

Kalutara Development Plan 2019 - 2030

Volume I



Urban Development Authority
2019 July



Kalutara Development Plan 2019–2030

Volume I



Ministry of Megapolis & Western Development
Urban Development Authority

Kalutara Development Plan (2019-2030) Volume One © Urban Development Authority- Sri Lanka -2019

All rights reserved. This planning document is published by the Urban Development Authority. No, fully or part of this publication may be reproduced, sold, circulated, copied or recorded by means of modern technological instruments or using it for any commercial purpose or otherwise without prior permission of the authority.

Publisher

Urban Development Authority - Sri Lanka
6th 7th and 9th Floors, "Sethsiripaya", Battaramulla, Colombo, Sri Lanka.
Telephone - +94112873637
Web site - www.uda.gov.lk
E mail - info@uda.gov.lk

Published in July 2019

The Kalutara Development plan for 2019- 2030 is basically contained with two sections and is published as volume One and Two. Its first volume comprises with two sub sections ie, Section 1, and section 2. The section One includes the introduction, Background study, requirement of a plan. The section two include the Vision of the plan, Goals and Objectives, Conceptual plan and Development strategies. The Volume 2 of the plan has been prepared separately incorporating regulations for development of land and buildings and all other general regulations to be enforced for the period, 2019- 2030.

Kalutara Development plan 2019 - 2030 was prepared by the Western Provincial Division of the Urban Development Authority for which the guidance and advice of other divisions of the authority and relevant other resource persons have been taken into account from the inception of the plan preparation process.

Supervised by

Dr. Jagath Munasinghe, *Chairman - UDA*, Eng. S. S. P. Rathnayake, *Director General - UDA*, Plnr, K. A. D. Chandradasa, *Former Additional Director General - UDA*, Plnr. D. M. B. Ranathunga, *Additional Director General - UDA*, M. P. Ranathunga, *Deputy Director General (Planning)*, Plnr. Janak Ranaweera, *Director (Development Planning and Research & Development Division) - UDA*, Plnr. Lalith Wijerathna, *Former Director (Development Planning Division) - UDA*, Y. A. G. K. Gunathilake, *Director (Western Province) - UDA*

Planning team

Town Planner B. A. R. Ajith Kumara *Deputy Director, (Kalutara District office, Western Province) UDA*, Town Planner Mrs. M. Hemanthi *Former Deputy Director, (Kalutara District office, Western Province) UDA*, Mrs. Imali Herath, *Planning Officer (Kalutara District office of Western Province Division) UDA*, Mrs. Chamindra Hettiarachchi, *Planning Officer, (Kalutara District office of Western Province Division) UDA*, Mrs. Thanuja Imbulagoda, *Planning Officer (Kalutara District office of Western Province Division) UDA*, Miss. A.G.D.D. Ratnayake, *Assistant Planning Officer (Kalutara District office of Western Province Division) UDA*, Miss. G.D.S.Kulasooriya, *Assistant Planning Officer (Kalutara District office of Western Province Division) UDA*, Miss. C.L. Jayasekera, *Assistant Planning Officer, (Kalutara District office of Western Province Division) UDA*, Planner Mr. S.D.U. Jayampath, *Assistant Planning Officer (Research and Development division) UDA*

Assisted other teams

Environmental and landscape Division- UDA
Geographical Information Systems Division - UDA
Research and Development Division -UDA

Acknowledgement

The preparation of Kalutara Development Plan was mainly carried out by the Kalutara district office of the Urban Development Authority together with Western Province division. In the process of preparing this plan, for a period of nearly one and half years, many others have also helped in numerous ways.

Firstly, we are thankful to the Hon. Patali Champika Ranawaka, the Minister of Megapolis & Western Development for his direction and help to prepare this development plan. Also, we thankfully acknowledge the help and guidance given by the Secretary to the Ministry of Megapolis and Western Development.

Also, pay our special gratitude to the Hon. Chairman, Kalutara Urban Council and Kalutara Pradesheeya Sabha and all other officials of those local authorities for the contribution they made in preparation of this plan.

We thankfully acknowledge all stakeholders both government and private sector who gave fruitful idea and suggestions for preparing this plan.

We pay our gratitude to Dr. Jagath Munasinghe the Chairman UDA for his encouragements, guidance and overall supervision in making this plan. We should also thankfully acknowledge Eng. S.S.P. Ratnayake Director General, Former Additional Director General K.A.D. Chandradasa, Additional Director General D.M.B. Ranathunga and specially we are thankful to Mr. Janak Ranaweera Former Director Western Province of the UDA and Mr. Lalith Wijerathne Former Director of Development Planning Division of UDA for his contribution.

It should also be acknowledged the assistance given by the Development Planning division, Research and Development division, GIS division, Environmental and Landscape division to make this plan a success.

At the same time we thankfully acknowledge the numerous services rendered by all others specially Mooniak for formatting and designing all publications to make this plan a success.

Hon. Minister's Message



The Urban Development Authority which was setup by the Act No 41 of 1978 has now completed 40 years by making a tremendous service to the urban development sector in the country. The Sri Lanka is trying it best to become a strong economy in the emerging world where the UDA's responsibility is to draw up the development scenario in the country. It is the responsibility of the UDA to prepare development plans for the areas declared by me as the Minister in charge of the subject of urban development with the powers vested with me by the act and thereby the physical development of the planning area will be regulated for a certain period.

