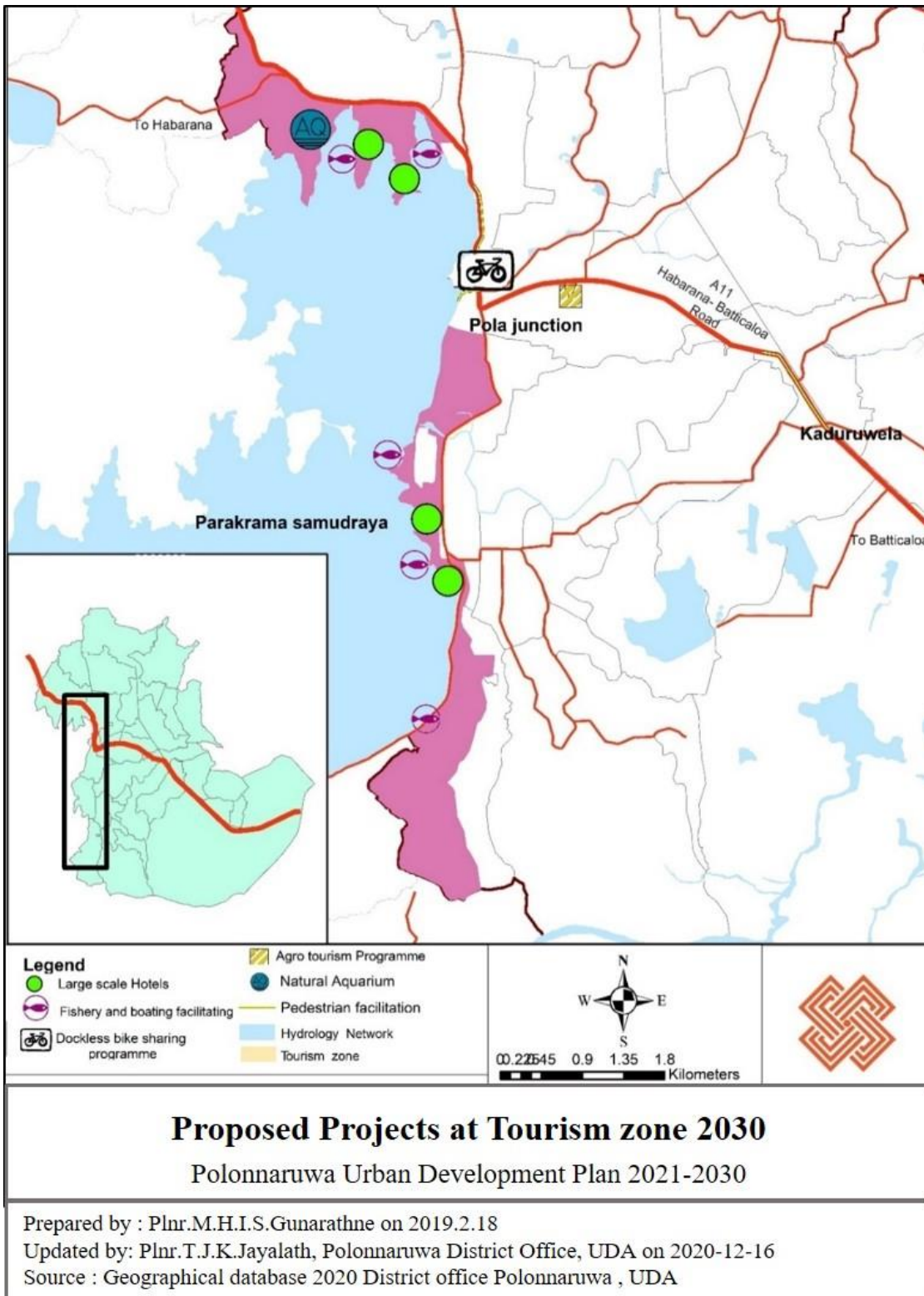
This natural aquarium is proposed to connect with the vast ocean and provide an aquatic life experience within the area itself. This proposal is designed to highlight the identity of the inland fisheries industry in Polonnaruwa. This structure will be installed in the Bandiwewa fishing village. It is proposed to provide education and recreational activities related to fish in this natural aquarium.

Figure 6.9: Wisconsin (Haywood) Freshwater Fish Center



Source: <https://media-cdn.tripadvisor.com/media>

Map 6.6: Proposed Projects in the Tourism Zone - 2030



Source: Polonnaruwa Geographical Data Collection 2020: Polonnaruwa District Office: UDA

6.4.1.4. Agro - Tourism Program

According to the University of California "Small Farm" program, "agro-tourism is a large-scale commercial enterprise that operates for the entertainment and education of visitors who generate additional income for the owner and operator." There is a high trend in the tourism world regarding this topic and with the existing infrastructure it can be done in Polonnaruwa as well. At the local level, only formal guidance is needed. The following strategic programs will be introduced as models that city dwellers can follow in their land.

A. Recreational activities in the agro-tourism industry

The attraction to the city of Polonnaruwa is intensified by the paddy lands, which are one of the main land uses of the city of Polonnaruwa. But tourists do not have the opportunity to experience the beauty of the paddy fields in the area. There are beautiful paddy lands especially adjacent to the A11 road and it is proposed to set up viewing booths / platforms to view their beauty along the main road (Figures 6.10, 6.11). The Ranketha Uyana paddy land has been selected as an example for those who wish to implement such programs in the paddy lands of the farmers to earn extra income from the tourism industry.

Figure 6.10 Agro-tourism recreation in Vietnam



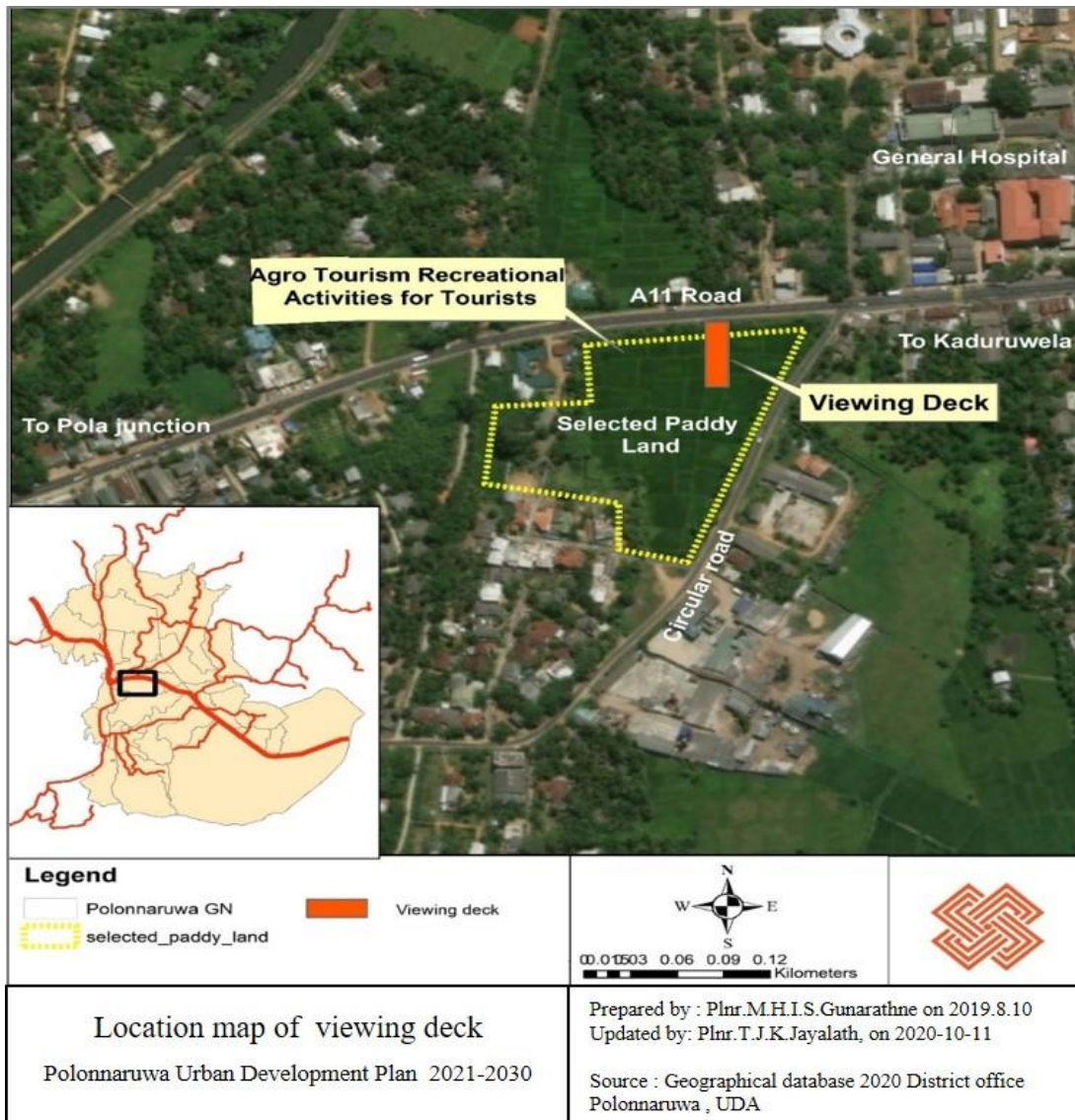
Source: Internet

Figure 6.11 Viewing Deck



Source: <https://www.thewilddeckcompany.co.uk/product-portfolio/viewing-platforms/>

Map 6.7: location map of Proposed viewing deck



Chapter 06 **B. Practice of Japanese paddy art in Kaduruwela paddy lands**

The Plan

Strategies

Economic
Development
Strategy

Agro-Tourism
Program

The Japanese village of Inacadet is famous for this art. When art becomes the theme of agriculture, it will be a unique and great model. Every farm in the Japanese village of Inacadate is a work of art. The farmers of this village create a detailed pattern by cultivating different types of paddy to create an art product. Each paddy field in this village has an artistic touch, and in every aspect it ranges from characters from mythological tales to models showing Hollywood fame.

This work of art has been meticulously designed by a computer. Genetically engineered rice is carefully planted by farmers. The artwork is carefully blended with the local "green leaf" variety and the dark red, yellow and white (genetically engineered) varieties. There are many paddy lands on both sides of the A 11 road. Paddy farms and paddy lands located in Kaduruwela have been selected to establish this art of paddy cultivation. It is hoped that its attention and attraction will create a trend towards these works of art in other paddy lands as well.

C. Irrigation Museum with practical examples

(Detailed in Cultural and Heritage Management Strategy.)

D. Paddy Cultivation Museum and Model Village

(Detailed in Cultural and Heritage Management Strategy.)

Figure 6.12: Paddy art in the village of Inacadet, Japan



Source: <https://krishijagran.com/news/japans-paddy-art-a-new-way-of-agritourism/>

6.4.1.5. Introducing an alternative tourism route to cover new tourist areas.

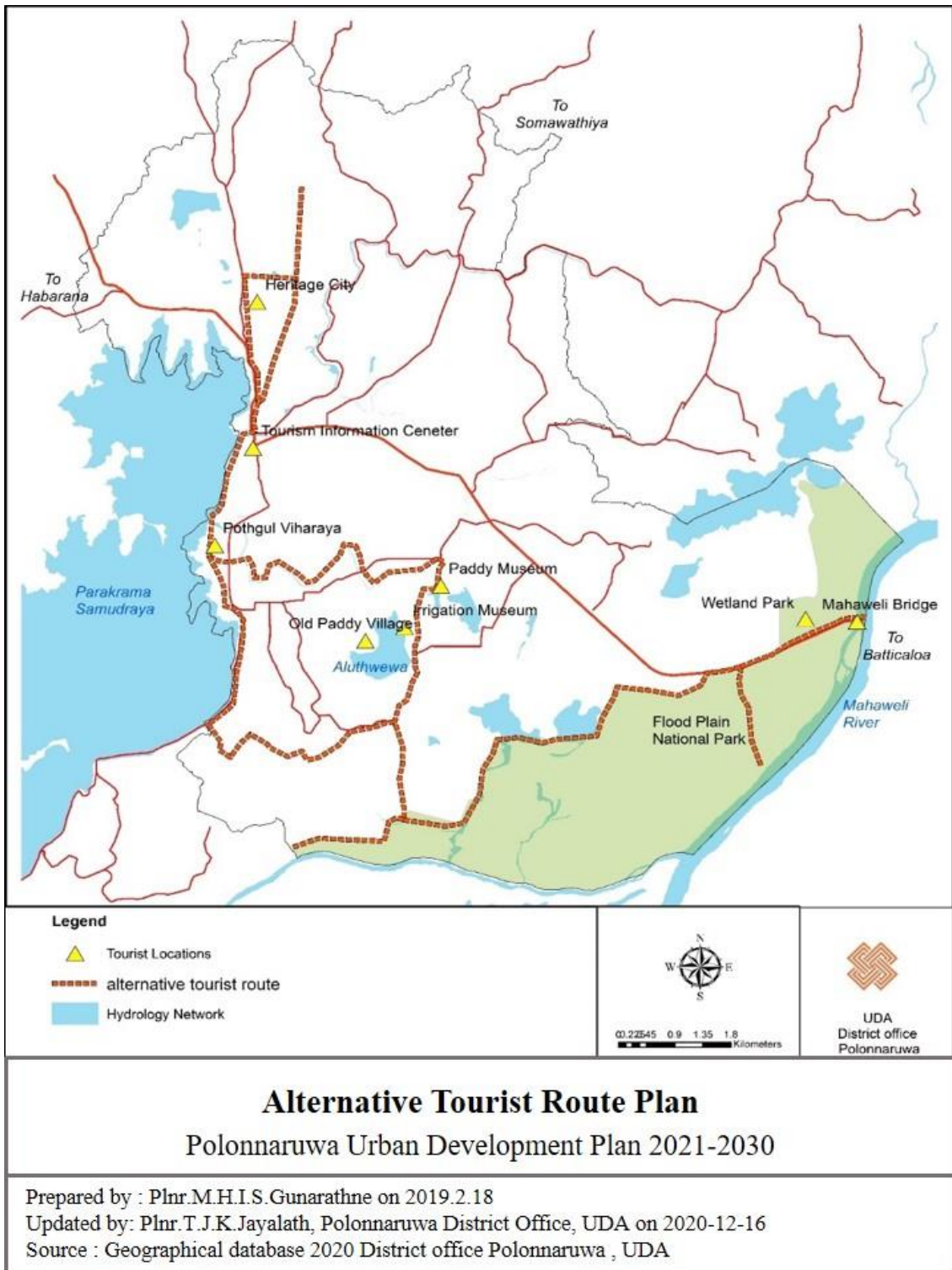
Polonnaruwa has not yet used the advantage of being the main city to the east of Sri Lanka via the A 11 road as a development opportunity. A strategic plan can stop tourists and sometimes even locals from passing through the city and heading to the east coast for recreational purposes.

One of the most important tourist attractions in Polonnaruwa so far is the ancient ruined sacred area, the Parakrama Samudra and the Potgul Vihara. This alternative tourist route is expected to cover major tourist attractions in the new city, such as the “Museum of Ancient Technology”, the proposed Museum of Paddy Cultivation and Agriculture Village, the proposed Irrigation Museum and the Jalagalu Valley Sanctuary. (Map 6.8). (Location of Paddy Museum, Irrigation Museum and Agricultural Village may vary from map locations)

Rice is also the staple food consumed by a large portion of the world's population, especially in Asia and Africa. It is the world's third largest producer (sugar, 741.5 million tonnes in 2014) after sugar (1.9 billion tonnes in 2014) and maize (1.0 billion tonnes in 2014). So any tourist will be happy to see the processing mechanism into paddy rice. Opportunity for local and foreign tourists to visit small, medium and large scale rice factories spread across the area will generate an unprecedented source of income. It is hoped to select one rice factory as a pilot project for this purpose.

It is hoped to provide awareness and guidance on these new tourist attractions through the Tourist Information Center built under the “Awaken Polonnaruwa” program which was a proposal in the 2015 Draft Development Plan of the Urban Development Authority. The Tourist Information Center needs to be reorganized for that.

Map 6.8: Alternative tourist routes in the city



Source: Polonnaruwa Geographical Data Collection 2020 Polonnaruwa District Office - UDA

6.4.1.6. Economic Plan for Kaduruwela Town (Trade / Commerce / Services)

Kanduruwela is the commercial capital of the district with a population of over 600000. By this time, all the spaces that can be developed outside the paddy fields have already been developed. However, due to future demand, the existing city center needs to be reorganized.

About 60 acres of paddy land has been designated as a commercial zone and the lands can be used for commercial purposes as required considering the future development trends. The following projects have been identified for completion in Kanduruwela town. (Map 6.9)

- A. Introducing the rice retail and large scale wholesale market in Kaduruwela town expanding the market for farmers to present their produce to the national level
- B. Construction of a Trade and Commerce Center to sell agricultural products and other by-products, services, value added products in Polonnaruwa.
- C. Reorganization of the main bus stand with two floors. The ground floor (on the bus depot land) will be reserved for a common market, especially for the convenience of bus passengers. The upstairs will function as a parking area.
- D. Expansion of passenger lanes (sidewalks), redevelopment of existing shops in the commercial area and improvement of shops within the city.
- E. Improving the efficiency, safety and aesthetics of the city by organizing the commercial buildings constructed in the reserve between the railway and the A11 road.
- F. Development of Financial Institutions Complex for all Financial Institutions in Kanduruwela.
- G. "Placement of Sri Lanka Transport Bus Depot" and established new "Long Distance Service Center" near Galella entrance on Maithripala Sirisena Mawatha.

6.4.1.7. Economic plan for the Nawa Nagaraya

A. Small bus station and shopping mall

There is a high demand for a small bus stop as the main administrative center, offices, district court and the only national school in the city center are operational in the New Town area.

Also, lawyers need more space for their offices. Considering the demand, Royal College has proposed a small bus stop in front of the entrance and its upstairs room law related offices. Downstairs there will be supermarkets, communications, restaurants and shops providing educational services.

6.4.1.8. Economic Plan for Polonnaruwa Pola Junction / Sacred City

Polonnaruwa Pola Junction is located within the old town and development was restricted by regulations. However, the following projects have been identified to provide the best service to the tourist and daily tourist population. (Map 6.9)

- A. Reorganizing the activities of the Tourism Facility Center including SMART bank facilities and information desk.
- B. Construction of a shopping complex on the land with the Central Cultural Fund for activities related to the tourism industry.
- C. Establishment of an open, recreational space with a common town square and restaurants within the premises of the Post Office and the Pradheshiya sabha..
- D. Construction of SMART bus station Near the public square.
- E. Fabricate a leisure and active environment in Pola Junction and Parakrama Samudra tank bund in the evening and night.
- F. Presentation of historical works / works of art and films with 3D technical assistance in Pooja Nagaraya. (During the night)

6.4.1.9 Economic plan for Gallella town

- A. Gallella town development with dairy and animal products related industries.
- B. Development of the city to serve the proposed “Educational and vocational training institutional zone”.
- C. Develop and facilitate Manampitiya sand port.

6.4.1.10. Industrial Plan (Production)

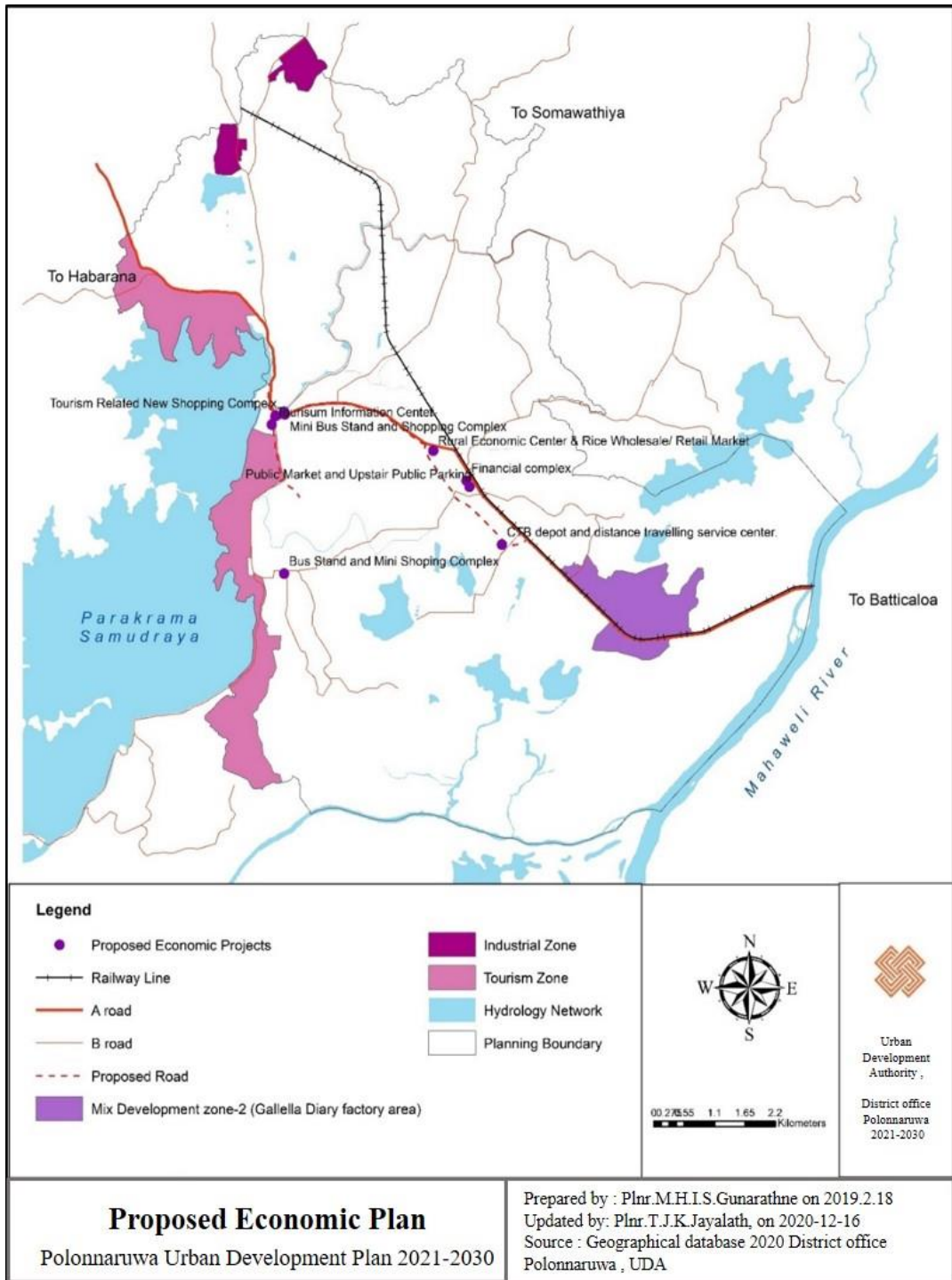
The rice industry has been one of the most unique and important industries in the city of Polonnaruwa for centuries. The main objective of formulating this strategy is to engage and protect the paddy harvest in various ways to enrich the urban economy. The following strategies have been selected for this.

A. Introduction of another zone for green industries (Laksha Uyana).

The following industries will be promoted in the region.

- ❖ Rice production industry
- ❖ Industries that added value to rice
- ❖ Polysack cover manufacturing industry

Map 6.9: Proposed economic projects



Source: Polonnaruwa Geographical Information Collection 2020 Polonnaruwa District Office -UDA

6.4.1.11 Agricultural Plan

Paddy cultivation is the main agricultural product in Polonnaruwa and contributes 19% of the total national paddy production in Sri Lanka. (2018 Statistics) Polonnaruwa is one of the most favorable areas for paddy cultivation considering its climatic conditions, soil type and other environmental requirements affecting paddy cultivation. Therefore, paddy farming has been the main livelihood of the people living in this area since ancient times.

Many years ago, the government focused on improving the irrigation system required for paddy cultivation after agriculture became a national source of income. However, the current trend towards paddy cultivation is declining due to the lack of attention paid to farmers and the government not introducing any innovations to encourage them.

Polonnaruwa Development Plan 2021/2030 vision identifying the cultivation of paddy cultivation in the district and its cultural significance as a key potential for the urban and economic development of Polonnaruwa. The following strategies have been identified to improve and actively maintain paddy lands in Polonnaruwa.

6.4.1.11.1 Re-use of abandoned paddy lands for paddy cultivation

During the reign of King Parakramabahu, Polonnaruwa was a self-sufficient city supplying rice to the whole country. There are 3172.3 hectares of paddy lands used for paddy cultivation and 30.68 hectares of abandoned paddy lands not used for paddy cultivation in the Polonnaruwa planning area. Compared to previous years, there is an increase in the number of fallow paddy lands. Therefore, identifying paddy lands suitable for paddy cultivation is another objective of the Polonnaruwa Development Plan.

6.4.1.11.2 Establishment of a Farmer Training Center to impart new technology and innovations and training required for paddy cultivation

The main reason for the decline of paddy lands is that farmers are still cultivating paddy using only conventional methods and are not finding satisfactory solutions to the problems they face.

It is the primary responsibility of responsible public servants to take farmers forward on global trends and assist them in discovering new technologies and innovations.

The Farmer Training Center will provide the environment required for farmers to make the many changes required by the new machinery and technology required for paddy cultivation.

6.4.1.11.3 Introduction of Seed and Plant Material Testing and Development Center and Machinery Manufacturing Workshop

The "Seed and Planting Center" primarily proposes the development of seed production and distribution, production and distribution of planting material, seed planting material related capacity building and soil fertility and its sustainability. This can be established as an improvement in association with the government seed farm. The "Research and Development Center" has also been proposed by the same division to facilitate farmers and agricultural research. It is expected that new employment opportunities will be created through this.

The proposed Paddy / Rice Museum in the area will also provide an opportunity to study and research past paddy cultivation practices, seed varieties, etc.

6.4.2. Cultural and Heritage Management Strategy

6.4.2.1. Areas of Ancient Heritage in city

The city of Polonnaruwa is the second kingdom of the country and possesses a distinct identity, mainly in two forms. First, Polonnaruwa is one of the United Nations World Heritage Sites. The other is the cultural values associated with paddy cultivation. The classification of cultural and ancient heritage of Polonnaruwa can be identified under the following categories of visible and invisible.

- a) Tangible heritage
 - ❖ Ancient Ruins (Archaeological Site)
 - ❖ Irrigation system
 - ❖ Paddy cultivation and related technology
- b) Intangible heritage
 - ❖ Culture, norms and beliefs related to paddy cultivation
 - ❖ Dalada Perahera (Poson Perahera at the Sacred Area)
 - ❖ Vesak Perahera (Kanduruwela)

Heritage management requires conservation to protect sensitive areas such as ancient sites, irrigation and paddy fields in the city, and these heritages should be used to enhance the city's economy by improving the manufacturing and tourism sectors.

The current layout of the city is the result of historical actions, and a prudent understanding of the city development plan is essential. That is why the proposed Polonnaruwa Zonal Plan 2030 has been developed with a zone reserved for archeological sites. It identifies as sensitive areas the paddy lands and water system that need to be conserved to protect the city's identity.

6.4.2.2. Culture and Heritage Management Strategy Plan and related goals

One and two of the goals associated with the 2030 vision are directly aimed at cultural and archeological management. Enhancing its identity with the city's heritage is essential to becoming one of the country's best ancient tourist destinations. Heritage associated with the blue-green system is a key feature that is expected to be protected and promoted in order to achieve the 2030 Vision under the Heritage Management Strategy. (Paddy and Irrigation System) The objectives of the target are directly related to this. The two goals are to protect ancient heritage and ecologically sensitive areas by demarcating them.

The vision of the development plan is to highlight the ancient city and the rice industry because of the identity of Polonnaruwa. Accordingly, these goals will guide the growth of the economy while preserving the identity of Polonnaruwa by gradually adopting the following strategies.

- ❖ Designation of a separate zone for the heritage city.
- ❖ Protection and conservation of heritage sites by physical demarcation of boundaries.
- ❖ Urban access and lane development.
- ❖ Improving the infrastructure of the heritage city.
- ❖ Landscaping the city heritage inherited from flowering trees.
- ❖ Paddy Museum and Model Village.
- ❖ Irrigation Museum.
- ❖ Historical Library with Museum of Ancient Technology.

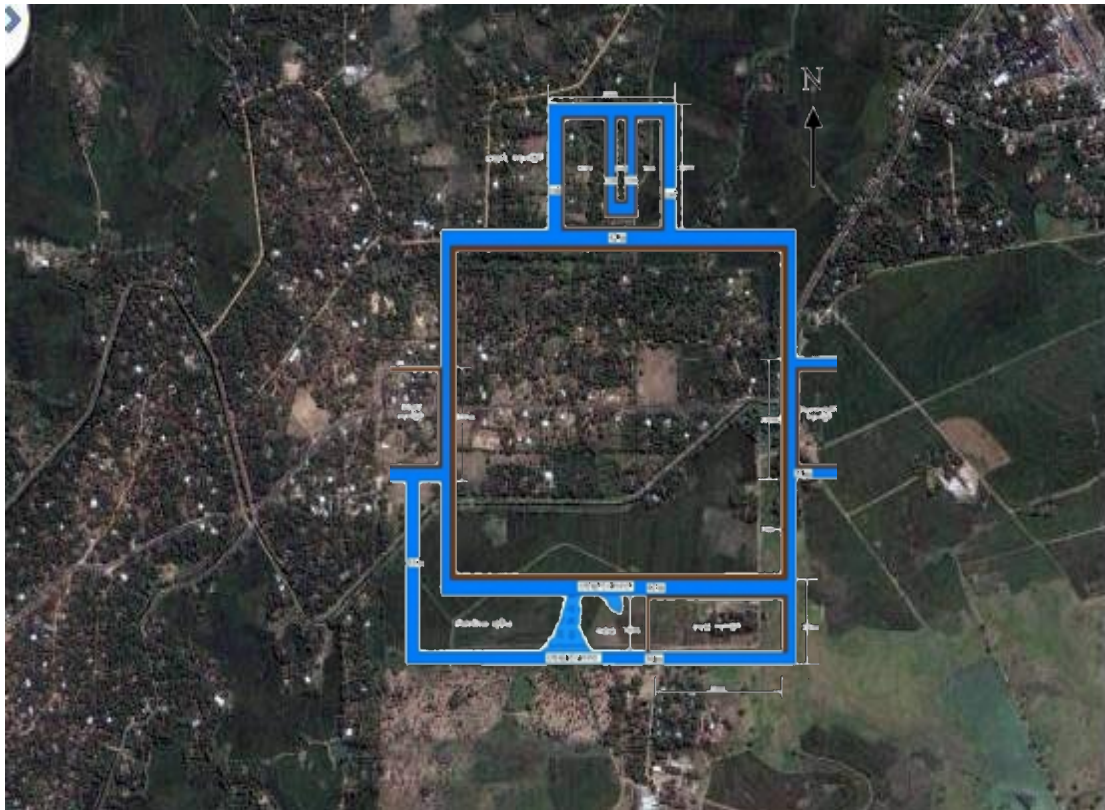
6.4.2.3. Naming a separate zone for the heritage city in zoning plan

The land on which the present sacred city stands belongs to the "Alahana Pirivena" program of the Department of Archeology. Of the 27 archaeological sites in the region, 18 have been identified for development, preserving their archaeological value. The regulations do not permit any development other than infrastructure development.

6.4.2.4 Preservation and conservation of heritage sites by physical demarcation of boundaries.

- a) Naming Polonnaruwa as a Sacred City and physically marking the boundaries.
- b) Archaeological / Heritage sites are under threat due to unauthorized acquisition. Physical marking of boundaries under the guidance of the Survey Department.
- c) Three medium scale tanks and 45 small scale tanks are operational in this design area. Exists. Marking the boundaries of these tanks according to the concept of "Bio Fence".
- d) Paddy lands around the main road should be conserved. Necessary regulations have been formulated to minimize the conversion of paddy lands for other uses by selecting it as low residential zone in zoning plan.
- e) Marking in the zoning plan and preparing special regulations for the conservation of Vijithapura Fort / Kaduruwela Fort until it is declared as a Heritage by the Department of Archeology. It is located in the Weera Place Grama Niladhari Division near the commercial city. (Figure 6.13)

Figure 6.13: Kanduruwela Fort, drafted by the Central Cultural Fund Research Report 2010



Source: <https://www.archaeology.lk/sinhala/%E0%B6%B4%E0%B7%9C%E>

6.4.2.5 Urban access and lane development

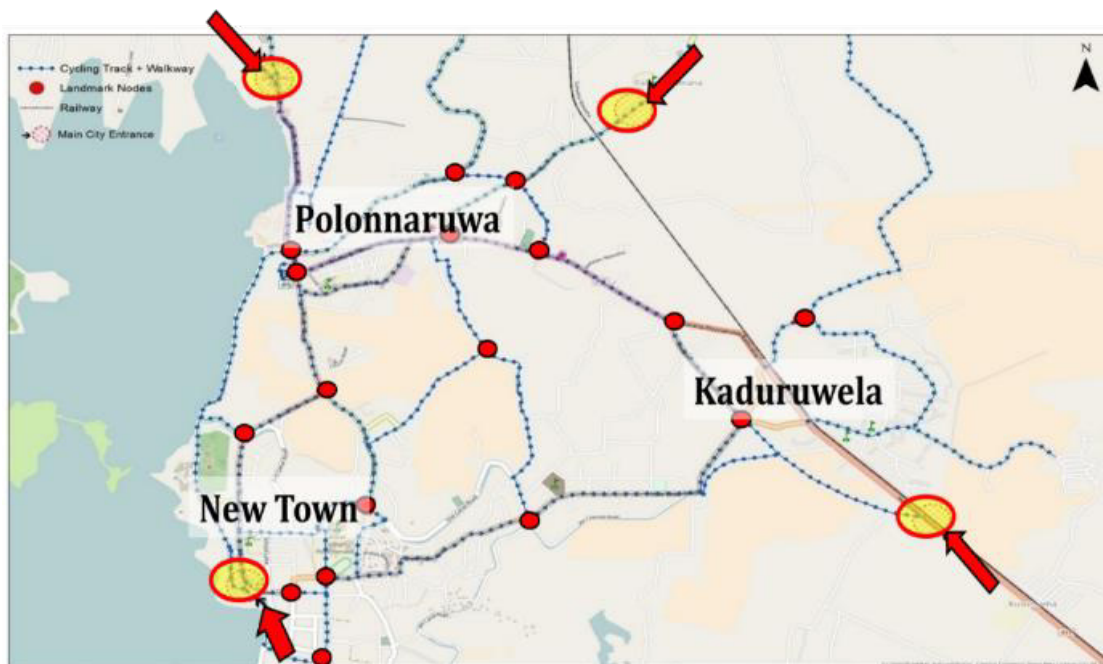
A. Development of the main entrances / places of the city to reflect the cultural heritage.

Four main entrances to Polonnaruwa town have been identified.

- From Colombo
- From Somawathiya
- From New town
- From Kaduruwela

It is proposed to construct entrance gates to reflect the uniqueness of the city's heritage. Taking into account the vision of the Polonnaruwa heritage city, several historical ruins that can be used as models for these entrances have been identified in this development plan up to 2030.

Figure 6.14: Access points and main lanes to be developed as landmarks in Polonnaruwa



Source: Field Survey -2018 August - Urban Development Authority

B. Development of major intersections and road network to reflect the identity of the Polonnaruwa city with it's Cultural Heritage.

The reign of King Parakramabahu the Great is considered to be the golden era of Polonnaruwa. We are redeveloping that glorious city with a vision for the year 2030. Accordingly, these main lanes will act as landmarks describing ancient features. For example, these main lanes will be developed with the following milestones. (Figure 6.15)

The overall idea is to place where historical values and original items are described and seen. The size of these structures should be large enough to allow tourists to use them as a backdrop for photography.

- Starting point of Maithripala Sirisena Mawatha, Kaduruwela entrance; Development with a gold coin from the time of King Parakramabahu.
- Entrance to Hospital Junction Sungavila Road; Demonstration of equipment found during excavations at Alahana Pirivena.
- Development of Polonnaruwa Pola Junction Roundabout as a tower with a height of 80 meters or more.
- Design the New Town entrance as an old-fashioned template which used for writing books.
- Design “Paskan Handiya” roundabout as three terraced paddy fields to grow traditional paddy varieties with the middle A crowned handsom farmer king with bundle of ripe paddy in his hand. the idea is to Make Tribute to the farmer who is the lifeblood of the district.

Figure 6.15: Example of suitable historical monuments



Source: https://www.cbsl.gov.lk/sites/default/files/cbslweb_images/notes_coinsPolonnaruwa.png

6.4.2.6 Regulate construction while maintaining the characteristics of the heritage city.

Limiting development by regulating development activities in the Archaeological Conservation Zone by zoning regulations.

6.4.2.7 Improving the infrastructure of the heritage city

The Department of Archeology has identified several projects to improve the infrastructure of the heritage city. This project list also includes the conservation of selected heritage sites. The Polonnaruwa Heritage should be maintained by facilitating the tourism industry through projects identified by the Central Cultural Fund.

Due to the hot weather conditions prevailing in the city of Polonnaruwa and the direct sunlight falling on the area, it is best to keep these historic sites open to local and foreign tourists until 10.00 pm with a comfortable lighting environment and proper lighting system. Accordingly, the Urban Development Authority will provide guidelines for the provision of infrastructure facilities for archeological sites through this plan and the infrastructure required for the use of such sites during the night should be developed. (Figures 6.16 and 6.17)

Figure 6.16: Bicycle friendly infrastructure required.



Source: <https://www.atlasandboots.com/wp-content/uploads/2017/04/cycling-in-anuradhapura-sri-lanka-8.jpg>

Figure 6.17: Solar lighting on Parakrama Samudraya bund.



Source: <http://www.leadsglobal.com/wp-content/uploads/2018/09/ParakramaSamudraya.jpg>

6.4.2.8 Landscaping of the city inherited from flowering trees.

The Sacred City covers an area of about 4.2 square kilometers. Since it is also inappropriate to construct for the beautification of the Sacred City, planting annual and daily flowering plants is the most appropriate tactic regarding its landscaping.

Foreign tourist arrivals increase from June to August. The Esala, which blooms at that time, can be given priority here for the May Mara plants. It is expected that in about 5 years, the Sacred City will be filled with yellow, red, orange and variegated flowers, leaving an immortal memory for tourists. The following areas have been identified for this landscaping program.

- a) On both sides of the roads within the Sacred City
- b) On both sides of the “Parakrama samudraya”
- c) Along the physical boundary around the Sacred City

6.4.2.9 Hela Bojun Hall near Heritage city

The Hela Bojun Hall near the Pooja Nagar will cater to local and foreign tourists visiting the Pooja Nagar. Traditional Sri Lankan cuisine cooked with traditional ingredients enhances the cultural atmosphere of the sacred city. This would also be a good solution as there are few places to eat near the sacred city.

6.4.2.10 Paddy Museum and Model Village

Paddy culture has been around for over 5000 years. It is a legacy of the new generation. These include not only the general features of a village but also food preparation, cooking utensils, house construction, paddy storage methods, paddy preparation methods and more. One of the ancient villages will be built with ancient features and it is expected to be built as a cultural model village in association with agriculture.

Tourists can stay in the village and experience cultural experiences here. (Figure 6.18 Ulpothagama, Dambulla) It is expected to be managed by a team of villagers, and the museum plans to showcase every aspect of the technology, including rice varieties.

Figure 6.18: Ulpotha Village (Dambulla)



Source: <https://www.ulpotha.com/> web page

6.4.2.11 Irrigation Museum

Sri Lanka's traditional canal system and irrigation technology have been well-known throughout the world for centuries. However, there is no suitable institution in Sri Lanka to obtain the necessary knowledge and information in this regard. Polonnaruwa has historically had the authority to display the old technology that can be used to the fullest for paddy cultivation.

Accordingly, it is proposed to construct an Irrigation Museum in the vicinity of one of the tanks within the city limits and it is expected to develop the canal system of Aluthwewa Lake as a practical model canal system. The Irrigation Museum is expected to be built with a practically visible Ellangawa tank system, and if the ancient village associated with paddy cultivation could be established nearby, the interrelationships between them would be further highlighted.

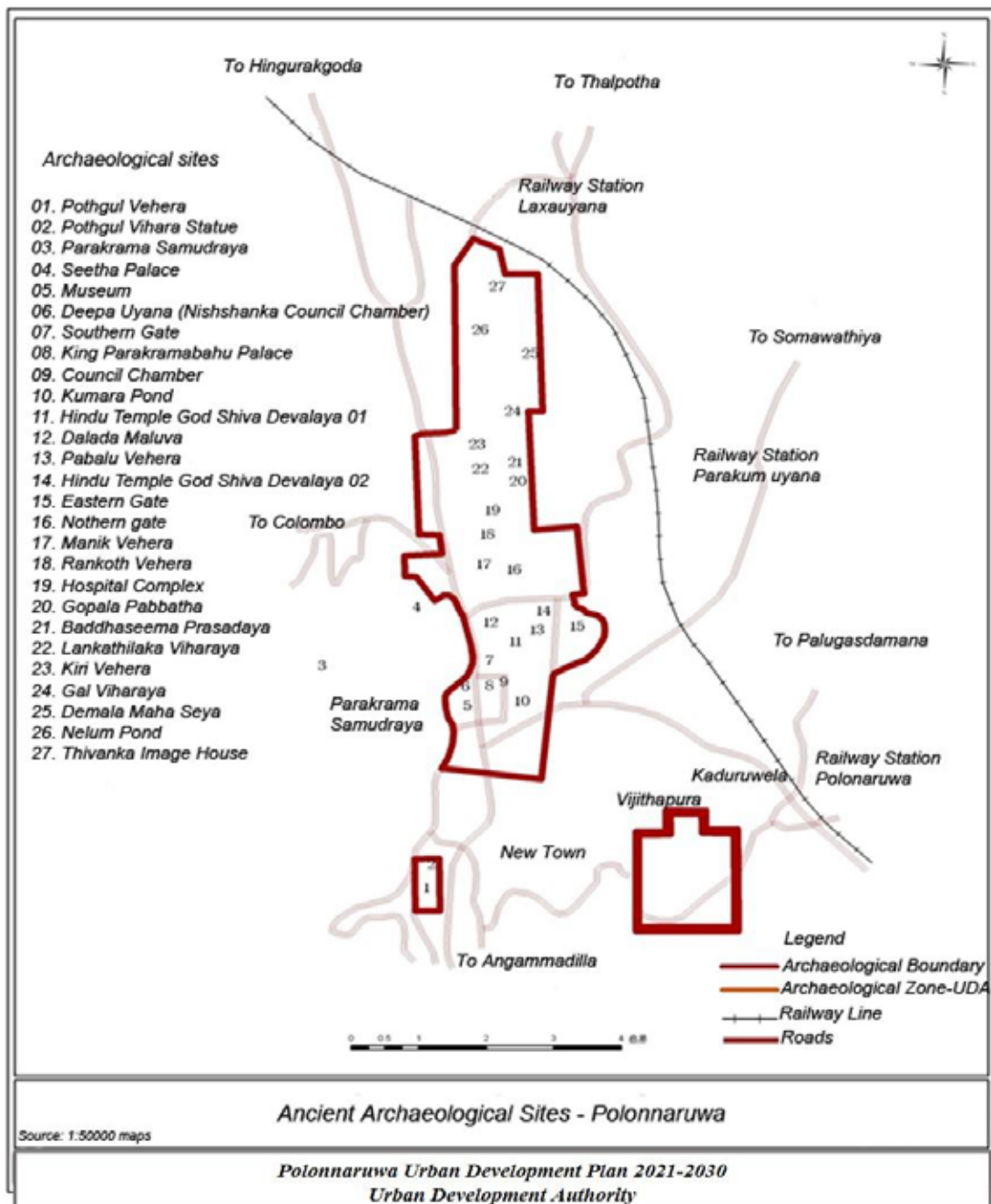
6.4.2.12 Historical Library with Museum of Ancient Technology

A 3D museum and library has been built near the Potgul Vihara in the New Town under the “Awaken Polonnaruwa” program. Statues of ancient kings and historical structures

will be replicated. Built using the latest technology and equipment, the museum will provide a unique experience for local and foreign visitors, while the library will allow foreigners to study historical information.

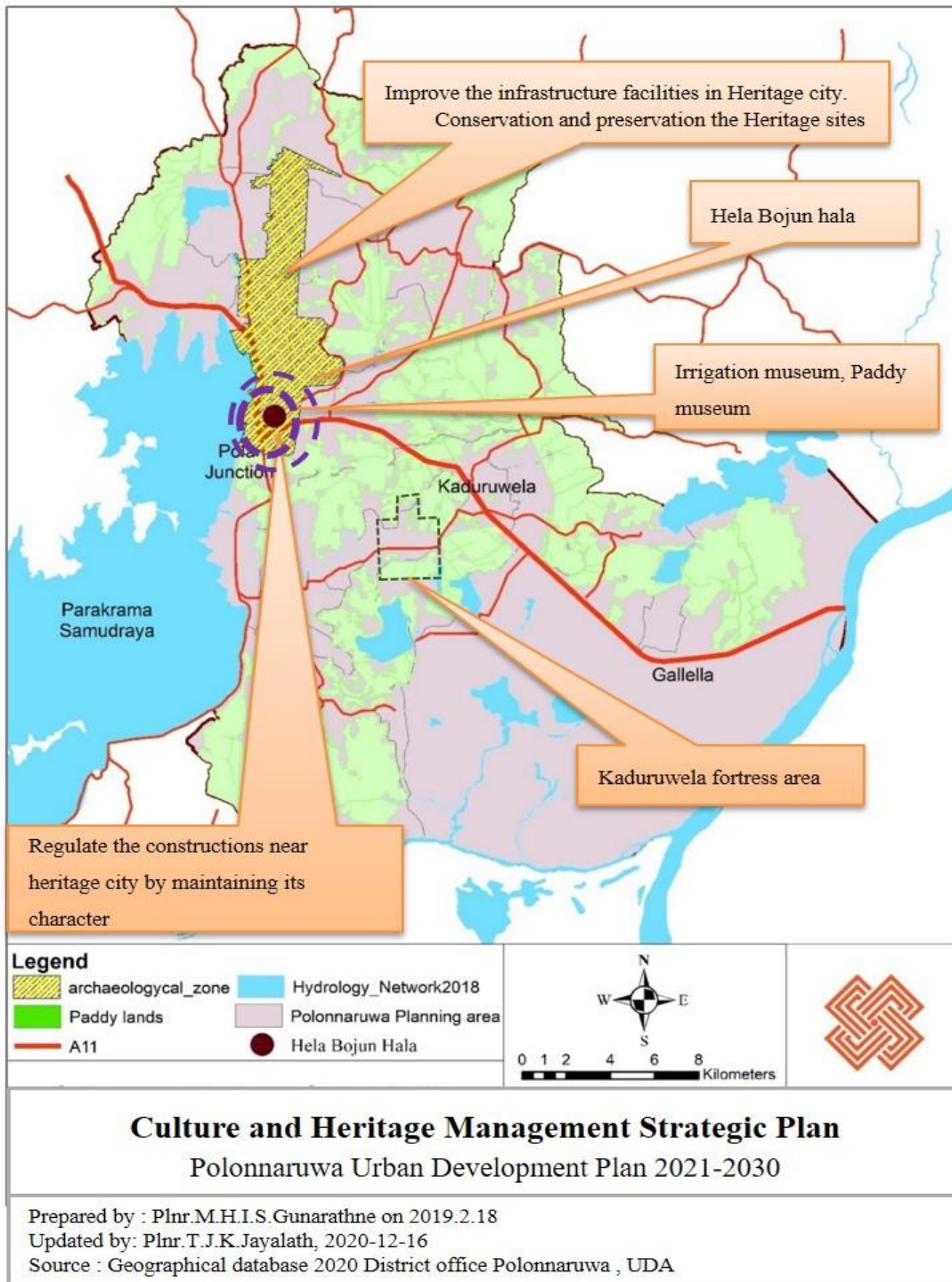
Finally, cultural and heritage strategies are expected to enhance the city's cultural affiliation and thereby enhance its identity as a tourist city. (See Agro Tour Plan for more details)

Figure 6.19 Ruins of the sacred city of Polonnaruwa



Source: Polonnaruwa World Heritage City Pamphlet 2010: Central Cultural Fund.

Map 6.10: Cultural and Heritage Management Strategic Plan



Source: Polonnaruwa Geographical Data Collection 2020, Polonnaruwa District Office - UDA

6.4.3. Social and Physical Infrastructure Facility Development Strategies

It analyzes the steps to be taken under the development of social and physical infrastructure to achieve the vision of the “Green glorious Heritage city in kingdom of Rice”. Accordingly, the proposed service plan, proposed transportation plan, proposed water supply plan, proposed power and data wiring plan, proposed drainage and sewerage plan, and waste management plan were identified under these social and physical waste strategies.

6.4.3.1 Service Plan

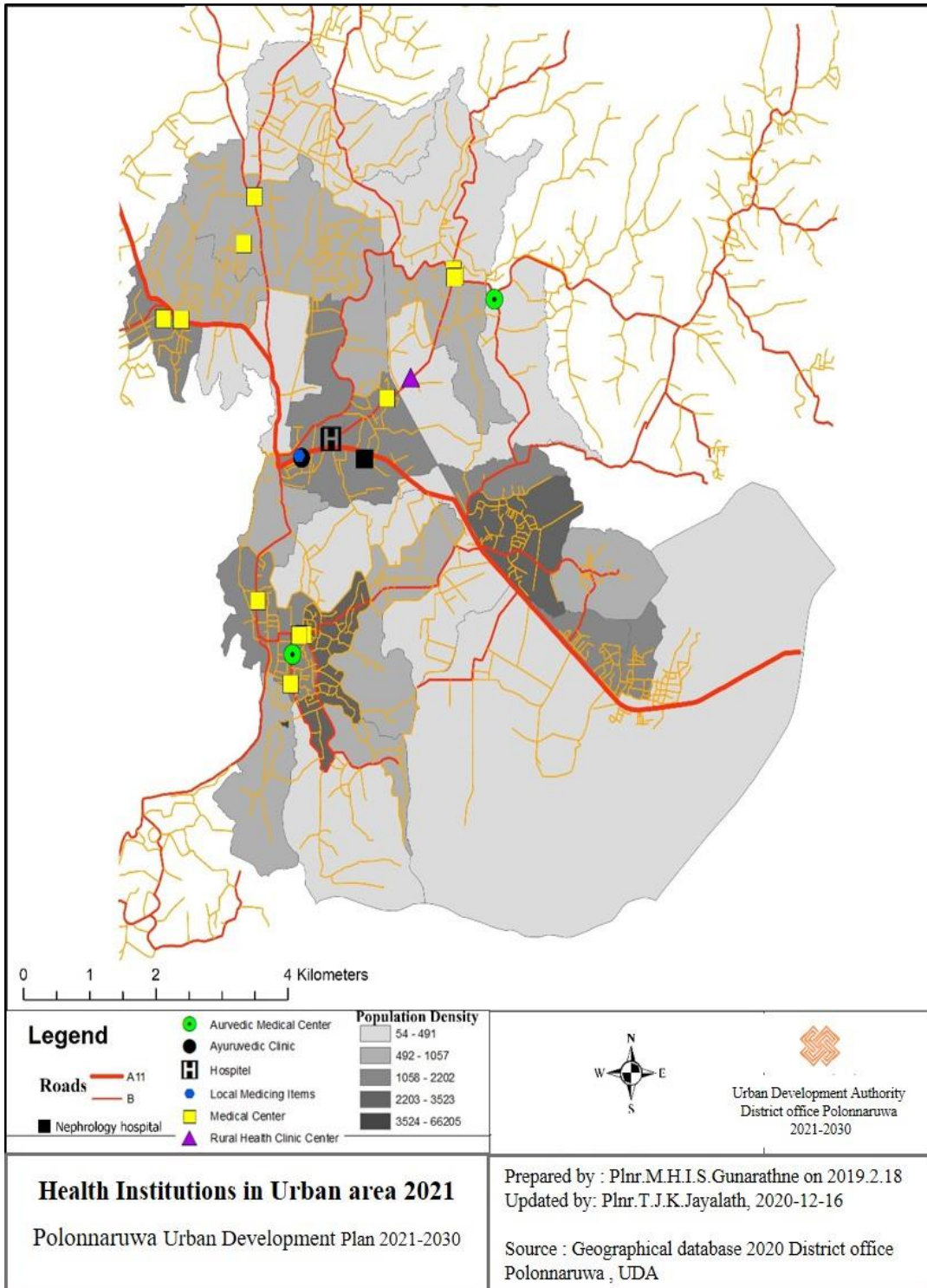
The plan is designed to provide the health, education and housing facilities needed by the people living in the planning area. The total land area of the design zone is 103 square kilometers. The current resident population is 65,329 (Source: Resource Profile 2016) and is projected to grow to 76905 by 2030 in terms of annual growth rate. In addition to this natural population growth rate, the total residential population is expected to reach around 100,000 by 2030, with the population being attracted by the nationally functioning Kidney Hospital, tourism development and other infrastructure facilities.

6.4.3.1.1 Service Plan of the Health Sector

The land area of the Polonnaruwa General Hospital is about 22 acres and its buildings are spread over an area of about 85% of the land area. Due to the lack of proper parking space in the hospital premises, heavy traffic is being created in the area around the Polonnaruwa Hospital Junction. The following strategies are proposed to provide more organized healthcare related facilities. (Existing Health Facilities Map 6.11)

- A. Propose a new zone as a health zone and to formulate regulations to encourage health related facilities in that zone.
- B. Apply the zoning factor to assist in the construction of high rise buildings to make the most of the limited space available at the District General Hospital.
- C. Relocation of the main vehicle entrance of the hospital to Sungavila road to reduce traffic congestion at Hospital Junction by 50%.
- D. Establishment of parking facilities for the people coming to the hospital with the contribution of the private sector.
- E. Development of Bandaranaike Mawatha and Nissankamalla Road as two lanes to reduce traffic congestion at Hospital Junction as an alternative route to Pola Junction.

Map 6.11: Polonnaruwa Health Institutions



Source: Polonnaruwa Geographical Data Collection 2020: District Office, Polonnaruwa -UDA

6.4.3.1.2 Service plan for the field of education

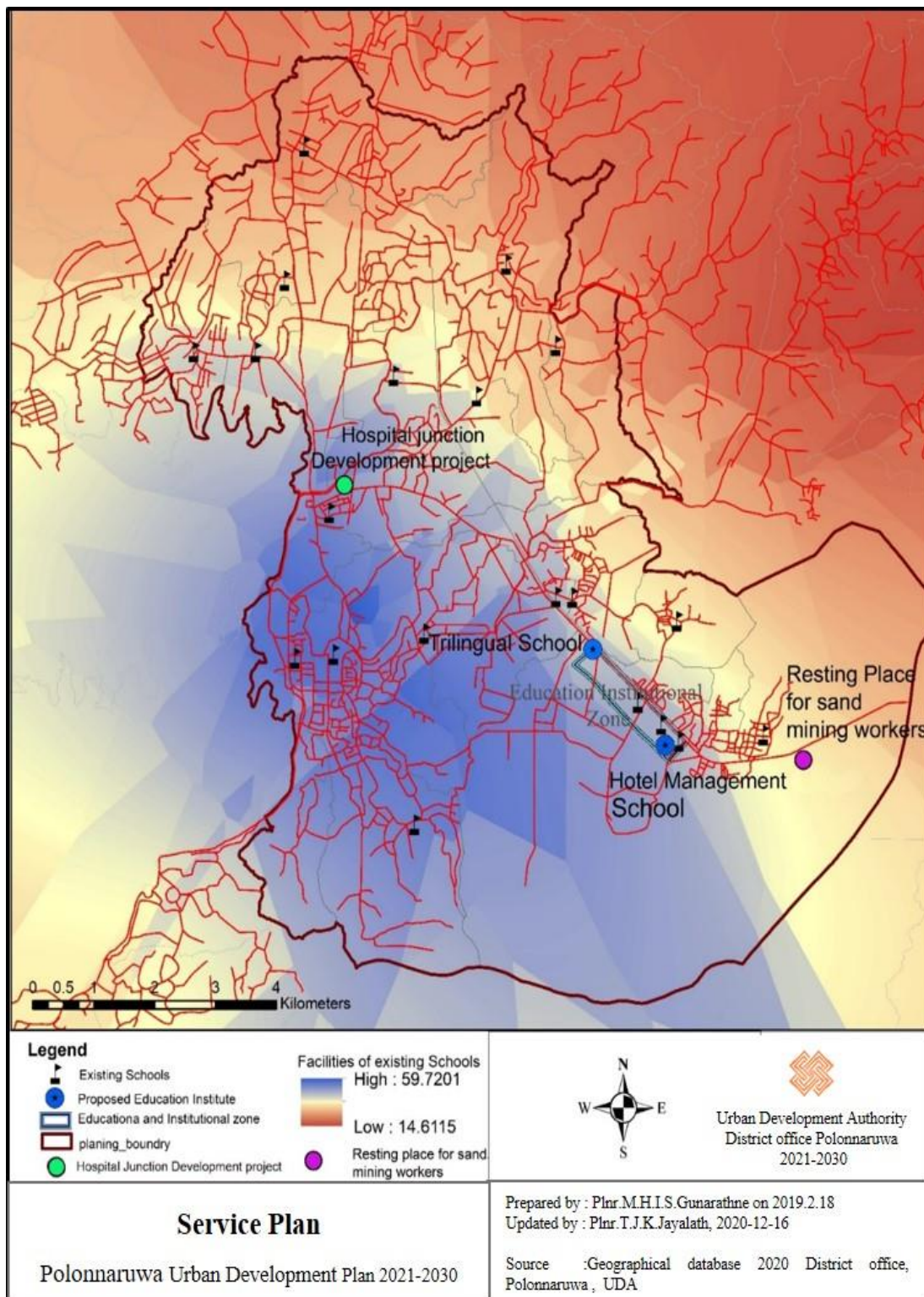
Considering the number of primary and secondary educational facilities in the design area, it is sufficient to facilitate the clients now as well as in the future. But, Royal College is the only national level school with facilities for students in a large area. Therefore, the recruitment of teachers should be done for the number of vacancies in schools beyond the urban area, taking into account the situation in most schools.

In order to provide adequate space for future educational needs, a special zone has been introduced for educational institutions in the area where the Gallella National College of Education is located in the zoning plan. The following three projects are currently proposed, and there is ample room for future private educational institutions.

- a. Tri-Language School has been identified taking into account the ethnic composition of Polonnaruwa. Adequate facilities are not provided in Muslim and Tamil schools in Polonnaruwa. Therefore, this trilingual school will provide the necessary facilities for the education of all communities. Indirectly it is also expected to promote camaraderie between different communities.
- b. The Polonnaruwa hotel industry needs to be upgraded to international standards, taking into account its future needs. A hotel management school has been proposed in Galle with the aim of involving the unemployed youth in the hotel industry.
- c. Providing space for a faculty or a new university in Rajarata University. The institute would be more suitable for research in paddy farming, rice research or dairy products.

Map 6.12 shows how schools in the design area are facilitated. Adequate facilities are provided for schools in the areas indicated in red, and there is a need to facilitate schools in areas indicated in yellow.

Map 6.12: Educational Needs Service Plan



Source: Polonnaruwa Geographical Data Collection 2020: District Office, Polonnaruwa - UDA

6.4.3.1.3 Service Project for Sand Mining Field

Considering the activity of the large scale sand mining industry in and around Manampitiya, a place has been identified for leisure facilities for the workers engaged in it. There is no suitable place for drivers and workers to rest or eat, and there is a need to provide adequate facilities for workers in the Gallella area through this plan, which will be prepared by 2030. It is expected to fulfill this requirement under the Manampitiya Sand Ferry Development Project.

6.4.3.1.4 Service Plan for Housing

The total number of housing units in the Polonnaruwa urban area is 16684, out of which 92% are permanent housing and 8% are semi permanent and temporary housing. 12% of the total housing area is multi-storey houses and 93% of the total population has freehold ownership of their house. According to the projected population of this plan, the housing demand by the year 2030 is 17090 housing units.

Due to the available paddy lands in this planning jurisdiction, the lands that can be used for development are limited. The following development strategies have been identified to meet the future demand, to meet the existing housing shortage and to address the existing housing problems. Considering the intensity of future development, two separate zones have been identified for residential activities and a regional factor has been introduced.

- Development of infrastructural facilities to increase the population density in Zone 1.
- Construction of official quarters for public servants in the New Town area.
- Settlement of ownership of the land.
- Implementation of Sevagama middle class housing project.
- Implementation of a low income housing project at Pola Junction.
- Implementing new housing projects at suitable locations throughout the area.

6.4.3.2 Strategic Transport Plan

According to the current state of the transport system in the Polonnaruwa planning area, the traffic population is around 100,000 and about 15,000 vehicles pass through the city daily. Considering the traffic pattern in the Polonnaruwa planning area, there is heavy traffic along the main road. Mostly in the morning. 8.00 am 9.00 am, 12.00 pm- 2.00 pm and pm. 4.00 pm - 6.00 pm The main road is heavily congested during peak hours. On the other hand, it is imperative that the informal bus stand be streamlined to suit the daily tourist population.