This plan was prepared for the Kalutara Divisional Secretariat area including for both Kalutara Urban Council and Kalutara Pradesheeya Sabha area for a period of 2019 to 2030. The Kalutara town being the main administration Centre of the district has achieved a significant physical development in the region. This development is drastically spreading into the Kalutara Pradesheeya Sabha area as well. Therefore, the entire Pradesheeya Sabha area was also covered by this plan and for the first time this area is to be regulated by a development plan. Under this plan, several strategic projects have been identified to make a sustainable development in all sectors; socio-economic, and physical etc.

Finally, as the Minister in Charge of the subject of Urban Development, I express my sincere appreciation to the Chairman, Director General, Planning team and all other officials of the UDA who have contributed to prepare this plan. At the same time, I am thankful to the Kalutara Urban Council, Pradesheeya Sabha, government and non-governmental organizations including private sector institutions who have helped in numerous ways to make this plan a success.

I hope that this plan would accomplish a sustainable development in the area of Kalutara Divisional Secretariat.

Patali Champika Ranawaka
Minister of Megapolis & Western Development

Hon. Chairman's Message



Today the Urban Development Authority (UDA) is the apex and plan implementation body in Sri Lanka that is responsible for managing the state of the urban environments of the nation. The authority was established in 1978 with the objective of introducing integrated planning and implementation in order to promote and regulate the developments for the common benefit of all inhabitants of the urban areas.

Under the amendment Act No 4 of 1982 ; (part II section 8 A [1] the Urban Development Authority has been mandated to prepare development plans for the Urban Developments Areas, declared by the Minister in Charge. The development Plan for Kalutara has been prepared and enforced under such provisions. As a result of the declaration of the Kalutara area as urban development area the urban development authority initiated the preparation of Kalutara Development plan considered Physical, economic, social and environmental aspects of the Kalutara area and its surroundings.

For the implementation of this plan, we have not forgotten that our path is not as smooth as silk, but as rough as gravel, full of challenges, filled with uncertainties and fouled by vicious intents. Yet the UDA today is equipped with necessary systems, tool and strategies to face such challenges, withstands those uncertainties and to make the Kalutara as the "The Prime Caesura of South West Coast"

I take this opportunity to offer my sincere gratitude to the team of the UDA who had to work hard and was committed to deliver this comprehensive work and also to all those who have supported and contributed with various means towards its formulation and hope the equal and continuous support of the all of them will be there towards its successful implementation.

Dr. Jagath Munasinghe
Chairman
Urban Development Authority

The message of the local authority heads



It is with great pleasure we record our sincere appreciation for the Urban Development Authority of the Ministry of Megapolis and Western Development for preparing an integrated development plan for the Kalutara Urban Council and Pradesheeya Sabha area. The Kalutara Divisional Secretariat area is a landmass with full of scenic beauty. The wider estuary of Kalu Ganga flowing from Sri pada hills

and the nearby white color great stupa have created a unique landmark for the town. The Kalutara town has been developed with modern urban features from the ancient time. And now it is turning to achieve a fast development.

By taking into account the commercial development taking place in and around Kalutara town and the resident population growth in the Kalutara Pradesheeya Sabha area, it has become necessary to achieve a rapid development in the Kalutara Divisional Secretariat area. We have identified the requirement of managing the said development in a sustainable manner.

The UDA is expected to carry out the urban development activities in the entire Divisional Secretariat area of Kalutara in a sustainable manner by preparing this plan for 2019 -2030. It is a great pleasure to see that some strategic projects have been identified through this plan to accomplish the objectives of this plan. This would pave the way for the resident population of the Kalutara urban area and all others to have better services through these projects in the future.

Finally, on behalf of the political representatives of the Kalutara urban council and Pradesheeya Sabha and also the general public in the area, we express our sincere appreciation for all the officials of UDA for taking initiative to prepare this plan.

Ameer Nazeer
Chairman
Kalutara Council

Sanjeewa Ariyaratne
Chairman
Kalutara Pradesheeya Sabha

Preface

The Kalutara development plan for 2019–2030 was prepared as per the powers vested with the Urban Development Authority by the Act No 41 of 1948. The Kalutara Divisional Secretariat area is the planning jurisdiction of this plan which include both local authority areas; Kalutara Urban Council area and Kalutara Pradesheeya Sabha area.

The data in 2018 was used in preparation of this plan, which included the data collected from the department of Census and Statistics, Department of Surveys, and other state agencies. All analysis in the plan was done based on these data.

This plan was prepared for the period from 2018 to 2030. The vision of this plan was formulated based on the information derived through the analysis of data. In order to reach into that vision, the 03 Goals were formulated under which 9 Strategies were identified. Based on these strategies, 04 main Strategic plans ie; Strategic plan for infrastructure development, Strategic plan for economic development, Strategic plan for sustainable environmental management and strategic plan for cultural heritage management were prepared together with some strategic projects.

Kalutara development plan 2019–2030 comprised with 02 parts the Volume one and Volume two. The Volume one includes; Part one and Part two and its part one comprised with paragraphs such as Background of the plan, Preliminary study, and Need of the plan and the Part two comprised with paragraphs; the Planning framework, SWOT analysis and the Plan.

Second volume comprised with two paragraphs such as zoning plan and Zoning regulations.

Content

Acknowledgement	III
Hon. Minister's Message	IV
Hon.Chairman's Message	V
Message of the Local Authority Heads	VI
Preface	VII
Content	VIII
Section One	IX
Chapter 01 : Background of the Development Plan	01
1.1. Introduction	02
1.2. Stakeholders of the Plan	02
1.3. Scope of the development plan	04
1.4. Planning Process	07
1.4.1. Background study	08
1.4.2. Scope	08
1.4.3. Identification of development potentials and problems	08
1.4.4. Vision targets and formulation of objectives	09
1.4.5. Detailed analysis	09
1.4.6. Strategic plans and formulation of projects	09
1.4.7. Rules and regulations	10
1.4.8. Consent for the draft development plan	10
1.4.9. Presentation of draft development plan	10
1.4.10. Approval of the plan and its declaration	10
Chapter 02 : Preliminary study	11
2.1. Study area	12
2.2. Planning and Situational context	12
2.3. Delineation of planning boundary	23
2.3.1. Functional region	23
2.3.2. Geographical region	23
2.3.3. Administrative region	23
Chapter 03 : Need of a development plan	27
3.1. Problem 01	28
3.2. Problem 02	29
3.3. Problem 03	31
3.4. Problem 04	31
3.5. Problem 05	31
Section Two	35
Hon Ministers Approval	36
Gazette notifications	37
Chapter 04 : Framework of the development plan	39
4.1. Vision of the development plan	40
4.2. Vision statement	40

4.3. Goals of the development plan	41
4.4 Objectives of the development plan	42
Chapter 05 : SWOT Analysis	43
5.1. SWOT Analysis summery	44
5.2. Detailed SWOT analysis	50
Chapter 06 : The plan	73
6.1. Planning concept	74
6.2. Proposed landuse plan	76
6.3. Strategic plan for infrastructural development	81
6.3.1. Service management plan	81
6.3.2. Road and transport plan	82
6.3.3. Water supply plan	84
6.3.4. Electricity supply plan	86
6.3.5. Sewerage and waste water management plan	87
6.3.6. Solid waste management plan	89
6.4. Strategic plan for economic development	94
6.4.1. Economic development plan	94
6.4.2. Tourism development plan	95
6.5. Strategic plan for sustainable environment development plan	98
6.5.1. Environment conservation plan	98
6.5.2. Landscape plan	103
6.5.3. Disaster management plan	104
6.5.4. Common open space and recreational activities spatial plan	108
6.5.5. Agricultural plan	112
6.6. Cultural, religious and heritage management plan	113
6.6.1. Some uddhist religious centers in the area	113
6.6.2. Cultural events	113
6.6.3 Conservation areas	114
6.7. Strategic plan for Housing density and distribution	115
6.8. Strategic plan for project implementation	119
6.8.1. Strategic projects	125
6.8.2. Institutional setting	152
Annexures	161
List of maps	186
List of tables	186
List of figures	187
List of Annexures	188
Referances	189



Section One



Chapter 01



Background of the Development Plan

Chapter 01
Background of the
development plan

Introduction

Stakeholders of the Plan

1.1. Introduction

Urban Development Authority (UDA) was set up by the Act No 41 of 1978 as the key agency responsible for urban development in the country. With an amendment Act bears No 4 of 1982, it was empowered to prepare development plans for the areas declared by the authority as “urban development areas” with a view to make balance development by taking into account the physical, socio economic and environmental aspects of such areas and it was the main responsibility of the UDA. The requirement of updating the present development plan (2005–2020) of the Kalutara area was identified due to expiry of its validity period by the year 2020 and also to incorporate the newly added areas into the planning jurisdiction by taking into account the physical, economical, social and environmental changes that have taken place recently in the area.

Thus, the region covered as the “planning area” in preparation of this plan (2019–2030) is the Divisional Secretariat area of Kalutara which includes both the Urban Council area and the Pradesheeya Sabha area. The legal background in declaration of the planning area, Under UDA law as “urban development area” is recorded as the Kalutara Urban Council area by the Gazette (Extra Ordinary) bearing No. 38/16, dated 01.06.1979, a part of the Kalutara Pradesheeya Sabha area by Gazette (Extra Ordinary) bearing No.1239/27 dated 07.06.2002, the remaining area by Gazette (Extra Ordinary) bearing No. 1393/06 dated 18.05.2005 and the 1 Km area from the beach line by the Gazette (Extra Ordinary) bearing No. 223/16 dated 17.12.1982.

The objective of this plan is to convert the Kalutara town as the most comfortable place for the inhabitants, commuters who come for daily needs and pilgrims without any hassles in 2030. And also it is expected to take strategic measures to mitigate the disastrous threats of flooding and landslides prevalent in the town to make it an attractive place for both locals and foreigners by taking into account the socio economic and physical conditions of the town based on the values of environmental, cultural, archeological and transport sectors. Accordingly, Kalutara Development plan has been prepared for 11 years as regional level.

1.2. Stakeholders of the Plan

When preparing the urban development plan for Kalutara Divisional Secretariat area for a period of eleven years; 2019– 2030, a stakeholders meeting was held on 04.12.2017 which was attended by the following officials representing all relevant sections and institutions of the planning area in addition to the staff of the Urban Development Authority, for identification of problems and potentials in the planning area.