Proposed Strategic Transport Plan

The following strategies have been introduced to enhance the connectivity of the three major corridors, to achieve a comfortable life in a tropical climate low-lying area, to achieve tourism goals, infrastructure development and to make the most of the existing infrastructure. (Map 6:13)

6.4.3.2.1 Introduction of direct bus services between the administrative city and the commercial city

The road network in the area has been developed by the "Awaken Polonnaruwa" program. But the bus journey to Kanduruwela and New Town still takes more than 45 minutes and passes through Pola Junction. The direct bus route from Kanduruwela to the new town via Swarna Jayanthi Mawatha will be reduced to 15 minutes. Buses should start running across that route. (Map 6:13)

6.4.3.2.2 Development of Kanduruwela bus stand to facilitate daily commuters.

The Kanduruwela bus stand is currently in a dilapidated condition. Considering the daily tourist population coming to the city, it is essential to renovate, modernize and develop the existing bus stand to accommodate them.

6.4.3.2.3 Installation of alternative routes and signboards at main roads and sub-roads.

As Polonnaruwa is a tourist destination, it is very important to create a clear idea of the tourism within the city. Accordingly, the importance of hanging these signposts was proposed under the 2030 Urban Development Plan. his requirement can be met by

installing signposts with a road map showing the distances from the city's roads and tourist attractions. It is hoped that this will reduce traffic congestion in the city.

6.4.3.2.4 Improving the connection between Kanduruwela bus stand and railway station.

According to the National Physical Plan 2050, there will be significant development in the field of rail transport as well. The main train station is very close to the bus station, but it is completely separate. Improving the interconnection between the two stations will make the lives of tourists and urbanites more comfortable.

The successful strategy is to remove the walls between the railway line and the city and make the front part of the railway station a beautiful landscape.

6.4.3.2.5 Improvement of sidewalks / passenger lanes

The city of Polonnaruwa attracts local and foreign tourists due to its ruins as well as its natural environment. Also, the physical environment and comfort level they expect should be redesigned with a public transportation system and pleasant sidewalks.

Otherwise the feeling and memory of the sacred city is likely to be unpleasant. When the sidewalks are unattractive, tourists tend to use more vehicles, which can create unnecessary traffic jams.

Walking around the town of Kanduruwela is essential not only for tourists but also for tourists who come for trade, commerce and other purposes to carry out their daily activities. Considering the number of tourists likely to visit the city by 2030, there should be adequate space for pedestrians and facilities should be created to promote walking within the city.

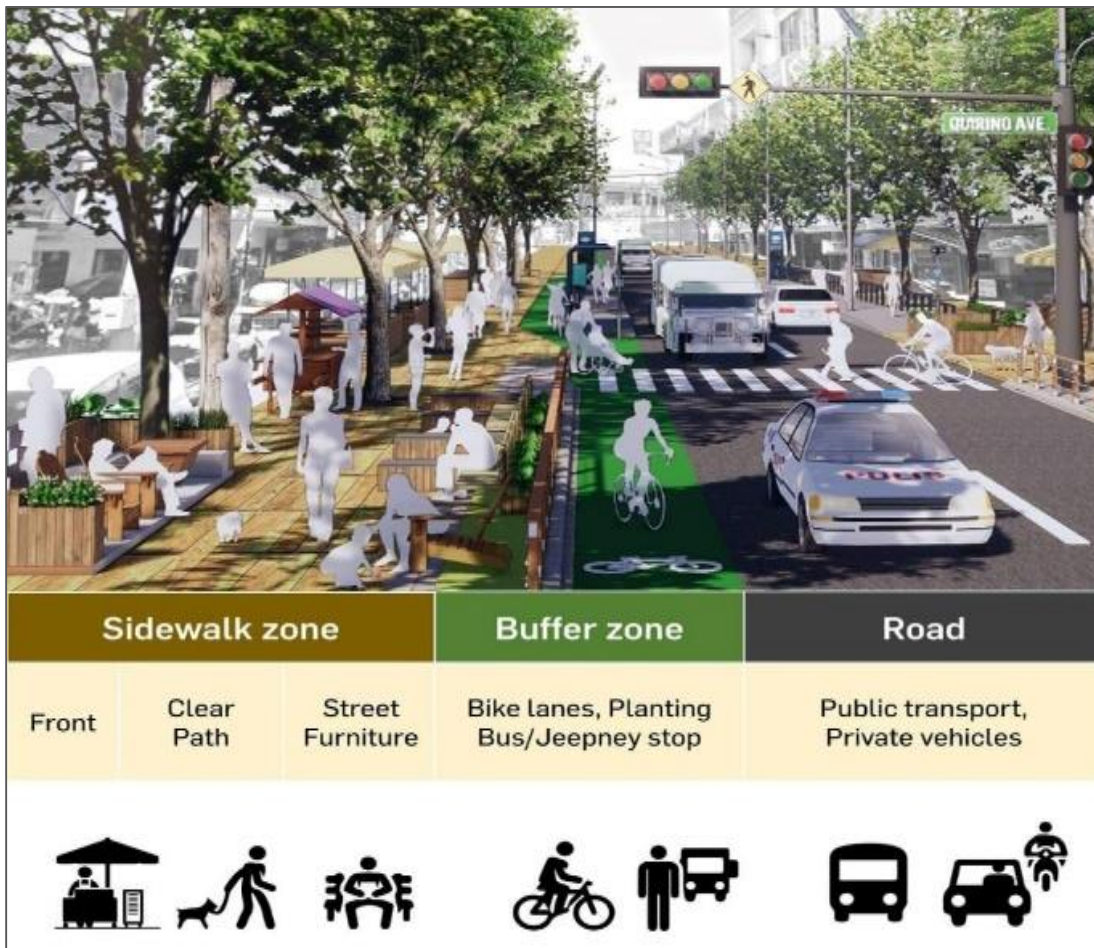
Through the improvement of these facilities, the city will be able to attract other tourists passing through Kanduruwela via the A11 road. Improving the physical environment (landscaping + planting) and comfortable living conditions will guide people to walk instead of using vehicles, which will help keep the air in the sacred city clean and keep traffic light in a shady environment.

Broken pavements, barriers(lamp posts)Very narrow pavements are common in the city of Polonnaruwa. Although it may seem like a small nuisance to most of us, they are a

real barrier for children, adults, especially people with disabilities to walk and feel safe. These strategies are expected to transform the city into a healthier, more pedestrian-friendly, pedestrian-friendly city. The following roads have been specially selected for the development of sidewalks.

- A. From the sacred city along the A11 road to the Parakuma Samudraya tank bund.
- B. Sungavila road along the A11 road 100 meters from the Hospital Junction area
- C. Inside Kanduruwela town along the A11 road
- D. Nawa Nagaraya city road system

Figure 6.20 Facilitating pedestrians



Source: Siyudad PH face book page

6.4.3.2.6. Development of A11 road in Kaduruwela town

Road A 11 (between beginning and end of Maithripala Sirisena Mawatha), the main road in Kanduruwela town, the main town of the district, should be properly reorganized. To this end, the Kaduruwela Guide plan has laid down regulations for shops and the road section should be properly completed with drains and pavements during development.

6.4.3.2.7. Kaduruwela Alternative Road and Parking.

According to the 2030 Development Plan, Kaduruwela will be the main commercial hub where a large number of people migrate daily. There, the lack of adequate parking facilities is still a major problem faced by the daily migrants. Therefore, a new alternative road and three parking lots are expected to be constructed.

This road is proposed to be parallel to the A 11 road from “Kaduruwela Palliya” to the CIB shop adjoining the paddy field in the southwest of the town. This strategy will help reduce the traffic congestion in the city and make Kaduruwela a pedestrian friendly city by reducing traffic congestion.

Three crossings have been proposed connecting the proposed alternative road and the A 11 road, and parking lots will be constructed adjacent to it. It will be easier for migrants to park their vehicles at these parking lots and cross the city's main thoroughfare to meet their needs in less time.

6.4.3.2.8. Development of by roads in Kaduruwela town

The existing by road development between Kaduruwela town and Polonnaruwa town will reduce traffic congestion near the Polonnaruwa Hospital junction. For this purpose, the following roads have been identified for widening the road and providing pavement space with proper drainage system.

- Pulasthi Mawatha
- Gajaba Mawatha
- Janapada mawatha
- Nissankamalla Mawatha
- Galthambarawa 1 canal
- Samurdhi Mawatha
- Isipathana Mawatha (Up to New Town)

Figure 6.21: Proposed Kaduruwela alternative road and 03 parking spaces



Source: Google Earth 2018 Photos.

6.4.3.2.9. Expansion of the narrow bridge at Manampitiya.

The narrow bridge near Gallella on the A11 road obstructs monotonous traffic. (Figure 6.22 This bridge has a minimum width of approximately 5 m, allowing only one long vehicle at a time. Therefore, it is a reason to increase traffic on the A11 road during peak hours. According to accident reports, a large number of accidents have been reported on this bridge, mostly at night. A bridge widening strategy has been identified to overcome this situation.

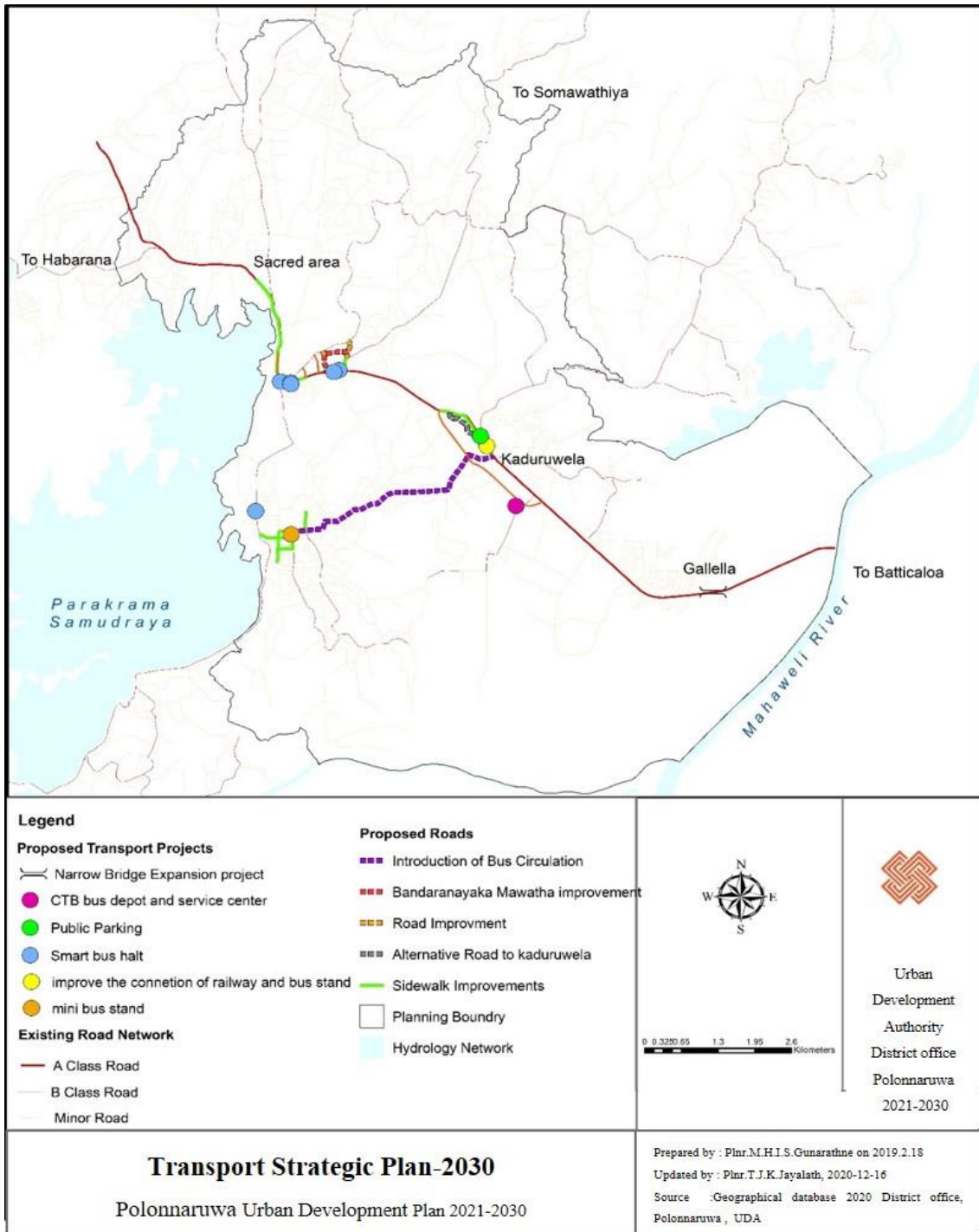
Figure 6.22 Gallella Narrow Bridge



Source: field survey District Office, Polonnaruwa - UDA

Chapter 06 **Map 6.13: Strategic Transport Plan 2030**

The Plan
Strategies
Social and physical infrastructure facility development strategies



Source: Polonnaruwa Geographical Data Collection 2020: District Office, Polonnaruwa - UDA

6.4.3.3. Water Management Strategic Plan

Polonnaruwa district can be identified as a city based on agro economy. The demand for drinking water per person per day is 120 liters. Industrial demand is 8% and commercial demand is 10% of domestic demand. According to the reports of the Water Supply and Drainage Board, the current water demand in the Polonnaruwa District is 80,000 m³ per day, of which 16100 m³ is for the Tamankaduwa Divisional Secretariat. If the residential population of the design area reaches 100000, the per capita demand per day in that design area will be 12000 m³.

The Water Supply and Drainage Board plans to meet future water demand in the Polonnaruwa Planning area by constructing new water tanks in the Gallella, Sevagama and Bandiwewa areas. It is expected to construct a treatment plant of up to 12000 m³ in Galle through the “Town East of Polonnaruwa water supply project” project, which will further cover future water consumption requirements.(Annexure 10.09)Therefore, this Urban Development Plan does not propose any special strategies regarding water supply, but strategies for only two sub-sectors of water supply.

The city's agricultural water needs are covered by the Parakrama Sea, and the city has never faced an irrigation water shortage. The only problem is with the irregular maintenance of the irrigation system.

6.4.3.3.1. Improving the connectivity of irrigation canals by legalizing maintenance and technical improvements.

It was proposed to improve the irrigation canal connection by 100% by 2030 by removing the existing water system obstructions. A more successful plan can be developed through the city's irrigation canal network and canal reserves and identification of key stakeholders / farmers The canal reserves should be cleaned, the road drainage system and the canal system should be mapped correctly, the faults should be identified and improved and the system should be maintained properly.

6.4.3.3.2. Encouraging the community to maintain a rainwater management system.

The 2030 Polonnaruwa Development Plan has identified areas with large roofs to promote rainwater management systems. There is an opportunity to do this in practice at the community level through planning committees. Municipalities are instructed by local authorities to maintain a rainwater management project within their residences.

Also, local authorities can charge a small additional fee or provide the kit free of charge when issuing a building conformity certificate.

6.4.3.4. Electricity and telecommunication

Electricity is supplied through the National grid of Sri Lanka. It covers the entire design area. Therefore, apart from the national issues that exist in the capacities during the drought seasons, there are currently no related issues. In addition, the wiring for the city's power supply will affect the city's appearance and the safety of people to some extent.

For this field, the following strategies are suggested.

1. Encouraging solar power systems at the personal level and making green standards certification mandatory for government buildings through regulations.
2. Approving more floor space for the applicants who have included green concepts in the building plan.
3. Reduction of the prepayment fee up to 50% for green applications including solar energy in the building application process of the Urban Development Authority.

6.4.3.5. Strategic plan for drainage and sewerage

One of the major problems in the Polonnaruwa design area is the irregular drainage system. As a city that is primarily dependent on agriculture, wastewater must be kept clean to the point where it reaches the main water sources in the area. The Polonnaruwa Planned Area has an adequate drainage system to carry rain water to the area.

Although the capacity is sufficient, the existing drainages, especially with the new constructions being carried out around the Kanduruwela and Polonnaruwa Hospital Junction, are not functioning properly.

The other issue is that as there is no wastewater treatment plant, rain water flows into the paddy fields mixed with the wastewater generated from Kaduruwela town. Accordingly, the following strategies have been identified to minimize problems related to the city's drainage system.

6.4.3.5.1. Design and implementation of a major storm water drainage system.

The main storm water drainage system on both sides of the roads in the entire urban area should be properly designed. Special assistance should be obtained from the Land Development Corporation of Sri Lanka for this purpose. Further information is provided under the Strategic Action Plan.

6.4.3.5.2. Development and operation of a wastewater treatment system.

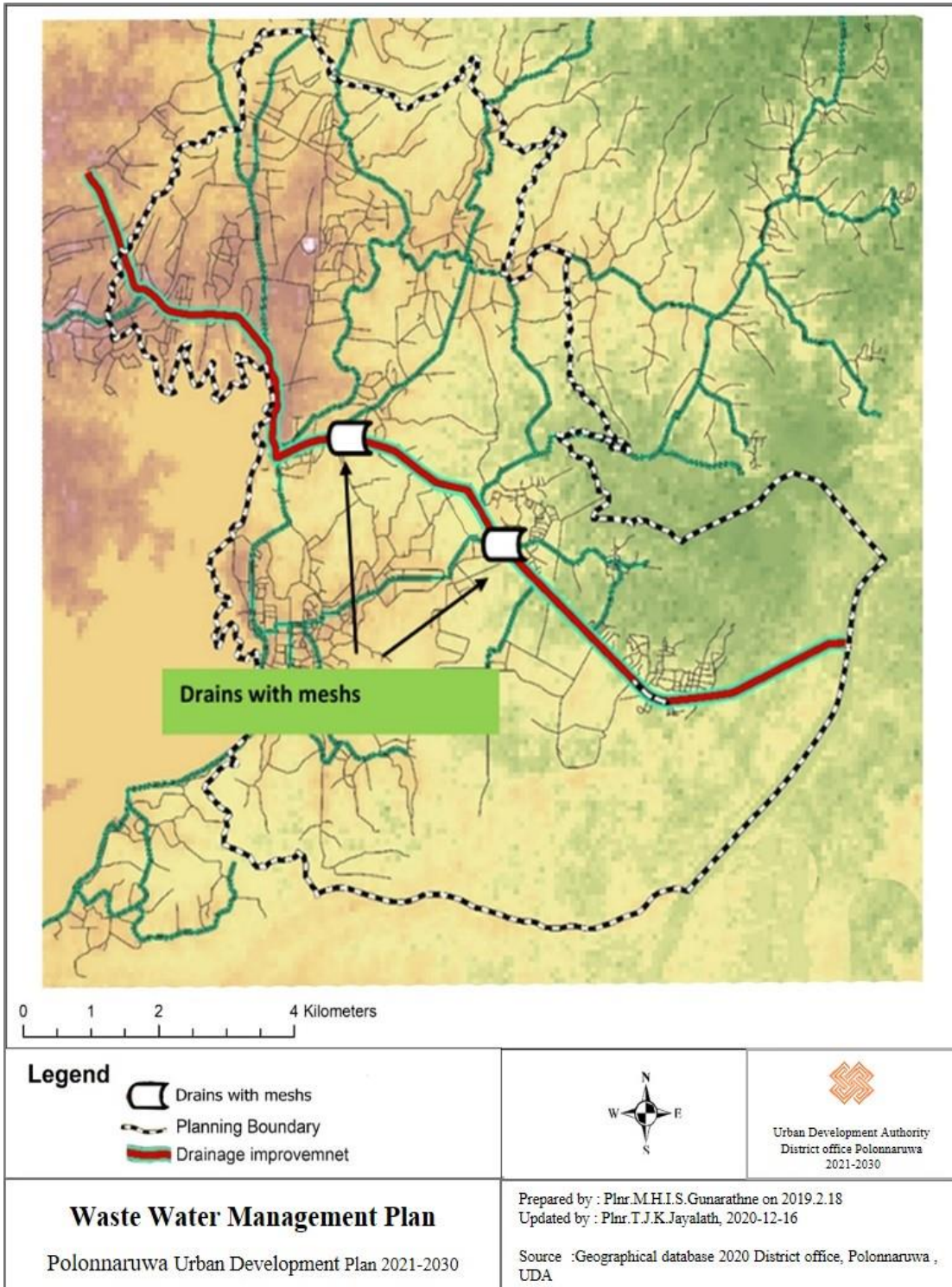
Further information is provided under the Strategic Action Plan.

6.4.3.5.3 Installation of filter nets at selected locations in the drainage system.

As a strategy to control the accumulation of plastic and other contaminants into the sewers, nets can be used inside the existing drainage network to prevent plastic and other contaminants from reaching the paddy fields and other water sources. It is expected to introduce this strategy within the Kanduruwela area and the Hospital Junction area by 2030 to reduce the blockages in the drains. However, it is more appropriate to obtain a more successful long-term solution through the preparation and operation of a stormwater drainage and wastewater drainage system.

Chapter 06 **Map 6.14: Proposed Wastewater Systems Plan**

The Plan
Strategies
Social and physical infrastructure facility development strategies



Source: Polonnaruwa District Office - UDA

6.4.3.6. Waste Management Plan

At present the amount of solid waste generated from the Polonnaruwa design area is about 13 metric tons. That is, 12 metric tons from the city and 1 metric ton from the sacred city. At present there is a Waste Management Center in Gallella which is functioning successfully. It is predicted that 25 tons of solid waste will be generated daily in the future planning zone. Therefore, although there are not many problems with waste management in Polonnaruwa city at present, the following strategies have been proposed considering the amount of other forecast waste generated in the future.

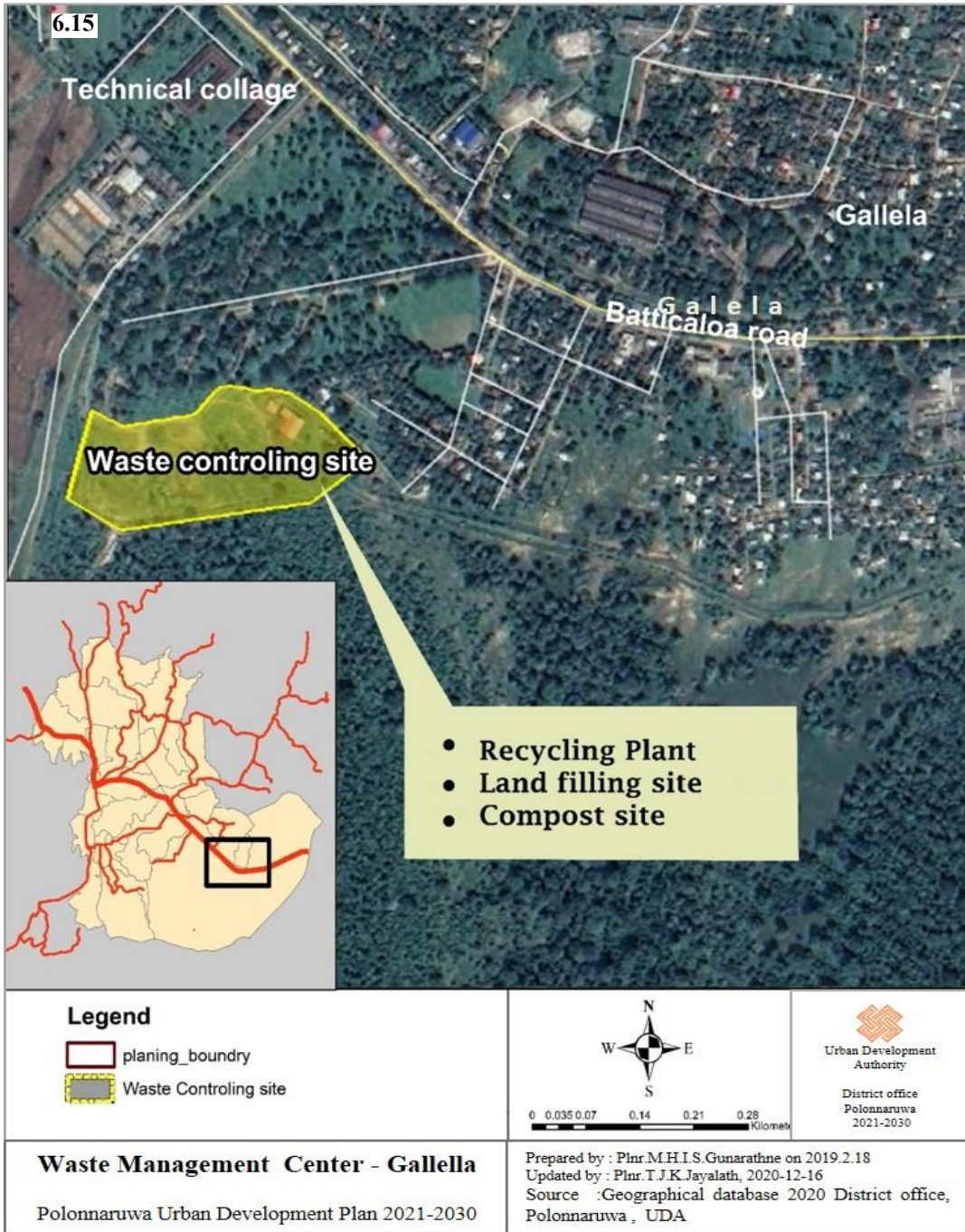
1. Improvement of the existing solid waste unit at Gallella.
 - Establishment of a treatment plant with a capacity of 30,000 liters for waste.
 - Create a compost yard with a minimum of 18 'x 70' more space.
2. It is proposed to set up a national level project for a national level solid waste management center in the Meegaswewa area in Medirigiriya. By 2030, the Polonnaruwa urban area will also benefit from this.
3. Encourage in-house compost production.

Polonnaruwa is an irrigation based district and it is not difficult to get people acquainted with the use of compost. As a strategy, we can create a healthier environment in the future by providing advice and guidance to control the decaying waste generated by small housing units. Accordingly, the following strategies have been identified in this plan to achieve the above conditions.

- Introduction of Garbage Collection Units within the city limits.
- Educating people on the separation and disposal of biodegradable and non-biodegradable waste.
- Introduce a system of issuing compost bins when issuing building conformity certificates to encourage the production of organic fertilizer.

Chapter 06 **Map 6.15: Garbage Management Center - Gallella**

The Plan
Strategies
Social and physical infrastructure facility development strategies



Source: Tamankaduwa Pradeshiya Sabha Annual Report 2016

6.4.4 Environmental Sustainability Strategies

These eco-friendly strategies are designed to preserve the ecologically sensitive areas of the area and to preserve historical features in order to lead a comfortable life in a tropical climate environment.

6.4.4.1 Conservation plan

Conservation of the following areas is essential to protect the identity of the area and to enhance the tourism industry. This zoning plan and zoning factor ensure the conservation of the following locations and their future security by marking their physical boundaries.

A. Mahaweli Flood plain national park

Mahaweli Flood plain national park is one of the four national parks designated under the Mahaweli River Development Project. The park was created on August 7, 1984. This park is spread on both sides of the Mahaweli river in the Polonnaruwa district of the North Central Province. This park is a unique place in the Mahaweli river system, as well as the “Villu” ecosystem and the Wasmuwa National Park and the Somawathiya National Park as a migratory forest belt. Manampitiya town is located outside the eastern boundary of the park.

B. Wetlands and natural environment

These wetlands have been identified around the Parakrama Sea and near the Jalagalu Valley National Park. In addition to wetlands, forest cover areas are also proposed for conservation during the implementation of development projects.

C. Conservation of paddy lands and abandoned paddy lands as wetlands

In order to minimize the damage caused by rain water to the city due to sudden heavy rains, it is essential to conserve these paddy lands and abandoned paddy lands as rainwater catchment areas.

For this purpose, a separate zone has been identified as 2 residential zones including paddy lands and abandoned paddy lands for the purpose of conservation and promotion of paddy cultivation in the area. The zoning regulations also include the development

of existing paddy lands and adjoining areas to be carried out in accordance with the recommendations of the relevant institutions and in accordance with the relevant laws and regulations.

D. Ancient ruins

Historical ruins reflect the identity of the ancient city of Polonnaruwa. Accordingly, these ruins and monuments have been identified for conservation through this conservation plan. It is proposed to physically mark the boundaries here to control unauthorized constructions / acquisitions.

E. Water Source / Irrigation System

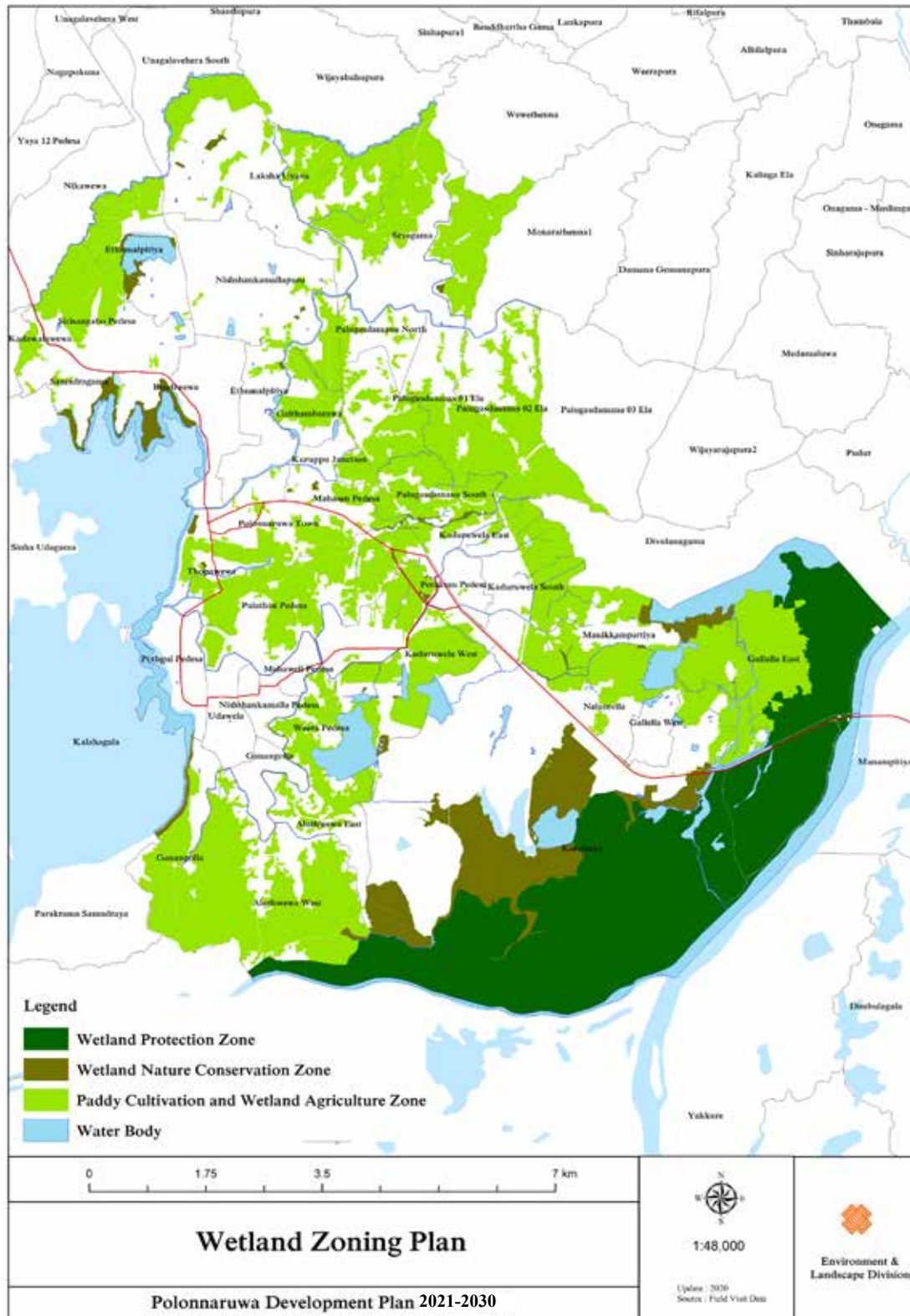
Polonnaruwa has been one of the major cities with a large number of reservoirs since ancient times. These reservoirs are another indication of the identity of the city of Polonnaruwa and have great potential to boost the tourism industry. Also, conservation of these reservoirs is essential for agriculture.

It is proposed to mark the physical boundaries around these reservoirs (tanks, tanks, canals, wetlands) taking into account the existing perimeter for each reservoir.

Physical marking of the boundary is expected to minimize the mixing of contaminants / chemicals into the reservoirs as a positive side effect. In addition to these, the placement of advertisements for dangerous places to swim / bathe in these reservoirs will also help in making the 2030 tourism vision of the city a success.

Map 6.16: Wetland Management Plan 2030

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strategies



6.4.4.2. Landscape Management Plan

The landscape management plan is designed to reduce the city's carbon emissions, reduce temperatures, and improve the living conditions of the urban population, both physically and mentally. The above requirements will be covered by the following strategies.

6.4.4.2.1. Control the increase in temperature in the city / reduce heat emission.

Proposed strategies include identifying common outdoor areas and planting local plants to suit the climate and identity of the area, planting trees in front of houses, shading the roof of the building and the surrounding area, and greening roads. (Figures 6.24, 6.25, 6.27) The main routes for planting trees in the middle of the road and on both sides have been identified.

Figure 6.23 Greening of road



- Maithripala Sirisena Mawatha
- New town roads
- Road A11 (From Hatamuna Junction to Gallella)

This strategy has been identified for planting the following plants to reduce the temperature of the city as well as contribute to the beautification of the city.

- Wal Esala
- Magul karanda
- Erabadhu
- May mara
- Robarisia

Figure 6.24 : Green cover buildings inside and outside



Figure 6.25: Green cover on roof



Figure 6.26: Green cover of building front



Source: Internet

6.4.4.2.2 Clearing / opening of wind paths

It is proposed to connect four crossroads from the paddy fields to the A11 road (city) to reduce the prevailing heat in Kanduruwela town. They are,

- Near Kanduruwela Church
- Near the Hatton National Bank building
- Near New Homes Palace
- Near the CIB shopping mall

Figure 6.27: Crossroads from Paddy Fields to Road A11



6.4.4.3. Public Outdoor Recreation Plan (PORS)

According to the accepted standards of the Urban Development Authority, a 1.4-hectare plot of land per 1000 people should be kept open for leisure and recreation. According to the forecast data analysis, the population of Polonnaruwa will be 100000 by the year 2030. Accordingly, the area to be set aside for leisure and recreation by the year 2030 is 140 hectares.

An area of 19.3 hectares has been set aside for parks and playgrounds in Polonnaruwa. They are classified as Table 6.2 and Annex 10.22 in accordance with the Urban Development Authority's Public Outdoor Recreation Regulations. After analyzing it, this public outdoor recreation plan is tailored to meet future needs.

6.4.4.3.1 Redevelopment of existing parks and playgrounds

Redevelopment of existing parks and playgrounds according to a proper plan prepared on the advice of a qualified person.

6.4.4.3.2 Development of linear garden concept

All canals, the Parakrama Samudra Reserve, should be developed as line gardens and are the easiest and most beautiful places for the public to enjoy outdoor recreation.

6.4.4.3.3 Development of major parks in key areas of the city

The city's flagship sites have been identified for parks development under the Public Outdoor Recreation (PORS Plan)

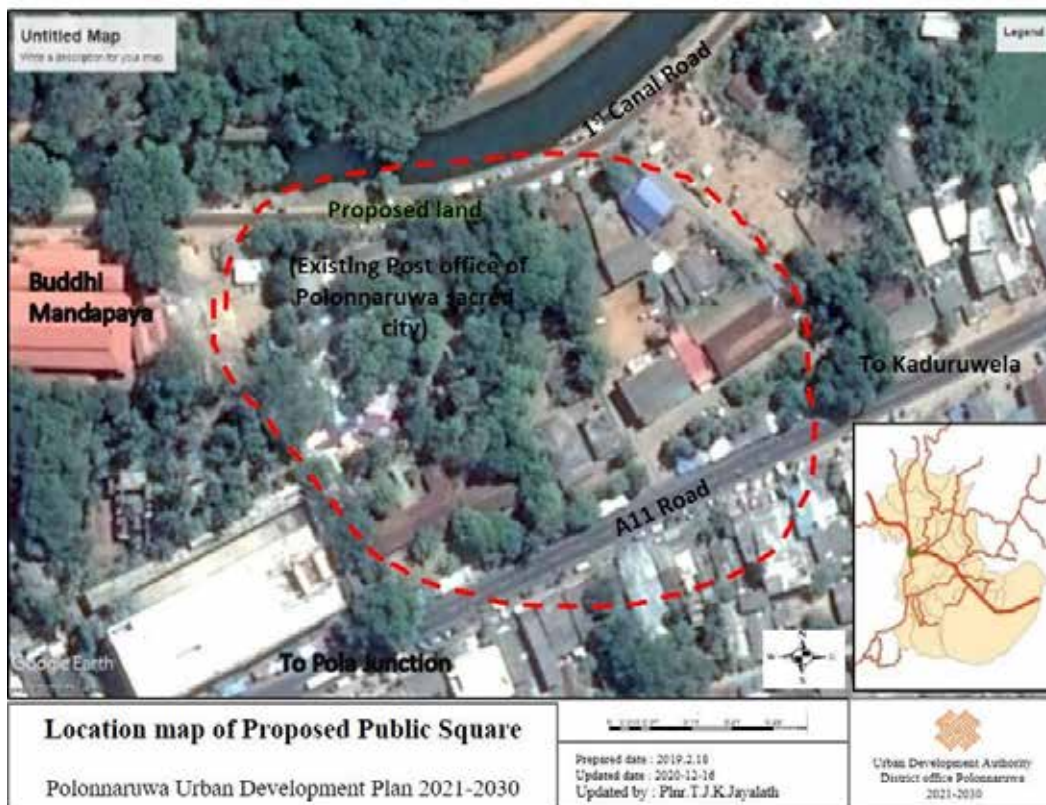
- A. Public Square at Pola Junction
- B. Kanduruwela Urban Park
- C. Gallella Wetland Park
- D. Deepa uyana - Phase II & 111
- E. Nawa nagaraya Urban Park

A. Public Square at Pola Junction

The land adjacent to the land where the old Pradeshiya Sabha building was located near the Pola Junction was identified for the construction of this Public Square. (Figure 6.28) It is proposed to implement this project under the guidance and guidance of the Polonnaruwa Office of the Urban Development Authority under the Polonnaruwa Municipal Council. This square consists of the following elements.

- Children's playground
- Aquarium
- Community halls
- “Pooja Nagara” Post Office (Symbolic)
- Space for stalls
- Bus stop
- Construction of a bridge across the canal connecting the public square and the sacred area.
- Water Wheels (Reminiscent of past water use as a source of beauty and energy by installing a water wheel in the canal to supply water to Public Square)

Map 6.17: Public Square at Pola Junction Location Map



Preparation: Polonnaruwa District Office - UDA

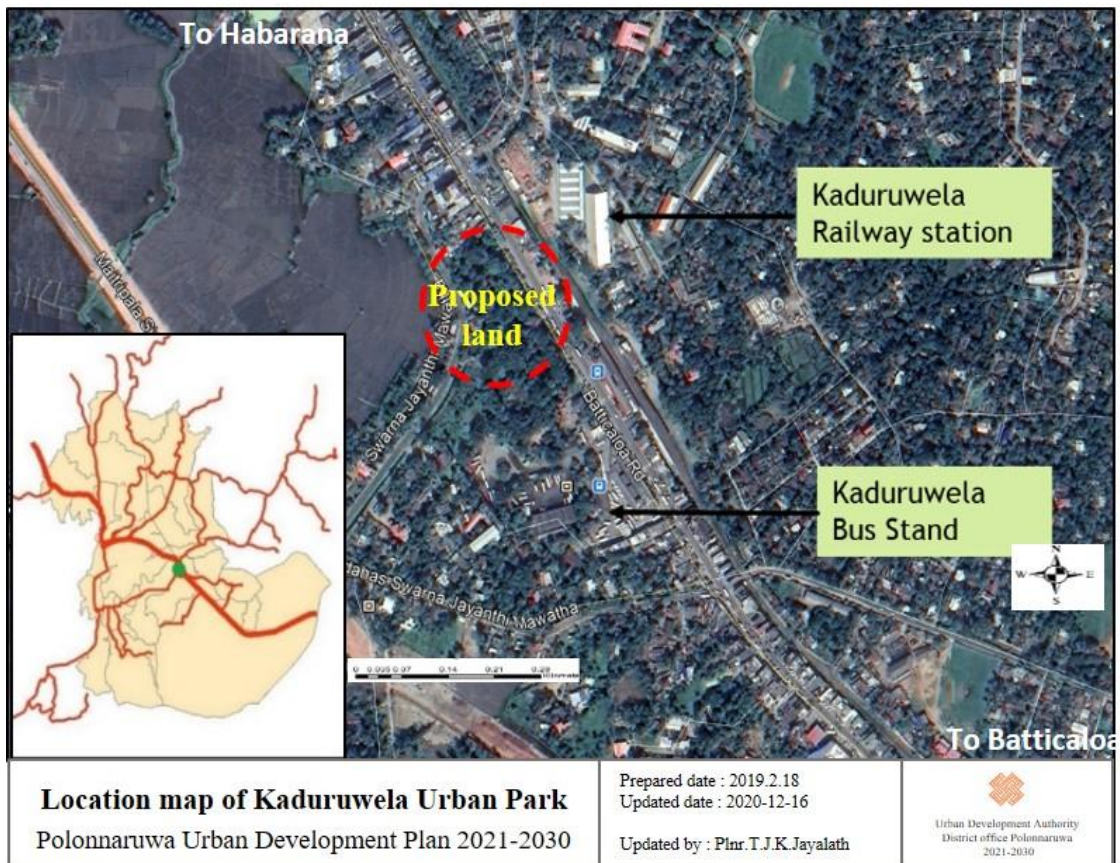
B. Kanduruwela Urban Park

This urban park is proposed with the aim of creating a comfortable environment for the commuters coming from the bus stand and railway station. The project also proposes to create a comfortable city with a green environment, which is one of the main goals of this development plan

Figure 6.28: Examples for poposed urban park- kaduruwela



Map 6.18: Location map of Kanduruwela Urban Park



Preparation: Polonnaruwa District Office - UDA

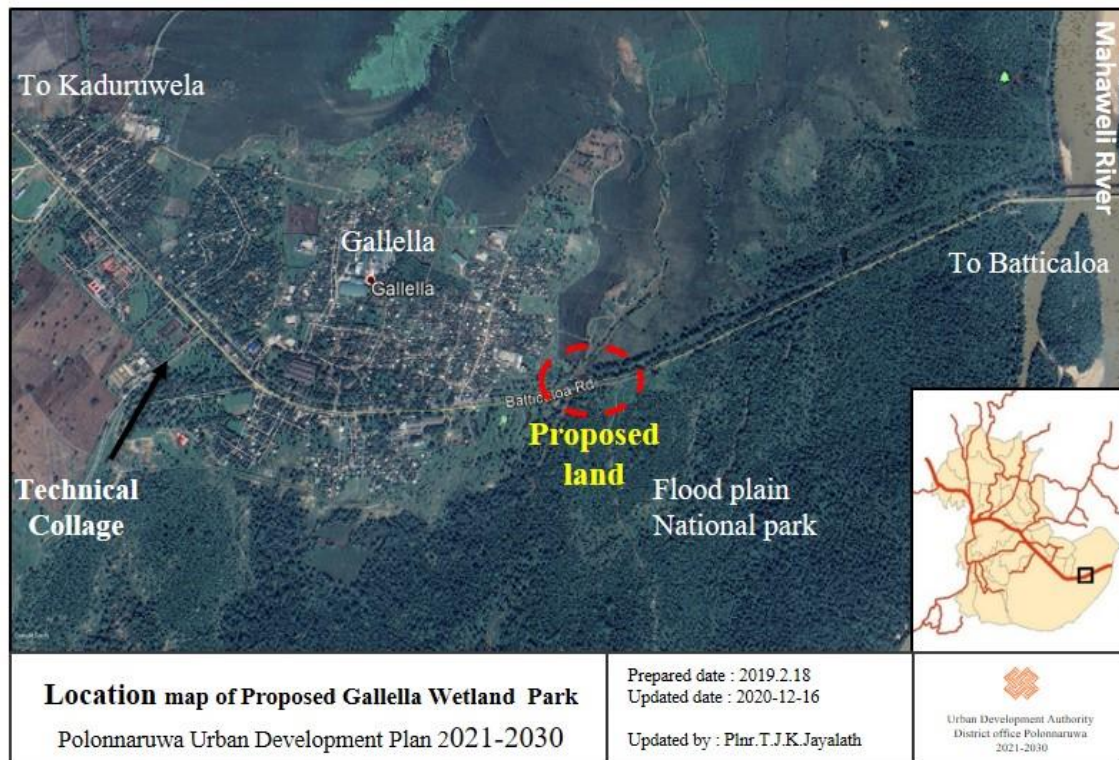
C. Gallella Wetland Park

This water gallon valley national park is located in the Gallella area between Kanduruwela and Batticaloa along the A11 road. The Water Gallon Valley National Park is rich in natural beauty and is home to a rich biodiversity of wildlife and flora.

This has attracted the attention of environmentalists and is one of the most valuable areas in the city of Polonnaruwa and has not yet directly contributed to the development of the city's economy. The following strategies are proposed to transform this place into a place where local and foreign tourists coming to Polonnaruwa can experience the natural environment differently.

- Design of rough tracks for bird watching and wild elephant watching
- Observations for natural environment viewing
- Providing boat service facilities along the Mahaweli River and Ambanganga to view the aquatic life and river ecosystem.
- Summer cabins

Map 6.19: Location map of the proposed wetland park at Gallella



Preparation: Polonnaruwa District Office - UDA

Figure 6.29: Current name board of the sanctuary



Figure 6.30: Examples of the proposed Wetland Park Walkway (Beddagana Wetland Park)



Figure 6.31: Examples of boat rides on the Mahaweli River



D. "Deepa Uyana" Stage II

The Deepa Uyana project is one of the projects identified in the Gross Urban Development Plan drafted by the Urban Development Authority in 2015 and was launched under the Awaken Polonnaruwa program. Phase II of this Island Garden Project has been identified to achieve the objectives and objectives of the Urban Development Plan up to the year 2030.

Figure 6.32: Deep Uyana Project Phase II - Master Conceptual Plan



Figure 6.33: Deepa Uyana Project Phase II - Conceptual Section Plan



Preparation: Urban development Authority: UDA

Table 6.2 Existing Public Outdoor Recreational Places 2030

No:	Type of Parks	Size (ha)
1.	Pocket Parks	0.1
2.	Mini Parks	5.7
3.	Local Parks	5.2
4.	Central Urban Park	8.4
	Total	19.4

Table 6.3 Proposed public outdoor Recreational Space Plan 2030

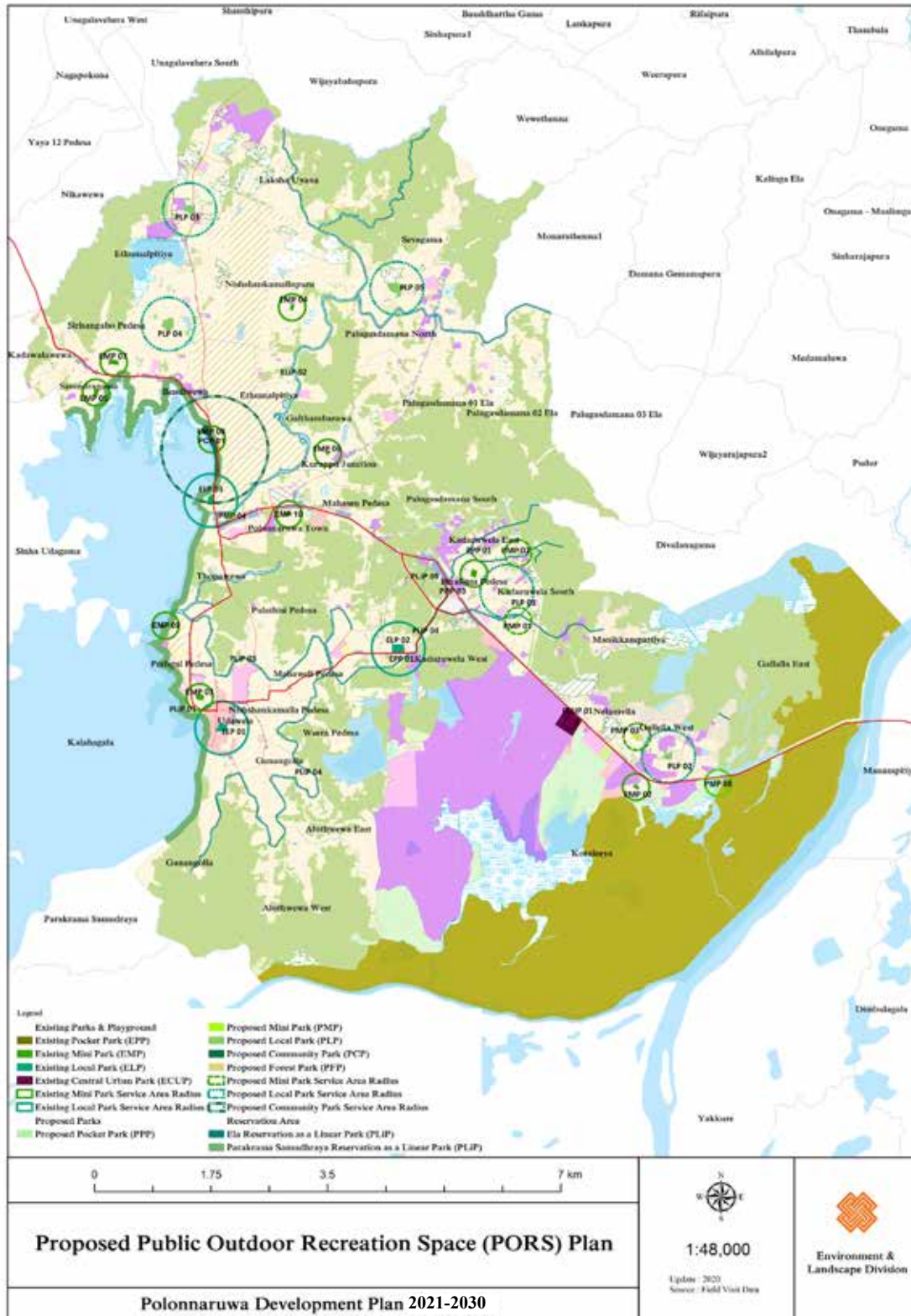
	Type of Parks	Size (ha)
1.	Proposed Pocket Parks	0.5
2.	Proposed Mini Parks	2.7
3.	Proposed Local Parks	9.1
4.	Proposed Community park	4.6
4.	Proposed Linear Parks	222.6
5.	Proposed Forest Park	1513.5
	Total	1753.0
6.	Existing PORS	19.4
	Grand Total	1772.4

Table 6.4 Spatial plan of public outdoor recreation Approved uses 2021 – 2030

No	Garden Type	Approved Use	Minimum land area
1.	Pocket Parks	<ul style="list-style-type: none"> • Small rest areas • Small children's parks • Small playgrounds 	- 0.2 ha less (0.5 acres less)
2.	Mini Parks	<ul style="list-style-type: none"> • Children's playground • Small sports flour • Linear garden • Leisure Gardens 	- Between 0.2-1.0 ha (0.5-2.5 acres)
3.	Local Parks	<ul style="list-style-type: none"> • Football pitch combined with Children Play area and informal relaxation space • Large informal grassed area with Children play area • Small Woodland Park and an informal running practice area 	- - Between 1.0-3.0 ha (2.5-7.5 acres)
4.	Community Parks	<ul style="list-style-type: none"> • Ornamental garden • Natural areas where you can relax • Bicycle lanes • Parking lot 	Between 3-6 hectares (7.5-15 acres)
5.	Linear Parks	<ul style="list-style-type: none"> • Walking lanes • Exercise lanes • Bicycle lanes • Natural lanes 	Linear parks are determined by the existing river / stream / canal / road reserve <ul style="list-style-type: none"> • 1st Canal (Canal Reserve - 10 m) • 2nd canal (canal reserve - 10 m) • 4th canal (canal reserve - 10 m)
6.	Proposed Forest Park	<ul style="list-style-type: none"> • Information Centre • Nature trails • Canopy & walkways • Camping (Limited activities) • Research centres 	Mahaweli flood plain national park
Proposed public outdoor recreation space			1753.2
Existing public outdoor recreation space			19.4
Total			1772.6

Map 6.20: Public Outdoor Recreational Spatial Plan 2021-2030

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6.4.4.4. Disaster Risk Management Plan

Polonnaruwa is a city with less natural disasters compared to other cities in Sri Lanka.

Polonnaruwa Urban Area Land Area Km. 103.53 and the population recorded in 2018 was 65,329. The population is 631 per square kilometer. Major disasters facing Polonnaruwa can be taken as following. (Annexure 10.17)

1. Lightning strikes
2. Floods / floods
3. Hurricanes
4. Human-elephant conflict

The following guidelines for disaster mitigation have been prepared in collaboration with the Ministry of Disaster Management and the Disaster Management Center and the Urban Development Authority in March 2013 under the “Plans and Guidelines for Urban and Natural Disaster Mitigation”.

6.4.4.4.1 Disasters caused by lightning.

Appropriate measures should be taken to minimize such accidents in areas where lightning strikes are common. The following risk mitigation measures should be considered.

- a) Installation of lightning conductors during construction should be done in accordance with the relevant guidelines.
- b) The area where the land is located should be studied before construction takes place.
- c) The frequency of accidents should be considered.
- d) Lightning alarms should be installed in every building in high risk areas.
- e) Building height should be controlled

6.4.4.4.2. Flood

According to the flood situation in Polonnaruwa urban area, it was observed that an annual flood is inevitable. In 2017, 192 houses were affected by the disaster. However, it can be observed that the Mahaweli River has stopped flowing due to the development of the Moragahakanda Reservoir. Therefore, strategies have been put forward only to reduce flash floods in urban areas.

1. Deepening, widening and removing obstructions of rivers and canals to increase the water carrying capacity to protect against floods.
2. Prohibition of paddy and swamp filling
3. Preparation of a proper rainwater drainage system for the area
4. Preparation of conservation plan for conservation of paddy lands, swamps, low lands and abandoned paddy lands as flood retention areas.
5. Declaration of reserves
 - Mahaweli River - 6 m
 - Amban River - 30 feet
6. Classification of flood disaster areas

Upper Flood Area and Annual Flood Area - Minimum Land Area 20 Perches

7. Use of special water permeable material in urban areas

The use of this water permeable material in road construction within urban areas can reduce the flow of rainwater and increase ground absorption.

6.4.4.4.3 High wind

As a major hurricane is expected to occur only once every 30 years, no special strategies have been devised.

6.4.4.4.4. Elephant-human conflict

The following strategies have been identified to reduce the threat of wild elephants and to control human-elephant conflicts.

1. Create another path to block their path by planting large trees.
2. Promoting “Bee” control along the route of elephants.
3. Protection of residential areas by high voltage power lines.

Promoting “Bee” control along the route of elephants.

Thai farmers use “Bees” to chase away desolate elephants. Thai farmers, like in Sri Lanka, use electric fences and firecrackers to prevent wild elephants from entering their fields, but have since failed to control beekeeping. The bee pilot project to eradicate these elephants has been launched in 2016 in the Chanthaburi region of eastern Thailand.

The trick of Thai farmers is to tie ropes with swarms of bees around the plantations. The experience of Thai farmers is that if an elephant tries to enter a field through the ropes, the elephants will retreat in the face of the roaring of the bees. This beekeeping tactic has been used in African countries for many years.

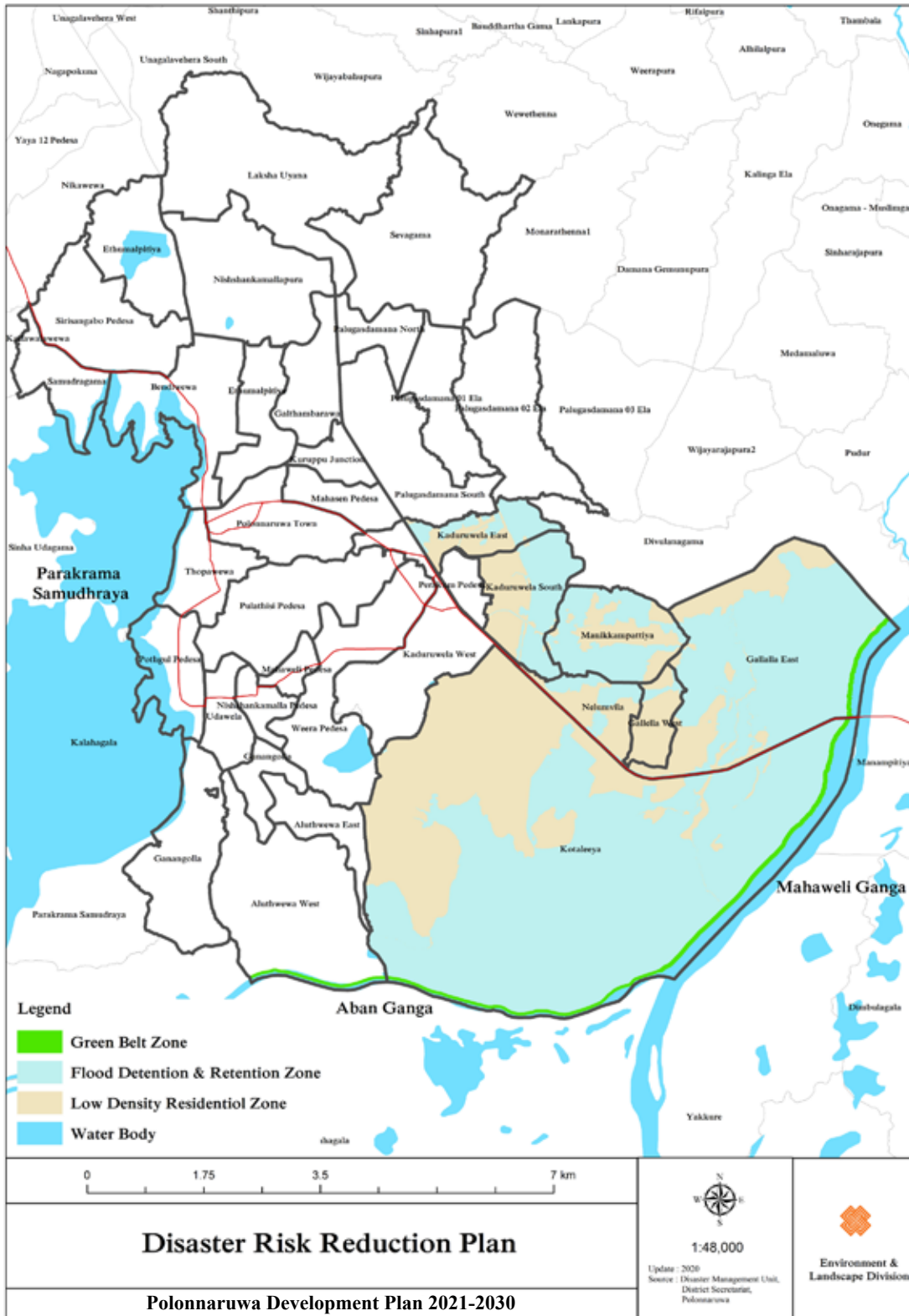
The species of bee found in Sri Lanka is scientifically known as *Apis cerana Indica*. This species of bee lives in all parts of Sri Lanka. Therefore, beekeeping can be easily carried out in any area. Honey pollen is available throughout the year due to the presence of a large number of mixed plant species such as mango, cashew, coconut, siyambala and mara which produce a large number of nectar-bearing flowers in the dry zone. Hence there is the highest potential for honey production.

This is a very profitable business as there is an initial cost involved in procuring the equipment needed to start beekeeping, but no maintenance is required. A person with basic training in beekeeping can maintain 50 - 100 bee colonies or more. About 5-6 bottles of honey can be obtained from a state, even under normal maintenance. Properly covered, it will withstand a great deal of adverse conditions. Therefore, beekeeping can also be used as a self-employment.

Supply of equipment, including bee hives, costs for maintenance only, as well as the provision of additional food, in addition to the necessary costs. It is enough to spend about half a week once a week to take proper care of the colony.

Source: <https://doa.gov.lk/index.php/si/2016-06-17-04-58-38> and [https:// www.bbc.Com/sinhala/ world-37187451](https://www.bbc.Com/sinhala/world-37187451)

Map 6.21: Proposed Disaster Risk Reduction Plan



6.5 Other strategies and connections

The city of Polonnaruwa is in dire need of new revenue generating opportunities but the amount of land available for development activities in the city is very small. 60% are ecologically and culturally sensitive land use patterns. Therefore, the vision and objectives of the city of Polonnaruwa for the year 2030 were to create new economic opportunities by using the potential of paddy cultivation and related culture and ancient irrigation technology in the world without harming the environment. Objectives were selected by analyzing each objective “sound hand”. The conceptual plan was developed through scientific analysis such as "environmental sensitivity" and "viability" to achieve those goals. This development plan was prepared through six main strategies to implement that conceptual plan on the ground.

The economic development strategy is the basic premise and the heritage management strategy is designed to be more collaborative. All strategies have been put together to improve the city's economy using the World Heritage Site and the natural environment. The Physical Infrastructure Development Strategy focused on providing the facilities and services needed to achieve economic goals, as well as providing comfort to passengers and residents.

The Sustainable Environmental Protection Strategy promoted the protection of sensitive areas and the ability to survive in tropical climates.

It is expected to carry out the zoning plan and regulation of regions to achieve all the strategies discussed above with the creation of the Physical Development Plan. For example, the zoning plan promotes the provision of infrastructure for lands that can be developed, but does not propose the provision of infrastructure in sensitive areas.

Polonnaruwa will once again regain its historic glory as the “Green City of the Glorious Heritage of the Rice Kingdom” in 2030 by implementing all the active projects related to the above strategies.

6.6 Implementation strategy.

This is the most important strategy among the other strategies. 66 major action projects have been identified for implementation in the 2030 Polonnaruwa Development Plan. Accordingly, the projects have been arranged in order of priority by considering the following points.

- ❖ 2030 Vision of the City
- ❖ Interactions between projects
- ❖ Project Benefits
- ❖ Environmental Division
- ❖ Social outlook
- ❖ Project cost

Accordingly, the priority for the projects is divided as follows.

1. First Priority Projects
2. Second Priority Projects
3. Third Priority Projects

Investment methods have been identified for the implementation of those projects

- ❖ Public Capital Investment
- ❖ Private capital investment
- ❖ As public and private capital investment.

This list of projects includes the projects that have already taken the first steps in the 2019-2030 Polonnaruwa urban Development Plan.

The following is a list of active projects identified in the overall plan.

6.6.1 Strategic action projects and organizational structure**Table 6.5 Strategic Action Projects**

Strategic Action Projects			
No:	Proposed projects	Coordinating agencies	Responsibilities
1	New star class hotels	Ministry of Urban Development and Housing	Plan coordination activities.
		Urban Development Authority	Preparation of project plans.
		Sri Lanka Tourism Development Board	Funding and project implementation.
		Central Cultural Fund	Funding and project implementation.
		Tamankaduwa Divisional Secretariat office	Project coordination activities.
2	Inventory of stakeholders and regularization of existing hotels.	Urban Development Authority	Preparing project plan and gathering information.
		Sri Lanka Tourism Development Board	Collection and maintenance of travel information.
		Polonnaruwa Municipal Council	Implementation of projects.
		Tamankaduwa Divisional Secretariat office	Project coordination activities.
3	Recreational, commercial, fishing and boat services.	Urban Development Authority	Preparation of project plans.
		Polonnaruwa Municipal Council	Implementation of projects.
		Department of Irrigation	Recommendations and engineering work.
		Tamankaduwa Divisional Secretariat office	Project coordination activities.

4	The bike tracking programme through internet.	Urban Development Authority	Preparation of project plans.
		Polonnaruwa Municipal Council	Implementation of projects.
		Tamankaduwa Divisional Secretariat office	Project Coordination activities.
5	Natural aquarium and freshwater fishing village	Urban Development Authority	Preparation of project plans.
		Department of Irrigation	Project Coordination activities
6	Introduction of alternative tourist routes to cover new tourist destinations	Urban Development Authority	Preparation of project plans.
		Central Cultural Fund	Preparation of project plans.
		Tamankaduwa Divisional Secretariat office	Project Coordination activities
7	Agricultural Tourism Viewing Platform	Urban Development Authority	Preparation of project plans.
		Central Cultural Fund	Preparation of project plans.
		Ranketha Hotel - Hospital junction	Implementation of projects
8	Implementation of Japanese paddy art related to Kanduruwela paddy fields	Urban Development Authority	Preparation of project plans.
		Polonnaruwa Municipal Council	
		Tamankaduwa Divisional Secretariat office	
9	Irrigation Museum with practical examples	Urban Development Authority	Preparation of project plans.
		Department of Irrigation	Implementation of projects.
10	Paddy Museum and Model Village	Urban Development Authority	Preparation of project plans.
		Department of Agricultural Development	Implementation of projects.

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		Municipal Council - Polonnaruwa	Project Coordination activities
		Pradeshiya Sabha - Polonnaruwa	Project Coordination activities
11	Introduction of rice wholesale and large scale wholesale market in Kanduruwela town.	Urban Development Authority	Preparation of project plans.
		Department of Agriculture Development	Implementation of projects.
		Tamankaduwa Divisional Secretariat office	Project Coordination activities
12	Activation of a Trade and Commerce Center for Agricultural Product Marketing	Urban Development Authority	Preparation of project plans.
		Department of Agriculture Development	Implementation of projects.
		Tamankaduwa Divisional Secretariat office	Project Coordination activities
13	CTB Bus Depot and Long Distance Service Center	Urban Development Authority	Preparation of project plans.
		Municipal Council - Polonnaruwa	Project Coordination activities
		Sri Lanka Transport Board	
14	Public fair and parking space (existing CTB bus depot land)	Urban Development Authority	Preparation of project plans.
		Municipal Council - Polonnaruwa	Project Coordination activities
		Sri Lanka Transport Board	Implementation of projects.
15	Redevelopment of existing shops in the Commercial Zone with the provision of sidewalks and greenery	Urban Development Authority	Preparation of project plans.
		Municipal Council - Polonnaruwa	Project Coordination activities
		Road Development Authority	Implementation of projects.

16	Construction of Financial Complex for all Financial Institutions in Kanduruwela	Urban Development Authority	Preparation of project plans.
		Government and private banks, financial institutions	Implementation of projects.
17	Small bus station and shopping mall in the Newtown	Urban Development Authority	Preparation of project plans.
		Municipal Council - Polonnaruwa	Implementation of projects.
		District Secretariat office	Project Coordination activities
18	Improving the functions of the Tourism Facility Center and including SMART banking units	Urban Development Authority	Preparation of project plans.
		Public and private banks	Implementation of projects.
19	Central Cultural Fund premises shopping complex For tourism related activities	Urban Development Authority	Preparation of project plans.
		Central Cultural Fund	Implementation of projects.
20	Tourist Shopping Complex at Pola Junction	Urban Development Authority	Preparation of project plans.
		Municipal Council – Polonnaruwa	Implementation of projects.
21	Public Square and Restaurant Premises	Urban Development Authority	Preparation of project plans & Implementation of project .
22	Demarcation of physical boundry of UNESCO World Heritage City	Urban Development Authority	Preparation of project plans.
		Department of Archeology	Project Coordination activities & Implementation of project.
23	Demarcation of physical Boundaries for	Urban Development Authority	Preparation of project plans.

	Vijithapura Fort / Kaduruwela Fort	Department of Archeology	Project Coordination activities & Implementation of project.
		Central Cultural Fund	Project Coordination activities
24	Renovation of existing shops in heritage city	Urban Development Authority	Preparation of project plans.
		Department of Archeology	Project Coordination activities & Implementation of project.
		Central Cultural Fund	Project Coordination activities & Implementation of project.
25	City entrance and node / junction development	Urban Development Authority	Preparation of project plans.
		Road Development Authority	Implementation of project.
		Department of Archeology	Project supervision activities
26	Heritage City Infrastructure Improvement (Night Time and Cycle Friendly Infrastructure)	Urban Development Authority	Preparation of project plans.
		Department of Archeology	Project Coordination activities & Implementation of project.
27	Landscaping of Heritage City (Planting flowering plants on both sides of the road)	Urban Development Authority	Preparation of project plans.
		Central Cultural Fund	Project Coordination activities & Implementation of project.
		Department of Archeology	
28	Hela Bojun Hall near the sacred city	Urban Development Authority	Preparation of project plans.
		Department of Agriculture Development	Implementation of project.

		Central Cultural Fund	Project Coordination activities
29	Historical Library with old technology Museum	Urban Development Authority	Preparation of project plans.
		Municipal Council - Polonnaruwa	Maintaining the project with proper management.
30	Transferring the main vehicle entrance of the General Hospital to Sungavila Road	Urban Development Authority	Preparation of project plans.
		Polonnaruwa General Hospital	Project Coordination activities & Implementation of project.
		Road Development Authority	Implementation of projects.
		Municipal Council - Polonnaruwa	Project Coordination activities
31	Providing parking facilities for persons coming to the General Hospital in partnership with the public	Urban Development Authority	Preparation of project plans.
		Polonnaruwa General Hospital	Project Coordination activities
		Road Development Authority	Project Coordination activities & Implementation of project.
		Municipal Council - Polonnaruwa	Project Coordination activities
		Private landowners	Provide lands
32	Improvement of Bandaranaike Mawatha and Nissankamalla Mawatha as two lanes	Urban Development Authority	Preparation of project plans.
		Polonnaruwa General Hospital	Project Coordination activities & Implementation of project.
		Road Development Authority	Project Coordination activities & Implementation of project.
		Municipal Council - Polonnaruwa	Project Coordination activities

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33	Change the location of the office of the Regional Director of Health Services	Urban Development Authority	Preparation of project plans.
		Polonnaruwa General Hospital	Project Coordination activities & Implementation of project.
		Office of the Regional Director of Health Services	Project Coordination activities & Implementation of project.
34	School of Hotel Management	Sri Lanka Tourism Development Board	Preparation of project plans.
		Urban Development Authority	Project Coordination activities.
35	Construction of a resting place for the sand mining industry	Urban Development Authority	Preparation of project plans.
		Pradeshiya Sabha - Polonnaruwa	Project Coordination activities & Implementation of project
		District Secretariat office	Project Coordination activities
36	School of Tri Languages	Urban Development Authority	Preparation of project plans.
		Department of Education	Project Coordination activities & Implementation of project
37	Sewagama Middle Class Housing Scheme	Urban Development Authority	Preparation of project plans.
		Housing Development Authority	Project Coordination activities & Implementation of project
38	Low Income Housing Project near Pola Junction	Urban Development Authority	Preparation of project plans.
		Municipal Council - Polonnaruwa	Project Coordination activities
		Tamankaduwa Divisional Secretariat office	Project Coordination activities

39	Introduction of direct bus circulation between the administrative city and the commercial city	Urban Development Authority	Preparation of project plans.
		Sri Lanka Transport Board	Preparation of project plans and Implementation
		Road Passenger Transport Authority	
40	Development of Kanduruwela bus stand to facilitate daily commuters	Urban Development Authority	Preparation of project plans.
		Sri Lanka Transport Board	Preparation of project plans and Implementation
		Road Passenger Transport Authority	
41	Installation of alternate routes and directional signs and nameplates in the main lanes and sub lanes indicating “where you are”	Urban Development Authority	Preparation of project plans.
		Municipal Council - Polonnaruwa	Preparation of project plans and Implementation
		Road Development Authority	
		Pradeshiya Sabha - Polonnaruwa	
42	Improving the connection between Kanduruwela bus stand and railway station	Urban Development Authority	Preparation of project plans.
		Department of Railways	Preparation of project plans and Implementation
		Municipal Council - Polonnaruwa	
		Road Development Authority	
43	Kaduruwela alternative road and three parking lots	Urban Development Authority	Preparation of project plans.
		Municipal Council - Polonnaruwa	Project Coordination activities & Implementation of project
		District Secretariat office	
44	Expansion of Manampitiya Narrow Bridge	Urban Development Authority	Preparation of project plans.
		Road Development Authority	Project Coordination activities & Implementation of project

45	Improving the connectivity of irrigation canals by regulating maintenance and technical improvements	Urban Development Authority	Preparation of project plans.
		Department of Irrigation	Project Coordination activities & Implementation of project
46	Preparation and implementation of drainage master plan	Urban Development Authority	Preparation of project plans.
		Municipal Council - Polonnaruwa	Project Coordination activities & Implementation of project.
		Road Development Authority	
		National Water Supply and Drainage Board	
47	Wastewater treatment plant design and implementation	Urban Development Authority	Preparation of project plans.
		Municipal Council - Polonnaruwa	Project Coordination activities & Implementation of project
		Pradeshiya Sabha - Polonnaruwa	
		National Water Supply and Drainage Board	
48	Installation of drainage nets at selected locations	Urban Development Authority	Preparation of project plans.
		Department of Irrigation	Project Coordination activities & Implementation of project
		Municipal Council - Polonnaruwa	
		Pradeshiya Sabha - Polonnaruwa	
49	Improvement of the existing solid waste management center at Gallella	Urban Development Authority	Preparation of project plans.
		Municipal Council - Polonnaruwa	Project Coordination activities & Implementation of project
		Pradeshiya Sabha - Polonnaruwa	
		Central Environmental Authority	
		District Secretariat office	Project Coordination activities
50	Construction of 03 cross roads from the	Urban Development Authority	Preparation of project plans.

	paddy field adjacent to Kaduruwela A 11 road	Road Development Authority	Project Coordination activities & Implementation of project
		Municipal Council - Polonnaruwa	
		District Secretariat office	Project Coordination activities
51	Public Square (Pola Junction)	Urban Development Authority	Project planning and Implementation
		Municipal Council - Polonnaruwa	Project Coordination activities
52	Kaduruwela Urban Park	Urban Development Authority	Project planning and Implementation
		Municipal Council - Polonnaruwa	Project Coordination activities
53	Gallella Wetland Park	Urban Development Authority	Project planning and Coordination
		Pradeshiya Sabha - Polonnaruwa	Implementation
		Department of Wildlife	Provide prior approvals and technical advice.
		Department of Forest Conservation	
54	Deepa Uyana Phase II & III	Urban Development Authority	Preparation of project plans.
		Municipal Council - Polonnaruwa	Preparation of project plans and Implementation
		District Secretariat office	Project Coordination activities
55	New Town Urban Park	Urban Development Authority	Preparation of project plans.
		Municipal Council - Polonnaruwa	Implementation
		District Secretariat office	Project Coordination activities
56	Paddy Seed and Machinery Manufacturing Factory / Workshop	Urban Development Authority	Preparation of project plans.
		Department of Agriculture Development	Implementation

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		Government Seed Farm	Project Coordination activities
57	Training Center for Farmers	Urban Development Authority	Preparation of project plans.
		Department of Agriculture Development	Implementation
		Government Seed Farm	Project Coordination activities
58	Seed and Planting Material Research and Development Center	Urban Development Authority	Preparation of project plans.
		Department of Agriculture Development	Implementation
		Government Seed Farm	Project Coordination activities
59	Sewagama Town Improvement program	Urban Development Authority	plan the programme
		Pradeshiya Sabha - Polonnaruwa	Implementation of sub projects
60	New Town Improvement program	Urban Development Authority	plan the programme
		Municipal Council - Polonnaruwa	Implementation of sub projects
61	Bediwewa Houses Project	Urban Development Authority	Preparation of project plans and Implementation
		Department of Archeology	Provide lands and corporate .
62	Kaduruwela Financial To the center Adjacent traffic Yard	Urban Development Authority	Preparation of project plans and Implementation
		Tamankaduwa Divisional Secretariat office	Provide lands and corporate .
		Municipal Council - Polonnaruwa	Corporate to implement.
63	Multi-tasking Shopping mall Adjacent to Kaduruwela Financial Center	Urban Development Authority	Preparation of project plans and Implementation

64	Kaduruwela town expansion	Urban Development Authority	Preparation of project plans and Implementation
	Project Phase 2	Tamankaduwa Divisional Secretariat office	Provide lands and corporate .
65	Pavements	Urban Development Authority	Preparation of project plans
	Development and Cities in Kanduruwela	Municipal Council - Polonnaruwa	Implementation
	Decorating project	Road Development Authority	Implementation
66	Physically marked Of Tank Reserve Boundaries	Department of Irrigation	Marking of reservations
		Survey Department	Preparation of survey plans

6.6.1.1 First Priority Projects**Table 6.6 First Priority Projects**

No:	Action projects
1.	Inventory of stakeholders and regularization of existing hotels.
2.	Preparation and implementation of drainage master plan
3.	Wastewater treatment plant design and implementation
4.	Installation of waste filter nets at selected drainage locations
5.	Improving the connectivity of irrigation canals by regulating maintenance and technical improvements
6.	Construction of Financial Complex for all Financial Institutions in Kanduruwela
7.	Kaduruwela Town Expansion Project Phase 2
8.	Traffic yard adjacent to Kaduruwela Financial Center
9.	Multipurpose Shopping Complex Adjacent to Kaduruwela Financial Center
10.	New Town Urban Beautification Program
11.	Bediwewa Housing Project
12.	Improvement of the existing solid waste management center at Gallella
13.	Introduction of direct bus service between the administrative city and the commercial city
14.	Improving the functions of the Tourism Facility Center and including SMART banking units
15.	Deepa uyana stage ii & iii
16.	Transferring the main vehicle entrance of the General Hospital to Sungavila Road
17.	Providing parking facilities for persons coming to the General Hospital in partnership with the public
18.	Improvement of Bandaranaike Mawatha and Nissankamalla Mawatha as two lanes
19.	Kaduruwela alternative road and three parking lots
20.	Construction of 03 cross roads from the paddy field adjacent to Kaduruwela A 11 road
21.	Urban access and lane development
22.	Small bus station and shopping mall in the new city
23.	Implement a Japanese paddy art in Kaduruwela paddy fields

24.	Establishment of a Trade and Commerce Center for Agricultural Product Marketing
25.	Physically demarcation of boundaries of UNESCO heritage city
26.	Paddy Museum and Model Village
27.	Installation of alternate routes and directional signs and name plates in the main lanes and sub lanes indicating "where you are"
28.	Expansion of Manampitiya Narrow Bridge
29.	Introduction of rice wholesale and large scale wholesale market in Kanduruwela town
30.	Heritage City Infrastructure Improvement (Overnight)
31.	Physical demarcation of boundaries of tank reserve
32.	Kanduruwela Pavement Development and Urban Beautification Project
33.	Redevelopment of existing shops in the Archaeological City
34.	Landscaping of Heritage City (Planting flowering trees on both sides of the road)
35.	School of Hotel Management
36.	Development of Kanduruwela bus stand to facilitate daily commuters

6.6.1.2. Second Priority Projects**Table 6.7. Second Priority Projects**

No	Action Projects
1.	Natural aquarium and freshwater fishing village
2.	Introduction of alternative tourist routes to cover new tourist destinations
3.	Public Market and Parking (Existing CTB Bus Depot Land)
4.	Redevelopment of existing shops in the Commercial Zone with the provision of sidewalks and greenery
5.	Sri Lanka Transport Bus Depot and Long Distance Service Center Placement of land near Gallella entrance of Maithripala Sirisena Mawatha.
6.	Thaibhasha School: Gallella
7.	Central Cultural Fund for Tourism Related Activities
8.	Small bus stand and tourist shopping complex at Pola Junction
9.	Common Town Square and Restaurant Premises - Pola Junction
10.	Hela Bojun Hall near the sacred city
11.	Construction of a resting place for sand mining workers - Gallella
12.	Low Income Housing Project near Pola Junction
13.	Improving the connection between Kanduruwela bus stand and railway station
14.	Public Square (Pola Junction)
15.	Kaduruwela Urban Park
16.	Gallella Wetland Park
17.	Recreational and commercial fishing and boat services-Parakrama samudraya
18.	New Town Urban Park
19.	Bicycle delivery program over the Internet
20.	Agricultural Tourism Viewing Platform-Ranketha paddy
21.	Sewagama town beautification program

6.6.1.3. Third Priority Projects

Table 6.8 Third Priority Projects

No:	Action Projects
1.	Seed and Planting Material Research and Development Center
2.	Construction of the Office of the Regional Director of Health Services
3.	New star class hotels
4.	Sewagama Middle Class Housing Scheme
5.	Paddy Seed and Machinery Manufacturing Factory / Workshop
6.	Training Center for Farmers
7.	Irrigation Museum with practical examples
8.	Low Income Housing Project near Pola Junction
9.	Boundary demarcation for Vijithapura Fort and Kaduruwela Fort

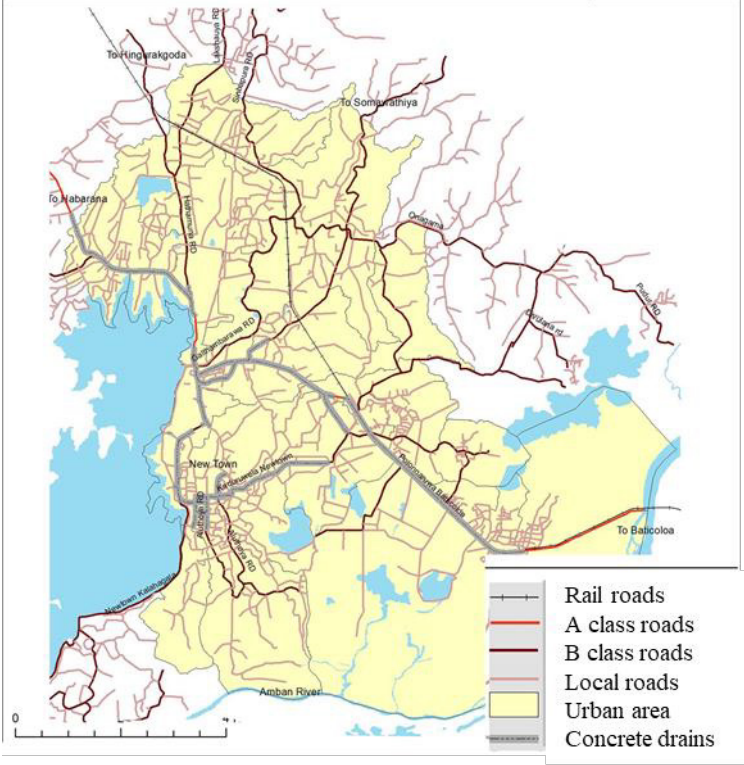
6.6.2 Few action Projects in detail

Strategic Action Project 01

01.	Project Name:	Develop a resource profile of all stakeholders in the tourism sector and register them with the Tourism Development Board
02.	Objectives and relevance of the project:	Aiming to achieve the 2030 vision of the Polonnaruwa Urban Development Plan, the main objective is to build the economy of the city through the tourism sector. Today there are job opportunities and various types of tourist hotels, lodges, at different prices across the city from various sectors related to tourism. Also, the creation of these resource profiles is the basic foundation for the systematic standardization of information on all aspects, from travel guidance.
03.	Method:	<p>a) Data collection and analysis of the following sections</p> <ul style="list-style-type: none"> • Types of hotels (star class) and their facilities • Small lodges and their facilities • Housing tourism industry • Travel Guide List and CV • Details of supply of taxis and bicycles for tourism • Various sectors such as restaurant crafts, textile local manufacturers <p>b) Directing them to the areas where they need to be trained to improve their awareness based on that information.</p> <p>c) Refer them for legal approvals and standards</p> <p>d) To educate the general urban population and other sectors of the tourism industry in the city and to</p>

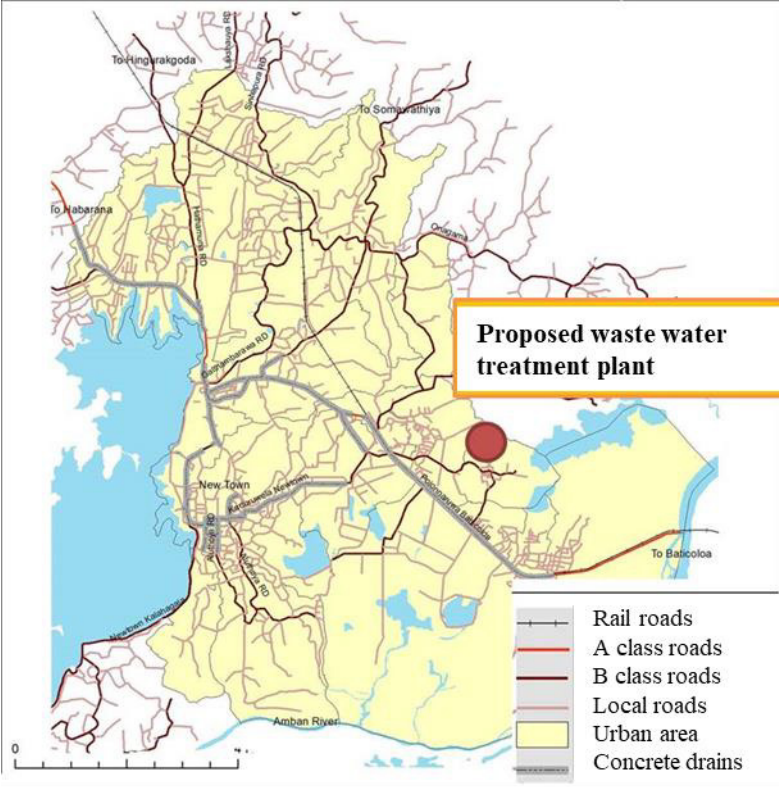
		encourage them to maintain the collective standard that should be maintained in the city.
04.	Tentative Project Cost:	01million rupees
05.	Financial Plan:	Public and private enterprise
06.	Project implementation and maintenance	Sri Lanka Tourism Development Board, Polonnaruwa Municipal Council and Polonnaruwa Pradeshiya Sabha

Strategic Action Project 02

<p>01</p> <p>.</p>	<p>Project Name:</p>	<p>Design and implementation of the drainage Master Plan</p>
<p>02</p> <p>.</p>	<p>Objectives and relevance of the project:</p>	<p>Polonnaruwa urban area is a plain area with a slight slope. Although there are rainwater drains on both sides of the main roads, the system is not functioning properly at present due to irregular constructions and many other factors. The entire storm water drainage system is blocked due to the accumulation of water in the storm water drains and the illegal dumping of garbage. In order to achieve the future vision of the city, it is essential to design and replace the main storm water drainage system.</p>
<p>03</p> <p>.</p>	<p>Location:</p>	<p>Existing rainwater drainage system</p> 
<p>04</p> <p>.</p>	<p>Land required:</p>	<p>Roadside reserve in the entire urban area</p>


05 .	Tentative Project Cost:	10 million rupees
06 .	Financial Plan:	It is possible to obtain financial assistance for such projects with the assistance of NGOs.
07 .	Implementation of the project	<ul style="list-style-type: none"> • Urban Development Authority • Road development Authority • Polonnaruwa Municipal Council • Polonnaruwa Pradeshiya Sabha • Water Supply and Drainage Board
08	Maintenance:	Polonnaruwa Municipal Council and Polonnaruwa Pradeshiya Sabha

Strategic Action Project 03

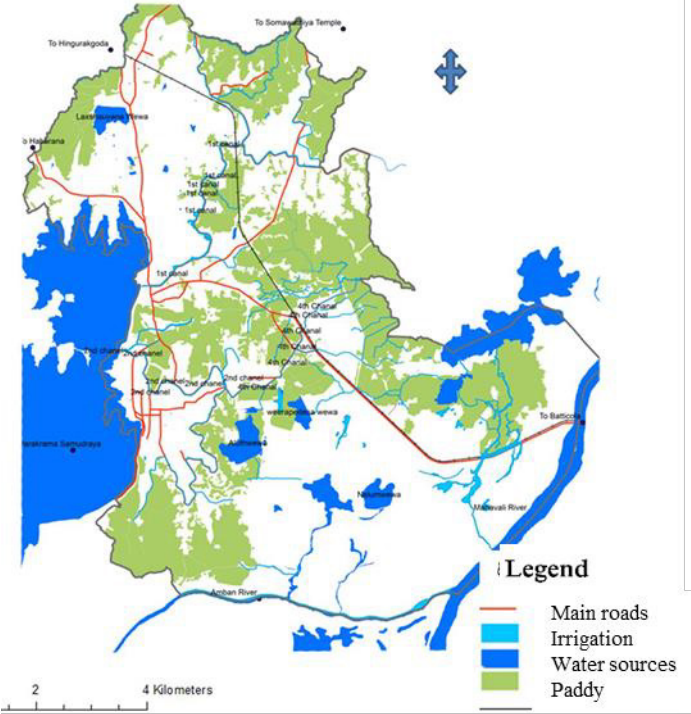
01.	Project Name:	Preparation and implementation of Waste water management plan
02.	Objectives and relevance of the project	Joining the city's irrigation system through rain drains without proper treatment of the city's wastewater is a major issue today. After that the water mixes with the paddy fields of the city and the farmers face many difficulties. Changing this situation is essential in achieving the future vision and goals of the city.
03.	Location:	<p>Especially Pola Junction, Kaduruwela Commercial City and Nawanagaraya</p> 
04	Project Methodology:	<ol style="list-style-type: none"> 1. Laying a system of pipes in the city's rainwater drain to carry out water. 2. Discharge of water from shops and discharge only water into the piping system by fitting it to a filter system. 3. Develop a system for handing over solid waste parts of their stores to the solid waste management unit itself.

		<p>4. Lay the pipeline along the natural slope and take it to the Manikkampattiya area treatment plant outside the city.</p> <p>5. Purified water is finally released into the Mahaweli River through a pipeline or canal in several steps.</p>
05.	Land required:	Roadside Reserve, Rainwater Drainage System and Final Water Treatment Plant in Manikkam Pattiya area of about 1 acre.
06.	Tentative Project Cost:	15 million
07.	Financial Plan:	NGOs, Private Enterprises
08.	Project planning	<ul style="list-style-type: none"> ➤ Urban Development Authority ➤ Polonnaruwa Municipal Council ➤ Water Supply and Drainage Board
	Implementation and Maintenance:	Polonnaruwa Municipal Council

Strategic Action Project 04

01.	Project Name:	Installation of filter nets at selected locations to retain solid waste in the rainwater drainage system
02.	Objectives and relevance of the project:	Today, both rainwater and sewage from the city flow through the stormwater drainage system to irrigation canals near the city. In addition to wastewater, large volumes of solid waste such as plastic, polythene and glass bottles are also deposited in the low lying areas. It is proposed to install these filter nets in selected waterways in Polonnaruwa town to avoid this situation until and after the sewerage system is set up separately.
03.	Location:	
04.	Tentative Project Cost:	0.5 million
05.	Financial Plan:	Polonnaruwa Municipal Council
06.	Project Design:	Department of Irrigation and Polonnaruwa Municipal Council
07.	Project implementation and maintenance	Polonnaruwa Municipal Council

Strategic Action Project 05

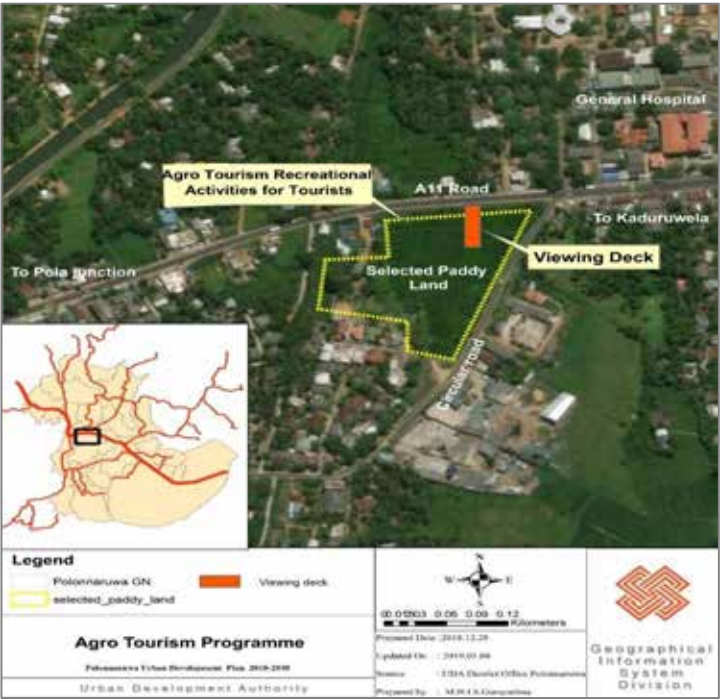
01.	Project Name:	Improving the connectivity of irrigation canals by regulating maintenance and technical improvements
02.	Objectives and relevance of the project:	Irrigation system of Polonnaruwa spread all over the city has been in operation since ancient times. Several major sections of the canal are fixed with concrete, but more than 60% flows as normal canals. Today, the system has collapsed due to various projects and unauthorized land reclamation. Therefore, even areas that were not inundated before a downpour are prone to urban flooding during a downpour. To prevent this, the irrigation system should be thoroughly surveyed and rehabilitated.
	Location	
03.	Total Land Required:	City Irrigation Network and Canal Reserve

04.	Project Steps:	<ol style="list-style-type: none"> 1. Identify the main stakeholders / farmers 2. Cleaning of canal reserves 3. Accurate mapping of storm water drainage system and canal system on the road 4. Identify and improve breakdowns 5. Maintaining the system properly.
05.	Tentative Cost of the project:	10 million rupees
06.	Financial Plan:	<ul style="list-style-type: none"> • NGOs • Department of Irrigation • District Secretariat • Thamankaduwa Divisional secretariat office • Labor contribution of farmers' organizations in the area
07.	Implementation:	Department of Irrigation
08.	Maintenance:	Department of Irrigation and Farmers' Organizations


Strategic Action Project 06

01.	Project Name:	Improvement of Gallella Solid waste Management Center
02.	Objectives and relevance of the project:	The city council points out that 13 tons of solid waste accumulates daily in the city. 48% of them are biodegradable and 52% are non-biodegradable waste. The city's daily solid waste volume is projected to reach 25 tons by 2030, in line with future population forecasts. As a National Level Waste Management Center is proposed to be located in the Meegaswewa area in Medirigiriya, it is proposed to reorganize the existing Gallella Solid waste Recycling Center as follows through the Urban Development Plan.
03.	Location:	Gallella Garbage Treatment Center (Map 6.16)
04.	Amount of land required	The land allotted for the garbage center is adequate
05.	Features that need to be improved:	<ul style="list-style-type: none"> ➤ Capacity treatment unit for 30,000 liters of sewage ➤ 18x70 ft compost yard ➤ Other machinery ➤ Safety High Power Cable Elephant Fence Modification ➤ Construction of a living fence around the premises ➤ Preparation of a separate building for the combustion unit
06.	Tentative Cost of the project:	50 million
07.	Project implementation and maintenance	Polonnaruwa Municipal Council Polonnaruwa Pradeshiya Sabha

Strategic Action Project 07


01.	Project Name:	Viewing deck for Agricultural Tourism
02.	Objectives and relevance of the project:	<p>In order to become the best tourist heritage city in Sri Lanka, it is essential to attract tourists through our paddy cultivation. Its basic steps can be taken by offering the opportunity to see the beauty of the green fields adjacent to the city's main road. Inspired by the beautiful completion of one such project, the strategy was proposed to encourage other farmers to adapt their fields to the tourism industry and to implement new ideas. This is expected to coincide with the Ranketha Hotel and other agro-tourism activities will also be promoted here.</p>
03.	Location	
04.	Required space:	4.5 acres (Ranketha paddy land)
05.	Gross Estimated Amount:	01 million for the viewing platform
06.	Financial plan for the project:	Private Investment and Polonnaruwa Municipal Council
07.	Implementation of the project	Ranketha Hotel and Polonnaruwa Municipal Council

Strategic Action Project 08


01.	Project Name:	Relocation of main vehicle entrance of Polonnaruwa General Hospital to Sungavila Road
02.	Objectives and relevance of the project:	Polonnaruwa General Hospital land is about 22 acres but about 85% of the land area is built area. Due to this there is not enough space to park patients' vehicles in the hospital premises. Due to this, vehicles entering the premises should leave the premises immediately. Traffic is disrupted every 20 seconds due to the presence of the main vehicle entrance and the OPD near the A11 road and the main transit point near the main gate. In order to alleviate this situation, the project proposes to shift the main vehicle access and patient admission to the existing entrance on Sungavila Road.
03.	Location:	 <p>The image is a satellite map from Google Earth showing the Polonnaruwa General Hospital premises outlined in red. A red dot marks the 'Existing Gate' at the bottom center. Another red dot marks a proposed location on 'Sungavila Road' to the northeast. Labels include 'Sungavila Road', 'A 11 Colombo Batti road', and 'Existing Gate'. There is also a Sinhala label 'සෞඛ්‍ය කේන්ද්‍රය' (Health Center) near the proposed site.</p>
04.	Required space:	Premises near the entrance of Sungavila road
05.	Gross Estimated Amount:	50 million
06.	Financial Plan:	Ministry of Health Fund
07.	Implementation and maintenance	Polonnaruwa General Hospital

Strategic Action Project 09


01.	Project Name:	School of Hotel Management (Hotel Industry Development Program)
02.	Relevance of the project:	Considering the future needs of the hotel industry in Polonnaruwa, it should be upgraded to international standards. Local and foreign tourists leave the city as soon as they have visited and had fun, but rarely stay in the city for more than a day. One reason for this is that they do not have proper and standard accommodation to serve. The new Hotel School of Management will be a successful way to improve the hotel industry in the city in a standard way by training young people who want to enter the industry in terms of tourist hospitality. This would be a good solution for the 2.2% of the city's unemployed population.
03.	Project Objectives	<ul style="list-style-type: none"> • Establishment of new educational and vocational facilities • Facilitate the younger generation to develop skills in the hotel industry • Solution for the unemployed population • Improving the quality of the tourism industry • Dissemination of new knowledge among the younger generation
04.	Location:	Education and vocational training Institutional Zone

<p>05.</p>		
<p>06.</p>	<p>Amount of land required</p>	<p>About 7 hectares</p>
<p>07.</p>	<p>Tentative Cost of the project:</p>	<p>40 million</p>
<p>08.</p>	<p>Implimentation</p>	<p>Sri Lanka Tourism Development Board</p>

Strategic Action Project 10

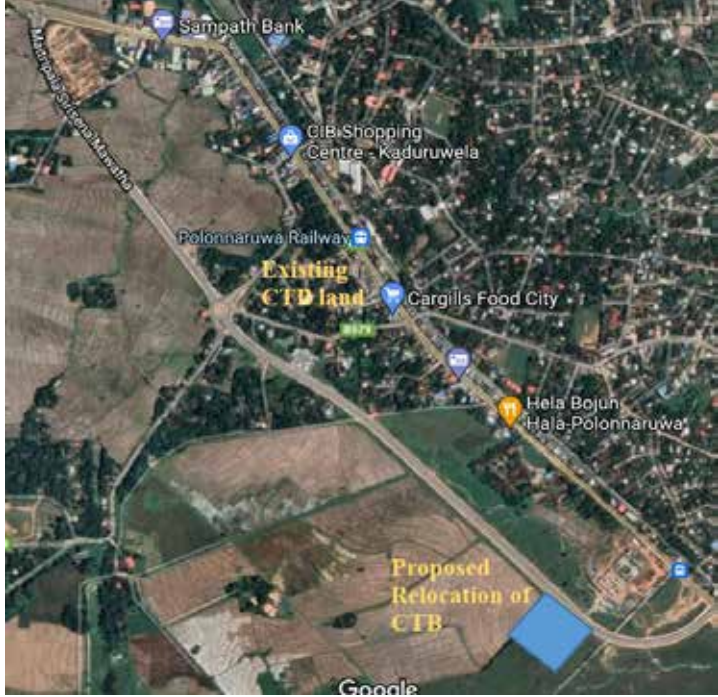
01.	Project Name:	Reorganizing the activities of the Tourism Facility Center including SMART bank units.
02.	Objectives and relevance of the project:	<ul style="list-style-type: none"> • Provide information on alternative travel plans within the city for tourists through display boards • Upgrading of shopping malls • Establishment of Smart Banking facilities in the premises
03.	Location:	
04.	Required space:	Land of the Tourist Facility Center
05.	Gross Estimated Amount:	About 03 million
06.	Financial plan for the project:	Public-private partnership
07.	Project implementation and maintenance	<p>Public and private banks</p> <p>Central Cultural Fund</p> <p>Polonnaruwa Municipal Council</p>

Strategic Action Project 11

01.	Project Name:	Proposed financial complex and urban park Kaduruwela
02.	Relevance of the project:	This urban park is proposed with the aim of creating a comfortable environment for the commuters coming from the bus stand and railway station. The project also proposes to create a comfortable city with a green environment, which is one of the main goals of this development plan.
	Objectives of the project	<ul style="list-style-type: none"> • Allocation of lands for government banks and financial institutions in Polonnaruwa as requested. • Allocation of green shaded rest areas in the city center • Improving air circulation in the city center • Reduce traffic on all roads due to financial institutions. • Reducing traffic congestion on the main road due to financial institutions
03.	Location	 <p>Location map of Kaduruwela Urban Park Polonnaruwa Urban Development Plan 2021-2030</p> <p>Prepared date : 2019.2.18 Updated date : 2020-12-06 Updated by : Plan T.J.K.Jayalath</p> <p>Urban Development Authority District office Polonnaruwa 09-00-00000</p>


04.	Project steps	<p>A) Financial Complex</p> <p>It is proposed to allot the land to the major financial institutions in 9 plots (25 perches) and on a lease basis for 30 years. Will design for small-scale enterprises on separate land.</p> <p>All institutions have a common theme. Building guidelines made by must be followed. The idea is to achieve a common landscape and enhance the identity of Polonnaruwa.</p> <p>B) Kaduruwela Urban Park</p> <p>50 perches are allocated for open space and rest area. The park is proposed for the convenience of visitors to both the train station and the bus station and the financial complex. This strategic project aims at the vision of the 2030 Plan to create a glorious city with a comfortable and green environment.</p> <p>A sidewalk with a public park is planned parallel to the A11 road. The rest area in the middle of the land is equipped with benches and urban furniture. The goal is to preserve existing trees within the premises.</p>
	Required space	2 acres
05.	Gross Estimated Amount:	<p>A) Financial Complex: 30 million</p> <p>B) Urban Park: 5 million</p>
06.	Financial Plan:	Public-private partnership
07.	Implementation and maintenance	<ul style="list-style-type: none"> • Urban Development Authority • Polonnaruwa Municipal Council

Strategic Action Project 12


1.	Project Name:	Public Market at Kaduruwela Bus Stand (By relocating CTB Bus Depot)
2.	Relevance of the project:	<p>Kanduruwela is the commercial capital of the district and the surrounding areas with a population of over 600,000. By this time, all the spaces that can be developed outside the paddy fields have already been developed. However, due to future demand, the existing city center needs to be reorganized. Many projects have been identified to meet those needs. (Map 6.7) This is one such project.</p> <p>The Kanduruwela bus stand is currently in a dilapidated condition. Considering the daily tourist population coming to the city, it is essential to renovate, modernize and develop the existing bus stand to accommodate them.</p>
3.	Project Objectives:	<ul style="list-style-type: none"> • Relocation of CTB bus depot and land improvement. • Facilitate especially bus passengers • Provide a more organized space for business.
4.	Location:	

5.	Land	About 2 acres
6.	Project steps	<ul style="list-style-type: none"> • Relocation of CTB Depot • Construction of a new two storey building • Ground floor for public fair • The upstairs acts as a parking space.
7.	Gross Estimated Amount:	08 million
8.	Financial plan for the project:	Public-private partnership
9.	Project implementation and maintenance	Polonnaruwa Municipal Council


Strategic Action Project 13

01.	Project Name:	New Town Small Bus Stand and Shopping Complex
02.	Objectives and relevance of the project:	<p>There is a high demand for a small bus stop as the main administrative center, offices, district court and the only national school in the city center are functioning in the New Town area.</p> <p>Also, lawyers need more space for their offices. Considering the demand, Royal College has proposed a small bus stop in front of the entrance and its upstairs room law related offices. Downstairs there will be supermarkets, communications, restaurants and shops providing related educational services.</p>
03.	Location:	
	Project steps	<p>A) Obtaining lands from the Coconut Cultivation Board</p> <p>B) Design with landscaping</p> <p>C) Construction of the building</p>
04.	Required space	About 0.5 ha
05.	Gross Estimated Amount	About 5 million
06.	Financial plan for the project:	Public-private partnership
07.	Maintenace	Polonnaruwa Municipal Council

Strategic Action Project 14

01.	Project Name:	Establish an open, entertaining space with a common urban square and restaurants in pola junction
02.	Objectives and relevance of the project:	The land adjacent to the land where the old Pradeshiya Sabha building was located near the Pola Junction was identified for the construction of this Public Square. It is proposed to implement this project under the guidance and guidance of the Polonnaruwa Office of the Urban Development Authority under the Polonnaruwa Municipal Council.
03.	Location:	
	Project Items	<p>This square consists of the following elements.</p> <ul style="list-style-type: none"> • Children's playground • Aquarium • Community halls • Space for stalls • Bus stop • Construction of a bridge across the canal connecting the public square and the sacred area • Installation of a water wheel in the canal to supply water to the public square
04.	Required space:	5 hectares
05.	Gross Estimated Amount:	About 5 million
06.	Financial Plan:	Public-private partnership
07.	Maintenance	Polonnaruwa Municipal Council

Strategic Action Project 15

01.	Project Name:	Gallella Wetland Park
02.	Objectives and relevance of the project:	<p>This National flood plain national park is located in the Gallella area between Kanduruwela and Batticaloa along the A11 road. The flood plain national park is rich in natural beauty and is home to a rich biodiversity of ecosystems, flora and fauna.</p> <p>This has attracted the attention of environmentalists and is one of the most valuable areas in the city of Polonnaruwa and has not yet directly contributed to the development of the city's economy. This project has proposed to transform this place into a place where local and foreign tourists coming to Polonnaruwa can experience the natural environment differently.</p>
03.	Location	
	Project Items	<ul style="list-style-type: none"> • Create rough tracks for bird watching and wild elephant watching • Observations for natural environment viewing • Providing boat service facilities along the Mahaweli River and Ambanganga to view the aquatic life and river ecosystem. • Summer cabins
04.	Required space:	0.5 acres

05.	Gross Estimated Amount:	4 million
06.	Financial Plan:	Public-private partnership
07.	Implimentation and maintenance	Department of Wildlife Polonnaruwa Pradeshiya Sabha

Part II

LAND AND BUILDING DEVELOPMENT STRATEGY

CHAPTER 07

DEVELOPMENT ZONES AND ZONING GUIDELINES

7.1 Introduction

Polonnaruwa Urban Development Plan (2021-2030) is a development plan based on the development vision of “The green glorious Heritage city In Kingdom of rice” . Introducing the Goal and objectives to achieve the vision of this development plan prepared for the next 10 years. Introduced 07 strategic plans to implement those goals and objectives in the field. This land and building development strategy can be introduced as one of the main strategic plans.

These development zones and zoning guidelines, in particular, provide an opportunity for density-based development that goes beyond traditional land use and zoning plans, and aims to create the proposed 2030 concept plan.

This chapter describes the development zones and zoning guidelines prepared in this regard, mainly the development zones, zone factors, boundary coordinates of the development zones, permissible uses for the development zones and the general regulations affecting those development zones.

It can be said that the preparation of this zoning plan and its boundaries are the result of several specific factors or analyzes. This is mainly based on the concept plan of the Polonnaruwa Development Plan (2021 - 2030), development pressure analysis, sensitivity analysis, residential development potential analysis and spatial potential analysis in the area and the distance from major cities and the extent of infrastructure availability. Here analyzes were done to identify the most suitable areas for the public to live (livability analysis). The analysis focuses on physical infrastructure, social infrastructure, population, disaster-prone areas, water sources, and distance to the nearest city. Sensitivity Analysis was also done to protect the Ecologically Sensitive Areas and to minimize the impact of ongoing development activities. The focus is on all eco-sensitive areas, including paddy fields, sanctuaries, lowlands and disaster areas. Potential analysis was done further, taking into account non-disaster prone areas, unused land, infrastructure and distance to the nearest city.

Based on the urban development activities, economically potential areas have been identified based on analyzes of interconnections, (connectivity analysis), and the intensity of road network integration (Space Syntax).

Chapter 7 These analyzes have been used to identify the development activities of the Polonnaruwa
Development zones and Development area 2021-2030, to identify the land use pattern as well as for the zoning
zoning guidelines classification.

Introduction

Determination of Permissible Floor area for developments According to the Form 'A', 'B' in Schedule 6 to Part IV of the Extraordinary Gazette Notification No. 2235/54 dated Thursday 08th July 2021, the coefficients applicable to the Polonnaruwa urban Development Plan indicated under chapter 7.3.2 in 1st schedule by “Form A” table 7.3.2.1. and “Form B” table 7.3.2.2 .

In determining the open space of the building pertaining to the said permissible floor area, the form ‘E’ of the above Gazette is indicated and it is specified in the Polonnaruwa urban Development Plan under chapter 7.3.2 in “Form C” table 7.3.2.3.

7.2 Proposed development zones

There are 13 proposed development zones. These zones are based on the expected priority practices and proposed development densities in each zones. (Map 7.1)

1. Commercial Zone
2. Administrative Zone
3. Industrial zone
4. Tourism Zone
5. Residential Zone1
6. Residential Zone2
7. Healthcare Zone
8. Educational and Vocational Training Institutional Zone
9. Mixed Development Zone1
10. Mixed Development Zone2
11. Archaeological Conservation Zone01
12. Archaeological Conservation Zone2
13. Environmentally sensitive zone

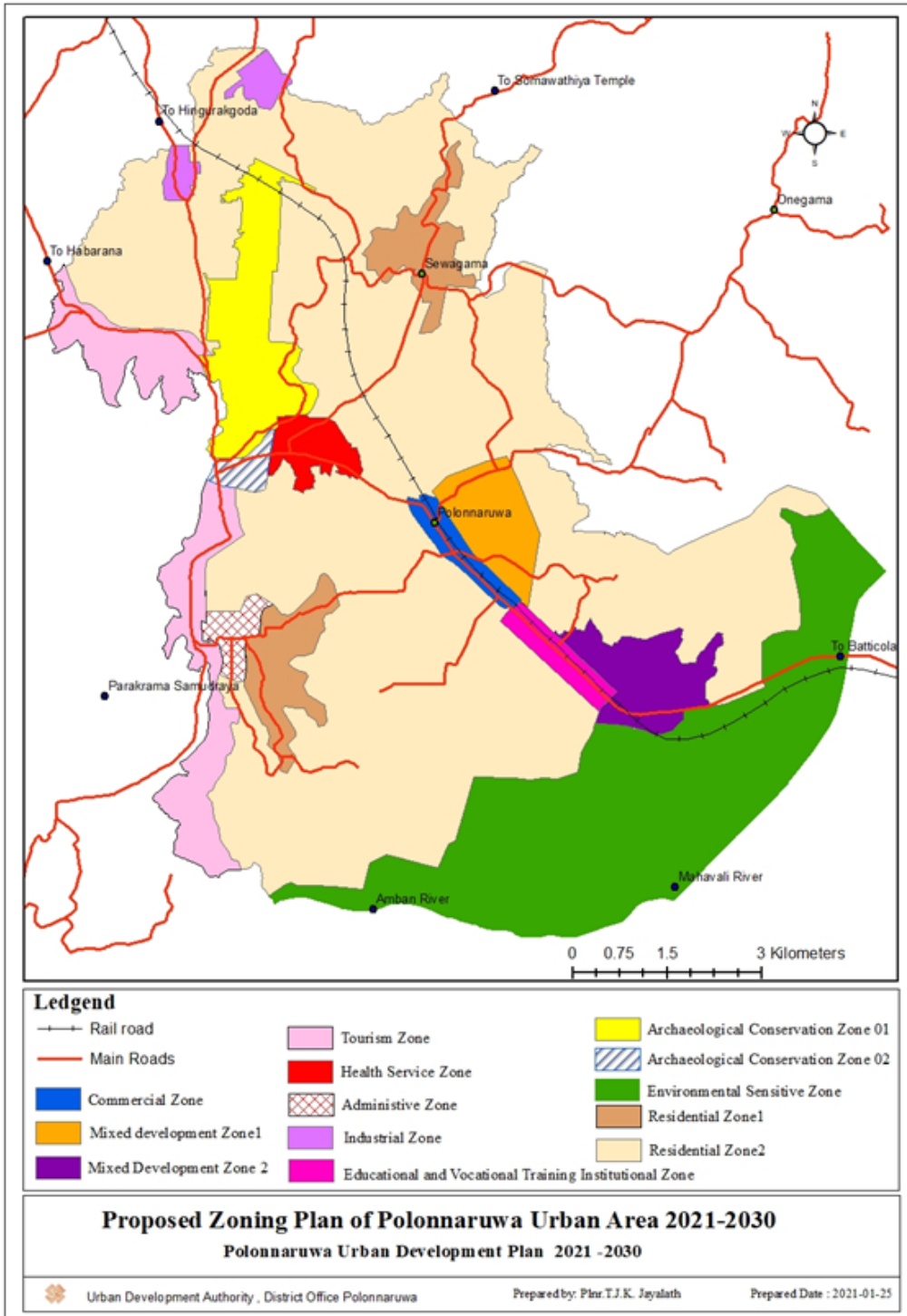
7.2.1 Proposed Zoning Plan

Map 7.1 represent the zoning and the boundaries of each zones. The details of the zones are shown in Table 7.1.

Chapter 7 **Map 7.1: Proposed Zoning Plan**

Development zones and zoning guidelines

Proposed zoning plan



Source: Polonnaruwa Development Plan Data Base, Polonnaruwa District Office, UDA

7.3 Zone Factors

The zone factor is a new pragmatic concept introduced to replace the previously implemented Floor Area Ratio. This determines the maximum amount of development allowed in a development zone. In particular, the purpose is to give the property owner a fair opportunity to carry out his development.

This zoning classification seeks to distribute over the land the expected development of the area by 2030, based on development density. Especially high density commercial zone, medium and low density mixed development zones and medium and low density residential zones are expected respectively. It is also expected to control development in environmentally sensitive and sacred areas.

Thus, by 2030, the desired urban concept will be created on the basis of the maximum development determined under the zone factors. As described earlier, the expected urban concept is based on a number of scientific analyzes, and it is hoped that the city's approach to achieving that expected urban concept will minimize potential problems for the city in the future.

7.3.1. Calculation of zone factors

The zone factors are determined by the vision and objectives of the development plan, the urban landscape that will be seen in the future, the environmental sensitivity that will limit future development, and the total area available for residential, commercial and other uses.

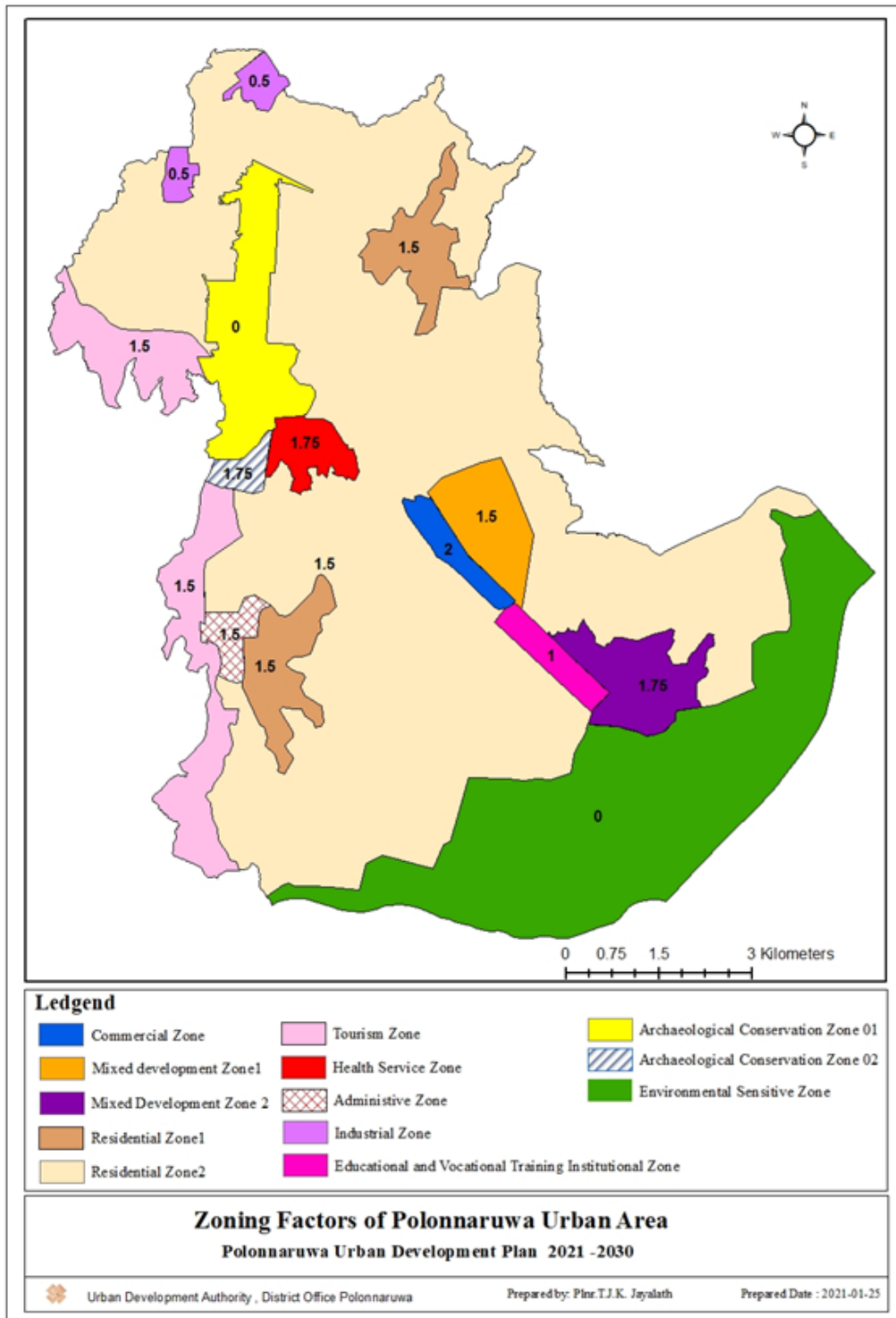
Accordingly, zones have determined land areas based on environmental sensitivity, development pressure and its direction, infrastructure distribution, commercial development, geographical conditions and population density. Zones with high zone factors reflect a concentrated infrastructure network, high commercial development and high population attraction within the zone. If the area is an environmentally sensitive area or if there is a shortage of land or infrastructure for development, the zone factor is low. Expected urban concept are in their infancy.

Accordingly, zone factors have been given to each zones under the development plan.

Chapter 7 **Map no. 7. 2: Zone Factors 2021-2030**

Development zones and zoning guidelines

Zone factors 2021-2030



Prepared by: Polonnaruwa District office, UDA,2021

Table no. 7.1 : Zone Factors and details (Summery)

NO	Zone	land Extent Sq.m	(%)	Zone factor	Allowable Floor area.
1	Commercial Zone	0.8595	0.82	2	Commercial =80% Other = 66%
2	Administrative Zone	0.7474	0.71	1.5	Commercial =80% Other = 66%
3	Industrial Zone	1.134	0.091	0.5	Commercial =80% Other = 66%
4	Tourism Zone	6.035	5.80	1.5	Commercial =80% Other = 66%
5	Residential Zone1	4.1018	3.94	1.5	Commercial =80% Other = 66%
6	Residential Zone 2	60.5846	58.30	1.5	Commercial =80% Other = 66%80%
7	Health Service Zone	1.1509	1.107	1.75	Commercial =80% Other = 66%
8	Educational and Vocational Training Institutional Zone	0.9288	0.89	1	Commercial =80% Other = 66%%
9	Mixed Development Zone1	2.1966	2.11	1.75	Commercial =80% Other = 66%
10	Mixed Development Zone 2	2.5343	2.43	1.5	Commercial =80% Other = 66%
11	Archaeological Conservation Zone 01	4.4061	4.24	0	-
12	Archaeological Conservation Zone 02	0.5258	0.50	1.75	Commercial =80% Other = 66%
13	Environmental Sensitive Zone	18.7123	18.0	0	-

Prepared by: Polonnaruwa district office, UDA, 2021

Chapter 7 **Process for determining the Zone Factors**

Development zones and zoning guidelines

Process for determining the Zone Factors

The zone factor is the ratio of the floor area that can be reached in a given zone to the number of developable lands in that region.