Main stakeholder agencies

1. *Kalutara Urban Council*
2. *Kalutara Pradesheeya Sabha*

Other Stakeholder agencies

1. *District Secretariat – Kalutara*
2. *Divisional Secretariat – Kalutara*
3. *Disaster Management Centre*
4. *Central Environmental authority*
5. *Sri Lanka Land Reclamation and Development Corporation*
6. *Coast Conservation Department*
7. *Provincial Road Development Authority*
8. *Provincial Irrigation Department*
9. *Kalutara Bodhi Trust*
10. *Local Government Assistant Commissioner's office*
11. *Road Development Authority*
12. *"Mihisaru" Project office – Kalutara*
13. *National Water Supply and Drainage Board*
14. *National Community Water Supply Department*
15. *District Oceanic Environmental Authority – Kalutara*
16. *Airforce camp Katukurunda*
17. *MOH Office*
18. *Deputy Inspector General's Office*
19. *Police Station Kalutara North*
20. *Police Station Kalutara South*
21. *Police Station Kalutara (Traffic section)*
22. *Ceylon Electricity Board*
23. *Geological and Mines bureau*
24. *Lanka Electricity Company Pvt Ltd*
25. *Road Passenger Transport Authority*
26. *Sri Lanka Telecom*
27. *Regional Engineers Office – Kalutara*
28. *Ceylon Transport Board*
29. *Postmaster General's office*
30. *National Housing Development Authority*
31. *Agrarian services Assistant Commissioner's office*
32. *Project officers' office of Export Agriculture project*
33. *Industrial Development Board*
34. *District Valuer's office*
35. *District Fisheries office*
36. *Superintendent of Surveyors' office*
37. *Department of Railway (CGR)*
38. *Coconut Development Board*
39. *Distilleries Company of Sri Lanka PLC – Kalutara*
40. *"Pulerton" industrial zonal office – Kalutara*
41. *National Teachers Training School – Pasdunrata*
42. *National Health Institute*
43. *Sri Lanka Police Training Collage*
44. *Provincial Education office*
45. *Technical Collage Kalutara*

Chapter 01 Background of the development plan

Stakeholders of the Plan

Chapter 01 Background of the development plan

Stakeholders of the Plan

Scope of the Development Plan

46. *National Youth Council*
47. *Navy camp - Kalutara*
48. *STF Training School – Kalutara*
49. *Trade Association – Kalutara*

Resource Persons

Prof. Rangika Umesh Halwathura (Faculty of Civil Engineering – University of Moratuwa)

Planning Team of Kalutara District Office of UDA

Planning Team of Urban Development Authority involved in preparation of Kalutara Development Plan

1. Mr. Y. A. G. K. Gunathilake, Director, (Western Province), UDA.
2. Mr. Janak Ranaweera, Former Director, (Western Province), UDA.
3. Mr. B. A. R. Ajith Kumara, Deputy Director (Kalutara Office), UDA
4. Mrs. M. Hemanthi, Former Deputy Director (Kalutara Office), UDA
5. Mrs. Imali Herath, Planning Officer, UDA
6. Mrs. Chamindra Hettiarachchi, Planning Officer, UDA
7. Mrs. Thanuja Imbulagoda, Planning Officer, UDA
8. Miss. A.G. Dinusha Damayanthi Ratnayake Assistant Planning Officer, UDA
9. Mr.S.D. Uditha Jayampath, Assistant Planning Officer, UDA
10. Miss. G. Dilki Shasheera Kulasooriya, Assistant Planning Officer, UDA
11. Miss. Chathurika Lakmali Jayasekera, Assistant Planning Officer, UDA.

The Other Divisions Assisted

1. Research and Development Division - UDA
2. Environment and Landscape Division - UDA
3. Development Planning Division - UDA
4. Geographical Information Systems Division - UDA

1.3. Scope of the Development Plan

The Kalutara town situated closer to the estuary of Kalu Ganga is a central location on the Colombo Galle (A2) Road.

As per the National Physical Plan for 2018-2040, the Kalutara town falls within the economic zone and was identified as a coastal town situated in a coastal environmentally sensitive zone.

According to the Western province structure plan prepared by the UDA (2018 - 2030), the Kalutara town is falling within the tourism zone earmarked from Aluthgama to Negombo.

Based on these national level plans, the entire Kalutara district was taken into account as the study area. But due to practical difficulties in preparing a plan covering the entire district and due to inadequacy of the area belonging to the Urban council limit, and also considering the fact that the Pradesheeya Sabha area is falling adjoining to the Urban council boundary having direct link, it was decided to cover the area of Kalutara Divisional Secretariat comprising the Urban Council and Pradesheeya Sabha areas as planning jurisdiction.

In preparation of this development plan, all other sectoral plans such as the, strategic plan for Economic development (Console Caesura), Strategic plan for infrastructure development (Conjoined Caesura), strategic plan for Sustainable environment development (Cyan Caesura), strategic plan for housing density and distribution(Cushy Caesura) and Strategic plan for Cultural, religious and heritage management etc are also to be prepared to make proposals to uplift the physical, social, Economic and environmental aspects of the area to achieve the expected development for 2030.

Thus, under the strategic plan for lands and buildings, the Kalutara Divisional Secretariat area has been divided into 13 planning sub zones. When preparing the zoning plan, on the said planning sub zone, the existing landuse pattern and the population density were considered. Accordingly, it is expected to promote the zones where the development activities required to be encouraged and to discourage the developments in environmentally sensitive and disastrous areas and also to regulate the developments in the manner that the population distribution to take place in inequitable manner.

The Strategic plan for economic development includes two sections such as Economic development plan and Tourism development plan. Under the tourism development plan, it is expected to develop the tourism areas and also the potential areas for the tourism promotions and thereby to gain the maximum contribution to the economy of the Divisional Secretariat area by integrating those tourism zones. It has aimed to develop the tourist attraction locations such as Kalutara Bodhiya, Kelidor beach, Richmond Castle etc to extract increasing revenue to the area. Through the administrative and Health promotional program of the Economic development plan, it is expected to improve the facilities for the commuters who mainly come to get O2 main requirements fulfilled such as the administrative and health and thereby to improve the economic conditions of the town. By developing the administrative and health sectors, it is expected to achieve an agglomerated economic development in the area.

In addition, under the Strategic plan for infrastructure development the existing main roads by roads and other infrastructure facilities are to be developed in line with the proposed development to open up the avenues for further development of the area. In this context, it is proposed to develop the Kalutara town as a multimodal transport hub by integrating railway station and the bus terminal. This would facilitate to improve the public utilities for the pilgrims, daily commuters, and the inhabitants of the area. This would also pave the way to approach investors to Kalutara town from other main commercial centers. The requirement of water, electricity lines, waste management and sewerage system etc for the targeted population by the year 2030 will also be looked into by this plan.

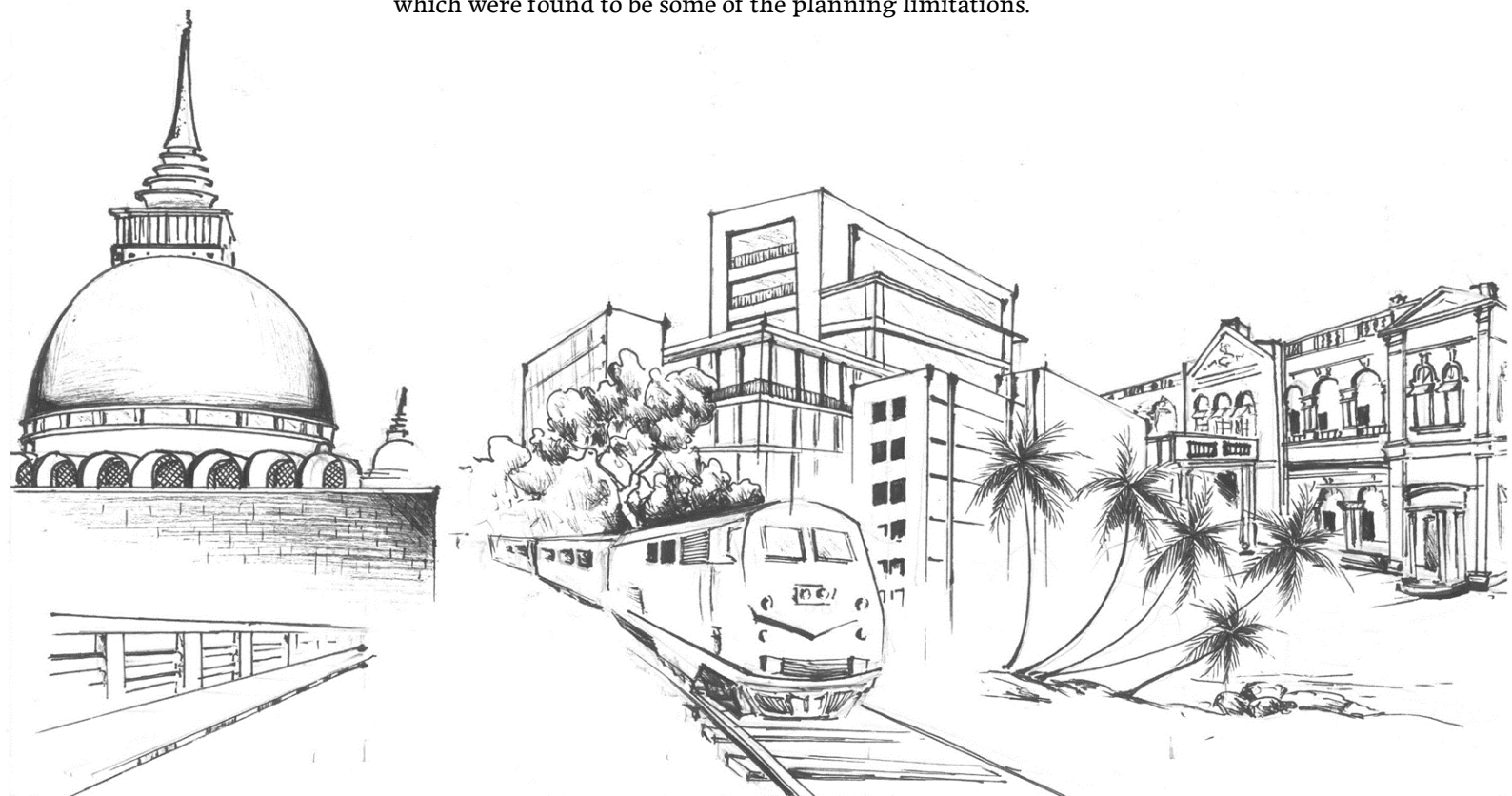
Chapter 01 Background of the development plan