Process:

In a given zone:

$$\text{Zone factor} = \frac{\text{Total permissible floor area}}{\text{Total developable land}}$$

• **Determining the developable land area in a given zone**

Total developable land	=	Total Land area of the zone	-	Environmentally Sensitive Areas, Valuable Agricultural Land Disaster Areas, Culturally Sensitive Areas etc.
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(The above information has been identified from a detailed survey of the urban area)

Zone	Zone Factor	Considered Facts
Very high intensity development	2.0	1. Expected future density of developments due to level of sensitivity, natural carrying capacity, need for conservation, etc. 2. The demand for future space as observed through analysis. 3. Available road density (width greater than 6.0 m) 4. System for waste water disposal
High density development	1.75	
Medium intensity density development	1.5	
moderate intensity density development	1	
low intensity density development	0.5	
No expected development	0	

Prepared by: UDA Polonnaruwa district office, 2021

7.3.2 Schedule 1

Form “A”: Floor Area Ratio

		Form A - Permissible Floor Area Ratio																				
Land extent (Sq.M)	Zone factor = 0.50 - 0.74			Zone factor = 0.75-0.99			Zone factor = 1.00-1.24			Zone factor = 1.25-1.49			Zone factor = 1.50-1.74			Zone factor = 1.75-1.99			Zone factor = 2.00-2.24			
	Minimum Road Width			Minimum Road Width			Minimum Road Width			Minimum Road Width			Minimum Road Width			Minimum Road Width			Minimum Road Width			
	7m	9m	15m or above	7m	9m	15m or above	7m	9m	12m or above	7m	9m	12m or above	7m	9m	12m or above	7m	9m	12m or above	7m	9m	12m or above	
150 less than 250	0.8	0.9	0.9	1.3	1.3	1.4	1.6	1.7	1.8	1.9	2.0	2.2	2.3	2.4	2.4	2.6	2.7	2.8	2.8	3.0	3.2	3.3
250 less than 375	0.9	1.0	1.2	1.3	1.3	1.8	2.0	2.2	2.4	2.7	2.2	2.7	3.0	3.3	3.2	3.2	3.6	4.0	3.0	3.4	4.3	4.7
375 less than 500	0.9	1.0	1.2	1.4	1.3	1.6	1.9	2.1	2.2	2.5	2.8	2.3	2.8	3.2	3.4	2.7	3.3	3.8	4.2	3.2	3.5	4.5
500 less than 750	1.0	1.1	1.3	1.5	1.4	1.7	2.0	2.2	2.3	2.7	3.0	2.4	3.0	3.4	3.5	2.8	3.4	4.0	4.5	3.4	3.6	4.7
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	2.6	3.0	3.6	4.0	3.1	3.6	4.3	5.0	3.5	3.8	5.1
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	2.7	3.1	3.8	4.5	3.2	3.8	4.6	5.5	3.6	4.0	5.4
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	2.9	3.4	4.2	5.0	3.4	4.0	5.0	6.0	3.7	4.2	5.8
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	3.0	3.5	4.4	5.4	3.5	4.2	5.2	6.5	3.8	4.4	6.2
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	3.6	4.4	5.5	7.0	3.9	4.6	6.5
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	3.7	4.6	6.0	7.5	4.0	4.8	6.9
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	3.8	4.8	6.3	7.7	4.0	5.0	7.3
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	4.0	5.0	6.5	8.0	4.0	5.2	7.5

UL - Unlimited

Floor area allocated for parking facilities are not calculated for FAR

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

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

Clearance shall be taken from National Building Research Organization for the lands having slope more than 11°

* FAR more than or equal to 10.0 shall be permitted only for the roads having minimum of 12m (from road center) Building Line, if not maximum FAR shall be limited to 9.0

7.3.2.2 Form "B" - Floor sizes for 3m and 4.5m wide roads

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

7.3.2.3 Form-C -Open space

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

NLV - Natural Light & Ventilation
 Building Height - Height between access road level to roof top or roof level (Including parking floors)
 * Where no Plot Coverage specified under the zoning guidelines
 ** The entire development is for non-residential activities
 *** 65% plot coverage can be allowed only for the podium level not exceeding 20% of the tower height or 12 floors which ever is less
 **** Minimum area shall be increased by 1 Sq.m for every additional 3m height

7.3.3. Shedule 2

Institutions that should obtain recommendations when issuing licenses for carrying out development activities in wetland areas

01. Sri Lanka Land Development Corporation
02. Department of Irrigation
03. Sri lanka Mahaweli Development Authority
04. Central Environmental Authority
05. Urban Development Authority
06. Polonnaruwa Municipal Council / Pradeshiya Sabha
07. Department of Forest Conservation
08. Department of Wildlife Conservation
09. National Building Research Organisation
10. Department of Agrarian Development
10. Department of Archeology
12. National Aquatic Resources Research and Development Authority
13. Geology and Mining Bureau
14. North Central Provincial Council
15. Water Resources and Water Transport Board
16. Aquatic Development Authority
17. Ceylon Electricity Board
19. Department of Buildings
20. Road Development Authority
21. Department of Fisheries
22. Sri Lanka Navy
23. Polonnaruwa District Secretariat
24. Thamankaduwa Divisional Secretariat

Chapter 7

Development zones and zoning guidelines

General zoning guidelines for the planning area

7.4 General zoning guidelines for the planning area

This chapter describes the general zoning guidelines for the planning area. (In addition to the permitted uses and zoning guidelines introduced in each zones of the proposed zoning plan as set out in Chapter 8).

7.4.1	These regulations apply to the entire area within the Polonnaruwa Urban development area limits Subject to amendments made from time to time under Section 3 of the Urban Development Authority Act No. 41 of 1978. The Polonnaruwa urban area declared under Extraordinary Gazette Notification No. 38/16 and 01.06.1979. Extraordinary Gazette Notification No. 1397/1 in 13.06.2005 and No. 2084/4 Gazette Notification dated 14.08.2018.
7.4.2	In addition to the provisions of this zoning plan, The Planning and Development Regulations applicable to any development work is regulated by the Gazette Notification No 2235/54 dated 8th of July 2021. The said legalized Planning and Development Regulations also apply to the Polonnaruwa urban Development area.
7.4.3	If there is any development activity that is not covered by the regulations of the Development Plan, it is up to the Urban Development Authority to decide on it.
7.4.4	When a place or property is designated for a specific purpose only by the zoning plan, that place or property should be used only for that designated purpose.
7.4.5	Regardless of the terms of these regulations, the Authority may, in accordance with the objectives of the Development Plan, use, prohibit, restrict, relax or introduce new regulations on any development activity.
7.4.6	When there is an issue of zoning boundaries, the final decision rests with the Urban Development Authority.
7.4.8	The boundaries shown on the zoning map are based on the physical boundaries and the X and Y coordinates shown in the 2019 Google Earth Decimal Degree.
7.4.9	If there is a boundary difference between the physical boundaries shown in the zoning plan and the (Google Earth) geographical coordinates, the physical boundary should be taken as the boundary of the zone.
7.4.10	If a property or building belongs to two zones, the area where the access road to that property or building belongs should be considered as the zone of that property or building.

7.4.11	If a property belongs to two or more zones, it would be legal to consider such a plot within the zone most conducive to the objectives of the development plan.
7.4.12	If a plot of land falls between two local government areas, the access road to that plot of land is considered to belong to the local government area as well. Also, if a plot of land is accessed by roads belonging to two local government areas, this block belongs to the area where the main road belongs and if both the roads are of the same width, it should be considered that most of that land belongs to the local government area.
7.4.13	No place or building for which a development permit has been approved shall be used by any person other than for the purpose for which the permit was issued.
7.4.14	If the Authority is satisfied with the other uses in addition to those specifically mentioned in the relevant area, the Urban Development Authority has the final say in granting approval subject to conditions.
7.4.15	<p>No one is allowed to change the use of any land or house in the zoning plan / development plan unless it is reserved for a specific use. However, with the approval of the Urban Development Authority, on the recommendation of the Planning Committee, if the following matters are fulfilled, the Local Authority may consider changing these.</p> <ol style="list-style-type: none"> 1. Those uses should not interfere with the area's infrastructure facilities. 2. Those practices should not cause problems related to the regulation of traffic in the area. 3. Such practices should not interfere with environmental compliance by causing health hazards by polluting the environment. 4. The amount of land should be sufficient to provide infrastructure facilities. 5. Adequate provisions should be made to protect against fire and other hazards. 6. Cutting down trees, cutting down branches or destroying natural vegetation should not alter the landscape features of the area. 7. The buildings, mountains, monuments of historical and archaeological value in the area where those uses are located should not be altered.
7.4.16	An area can be defined as a special development area when the authority feels it is appropriate.

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7.4.17	Orders for special projects or project areas to be Authority in the future will override the provisions of this Plan.nominated by the Authority.
7.4.18	Use, restrict or prohibit the use of land for the construction of any particular building within the special project areas designated by the Authority, relax the prohibitions imposed by this plan, or impose other legislation to carry out the functions assigned to the area can be done by the authority.
7.4.19	When any plot of land or house space is not reserved for a particular use, its use shall be in accordance with the permitted use of the zone in which it is located and shall not be an impediment to the permitted use of the zone in which it is located.
7.4.20	Modifications to various religious sites and religious symbols, signs, statues or similar constructions that are to be constructed permanently and to modify an existing building for such use shall be made with the concurrence of the Ministry of Buddhasasana, Religious and Cultural Affairs and the social organizations in the area.
7.4.21	If the minimum land area is not specified in the zoning regulations, the minimum land area for any development on the land is 150 square meters. If there is no pipe born water supply to the area, the minimum land area for a land plot should be 250 square meters.
7.4.22	When a plot of land is adjacent to a waterway, the specifications of their waterway reservation is mention in the sub section 10.2 of chapter 10.
7.4.23	Relevant building boundaries for existing roads in the area are set out in Chapter 10.1 . The minimum building limit for any road which is not mention/named on above list , shall be 4.5 m from middle to either side of the existing road.
7.4.24	All buildings and sites related to archeological, ancient architectural styles and national heritage should be preserved as they exist and designed to preserve archaeological values during any improvement or renovation or new construction. Recommendations of the Department of Archeology or the relevant institution should be obtained.
7.4.25	No alteration, repair or demolition of a building declared or future publication under the Archaeological Ordinance shall be carried out without the approval or permission of the Urban Development Authority.
7.4.26	If, as of the date of enactment of the regulations of the plan, any legally enforced use does not apply to that area, such use shall be permitted by extending the period or by extending parts of its building or machinery or by collecting parts from adjacent lands or by any activities leading to any project not available. Further, if the continuation of the proposed land or building is deemed unfavorable, such misuse may be ordered to cease.

7.4.27	Areas currently used and identified for public outdoor parks and recreational spaces are permitted only for those activities.
7.4.28	The construction of a building in a cemetery or the development of such a building shall be in accordance with the provisions of the Cemetery Ordinance.
7.4.29	When a land or plot of land is set aside for a graveyard and for the construction or restoration of graves, monuments, development permits must be obtained.
7.4.30	Permission of the Authority should be obtained before displaying or constructing permanent name boards or advertisements and billboards.
7.4.31	Special approval must be obtained from the Authority for the construction or expansion of hazardous, toxic and polluting industries or businesses.
7.4.32	Approval / recommendation should be obtained from the institutions recommended by the Authority for reclamation, construction and use of low lying lands, paddy lands and environmentally sensitive areas.
7.4.31	Special approval must be obtained from the Authority for construction / expansion of hazardous, toxic and polluting industries or businesses.
7.4.32	Must obtain clearance and direction from Institutions nominated by the Authority for Filling and construction of low lying lands, paddy lands and environmentally sensitive areas.

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7.4.33	<p>Preliminary Planning Clearance (PPC)</p> <ul style="list-style-type: none"> • Before obtaining a development permit from relevant authority ,following special occasions should obtaining preliminary planning clearance from the Urban Development Authority , Including the cases referred in Part 1 (3) of Regulation Part I of the Special Gazette Notification No. 2235/54 dated 08.07.2021 . • Condominium property development • Any type of building over 400 square meters • Any development related to the tourism industry • Construction of Private schools, private hospitals and private tutoring classes. • Installation of Digital or non-digital commercial advertising, Billboards, Nameplates, Display booths, Telephone booths which are larger than 2 square meters, in either sides of the A and B class roads. • When requesting approval For any development or construction in paddy lands and low lying lands. • In any development activity determined by the Urban Development Authority to obtaine PPC.
7.4.34	Development permit should be obtained from the authority or the relevant local authority regarding the construction of boundary walls.
7.4.35	<p>If the proposed development meets the following, the Urban Development Authority will consider the road with width of less than 9 m:</p> <ul style="list-style-type: none"> • The developer must agree to freely transfer his / her land within the street line to the relevant institution. • The developer Should physically opens the path before starting the development.
7.4.36	The zone factors does not apply to conservation areas and special conservation areas. Only zoning regulations applicable to those zones are valid.
7.4.37	The Urban Development Authority has the full power to increase or decrease the zone factors due to special developments or future developments.

7.4.38	When constructing any area within each zone designated by the zoning plan, the maximum floor area that can be constructed should be obtained using Schedule 1 mentioned here.		
7.4.39	In cases where problems arise in determining the “total floor area” to be approved for development activities, the Urban Development Authority has the final say.		
7.4.40	The final decision on the allocation of reservations or buffer zones to protect and maintain the environment in a particular location is made by the Urban Development Authority. (connected with Article 7.4.43)		
7.4.41	Conditions for Implementing Permissible Uses (Chapter 8.13.2) for the Wetland Environmental Sensitive zone.		
	a.	Flood retention capacity	It should be governed according to the preliminary plan approved by the Sri Lanka Land Reclamation and Development Corporation and should also be compliant with the Irrigation Department / Mahaweli Development Authority.
	b.	Minimum plot of land for construction of buildings	Hectare 4 (10 acres)
	c.	Ground limits allowed for maximum filling	The approved uses are the same for smaller plots, but do not allow for the construction of buildings.
	d.	Ground limits allowed for maximum filling	2% of land area Roads, parking, toilets and waste disposal / treatment can be used to control the workplace if necessary.
	e.	Maximum Plot Covering (Areas under construction)	1% of the total project area. All buildings on towers are approved. (Excluding toilets)
	f.	Maximum Permitted Infrastructure Projects (Electricity, water supply, telephone, highways, etc.)	4% of the total project area.
	g.	Maximum ground floor size approved for separate buildings	100 square meters

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7.4.41	h.	Allowable Maximum building height	7 m above existing ground level. (According to the main concept, towers / viewing decks, except centers without centers hidden centers for animal watching)
	i.	Building category	All buildings (except toilets) should be built on wetland towers. (Unfilled areas) Buildings should be placed individually or in clusters with attractive roofs. Its scenery should be environmentally friendly and not covered by public roads and public areas adjacent to open areas.
	j.	Sub division	No approvals
	k.	Marking the boundaries	Boundary walls are not permitted. Landscape-friendly boundary wall can be approved so as not to obstruct the flow of rain water only along the boundary leading to the existing high ground. Marking of other boundaries should be done by marking the landscape (with a minimum spacing of 10 m). In both the above cases the work should be done subject to the approval of the Urban Development Authority on a site-specific basis
	l.	Relaxation of the above conditions in special cases	In the rare case where it is necessary to implement an important common infrastructure project, the above conditions can be relaxed.
7.4.42	<ul style="list-style-type: none"> (a). Only the following approved uses in accordance with the existing Agrarian Development Act can be made in the existing paddy fields, paddy fields and related areas such as Deniya and Ovita.. (b) Wetland based agriculture (c) Epithelial crops (d) Excavation work to be carried out in accordance with the conditions of the Geological Survey and Mining Bureau and the Central Environmental Authority (Clay and Excavation) (e) Ecologically aquatic aquaculture ponds (f) No construction is permitted in the same zone on the land marked “a” above 		

<p>7.4.43</p>	<p>Terms and Conditions under which the approved uses of 7.4.41 above apply for Existing cultivated paddy and abundant paddy lands and related areas in Deniyaya, Ovitayan etc. ancillary areas</p> <p>a) In the rare case where it is necessary to execute an important public utility project, the above conditions can be relaxed. (Permitted Maximum Infrastructure Projects - Electricity, Water Supply, Telephone, Highways, Railways etc.)</p> <p>b) Proposed development work should be obtained subject to the recommendations of the institutions mentioned in the schedule before obtaining clear certificates for other development activities as the pattern of land use in the wetlands may change under the new program of reclaiming fallow lands under the new program to create a people centered economy in the “Vision of Prosperity” policy statement of 2019.</p> <p>c) In the case of wetlands or highland areas in the wetlands, the Survey Plan should be considered before demarcating the proposed development.</p> <p>d) According to the wetland zoning, a distance of about 20 meters outside the boundary of a wetland zone belongs to the nearest wetland zone and must be operated subject to the relevant laws, regulations and approved practices in that zone. (To avoid errors in accurate location determination according to the geographical location system)</p> <p>Note ;</p> <p>e) Additional site specifications of the Central Environmental Authority, Sri Lanka Land Development Corporation, Urban Development Authority, Agrarian Services Development Department, Sri Lanka Mahaweli Development Authority and the Irrigation Department can be attributed to the “scheduled projects” under the Environment Act when required.</p> <p>f) If any of the above conditions are violated during the development of any wetland. Legal action may be taken under the powers vested in the institutions referred to part ii chapter 7.5 Schedule 2, of this book.</p>
<p>7.4.44</p>	<p>In order to construct a new religious building, to develop existing religious structures or to use buildings for religious propaganda within the Polonnaruwa Sacred Area or in 1 km periphery of the Polonnaruwa Sacred Area, Special permission from the "Commissioner of Buddhist Affairs" should be obtain.</p>
<p>7.4.45</p>	<p>This plan is subject to the pilot instructions of the "Polonnaruwa Sacred Area development plan" by the National Physical Planning Department.</p>
<p>7.4.46</p>	<p>These regulations are published in Sinhala, Tamil and English. However, if there is a change in the meaning of a clause or a part of it according to a translation, the Sinhala version of that clause or part applies.</p>

CHAPTER 08

THE ZONING GUIDELINES

08 . PROPOSED ZONING GUIDELINES

There are 13 development zones identified by 2021-2030 polonnaruwa urban development plan. Zoning Guidelines of those are explained in this chapter.

8.1 Commercial Zone

This zone is based on the city of Kaduruwela, and can be termed as the Economic Development Zone in the Polonnaruwa urban area. Commercial and service needs are generally given higher priority in this area.

8.1.1. Guidelines for commercial zone

Zoning Boundary	Annxeture 6.4 & annexure 7.4
Zone Factor	2
Maximum Plot Coverage	Commercial - 80% Residential - 66%
Minimum land extent	150 Sq.m.
Other Details	<ul style="list-style-type: none"> • Kanduruwela Commercial Zone Guide Plan has been prepared and regulations related to construction have been noted separately in the 4 separate zones. • The maximum extent of land that can be acquired for permitted uses will be determined as per form "A" of Schedule 1 in Chapter 7.

8.1.2. Permitted uses of Commercial zone

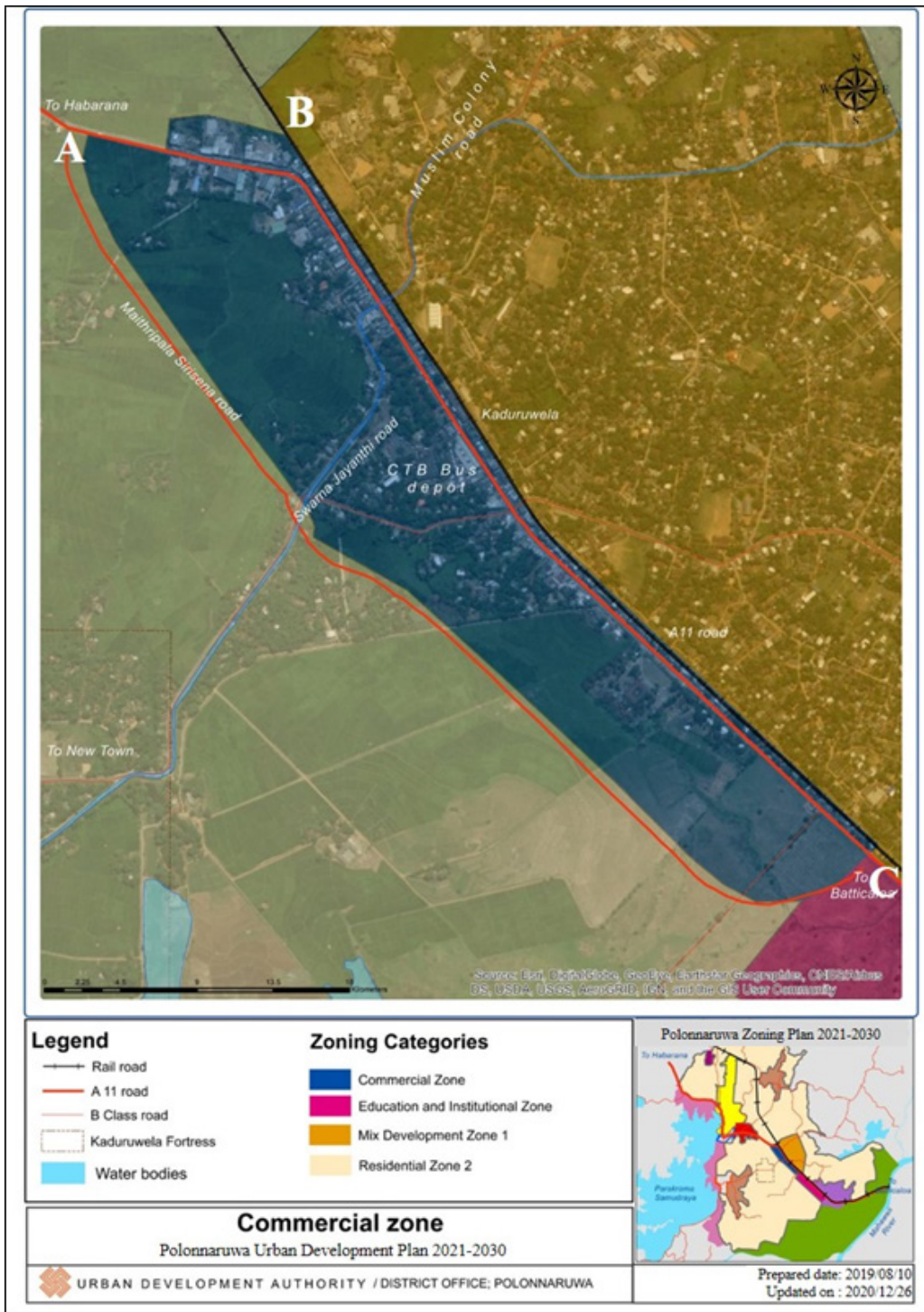
Permitted Uses		Minimum land extent(Sq. m.)
Residential	Houses	150
	Hostels	150
	Official quarters / staff quarters	150
	Elder homes/ Disabled homes	500
	Orphanages	500
	Daycare centers	300
Health	Hospitals	1,000
	Medical centers	250
	Channeling centers	500
	Laboratories and sample collection centers	150
	Child and Maternity care centers	150
	Veterinary Hospitals	150
	Veterinary Clinics and Treatment Centers	150
	Ayurvedic Medical Centers	150
Commercial	Supermarkets	250
	Shopping Complexes	250
	Large scale technology equipment sales outlets	150
	Multi-parking complex	500
	Shops	150
	Pharmacies	150
	Wholesale trade	250
	Customer service	150
	Wine stores	150
	Reception Halls	1000
	Florists	300
	Funeral Florists	250
	Restaurants	150
	Open markets	250
	Hardware	150
	Filling Stations (Not allowed within 500 meters from city center and main junction)	1000
	Filling Stations and Vehicle Service Centers (not allowed within 500 meters from the city and the main thoroughfare)	1500
	Filling stations and shopping mall (no more than 500 meters inside the city from the main junction)	1000
	Gas stations and charging stations	250
	Communication towers in buildings	150
	Communication towers	300
	Open vehicle parka	150
Showrooms	250	

Education	Early Childhood Development Centers	250
	Technical Colleges / Vocational Training Centers	1500
	Private tuition classes	500
	Other educational institutions	250
	Cultural centers and Theaters	1000
Institutions	Bank and financial institutions	300
	Offices	150
	Office complexes	500
	Professional offices	150
Manufacturing industries	Rice processing industry.(employment of no more than 20 horsepower not exceeding 10)	-
	Jewelery processing, polishing related industries.	150
	Local industries	150
	Small and medium scale industries with less Environmental pollution	500
Service centers	Vehicle Service Centers	1000
	Auto Repair Centers / Painting Centers	500
	Taxi Service Centers	250
	Laundry / Laundry areas	150
	Grinding mills	250
	Welding workshops and leather manufacturing workshops	500
	Electronic Repair Centers	150
Social Services and Public Affairs	Community Development Centers	150
	Social and Cultural Centers	1000
	Social and Cultural Centers	1000
	Libraries	150
	Rehabilitation Centers	500
Tourism	Resorts	300
	Guest Houses	150
	Accommodation	150
	Tourist Hotels	500
	City Hotels	500
	Tourist Information Centers	150
	Ayurvedic Panchakarma Centers (SPA)	250
	Cabana Hotel	500

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Open and Recreational	Cinemas	500
	Indoor playgrounds	500
	Theaters	500
	Nightclubs	500
	Art galleries / museums	500
	Open cinemas	2000
	Fitness Centers	300
	Mini Parks	-
	Local parka	-
	Community Parka	-
	Urban parka	-
	Central Urban Parks / Urban Parks	-
	Regional parks	-
	Linear Park	-
Unauthorized Uses	Large scale industries (industries with more than 20 employees or more than 10 horsepower.)	
	Warehouses	
	Tanning / Raising animals for meat and eggs	
	New metal crushing industry	
	Carrying out soil and sand mining, black rock mining and mining related excavations for commercial purposes.	
	New religious place	
	Non-alcoholic beverages and food industry	
	Garment industry	
	Solid waste recycling industry	
	Government and semi-government agencies.	

Map 8.1 : Commercial Zone Map 2021 /2030



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8.2 Administrative zone

This zone is generally reserved for institutions for administrative purposes.

8.2.1. Guidelines for Administrative zone

Zoning Boundary	Annexure 6.1 and annexure 7.1
Zone Factor	1.5
Maximum Plot Coverage	Commercial 80% and Other 66%
Minimum land extent	250Sq. M.
Other Details	<ul style="list-style-type: none"> Maximum land area available for permitted uses will be determined by Schedule 01 at Chapter 7.

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8.2.2. Permitted uses for Administrative zone

Permitted uses		Minimum Land extent (Sq.M.)
Residential	Houses	250
	Hostels	250
	Official quarters / staff quarters	250
	Homes for the Elderly / Homes for the Disables	500
	Childrens homes	500
	Daycare centers	300
Health	Hospitals	1,000
	Medical centers	250
	Medical Consulting Institutions	500
	Laboratory and sample collection centers	250
	Child and meternity care centers	250
	Veterinary Hospital	250
	Veterinary Clinics and Treatment Centers	250
	Ayurvedic Medical Centers	250

Commercial	Super markets	250
	Shopping complexes	250
	Large scale technology equipment sales centers	250
	Multi-parking complex	500
	shops	250
	Pharmacies	250
	Wholesale trade centers	250
	Customer service	250
	Wine stores	250
	Reception halls	1000
	Florists	300
	Funeral florists	250
	Restaurants	250
	Open Markets	250
	Hardwares	250
	Filling Stations (Not allowed within 500 meters from the city center and the main junction)	1000
	Filling Stations and Vehicle Service Centers (not allowed within 500 meters from the city and the main thoroughfare)	1500
	Filling stations and shopping mall (not allowed within 500 meters from the main thoroughfare to the city)	1000
	Gas filling stations and charging stations	250
	Communication towers on buildings	250
Communication towers	300	
Open car parks	250	
Showrooms	250	
Education	Daycare centers	250
	Technical Science / Vocational Training Centers	1500
	Private tuition classes	500
	Other education centers	250
	Cultural centers and Theaters	1000
Institution	Banking / Insurance and Financial Institutions	300
	Offices	250
	Office complexes	500
	Professional office	250

Chapter 8
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Permitted uses
for
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Zone

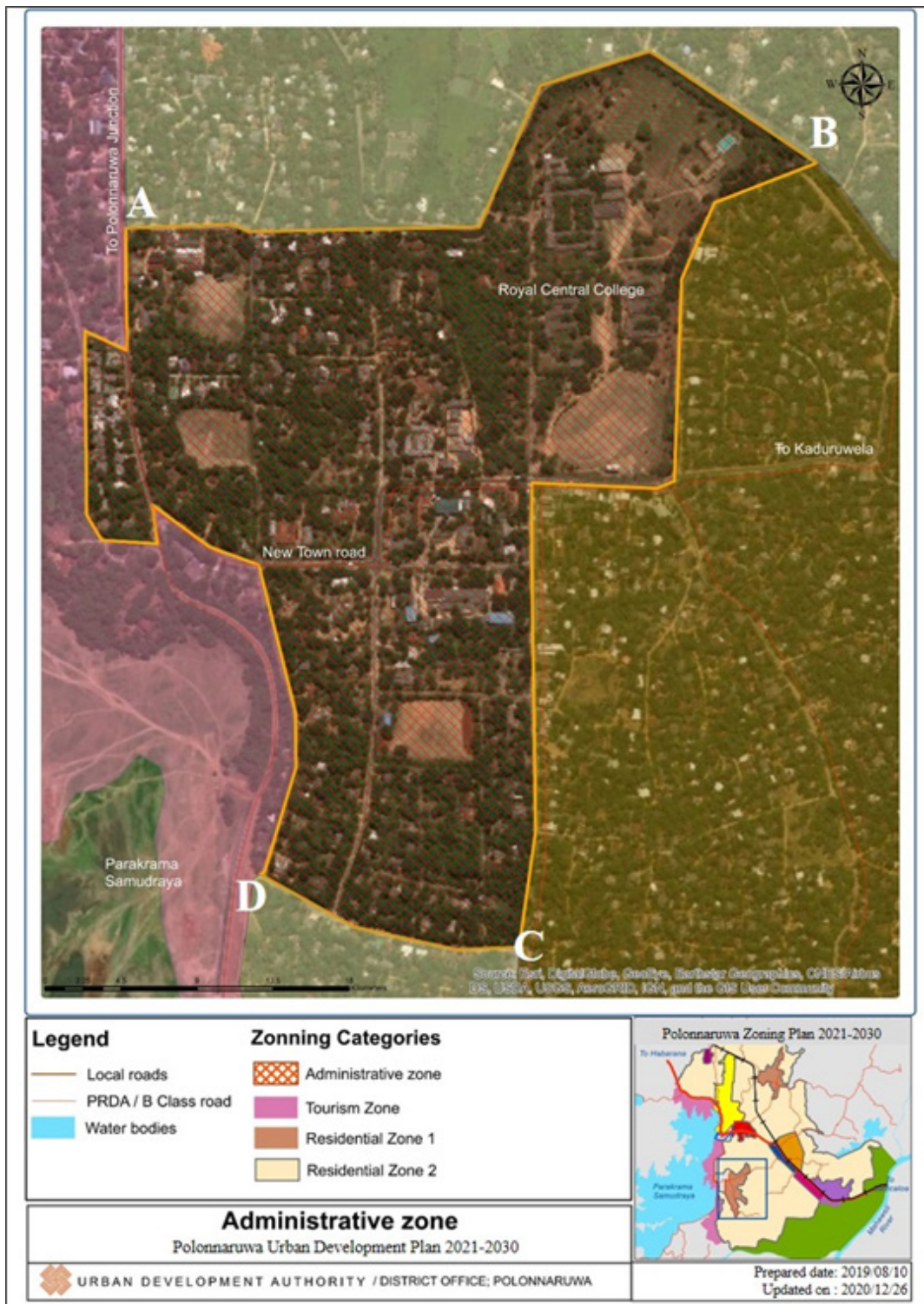
Manufacturing industries	Rice processing industry.No more than 20 horsepower, no more than 20 employees	-
	Jewelery processing, polishing related industries.	250
	Local industries <ul style="list-style-type: none"> • Maximum number of employees should be 10 or less. • Maximum capacity 10 horsepower These industries can be allowed to operate domestically and prior approval should be obtained from the relevant institution.	250
	Small and medium scale household machinery industries with less pollution.	250
Service Centers	Vehicle service centers	1000
	Auto Repair Centers / Painting Centers	500
	Taxi Service Centers	250
	Laundry / laundry areas	250
	Grinding mills	250
	Workplace and Leather Products Workshops	500
	Electronic Repair Centers	250
Social Services and Public Affairs	Community Development Centers	250
	<i>Social and Cultural Centers</i>	1000
	Auditoriums and conference halls	1000
	Libraries	250
	Rehabilitation Centers	500
Tourism	<i>Resorts</i>	300
	Guest House	250
	Accommodation	250
	Tourist hotels	500
	City hotels	500
	Tourist Information Centers	250
	Ayurvedic Panchakarma Centers (SPA)	250
	Cabana Hotel	500

Public and recreational	Cinemas	500
	Indoor playgrounds	500
	Theaters	500
	Nightclubs	500
	Art galleries / museums	500
	Open cinemas	2000
	Fitness Centers	300
	Mini parka	-
	Local parka	-
	Public parks	-
	Urban parka	-
	Central Urban Parks / Urban Parks	-
	Local parks	-
	Linear parka	-
Non permissible Uses	Large scale industries (industries with more than 20 employees or more than 10 horsepower.)	
	Warehouses	
	Tanning / Raising animals for meat and eggs	
	New metal crushing industry	
	Carrying out soil and sand excavation, black rock quarrying and mining related excavations for commercial purposes.	
	New religious places	
	Food and non-alcoholic beverage industry	
	Garment industry	
	Solid waste recycling industry	

Chapter 8 **Map 8.2 : Administrative Zone Map 2021 /2030**

The zoning guidelines

Administrative Zone Map 2021/2030



8.3 Industrial Zone

This zone is specially reserved for the operation of factories.

8.3.1. Guidelines for Industrial zone

Zoning Boundary	Annexure 6.6 and annexure 7.7
Zone Factor	1.5
Maximum Plot Coverage	commercial 80% other 66%
Minimum land extent	1000 Sq. m
Other Details	<ul style="list-style-type: none"> The maximum extent of land that can be acquired for permitted uses will be determined in accordance with Annexure 1 in Chapter 07.

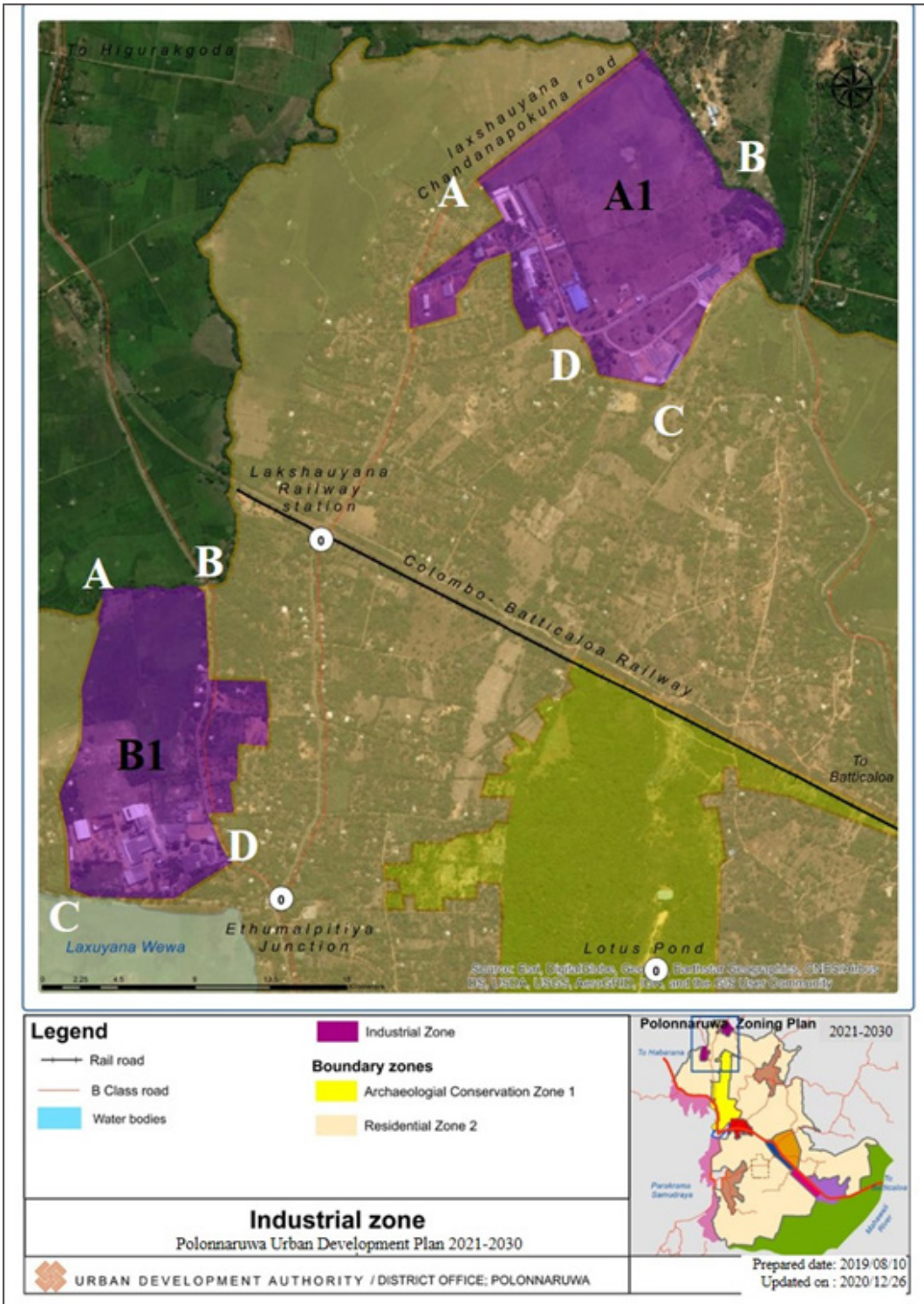
8.3.2. Permitted uses for industrial zone

Permitted uses	<p>A) The following uses are permitted in this zone.</p> <ol style="list-style-type: none"> Industry and industry related products <p>(B) The following uses may also be permitted if the Authority is satisfied within this zone.</p> <ol style="list-style-type: none"> Filling stations and service stations Use of telephone facilities Aquariums and Nurseries Quarrying and other related industries
Other matters	<ol style="list-style-type: none"> Existing practices in this Zone may be permitted to continue as they are, and such practices may be permitted only if such practices are further enhanced and the Authority is satisfied. Maximum height of buildings Chimneys used in industry and not applicable for such uses. If the Authority is satisfied, it is not specifically mentioned in the permissible practices in this zone, but any use mentioned in the permissible usage in another zone may be considered to be permitted in this zone.

Chapter 8 **Map 8.3: Industrial Zone Map 2021-2030**

The zoning guidelines

Industrial Zone
Map 2021-2030



8.4 Tourism Zone

The identity of the Polonnaruwa area as a tourist city that attracts local and foreign tourists is primarily in this zone. Dedicated to catering to tourists, this zone is equipped with viewing points that tourists can visit. accommodation, hotels, trade, open recreation are the main features of this zone.

8.4.1. Guidelines for Tourism zone

Zoning Boundary	Annexure 6.7 and annexure 7.7
Zone Factor	1.5
Maximum Plot Coverage	Commercial 80% Other 66%
Minimum land extent	250 square meters
Other Details	<ul style="list-style-type: none"> The maximum extent of land that can be acquired for permitted uses will be determined in accordance with Schedule 1 of chapter 7.

8.4.2. Permitted uses of Tourism Zone

Permitted uses		Minimum land extent (Sq.m.)
Residential	Housing units	250
	Hostels	250
	Official quarters / staff quarters	250
	Elders Homes/ Disabled Homes	500
	Childrens Homes	500
	Daycare centers	300
Health	Hospitals	1,000
	Medical centers	250
	Medical Consulting Institutions	500
	Laboratory and sample collection centers	250
	Child and meternity clinics	250
	Veterinary Hospital	250
	Veterinary Clinics and Treatment Centers	250
Ayurvedic Medical Centers	250	

Chapter 8
The zoning
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Commercial	Super markets	250
	Shopping complexe	250
	-scale technology device sales outlets	250
	Multi-parking complex	500
	shops	250
	Pharmacies	250
	Wholesale trade	250
	Custemer service	250
	Wine stores	250
	Reception halls	1000
	Florists	300
	Funeral florists	250
	Restaurants	250
	Open markets	250
	Hardwares	250
	Filling Stations (Not allowed within 500 meters from the city center and the main junction)	1000
	Filling Stations and Vehicle Service Centers (not allowed within 500 meters from the city and the main thoroughfare)	1500
	Filling stations and shopping mall (not allowed within 500 meters of the main thoroughfare from the city)	1000
	Gas stations and charging stations	250
	Communication towers in buildings	250
Communication towers	300	
Open car parks	250	
Shorooms	250	
Educational	Daycare centers	250
	Technical Colleges / Vocational Training Centers	1500
	Private tution classes	500
	Other education centers	250
	Cultural centers and Theaters	1000
Institutions	Banking / Insurance and Financial Institutions	300
	Offices	250
	Office complexes	500
	Professional offices	250

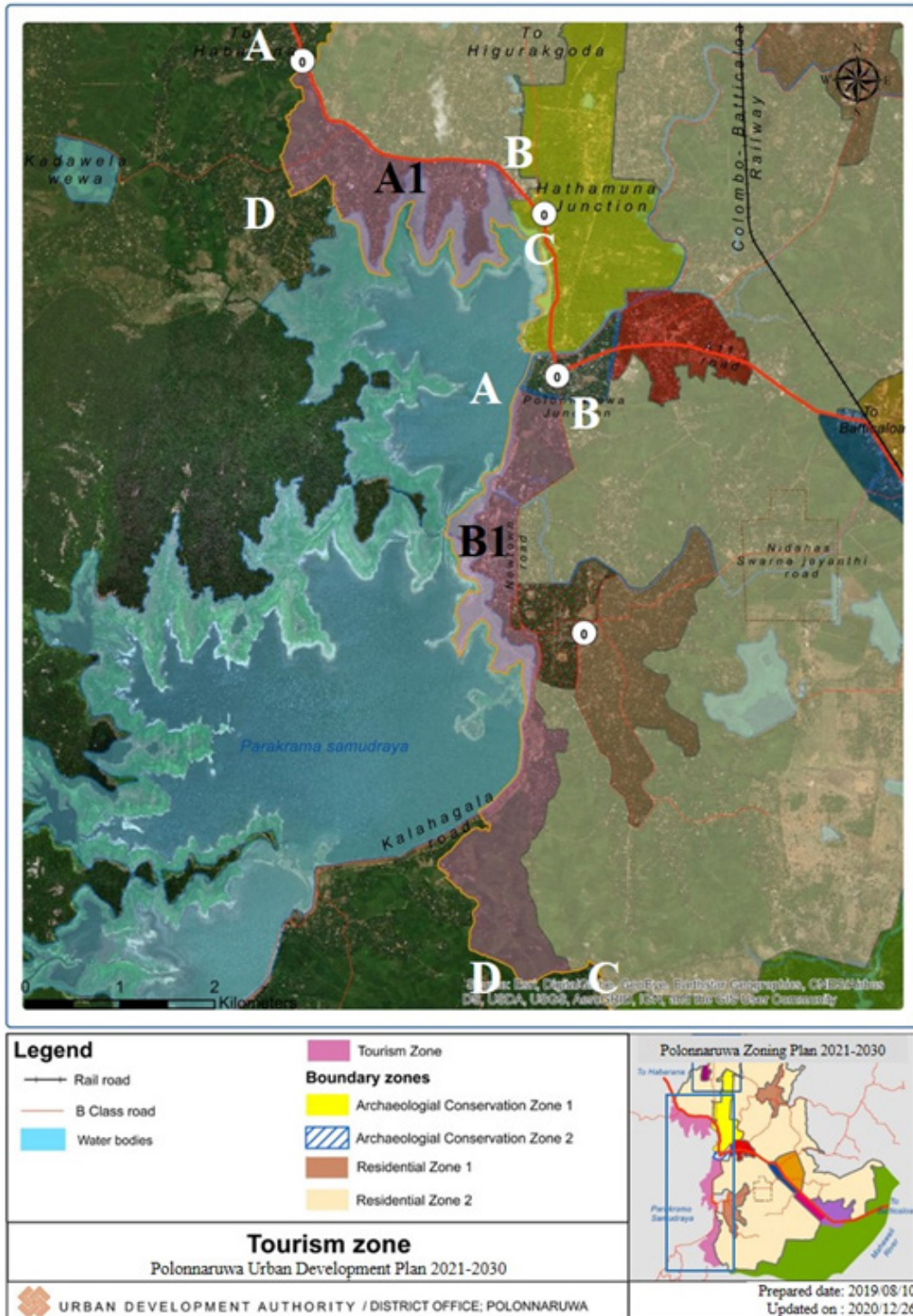
Manufacturing industries	Rice processing industry. No more than 20 horsepower, no more than 20 employees	-
	Jewelery processing, polishing related industries	250
	Local industries • Maximum number of employees should be 10 or less. • Maximum capacity 10 horsepower or less These industries can be allowed to operate domestically and prior approval should be obtained from the relevant institution.	250
	Small and medium scale home mechanization industries with less pollution	250
Service Centers	Vehicle service centers	1000
	Auto Repair Centers / Painting Centers	500
	Taxi Service Center	250
	Laundry / laundry areas	250
	Grinding mills	250
	Welding workshops and leather manufacturing workshops	500
	Electronic Repair Centers	250
Social Services and Public Affairs	Community Development Centers	250
	Social and Cultural Centers	1000
	Auditoriums and conference halls	1000
	Libraries	250
	Rehabilitation Centers	500
Tourism	Resorts	300
	Guest Houses	250
	Accommodation	250
	Tourist Hotels	500
	City Hotels	500
	Tourist information centers	250
	Ayurvedic Panchakarma Centers (SPA)	250
	Cabana Hotels	500

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tourism zone

Open and recreational	Cinemas	500
	Indoor stadiums	500
	Theaters	500
	Nightclubs	500
	Art galleries / museums	500
	Open cinemas	2000
	Fitness Centers / Fitness Centers	300
	Mini parka	-
	Local parka	-
	Public parka	-
	Urban parks	-
	Central Urban Parks / Urban Parks	-
	Reagional parka	-
	Linear parka	-
Unauthorized Uses	Large scale industries (industries with more than 20 employees or more than 10 horsepower.)	
	Warehouses	
	Leather tanning Animals for meat and eggs	
	New metal crushing industry	
	Carrying out soil and sand mining, black rock mining and mining related excavations for commercial purposes	
	New religious places	
	od and non-alcoholic beverage industry	
	Garment industry	
	Solid Waste Recycling Industry	

Map 8.4: Tourist Zone Map 2021/2030

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Tourist
Zone Map
2021/2030



Chapter 8

8.5. Residential zone 1

The zoning guidelines

The Zone is to maintain medium density with prioritizes for residential activities and only allows for activities that provide a more comfortable and efficient service to residents, taking into account the area's propensity for residential use as well as suitability for living.

Residential Zone 1

8.5.1. Guidelines for residential zone 1

Zoning Boundary	Annexure 6.12 and Annexure 7.10
Zone Factor	1.5
Maximum Plot Coverage	Commercial 80 % Other 66%
Minimum land extent	With provision to piped water facility = 150 square meters No provision to piped water facility = 250 square meters
Other Details	<ul style="list-style-type: none"> Maximum extent of land that can be acquired for permitted uses will be determined as per Schedule 1 of chapter 7.

Chapter 8

8.5.2 Permitted uses for residential zone 1

The zoning regulations

Permitted uses for Residential Zone 1

Permitted uses		Minimum land extent (Sq.m)
Residential	Housing units	250
	Hostels	250
	Official quarters / staff quarters	250
	Elders Homes/ Disabled Homes	500
	Childrens Homes	500
	Daycare centers	300
Health	Hospitals	1,000
	Medical centers	250
	Medical Consulting Institutions	500
	Laboratory and sample collection centers	250
	Child and meternity care centers	250
	Veterinary Hospital	250
	Veterinary Clinics and Treatment Centers	250
Ayurvedic Medical Centers	250	

Commercial	Super markets	250
	Shopping complexes	250
	Large scale technology equipment sales centers	250
	Multi-parking complex	500
	shops	250
	Pharmacies	250
	Wholesale trade centers	250
	Customer service	250
	Wine stores	250
	Reception halls	1000
	Florists	300
	Funeral florists	250
	Restaurants	250
	Open Markets	250
	Hardwares	250
	Filling Stations (Not allowed within 500 meters from the city center and the main junction)	1000
	Filling Stations and Vehicle Service Centers (not allowed within 500 meters from the city and the main thoroughfare)	1500
	Filling stations and shopping mall (not allowed within 500 meters from the main thoroughfare to the city)	1000
	Gas filling stations and charging stations	250
	Communication towers on buildings	250
Communication towers	300	
Open car parks	250	
Showrooms	250	
Education	Daycare centers	250
	Technical Science / Vocational Training Centers	1500
	Private tuition classes	500
	Other education centers	250
	Cultural centers and Theaters	1000
Institutions	Banking / Insurance and Financial Institutions	300
	Offices	250
	Office complexes	500
	Professional office	250

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Zone 1

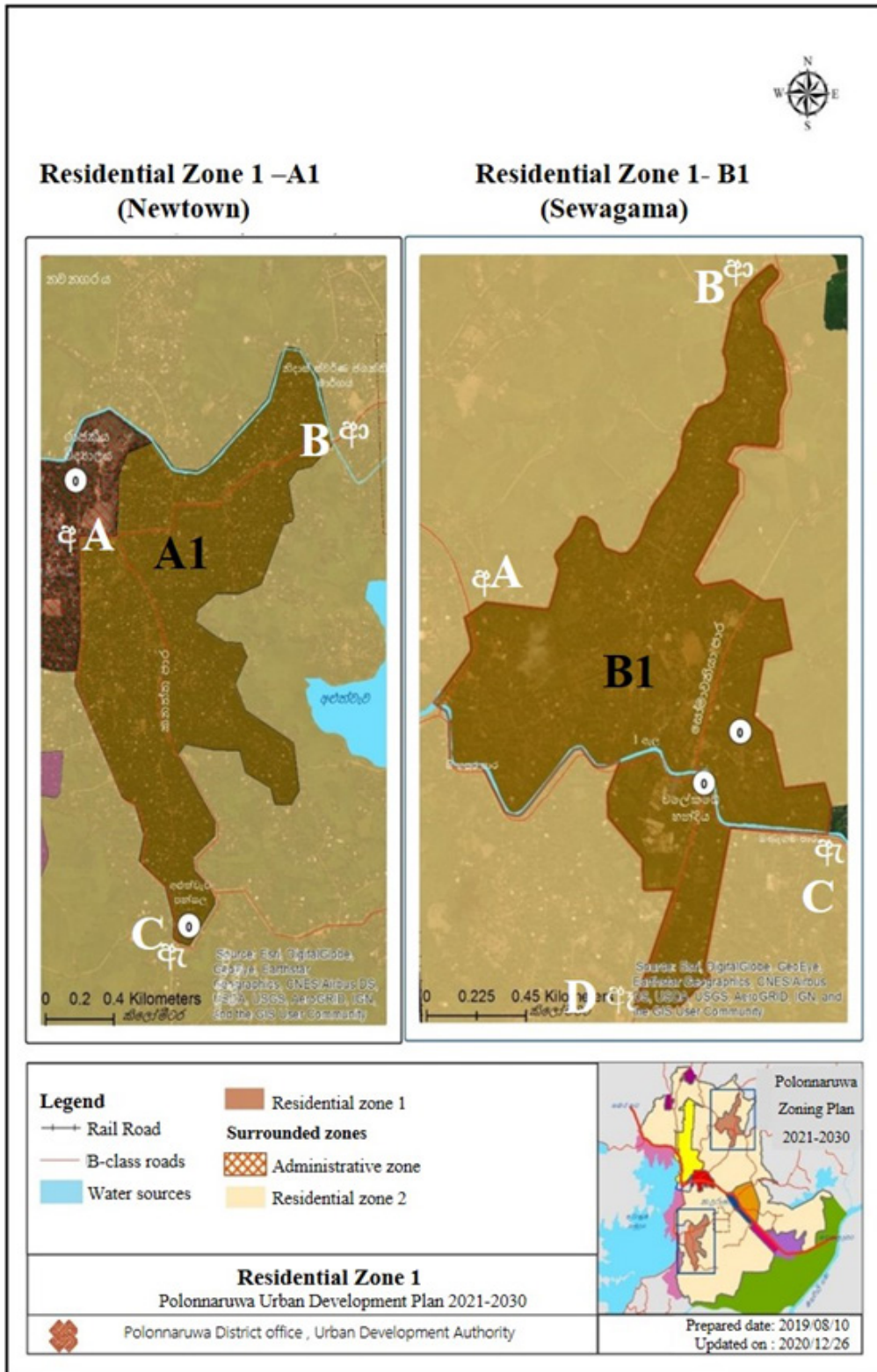
Manufacturing industries	Rice processing industry.No more than 10 horsepower, no more than 20 employees	-
	Jewelery processing, polishing related industries.	250
	Local industries <ul style="list-style-type: none"> • Maximum number of employees should be 10 or less. • Maximum capacity 10 horsepower These industries can be allowed to operate domestically and prior approval should be obtained from the relevant institution.	250
	Small and medium scale household machinery industries with less pollution.	250
	Garment industry	1000
	Soil and sand excavation, black rock excavation and mining related excavations	1000
Service Centers	Vehicle service centers	1000
	Auto Repair Centers / Painting Centers	500
	Taxi Service Centers	250
	Laundry / laundry areas	250
	Grinding mills	250
	Workplace and Leather Products Workshops	500
	Electronic Repair Centers	250
Social Services and Public Affairs	Community development centers	250
	New religious places	1000
	Social and cultural centers	1000
	Auditoriums and conference halls	1000
	Libraries	250
	Rehabilitation centers	500
Tourism	Resorts	300
	Guest House	250
	Accommodation	250
	Tourist hotels	500
	City hotels	500
	Tourist Information Centers	250
	Ayurvedic Panchakarma Centers (SPA)	250
	Cabana Hotel	500

Open and Recreational	Cinemas	500
	Indoor playgrounds	500
	Theaters	500
	Nightclubs	500
	Art galleries / museums	500
	Open cinemas	2000
	Fitness Centers	300
	Mini parka	-
	Local parka	-
	Public parks	-
	Urban parka	-
	Central Urban Parks / Urban Parks	-
	Local parks	-
	Linear parka	-
Non permitted uses	Large scale industries (industries with more than 20 employees or more than 10 horsepower.)	
	Manufacture of explosives, ground beeswax refining industry and other related manufacturing processes, furnace industries	
	wearhouses	
	New metal crushing industry	
	Food and non-alcoholic beverage industry	
	Solid waste recycling industry	

Chapter 8 **Map 8.5: Residential Zone 1 Map 2021/2030**

The zoning guidelines

Residential Zone 1 Map 2021-2030



8.6 Residential zone 2

It is expected to maintain low density development in this zone and priority is given to the residential use of paddy lands and the adjoining farming communities, and only essential activities that provide services to the residents are permitted

8.6.1 Guidelines for Residential zone 2

Zoning Boundary	Annexure 6.13
Zone Factor	1.5
Maximum Plot Coverage	Commercial 80 % Other 66%
Minimum land extent	250 Sq. M. (Excluding paddy lands)
Other Matters	<ul style="list-style-type: none"> • The maximum extent of land available for permitted use will be determined in accordance with Schedule 1 of chapter 7. • Paddy lands in this zone are protected in such manner and only on the recommendation of the Agrarian Services Development Department, paddy lands are recommended only for other permissible purposes mentioned in Chapter 7 General Regulation 7.4.41 • Regarding the high lands available in this region 8.6.2. The permitted uses mentioned will be considered. • Residential and tourist uses will be permitted for high lands located on paddy lands and other uses for tourism promotion will be considered.

Chapter 8 **8.6.2. Permitted uses for Residential zone 2**

The zoning guidelines
Permitted uses for Residential Zone 2

Permissible uses		Minimum land extent (Sq.M.)
Residential	Housing units	250
	Hostels	250
	Official quarters / staff quarters	250
	Elders Homes/ Disabled Homes	500
	Childrens Homes	500
	Daycare centers	300
Health	Medical centers	1,000
	Medical Consulting Institutions	250
	Laboratory and sample collection centers	500
	Child and meternity care centers	250
	Veterinary Hospital	250
	Veterinary Clinics and Treatment Centers	250
	Ayurvedic Medical Centers	250
	Ayurvedic Medical Centers	250
Commercial	Super markets	250
	Shopping complexes	250
	Large scale technology equipment sales centers	250
	Multi-parking complex	500
	shops	250
	Pharmacies	250
	Wholesale trade centers	250
	Customer service	250
	Wine stores	250
	Reception halls	1000
	Florists	300
	Funeral florists	250
	Restaurants	250
	Open Markets	250
	Hardwares	250
	Filling Stations (Not allowed within 500 meters from the city center and the main junction)	1000
	Filling Stations and Vehicle Service Centers (not allowed within 500 meters from the city and the main thoroughfare)	1500

	Filling stations and shopping mall (not allowed within 500 meters from the main thoroughfare to the city)	1000
	Gas filling stations and charging stations	250
	Communication towers on buildings	250
	Communication towers	300
	Open car parks	250
	Showrooms	250
	Raising ornamental fish. (Subject to regulations set by other agencies regarding surface excavation or pit preparation, water intake and disposal, waste management, environmental protection, etc.)	250
Education	Daycare centers	250
	Technical Science / Vocational Training Centers	1500
	Private tuition classes	500
	Other education centers	250
	Cultural centers and Theaters	1000
Institutions	Banking / Insurance and Financial Institutions	300
	Offices	250
	Office complexes	500
	Professional office	250
	Agricultural Museums, Seed Conservation Centers	250
Manufacturing industries	Rice processing industry.No more than 10 horsepower, no more than 20 employees	-
	Jewelery processing, polishing related industries.	250
	Local industries <ul style="list-style-type: none"> • Maximum number of employees should be 10 or less. • Maximum capacity 10 horsepower These industries can be allowed to operate domestically and prior approval should be obtained from the relevant institution.	250
	Small and medium scale household machinery industries with less pollution.	250
	Garment industry	1000
	Soil and sand excavation, black rock excavation and mining related excavations	1000

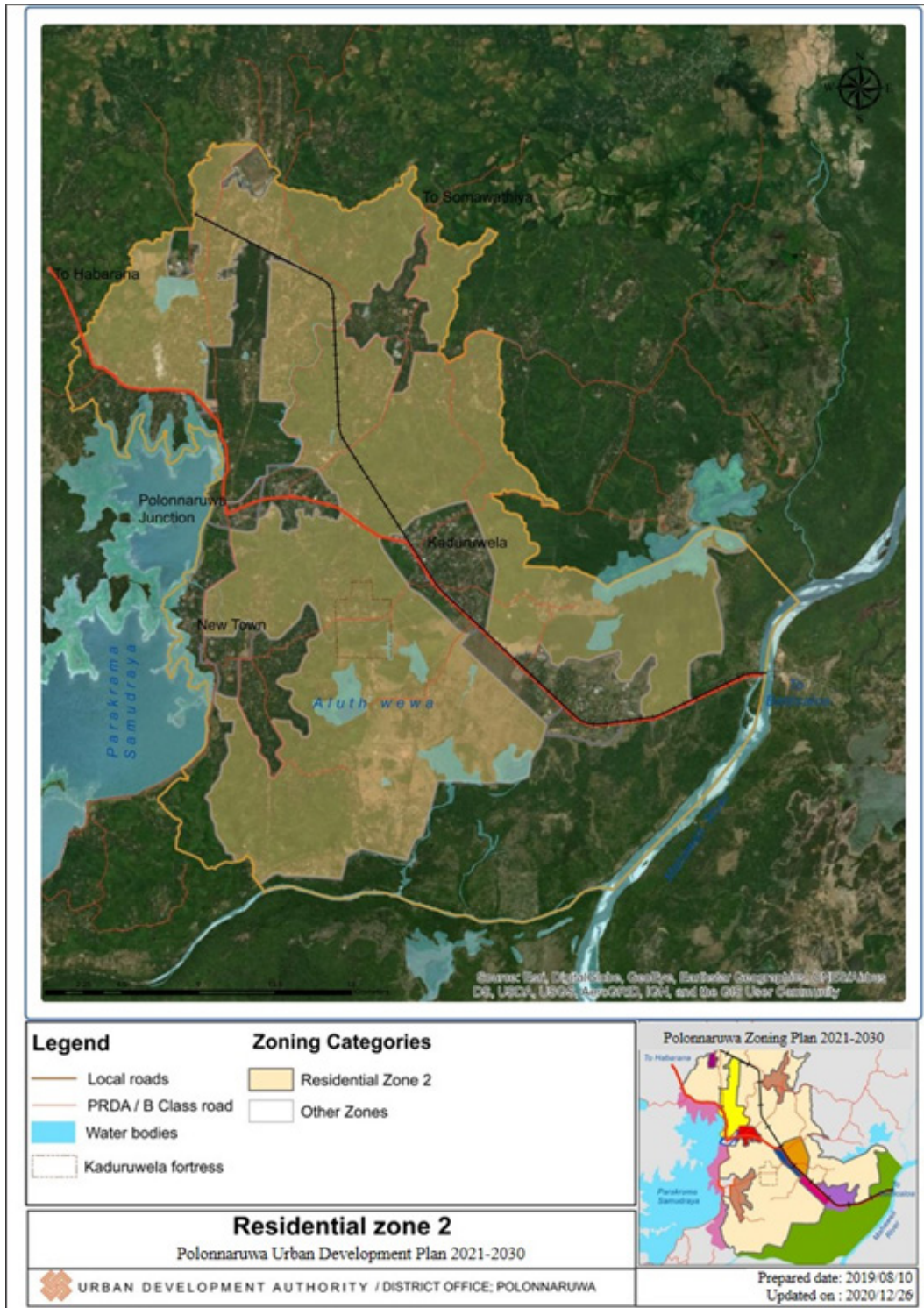
Chapter 8
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for Residential
Zone 2

Service Centers	Vehicle service centers	1000
	Auto Repair Centers / Painting Centers	500
	Taxi Service Centers	250
	Laundry / laundry areas	250
	Grinding mills	250
	Workplace and Leather Products Workshops	500
	Electronic Repair Centers	250
Social Services and Public	Community development centers	250
	New religious places	1000
	Social and cultural centers	1000
	Auditoriums and conference halls	1000
	Libraries	250
	Rehabilitation centers	500
Tourism	Resorts	300
	Guest House	250
	Accommodation	250
	Tourist hotels	500
	City hotels	500
	Tourist Information Centers	250
	Ayurvedic Panchakarma Centers (SPA)	250
	Cabana Hotel	500
Open and Recreational	Cinemas	500
	Indoor Stadiums	500
	theaters	500
	Nightclubs	500
	Art galleries / museums	500
	Open cinemas	2000
	Fitness Centers / Fitness Centers	300
	Small parks, local parks, community parks, urban parks	-
	Central Urban Parks / Urban Parks	-
	Reagional parks	-
	Linear parks	-

Non permitted users	Large scale industries (industries with more than 20 employees or more than 10 horsepower.)	
	Manufacture of explosives, ground beeswax refining industry and other related manufacturing processes, furnace industries.	
	Warehouses	
	New metal crushing industry	
	Food and non-alcoholic beverage industry	
	Solid waste recycling industry	

Chapter 8 **Map 8.6: Residential Zone 2 Map 2021/2030**

The zoning guidelines
Residential Zone 2 Map 2021-2030



8.7 Health Service Zone

This zoning area is based on the Polonnaruwa General Hospital and the National Kidney Hospital and this zone will be developed as a priority area for community healthcare services.

8.7.1. Guidelines for Health service zone

Zoning Boundary	Annexure 6.8 and annexure 7.6
Zone Factor	1.75
Maximum Plot Coverage	Commercial 80 % Other 66%
Minimum land extent	With provision to piped water facility = 150 square meters No provision to piped water facility = 250 square meters
Other Details	<ul style="list-style-type: none"> The maximum land area that can be acquired for permitted uses will be determined as per Schedule 1 of Chapter 7. If the Authority is satisfied, it may consider allowing any use in this Zone that is not specifically mentioned in the permissible and permitted uses in this Zone, but in any of the permitted uses in another Zone.

8.7.2. Permitted uses for Health Service Zone

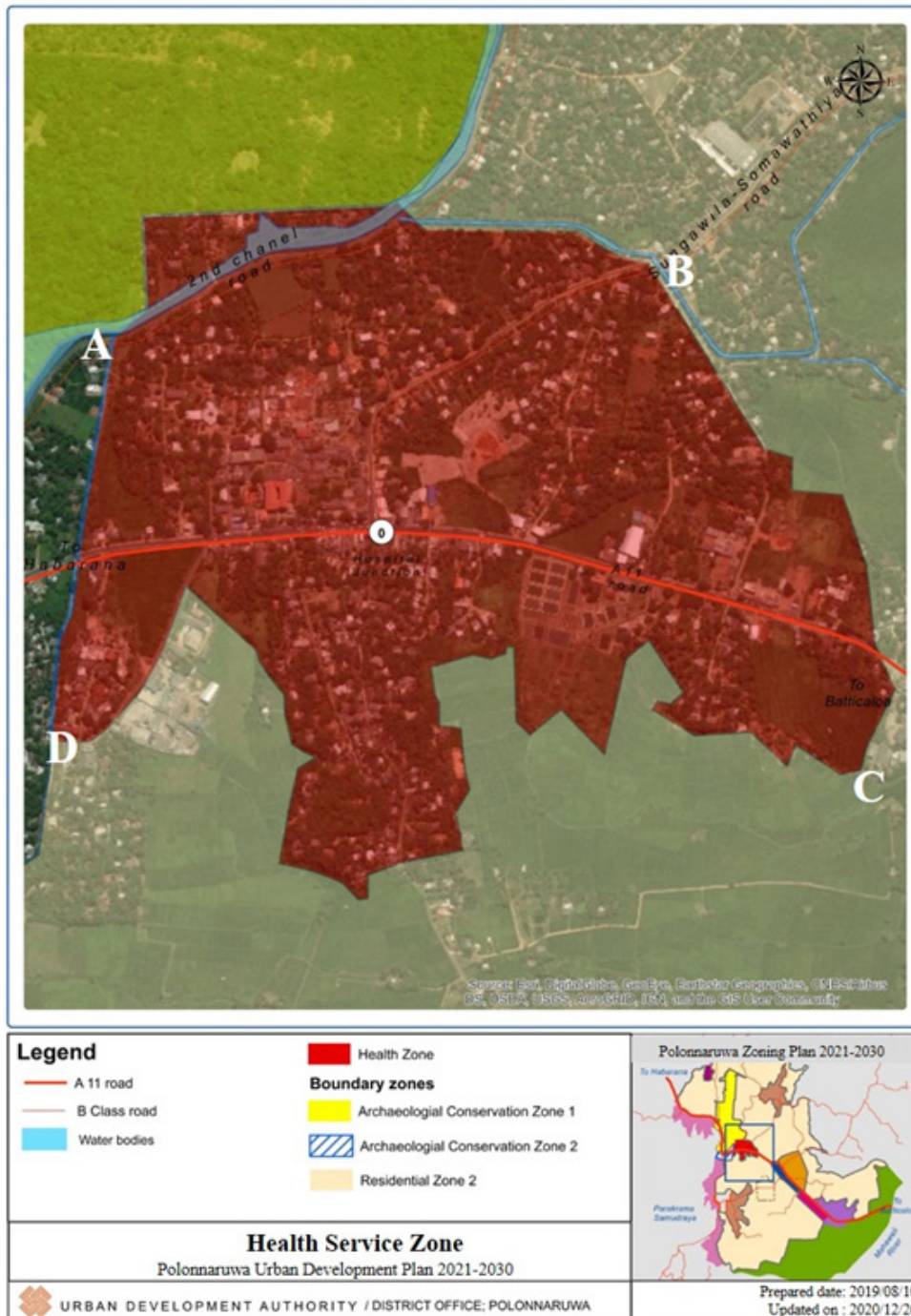
	Permitted uses	Minimum Land extent (Sq.M.)
Residential	Housing units	150
	Hostels	150
	Official quarters / staff quarters	150
	Elders Homes/ Disabled Homes	500
	Childrens Homes	500
	Daycare centers	300
Health	Hospitels	1,000
	Medical centers	150
	Medical Consulting Institutions	150
	Laboratory and sample collection centers	150
	Child and meternity care centers	150
	Veterinary Hospital	150
	Veterinary Clinics and Treatment Centers	150
	Ayurvedic Medical Centers	150
Commecial	Super markets	250
	Shopping complexes	250
	Large scale technology equipment sales centers	150
	Multi-parking complex	500
	shops	150
	Pharmacies	150
	Wholesales	250
	Customer service	150
	Wne stores	150
	Reception halls	1000
	Florists	150
	Funeral florists	250
	Restaurants	150
	Open Markets	150
	Hardwares	150
	Filling Stations (Not allowed within 500 meters from the city center and the main junction)	1000
Filling Stations and Vehicle Service Centers (not allowed within 500 meters from the city and the main thoroughfare)	1500	

	Filling stations and shopping mall (not allowed within 500 meters from the main thoroughfare to the city)	1000
	Gas filling stations and charging stations	250
	Communication towers on buildings	150
	Communication towers	300
	Open car parks	150
	Showrooms	250
Education	Daycare centers	250
	Technical Science / Vocational Training Centers	1500
	Private tuition classes	500
	Other education centers	250
	Cultural centers and Theaters	1000
Institutes	Banking / Insurance and Financial Institutions	300
	Offices	150
Manufacturing industries	Rice processing industry (employs not more than 20 people with not more than 10 horsepower)	-
	Jewelry processing, polishing related industries.	150
	Local Industries	150
	Small and medium scale industries with less pollution	500
Service Stations	Vehicle service centers	1000
	Auto Repair Centers / Painting Centers	500
	Taxi Service Centers	250
	Laundry / laundry areas	150
	Grinding mills	150
Social Services and Public Affairs	Community development centers	150
	Social and cultural centers	1000
	Auditoriums and conference halls	1000
	Libraries	150
	Rehabilitation centers	500
Tourism	<i>Resorts</i>	300
	Guest House	150
	Accommodation	150
	Tourist hotels	500
	City hotels	500
	Tourist Information Centers	150
	Ayurvedic Panchakarma Centers (SPA)	250
	Cabana Hotel	500

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Service Zone

Open and Recreational	Cinemas	500
	Indoor playgrounds	500
	Theaters	500
	Nightclubs	500
	Art galleries / museums	500
	Open cinemas	2000
	Fitness Centers	300
	Mini parka	-
	Local parka	-
	Public parks	-
	Urban parka	-
	Central Urban Parks / Urban Parks	-
	Local parks	-
	Linear parka	-
Non Permissable Uses	Large scale industries (industries with more than 20 employees or more than 10 horsepower.)	
	Warehouses	
	Office Complex / Professional Offices	
	Grinding mills	
	Welding workshops and leather manufacturing workshops	
	Tanning / Raising animals for meat and eggs	
	New metal crushing industry	
	Carrying out soil and sand mining, black rock mining and mining related excavations for commercial purposes	
	New Religious places	
	Food and non-alcoholic beverage industry	
	Garment industry	
	Solid waste recycling industry	
	Government and semi-government institutions.	

Map 8.7: Health service Zone Map 2021/2030



Chapter 8

8.8 Education and Vocational Training Institutional zone

The zoning guidelines

Located in the Gallella area, this zone is set aside for the maintenance of educational and vocational training institutes for the training of human skills at the local and national levels.

Education and Vocational Training Institutional zone

8.8.1 Guidelines for Education and Vocational Training Institutional zone

Zoning Boundary	Annexure 6.9 and annexure 7.12
Zone Factor	1
Maximum Plot Coverage	Commercial 80 Other 66%
Minimum land extent	1000 Sq.m. for institutions and 150 sq.m for commercial services
Other Details about the zone	<ul style="list-style-type: none"> • The maximum land area that can be acquired for permitted uses will be determined as per Schedule 1 in Chapter 07. • Training centers related to any type of human training and development work will be allowed to be maintained at the national and local levels. • If the Authority is satisfied, it may consider any use in this Zone which is not specifically specified in the permissible and permitted uses in this Zone, and which is permitted in any other zone.

8.8.2. Permitted uses for Education and Vocational Training Institutional zone

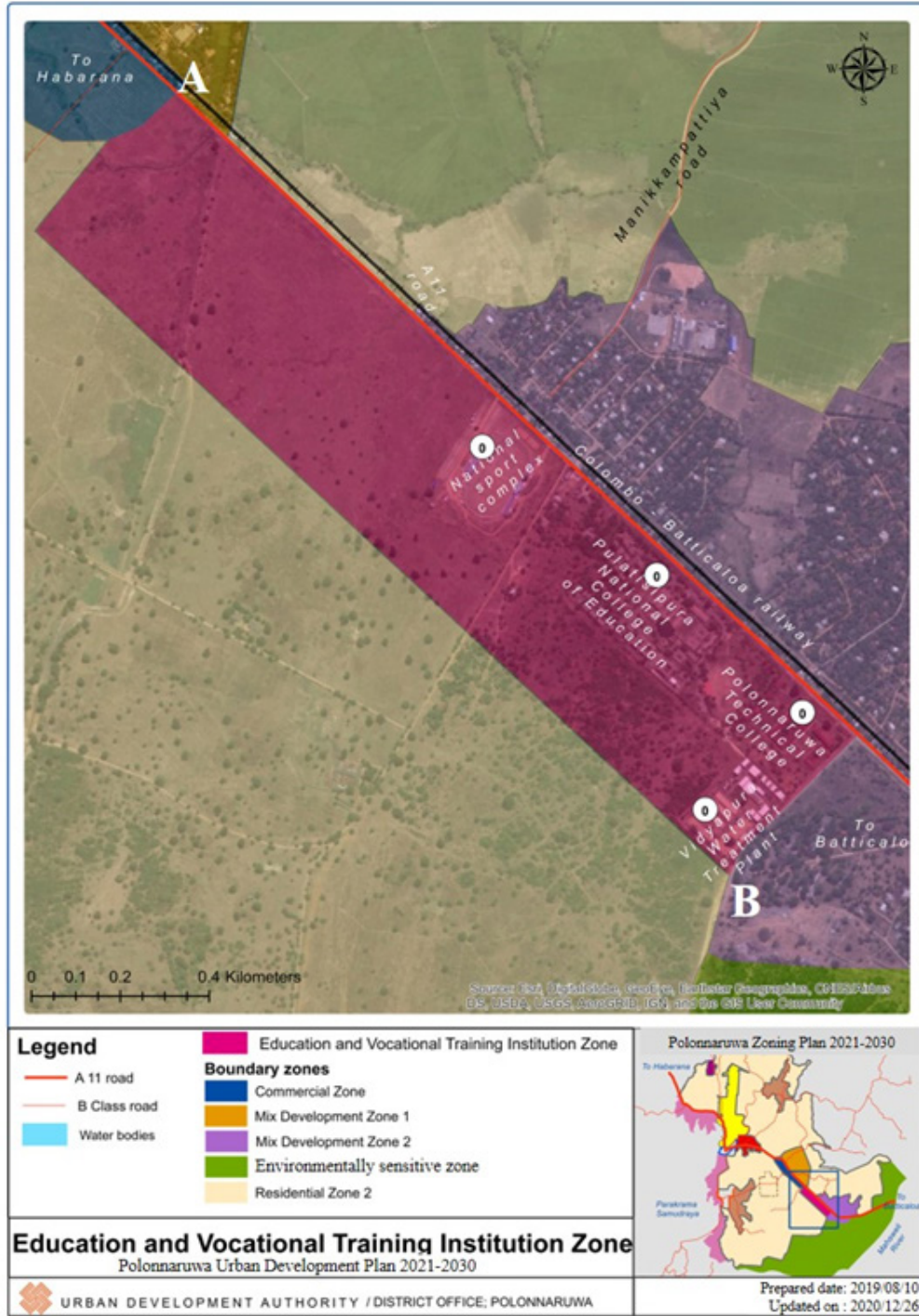
Permitted uses		Minimum land extent (Sq.M.)
Residential	Hostels	-
	Official quarters / staff quarters	-
Health	Medical Consulting Institutions	-
	Pharmacies	-
	Customer service	-
Education	Daycare centers	-
	Technical Colleges / Vocational Training Centers	-
	Private tuition classes	-
	Other education institutes	-
	Cultural centers and Theaters	-
Institutes	Professional offices	-
Social Services and Public Affairs	Social and cultural centers	-
	Auditoriums and conference halls	-
	Libraries	-
	Rehabilitation centers	-
Tourism	Training Centers on Tourism	-
	Indoor Stadiums	-
	Fitness Center	-
	Small Parks / Local Parks / Community Parks / Urban Parks / Central Urban Parks	-
	Linear parks	-

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The zoning guidelines

Educational and Vocational Training Institutional Zone 2021-2030

Map 8.8: Educational and Vocational Training Institutional Zone 2021-2030



8.9 Mixed development Zone 1

This zone is located north of the Kaduruwela Commercial City, the zone still has a mix of industrial, residential and commercial uses. The main objective of the zone is to achieve more productive, balanced land use by 2030 in this zone where high infrastructure is available. Therefore, even though land subdivisions are approved for 150 square meters, and one strategy have been used to reduce the plot cover to 66%.

8.9.1. Guidelines for Mixed development zone 1.

Zoning Boundary	Annexure 6.10 and annexure 7.8
Zone Factor	1.75
Maximum Plot Coverage	Commercial 80 % Other 66%
Minimum land extent	150 Sq.M.
Other Details about the zone	The maximum extent of land available for permitted uses will be determined in accordance with Schedule 1 of Chapter 7.

8.9.2. Permittable uses for Mixed development zone

	Permissible uses	Minimum land extent(Sq.M.)
Residential	Housing units	150
	Hostels	150
	Official quarters / staff quarters	150
	Elders Homes/ Disabled Homes	500
	Childrens Homes	500
	Daycare centers	300
Health	Hospitals	1,000
	Medical centers	150
	Medical Consulting Institutions	150
	Laboratory and sample collection centers	150
	Child and maternity clinics	150
	Veterinary Hospital	150
	Veterinary Clinics and Treatment Centers	150
Ayurvedic Medical Centers	150	

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development
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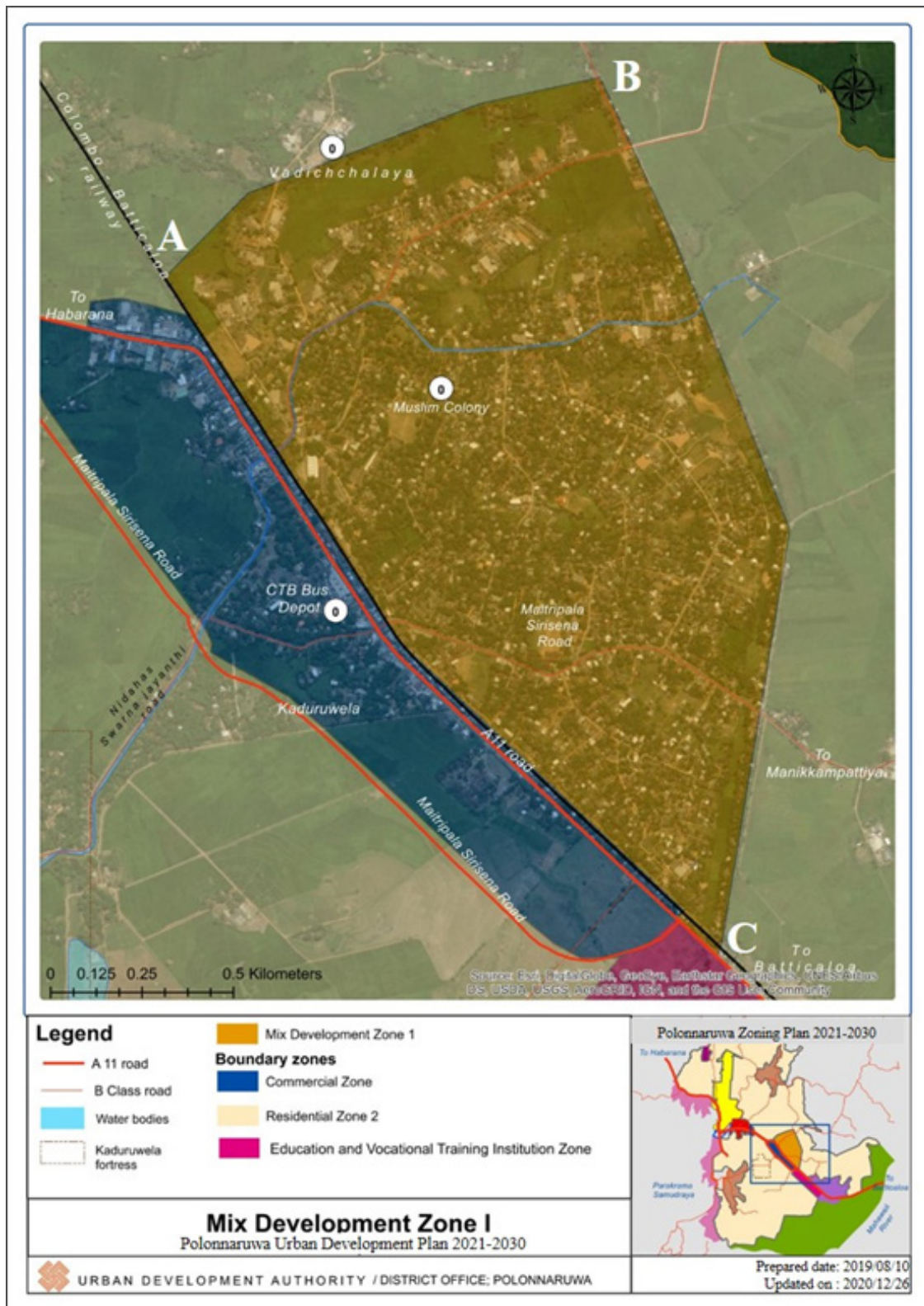
Commercial	Super markets	250
	Shopping complexe	250
	-scale technology device sales outlets	150
	Multi-parking complex	500
	shops	150
	Pharmacies	150
	Wholesale trade	250
	Customer service	150
	Wine stores	150
	Reception halls	1000
	Reception halls	150
	Florists	250
	Funeral florists	150
	Restaurants	150
	Open markets	150
	Hardwares	1000
	Filling Stations (Not allowed within 500 meters from the city center and the main junction)	1500
	Filling Stations and Vehicle Service Centers (not allowed within 500 meters from the city and the main thoroughfare)	1000
	Gas stations and charging stations	250
	Communication towers in buildings	150
Communication towers	300	
Open car parks	150	
Shorooms	250	
Education	Daycare centers	250
	Technical Colleges / Vocational Training Centers	1500
	Private tution classes	500
	Other education centers	250
	Cultural centers and Theaters	1000
Institutions	Banking / Insurance and Financial Institutions	300
	Offices / Office Complexes / Professional Offices	150
Manufacturing industries	Rice processing industry. No more than 20 horsepower, no more than 20 employees	-

	Jewelry processing, polishing related industries	-
	Jewelry processing, polishing related industries	150
	Local industries	150
	Grinding mills	-
	Welding workshops and leather manufacturing workshops	-
	Tanning / Raising animals for meat and eggs	-
	New metal crushing industry	-
	Small and medium scale industries with less pollution	500
Service centers	Vehicle service centers	1000
	Auto Repair Centers / Painting Centers	500
	Taxi Service Center	250
	Laundry / laundry areas	150
	Electronic Repair Centers	150
Social Services and Public Affairs	Community Development Centers	150
	Social and Cultural Centers	1000
	Auditoriums and conference halls	1000
	Libraries	150
	New religious places	-
	Rehabilitation centers	500
Touris	Resorts	300
	Guest Houses	150
	Accommodation	150
	Tourist Hotels	500
	City Hotels	500
	Tourist information centers	150
	Ayurvedic Panchakarma Centers (SPA	250
	Cabana Hotels	500
Open and Recreational	Cinemas	500
	Indoor stadiums	500
	Theaters	500
	Nightclubs	500
	Art galleries / museums	500
	Open cinemas	2000
	Fitness centers	300

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Permittable
uses for Mixed
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zone

Permittable uses for Mixed development zone	Mini parka	-
	Local parka	-
	Public parka	-
	Urban parks	-
	Central Urban Parks / Urban Parks	-
	Reagional parka	-
	Linear parka	-
Non Permissable Users	Large scale industries (industries with more than 20 employees or more than 10 horsepower.)	
	Food and non-alcoholic beverage industry	
	Garment industry	
	Carrying out soil and sand mining, black rock mining and mining related excavations for commercial purposes.	
	Solid waste recycling industry	
	Government and semi-government institutions.	

Map 8.9: Mixed Development Zone 1 - 2021/2030



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8.10 Mixed Development zone 2

Located in the vicinity of the Gallella area, this zone has similar features to the industrial zone but has space for residential and commercial use. Therefore, this can be identified as a intermediate zone.

8.10.1 Guidelines for Mixed Development zone 2

Zoning Boundary	Annexure 6.11 and annexure 7.9
Zone Factor	1.5
Maximum Plot Coverage	Commercial 80% Other 66%
Minimum land extent	150 Sq.m.
Other Details	<ul style="list-style-type: none"> • The maximum land area that can be achieved for permitted uses will be determined as per Schedule 1 of Chapter 7. • If the Authority is satisfied, it may consider any use in this Zone which is not specifically mentioned in the permissible practices in this Zone and not specifically mentioned in the non permissible Uses. • As it is adjacent to the Ecologically Sensitive Zone, preliminary planning clearance should be obtained for industrial and commercial approval

8.10.2 Permitted uses for Mixed Development zone 2

Permissible uses		Minimum land extent (Sq.M)
Residential	Housing units	250
	Hostels	250
	Official quarters / staff quarters	250
	Elders Homes/ Disabled Homes	500
	Childrens Homes	500
	Daycare centers	300
Health	Hospitals	1,000
	Medical centers	250
	Medical Consulting Institutions	250
	Laboratory and sample collection centers	250
	Child and meternity clinics	250
	Veterinary Hospital	250
	Veterinary Clinics and Treatment Centers	250
Ayurvedic Medical Centers	250	
Commercial	Super markets	250
	Shopping complexe	250
	-scale technology device sales outlets	250
	Multi-parking complex	500
	shops	250
	Pharmacies	250
	Wholesale trade	250
	Custemer service	250
	Wine stores	250
	Reception halls	1000
	Florists	250
	Funeral florists	250
	Restaurants	250
	Open markets	250
	Hardwares	250
	Filling Stations (Not allowed within 500 meters from the city center and the main junction)	1000
Filling Stations and Vehicle Service Centers (Not allowed within 500 meters from the city and the main thoroughfare)	1500	

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development
zone 2

	Filling stations and shopping mall (not allowed within 500 meters from the main thoroughfare to the city)	1000
	Gas stations and charging stations	250
	Communication towers in buildings	250
	Communication towers	300
	Open car parks	250
	Shorooms	250
Education	Day care centers	250
	Technical Colleges / Vocational Training Centers	1500
	Private tuition classes	500
	Other education centers	250
	Cultural centers and Theaters	1000
Institutes	Banking / Insurance and Financial Institutions	300
	Offices / Office Complexes / Professional Offices	250
Manufacturing industries	Rice processing industry (employs not more than 20 people not exceeding 10 horsepower)	-
	Warehouses	-
	Jewelery processing, polishing related industries.	250
	Local industries	250
	Grinding mills	-
	Welding workshops and leather manufacturing workshops	-
	Tanning / Raising animals for meat and eggs	-
	New metal crushing industry	-
	Small and medium scale industries with less pollution	500
Service centers	Vehicle service centers	1000
	Auto Repair Centers / Painting Centers	500
	Taxi Service Center	250
	Laundry / laundry areas	250
	Electronic Repair Centers	250
Social Services and Public Affairs	Community Development Centers	250
	Social and Cultural Centers	1000
	Auditoriums and conference halls	1000
	Libraries	250
	New religious places	-
	Rehabilitation centers	500

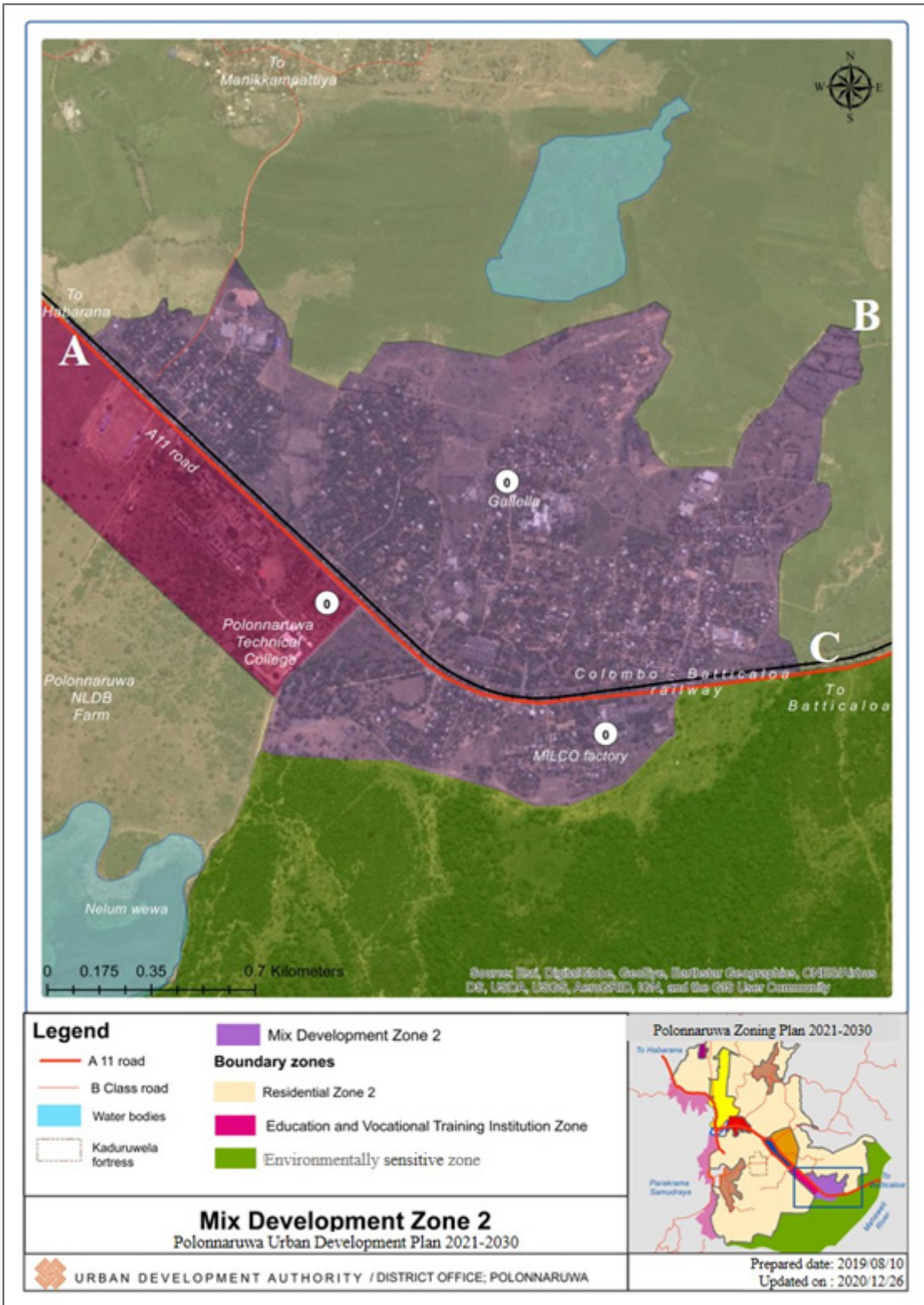
Tourism	Resorts	300
	Guest Houses	250
	Accommodation	250
	Tourist Hotels	500
	City Hotels	500
	Tourist information centers	250
	Ayurvedic Panchakarma Centers (SPA	250
	Cabana Hotels	500
Public and Recreational	Cinemas	500
	Indoor stadiums	500
	Theaters	500
	Nightclubs	500
	Art galleries / museums	500
	Open cinemas	2000
	Fitness Centers / Fitness Centers	300
	Mini parka	-
	Local parka	-
	Public parka	-
	Urban parks	-
	Central Urban Parks / Urban Parks	-
	Reagional parka	-
	Linear parka	-
Non Permissible Users	Large scale industries (industries with more than 20 employees or more than 10 horsepower.)	
	Food and non-alcoholic beverage industry	
	Garment industry	
	Carrying out soil and sand mining, black rock mining and mining related excavations for commercial purposes.	
	Solid Waste Recycling Industry	
	Government and semi-government agencies.	

Chapter 8 **Map 8.10: Mixed Development Zone 2 Map 2021/2030**

The zoning guidelines

Mixed Development zone 2

Map 2021-2030



8.11. Archaeological Conservation Zone 01

Archaeological Conservation Zone can be described as an archeological ruins protection zone of polonnaruwa. Most of this region belongs to the Polonnaruwa Sacred Area.

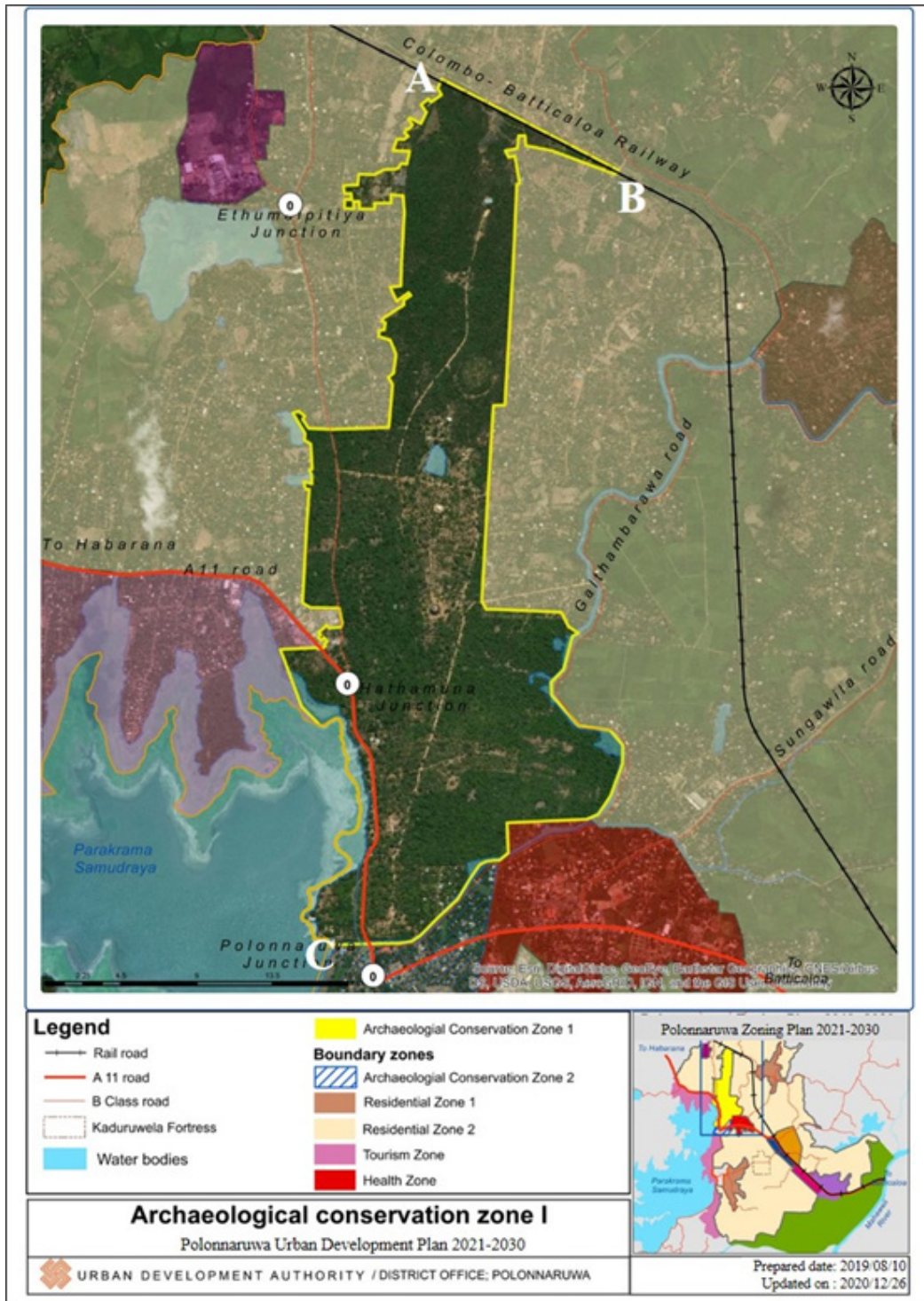
8.11. 1. Guidelines Archaeological Conservation Zone 1

Zoning Boundary	Annexure 6.2 and annexure 7.2
Zone Factor	The zone factor does not apply to this region.
Maximum Plot Coverage	Not apply.
Minimum land extent	Not apply.
Other Details	Measures and constructions will be implemented in this zone in accordance with the pilot instructions of the Regional Development Plan which will be implemented in due course for the area designated as "Polonnaruwa Sacred Area Plan" by the Department of National Physical Planning.

8.11.2. Permitted uses for Archaeological Conservation Zone

Permitted uses	<ol style="list-style-type: none"> 1. Preservation of historical ruins, maintenance work and development activities carried out with the recommendation of the Department of Archeology are permitted. 2. The Authority may consider approving the development activities related to tourism industry and infrastructure facilities subject to the recommendations of other relevant institutions. 3. Preliminary planning clearance should be obtained for all development activities carried out on lands which exist in the Archaeological Conservation Zone 1 but not belong to the Polonnaruwa Sacred Area zone .
Non permissible uses	<ol style="list-style-type: none"> 1. All uses other than “Residential” use are not permitted on lands that do not belong to the Polonnaruwa Sacred Area, but are in Archaeological Conservation Zone 1.

Map 8.11: Archaeological Conservation Zone 01 Map 2021/2030



8.12 Archaeological Conservation Zone 02

The area is believed to belong to the Department of Archeology and the ancient fortifications, but is now under extensive development.

8.12.1 Regulations for Archaeological Conservation Zone 2

Zoning Boundary	Annexure 6.3 and annexure 7.3
Zone Factor	1.75
Maximum Plot Coverage	Commercial 80% Other 66%
Minimum land extent	150 Sq.M.
Other Details	<ul style="list-style-type: none"> • This zone is subject to the specific provisions of common Regulation 7.4.44 and 7.4.45 . • The maximum extent of land available for permitted uses will be as per Schedule 1 of chapter 7. • It is expected to develop this zone as the main area that reflects the future vision stated in the Polonnaruwa Urban Development Plan. • It is mandatory to obtain the recommendations of the Department of Archeology in these development activities in order to carry out the necessary developments to promote the tourist attraction in this zone.

Chapter 8 **8.12.2 Permissible Uses for Archaeological Conservation Zone 02**

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Zone 02

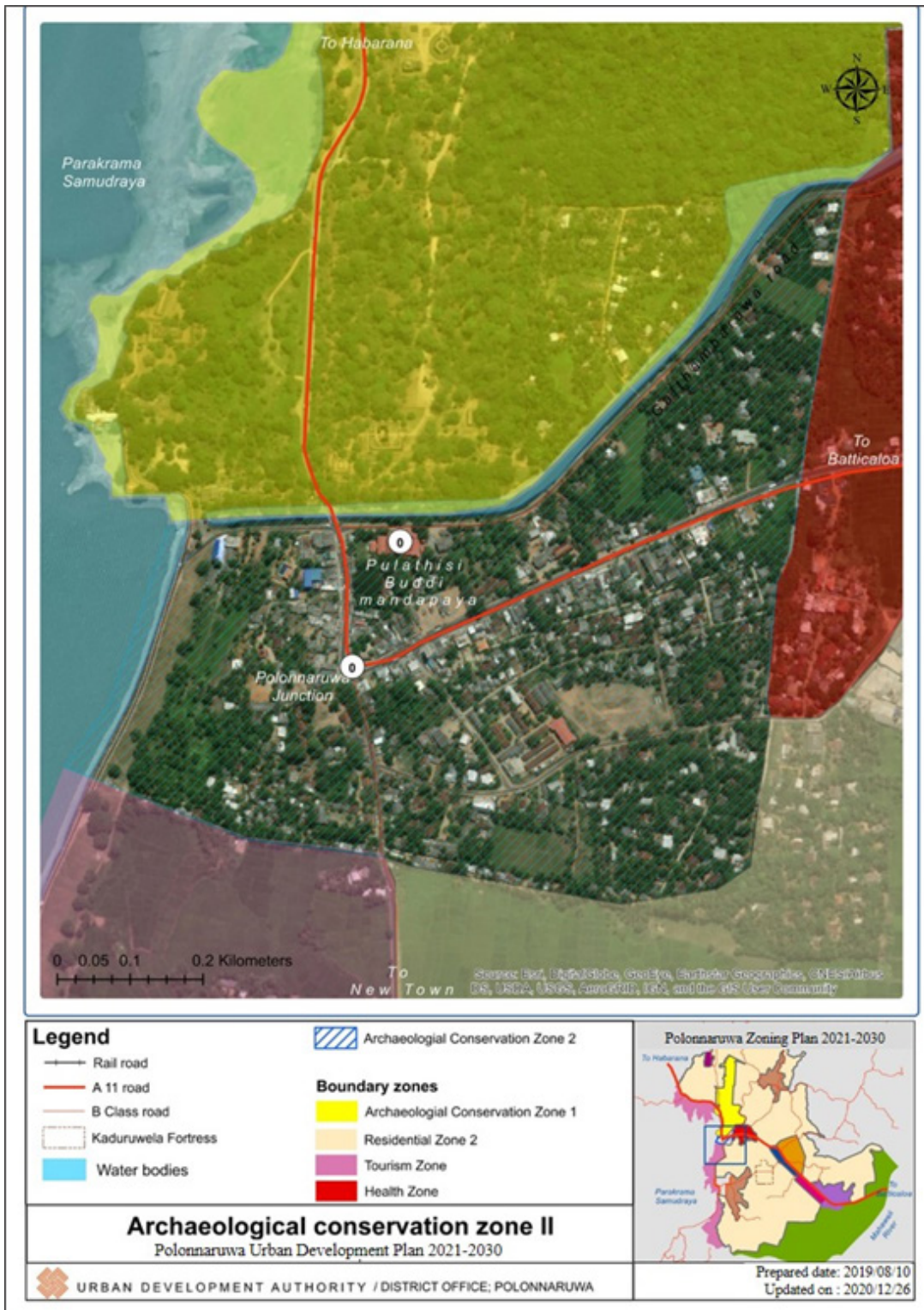
Permitted Uses		Minimum land extent (Sq.M.)
Residential	Houses	250
	Hostels	250
	Official quarters / staff quarters	250
	Elder homes/ Disabled homes	500
	Orphanages	500
	Daycare centers	300
Health	Hospitals	1,000
	Medical centers	250
	Channeling centers	250
	Laboratories and sample collection centers	250
	Child and Maternity care centers	250
	Veterinary Hospitals	250
	Veterinary Clinics and Treatment Centers	250
	Ayurvedic Medical Centers	250
Commercial	Supermarkets	250
	Shopping Complexes	250
	Large scale technology equipment sales outlets	250
	Multi-parking complex	500
	Shops	250
	Pharmacies	250
	Wholesale trade	250
	Customer service	250
	Wine stores	250
	Reception Halls	1000
	Florists	250
	Funeral Florists	250
	Restaurants	250
	Open markets	250
	Hardware	250

	Filling Stations (Not allowed within 500 meters from city center and main junction)	1000
	Filling Stations and Vehicle Service Centers (not allowed within 500 meters from the city and the main thoroughfare)	1500
	Filling stations and shopping mall (no more than 500 meters inside the city from the main junction)	1000
	Gas stations and charging stations	250
	Open vehicle parka	250
	Showrooms	250
Education	Early Childhood Development Centers	250
	Technical Colleges / Vocational Training Centers	1500
	Private tuition classes	500
	Other educational institutions	250
	Cultural centers and Theaters	1000
Institutes	Banking / Insurance and Financial Institutions	300
	Offices / Office Complexes / Professional Offices	250
Manufacturing industries	Rice processing industry.(employment of no more than 20 horsepower not exceeding 10)	-
	Jewelery processing, polishing related industries.	250
	Local industries	250
Service centers	Vehicle Service Centers	1000
	Auto Repair Centers / Painting Centers	500
	Taxi Service Centers	250
	Laundry / Laundry areas	250
	Electronic Repair Centers	250
Social Services and Public Affairs	Community Development Centers	250
	Social and Cultural Centers	1000
	Social and Cultural Centers	1000
	Libraries	250
	New religious places	-
	Rehabilitation Centers	300
Tourism	Resorts	300
	Guest Houses	250
	Accommodation	250
	Tourist Hotels	300
	City Hotels	300
	Tourist Information Centers	250
	Ayurvedic Panchakarma Centers (SPA)	150
	Cabana Hotel	500

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Open and Recreational	Cinemas	500
	Indoor playgrounds	500
	Theaters	500
	Nightclubs	500
	Art galleries / museums	500
	Open cinemas	2000
	Fitness Centers	150
	Mini Parks	-
	Local parka	-
	Community Parka	-
	Urban parka	-
	Central Urban Parks / Urban Parks	-
	<i>Regional parks</i>	-
	Linear Parka	-
Non Permissible Users	Large scale industries (industries with more than 20 employees or more than 10 horsepower.)	
	Food and non-alcoholic beverage industry	
	Grinding mills	
	Welding workshops and leather manufacturing workshops	
	Tanning / Raising animals for meat and eggs	
	New metal crushing industry	
	wearhouses	
	Communication towers in buildings	
	Communication towers / telephone transmission towers.	
	Garment industry	
	Carrying out soil and sand excavation, black rock excavation and mining related excavations for commercial purposes.	
	Solid Waste Recycling Industry	
	Government and semi-government institutions.	

Map 8.12: Archaeological Conservation Zone 02 - 2021 / 2030



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Environmentally Sensitive
Zone

8.13 Environmentally sensitive zone

This is basically a protected area around the Mahaweli National Flood plain Sanctuary and the Mahaweli River. It is developed with a tourist environment while protecting the natural environment to expose the beauty to the world.

8.13.1 Guidelines for Environmentally sensitive zone

Zoning Boundary	Annexure 6.5 and annexure 7.5
Zone Factor	The zone factor does not apply to this region
Maximum Plot Coverage	-
Minimum land extent	-
Other Details	<ul style="list-style-type: none"> • Uses that do not fit into the existing zone in this protected area will be removed. • Conditions applicable to the implementation of approved practices are described under common regulations of chapter 7 section 7.4.41 and 7.4.43

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The zoning
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8.13.2 Permitted uses for Environmentally sensitive zone

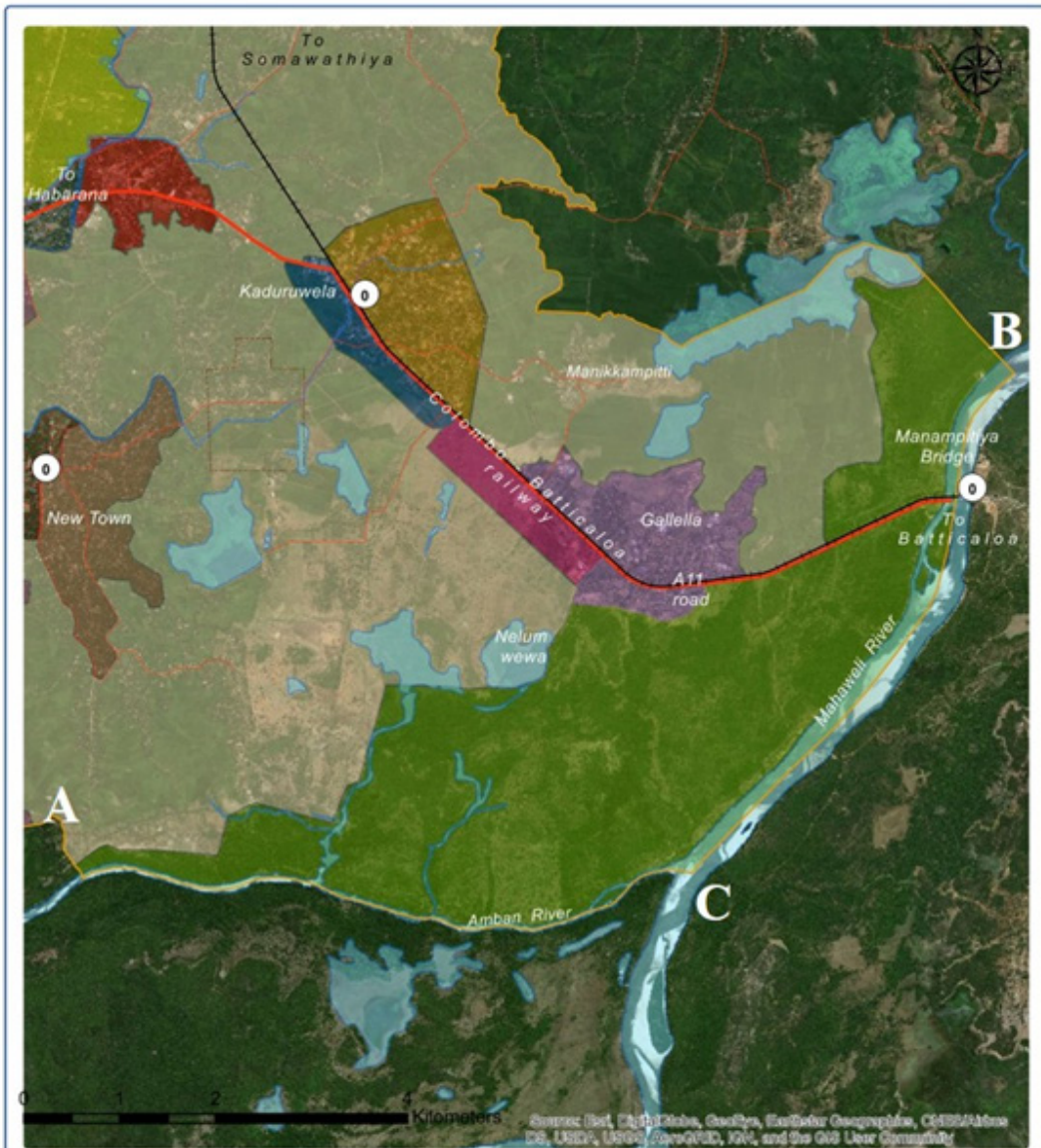
Permitted uses	<ol style="list-style-type: none"> a. Eco-tourism b. Drinking water supply projects and related projects c. Permission is granted for sand mining in the Mahaweli River and therefore the recommendations of the relevant institutions and departments should be obtained. d. Wetland Natural Gardens e. Eco-friendly restaurants - not exceeding 100 square meter (built on the tower) f. Small-scale Conference Centers - (built on towers), Seating capacity - 75, Platform - 30'X 50' g. Outdoor fitness areas / places with fitness facilities h. Wetland Museums - not exceeding 150 sqm. (Built on tower) i. Cabana (built on the tower)
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	<ul style="list-style-type: none"> j. Places where you can play only in dry weather k. Traditional fishing industry l. Collection of flowers m. Waterborne transport n. Beautiful wetlands o. Government approved public infrastructure projects of national importance p. Construction of new irrigation / construction of flood protection q. Education and research
Non permissible users	All other uses in this zone are prohibited.

Map 8.13: Environmentally Sensitive Zone 2021/2030

The zoning guidelines

Permitted users for Environmentally Sensitive Zone 2021/2030



<p>Legend</p> <ul style="list-style-type: none"> — A 11 road — B Class road — Water bodies Kaduruwela fortress 	<p>Environmentally sensitive zone</p> <p>■ Environmentally sensitive zone</p> <p>Boundary zones</p> <ul style="list-style-type: none"> ■ Commercial Zone ■ Mix Development Zone 1 ■ Mix Development Zone 2 ■ Residential Zone 2 ■ Education and Vocational Training Institution Zone 	<p>Polonnaruwa Zoning Plan 2021-2030</p>
<p>Environmentally sensitive zone Polonnaruwa Urban Development Plan 2021-2030</p>		<p>Prepared date: 2019/08/10 Updated on: 2020/12/26</p>
<p>URBAN DEVELOPMENT AUTHORITY / DISTRICT OFFICE, POLONNARUWA</p>		

CHAPTER 09
DEVELOPMENT GUIDE PLAN
AND GUIDELINES
FOR
ARCHEOLOGICAL
CONSERVATION ZONE 2
&
COMMERCIAL ZONE

9.1 Archaeological Conservation Zone 02 Guide Plan and Guidelines

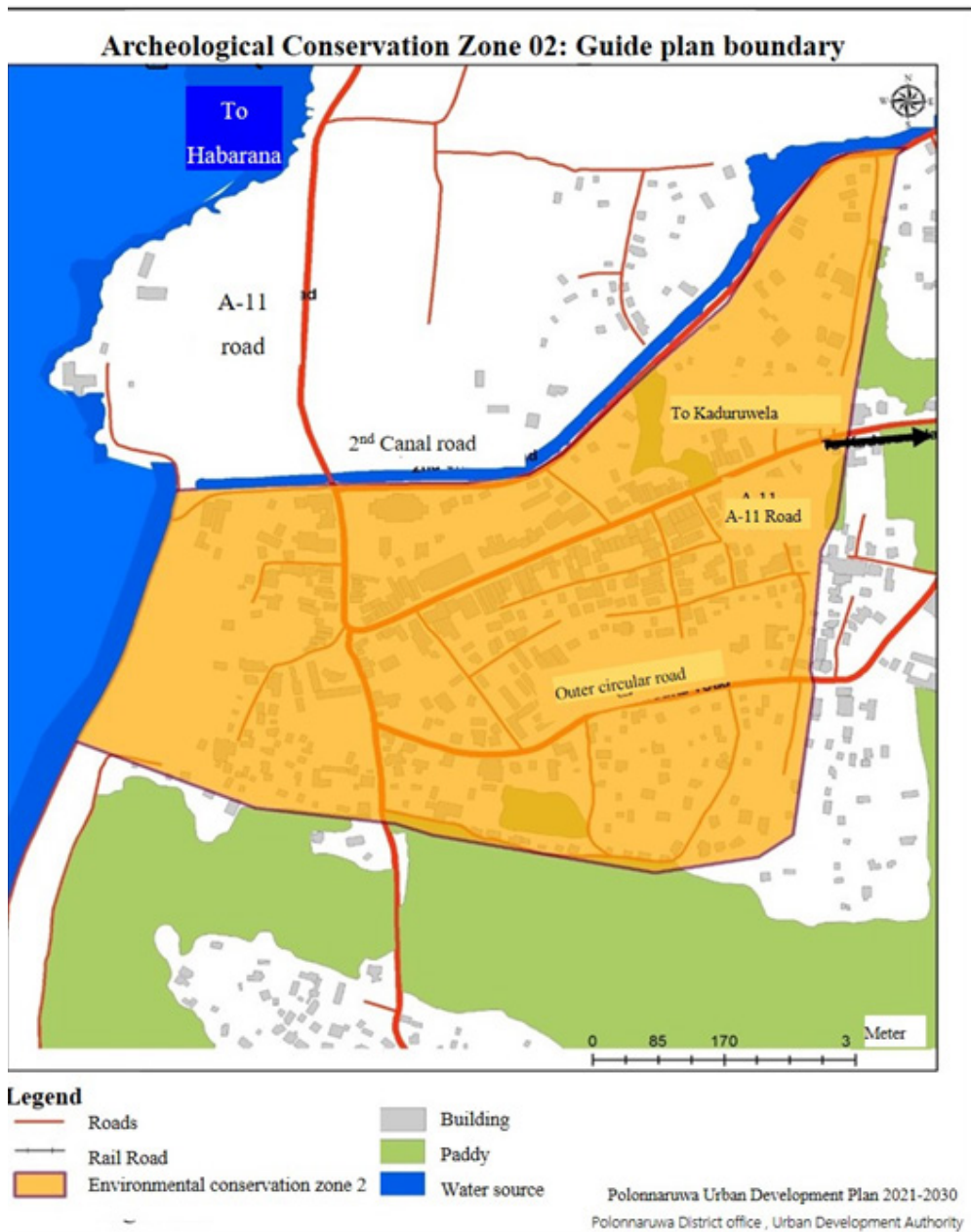
All constructions in this area should be carried out in a manner that reflects the future vision and archeological features mentioned in the Polonnaruwa Urban Development Plan and it is mandatory to carry out the following guidelines in the construction of buildings. The design guidelines are shown in Example 9.1.2.

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Map 9.1: Archaeological Conservation Zone 02 Development Guide Plan



9.1.1 Archaeological Conservation Zone 02 development guidelines and design components.

9.1.1.1 Walls

Construction should be done using brick or other natural materials on the facade of the building to preserve the antique features. Here you can use natural brick-like material for taller buildings. Earth Colors should be used for the walls.

9.1.1.2 Roof

Roofs of buildings can be made of two or four layers of plain roofing, and a roof of the design plan must be used subject to the approval of the planning committee. (Earth Colors)

9.1.1.3 Construction of boundry walls retaining walls

Construction of boundry walls and ramparts on plots of land facing roads in this zone should be carried out in such a way as to preserve the archaeological physical features. It should be finished in a way that gives it a natural look, such as brick, cement and white-wash. Solid materials can only be used for a maximum height of 1.5 feet above ground level, and the upper part should be finished with mesh, wood or transparent and not obstructing the flow of air.

9.1.1.4 Building Form

Square or rectangular shapes may be used in accordance with the archeological features of the area, and the approval of the Planning Committee must be obtained if a different shape is to be constructed.

9.1.1.5 Plaster bands details

Plaster bands and details used for building decoration should be used in the essence of molding and plaster bands, which are unique to the ancient buildings of the region.

9.1.1.6 Advertising Board control

When displaying billboards in this area, wood or similar natural materials may be used, and the facades of buildings should not be covered too much. Billboards placed on the floor are not permitted.

9.1.1.7 Landscaping of premises

10% of the land area used for the proposed development activities in this zone must be used for environmental landscaping. Not less than 50% of the length of the side facing the road should be decorated with trees, vines and flowers endemic to this area.

9.1.1.8 Decorating buildings

When constructing buildings in this zone, the minimum window should be used for building façade. Buildings should be designed to show solidity.

9.1.2 Examples for the design area:

9.1.2.1 Examples of Building Design



Figure 9.1: Polonnaruwa Deepayana stage 1 rest room

Figure 9.2: Front view of Polonnaruwa "City Center" building

9.1.2.2 Examples of roof types (butterflies should not flatten out)

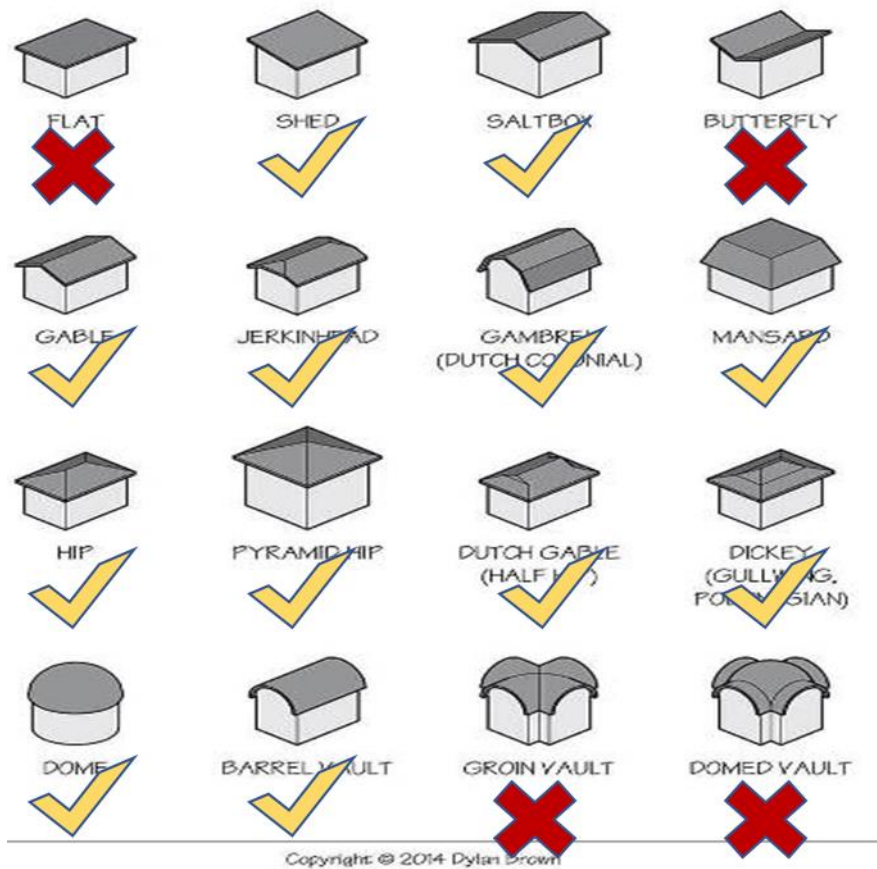


Figure 9.3: Examples for roof types

9.1.2.3. Roofing material (concrete or clay tiles are preferred)



Figure 9.4: Examples of roofing materials for roofing types

9.1.2.4 Examples for Stairs



Figure 9.5: Examples for front staircase design

9.1.2.5 Examples for 50% of greenery



Figure 9.6: Examples of front 50% green landscape design

9.1.2.5 Mobile Shops, Street Lottery Stalls



Figure 9.7: Examples for mobile shops, street lottery design

9.1.2.5 Examples for Boundaries



Figure 9.8: Examples for frontal wall mounts

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9.1.2.5 Examples of landscaping features

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design
example for
the area



Figure 9.9: Examples of landscaping elements: A pond and a plant yard

9.1.2.6 Examples of Expected Street View



Figure 9.10: Examples for the expected street view



9.1.3 Examples for the design area: Color range (brown variants)

Earth Tone is a color scheme with different meanings. In its narrowest sense, it refers to "any color that is brown" - the color of the earth. It can also refer to "natural colors" (colors found in nature) such as brown, green, cloudy skies, and red sun.