Scope of the Development Plan

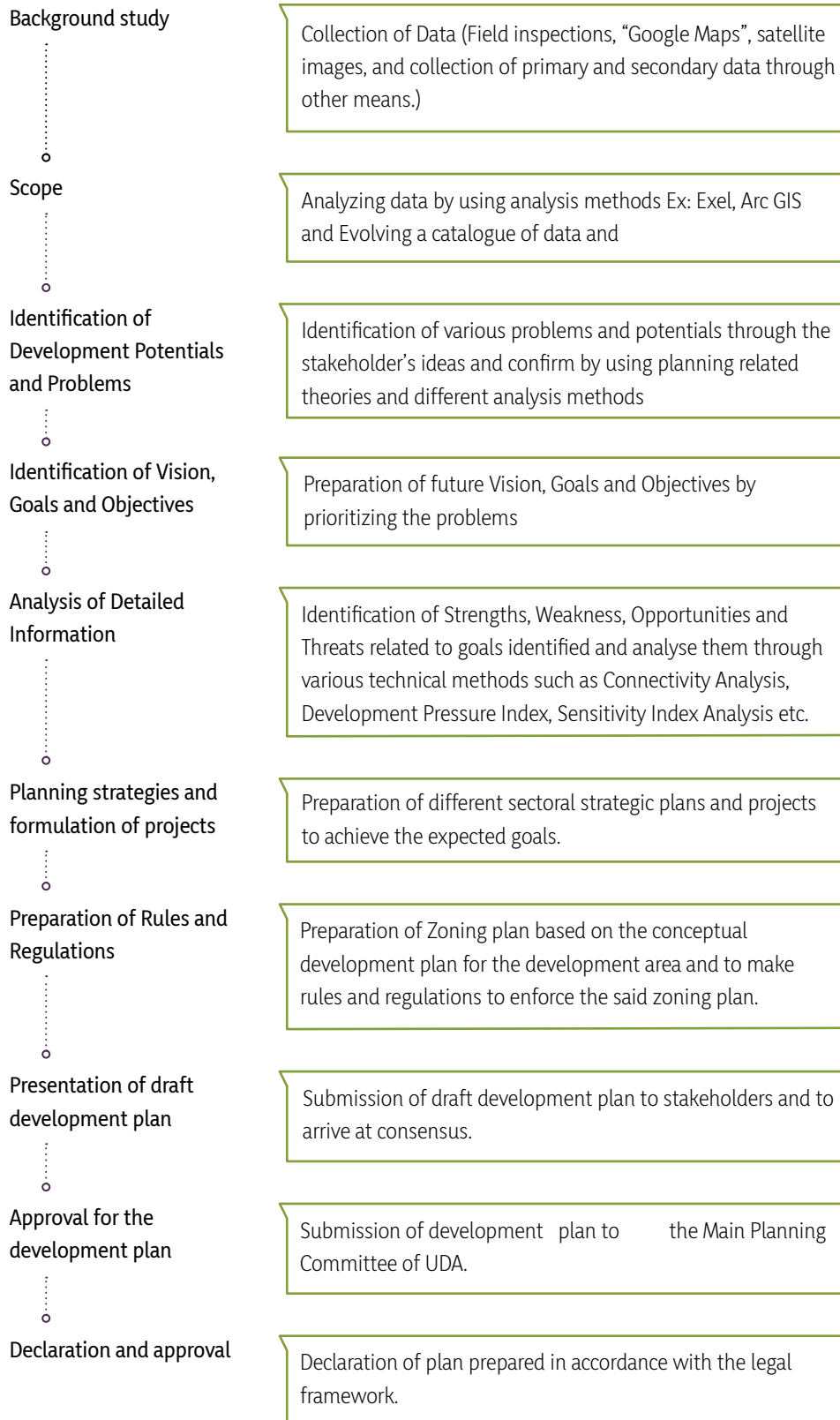
By the strategic plan for housing density and distribution, it is expected to control the residential density in the areas vulnerable for inundations, landslides, coastal erosion and to create only dispersed settlement patterns in those areas while increasing the residential density in other areas through introducing new regulations.

Through the strategic plan for sustainable environment development, it is expected to formulate guidelines for waste management, wetland conservation and coastal protection etc. The planning proposals for open spaces, a leisure area etc for the targeted population by the year 2030 is also described.

The objective of this plan is to achieve a balance development in Socio economic, physical and environmental sectors in the planning area. Although some of the problems identified through the development plan could not be directly addressed by the UDA and therefore the planning limitations were identified. The mixing of salt to the drinking water is an issue faced by over 56% of the population of the area was identified as a main issue in this plan but that cannot be resolved directly by the UDA. At the same time, the erosion of Kelido beach line was also identified as a planning limitation. In addition, some proposals were made to construct water retention ponds to minimize the inundations, but there is practical difficulty in implementing such proposals and also it was pointed out some shortcomings in the feasibility studies of certain projects which were found to be some of the planning limitations.



1.4. Planning Process



Chapter 01
Background of the
development plan

Planning Process

Background Study

Scope

Identification of
Problems and Potentials

1.4.1. Background Study

At the initial stage in preparation of the Kalutara Development plan for Kalutara Divisional Secretariat area, a different method was used in collecting information and data through various sources. Mainly the data was collected through primary and secondary sources.

Accordingly, the status of Kalutara town and its potentials was identified compared to national level, Provincial level, and district level etc. The primary data was also collected through field investigations. It was also paid attention to the development plans prepared for the Kalutara town by the UDA and other organizations and accordingly the Colombo Master Plan Project 1998, Colombo Metropolitan Regional Structure Plan -1998, (CMRSP-1998), Colombo Megapolis Plan -CESMA-2004, National Physical Plan 2011-2030, Kalutara development plan prepared by the UDA 2005-2020, National Physical Plan 2018-2050, Proposed Western Region Structure Plan 2018-2030 prepared by the UDA etc.

Further, the secondary data was collected from the government and non-government organizations. Some of such organizations include, Kalutara Divisional Secretariat, Disaster Management Centre, Central Environment Authority, Department of Irrigation, Road Development Authority, National Water Supply and Drainage Board and Department of Coast Conservation etc.

By using this information, a preliminary study was carried out with regard to the history of the area, location, landuses, road network, infrastructure facilities, economy, socio cultural background etc to determine the present status of the area.

1.4.2. Scope

The data that was collected through the primary and secondary sources were put into different analysis and prepared a data profile for the convenience. By evaluating the aforesaid data, the physical, social, economic and environmental aspects were further studied, and based on which a geographical map was prepared.