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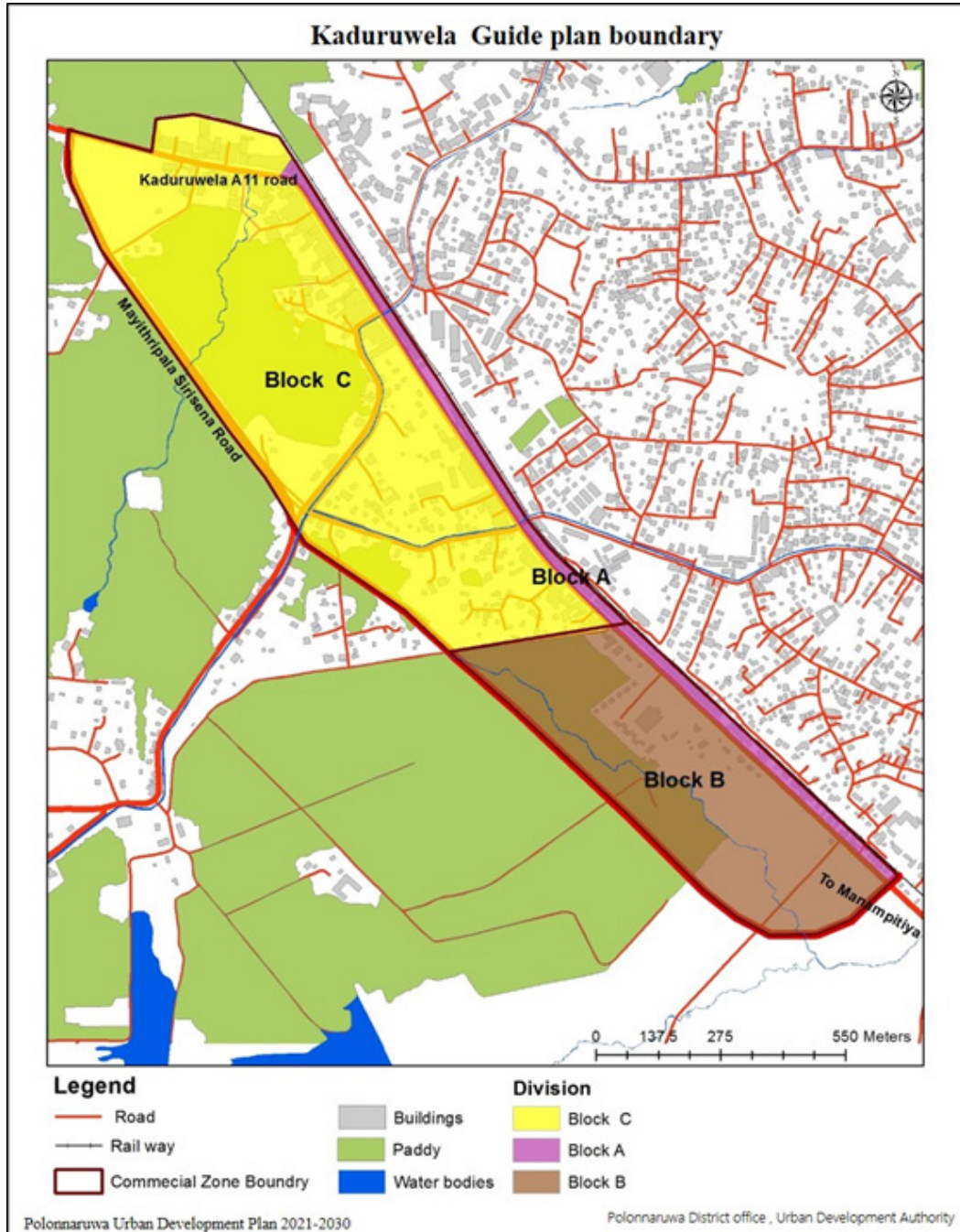
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example for
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9.2 Kanduruwela Commercial Zone Guide Plan and Guidelines

9.2 Comprehensive Map of Kanduruwela Development Guide Plan



9.2.1 Kanduruwela Commercial Zone Development Guide Plan

In addition to the basic guidelines set in the Commercial Zone, the following special guide plan apply to the following premises:

Guide Plan Zone	Commercial A
Non permissible uses	Education, health, government offices, industry and residential uses
Permissible uses	All other permitted uses in the Commercial Zone except those above not permitted
Special guidelines	<ul style="list-style-type: none"> a. This zone is located in the reservation which belongs to the Road Development Authority and the Railway Department. This guideline has been prepared only for the purpose of converting the buildings currently constructed with the approval of the two institutions into a systematic system. b. Repairs to existing buildings will only be approved on the recommendation of the above institutions. c. The building line should be not be at least 33 feet. d. According to the existing buildings, the maximum height should be limited to 03 storeys. e. If it can be constructed in a manner that does not contradict other building regulations, the frontage of the land and the space of the land will be disregarded. f. If several small plots of land are merged and developed, the Authority may consider constructing a new building.

Guide Plan Zone	Commercial B
Non permissible uses	Government Offices, Industrial uses
Permissible uses	All other permitted uses in the Commercial Zone except those above non permitted
Special guidelines	<ul style="list-style-type: none"> a. Minimum subdivision limit is 40 perches b. The general regulations of the commercial zones 2 also apply to this zone.

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Zone

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Guide Plan

Guide Plan Zone	Commercial C
Non permissible uses	Government Offices, Industrial uses and Hospitals
Permissible uses	All other permitted uses in the Commercial Zone except those above non permitted
Special guidelines (Refer with 9.2.2 Design examples)	<p>a. Every access road should be 9 meters.</p> <p>b. Parking space required for a building of more than 3000 square feet should be provided on the same premises. Approval will not be granted based on service charge.</p> <p>c. Residential use is permitted only for two storey building designs. (Two floors except ground floor)</p> <p>d. In presenting the building plan, the exterior finish with side view and front view should be presented as a pictorial representation of the construction materials.</p> <p>e. When issuing a Certificate of Conformity, the construction should be completed in accordance with the plan mentioned above.</p> <p>Landscaping of the reserve:</p> <p>f. If the boundary of any land is adjacent to a canal reserve or a road reserve, the land should be beautified and maintained by the owner of the land and the reserve should be set aside as a public space.</p> <p>Sign boards:</p> <p>a. The billboard should be mounted on the ground floor or on the second floor parallel to the ceiling of the roof and should not point more than one meter towards the road.</p> <p>b. Other billboards to be erected perpendicular to the road are prohibited and should be built parallel to the road.</p> <p>Defensive walls / boundary walls</p> <p>c. Solid materials can only be used up to a maximum height of 1½ feet above ground level, and the upper part must be finished with mesh, wood or transparent, so as not to obstruct the flow of air.</p> <p>d. The Planning Committee may recommend relaxation of the above regulations if there are reasonable grounds that special protection or reservation is required.</p>

9.2.2 Examples for Kanduruwela Commercial C Guide Plan

9.2.2.1 Defenses walls/ Boundary walls



Figure 9.12: Examples of prospective barriers / boundary walls

9.2.2.2 Landscaping the reserve



Figure 9.13: Examples of Expected Irrigation and Road Reserve Landscaping

9.2.3 General Guidelines for Kanduruwela Guide Plan

In addition to the regulations for special premises, the basic regulations specified in the Commercial Zone apply.

Chapter 10

ROAD LIST AND BUILDING LINE

10. ROAD LIST AND BUILDING LINE

No	Road name	Building Line from Middle of the road (Sqm)	Right of way
1	Habarana Trikkondian-Madhu Road A11	15	RDA
2	Hathamuna Road	15	RDA
3	Swarna Jayanthi Mawatha	15	RDA
4	Laksha Uyana Road	15	PRDA
5	Laksha Uyana entrance	10	Relevant Local Authority
6	Outer cerculer road	15	PRDA
7	Manikkamapattiya Road	15	PRDA
8	Sinhapura Road	15	PRDA
9	Onegama Road	15	PRDA
10	1 Canal Road (Galthambarawa Road)	15	PRDA
11	Road starting from Dhammika Carving Workshop to the exit of Gal Vihara near Gal Vihara	15	PRDA
12	Aluthwewa Road	10	Relevant Local Authority
13	Senior Police Office Mawatha	10	Relevant Local Authority
14	04 Crossroad New Town	10	Relevant Local Authority
15	03 Crossroads New Town	10	Relevant Local Authority
16	02 Crossroads New Town	10	Relevant Local Authority
17	01 Crossroads New Town	10	Relevant Local Authority
18	Muslim Colony Road	10	Relevant Local Authority
19	Road from Satma Institute to Maliban Junction	10	Relevant Local Authority
20	Road from Sudu Temple Hotel to Kalahagala Junction Buddha Statue	10	Relevant Local Authority
21	Road from near the Dharmasiri building to the roundabout	10	Relevant Local Authority
22	Isipathana Mawatha	10	Relevant Local Authority
23	Outer Ring Road (Muslim Colony Road)	8	Relevant Local Authority
24	STS Road from in front of the filling station to New Town 04 canal	8	Relevant Local Authority
25	Ruvins Chaya Road	8	Relevant Local Authority
26	02 Canal road	8	Relevant Local Authority
27	Bodhiraja Mawatha	8	Relevant Local Authority
28	Bodhiraja Mawatha Kuruppu Junction	8	Relevant Local Authority
29	Hijra Road	8	Relevant Local Authority
32	Ansar Lane - Muslim Colony	8	Relevant Local Authority
33	Primary School Road - Potgul Place	8	Relevant Local Authority
34	Road from Telecom to Topawewa Sports Ground	8	Relevant Local Authority

No	Road name	Building Line from Middle of the road (Sqm)	Right of way
35	Vampara - Near Polonnaruwa Municipal Council	8	Relevant Local Authority
36	Vijayaba Mawatha	8	Relevant Local Authority
37	Bandaranaike Mawatha	8	Relevant Local Authority
38	CECB Road leading to Wadichchala from near the office	8	Relevant Local Authority
39	Road connecting to Bodhiraja Mawatha near Upali Stores (Kuruppu Junction)	8	Relevant Local Authority
40	Tissa Mawatha	8	Relevant Local Authority
41	Kimona Lane (Palugasdamana)	8	Relevant Local Authority
42	Vadichchale Road	8	Relevant Local Authority
43	Bandiwewa School - Left Road	8	Relevant Local Authority
44	Bandiwewa Samudragama Road	8	Relevant Local Authority
45	Ma Oya Road - Bandiwewa	8	Relevant Local Authority
46	Kadawalawewa Road - Bandiwewa	8	Relevant Local Authority
47	Kanishta vidyalaya Avenue - New Town	8	Relevant Local Authority
48	South Road near Bank of Ceylon - New Town	8	Relevant Local Authority
49	Vasundara Mawatha - New Town	8	Relevant Local Authority
50	4 The road from near the canal bridge to Weera Place	8	Relevant Local Authority
51	Waragan Ela Main Road	8	Relevant Local Authority
52	Ethumalpitiya Wewa Road	8	Relevant Local Authority
53	Ethumalpitiya Wewa Road	8	Relevant Local Authority
54	02 Narrow Road - Mosque - Kusumgama	8	Relevant Local Authority
55	Main Road - Nelumwila	8	Relevant Local Authority
58	Main Road - Majidpura	8	Relevant Local Authority
59	Main Road - Majidpura	8	Relevant Local Authority
60	Circular road - 02 Lane	8	Relevant Local Authority
61	Circular road - 03 Lane	8	Relevant Local Authority
62	Pulasthi Mawatha	8	Relevant Local Authority
63	Bandiwewa - Sirisangabo Place	8	Relevant Local Authority
64	Co-operative Road - Kanduruwela	6	Relevant Local Authority
65	Parami Mawatha	6	Relevant Local Authority
66	Sudarshanarama Mawatha	6	Relevant Local Authority
67	Lakeview Hotel Road - Bediwewa	6	Relevant Local Authority
68	Colony Avenue	6	Relevant Local Authority
69	02 Cross Road - Church Road	6	Relevant Local Authority
70	02 Cross Road - Waragan Ela Road	6	Relevant Local Authority
71	02 Cross Road - Waragan Ela Road	6	Relevant Local Authority
72	03 Cross Road - Waragan Ela Road	6	Relevant Local Authority

No	Road name	Building Line from Middle of the road (Sqm)	Right of way
73	Church Road - Cross Road	6	Relevant Local Authority
74	Church Road	6	Relevant Local Authority
75	Puranagama Road	6	Relevant Local Authority
76	Road near YMB	6	Relevant Local Authority
77	United Lane - New City	6	Relevant Local Authority
78	Sudarmarama Road	6	Relevant Local Authority
79	Post Office Road - Lakshauyana	6	Relevant Local Authority
80	Dayawansa House Road	6	Relevant Local Authority
81	Training Center Road	6	Relevant Local Authority
82	Old Children's Home Road	6	Relevant Local Authority
83	Ekamuthu Hall Road - Weera Place	6	Relevant Local Authority
84	From Isipathana Road to Waraganela Road	6	Relevant Local Authority
85	Aluthwewa - Galwala Road	6	Relevant Local Authority
86	Ekamuthu Hall Road - Ganangolla	6	Relevant Local Authority
87	05 Ela, 02 Ela, Ganangolla	6	Relevant Local Authority
88	05 Canal Road, Ganangolla	6	Relevant Local Authority
89	Ganangolla Temple Road	6	Relevant Local Authority
90	Senanayake Mawatha	6	Relevant Local Authority
91	Lakshauyana Cemetery Road	6	Relevant Local Authority
92	Isipathana 2nd Cross Road	6	Relevant Local Authority
93	Parakum Uyana, Railway Station Road	6	Relevant Local Authority
94	Textile Center Road	6	Relevant Local Authority
95	Nimal Wijeratne Road - Kadawalawewa	6	Relevant Local Authority
96	Near the mosque, Kusumgama	6	Relevant Local Authority
97	Subodhi Rajamaha Viharaya, Kusumgama	6	Relevant Local Authority
98	Near Subodhi Rajamaha Viharaya, Kusumgama	6	Relevant Local Authority
99	Near Subodhi Rajamaha Viharaya	6	Relevant Local Authority
100	Sudunelum Gama Main Road	6	Relevant Local Authority
101	Sudunelum Gama Main Road	6	Relevant Local Authority
102	Suwasethgama Main Road	6	Relevant Local Authority
103	Suwasethgama Main Road	6	Relevant Local Authority
104	Suwasethgama Main Road	6	Relevant Local Authority
105	Road near Jumma Mosque	6	Relevant Local Authority
106	Seevali College Left Road	6	Relevant Local Authority
107	Road Near Weerapedasa Multipurpose Co-operative Society	6	Relevant Local Authority
108	05 Lane - New Town	6	Relevant Local Authority
109	Sudarmarama Place 2nd Road	6	Relevant Local Authority
110	Sudarmarama Central Road	6	Relevant Local Authority

No	Road name	Building Line from Middle of the road (Sqm)	Right of way
111	Sudarmarama Place 1st Cross Road	6	Relevant Local Authority
112	Aluthwewa Post Office Road	6	Relevant Local Authority
113	72 Shop Road	6	Relevant Local Authority
114	Aluthwewa Warehouse Road	6	Relevant Local Authority
115	Aluthwewa Siyabalagas Wadiya Road	6	Relevant Local Authority
116	Aluthwewa School Road	6	Relevant Local Authority
117	Siyabalagas Wadiya Cemetery Road	6	Relevant Local Authority
118	Nugasewana Samthi Hall Road	6	Relevant Local Authority
119	Aluthwewa Nuga Sevana 02 Lane	6	Relevant Local Authority
120	Aluthwewa Nugasewana Cross Road	6	Relevant Local Authority
121	Aluthwewa Ranaviru Road	6	Relevant Local Authority
122	Weerapedasa Udagama Road	6	Relevant Local Authority
123	Gunasinghe Mawatha 01 Cross Road	6	Relevant Local Authority
124	Gunasinghe Mawatha 02 Cross Road	6	Relevant Local Authority
125	Town Planning House Road Mahaweli Place	6	Relevant Local Authority
126	Road in front of orphanages	6	Relevant Local Authority
127	Suitable rice mill road	6	Relevant Local Authority
128	Sri Lanka Inn Road	6	Relevant Local Authority
129	Mr. Karunadasa's house road	6	Relevant Local Authority
130	Jaya mawatha Road	6	Relevant Local Authority
131	Jaya Mawatha 5th Lane	6	Relevant Local Authority
132	Jaya Mawatha 1st Lane	6	Relevant Local Authority
133	Jaya Mawatha 2nd Lane	6	Relevant Local Authority
134	Visakha Mawatha Road	6	Relevant Local Authority
135	Ganangolla Central Road	6	Relevant Local Authority
136	04 canal, road behind the playground	6	Relevant Local Authority
137	Seevali School Road	6	Relevant Local Authority
138	Seevali School South Road	6	Relevant Local Authority
139	Mahipala Road	6	Relevant Local Authority
140	Sunil Ranaviru Road	6	Relevant Local Authority
141	Parakum Uyana Water Tank Road	6	Relevant Local Authority
142	Ethumalpitiya Meda para	6	Relevant Local Authority
143	Roundabout 04 Lane	6	Relevant Local Authority
144	Nandasena Road	6	Relevant Local Authority
145	Site Office Roundabout	6	Relevant Local Authority
146	Roundabout left, 02 lane	6	Relevant Local Authority
147	Roundabout 03 Lane	6	Relevant Local Authority
148	Gajaba Mawatha	6	Relevant Local Authority
149	Mahasen Place	6	Relevant Local Authority

No	Road name	Building Line from Middle of the road (Sqm)	Right of way
150	Crossing Mahasen Mawatha 01	6	Relevant Local Authority
151	Manikkam Pitiya Road	6	Relevant Local Authority
152	Manikkam Pitiya Road	6	Relevant Local Authority
151	Manikkam Pitiya Road	6	Relevant Local Authority
152	Manikkam Pitiya Road	6	Relevant Local Authority
152	Manikkam Pitiya Road	6	Relevant Local Authority
153	Manikkam Pitiya Old Road	6	Relevant Local Authority
154	Senul Mawatha	6	Relevant Local Authority
155	Anser Lane Dam Road	6	Relevant Local Authority
156	Kalinga Ela Dam Road	6	Relevant Local Authority
157	Anser Lane 2 Crossing Left	6	Relevant Local Authority
158	Anser Lane 1 Crossing Left	6	Relevant Local Authority
159	Muslim Colony Road	6	Relevant Local Authority
160	Muslim Colony Road	6	Relevant Local Authority
161	Muslim Colony Road	6	Relevant Local Authority
162	Pachecha palliya road	6	Relevant Local Authority
163	Muslim Colony 02 Cross Road	6	Relevant Local Authority
164	Muslim Colony 01 Cross Road	6	Relevant Local Authority
165	Pubudu Mawatha	6	Relevant Local Authority
166	Manik Place	6	Relevant Local Authority
167	Janasavi Mawatha	6	Relevant Local Authority
168	02 Narrow Mawatha Manik Place	6	Relevant Local Authority
169	Hijra Road	6	Relevant Local Authority
170	Hijra Road	6	Relevant Local Authority
171	Hijra Road	6	Relevant Local Authority
172	Old Kachcheri Estate Road	6	Relevant Local Authority
173	Kachcheri Estate Road	6	Relevant Local Authority
174	Parakum Place Road	6	Relevant Local Authority
175	Parakum Road	6	Relevant Local Authority
176	Houses 20 Road	6	Relevant Local Authority
177	Houses 20 Road	6	Relevant Local Authority
178	Somial Estate Road	6	Relevant Local Authority
179	Thambala Road First Cross Road South	6	Relevant Local Authority
180	Thambala Road First Cross Road South	6	Relevant Local Authority
181	Laksha Uyana Temple Road	6	Relevant Local Authority
182	Laksha Uyana 04 canal	6	Relevant Local Authority
183	Road behind Laksha Uyana Industrial Estate	6	Relevant Local Authority
184	Laksha Uyana 01 Housing Road	6	Relevant Local Authority
185	Laksha Uyana 06 Post Road	6	Relevant Local Authority

No	Road name	Building Line from Middle of the road (Sqm)	Right of way
186	Mr. Titus Laksha Uyana Road	6	Relevant Local Authority
187	Galthambarawa Nuge kotasa	6	Relevant Local Authority
188	Galthambarawa Canal Road	6	Relevant Local Authority
189	Galthambarawa Co-operative Road	6	Relevant Local Authority
190	Weera Place Road	6	Relevant Local Authority
191	Pullyar Avenue	6	Relevant Local Authority
192	Galatambarawa Stone Workshop Road	6	Relevant Local Authority
193	Nimalsiri Jayawardena Road	6	Relevant Local Authority
194	Weerasekera Mawatha	6	Relevant Local Authority
195	Kandepola Mawatha	6	Relevant Local Authority
196	Keerthi Mawatha	6	Relevant Local Authority
197	Nissankamallapura Dam Road	6	Relevant Local Authority
198	Millagaha Junction Road	6	Relevant Local Authority
199	Road near the railway station	6	Relevant Local Authority
200	Lakshauyana Udagama Road	6	Relevant Local Authority
201	Stonework Road	6	Relevant Local Authority
202	Maithrigama Road, Lakshauyana	6	Relevant Local Authority
203	Lakshauyana 02 Canal Road, Lakshauyana Road	6	Relevant Local Authority
204	Tissa Mawatha	6	Relevant Local Authority
205	Good road	6	Relevant Local Authority
206	Thambala Road Left, Church Road	6	Relevant Local Authority
207	Main Road near Salmon Singo Maya Nuge	6	Relevant Local Authority
208	Salmon Singo Maya Road	6	Relevant Local Authority
209	Salmon Singo Maya Road	6	Relevant Local Authority
210	Kuruppu Junction in front of the workshop	6	Relevant Local Authority
211	Samagi Mawatha, New Town	6	Relevant Local Authority
212	Irrigation Housing Road	6	Relevant Local Authority
213	Pattini Place	6	Relevant Local Authority
214	Potgul Place Irrigation Hostel Road	6	Relevant Local Authority
215	Potgul Place Diyawaragama	6	Relevant Local Authority
216	Pothgul Place Temple Road	6	Relevant Local Authority
217	New town, middle class housing complex	6	Relevant Local Authority
218	Ministry of Agriculture Road	6	Relevant Local Authority
219	Lenin Peiris Ranaviru Mawatha	6	Relevant Local Authority
220	Bandiwewa, Samudragama Cross Road	6	Relevant Local Authority
221	Bandiwewa, Samudragama 01 Cross Road	6	Relevant Local Authority
222	Road opposite Bandiwewa, Samurdhi office	6	Relevant Local Authority
223	Road for widening	6	Relevant Local Authority

No	Road name	Building Line from Middle of the road (Sqm)	Right of way
224	Bandiwewa, Gampulul kirime road	6	Relevant Local Authority
225	Bandiwewa, Samudragama Well Road	6	Relevant Local Authority
226	Heroes Road	6	Relevant Local Authority
227	Bandiwewa Sirisangabo Place	6	Relevant Local Authority
228	Bandiwewa Sirisangabo Place	6	Relevant Local Authority
229	Winter Palace Road	6	Relevant Local Authority
230	Bandiwewa Cemetery Road	6	Relevant Local Authority
231	ICC Water Tank Road	6	Relevant Local Authority
232	02 Cross Road, Hatamuna Main Road	6	Relevant Local Authority
233	12 Canal Road Hatamuna Main Road	6	Relevant Local Authority
234	Nissankamalla Mawatha	6	Relevant Local Authority
235	Waragan Canal Cross Road	6	Relevant Local Authority
236	02 Cross Road - Puranagama	6	Relevant Local Authority
237	Ganangolla Road - Near Sewage Tank	6	Relevant Local Authority
238	Jumma Church Road	6	Relevant Local Authority
239	Jumma Church Road	6	Relevant Local Authority
240	Jumma Church Road	6	Relevant Local Authority
241	Sudesh Suranga Ranaviru Road	6	Relevant Local Authority
242	Siyawas Road	6	Relevant Local Authority
243	Jumma Church Road	6	Relevant Local Authority
244	Jumma Church Road	6	Relevant Local Authority
245	Lankathilake Road	6	Relevant Local Authority
246	End of Galviharaya Road	6	Relevant Local Authority
247	Nissankamalla Mawatha	6	Relevant Local Authority
248	Thambala Road 03 Lane Left	6	Relevant Local Authority
249	Thambala Main Road South	6	Relevant Local Authority
250	Road behind medical centers	6	Relevant Local Authority

Note: According to the road list here (Appendix 11) the building boundary of any unnamed road should be from the center of the road on both sides as per the existing width of the road. Also, even when the width of the existing road is less than 10 feet, the minimum building limit should be 12 feet on each side from the center of the existing road.

10.2 Canal way Reservations

10.2.1 Canal way with roads

	Type of Canal	Minimum Reserve Limit (Meter)		
		The full width of the reserve	Towards the road (from the center of the canal)	Towards the other side (from the center of the canal)
a)	Main canal (bottom width more than 12 m)	40	25	15
b)	Main canal (bottom width between 8m to 12 m)	37	20	17
c)	Main canal (bottom width less than 12 m)	30	18	12
d)	By-stream (canal width less than the above limits)	20	12	08
e)	Dividing canal	14	10	04
f)	Field canal	10	7	03
g)	In single side canals, a reserve of 5 m from the boundary of the maximum catchment area to the land should be maintained when the canal flows with maximum discharges (exceeding the minimum reserve limit).			

10.2.2 Canal way without roads

	Type of Canal	Minimum reservation limit (m)	Minimum reservation to a bund (4m from the center of the canal)
a)	Dividing canal	08	04
b)	Field canal	06	03

10.2.3 Drainage canals

	Type of Canal	Minimum reservation limit (m)	Minimum reservation to a bund (4m from the center of the canal)
a)	Dividing canal	06	1.1
b)	Field canal	03	03

10.2.4 River Reserve

	River	Minimum reservation limit (meters from river bank)
a)	Mahaweli River	60
b)	Amban River	60

10.2.5 Tank Reserve

In the case of any development carried out within the boundaries of a tank, the recommendation from the “Department of Irrigation” must be obtained and the development activity shall be carried out subject to the reservation limit provided by Department of Irrigation.

Part III

ANNEXTURE

ANNEXURE - 01

INTERPRETATIONS

1.1 General Definitions

annexure - 01
interpretations
General
Definitions

- | | |
|--------------------------------------|---|
| • Integrity analysis | Road integration analysis |
| • Urban style | How you interpret the way you see the city |
| • Connection | Interconnection between major cities and major intersections |
| • Gepi Analysis | Is an analysis of the city and its performance |
| • Development Analysis | An analysis of the urbanization characteristics of a city |
| • Environmental Sensitivity Analysis | An Analysis for Identifying Environmentally Sensitive Areas |
| • Livability analysis | An Analysis of Living Standards in Cities |
| • Potential Analysis | An analysis to identify areas where all the required infrastructure is integrated |
| • NVIVO Analysis | Analysis with Quality Data of Meeting with Stakeholders in Polonnaruwa City |
| • X Coordinates | North Latitude |
| • Y Coordinates | East Longitude |

1.2 Definitions for Permitted Uses in Zones

Use definition		Use definition
Residential	Housing units	Bedroom, Catering and Sanitation Facilities for Independent Living Interior Complex Unit Room or Room Class Building or Part of Building
	Housing complex	Buildings with a horizontal or vertical extension of a unit or group of units located in a permanent public domain
	Hostels	Buildings with a vertical or horizontal extension that provide residential facilities for a limited time
	Official quarters / staff quarters	Buildings with a vertical or horizontal extension that provide residential facilities attached to a particular workplace
	Homes for the Elderly / Disabled	Buildings with a horizontal or vertical project with basic residential facilities for the care of the elderly and disabled
	Orphanages	Buildings with a horizontal or vertical project with basic residential facilities for children under 18 years
	Child Care Centers	Buildings with facilities for temporary residential care for children (less than 24 hours)
Health	Hospitals	Buildings with all or more of the outpatient and inpatient laboratories, pharmacies, nursing rehabilitation, surgical outpatient and inpatient units, training centers, administrative and staff facilities
	Medical treatment centers	A drug delivery and outpatient center staffed by at least one physician
	Medical Counseling Service Centers	Buildings constructed for the purpose of providing specialist medical consulting facilities
	Pediatric and Maternity Clinic Centers	Centers providing basic health care facilities and counseling services for children and pregnant mothers
	Animal Hospitals	Veterinary Centers for External Treatment and Clinics
	Veterinary Clinics and Treatment Centers	Veterinary Centers providing outpatient treatment and clinics
	Ayurvedic Medical Centers	Centers provided by a doctor or several doctors registered with the Government Ayurvedic Medical Council who treat traditional medicine

Education	Early Childhood Centers	Buildings with facilities to provide formal education including early childhood development activities before admitting children to first grade
	Primary Education Centers	School buildings with facilities required to provide formal education from grade one to grade five
	Secondary Education Centers	Buildings with facilities required to provide formal education from grade one to grade thirteen and from grade six to grade thirteen.
	Tertiary Education Centers	Any state, semi-government private or internationally recognized universities, open universities and institutes of higher learning
	Industrial Schools / Vocational Training Centers	Centers with facilities for providing vocational / technical vocational training
	Research and Development Centers	Centers with facilities to carry out research and development activities in various fields using the latest technological techniques.
	Private tutoring classes	Buildings with teaching facilities for an individual or group of children by a single individual teacher or group of teachers
	Art institutes / theaters	Buildings for related academic activities for the purpose of providing aesthetic enjoyment
Institutions	Offices	Centers with utility and administrative service facilities
	Office complex	Buildings with ancillary facilities for two or more buildings with utility and administrative service facilities
	Professional offices	Career based career-based service centers
	Banking, insurance and financial institutions	Insurance and finance companies
	Automated Money Transaction Centers	Centers for cash transactions without a person

Social services and public facilities	Community Development Centers	Centers that facilitate public meetings, community and development activities in the area
	Social and Cultural Centers	Centers for public and cultural activities
	Religious centers	Places used for religious purposes
	Auditoriums and conference halls	Buildings used for ceremonies, conferences or meetings
	Libraries	Buildings used for reading and related studies
	Rehabilitation Centers	Centers established for the reconciliation of those engaged in anti-social activities
	Crematoriums	Buildings in a cemetery with a chimney with a gas or electric oven for cremation run by a local authority
	Cemeteries	Places used for burying and cremation of dead bodies
Commercial	Shops	Places where goods are sold at retail or wholesale
	Supermarkets	A large self-service building under one roof for the sale of consumer goods
	Shopping malls	Large-scale sales outlets that combine different types of goods and services
	Restaurants	Places to buy and consume food with minimal amenities
	Open shops	Places where consumer goods are generally sold with or without a cover
	Pharmacies	Drug outlets registered with the State Pharmaceutical Corporation
	Laboratory Services and Collection Centers	Centers that run chemical service facilities as a branch affiliated to a particular hospital
	Wholesale warehouse	Places where goods or merchandise are stored in bulk
	Warehouse	This includes a building or part of a building that is primarily used for storing raw materials, merchandise or merchandise locally or abroad using containers.
	Customer Service Centers	Centers for Customer Support for Customers
	Meat and fish stalls	-
	Liquor stores	-
	Funeral Homes	Funeral Centers
	Funeral halls with banquet halls	-
	Building Material Stores	-
Gas stations		

	Gas Stations and Vehicle Service Centers	Buildings with facilities for retail sale of petrol, lubricants and liquefied petroleum gas for vehicles.
	Gas stations and shopping malls	Buildings with facilities such as vehicle service garages with facilities for retail sale of petrol, lubricants and liquefied petroleum gas for vehicles.
	Gas filling stations and charging stations	Gas stations for vehicles and facilities for charging batteries with electricity
	Communication towers on buildings	Towers to be constructed on buildings for communication with the approval of the Telecommunications Regulatory Commission
	Sensing towers	Towers to be constructed for communication under the approval of the Telecommunications Regulatory Commission
	Multi-story car park	Buildings that provide parking for two or more floor
	Open car park	-
	Traffic showrooms	Buildings on display for sale
Tourism	Resorts	As a holiday destination, places with facilities such as accommodation, food, restaurants, sports and recreational activities for leisure or entertainment.
	Guest houses	This includes a building or part of a building that can accommodate guests.
	Lodges	Rented parking facilities
	Tourist hotels	Accommodation with all facilities for tourists
	Urban hotels	Places used for business services that facilitate short stays in urban areas
	Tourist Information Centers	Information Centers for the convenience of travelers
	Ayurvedic Panchakarma Centers	Centers providing various health treatments using local Ayurvedic methods registered with the Ayurveda Council
	Cabana Hotel	A small unit accommodation with sanitary facilities and a bedroom for tourists using temporary or permanent raw materials for relaxation and recreation.

Industries	Mining and mining related extraction industries	Buildings that facilitate industries based on activated carbon powder or carbon powder / coal / lumber making or processing industries (excavation, blasting, shredding, polishing) / primarily mining and quarrying materials
	Metal manufacturing and casting related abstract industries	Iron and steel, kiln architecture, secondary processes, smelting and metal retrieval non-ferrous metal processing industries, metallurgical industry, electroplating and galvanizing including metal or plakin surface treatment industries or powder coatings, machinery parts, metals Buildings that facilitate the production of goods and tools
	Oil refining and petroleum-based chemicals and distilleries	Manufacture of oil refineries (petroleum or petroleum), fuel lubricants, grease and petroleum based chemical (basic or intermediate) manufacturing, liquefied petroleum gas production, industrial gas production or refining, or refining Asphalt Processing Machinery, Dyeing and Dyeing Intermediate Manufacturing or Assembling Industries, Buildings that facilitate the manufacturing or assembling industries of paints (emulsions and enamels) paints, varnishes and polishes
	Chemicals Polythene, plastic rubber and glass related industries	Manufacture, assembling, or manufacturing of chemical fertilizers based on the chemical manufacturing, assembling or repackaging industries, soaps, detergents, softeners or other cleaning agents, synthetic rubber, natural rubber manufacturing or processing. Processing and repackaging industries, pesticides, insecticides, fungicides and herbicides, manufacturing or assembling or repackaging industries, Manufacture of polymers (polymers) or all related industries, fiberglass raw materials, all types of tires, tube manufacturing or tire refilling industries, asbestos fiber raw material manufacturing, battery manufacturing or Manufacturing, extracting or assembling industries of Western pharmaceuticals or cosmetics, including the refining industry, pharmaceutical intermediates, Batik Industries Other than natural gum manufacturing industries, building and waxing industries that facilitate the manufacture or assembling of matches and explosives

Industries	Cement, concrete and ceramic related products	Cement Industries (Cleaner Grinding or Manufacturing or Reprinting), Cement Block Stone Manufacturing Industries Concrete Pre-Mixing Machinery, Glass or Glass Based Manufacturing Industries, Lime Ovens, Ceramic Products Industries, Non-Metallic Minerals (Limestone, Dolomite) , Apatite, rock phosphate, sandstone, feldspar, quartz, ilmenite, rutile, zircon, mina, sapphire, porcelain, etc.), Buildings that facilitate the concrete prefabrication industry, the plaster of Paris manufacturing industry, and the ceramic manufacturing industry
	Clay related manufacturing industries	Buildings that facilitate the tile, clay brick and pottery related industries
	Natural fiber related manufacturing industries	Fiber-based manufacturing industries using natural materials
	Manufacture of textiles, clothing, apparel and leather goods	Garment Industry, Textile Processing (Including Bleaching, Coloring, Printing) Industries or Garment Washing or Sand Processing Industries, Handloom Laundry or Clothing Weaving or Embroidery Industries, Building facilities for handloom or textile or embroidery industries, high power textile factories and milling industries, leather manufacturing industries, tanneries, linen processing industries
	Electrical and electronics related industries	Manufacture or assembly of electrical or electronic goods and equipment
	Heavy machinery and assembly industries	Car service terminals with auto service activities other than car or bicycle manufacturing and assembly industries, tricycle and motorcycle service stations
	Paper manufacturing and printing related industries	Building facilities for pulp and paper manufacturing industries, corrugated cardboard manufacturing industries, lead smelting printing presses or newspaper printing or wastewater generating printing operations or color photo processing centers, printing and letter printing machines and industrial facilities.

Industries	Timber / wood products and furniture manufacturing industries	Chemical treatment and preservation of timber other than wood mills and boron treatment, multi-purpose carpentry
	Food and non-alcoholic beverage industry	Food production, processing and packaging industries, including bakery and confectionery industries, instant tea or coffee processing industries, non-alcoholic beverage manufacturing industries, sugar cane industries, ice production, tea factories, distilleries or coconut processing industries Buildings that facilitate
	Alcohol / Indigenous Medicinal Spirits and Extracts	Manufacture or extracting or combining of alcohol fermentation industries (distilleries, breweries) or bottling industries containing alcoholic beverages and bottling, tobacco distillation, sugar production and sugar refining, ayurvedic, indigenous medicine Existing industries, Buildings providing facilities for coconut oil extraction or cinnamon oil extraction industries, cinnamon smoke (sulfur emission extraction industries), plant and animal oil / fat extraction industries
	Recycling activities related industries	Solid Waste Recycling / Recovery or Processing Industries, Toxic and Hazardous / Hazardous / Infectious Waste Recycling or Processing Industries, Municipal and Other Solid Waste Composting Centers / Industries
	Domestic industries	Crafts and manufacturing industries that are not harmful to the traditional environment
	Vehicle Service Centers	Locations where vehicle maintenance services are provided
	Auto Repair Centers / Scatter Painting Centers	Accident / Damage Vehicle Repair Locations
	Taxi Service Centers	Places where vehicles are supplied on a rental basis for the needs of others who own or lease their own vehicles
	Laundry / Laundry Centers	Mechanical grinding and peeling places
	Writing lathes, welding workshops	Locations for machining iron sharpening, cutting and grafting
Electronics Repair Centers	-	
Trains and bus stands / stops	-	

Recreational	Pocket Park	This includes high-density residential developments, small playgrounds, recreation areas, and park areas that are scattered throughout areas with dense industrial and commercial development that lack proper maintenance or administration.
	Mini Park	Very small playgrounds (senior or junior football field, informal running coaches, leisure areas, cricket grounds and parks) with extensive facilities that can be reached within a 2-minute walk within the 200-meter area of the residential community. .
	Community Park	This includes Active & Passive playgrounds with a wide range of facilities that can be reached within a 10-minute walk, covering an area of 800 square meters.
	Town Park	For example, athletics and running training track with a football field of about 02 ha. Special children's play areas, ornamental gardens, about 0.5 ha Natural environment for leisure and study
	Town Park	Covering an area of 1600 m ² , the Community and Private Vehicles can be accessed by a variety of modified and extensive functional and passive playgrounds, i.e., playgrounds with separate facilities for different sports, such as pitches and playgrounds. Taken under this.
	Regional Parks	This includes public leisure and recreation areas with all amenities or special activities, special natural environment conditions.
	Linear Park	Line gardens are determined by existing river / stream / canal reserves. Mainly walkways, gymnasiums, bicycle lanes and parallel lanes.
	Beach Park	Coastal Recreational Parks
	Indoor sports centers	Sports venues equipped with sports facilities in a building
	Cinemas	Buildings with auditorium facilities for watching movies for entertainment
	Clubs	Other social amenities with local and foreign liquor outlets for entertainment
	Art galleries / museums	It is a building that houses a large number of interesting and valuable objects such as works of art or antiquities and displays them to the public.
	Outdoor theaters	Seats with open platforms
	Boat jetty / ferry accommodation	When the vessel is parked in the water, it is a permanent or temporary set-up platform connected to the landfill built to provide other landing, evacuation and other services.

Prepared by: Western Provincial Division (2020), Urban Development Authority.

ANNEXURE – 02

ABBREVIATIONS

02. ABBREVIATIONS

U.D.A.	-	Urban development Authority
I.T.	-	Information Technology
G.N.	-	Grama Niladari
R.D.A.	-	Road Development Authority
P.R.D.A.	-	Provincial Road Development Authority
S.W.O.T. Aalysis	-	Strenth , Weakness, Opportunity, Threat, Analysis
TIA	-	Traffic Impact Assessment
GIS	-	Geographic Information System
NWSDB	-	National Water Supply and Drainage Board

ANNEXURE – 03

LIST OF MAPS

03. LIST OF MAPS

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ANNEXURE – 06

ZONING BOUNDARIES

06. ZONING BOUNDARIES

6.1 Administrative Zone

North :

Line drawn from the point where the New Town Road and Canal 2 meet at the west end, along the center line of Canal 02 to the east, northeast, and east at the northeast corner of School Road.

East :

From the last point mentioned, take the center line west and south along the center line of School Lane 2 to the west and south, and then 230 m west along the center line of the new city main road to the north end of the new city bypass, and from there to the center of the new city byway. 740 m along the line starting from Kalahagala road to the point where it meets the by road which runs eastwards.

South :

The line drawn from the last mentioned point to the point where the school road meets west along the center line of that by road.

West :

From the last point mentioned, along the center line of the school road to the north until you meet the New Town Main Road, and then along the center line of the New Town Main Road to the point where the Kalahagala Road begins to the west, and then 67 meters south along the center line of the Kalahagala Road. To the starting point of the by-pass west of the road and from there to the point where it meets Potgul Mawatha west and north along the center line of the by-pass, From there it will continue along the center line of Potthgul Mawatha to the east towards the New Town Main Road and from there to the North along the center line of the New Town Main Road to the starting point.

6.2 Archaeological Conservation Zone – 1

North :

Line drawn from the point where the Batticaloa-Colombo railway line and the Laksha Uyana Chandanapokuna road and the Laksha Uyana road meet to the point where the 2 canal meets the southeast along the center line of the Habarana-Batticaloa railway line.

East and South –

From the last mentioned point 30 m to the southwest along the center line of the 2 canal and from there to the point where the Pradeshiya Sabha road meets 517 m northwest along the imaginary line and from there along the center line of the Pradeshiya Sabha road 55 m to the north,

From there, along the imaginary lines 37 m west, 72 m south, 68 m west, 41 m southeast, 36 m east and 157 m south until you meet that Pradeshiya Sabha road, and then west and south along the center line of that Pradeshiya Sabha road. Pradeshiya Sabha Road to the western turning point and from there to the point where the Nissankamallapura entrance enters the southern boundary along the eastern boundary of the Archaeological Zone, From there along the center line of the Nissankamallapura inner road to the point where the by road from Rankoth Vehera to Galtambarawa meets to the west and south, and from there to the boundary of the Archaeological Zone 52 meters to the southeast, 415 meters to the east and 156 meters to the southeast. From the point where the Nissankamalla Mawatha and Galthambarawa Road meet along the center line of the 1st canal to the southwest, south, southeast, east, south and southwest to the point where the straight line towards the 1st canal meets; From there to the point where 1 canal meets 453 m west and 188 m south along the boundary of the Archaeological Zone, and from there along the center line of that 1 channel to the point where it meets the boundary of the Parakrama Samudraya to the southwest and west.

West :

From the last point mentioned along the eastern boundary of the Parakrama Sea to the north, west, north, northeast, northwest, northwest, north and then 105 m west to the point where the boundary of the Archaeological Zone and the northern boundary of the Parakrama Sea meet. Up to the point where the Polonnaruwa Hingurakgoda road meets the northwest, north, east, north and east along the western boundary of the region, From there along the center line of the Polonnaruwa-Hingurakgoda road 105 m to the north and from there along the boundary of the Archaeological Zone 207 m to the east, 626 m to the north, 23 m to the west, 38 m to the east, 45 m to the north, 217 m to the northwest, 36 m to the west. To the north and from there to the northwest until the starting point is reached.

6.3 Archaeological Conservation Zone – 2

North :

Line drawn from the point where the boundary of the Parakrama Ocean and the western boundary of the 1st canal meets the center line of the 1st canal to the point where it meets the Municipal Bypass which connects the 1st canal and the roundabout to the east, northeast and east.

East :

From the last point mentioned along the center line of the Municipal Council Road to the point where the Habarana-Batticaloa road meets the post (69 km post) and from there to the point where it meets the roundabout on the south side along the center line of Nandasena Mawatha and from there along the Municipal Council by road to the south. The line drawn in the direction up to the point where that bypass ends.

South :

The imaginary line drawn from the last point to the point where Vijayaba Mawatha meets the west along the imaginary line, and then along the center line of that Vijayaba Mawatha to the point where it meets Navanagara Mawatha to the west, and from there to the point where it meets the boundary of the Parakrama Ocean towards the west.

West :

From the last mentioned point to the point where the starting point meets northeast along the boundary of the Parakrama Samudraya

6.4 Commercial Zone

North :

From the point where the Batticaloa-Habarana road meets the north end of Maithripala Sirisena Mawatha to the center line of the Batticaloa-Habarana road 180 m to the east where the field canal meets, and then along the center line of the field canal to the north and east, and from there to the north turn of the field canal The imaginary line drawn to the point where the Batticaloa-Colombo railway line meets.

East :

Line drawn 2.15 km southeast along the center line of the Batticaloa-Colombo railway line from the last point mentioned.

South and West :

From the last point mentioned along the hypothetical line drawn towards the southwest to the northeast end of Maithripala Sirisena Mawatha and from there to the southwest, west and northwest along the center line of Maithripala Sirisena Mawatha.

6.5 Environmental Sensitive Zone

North :

From the point where the western boundary of the Aluthwewa West Grama Niladhari Division meets the southwestern end of the National Water Gallon Valley National Park and the north boundary of the National Water Gallon Valley National Park to the northeast, east, north, northeast, east, north, east, north and north, north Until the meeting point, From there along the center line of the Habarana-Batticaloa road 1.34 km to the east and from there to the point where the Mahaweli River meets to the north, east, north, east and southeast along the boundary of the Mahaweli flood plain National Park.

East :

Line drawn from the last mentioned point along the center line of the Mahaweli River to the point where it meets the Ambanganga from the south and southwest to the west.

South and West :

From the last point mentioned along the Ambanganga center line to the point where it meets the southwestern end of the Aluthwewa West Grama Niladhari Division to the west and from there it meets the northwest point along the western boundary of the Aluthwewa West Grama Niladhari Division to the northwest.

6.6 Industrial Zone

6.6.1 Industrial Zone A

North :

From the point where the imaginary line drawn from Laksha Uyana Chandanapokuna Road and Karmanthapura to the northwest meets the center line along the center line of the Laksha Uyana Chandana Pokuna Road to the point where it meets the Kumbukkanaruwa Northeast.

East :

Line drawn from the last mentioned point (from the east turning point of Kumbukkanaru) to the point where Kumbukkanaru turns east, south and west along the center line, the point where Kumbakkanaru turns southeast to the point where the Pradeshiya Sabha road meets 450 m southwest.

South :

Line drawn 190 m along the center line of the Pradeshiya Sabha road from the last mentioned point to the turning point of the Pradeshiya Sabha road towards the south.

West :

From the last mentioned point along the hypothetical lines 155 m northwest, 78 m southwest, 38 m northwest, 40 m southwest, 92 m northwest and 143 m north to the point where the industrial entrance meets the industrial park and from there along the center line of the industrial entrance. 88 to the west and from there to the point where the Pradeshiya Sabha road meets 110 m southwest and 60 m south along imaginary lines, From there to the point where the Lakshauyana Chandanapokuna road meets the west along the center line of the Pradeshiya Sabha road and from there to the point where the Lakshauyana Chandana Pokuna road starts to the north along the center line of the Lakshauyana Chandanapokuna road and from there along the imaginary lines 338 meters northeast and northwest. Is until the point is met.

6.6.2 Industrial Zone B

North :

Line drawn from the point where the northern end of Kumbukkanaruwa and Pradeshiya Sabha road meets to the point where the Polonnaruwa Hingurakgoda road meets north and east along the center line of Kumbukkanaru.

East :

From the last mentioned point along the center line of Polonnaruwa Hingurakgoda road to the south to the starting point of the crossroads connecting Polonnaruwa Hingurakgoda road and Lakshauyana Chandana Pokuna road and from there 160 meters east along the center line of that cross road and from there along imaginary lines 188 to the south, 83 m to the west and 100 m to the south to the point where the crossroads extends from the Polonnaruwa Hingurakgoda road to the east. From there it is 20 meters west along the center line of the crossroads, 96 meters south and 70 meters west along the hypothetical lines to the point where it meets the Polonnaruwa Hingurakgoda road, 155 meters south along the center line of the Polonnaruwa Hingurakgoda road and from there along the imaginary line. 203 Line drawn to the point where the Pradeshiya Sabha road meets to the southwest.

South :

Line drawn 245 meters west along the center line of the Pradeshiya Sabha road from the last mentioned point and then 66 meters northwest along the imaginary line to the point where the Pradeshiya Sabha road meets.

West :

From the last mentioned point to the north, northeast and north along the center line of the Pradeshiya Sabha road.

6.7 Tourist Zone

6.7.1 Tourist Zone A

North :

Line drawn from the junction of Habarana Batticaloa Road and Kumbukkanaruwa along the center line of Habarana Batticaloa Road to the starting point of the Municipal Council Road which runs 2.6 km south and east, from Habarana Batticaloa Road to Northeast.

East :

The line drawn from the last point mentioned along the center line of the Habarana-Batticaloa road 500 m to the southeast, then 220 m west along the hypothetical line and then along the hypothetical line 485 m southeast to the point where the northern boundary of the Parakrama Sea meets.

South :

From the last point mentioned along the northern boundary of the Parakrama Sea to the point where the Ma Oya Road meets northwest, south, east, north, southwest, north, south and north, and from there along the center line of the Municipal Crossing which runs west of that Ma Oya road. To the starting point of the first intersection running west and northwest at that intersection, The line drawn from there along the center line of the first intersection to the west until the starting point of the intersection running from that first intersection to the northwest.

West :

From the point at the last point to the point where the Third Crossing and the Field Canal run north-west along the center line of that intersection, and from there to the point where it meets the starting point north, northeast, northwest, and northeast along the center line Is.

6.7.2 Tourist Zone B

North :

Fictional line drawn from the ancient village to the west and from the point where it meets Pothgul Mawatha to the point where it meets Navanagaraya Road and Vijaya Mawatha to the east.

East :

From the last point to the center line of the New Town Road to the south, southeast, southwest and south to the starting point of the crossroads in front of Royal Junior College at Potgul Mawatha and from there to the northwest point along the center line of the crossroads to the northwest. , From there to the point where the Kalahagala road meets the south and east along the center line of the by road leading to the south. From there along the center line of the Kalahagala road to the point where the Navanagaraya road meets to the north, and from there to the point where the school road meets the school road at the southeast and east along the center line of the Nawanagaraya road, and from there to the point where the Ganagolla road begins at the south along the center line of the school road. From there along the center line of the Ganangolla Mawatha to the point where it meets the Ganangolla main road to the south, southeast, southwest, southeast and east. From there the line is drawn along the center line of the Ganagolla main road to the point where it meets the field canal to the south, west, south, southwest, southeast, south, southeast and south.

South :

The line drawn from the last point mentioned along the center line of this field canal to the starting point of the intermediate field canal running west, northwest and west from that field canal to the west.

West :

From the last point mentioned along the center line of the field canal to the north, northeast, northwest, northeast, northwest, northeast, east, south, east, north, west and northwest until it meets the boundary point of the mighty ocean near the Kalahagala road. Along the boundary of the mighty ocean to the northeast, north, west, north, south, north, east, north, northeast, and northerly.

6.8 Health service Zone

North :

Starting from the 69 km post of Galthambarawa Road and Hambarana Batticaloa Road and ending at the end of the Municipal Road which runs northwards along the imaginary line to the point where it meets Nissankamalla Mawatha at the point where it meets 90m Northeast, 163m North, 455m East and 72m Southeast. Line drawn along the center line of the road to the point where the Sungavila road meets east and southeast.

East :

From the last point mentioned, 400 m southeast along the center line of Colonel Avenue to the southbound lane, and then along imaginary lines 52 m east, 58 m south, 92 m east, 370 m southeast and 160 m Line drawn to the point where it meets Colony Road to the southwest.

South :

From the last mentioned point along the center line of the Colony Avenue to the west and 100 m to the north, and from there along the imaginary lines 42 m to the south, 90 m to the northwest, 100 m to the west, 85 m to the northeast, 110 m to the northwest, 220 m to 220 m. Southwest, 110 m northwest, 72 m southwest, 35 m northwest, 127 m north, 153 m west, 103 m south, 43 m east, 230 m to the south, 177 m to the west, 40 m to the south, 20 m to the west, 162 m to the northwest, 205 m to the northeast and 390 m to the northwest Line drawn until.

West :

From the last point mentioned along the center line of Nandasena Mawatha to the point where the Habarana-Batticaloa road meets to the north and from there to the point where it meets to the north along the center line of the Municipal Council road starting from the 69 km post on the Habarana-Batticaloa road.

6.9 Education and Vocational Training Institutional Zone

North and East :

From the point where the Habarana-Batticaloa road meets the northwest corner of Maithripala Sirisena Mawatha to the point where the water treatment plant runs along the center line of the Habarana-Batticaloa road to the southeast and southwest to the point where it meets the center line along the center line of the water treatment plant along the center line of the waterway along the center line along the center line of the road 25 meters along the center line. The line drawn to the turning point.

South and West :

From the last mentioned point along the imaginary lines (parallel to the Batticaloa-Habarana road) to the northwest point of 2.13 km and from there to the point where the Maithripala Sirisena Mawatha meets 256 m northeast along the imaginary line and from there along the center line of the Maithripala Sirisena Mawatha. The direction is also until the starting point is met.

6.10 Mixed Development Zone- 1

North :

From the point where the Batticaloa-Colombo railway line meets the Muslim Colony road, along the center line of the Batticaloa-Colombo railway line, 560 m northwest, from the point where the field canal meets, along the imaginary lines, 330 m to the northeast (up to the border of Hiru rice mill) and back, 1.02 km. The line drawn from the point where the 02 canal meets the junction to the point where the paddy field meets 26 meters northeast along the imaginary line.

East :

From the last mentioned point to the point where the Muslim Colony Road meets the Southeast along the imaginary line, and from there to the point where the Municipal Road turns westwards along the center line of the Municipal Council Road, and then along the imaginary line 686 m to the southeast. The line drawn from the south to the point where the canal meets the northeast and from there along the center line of the canal to the point where the Habarana-Batticaloa road meets to the south.

South and West :

From the last point mentioned along the center line of the Habarana-Batticaloa line to the point where it meets Maithripala Sirisena Mawatha in a north-westerly direction, and then along the fictitious line to the point where it meets the Batticaloa-Colombo railway line, and then along the center line of the Batticaloa-Colombo railway line in a north-westerly direction

6.11 Mixed Development Zone – 2

North :

From Polonnaruwa National Sports Complex 275m Northwest point along the Habarana-Batticaloa road to the point where the Batticaloa-Colombo railway line meets northeast along the fictitious line, then 40m along the fictitious line 105m along the center line of the Batticaloa-Colombo railway line. Northeast, 8 m southeast, 59 m northeast until the field canal meets, From there it will run along the center line of the field to the east, northeast, east, south, east, northeast, east, southeast and east to the point where it meets the Manikkampattiya canal bund road. Line drawn to the point where the flowing field meets the canal, From there, along the center line of the field stream, southeast, south, southeast, northeast, southeast, northeast, east, northeast, southeast, south, southeast, south, southeast, east, northeast, east and south.

East :

The line drawn from the last point mentioned along the center line of the field canal to the point where the Habarana-Batticaloa road and the Manampitiya bridge meet to the south, southwest, south, east, south, southwest, south and northeast.

South:

Polonnaruwa Water Supply from the last mentioned point to the point where the inland road runs southwards near the Milco factory along the center line of the Habarana-Batticaloa road and from there along the center line of the inland road which starts near the Milco factory to the southwest, south, southwest and west. Line drawn to the point where the system line meets.

West :

From the last point to the point where the Habarana-Batticaloa road meets north and northeast along the center line of the Polonnaruwa Water Supply Scheme and from there along the center line of the Habarana-Batticaloa road to the point where it meets the starting point at the north-west.

6.12 Residential Zone- 1

6.12.1 Residential Zone 1 A

North :

From the culvert near the Mahamevunawa monastery on the Galtambarawa Sinhapura road to the north point of the Pradeshiya Sabha road which meets 120 meters northeast along the hypothetical line and from there along the center line of the Pradeshiya Sabha road meet the Somawathiya road to the east, north, east, south, east and east Line drawn to.

East :

From the last point mentioned along the center line of the Somawathiya road to the fourth junction where the Somawathiya road and by-roads connect to the south-east, south-west, south, west, south, south-west, south, east and southeast. East, South and 135 m to the west, and then 260 m south along the hypothetical line to the point of intersection, The line drawn from there along the center line of that by-road to the point where the Onagama road meets East, South, East and South.

South:

The line drawn from the last mentioned point to the point where the 1st canal starts westwards along the center line of the same road and from there to the point where the Somawathiya road meets the southwest and westwards along the center line of the 1st canal.

West :

From the last point mentioned along the center line of the Somawathiya road to the starting point of the by road starting from Somawathiya road 520 m northeast towards the east and from there along the center line of the by road meet the Sinhapura road to the east, north, northwest, north and northeast. To the point, From there it will run along the center line of the Sinhapura road to the point where it meets west, southwest, west, northwest, west, north and west and from there it will reach the starting point along the center line of the Sinhapura road to the northeast and north.

6.12.2 Residential Zone 1 B

North :

From the point where Navanagaraya Road and School Avenue meet to the east line along the center line of Navanagaraya Road to the point where School Lane 2 meets the center line of School Lane 2 to the north and northeast at the point where it meets the 02 canal. The line drawn along the line to the point where it meets the New Town Road to the southeast, east, northeast, north, east, and south.

East and South :

From the last mentioned point to the center line of the 4th canal, turn right, southwest, southwest, southwest, southeast, southwest, southeast, south, east, northwest, southwest, southeast, southwest, southeast, southwest and northwest. Line drawn to the point where the school road meets to the northwest of the forest.

West :

From the last mentioned point to the center line of the school road to the northwest, north, northwest, north, northwest and north to the starting point.

6.13 Residential Zone – 2

Except for the above 12 zones located in the Polonnaruwa Urban Development Area, the remaining land area belongs to this zone.

ANNEXURE - 07

ZONING BOUNDARY COORDINATES

(BY LATITUDE AND LONGITUDE)

7. Zoning boundary coordinates (by latitude and longitude)

7.1 Administrative Zone		
	X- coordinates (latitude)	Y- coordinates (longitude)
	7.91034000000	80.99860000000
	7.91038000000	80.99860000000
	7.91185000000	80.99910000000
	7.91263000000	80.99900000000
	7.91470000000	80.99850000000
	7.91496000000	80.99780000000
	7.91555000000	80.99700000000
	7.91500000000	80.99710000000
	7.91505000000	80.99630000000
	7.91541000000	80.99610000000
	7.91800000000	80.99610000000
	7.91773000000	80.99670000000
	7.91945000000	80.99670000000
	7.91950000000	80.99820000000
	7.91940000000	80.99840000000
	7.91947000000	81.00160000000
	7.92146000000	81.00250000000
	7.92195000000	81.00400000000
	7.92037000000	81.00640000000
	7.91981000000	81.00500000000
	7.91873000000	81.00450000000
	7.91589000000	81.00440000000
	7.91579000000	81.00410000000
	7.91586000000	81.00240000000
	7.91479000000	81.00240000000
	7.91094000000	81.00240000000
	7.90932000000	81.00220000000
	7.90928000000	81.00130000000
	7.90961000000	80.99990000000
	7.91034000000	80.99860000000

7.2 Archaeological Conservation Zone - 01					
	X- coordinates (latitude)	Y- coordinates (longitude)		X- coordinates (latitude)	Y- coordinates (longitude)
	7.98479000000	81.00380000000		7.94161000000	81.00220000000
	7.98022000000	81.01260000000		7.94150000000	81.00160000000
	7.98003000000	81.01240000000		7.94149000000	81.00010000000
	7.98121000000	81.00930000000		7.94146000000	80.99920000000
	7.98145000000	81.00790000000		7.94142000000	80.99840000000
	7.98195000000	81.00790000000		7.94139000000	80.99810000000
	7.98195000000	81.00760000000		7.94142000000	80.99810000000
	7.98131000000	81.00750000000		7.94145000000	80.99810000000
	7.98121000000	81.00690000000		7.94172000000	80.99800000000
	7.98087000000	81.00710000000		7.94170000000	80.99740000000
	7.98094000000	81.00740000000		7.94196000000	80.99740000000
	7.97956000000	81.00760000000		7.94208000000	80.99720000000
	7.97951000000	81.00750000000		7.94217000000	80.99730000000
	7.97561000000	81.00730000000		7.94235000000	80.99720000000
	7.96846000000	81.00690000000		7.94248000000	80.99710000000
	7.96844000000	81.00630000000		7.94260000000	80.99700000000
	7.96463000000	81.00610000000		7.94266000000	80.99680000000
	7.95864000000	81.00570000000		7.94282000000	80.99670000000
	7.95824000000	81.00600000000		7.94309000000	80.99680000000
	7.95824000000	81.00640000000		7.94319000000	80.99700000000
	7.95809000000	81.00970000000		7.94330000000	80.99720000000
	7.95737000000	81.01010000000		7.94364000000	80.99720000000
	7.95704000000	81.01060000000		7.94391000000	80.99720000000
	7.95689000000	81.01030000000		7.94404000000	80.99710000000
	7.95523000000	81.00980000000		7.94419000000	80.99710000000
	7.95460000000	81.00920000000		7.94425000000	80.99720000000
	7.95393000000	81.00920000000		7.94423000000	80.99750000000
	7.95239000000	81.01060000000		7.94440000000	80.99770000000
	7.95218000000	81.01220000000		7.94456000000	80.99780000000
	7.95144000000	81.01280000000		7.94457000000	80.99800000000
	7.95053000000	81.01280000000		7.94469000000	80.99820000000
	7.94890000000	81.01220000000		7.94476000000	80.99830000000
	7.94797000000	81.01160000000		7.94486000000	80.99850000000
	7.94772000000	81.01100000000		7.94506000000	80.99880000000
	7.94754000000	81.00700000000		7.94531000000	80.99910000000
	7.94604000000	81.00710000000		7.94555000000	80.99920000000

7.2 Archaeological Conservation Zone - 01				
X- coordinates (latitude)	Y- coordinates (longitude)		X- coordinates (latitude)	Y- coordinates (longitude)
7.94566000000	81.00660000000		7.94575000000	80.99910000000
7.94567000000	81.00640000000		7.94595000000	80.99890000000
7.94561000000	81.00600000000		7.94609000000	80.99870000000
7.94545000000	81.00560000000		7.94632000000	80.99850000000
7.94466000000	81.00510000000		7.94654000000	80.99840000000
7.94373000000	81.00460000000		7.94680000000	80.99850000000
7.94284000000	81.00360000000		7.94705000000	80.99870000000
7.94187000000	81.00260000000		7.94702000000	80.99910000000
7.94708000000	80.99930000000		7.95729000000	80.99810000000
7.94721000000	80.99950000000		7.95735000000	80.99870000000
7.94746000000	80.99960000000		7.95755000000	80.99880000000
7.94788000000	80.99960000000		7.95830000000	80.99860000000
7.94828000000	80.99970000000		7.95832000000	80.99720000000
7.94856000000	80.99960000000		7.95856000000	80.99680000000
7.94888000000	80.99950000000		7.96249000000	80.99700000000
7.94900000000	80.99960000000		7.96424000000	80.99710000000
7.94944000000	80.99950000000		7.96426000000	80.99690000000
7.94973000000	80.99930000000		7.96462000000	80.99680000000
7.95002000000	80.99900000000		7.96453000000	80.99730000000
7.95037000000	80.99900000000		7.96500000000	80.99720000000
7.95063000000	80.99900000000		7.96522000000	80.99710000000
7.95071000000	80.99910000000		7.96525000000	80.99730000000
7.95099000000	80.99890000000		7.96651000000	80.99720000000
7.95130000000	80.99880000000		7.96670000000	80.99690000000
7.95151000000	80.99880000000		7.96704000000	80.99690000000
7.95187000000	80.99870000000		7.96807000000	80.99630000000
7.95192000000	80.99880000000		7.96816000000	80.99660000000
7.95212000000	80.99870000000		7.96793000000	80.99690000000
7.95226000000	80.99870000000		7.96774000000	80.99680000000
7.95242000000	80.99870000000		7.96730000000	80.99710000000
7.95255000000	80.99870000000		7.96725000000	80.99820000000
7.95264000000	80.99870000000		7.96734000000	81.00110000000
7.95275000000	80.99860000000		7.96947000000	81.00130000000
7.95278000000	80.99850000000		7.96986000000	81.00110000000
7.95274000000	80.99840000000		7.97006000000	81.00130000000
7.95269000000	80.99830000000		7.97100000000	81.00150000000
7.95266000000	80.99820000000		7.97172000000	81.00120000000

7.2 Archaeological Conservation Zone - 01					
	X- coordinates (latitude)	Y- coordinates (longitude)		X- coordinates (latitude)	Y- coordinates (longitude)
	7.95253000000	80.99800000000		7.97190000000	81.00060000000
	7.95243000000	80.99790000000		7.97222000000	81.00060000000
	7.95241000000	80.99780000000		7.97223000000	81.00090000000
	7.95241000000	80.99770000000		7.97259000000	81.00090000000
	7.95260000000	80.99750000000		7.97264000000	81.00070000000
	7.95336000000	80.99670000000		7.97284000000	81.00090000000
	7.95586000000	80.99580000000		7.97348000000	81.00190000000
	7.95623000000	80.99570000000		7.97372000000	81.00190000000
	7.95631000000	80.99740000000		7.97395000000	81.00220000000
	7.95623000000	80.99770000000		7.97409000000	81.00210000000
	7.95640000000	80.99790000000		7.97366000000	81.00150000000
	7.95650000000	80.99790000000		7.97437000000	81.00120000000
	7.95662000000	80.99800000000		7.97443000000	81.00170000000
	7.95681000000	80.99790000000		7.97566000000	81.00170000000
	7.95668000000	80.99770000000		7.97812000000	81.00190000000
	7.95708000000	80.99760000000		7.97895000000	81.00180000000
	7.95743000000	80.99800000000		7.97897000000	81.00150000000
	7.97901000000	81.00120000000	226.	7.97828000000	81.00040000000
	7.97858000000	81.00120000000			
	7.97858000000	81.00040000000			
	7.97828000000	81.00040000000			
	7.97829000000	80.99960000000			
	7.97867000000	80.99960000000			
	7.97866000000	80.99930000000			
	7.97829000000	80.99940000000			
	7.97831000000	80.99890000000			
	7.97876000000	80.99890000000			
	7.97875000000	80.99920000000			
	7.97907000000	80.99920000000			
	7.97905000000	80.99890000000			
	7.97946000000	80.99880000000			
	7.97949000000	80.99950000000			
	7.98002000000	80.99960000000			
	7.98000000000	81.00040000000			
	7.98025000000	81.00090000000			
	7.98029000000	81.00150000000			
	7.98035000000	81.00160000000			

7.2 Archaeological Conservation Zone - 01					
	X- coordinates (latitude)	Y- coordinates (longitude)		X- coordinates (latitude)	Y- coordinates (longitude)
	7.98055000000	81.00170000000			
	7.98053000000	81.00200000000			
	7.98118000000	81.00210000000			
	7.98120000000	81.00130000000			
	7.98139000000	81.00140000000			
	7.98178000000	81.00150000000			
	7.98177000000	81.00190000000			
	7.98193000000	81.00210000000			
	7.98208000000	81.00190000000			
	7.98230000000	81.00200000000			
	7.98227000000	81.00210000000			
	7.98250000000	81.00230000000			
	7.98279000000	81.00210000000			
	7.98284000000	81.00220000000			
	7.98256000000	81.00270000000			
	7.98312000000	81.00300000000			
	7.98350000000	81.00270000000			
	7.98380000000	81.00310000000			
	7.98363000000	81.00320000000			
	7.98400000000	81.00370000000			
	7.98432000000	81.00350000000			
	7.98479000000	81.00380000000			
	7.97901000000	81.00120000000			
	7.97858000000	81.00120000000			
	7.97858000000	81.00040000000			

7.3 Archaeological Conservation Zone-02	
X- coordinates (latitude)	Y- coordinates (longitude)
7.94557000000	81.00650000000
7.94260000000	81.00600000000
7.94106000000	81.00580000000
7.94065000000	81.00560000000
7.93917000000	81.00550000000
7.93898000000	81.00560000000
7.93712000000	81.00530000000
7.93684000000	81.00490000000
7.93665000000	81.00370000000
7.93711000000	81.00110000000
7.93725000000	81.00070000000
7.93745000000	80.99910000000
7.93835000000	80.99680000000
7.93911000000	80.99730000000
7.93966000000	80.99750000000
7.94024000000	80.99770000000
7.94039000000	80.99780000000
7.94095000000	80.99790000000
7.94139000000	80.99810000000
7.94142000000	80.99840000000
7.94146000000	80.99920000000
7.94149000000	81.00010000000
7.94150000000	81.00160000000
7.94161000000	81.00220000000
7.94187000000	81.00260000000
7.94284000000	81.00360000000
7.94373000000	81.00460000000
7.94466000000	81.00510000000
7.94545000000	81.00560000000
7.94561000000	81.00600000000
7.94567000000	81.00640000000
7.94566000000	81.00660000000
7.94557000000	81.00650000000

7.4 Commercial Zone	
X- coordinates (latitude)	Y- coordinates (longitude)
7.92747000000	81.03040000000
7.92769000000	81.03040000000
7.92799000000	81.03030000000
7.92899000000	81.02960000000
7.92997000000	81.02880000000
7.93358000000	81.02630000000
7.93463000000	81.02580000000
7.93530000000	81.02560000000
7.93588000000	81.02570000000
7.93551000000	81.02730000000
7.93616000000	81.02740000000
7.93625000000	81.02820000000
7.93609000000	81.02880000000
7.93581000000	81.02980000000
7.93508000000	81.03030000000
7.93386000000	81.03110000000
7.93093000000	81.03300000000
7.92903000000	81.03420000000
7.92818000000	81.03480000000
7.92761000000	81.03520000000
7.92452000000	81.03850000000
7.92107000000	81.04210000000
7.92019000000	81.04120000000
7.91990000000	81.04050000000
7.91989000000	81.03960000000
7.92024000000	81.03890000000
7.92080000000	81.03820000000
7.92238000000	81.03670000000
7.92453000000	81.03440000000
7.92637000000	81.03230000000
7.92747000000	81.03040000000

7.5 Environmentally Sensitive Zone					
	X- coordinates (latitude)	Y- coordinates (longitude)		X- coordinates (latitude)	Y- coordinates (longitude)
	7.90039000000	81.05130000000		7.91754000000	81.08220000000
	7.90106000000	81.05190000000		7.92095000000	81.08210000000
	7.90171000000	81.05220000000		7.92705000000	81.08080000000
	7.90221000000	81.05240000000		7.92896000000	81.08170000000
	7.90248000000	81.05240000000		7.93016000000	81.08120000000
	7.90301000000	81.05260000000		7.93177000000	81.08090000000
	7.90333000000	81.05280000000		7.93303000000	81.07940000000
	7.90317000000	81.05310000000		7.93411000000	81.07950000000
	7.90311000000	81.05400000000		7.93423000000	81.08020000000
	7.90308000000	81.05440000000		7.93333000000	81.08220000000
	7.90302000000	81.05520000000		7.93309000000	81.08260000000
	7.90300000000	81.05600000000		7.93321000000	81.08410000000
	7.90300000000	81.05660000000		7.93345000000	81.08540000000
	7.90299000000	81.05690000000		7.93431000000	81.08630000000
	7.90277000000	81.05740000000		7.93256000000	81.08790000000
	7.90253000000	81.05830000000		7.92962000000	81.09040000000
	7.90208000000	81.06000000000		7.92655000000	81.09330000000
	7.90160000000	81.06110000000		7.92555000000	81.09420000000
	7.90163000000	81.06220000000		7.92543000000	81.09430000000
	7.90229000000	81.06380000000		7.92531000000	81.09440000000
	7.90246000000	81.06400000000		7.92510000000	81.09460000000
	7.90355000000	81.06510000000		7.92492000000	81.09450000000
	7.90374000000	81.06540000000		7.92404000000	81.09340000000
	7.90390000000	81.06540000000		7.92278000000	81.09210000000
	7.90474000000	81.06540000000		7.92106000000	81.09070000000
	7.90503000000	81.06550000000		7.91931000000	81.09000000000
	7.90522000000	81.06560000000		7.91703000000	81.08960000000
	7.90533000000	81.06640000000		7.91484000000	81.08930000000
	7.90557000000	81.06820000000		7.91313000000	81.08910000000
	7.90570000000	81.06920000000		7.91035000000	81.08860000000
	7.90577000000	81.06940000000		7.90805000000	81.08820000000
	7.90588000000	81.07030000000		7.90451000000	81.08730000000
	7.90605000000	81.07120000000		7.90271000000	81.08640000000
	7.90616000000	81.07150000000		7.89943000000	81.08410000000
	7.90609000000	81.07160000000		7.89486000000	81.08060000000
	7.90681000000	81.07330000000		7.89475000000	81.08050000000
	7.90849000000	81.07730000000		7.89141000000	81.07750000000

	7.90947000000	81.07660000000		7.88703000000	81.07300000000
	7.91274000000	81.07660000000		7.88237000000	81.06850000000
	7.91494000000	81.07660000000		7.87866000000	81.06490000000
	7.91610000000	81.07800000000		7.87764000000	81.06410000000
	7.91664000000	81.08030000000		7.87795000000	81.06290000000
	7.91658000000	81.08180000000		7.87796000000	81.06280000000
	7.87802000000	81.06180000000		7.87762000000	81.00630000000
	7.87766000000	81.06020000000		7.87797000000	81.00620000000
	7.87736000000	81.05930000000		7.87818000000	81.00590000000
	7.87681000000	81.05850000000		7.87845000000	81.00570000000
	7.87612000000	81.05790000000		7.88012000000	81.00800000000
	7.87537000000	81.05730000000		7.88033000000	81.00890000000
	7.87465000000	81.05650000000		7.87989000000	81.00990000000
	7.87397000000	81.05410000000		7.87989000000	81.01210000000
	7.87319000000	81.05230000000		7.87976000000	81.01490000000
	7.87238000000	81.04970000000		7.87937000000	81.01930000000
	7.87231000000	81.04910000000		7.88308000000	81.02020000000
	7.87236000000	81.04830000000		7.88437000000	81.02270000000
	7.87264000000	81.04690000000		7.88245000000	81.03010000000
	7.87269000000	81.04570000000		7.88594000000	81.03150000000
	7.87241000000	81.04440000000		7.88637000000	81.03260000000
	7.87241000000	81.04280000000		7.89061000000	81.03390000000
	7.87253000000	81.04180000000		7.89554000000	81.03520000000
	7.87280000000	81.04120000000		7.89539000000	81.04090000000
	7.87316000000	81.04060000000		7.89515000000	81.04340000000
	7.87344000000	81.03940000000		7.89534000000	81.04510000000
	7.87336000000	81.03900000000		7.89525000000	81.04730000000
	7.87337000000	81.03840000000		7.89629000000	81.05020000000
	7.87370000000	81.03690000000		7.89890000000	81.05050000000
	7.87394000000	81.03600000000		7.90039000000	81.05130000000
	7.87414000000	81.03560000000			
	7.87439000000	81.03480000000			
	7.87482000000	81.03330000000			
	7.87515000000	81.03220000000			
	7.87529000000	81.03130000000			
	7.87558000000	81.03060000000			
	7.87603000000	81.02970000000			
	7.87647000000	81.02880000000			
	7.87671000000	81.02800000000			

	7.87695000000	81.02710000000			
	7.87666000000	81.01620000000			
	7.87698000000	81.01500000000			
	7.87766000000	81.01270000000			
	7.87813000000	81.01120000000			
	7.87818000000	81.01010000000			
	7.87816000000	81.00940000000			
	7.87799000000	81.00860000000			
	7.87787000000	81.00800000000			
	7.87770000000	81.00740000000			
	7.87743000000	81.00690000000			
	7.87714000000	81.00650000000			
	7.87722000000	81.00650000000			

7.6 Health Services Zone					
	X- coordinates (latitude)	Y- coordinates (longitude)		X- coordinates (latitude)	Y- coordinates (longitude)
	7.94677	81.01530		7.93700	81.01120
	7.94375	81.01710		7.93678	81.01070
	7.94360	81.01760		7.93641	81.01070
	7.94307	81.01760		7.93640	81.01070
	7.94299	81.01840		7.93638	81.01050
	7.94247	81.01860		7.93664	81.01030
	7.94183	81.01880		7.93673	81.01010
	7.94055	81.01890		7.93685	81.00980
	7.93982	81.01930		7.93692	81.00950
	7.93885	81.01880		7.93698	81.00920
	7.93849	81.01870		7.93797	81.00940
	7.93843	81.01840		7.93853	81.00950
	7.93891	81.01760		7.93870	81.00980
	7.93856	81.01750		7.93878	81.00970
	7.93912	81.01690		7.93893	81.00940
	7.93906	81.01600		7.93941	81.00930
	7.93949	81.01530		7.93972	81.00930
	7.93963	81.01540		7.93995	81.00910
	7.93958	81.01560		7.94028	81.00890
	7.93976	81.01580		7.94046	81.00890
	7.94061	81.01530		7.94094	81.00830
	7.94051	81.01510		7.94098	81.00830
	7.94031	81.01490		7.94150	81.00770
	7.93875	81.01450		7.94037	81.00730
	7.93949	81.01380		7.93977	81.00700
	7.93907	81.01330		7.93965	81.00690
	7.93929	81.01310		7.93916	81.00640
	7.94050	81.01310		7.93908	81.00630
	7.94051	81.01290		7.93897	81.00620
	7.94040	81.01290		7.93895	81.00590
	7.94031	81.01270		7.93898	81.00560
	7.94038	81.01240		7.93917	81.00550
	7.94018	81.01170		7.93998	81.00560
	7.93976	81.01180		7.94065	81.00560
	7.93975	81.01180		7.94106	81.00580
	7.93960	81.01180		7.94185	81.00590
	7.93923	81.01180		7.94206	81.00600

	7.93918	81.01220		7.94269	81.00610
	7.93884	81.01220		7.94557	81.00650
	7.93849	81.01230		7.94562	81.00660
	7.93818	81.01230		7.94604	81.00710
	7.93779	81.01210		7.94754	81.00700
	7.93746	81.01220		7.94772	81.01100
	7.93719	81.01220		7.94778	81.01110
	7.94733	81.01160			
	7.94729	81.01410			
	7.94687	81.01480			
	7.94677	81.01530			

7.7 Industrial Zone					
	X- coordinates (latitude)	Y- coordinates (longitude)		X- coordinates (latitude)	Y- coordinates (longitude)
	7.98659	80.99410		7.99682	81.00770
	7.98646	80.99430		7.99682	81.00810
	7.98503	80.99440		7.99652	81.00870
	7.98425	80.99440		7.99619	81.00890
	7.98421	80.99580		7.99582	81.00910
	7.98345	80.99590		7.99546	81.00910
	7.98245	80.99590		7.99531	81.00900
	7.98253	80.99510		7.99511	81.00830
	7.98158	80.99510		7.99485	81.00820
	7.98153	80.99490		7.99451	81.00790
	7.98075	80.99500		7.99429	81.00750
	7.98073	80.99440		7.99377	81.00720
	7.98020	80.99460		7.99327	81.00700
	7.97980	80.99480		7.99263	81.00670
	7.97950	80.99500		7.99204	81.00630
	7.97924	80.99460		7.99170	81.00600
	7.97908	80.99430		7.99184	81.00530
	7.97885	80.99390		7.99202	81.00430
	7.97853	80.99350		7.99273	81.00410
	7.97855	80.99210		7.99308	81.00380
	7.97859	80.99130		7.99326	81.00350
	7.97881	80.99070		7.99298	81.00300
	7.97995	80.99070		7.99327	81.00280
	7.98043	80.99060		7.99313	81.00250
	7.98074	80.99050		7.99388	81.00210
	7.98095	80.99050		7.99516	81.00210
	7.98127	80.99040		7.99490	81.00130
	7.98158	80.99060		7.99463	81.00110
	7.98213	80.99080		7.99431	81.00100
	7.98263	80.99100		7.99410	81.00070
	7.98333	80.99100		7.99356	81.00070
	7.98399	80.99100		7.99318	80.99950
	7.98468	80.99120		7.99425	80.99940
	7.98553	80.99150		7.99430	80.99950
	7.98582	80.99140		7.99611	81.00190
	7.98655	80.99170		7.99709	81.00120
	7.98655	80.99190		7.99730	81.00140

	7.98656	80.99220		7.99804	81.00240
	7.98651	80.99250		8.00042	81.00550
	7.98661	80.99290		7.99966	81.00610
	7.98651	80.99340		7.99810	81.00700
	7.98662	80.99360		7.99729	81.00750
	7.98659	80.99410		7.99693	81.00750
	7.99693	81.00750			

7.8 Mixed Development Zone1		
	X- coordinates (latitude)	Y- coordinates (longitude)
	7.91995000000	81.04290000000
	7.92048000000	81.04230000000
	7.92057000000	81.04220000000
	7.92087000000	81.04190000000
	7.92107000000	81.04210000000
	7.92210000000	81.04100000000
	7.92358000000	81.03950000000
	7.92515000000	81.03780000000
	7.92758000000	81.03520000000
	7.92761000000	81.03520000000
	7.92762000000	81.03520000000
	7.92777000000	81.03510000000
	7.92784000000	81.03500000000
	7.92818000000	81.03480000000
	7.92903000000	81.03420000000
	7.93177000000	81.03250000000
	7.93369000000	81.03120000000
	7.93403000000	81.03100000000
	7.93508000000	81.03030000000
	7.93675000000	81.02920000000
	7.93885000000	81.03130000000
	7.94107000000	81.03710000000
	7.94172000000	81.04000000000
	7.93790000000	81.04180000000
	7.93050000000	81.04470000000
	7.92009000000	81.04300000000
	7.91995000000	81.04290000000

7.9 Mixed Development Zone -2					
	X- coordinates (latitude)	Y- coordinates (longitude)		X- coordinates (latitude)	Y- coordinates (longitude)
	7.90882	81.05470	45.	7.91489	81.05550
	7.91040	81.05300		7.91478	81.05580
	7.91303	81.05020		7.91574	81.05650
	7.91425	81.04890		7.91581	81.05740
	7.91518	81.04800		7.91578	81.05780
	7.91596	81.04710		7.91552	81.05880
	7.91637	81.04670		7.91529	81.06000
	7.91656	81.04690		7.91618	81.06210
	7.91607	81.04740		7.91672	81.06420
	7.91593	81.04760		7.91701	81.06480
	7.91616	81.04790		7.91669	81.06530
	7.91612	81.04790		7.91622	81.06510
	7.91656	81.04820		7.91569	81.06500
	7.91646	81.04860		7.91534	81.06530
	7.91653	81.04920		7.91421	81.06470
	7.91663	81.04950		7.91388	81.06430
	7.91698	81.04970		7.91355	81.06420
	7.91712	81.04980		7.91308	81.06440
	7.91709	81.04990		7.91300	81.06460
	7.91673	81.04990		7.91247	81.06470
	7.91670	81.05010		7.91193	81.06520
	7.91681	81.05030		7.91197	81.06700
	7.91672	81.05060		7.91190	81.06710
	7.91655	81.05070		7.91294	81.06750
	7.91661	81.05110		7.91361	81.06800
	7.91713	81.05140		7.91382	81.06840
	7.91741	81.05140		7.91434	81.06870
	7.91799	81.05180		7.91479	81.06890
	7.91836	81.05200		7.91581	81.06980
	7.91800	81.05220		7.91629	81.07020
	7.91750	81.05250		7.91612	81.07100
	7.91706	81.05280		7.91579	81.07100
	7.91687	81.05290		7.91560	81.07110
	7.91681	81.05290		7.91527	81.07100
	7.91660	81.05320		7.91498	81.07110

	7.91637	81.05340		7.91469	81.07110
	7.91622	81.05350		7.91450	81.07100
	7.91600	81.05350		7.91423	81.07040
	7.91589	81.05360		7.91371	81.07010
	7.91585	81.05370		7.91339	81.06990
	7.91501	81.05360		7.91251	81.06980
	7.91469	81.05430		7.91150	81.06970
	7.91434	81.05510		7.91144	81.07010
	7.91111	81.07020			
	7.91068	81.07020			
	7.91006	81.06980			
	7.90995	81.06950			
	7.90977	81.06930			
	7.90953	81.06890			
	7.90930	81.06870			
	7.90873	81.06860			
	7.90677	81.06860			
	7.90661	81.06890			
	7.90570	81.06920			
	7.90530	81.06610			
	7.90522	81.06560			
	7.90503	81.06550			
	7.90474	81.06540			
	7.90390	81.06540			
	7.90374	81.06540			
	7.90355	81.06510			
	7.90229	81.06380			
	7.90163	81.06220			
	7.90161	81.06160			
	7.90160	81.06110			
	7.90208	81.06000			
	7.90245	81.05860			
	7.90277	81.05740			
	7.90299	81.05690			
	7.90301	81.05540			
	7.90317	81.05310			
	7.90333	81.05280			

	7.90463	81.05310			
	7.90490	81.05320			
	7.90543	81.05340			
	7.90567	81.05370			
	7.90632	81.05440			
	7.90775	81.05580			
	7.90882	81.05470			

7.10 Residential Zone -1					
	X- coordinates (latitude)	Y- coordinates (longitude)		X- coordinates (latitude)	Y- coordinates (longitude)
	7.91895	81.01400		7.91094	81.00240
	7.91838	81.01350		7.91519	81.00240
	7.91671	81.01390		7.91586	81.00240
	7.91650	81.01370		7.91579	81.00410
	7.91637	81.01330		7.91589	81.00440
	7.91348	81.01210		7.91873	81.00450
	7.91302	81.01090		7.91981	81.00500
	7.91303	81.00970		7.92037	81.00640
	7.91225	81.00870		7.92003	81.00670
	7.91170	81.00860		7.91904	81.00750
	7.91106	81.00960		7.91894	81.00870
	7.91073	81.01020		7.91925	81.00930
	7.91069	81.01100		7.92238	81.01240
	7.91002	81.01140		7.92458	81.01310
	7.90873	81.01070		7.92491	81.01360
	7.90746	81.01130		7.92479	81.01410
	7.90590	81.01380		7.92347	81.01510
	7.90358	81.01410		7.92022	81.01590
	7.90292	81.01370		7.91913	81.01480
	7.90289	81.01280		7.91895	81.01400
	7.90371	81.01260		7.97203	81.02010
	7.90444	81.01120		7.97282	81.02070
	7.90548	81.01090		7.97326	81.02070
	7.90553	81.00960		7.97407	81.02040
	7.90582	81.00810		7.97464	81.02130
	7.90534	81.00770		7.97438	81.02380
	7.90210	81.00960		7.97443	81.02390
	7.90142	81.00960		7.97483	81.02400
	7.90038	81.00850		7.97525	81.02420
	7.89973	81.00860		7.97582	81.02430
	7.89898	81.00930		7.97592	81.02430
	7.89844	81.00960		7.97629	81.02420
	7.89816	81.00960		7.97639	81.02420
	7.89613	81.00830		7.97647	81.02420
	7.89637	81.00750		7.97681	81.02450

	7.89655	81.00740		7.97705	81.02470
	7.89731	81.00740		7.97724	81.02490
	7.89896	81.00700		7.97764	81.02510
	7.90023	81.00560		7.97774	81.02510
	7.90147	81.00580		7.97780	81.02520
	7.90287	81.00540		7.97780	81.02550
	7.90325	81.00470		7.97765	81.02570
	7.90867	81.00220		7.97750	81.02590
	7.90932	81.00220		7.97692	81.02600
	7.97677	81.02610		7.98247	81.03370
	7.97665	81.02620		7.98175	81.03340
	7.97644	81.02680		7.98066	81.03330
	7.97649	81.02710		7.98041	81.03320
	7.97663	81.02730		7.98051	81.03200
	7.97699	81.02760		7.98043	81.03150
	7.97814	81.02810		7.97986	81.03120
	7.97836	81.02830		7.97957	81.03170
	7.97891	81.02870		7.97871	81.03170
	7.97957	81.02920		7.97836	81.03140
	7.97987	81.02920		7.97566	81.02980
	7.97997	81.02930		7.97524	81.03020
	7.98042	81.02940		7.97544	81.03140
	7.98075	81.02940		7.97468	81.03280
	7.98098	81.02950		7.97475	81.03350
	7.98128	81.02960		7.97290	81.03390
	7.98165	81.02990		7.97256	81.03270
	7.98182	81.03000		7.97039	81.03230
	7.98185	81.03010		7.96978	81.03310
	7.98189	81.03020		7.96773	81.03360
	7.98194	81.03030		7.96791	81.03520
	7.98200	81.03050		7.96707	81.03550
	7.98209	81.03070		7.96681	81.03550
	7.98218	81.03080		7.96601	81.03540
	7.98233	81.03100		7.96626	81.03140
	7.98247	81.03110		7.96114	81.03030
	7.98319	81.03130		7.96074	81.03050
	7.98337	81.03120		7.95962	81.02920
	7.98366	81.03120		7.95948	81.02740
	7.98394	81.03110		7.96113	81.02800

	7.98572	81.03150		7.96398	81.02910
	7.98633	81.03200		7.96393	81.02790
	7.98674	81.03240		7.96401	81.02780
	7.98693	81.03270		7.96515	81.02770
	7.98714	81.03300		7.96666	81.02630
	7.98717	81.03310		7.96754	81.02630
	7.98705	81.03320		7.96873	81.02680
	7.98692	81.03330		7.96851	81.02620
	7.98682	81.03330		7.96852	81.02590
	7.98667	81.03330		7.96856	81.02580
	7.98642	81.03300		7.96922	81.02520
	7.98627	81.03290		7.96921	81.02520
	7.98585	81.03260		7.96915	81.02490
	7.98496	81.03270		7.96864	81.02440
	7.98465	81.03310		7.96848	81.02430
	7.98367	81.03350		7.96702	81.02300
	7.96679	81.02280			
	7.96670	81.02260			
	7.96673	81.02240			
	7.96683	81.02210			
	7.96774	81.02160			
	7.96829	81.02130			
	7.96851	81.02120			
	7.96856	81.02100			
	7.96851	81.02020			
	7.96856	81.01990			
	7.96873	81.01980			
	7.96963	81.01980			
	7.97024	81.01980			
	7.97058	81.01970			
	7.97070	81.01950			
	7.97090	81.01920			

7.11 Tourist Zone					
	X- coordinates (latitude)	Y- coordinates (longitude)		X- coordinates (latitude)	Y- coordinates (longitude)
1	7 93052	81 00220	32	7 89625	80 99920
2	7 92689	80 99690	33	7 89497	80 99830
3	7 92541	80 99660	34	7 89491	80 99800
4	7 91773	80 99670	35	7 89378	80 99770
5	7 91800	80 99610	36	7 89332	80 99700
6	7 91541	80 99610	37	7 89282	80 99680
7	7 91505	80 99630	38	7 89194	80 99760
8	7 91500	80 99710	39	7 88966	80 99780
9	7 91555	80 99700	40	7 88838	80 99850
10	7 91496	80 99780	41	7 88666	80 99860
11	7 91470	80 99850	42	7 88601	80 99910
12	7 91263	80 99900	43	7 88485	80 99990
13	7 91185	80 99910	44	7 88373	81 00030
14	7 91038	80 99860	45	7 88350	81 00140
15	7 91029	80 99850	46	7 88224	81 00170
16	7 90879	80 99830	47	7 88219	81 00140
17	7 90823	80 99840	48	7 88213	81 00110
18	7 90707	80 99930	49	7 88224	81 00010
19	7 90656	80 99910	50	7 88213	80 99990
20	7 90541	80 99950	51	7 88186	80 99930
21	7 90548	81 00160	52	7 88149	80 99870
22	7 90339	81 00140	53	7 88139	80 99860
23	7 90324	81 00110	54	7 88123	80 99860
24	7 90337	81 00040	55	7 88111	80 99850
25	7 90302	81 00020	56	7 88122	80 99830
26	7 90067	81 00080	57	7 88138	80 99790
27	7 90037	81 00080	58	7 88127	80 99780
28	7 89894	81 00020	59	7 88118	80 99740
29	7 89874	80 99980	60	7 88120	80 99710
30	7 89839	80 99950	61	7 88165	80 99660
31	7 89737	80 99950	62	7 88197	80 99650
63	7 88258	80 99620	97	7 88858	80 99290
64	7 88272	80 99590	98	7 88868	80 99290
65	7 88294	80 99550	99	7 88889	80 99290
66	7.88330	80.99480	100	7.88915	80.99260

67.	7.88349	80.99430	101.	7.88923	80.99260
68.	7.88357	80.99410	102.	7.88931	80.99240
69.	7.88362	80.99380	103.	7.88934	80.99220
70.	7.88372	80.99370	104.	7.88933	80.99200
71.	7.88383	80.99350	105.	7.88967	80.99160
72.	7.88380	80.99330	106.	7.88975	80.99140
73.	7.88385	80.99320	107.	7.88982	80.99130
74.	7.88399	80.99300	108.	7.89008	80.99120
75.	7.88408	80.99270	109.	7.89023	80.99120
76.	7.88420	80.99260	110.	7.89026	80.99110
77.	7.88425	80.99230	111.	7.89028	80.99100
78.	7.88430	80.99220	112.	7.89025	80.99090
79.	7.88436	80.99210	113.	7.89029	80.99080
80.	7.88456	80.99200	114.	7.89037	80.99080
81.	7.88481	80.99200	115.	7.89048	80.99070
82.	7.88500	80.99210	116.	7.89057	80.99060
83.	7.88531	80.99210	117.	7.89067	80.99050
84.	7.88567	80.99210	118.	7.89082	80.99030
85.	7.88583	80.99210	119.	7.89092	80.99020
86.	7.88608	80.99210	120.	7.89102	80.99010
87.	7.88642	80.99230	121.	7.89114	80.99000
88.	7.88648	80.99230	122.	7.89121	80.98990
89.	7.88674	80.99240	123.	7.89140	80.99000
90.	7.88701	80.99250	124.	7.89148	80.99000
91.	7.88721	80.99250	125.	7.89156	80.99000
92.	7.88780	80.99240	126.	7.89180	80.98960
93.	7.88801	80.99240	127.	7.89191	80.98950
94.	7.88814	80.99250	128.	7.89207	80.98920
95.	7.88822	80.99270	129.	7.89223	80.98910
96.	7.88840	80.99270	130.	7.89247	80.98900
131.	7.89279	80.98910	165.	7.89766	80.99290
132.	7.89296	80.98920	166.	7.89769	80.99300
133.	7.89367	80.99000	167.	7.89813	80.99370
134.	7.89381	80.99030	168.	7.89931	80.99500
135.	7.89433	80.99070	169.	7.90002	80.99560
136.	7.89456	80.99090	170.	7.90089	80.99650
137.	7.89477	80.99110	171.	7.90145	80.99670
138.	7.89507	80.99130	172.	7.90184	80.99680
139.	7.89525	80.99150	173.	7.90421	80.99710

140.	7.89541	80.99180	174.	7.90568	80.99690
141.	7.89553	80.99200	175.	7.90595	80.99690
142.	7.89575	80.99220	176.	7.90623	80.99690
143.	7.89584	80.99230	177.	7.90646	80.99710
144.	7.89592	80.99250	178.	7.90745	80.99740
145.	7.89601	80.99270	179.	7.90817	80.99750
146.	7.89601	80.99300	180.	7.90877	80.99740
147.	7.89588	80.99300	181.	7.90971	80.99720
148.	7.89579	80.99320	182.	7.91011	80.99710
149.	7.89579	80.99330	183.	7.91025	80.99720
150.	7.89588	80.99350	184.	7.91028	80.99720
151.	7.89600	80.99360	185.	7.91034	80.99710
152.	7.89600	80.99370	186.	7.91087	80.99710
153.	7.89588	80.99370	187.	7.91150	80.99720
154.	7.89574	80.99380	188.	7.91186	80.99710
155.	7.89569	80.99390	189.	7.91204	80.99680
156.	7.89579	80.99400	190.	7.91171	80.99660
157.	7.89594	80.99390	191.	7.91153	80.99630
158.	7.89613	80.99400	192.	7.91149	80.99600
159.	7.89623	80.99400	193.	7.91125	80.99580
160.	7.89629	80.99410	194.	7.91082	80.99570
161.	7.89638	80.99380	195.	7.91079	80.99550
162.	7.89642	80.99360	196.	7.91088	80.99520
163.	7.89661	80.99350	197.	7.91103	80.99480
164.	7.89688	80.99330	198.	7.91098	80.99450
199.	7.91130	80.99410	233.	7.91700	80.99080
200.	7.91162	80.99410	234.	7.91749	80.99110
201.	7.91177	80.99420	235.	7.91782	80.99140
202.	7.91213	80.99430	236.	7.91833	80.99170
203.	7.91238	80.99440	237.	7.91843	80.99190
204.	7.91254	80.99460	238.	7.91864	80.99200
205.	7.91327	80.99470	239.	7.91882	80.99210
206.	7.91349	80.99460	240.	7.91857	80.99230
207.	7.91364	80.99420	241.	7.91860	80.99250
208.	7.91375	80.99400	242.	7.91862	80.99280
209.	7.91395	80.99380	243.	7.91861	80.99300
210.	7.91433	80.99380	244.	7.91875	80.99300
211.	7.91475	80.99390	245.	7.91900	80.99300
212.	7.91508	80.99390	246.	7.91976	80.99270

213.	7.91543	80.99390	247.	7.91982	80.99220
214.	7.91576	80.99360	248.	7.91994	80.99180
215.	7.91603	80.99320	249.	7.92007	80.99150
216.	7.91558	80.99270	250.	7.92031	80.99110
217.	7.91535	80.99240	251.	7.92062	80.99100
218.	7.91499	80.99210	252.	7.92114	80.99090
219.	7.91411	80.99180	253.	7.92145	80.99110
220.	7.91368	80.99170	254.	7.92180	80.99100
221.	7.91318	80.99150	255.	7.92205	80.99090
222.	7.91286	80.99140	256.	7.92244	80.99060
223.	7.91260	80.99120	257.	7.92275	80.99040
224.	7.91262	80.99110	258.	7.92357	80.99030
225.	7.91268	80.99100	259.	7.92376	80.99020
226.	7.91379	80.99080	260.	7.92383	80.98990
227.	7.91399	80.99050	261.	7.92391	80.98980
228.	7.91425	80.99040	262.	7.92409	80.98970
229.	7.91444	80.99070	263.	7.92442	80.98970
230.	7.91532	80.99110	264.	7.92462	80.98990
231.	7.91589	80.99110	265.	7.92509	80.99000
232.	7.91637	80.99080	266.	7.92568	80.99000
267.	7.92579	80.99020	301.	7.96379	80.97890
268.	7.92603	80.99060	302.	7.96379	80.97950
269.	7.92657	80.99140	303.	7.96348	80.98040
270.	7.92724	80.99200	304.	7.96237	80.98180
271.	7.92770	80.99240	305.	7.96105	80.98300
272.	7.92796	80.99300	306.	7.96039	80.98440
273.	7.92814	80.99330	307.	7.95999	80.98820
274.	7.92823	80.99340	308.	7.96017	80.99010
275.	7.92834	80.99350	309.	7.95979	80.99430
276.	7.92860	80.99360	310.	7.95933	80.99490
277.	7.92876	80.99340	311.	7.95632	80.99770
278.	7.92924	80.99320	312.	7.95623	80.99570
279.	7.92953	80.99320	313.	7.95586	80.99580
280.	7.93006	80.99370	314.	7.95336	80.99670
281.	7.92997	80.99400	315.	7.95260	80.99750
282.	7.93003	80.99430	316.	7.95241	80.99770
283.	7.93062	80.99510	317.	7.95241	80.99760
284.	7.93301	80.99570	318.	7.95256	80.99720
285.	7.93414	80.99590	319.	7.95266	80.99700

286.	7.93568	80.99600	320.	7.95274	80.99680
287.	7.93630	80.99600	321.	7.95295	80.99680
288.	7.93832	80.99680	322.	7.95315	80.99670
289.	7.93835	80.99680	323.	7.95332	80.99650
290.	7.93748	80.99910	324.	7.95342	80.99620
291.	7.93729	81.00070	325.	7.95362	80.99610
292.	7.93693	81.00090	326.	7.95378	80.99590
293.	7.93469	81.00090	327.	7.95377	80.99570
294.	7.93425	81.00110	328.	7.95366	80.99560
295.	7.93166	81.00170	329.	7.95363	80.99530
296.	7.93052	81.00220	330.	7.95376	80.99520
297.	7.96720	80.97720	331.	7.95370	80.99510
298.	7.96613	80.97770	332.	7.95358	80.99490
299.	7.96463	80.97820	333.	7.95365	80.99480
300.	7.96396	80.97850	334.	7.95389	80.99470
335.	7.95406	80.99470	369.	7.95048	80.99570
336.	7.95407	80.99450	370.	7.95033	80.99560
337.	7.95419	80.99430	371.	7.95009	80.99540
338.	7.95438	80.99420	372.	7.94988	80.99510
339.	7.95443	80.99420	373.	7.94984	80.99490
340.	7.95421	80.99410	374.	7.94985	80.99480
341.	7.95396	80.99420	375.	7.94991	80.99470
342.	7.95377	80.99420	376.	7.94996	80.99450
343.	7.95358	80.99420	377.	7.95009	80.99430
344.	7.95328	80.99410	378.	7.95018	80.99410
345.	7.95325	80.99410	379.	7.95031	80.99380
346.	7.95311	80.99440	380.	7.95033	80.99350
347.	7.95301	80.99460	381.	7.95023	80.99320
348.	7.95291	80.99480	382.	7.95000	80.99310
349.	7.95279	80.99480	383.	7.94980	80.99310
350.	7.95261	80.99480	384.	7.94955	80.99300
351.	7.95234	80.99480	385.	7.94933	80.99290
352.	7.95222	80.99470	386.	7.94910	80.99280
353.	7.95207	80.99470	387.	7.94890	80.99260
354.	7.95207	80.99490	388.	7.94878	80.99240
355.	7.95195	80.99490	389.	7.94857	80.99220
356.	7.95170	80.99490	390.	7.94829	80.99200
357.	7.95164	80.99510	391.	7.94816	80.99180
358.	7.95151	80.99520	392.	7.94803	80.99160

359.	7.95132	80.99520	393.	7.94789	80.99130
360.	7.95124	80.99510	394.	7.94789	80.99120
361.	7.95110	80.99500	395.	7.94790	80.99100
362.	7.95101	80.99500	396.	7.94804	80.99080
363.	7.95103	80.99520	397.	7.94813	80.99060
364.	7.95103	80.99530	398.	7.94821	80.99050
365.	7.95080	80.99540	399.	7.94835	80.99040
366.	7.95080	80.99560	400.	7.94853	80.99040
367.	7.95071	80.99570	401.	7.94861	80.99060
368.	7.95060	80.99570	402.	7.94874	80.99080
403.	7.94887	80.99080	437.	7.95179	80.98950
404.	7.94917	80.99100	438.	7.95167	80.98940
405.	7.94941	80.99090	439.	7.95156	80.98910
406.	7.94968	80.99080	440.	7.95144	80.98900
407.	7.94993	80.99070	441.	7.95127	80.98890
408.	7.95020	80.99060	442.	7.95105	80.98890
409.	7.95034	80.99050	443.	7.95078	80.98890
410.	7.95064	80.99050	444.	7.95060	80.98870
411.	7.95078	80.99050	445.	7.95034	80.98860
412.	7.95105	80.99040	446.	7.95016	80.98840
413.	7.95121	80.99030	447.	7.95007	80.98820
414.	7.95136	80.99030	448.	7.95002	80.98780
415.	7.95152	80.99030	449.	7.95010	80.98750
416.	7.95169	80.99020	450.	7.95053	80.98720
417.	7.95192	80.99020	451.	7.95092	80.98710
418.	7.95205	80.99030	452.	7.95124	80.98700
419.	7.95224	80.99040	453.	7.95202	80.98690
420.	7.95236	80.99040	454.	7.95216	80.98680
421.	7.95252	80.99040	455.	7.95234	80.98680
422.	7.95264	80.99030	456.	7.95247	80.98670
423.	7.95286	80.99030	457.	7.95259	80.98660
424.	7.95298	80.99040	458.	7.95274	80.98650
425.	7.95314	80.99050	459.	7.95302	80.98640
426.	7.95337	80.99030	460.	7.95314	80.98650
427.	7.95330	80.99020	461.	7.95336	80.98650
428.	7.95314	80.99010	462.	7.95351	80.98640
429.	7.95312	80.99000	463.	7.95357	80.98610
430.	7.95296	80.98990	464.	7.95364	80.98600
431.	7.95275	80.99000	465.	7.95408	80.98600

432.	7.95255	80.99000	466.	7.95418	80.98620
433.	7.95242	80.98990	467.	7.95478	80.98640
434.	7.95229	80.98980	468.	7.95527	80.98650
435.	7.95200	80.98960	469.	7.95580	80.98670
436.	7.95187	80.98950	470.	7.95608	80.98670
471.	7.95592	80.98610	505.	7.95578	80.97920
472.	7.95557	80.98560	506.	7.95582	80.97910
473.	7.95490	80.98520	507.	7.95586	80.97910
474.	7.95353	80.98490	508.	7.95617	80.97900
475.	7.95216	80.98450	509.	7.95638	80.97900
476.	7.95054	80.98380	510.	7.95659	80.97900
477.	7.94980	80.98370	511.	7.95700	80.97900
478.	7.94904	80.98440	512.	7.95717	80.97900
479.	7.94893	80.98390	513.	7.95739	80.97900
480.	7.94929	80.98250	514.	7.95766	80.97910
481.	7.95027	80.98200	515.	7.95770	80.97910
482.	7.95208	80.98160	516.	7.95769	80.97880
483.	7.95360	80.98140	517.	7.95772	80.97870
484.	7.95402	80.98090	518.	7.95784	80.97870
485.	7.95422	80.98010	519.	7.95820	80.97850
486.	7.95429	80.97970	520.	7.95858	80.97830
487.	7.95440	80.97960	521.	7.95856	80.97820
488.	7.95453	80.97970	522.	7.95835	80.97800
489.	7.95460	80.97970	523.	7.95816	80.97780
490.	7.95468	80.97980	524.	7.95782	80.97740
491.	7.95474	80.97970	525.	7.95744	80.97690
492.	7.95479	80.97970	526.	7.95739	80.97680
493.	7.95480	80.97960	527.	7.95719	80.97640
494.	7.95488	80.97950	528.	7.95707	80.97620
495.	7.95500	80.97950	529.	7.95696	80.97590
496.	7.95520	80.97950	530.	7.95703	80.97590
497.	7.95523	80.97940	531.	7.95698	80.97580
498.	7.95526	80.97940	532.	7.95695	80.97570
499.	7.95531	80.97930	533.	7.95688	80.97560
500.	7.95541	80.97930	534.	7.95681	80.97550
501.	7.95553	80.97940	535.	7.95673	80.97540
502.	7.95565	80.97930	536.	7.95667	80.97540
503.	7.95565	80.97930	537.	7.95665	80.97540
504.	7.95571	80.97920	538.	7.95666	80.97530

539.	7.95669	80.97520	573.	7.96223	80.97460
540.	7.95652	80.97490	574.	7.96234	80.97470
541.	7.95659	80.97490	575.	7.96237	80.97470
542.	7.95677	80.97480	576.	7.96240	80.97470
543.	7.95709	80.97470	577.	7.96243	80.97480
544.	7.95721	80.97490	578.	7.96247	80.97480
545.	7.95730	80.97510	579.	7.96254	80.97480
546.	7.95737	80.97510	580.	7.96259	80.97480
547.	7.95778	80.97490	581.	7.96266	80.97490
548.	7.95837	80.97460	582.	7.96272	80.97490
549.	7.95863	80.97450	583.	7.96274	80.97490
550.	7.95886	80.97440	584.	7.96278	80.97480
551.	7.95905	80.97430	585.	7.96282	80.97490
552.	7.95927	80.97420	586.	7.96285	80.97480
553.	7.95933	80.97420	587.	7.96290	80.97490
554.	7.95943	80.97430	588.	7.96307	80.97480
555.	7.95956	80.97430	589.	7.96312	80.97480
556.	7.95971	80.97420	590.	7.96317	80.97480
557.	7.95988	80.97410	591.	7.96321	80.97470
558.	7.96024	80.97400	592.	7.96326	80.97470
559.	7.96042	80.97390	593.	7.96332	80.97470
560.	7.96046	80.97390	594.	7.96335	80.97460
561.	7.96054	80.97400	595.	7.96339	80.97460
562.	7.96062	80.97410	596.	7.96342	80.97460
563.	7.96069	80.97410	597.	7.96347	80.97460
564.	7.96078	80.97420	598.	7.96353	80.97460
565.	7.96114	80.97430	599.	7.96356	80.97470
566.	7.96139	80.97430	600.	7.96363	80.97470
567.	7.96146	80.97440	601.	7.96370	80.97470
568.	7.96162	80.97450	602.	7.96374	80.97470
569.	7.96174	80.97450	603.	7.96377	80.97480
570.	7.96193	80.97460	604.	7.96379	80.97480
571.	7.96197	80.97460	605.	7.96382	80.97480
572.	7.96217	80.97460	606.	7.96385	80.97480
607.	7.96384	80.97470	641.	7.96532	80.97540
608.	7.96385	80.97460	642.	7.96536	80.97550
609.	7.96388	80.97450	643.	7.96544	80.97560
610.	7.96397	80.97450	644.	7.96550	80.97560
611.	7.96417	80.97440	645.	7.96560	80.97570

612.	7.96421	80.97450	646.	7.96564	80.97580
613.	7.96430	80.97450	647.	7.96565	80.97580
614.	7.96436	80.97460	648.	7.96566	80.97600
615.	7.96437	80.97470	649.	7.96568	80.97610
616.	7.96442	80.97470	650.	7.96571	80.97610
617.	7.96440	80.97480	651.	7.96575	80.97620
618.	7.96438	80.97480	652.	7.96593	80.97610
619.	7.96436	80.97490	653.	7.96610	80.97610
620.	7.96439	80.97490	654.	7.96646	80.97610
621.	7.96442	80.97490	655.	7.96666	80.97600
622.	7.96445	80.97490	656.	7.96692	80.97600
623.	7.96448	80.97490	657.	7.96695	80.97600
624.	7.96454	80.97490	658.	7.96699	80.97590
625.	7.96458	80.97490	659.	7.96704	80.97590
626.	7.96459	80.97490	660.	7.96704	80.97590
627.	7.96467	80.97490	661.	7.96707	80.97590
628.	7.96477	80.97490	662.	7.96703	80.97590
629.	7.96480	80.97500	663.	7.96700	80.97580
630.	7.96478	80.97510	664.	7.96699	80.97580
631.	7.96480	80.97510	665.	7.96696	80.97570
632.	7.96482	80.97520	666.	7.96699	80.97570
633.	7.96487	80.97520	667.	7.96703	80.97570
634.	7.96490	80.97520	668.	7.96704	80.97560
635.	7.96491	80.97530	669.	7.96700	80.97560
636.	7.96491	80.97530	670.	7.96699	80.97550
637.	7.96495	80.97540	671.	7.96703	80.97540
638.	7.96504	80.97540	672.	7.96706	80.97540
639.	7.96510	80.97540	673.	7.96708	80.97530
640.	7.96528	80.97540	674.	7.96777	80.97480
675.	7.96827	80.97530			
676.	7.96844	80.97560			
677.	7.96863	80.97590			
678.	7.96898	80.97610			
679.	7.96921	80.97620			
680.	7.96924	80.97620			
681.	7.96928	80.97620			
682.	7.96943	80.97620			
683.	7.96928	80.97640			
684.	7.96720	80.97720			

7.12 Education and Vocational Training Institutional Zone		
	X coordinates (latitude)	Y coordinates (Longitude)
1.	7.91596	81.04710
2.	7.91518	81.04800
3.	7.91383	81.04940
4.	7.91263	81.05070
5.	7.91171	81.05160
6.	7.91066	81.05270
7.	7.91046	81.05290
8.	7.90940	81.05410
9.	7.90833	81.05520
10.	7.90775	81.05580
11.	7.90726	81.05530
12.	7.90691	81.05500
13.	7.90639	81.05440
14.	7.90628	81.05430
15.	7.90610	81.05410
16.	7.90579	81.05380
17.	7.90568	81.05370
18.	7.90561	81.05360
19.	7.90544	81.05350
20.	7.90543	81.05340
21.	7.90490	81.05320
22.	7.91806	81.03900
23.	7.91990	81.04050
24.	7.92020	81.04120
25.	7.92087	81.04190
26.	7.92057	81.04220
27.	7.92049	81.04230
28.	7.91995	81.04290
29.	7.91905	81.04380
30.	7.91749	81.04550
31.	7.91637	81.04670
32.	7.91596	81.04710

ANNEXTURE 08

BOUNDARIES OF GUIDE PLANS

8. Boundaries of guide plans

8.1 Archaeological Conservation Zone 02 Development Guide plan Boundaries

All land facing A 11 road, all land area facing “Outer cerculer Road” and all land area facing “New Town Road” within the “Archelological Conservation zone 2”.

8.2 Boundaries for Kanduruwela Development Guide Plan

Sub Zone A From the point where the A11 road and the Batticaloa-Colombo railway line starts to parallel at north of the commercial zone and from there extend in a southeasterly direction along the railway line until the end of the commercial zone boundary and From there to south upto meet the middle line of A11 road and back to the north of the commercial zone along the middle line of A11 road until the point where the Batticaloa-Colombo railway road starts to lay parallel.

Sub zone B Starting a point from the south end of Commercial Zone where cross the center line of the A11 road and goes northwards along Maithripala Sirisena Mawatha center line about 1218 meters and turn east and along the irrigation canal until it meets the A11 road again.

Sub zone C Starting at north of the Commercial Zone where Maithripala Sirisena Mawatha begins and rom the point along the A11 road center line to the southeast 1713m untill meets the irrigation canal and goes west direction till Meet maithripaala Sirisena Mawatha and again along its center line until it meets the northern boundary point of the Commecial Zone.