1.4.3. Identification of Problems and Potentials

A meeting was held on 04.12.2017 in participation with different stakeholder agencies, State and private sector institutions and relevant unions and societies where the stakeholders were categorized into three groups

1. *The Group represents Environmental Industrial and commercial fields*
2. *The Group represents administrative fields*
3. *The Group represents infrastructure field*

By taking into account the analysis and ideas expressed therein, the problems and development potentials were identified and the priorities were set according to the sequential order of those problems and development potentials. Accordingly, the requirement of a plan was identified and the sectors that need much attention were identified.

1.4.4. Formulation of Vision, Targets and Objectives

By taking into account the problems identified by sequential order, the Vision statement was prepared for future development of the Kalutara town. And also, conceptual plan was prepared with a view to resolve the problems identified therein.

Further, in relation to the Vision, three goals were identified and under each goal, the objectives were formulated. Its prime objective was to focus the Kalutara development plan to a correct order and thereby to achieve the UDA's Vision through the Kalutara development plan by orienting its development "towards a planned, sustainable and adored urbanization".

1.4.5. Detailed Analysis

A detailed analysis was done for each three goals through which strengths to reach the goals, weakness to be faced with and the opportunities and threats were identified separately. In order to confirm such findings a detailed analysis was carried out. In order to evaluate the identified targets, a detailed analysis was carried out by using following technological tools.

1. *Development Pressure*
2. *Environmental sensitivity analysis*
3. *Connectivity analysis*
4. *Space syntax*
5. *Node analysis*

Finally, each parameter: strengths, weakness, opportunities and threats were scientifically analyzed.

1.4.6. Formulation of Planning Strategies and Projects

The main purpose was to formulate Planning strategies and projects to achieve the goals and objectives which were identified in this development plan using the available resources in the area by minimizing the problems and constrain that were noted in this study. Accordingly, five sub sectoral plans were formulated ie;

Accordingly, five sub sectoral plans were formulated ie;

1. *Strategic plan for infrastructure development*
 - *Service management plan (Health and Education facilities)*
 - *Road and Transport plan*
 - *Road development plan*
 - *Transport development plan*
 - *Water supply plan*
 - *Electricity supply plan*
 - *Swage and drainage management plan*
 - *Solid waste management plan*

Chapter 01 Background of the development plan

Planning Process

Formulation of Planning
Strategies and Projects

Preparation of
Rules and Regulations

Approval for Draft
Development Plan

Submission of Plan to the
Planning Committee

Approval and
Declaration of the Plan

2. *Strategic plan for economic development*
 - *Economic development plan*
 - *Tourism development plan*
3. *Strategic plan for sustainable environmental development*
 - *Environmental conservation plan*
 - *Landscape management plan*
 - *Disaster management plan*
 - *Common open space and recreational activities plan*
 - *Agricultural plan*
4. *Strategic plan for settlement distribution*
5. *Strategic plan for cultural and heritage management plan*

The suitable projects were identified by studying the feasibility reports and different analysis.

1.4.7. Preparation of Rules and Regulations

The main objective was to formulate a legal framework and a set rules and regulations pertaining to all building constructions and all other landuses with a view to enforce the development plan and also to address and minimize the issues prevailing at present and the issues that may arise when implementing the plan to achieve the vision and goals therein.

A conceptual plan was drawn and based on which a zoning plan was prepared by demarcating few zones in the area identified to be developed. Thereafter the building regulations were formulated pertaining to each zone in order to guide and regulate all future development activities in the area.

1.4.8. Approval for Draft Development Plan

After preparation of the draft development plan, it is expected to get views and comments from the stakeholders and to arrive at consensus to proceed with further.

1.4.9. Submission of Plan to the Planning Committee

The Draft development plan will be submitted to the UDA main planning committee to obtain its views and advice for further amendments at this stage.

1.4.10. Approval and Declaration of the Plan

After obtaining the views of stakeholders and the main Planning Committee, the amended plan will be submitted for the approval of the subject Minister and thereafter declared in public for implementation of the same.

Chapter 02



Preliminary Study

Chapter 02
Preliminary study

Study Area

Planning and
Physical Context

2.1. Study Area

The area of jurisdiction pertaining to this development plan is the Divisional Secretariat area of Kalutara of which the boundaries have been demarcated adding two local authority areas such as Kalutara Urban Council and Pradesheeya Sabha areas. The Kalutara Urban Council Area comprised with 7.85 Sq Km and the Pradesheeya Sabha area comprised with 63.85 Sq Km and total land area includes in the entire Divisional Secretariat area is 71.7Sq Km.

As shown in Map No. 2.1, it is bounded from the North by the Panadura Divisional Secretariat area, from the East by Bandaragama and Dodangoda Divisional Secretariat areas, from the South by the Beruwela Divisional Secretariat area and from West by the Indian Ocean and is situated on the Colombo Galle main road, Coastal railway line and bordering the scenic view of Kalu Ganga.