ANNEXURE - 09

**ZONES AND APPROVED
ACTIVITIES**

Use	Commercial Zone											Residential Zone		Archaeological Conservation	
	Commercial Zone	Industrial Zone	Residential Zone I	Health Services Zone	Mixed Development Zone I	Mixed Development Zone II	Administration Zone	Tourism Zone	Educational and Vocational Training Institutional	Residential Zone II	Environmental Sensitive Zone	Archaeological Conservation Zone 2	Archaeological Conservation Zone 1		
Housing for residence	✓	x	✓	✓	✓	✓	○	✓	x	✓	x	✓	x		
Rental housing	✓	x	✓	✓	✓	✓	x	✓	x	✓	✓	✓	x		
Apartments	✓	x	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	x		
Joint housing	✓	x	✓	✓	✓	✓	x	✓	x	✓	✓	✓	x		
Hostels	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x		
Housing complex	✓	x	✓	✓	✓	✓	x	✓	○	✓	○	✓	x		
Supermarkets	✓	x	○	✓	✓	○	○	○	○	○	✓	○	x		
Building Material Stores	✓	x	○	○	✓	✓	x	○	○	x	○	○	x		
Fuel filling	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	x		
Textile trade	✓	x	○	○	✓	○	x	○	○	x	✓	✓	x		
Jewelry shops	✓	x	○	○	✓	✓	x	○	○	x	○	○	x		
Gift shop	✓	x	○	○	✓	✓	x	○	○	x	○	○	x		
Agrochemical and Fertilizer outlets	✓	x	○	○	✓	✓	x	✓	✓	x	○	○	x		
Communication	✓	x	✓	✓	✓	✓	x	✓	○	x	○	○	x		
Presses	✓	x	○	○	✓	○	✓	○	○	x	✓	✓	x		
Furniture stores	✓	x	○	○	✓	✓	x	✓	✓	x	○	○	x		
Restaurants	✓	x	✓	✓	✓	✓	x	✓	○	x	✓	✓	x		
Bakery products	✓	x	✓	✓	✓	✓	○	✓	○	x	✓	✓	x		
Laundry	✓	x	✓	✓	✓	✓	○	✓	✓	x	✓	✓	x		
Meat / Fish / Egg outlets	✓	x	✓	✓	✓	✓	x	✓	✓	x	✓	✓	x		
Beauty salons	✓	x	✓	✓	✓	✓	○	✓	✓	x	✓	✓	x		
Tailorshop	✓	x	✓	✓	✓	✓	○	✓	✓	x	○	○	x		
Bodybuilding Centers	✓	x	✓	✓	✓	✓	○	✓	○	x	✓	✓	x		
Country Bars	✓	x	✓	✓	✓	✓	○	✓	○	x	✓	✓	x		
Telephone sales and repair	✓	x	✓	✓	✓	✓	○	✓	○	x	○	○	x		

Use	Commercial Zone	Industrial Zone	Residential Zone I	Health Services Zone	Mixed Development Zone I	Mixed Development Zone II	Administration Zone	Tourism Zone	Educational and Vocational Training Institutional	Residential Zone II	Environmental Sensitive Zone	Archaeological Conservation Zone 2	Archaeological Conservation Zone 1
Rice outlets	✓	x	✓	✓	✓	✓	○	✓	x	✓	x	✓	x
Hotels and guest houses	✓	x	○	○	○	○	○	✓	x	○	x	✓	x
Lottery outlets	✓	x	✓	✓	✓	✓	✓	✓	x	✓	x	✓	x
Sales and repair of computers	✓	x	✓	✓	✓	✓	○	✓	○	✓	x	✓	x
Animal Product Stores	✓	x	✓	✓	✓	✓	○	✓	x	✓	x	✓	x
School Equipment Stores	✓	x	✓	✓	✓	✓	○	✓	x	✓	x	✓	x
Auto Parts Stores	✓	x	○	○	○	○	x	✓	x	✓	x	○	x
Auto Repair Locations	✓	✓	○	x	✓	✓	x	✓	x	✓	x	○	x
Banking and Financial Institutions	✓	x	○	○	○	○	○	○	x	○	x	○	x
Parking lots	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	x
International Schools	✓	x	✓	✓	✓	x	✓	✓	✓	✓	x	✓	x
Private tuition classes	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	x
Professional offices	✓	x	○	○	○	○	✓	○	x	○	x	○	x
Public meeting halls	✓	x	✓	x	✓	✓	✓	✓	x	✓	x	✓	x
Day care centers	✓	x	✓	✓	✓	✓	✓	✓	x	✓	x	✓	x
Public, private hospitals / pharmacies and related training institutes	✓	x	x	✓	x	x	x	x	x	x	x	x	x
Nursing Homes / Elderly Homes	✓	x	✓	✓	○	○	✓	✓	x	✓	x	✓	x
Domestic industries	✓	x	✓	x	✓	✓	x	✓	x	✓	x	✓	x
Medical Centers	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	x

Note: - Approved Uses - ✓ Prohibited Uses - ✗ Conditional Uses - ○ (Part 2 Chapter 07. See Development Zones and Zoning Terms)

ANNEXTURE 10

ANNEXTURES FOR BOOK

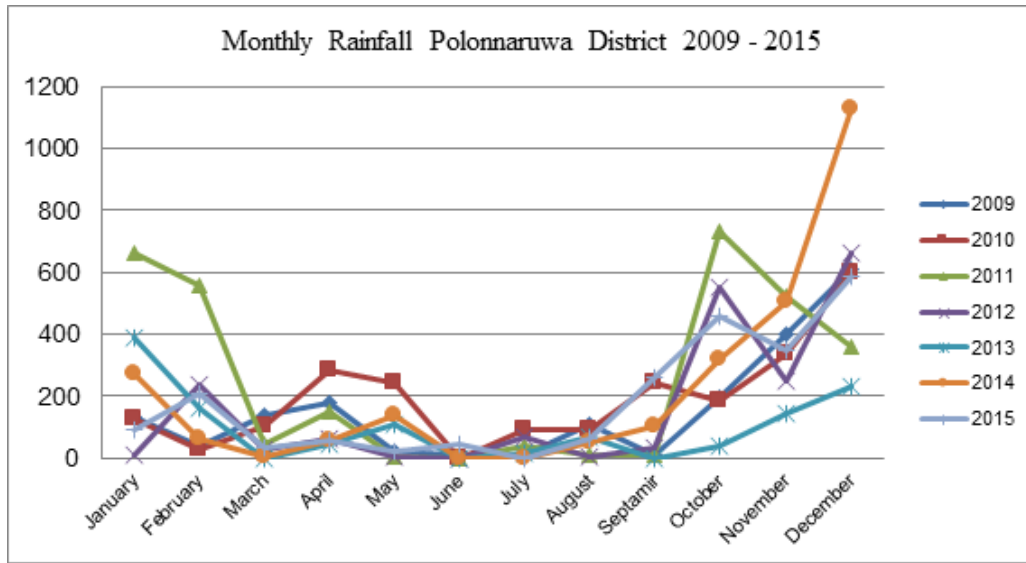
PART 1

10. ANNEXTURES FOR BOOK PART 1**Annexure 10.1: Projects approved under the Polonnaruwa Development Program - 2017**

	Nature of Development	Approved Projects 2017	Approved amount 2017	Total cost (Rs. Mn.)
1.	School development	88	600.00	382.37
2.	Indoor Stadium - Royal School	1	146.62	71.48
3.	Swimming Pool - Ananda Balika	1	59.00	-
4.	Development of Pirivenas	11	150.00	44.81
5.	Health (District Hospital Development)	16	700.00	140.65
6.	Health (Kidney Hospital - Polonnaruwa)	14	375.00	-
7.	Drinking water facilities	34	1700.00	69.99
8.	Urban Road Development (CAA)	9	2250.00	1700.82
9.	District Road Development	36	1300.00	632.58
10.	Rural Road Development /Rural Road Development (New Projects)	610	984.7	1594.70
11.	Livestock Development		12.00	11.02
12.	Sports and Culture	4	111.00	54.92
13.	Disaster Management	270	100.00	8.14
14.	Urban development	6	1600.00	372.42
15.	Development of places of worship	41	100.00	46
16.	Providing equipment for theaters	4	200.00	119.05
17.	information Technology		5.00	-
18.	Mahaweli Development	1	23.88	5.17
19.	Irrigation Development	25	84.15	9.97
20.	Agricultural development	2	100.00	0.06
21.	Agricultural services	25	59.35	9.05
22.	Development of livelihood avenues	3266	600.00	7.95
23.	Wildlife Reserve		4.00	
24.	Small town development		190.00	
25.	Various public affairs	8	100.00	1.56
26.	Administration and Management		5.00	3.97

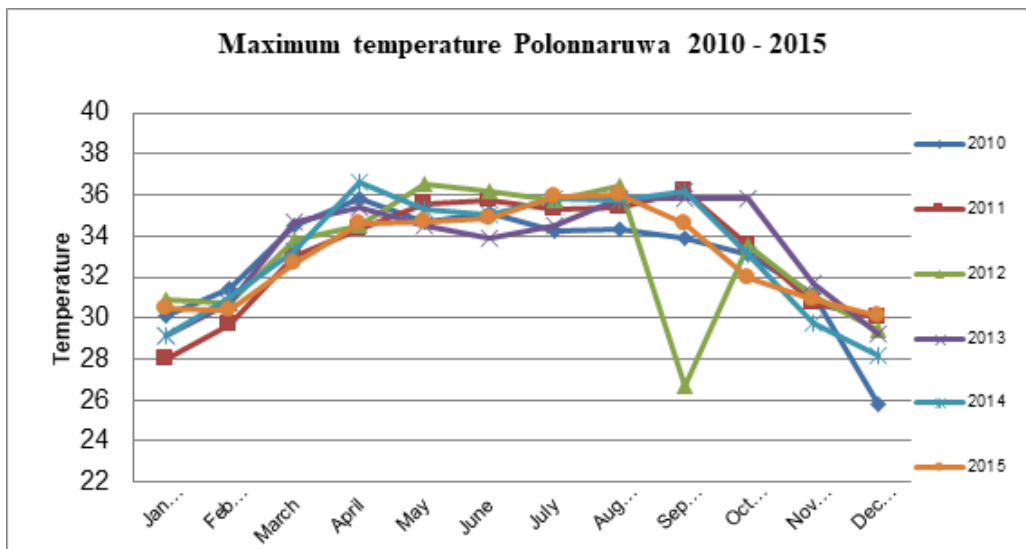
Source: Annual Report 2018 "Awaken Polonnaruwa" Development Program

Annex 10.2: Monthly Rainfall Polonnaruwa District 2009-2015



Source: Annual Reports 2009-2015 Department of Meteorology - Sri Lanka

Annex 10.3: Monthly Temperature Polonnaruwa District 2010-2015



Source: Annual Reports 2009-2015 Department of Meteorology - Sri Lanka

Annex 10.6: Population Growth 1981 - 2012

Population Growth 1981 - 2012						
District	Total population			Annual growth rate (%)		
	1981 (1)	2001 (2)	2012	1981-2001	1981-2012	2001-2012
Sri Lanka	14,846,274	18,797,257	20,359,439	1.16	1.02	0.75
the Colombo	1,675,847	2,239,696	2,324,349	1.43	1.05	1.35
Gampaha	1,367,813	2,060,470	2,304,833	2.1	1.68	1.05
in Kalutara	823,964	1,065,635	1,221,948	1.26	1.27	1.28
Kandy	1,032,335	1,276,202	1,375,382	1.04	0.92	0.70
Matale	352,860	439,031	484,531	1.07	1.02	0.92
Nuwara Eliya	583,716	702,689	711,644	0.91	0.64	0.12
Galle	805,403	989,769	1,063,334	1.01	0.90	0.67
Matara	642,235	760,990	814,048	0.83	0.76	0.63
Hambantota	421,277	525,913	599,903	1.09	1.14	1.23
Jaffna	734,474	-	583,882	-	-0.74	-
Mannar	105,276	-	99,570	-	-0.18	-
Vavuniya	93,694	-	172,115	-	1.96	-
Mullativu	73,886	-	92,238	-	0.71	-
Kilinochchi	90,778	-	113,510	-	0.72	-
Batticaloa	329,343	-	526,567	-	1.51	-
Ampara	383,275	592,596	649,402	2.14	1.70	0.86
Trincomalee	250,771	-	379,541	-	1.34	-
Kurunegala	1,198,765	1,458,358	1,618,465	0.96	0.95	0.97
Puttalam	485,619	709,002	762,396	1.86	1.45	0.68
Anuradhapura	575,546	742,535	860,575	1.25	1.30	1.38
Polonnaruwa	253,411	358,804	406,088	1.71	1.52	1.16
Badulla	620,839	778,422	815,405	1.11	0.88	0.43
Moneragala	269,684	396,521	451,058	1.89	1.66	1.21
Ratnapura	779,927	1,016,221	1,088,007	1.30	1.7	0.64
Kegalle	678,456	784,371	840,648	0.71	0.69	0.65

Source: Population and Housing in Sri Lanka 2012; Department of Census and Statistics

Annexure 10.07: Percentage of Unemployed at District Level 2011-2016

Percentage of Unemployed at District Level 2011-2016						
District	2011	2012	2013	2014	2015	2016
Total	4.2	4.0	4.4	4.3	4.7	4.4
Colombo	2.9	2.9	3.0	3.7	3.6	2.9
Gampaha	4.0	3.7	4.2	3.7	4.4	3.6
Kalutara	3.4	4.0	5.2	3.9	4.5	3.0
Kandy	8.1	7.2	4.7	5.0	5.4	4.4
Matale	-	2.8	6.7	5.2	5.3	7.6
Nuwara Eliya	-	1.8	3.4	2.9	3.2	4.6
Galle	3.8	2.3	4.9	4.6	5.0	5.1
Matara	6.0	7.0	7.1	6.9	6.5	6.5
Hambantota	6.6	5.3	5.1	6.7	6.3	5.2
Jaffna	-	5.1	5.1	5.6	5.7	7.0
Mannar	8.1	5.1	5.0	2.9	6.4	7.1
Vavuniya	-	4.0	4.2	3.9	4.3	5.2
Mullativu	-	6.8	4.6	5.6	3.7	4.3
Kilinochchi	9.3	7.2	7.9	7.6	5.7	6.3
Batticaloa	-	5.1	3.7	3.9	4.8	5.2
Ampara	7.2	5.2	4.1	6.0	7.3	6.6
Trincomalee	-	4.4	5.7	4.3	4.3	3.9
Kurunegala	4.7	4.4	3.6	3.5	4.0	3.0
Puttalam	-	2.6	4.1	5.3	3.3	3.7
Anuradhapura	-	3.0	2.1	3.1	3.5	3.8
Polonnaruwa	-	4.3	6.2	3.7	2.3	2.5
Badulla	3.3	3.7	3.9	3.0	5.3	3.9
Moneragala	-	1.8	2.2	2.7	3.5	5.8
Ratnapura	3.1	4.4	4.6	3.7	4.2	4.4
Kegalla	5.4	2.9	7.4	7.8	8.3	6.9

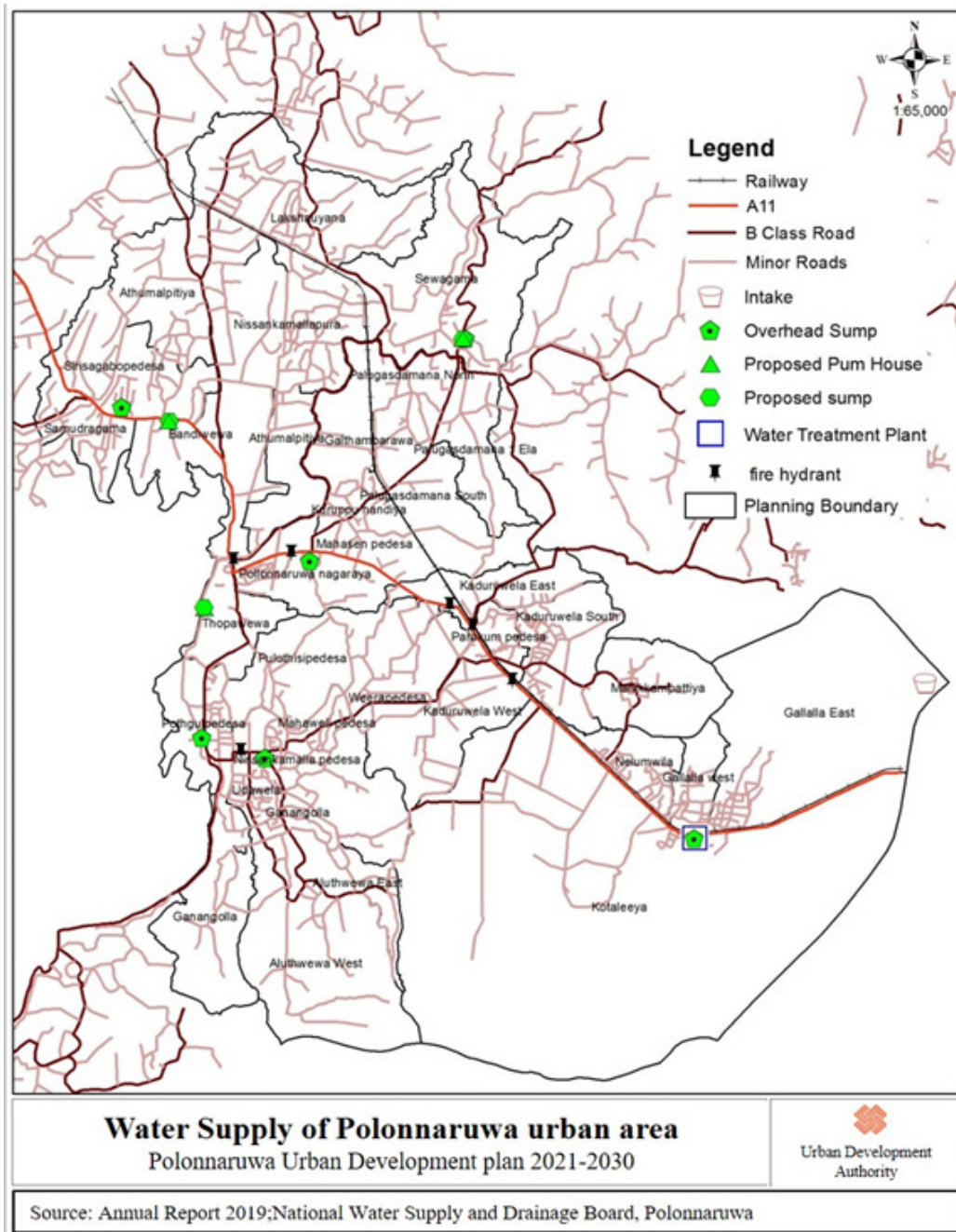
Source: District Annual Report 2016: Department of Census and Statistics

Annexure 10.08: Economically active population by district-2016

Economically active population by district-2016			
District	Total	Male	Female
Total	100.0	63.8	36.2
Colombo	100.0	65.7	34.3
Gampaha	100.0	66.9	33.1
Kalutara	100.0	64.2	35.8
Kandy	100.0	63.5	36.5
Matale	100.0	59.9	40.1
Nuwara Eliya	100.0	55.6	44.4
Galle	100.0	63.7	36.3
Matara	100.0	62.1	37.9
Hambantota	100.0	66.1	33.9
Jaffna	100.0	73.6	26.4
Mannar	100.0	76.6	23.4
Vavuniya	100.0	62.5	37.5
Mullativu	100.0	65.9	34.1
Kilinochchi	100.0	71.0	29.0
Batticaloa	100.0	70.5	29.5
Ampara	100.0	74.8	25.2
Trincomalee	100.0	74.9	25.1
Kurunegala	100.0	59.5	40.5
Puttalam	100.0	66.2	33.8
Anuradhapura	100.0	58.3	41.7
Polonnaruwa	100.0	67.3	32.7
Badulla	100.0	60.1	39.9
Moneragala	100.0	63.5	36.5
Ratnapura	100.0	61.0	39.0
Kegalla	100.0	58.6	41.4

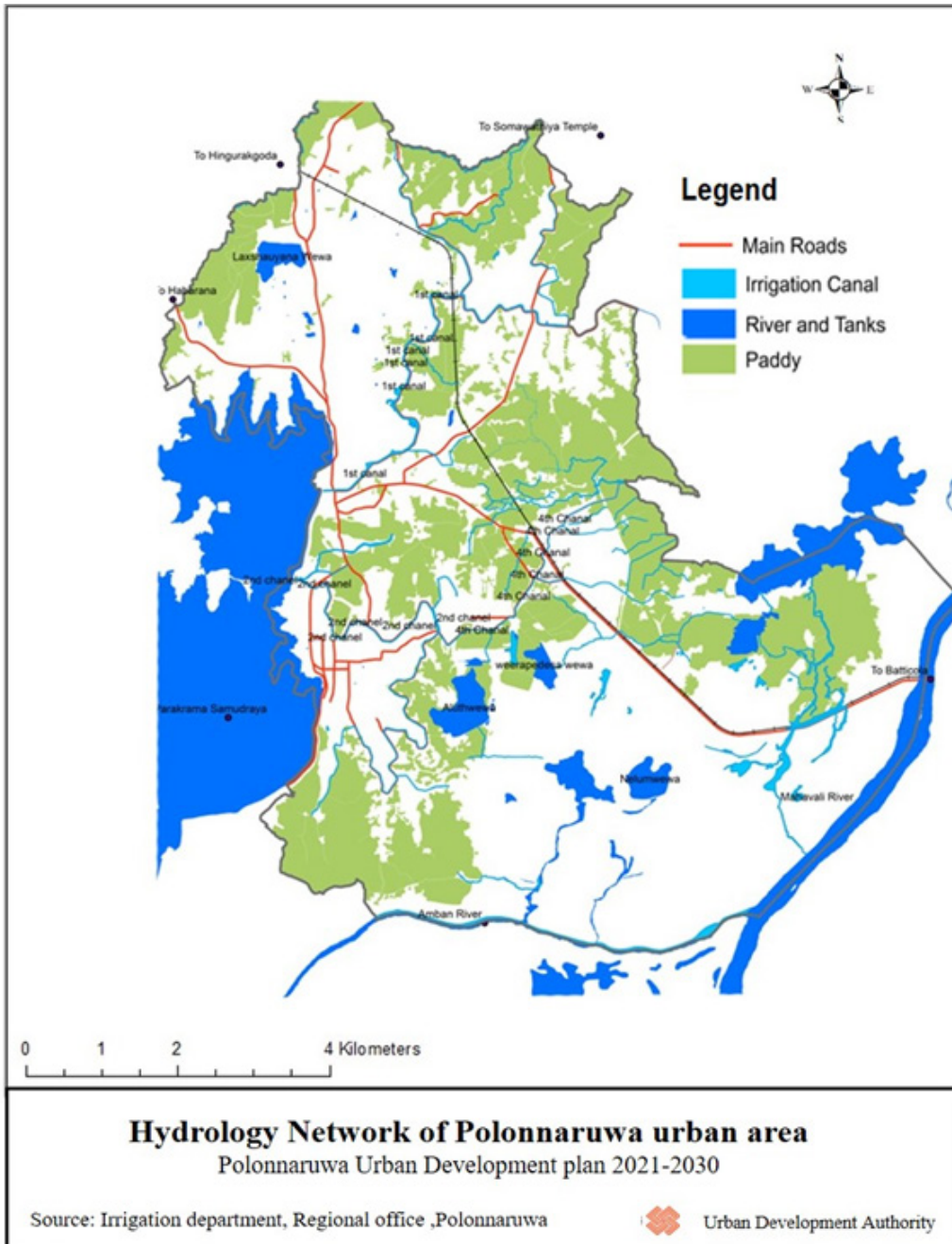
Source: - Labor Force Survey Annual Report - 2016; Department of Census and Statistics

Annexure 10.09: Water Supply in the Urban Area - 2021-2030



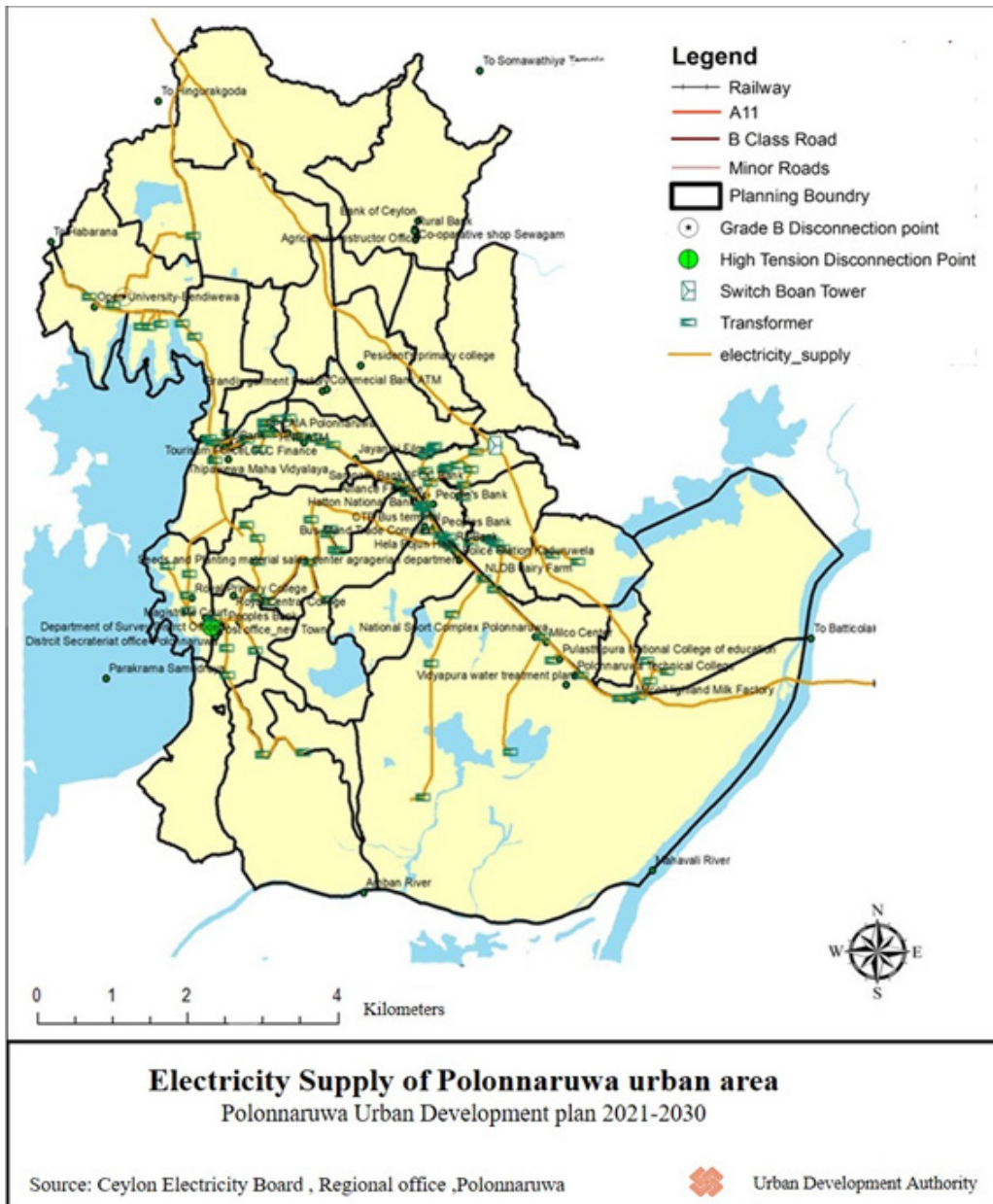
Source: Annual Report 2019; National Water Supply and Drainage Board, Polonnaruwa

Annexure 10.10: Hydrology Network - Polonnaruwa Planning Area



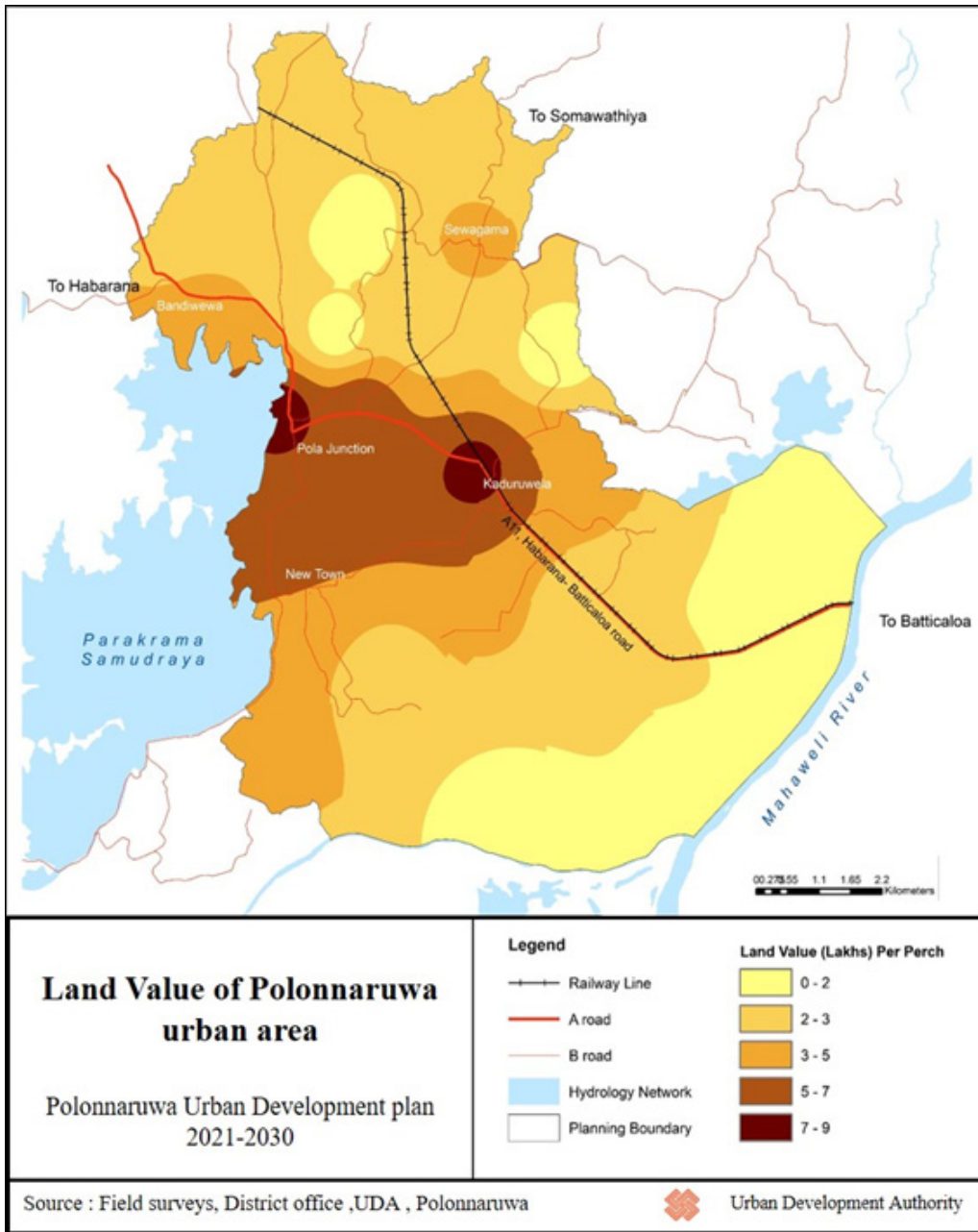
Source: Land Use Planning Department - District Office - Polonnaruwa

Annexure 10.11: Electricity supply in the Urban area 2020



Source: CEB Regional Office Polonnaruwa and Field Inspection 2020

Annexure 10.12: Value of land in the planned area 2020



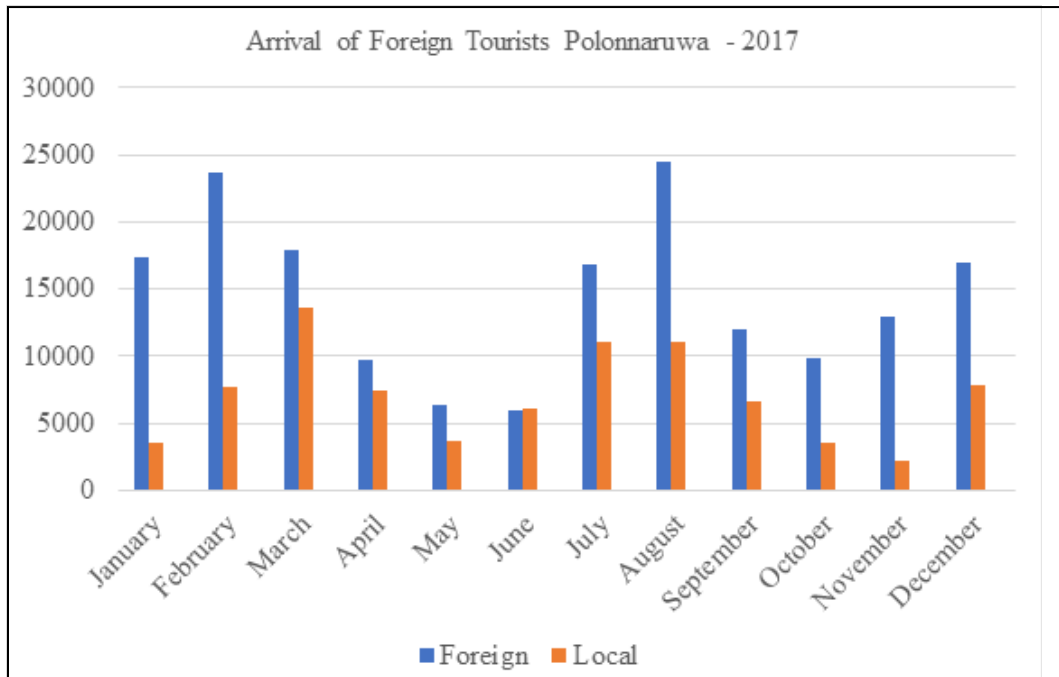
Source: Field Survey 2020: Polonnaruwa District Office, UDA

Annexure 10.13: Land use in Polonnaruwa Urban area

Land use	Extent (km²)	Proportion from the total land area (%)
Rocks, barren lands and abandoned lands	0.0099	0.01%
Industries	0.01492	0.01%
Cemeteries	0.021404	0.02%
Hospitals	0.032083	0.03%
Coconut	0.043602	0.04%
Shrubs	0.125316	0.12%
Abandoned tanks	0.23682	0.23%
Other crops	0.306815	0.30%
Industries and paddy mills	0.321878	0.31%
Other water sources	0.585341	0.57%
Chena cultivation	0.920492	0.89%
Commercial	1.210746	1.17%
Play grounds	1.657306	1.60%
Tanks	1.801472	1.74%
villu	2.694264	2.60%
Archaeological Reserve	4.192764	4.05%
Lawn	7.845109	7.58%
Wildlife Reserve	16.86547	16.30%
Paddy fields	31.82688	30.74%
Residential housing	32.81693	31.70%

Source: Field Survey, Geographical Data - 2020: Polonnaruwa District Office, UDA

Annexure 10.14: Arrival of Tourists Polonnaruwa - 2017



Source: - Annual Report 2017 Tourism Development Authority

Annexure 10.15: Locations where recreational facilities can be found in the urban area 2020

No.	Types of playgrounds and parks	Extent (ha)	Current usage / uses	Grama Niladhari Division
	Very small gardens			
01.	EPP ₁	0.1	Children's parks	Weera pedhesa
	Sub Total	0.1		
	Poket park			
02	EMP ₁	0.9	Play ground	Parakum Pedhesa
03	EMP ₂	0.4	Play ground	Kotaleeya
04	EMP ₃	0.9	Play ground	Potugul Pedhesa
06	EMP ₄	0.5	Play ground	Nissankamallapura
07	EMP ₅	0.7	Play ground	Samudragama
08	EMP ₆	0.3	Play ground	Kuruppu Junction
09	EMP ₇	0.9	Play ground	Sirisagabo Pedhesa
10	EMP ₈	0.5	Open area	Bediwewa
11	EMP ₉	0.3	Outdoor fitness center and park	Pothgul pedhesa
12	EMP ₁₀	0.3	Children's parks	Polonnaruwa Nagaraya
	Sub Total	5.7		
	Nearby parks			
11	ELP ₁	1.6	Play ground	Udawela
12	ELP ₂	2.4	Play ground	Weera pedhesa
13	ELP ₃ (Deepa Uyana)	1.2	Park	Bediwewa
	Sub Total	5.2		
	Central Urban Parks			
14	ECUP ₁	8.4	Sport complex	Kotaleeya
	Sub Total	8.4		
	Total	19.4		

Source: Environment and Landscape Division UDA

Appendix 10.16 Proposed Recreational Facilities in the Urban Area 2020

No	Type of parks	Extent (ha)	Current usage	Proposed use	Grama Niladhari Division
Proposed Poket Parks (PPP)					
01	PPP ₁	0.1	Vacant land	Poket Parks	Kaduruwela East
02	PPP ₂	0.2	Vacant land	Poket Parks	Polonnaruwa city
03	PPP ₃	0.1	Institutional land	Poket Parks	Kaduruwela West
04	PPP ₄	0.1	Paddy land	Poket Parks	Weera Pedhesa
	Sub total	0.5			
Proposed Mini Parks (PMP)					
03	PMP ₁	0.4	Vacant land	Mini Parks	Kaduruwela South
04	PMP ₂	0.3	Vacant land	Mini Parks	Kaduruwela East
05	PMP ₃	0.5	Grassland areas	Mini Parks	Nelumwila
04	PMP ₄	0.7	Commercial area	Mini Parks	Polonnaruwa city
04	PMP ₅	0.8	Wetland area	Mini Parks (Wetland park)	Kotaleeya
	Sub total	2.7			
Proposed Local parks (PLP)					
08	PLP ₁	1.1	Vacant land	Local park	Kaduruwela South
09	PLP ₂	1.4	Vacant land	Local park	Gallella West
12	PLP ₃	1.4	Srcub land	Local park	Laksha Uyana
13	PLP ₄	2.2	Srcub land	Local park	Ethumalpitiya
14	PLP ₅	3.0	Srcub land	Local park	Sewagama
	Sub total	9.1			
Proposed Community Parks (PCP)					
14	PCP ₁	4.6	Parakrama Samudra Reserve	Community park	Bediwewa
	Sub total	4.6			
Proposed Linear Parks (PLiP)					
15	PLiP ₁ (Reserve Areas - 100m)	132.7	Parakrama Samudraya	Linear Parks	
16	PLiP ₂ (Canal Reserve - 10m)	34.0	1 st Canal	Linear Parks	
17	PLiP ₃ (Canal Reserve - 10m)	15.7	2 nd canal	Linear Parks	
18	PLiP ₄ (Canal Reserve - 10m)	39.9	4 th canal	Linear Parks	
	PLiP ₅	0.30	Canal	Linear Parks	
	Sub total	222.6			
Proposed forest parks (PFP)					
21	Proposed forest parks (PFP)	1513.5	Flood plain National Park	Forest parks	
	Sub total	1513.5			
	Grand Total	1553			

Prepared by: Environment and Landscape Division:UDA

Annexure 10.17 Disaster Information 2018 at Tamankaduwa Divisional Secretariat

Disaster	Affected Grama Niladhari Divisions	Number of affected families	Number of houses affected
Lightning accidents	Aluthwewa West	1	1
Hurricanes	Weerapedasa	21	21
	Pulathisi Place	7	7
	Pethgul Place	1	1
	Udawela	1	1
	Thopawewa	2	2
	Polonnaruwa city	2	2
	Lotus Lake	18	18
	Kaduruwela East	14	14
	Gallella	28	28
	Gallella West	30	30
	Kotaleeya	44	44
	Kaduruwela West	107	107
	Kaduruwela South	52	52
	Parakum Place	98	98
	Palugasdamana 1 canal	1	1
	Aluthwewa West	5	5
	Palugasdamana 2 canal	7	7
Manikkampitiya	6	6	
Flooding	Nelumwila	18	18
	Kaduruwela East	14	14
	Gallella	28	28
	Gallella West	30	30
	Kotaleeya	44	44
	Kaduruwela South	52	52
	Manikkampitiya	6	6

Source - Disaster Management Division - District Secretariat – Polonnaruwa

Annexure: 10.18 Total land area of the zones and expected land area development by 2030

No.	Zone	Total land area (sq m)	Developable land (sq. M) X	Land area development expected by 2030 (sq. M) Y	Y/X	Zone Factor
1.	Commercial Zone	859564	432922	827032	1.910	2
2.	Administrative Zone	747480	701631	1059000.2	1.509	1.5
3.	Industrial Zone	883934	449133	346320	0.771	0.5
4.	Tourist Zone	6035242	2511060	3881297	1.545	1.5
5.	Residential Zone1	4101886	3768910	5574063	1.478	1.5
6.	Residential Zone2	60387639	23206000	21179421	0.912	1.5
7.	Health servise Zone	1150991	961482	1686981	1.754	1.75
8.	Educational and vocational training institutional Zone	928871	737700	723370	0.980	1
9.	Mixed Development Zone1	2196620	1704540	2898616	1.701	1.75
10.	Mixed Development Zone2	2534390	2242320	3391049	1.512	1.5
11.	Archaeological Conservation Zone01	4406176	0	8973	0	0
12.	Archaeological Conservation Zone2	525876	439636	761827	1.732	1.75
13.	Environmental sensitive Zone	18712343	0	0	0	0

Prepared by: Planning division, Polonnaruwa District office :UDA

ANNEXTURE 11

“ NVIVO ANALYSIS” REPORT

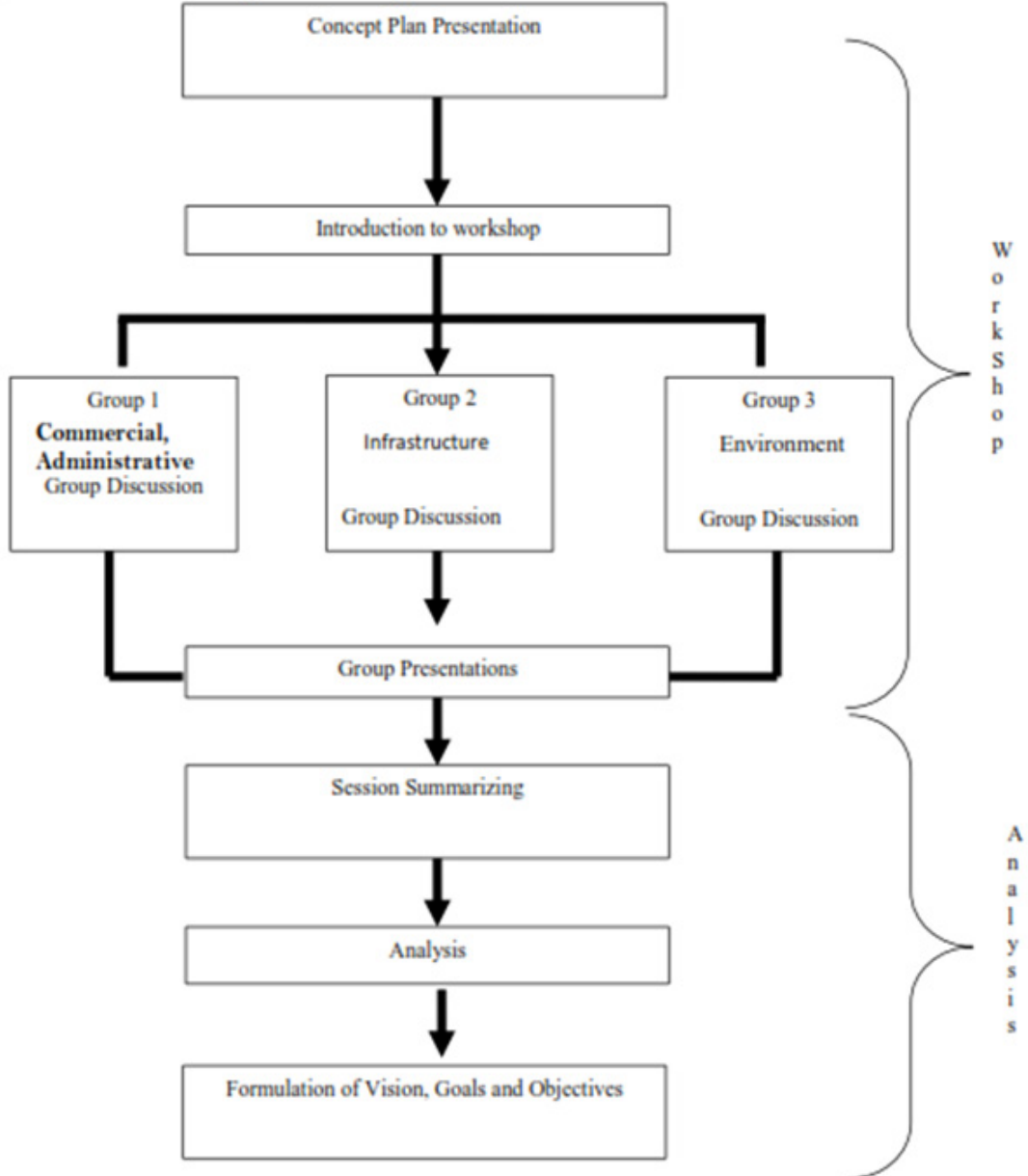
11. “ NVIVO ANALYSIS” REPORT

PREPARATION OF
POLONNARUWA DEVELOPMENT PLAN
STAKEHOLDER MEETING
NVIVO ANALYSIS

STAKEHOLDER MEETING- 13/10/ 2017
PREPARED BY DEVELOPMENT PLANNING DIVISION

PREPARATION OF POLONNARUWA DEVELOPMENT PLAN - STAKEHOLDER MEETING - NVIVO ANALYSIS

Stakeholder Meeting Conducting Process



PREPARATION OF POLONNARUWA DEVELOPMENT PLAN - STAKEHOLDER MEETING - NVIVO ANALYSIS**Group Categorization**

Polonnaruwa stakeholder meeting was held on 13rd of October. Meeting conduct by separating stakeholders into three groups and each group discussions were analyzed according to their comments. The analysis was based according to the identified problems and potential of Polonnaruwa .

Group 01 – Commercial, Administrative & Industrial

- Divisional Secretariat Office
- People's Bank
- Three-wheel Association
- Board of Investment
- Mawbima Newspaper – Journalist
- Trade Union Association
- Grama Niladhari
- District Secretariat

Group 02- Infrastructure

- Polonnaruwa Railway Station
- National Vocational Training Institute – Polonnaruwa
- Grama Niladhari
- Sri Lanka Telecom
- Public Health Inspector
- Sri Lanka Transport Board
- Road Development Authority
- Ceylon Electricity Board
- Polonnaruwa Base Hospital
- National Water Supply & Drainage Board
- Ceylon Railway Department

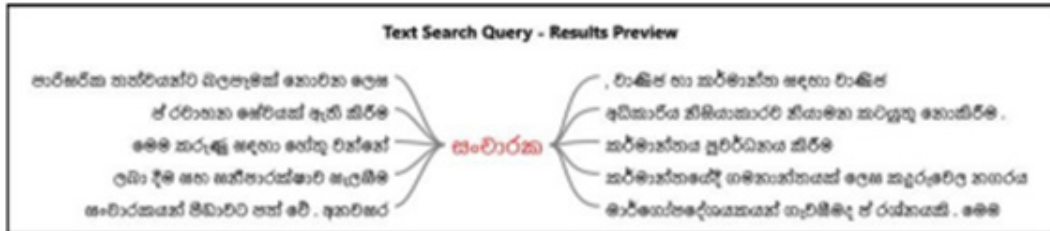
Group 03- Environment & Agriculture

- National Aquatic Development Authority
- Wildlife Conservation Department
- Survey Department
- Grama Niladhari
- Coconut Cultivation Board
- Central Environment Authority
- Sri Lanka Land Reclamation and Development Cooperation
- Disaster Management Centre
- Polonnaruwa Main Church Assembly
- Jayanthi Maha Viharaya
- North Central Provincial Council
- Archeological Department
- Isipathanaramaya

PREPARATION OF POLONNARUWA DEVELOPMENT PLAN - STAKEHOLDER MEETING - NVIVO ANALYSIS

OVERALL WORD TREES

After identified main key words from word cloud then found how the discussion link with key words. This word trees represents connection between each sector and when considering overall word cloud picture Tourism, Environment, transportation can identify as main discussed sectors of Polonnaruwa.



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The base of the Nodes was taken from overall word clouds and overall word trees of each groups. According to the Nodes word cloud the area should focused to vision as based on following sectors.

1. Tourism Development
2. Industry Development
3. Preservation of Archeological sites

Identified Problems and Potentials

Problems	Identified Causes
Improper management of sewerage disposal and solid waste disposal	<ul style="list-style-type: none"> • Due to the presence of groundwater in this area, the water is not absorbed into the earth; therefore, the toilets are constantly flooded in Kaduruwela and Polonnaruwa town area • At present, there is no proper dumping sites to dispose solid waste.
Increasing trend of authorized paddy land filling	Paddy Land filling – due to implementation of special development projects eg: Kaduruwela town area, under construction four lane road in polonnaruwa town
No proper way to manage waste water among and within the cities	No proper flattened and well-connected drainage network. Eg: Kaduruwela “Somiyel” junction

Potentials

- Named as Polonnaruwa UNESCO world heritage site
- Established value-added market for paddy
- Well-connected cascading system

PREPARATION OF POLONNARUWA DEVELOPMENT PLAN - STAKEHOLDER MEETING - NVIVO ANALYSIS**Conclusion of Analysis**

Stakeholder meeting results can be concluding as main three sectors according to the analysis. Analysis interprets the way development plan should address Polonnaruwa town. According to that Tourism Development, Agricultural Industrial Development and Preservation of Archeological sites should be the main considering areas of development plan. Through this overall analysis it shows the way that Vision, Goals, and Objectives of the Polonnaruwa Development plan should focus.

Vision

The Glorious Ancient city

Vision Statement

Expose the culture and heritage of Polonnaruwa to the world with partnership of people, development and city identity

Goals

- Create Polonnaruwa as the best heritage tourism destination
- Upgrade city dwellers economy with agro based industries and tourism

Objectives

- To ensure the protection & sustainability of archeological resources while promoting heritage tourism
- To provide a self-sustained living condition while connecting with culture, heritage to city dwellers
- To create proper plans and standards for upgrade qualitative and quantitative agriculture production
- To enhance the quality and quantity of drinking water supply

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ANNEXURES

PREPARATION OF POLONNARUWA DEVELOPMENT PLAN - STAKEHOLDER MEETING - NVIVO ANALYSIS

කණ්ඩායම 01 - වාණිජ , පරිපාලන හා කර්මාන්ත

1. නගරයට පැමිණෙන වාහන ගාල් කිරීමට පහසුකම් නොමැති වීම
 - ❖ නගරයට වාහන පැමිණෙන්නේ කාරණා 2ක් මතය. භාණ්ඩ හා සේවා ලබා දෙන වාහන හා භාණ්ඩ හා සේවා ලබා දෙන වාහන සඳහා පහසුකම් ලබා දෙන වාහන. මාර්ග නීති ක්‍රියාත්මක කිරීමේදී එම නීති අත්තහෝමිතික ලෙස භාවිත කිරීම නිසා සමහර දිනටද මාර්ග තදබදයක් ඇති වීම.
 - ❖ කෙටි කාලීන සහ දිගු කාලීනව නවත්වන වාහන නැවැත්වීම සඳහා වෙන් වෙන්ව ස්ථාන 02ක සිදු කිරීම
 - ❖ මාර්ග නීති පැනවීමේදී සහ ක්‍රියාත්මක කිරීමේදී සියලු දෙනා වෙත සමානාත්මතාවයෙන් යුතුව ක්‍රියාත්මක කිරීම.
 - ❖ දැනට දුම්රිය ස්ථානය ඉදිරිපිට ස්ථානය වාහන නැවැත්වීම සඳහා යොදා ගැනීම
 - ❖ නීති රීති නිසි පරිදි ක්‍රියාත්මක කිරීම
 - ❖ ස්ථාවර මහල් කිහිපයකින් යුත් වහන නැවතුම්පොළ තැනීම.
2. නගරයේ නිරන්තර සංවර්ධනයේ ගැටළු
 - ❖ සිරස් සංවර්ධනය පදනම් කර ගනිමින් තට්ටු 04ට වඩා උස ගොඩනැගිලි ඉදි කිරීමට පවතින නීති ලිහිල් කිරීම
 - ❖ නිරන්තර සංවර්ධනයට වඩා සිරස් සංවර්ධනය නගර සංවර්ධනයේදී ප්‍රවර්ධනය කිරීම.
3. විකල්ප මාර්ග භාවිතා නොකිරීම
 - ❖ තමන්කඩුව සිට කදුරුවෙල නගරයට පැමිණීමට පැයක පමණ කාලයක් ගත වේ. ඒ සඳහා රියදුරන් පෙළඹවීමට නීතිය ක්‍රියාත්මක කිරීම සහ දැනට පවතින නාම පුරු රිඛිමන්ට සැකසීම.කදුරුවෙල සිට ලේක්විටි හංදියට පැමිණෙන ප්‍රධාන මාර්ගය වෙනුවට කදුරුවෙල සිට නව නගරය හරහා ලේක්විටි හංදියට පැමිණෙන ලෙස නගරාන්තර ප්‍රවාහන සේවා යොමු කිරීම. එම නිසා කදුරුවෙල - නව නගරය මාර්ගයට "Shuttle Service" ප්‍රවාහන සේවයක් ඇති කිරීම
4. සංචාරක, වාණිජ හා කර්මාන්ත සඳහා
 - ❖ වාණිජ හා කර්මාන්ත සඳහා අනන්‍ය වූ ස්ථාන ස්ථාපිත කිරීම. එනම් අදාළ වාණිජ කර්මාන්ත එකම ස්ථානයක ස්ථානගත කිරීම. කර්මාන්ත පුරයේ කර්මාන්ත ස්ථාපිත කිරීමේදී ඒ සඳහා අනුමැතිය ලබා ගැනීමට තොරතුරු ලබා ගැනීමේ මධ්‍යස්ථානයක් ඇති කිරීම. එලෙසම ආයෝජන මණ්ඩලයේ කාර්යාලයක් කර්මාන්ත පුරයේ ස්ථාපනය කිරීම.
 - ❖ අනන්‍ය ස්ථාන ස්ථාපිත කිරීම
 - ❖ දැනට පවතින කර්මාන්ත පුරය විධිමත්ව ක්‍රියාත්මක කිරීම. කර්මාන්ත පුරයේ
 - ❖ පානීය ජලය විධිමත්ව ලබා දීම සහ සනීපාරක්ෂාව සැලසීම
 - ❖ සංචාරක කර්මාන්තයේදී ගමනාන්තයක් ලෙස කදුරුවෙල නගරය ප්‍රවර්ධනය කිරීම
 - ❖ සංචාරකයන් මෙම ප්‍රදේශයට පැමිණීමට සංචාරකයන් මුලා කිරීම අරමුණු කරගත් පුද්ගලයන් නිසා සංචාරකයන් පිඩාවට පත් වේ. අනවසර සංචාරක මාර්ගෝපදේශකයන් ගැවසීමද ප්‍රශ්නයකි. මෙම කරුණු සඳහා හේතු වන්නේ සංචාරක අධිකාරිය නිසියාකාරව නියාමන කටයුතු නොකිරීම.සංචාරක මාර්ගයට මර්ධනය කිරීම
 - ❖ (F.I.T.) සංචාරකයන් මුලා කිරීමට තුඩු දෙන කාරණා ඉවත් කිරීම
 - ❖ සංචාරක මණ්ඩලය මගින් සංචාරක හෝටල් නියාමනය විධිමත් කිරීම
 - ❖ පාරිසරික තත්වයන්ට බලපෑමක් නොවන ලෙස සංචාරක කර්මාන්තය ප්‍රවර්ධනය කිරීම

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කණ්ඩායම 02 - අපරවිද්‍යා

1. නගරයේ වාහන තදබදය
 - ❖ දුරගමන් වාහන නගරය හරහා ගමන් නොකර මෙමනිසාදා ශීර්ෂේන මාවත හරහා පුරාදිග භූමිය පසු පසින් දුම්රිය මාර්ගයට සමාන්තරව බැදී වැඩ දක්වා නව මාර්ගයක් ඉදි කිරීම
 - ❖ මහ රෝහලට පැමිණෙන රෝගීන්ට හා එහි කාර්යය මණ්ඩලයට අවශ්‍ය වන පරිදි පොදු වාහන නැවතුම් ස්ථාන ස්ථාපනය කිරීම (කදුරුවෙල පොලොන්නරුව නව නගරය c K D හා මහා රෝහල ප්‍රධාන පාසල් අසල)
2. පදිකයන් බහුතරයක් මාර්ගයේ ගමන් කිරීමේදී පදික වෙදිකාවේ යාමට උත්සාහ කිරීම.එම නිසා ප්‍රධාන මාර්ගයට සමභාමීව කදුරුවෙල නව නගරයට හා පොලොන්නරුව නගරය තුල හා රෝහල හන්දිය යන ස්ථාන වල පදික වෙදිකා ඉදි කිරීම (පළල 2.5)
3. උමං මාර්ග තැනීම (රෝහල හන්දිය වතුගඩු රෝහල අසල පොලොන්නරුව වට රවුම සේමියල් හන්දිය)
4. ශ්‍රීරෝද රන ගාල් ඉදි කිරීම
5. නව බස් රථ නවතුම් හා ප්‍රධාන බස් නැවතුම් පුළුල් කිරීම (පොලොන්නරුව නව නගරය)
6. සේමියල් හන්දියේ සිට මානික්කම් පටටිය මාර්ගය පුළුල් කිරීම
7. නව නගරය ජාතික විද්‍යාලය වටා පිරිසුම් මාර්ගය සංවර්ධනය කිරීම. පාසල් වෙලාව තුල ඒ ආසන්න ප්‍රදේශයේ ඇතිවන වාහන තදබදය අවම කිරීමට ඒ ආසන්නයේ මාර්ග සංවර්ධනය කිරීම.
8. ප්‍රධාන මාර්ග දෙපස සියලු ඉදිකිරීම් වල අවශ්‍ය වාහන නැවතුම් හා පදික වෙදිකා වලට ඉඩ තැබීම.
9. සනීපාරක්ෂක
 - ❖ මෙම ප්‍රදේශයේ භූගත ජල මට්ටම ඉහළින් පැවතීම නිසා වතුර පොලොවට උරා ගැනීමක් නැත.එම නිසා නිරන්තරයෙන් වැසිකිළි උතුරා යයි. මෙය නගරයේ පවතින ප්‍රධාන ගැටලුවකි. කදුරුවෙල හා පොලොන්නරුව ප්‍රදේශයේ පොදු වැසිකිළි පද්ධතියක් හා මල ප්‍රවාහන පද්ධති ඉදි කිරීම (කදුරුවෙල පොලොන්නරුව නව නගරය)
 - ❖ පොදු කාණු පද්ධතිය පුළුල් කිරීම, නිසි ජල බැස්ම තැබීම, ඉවත් කල හැකි කාණු ආවරණ යෙදීම
10. පොදු වැසිකිළි පහසුකම් presence
 - ❖ කදුරුවෙල බස් නැවතුම
 - ❖ පොලොන්නරුව බස් නැවතුම අසල
11. කසල එක් රැස් කිරීම සඳහා නව නගරය, පොලොන්නරුව, කදුරුවෙල, උප පොළක් ඇති කිරීම
12. කසල ප්‍රවාහනය සඳහා රථ සේවාව පුළුල් කිරීම
13. නගරය අලංකරණය
 - ❖ පොලොන්නරුව, කදුරුවෙල, නගරවල ඉදි කිරීම් සඳහා පෙනුම හා ස්වභාවය පිළිබඳ ප්‍රමිතීන් ඇති කිරීම
 - ❖ වාහන රියදුරන් සඳහා විවේක කලාපයක් ඇති කිරීම (ගල් ලැල්ල)
 - ❖ බස් නැවතුම්, දුම්රිය හා ඩිපෝව ආසන්නයෙන් පවත්වාගෙන යාම.
 - ❖ විදුලිය, ජලය, ටෙලි කොමියුනිකේෂන් හා අපවාහන සඳහා සේවා බිම් තීරුවක් පවත්වාගෙන යාම.
14. පොදු
 - ❖ ශිනී නිවීම සඳහා Fire Hardening සඳහා ඉඩකඩ
 - ❖ නව ඉදි කිරීම් වලදී Fire, IT, CCTV ප්‍රවේශයන් ඇති කිරීම
 - ❖ නගරය ආසන්නයේ තට්ටු නිවාස සංකීර්ණ 02ක් ඇති කිරීම (නව නගරය කදුරුවෙල)
 - ❖ දුම්රිය ස්ථානයේ සිඞුරක්ගොඩ අන්තයේ නගරයට මුහුණලා සාප්පු සංකීර්ණයක් ඉදි කිරීම
 - ❖ උදෑසන හා හවස් කාලයේ සිඞුරක්ගොඩ නගරය දෙසට වන්න ඉඩපහසුකම් පවතින නිසා කදුරුවෙල - සිඞුරක්ගොඩ හා වැලිකන්ද දක්වා රේල් බස් සේවාවක් ඇති කිරීම

PREPARATION OF POLONNARUWA DEVELOPMENT PLAN - STAKEHOLDER MEETING - NVIVO ANALYSIS

කණ්ඩායම් 03 – පාරිසරික හා කෘෂිකාර්මික

1. විධිමත් කාණු පද්ධතියක් නොමැති වීම
 - ❖ නගරය අලංකරණය වන අයුරින් විධිමත්ව වාරි ජලය බැස යාමට අදාළව කදුරුවෙල, සෝමල් හාදිය ප්‍රදේශයේ සංවර්ධන කටයුතු සිදු කිරීම
2. නගරයෙන් ගලා යන දූෂිත ජලය සම්බන්ධව
 - ❖ දූෂිත ජලය බැස යාම විධිමත් අයුරින් සිදු කිරීම
3. නගරයේ කුඹුරු විධිමත්ව ගොඩ නිර්මාණය කටයුතු සිදු කිරීම
 - ❖ සංවර්ධන කාර්යයන් සඳහා යොදා ගත හැකි කුඹුරු හඳුනා ගැනීම
 - ❖ වර්ෂා ජලය බැස යාමට ඇඳුම් මාර්ග හා ඒ ආශ්‍රිත වගුරු බිම් විධිමත්ව යොදා ගැනීම
4. ප්‍රදේශයට ආවේණික ශාක බාධාවක් නොවන ආකාරයට නගර අලංකරණයට යොදා ගැනීම
5. කෘෂිකාර්මික නිෂ්පාදන වල ගුණාත්මකභාවය වැඩි දියුණු කිරීමට අවශ්‍ය සැලසුම් සහ ප්‍රමිතීන් සැකසීම
6. කෘෂිකාර්මික කර්මාන්ත - වී මොල් සුදුසු ප්‍රදේශයක ස්ථාපිත කිරීම

පාරිසරික:-

1. නාගරික ප්‍රදේශය තුළ ජනායාට නිදහසේ හැසිරීම සඳහා සුදුසු උයන් ඉදි කිරීම - ස්වභාවික උයන් හා මංපෙත් (උදා: දීප උයන)
 - ❖ පරාක්‍රම සමුද්‍රය අවට ඇති නිදහස් ප්‍රදේශ
 - ❖ ගල් විහාරය අවට
 - ❖ පරාක්‍රම සමුද්‍රය 2 - ඇඳු සොරොවිව අසල
2. මංචිරු 4 මාර්ගයට යාබදව පාපැදි මංචිරු ඇති කිරීම හා ස්වභාවික (වියළි කාලගුණයට හා තද සුළඟට ඔරොත්තු දෙන ගස් වර්ග වැවීම)
3. ඉදිකරන ගොඩනැගිලි පාරිසරික හා පෞරාණික බව සුරැකෙන ලෙස හා පෞරාණික බව ඉස්මතු කරන ලෙස ඉදි කිරීම
4. විදුලි රැහැන් සහ දුරකථන රැහැන් භූගතව එලීම
5. විධිමත්ව කසළ එකතු කිරීමේ මධ්‍යස්ථානයක් ඇති කිරීම හා විධිමත්ව බැහැර කිරීම.
6. ගෘහාශ්‍රිත සතුන් (බල්ලන්, ගවයින්) අයාලේ යාම වැළැක්වීමට වැඩ පිළිවෙලක් සකස් කිරීම.
7. මහා මාර්ග හා අකුරු මාර්ග වල කාණු පද්ධතිය ජලය ගලා බස්නා පරිදි ඉදි කිරීම
8. පාඨව ඉදි කිරීමේදී පොදු ප්‍රතිපත්තියකට සිදු කිරීම හා කාණු පද්ධති අවහිර නොවන ලෙස ඒවා ඉදි කිරීම.

ලෝක උරුම:-

1. නගරයට ඇතුළත් වන ස්ථාන වල පොළොන්නරුවේ ප්‍රොඩන්ටය, විදහා දැක්වෙන නිර්මාණ ඉදි කිරීම.
2. නගර නිර්මාණයේදී පෞරාණික බව ඉස්මතු වන ලෙස එය සිදු කිරීම.
3. පොළොන්නරුවේ ශ්‍රී විභූතිය පෙන්නර ස්ථාන සංචාරකයන්ට බලාගත හැකි පරිදි ජනායා ගැටපෙන ස්ථානවල ප්‍රදර්ශනය කිරීම.
4. පොළොන්නරුවට ගැඳුපෙන නගරයක් නිර්මාණය කිරීම.

ANNEXTURE 12

**LIST OF GRAMA NILADHARI
DIVISIONS
BELONGING TO
POLONNARUWA URBAN AREA**

12. List of Grama Niladhari Divisions belonging to Polonnaruwa Urban Area

	GN division Number	Grama Niladhari Division	Belonging to Polonnaruwa Municipal Council (from 01-07-2017)	Belonging to Polonnaruwa Pradeshiya Sabha	Date declared as an urban area By UDA
1.	153	Bandiwewa	✓		By the Extraordinary Gazette Notification No. 2084/4 dated 14/8/2018
2.	154	Samudragama		✓	By the Extraordinary Gazette Notification No. 2084/4 dated 14/8/2018
3.	155	Ethumalpitiya	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
4.	155A	Sirisangabo padesa	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
5.	159	Aluthwewa East		✓	By the Extraordinary Gazette Notification No. 2084/4 dated 14/8/2018
6.	160	Aluthwewa West		✓	By the Extraordinary Gazette Notification No. 2084/4 dated 14/8/2018
7.	161	Ganangolla		✓	By the Extraordinary Gazette Notification No. 2084/4 dated 14/8/2018
8.	162	Weerapedasa	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
9.	163	Pulasti Place	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
10.	167	Potgul Place	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
11.	168	Udawela	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
12.	169	Mahaweli Place	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005

13.	170	Nissankamalla Place	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
14.	171	Thopawewa	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
15.	172	Polonnaruwa	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
16.	173	Palugasdamana 1 canal		✓	By the Extraordinary Gazette Notification No. 2084/4 dated 14/8/2018
17.	174	Palugasdamana 2 canal		✓	By the Extraordinary Gazette Notification No. 2084/4 dated 14/8/2018
18.	176	Palugasdamana North		✓	By the Extraordinary Gazette Notification No. 2084/4 dated 14/8/2018
19.	177	Palugasdamana South		✓	By the Extraordinary Gazette Notification No. 2084/4 dated 14/8/2018
20.	178	Galthambarawa	✓		By the Extraordinary Gazette Notification No. 2084/4 dated 14/8/2018
21.	179	Kuruppu Junction	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
22.	180	Mahasen Place	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
23.	181	Manikkampattiya		✓	By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
24.	182	Nelumwila		✓	By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
25.	183	Kanduruwela West	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
26.	184	Kanduruwela South	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
27.	185	Parakum Place	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005
28.	186	Kanduruwela East	✓		By Extraordinary Gazette Notification No. 1397/1 dated 13/06/2005

ANNEXTURE 13

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13. REFERENCE BOOKS

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