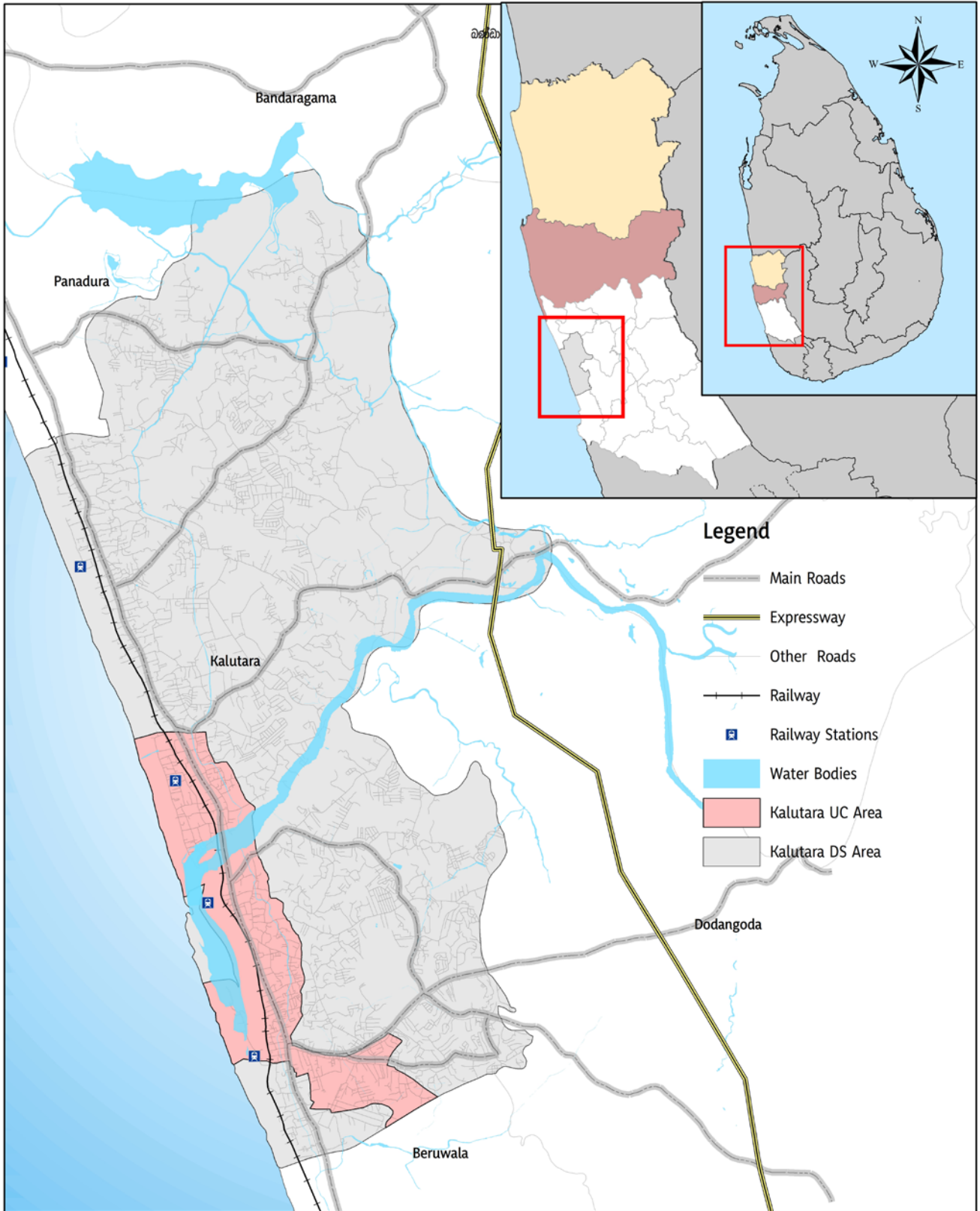
2.2. Planning and Situational Context

When preparing the Kalutara development plan, the regional and national linkages and the previous plans that were drawn up connected to the Kalutara area were considered. Accordingly, the attention was drawn to the Colombo Master Plan Project 1978, Colombo Metropolitan Regional Structure Plan -1998, (CMRSP-1998), Colombo Megapolis Plan -CESMA-2004, National Physical Plan 2011-2030, Kalutara development plan prepared by the UDA 2005-2020, National Physical Plan 2018-2050, Proposed Western Region Structure Plan 2018 prepared by the UDA etc. Based on which the priority sectors were identified for development of Kalutara region and proposals made therein are indicated as follows.

When demarcating the planning area of Colombo Master Plan 1978 (Annexure 01), Colombo district, Gampaha district and part of Kalutara district have been included. The total planning area had been divided into two zones such as central sub region and outer region and accordingly, the Kalutara town falls into Outer region.

As per the Colombo metropolitan Regional structure plan -1998 (Annexure 02), the hierarchy of the towns in the western province has been determined where the Kalutara town has been identified as a second order town with potential for tourist attraction, regional center and denoted as an area subjected to coastal erosions.

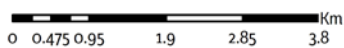
The Western Megapolis plan- CESMA-2004 (Annexure 03) prepared with the concepts; ie Decentralization concept, Garden city concept & Green finger Concept, Live, Play and work concept. In addition to that it has identified the Kaluthara town as the Outer Ring Township and also as a regional center.



Location

Kalutara DS Division

Source: Urban Development Authority



Urban Development Authority
December 2018

Western Province Division

Kalutara Development Plan (2019 - 2030)

Prepared By: Kalutara District Office

Map 2.1 : Kalutara Divisional Secretariat jurisdiction (2018)

Source : Urban Development Authority (2018)

Chapter 02 Preliminary study

Planning and Physical Context

According to the National Physical planning policy (2011-2030) (Annexure 04) declared by the gazette notification no 1729/15 dated 07th October 2011, the proposed urban metro regions of the entire country has been earmarked and out of which the Kalutara town has been identified as one of the main towns in the western metro region. Based on the nearby scenic beach and the ocean, an environmental sensitive development could be done in the area. The Katukurunda airport was also identified as a developable area. However, the coastal area has been identified as one of the most sensitive areas subjected to coastal erosion.

The plan prepared for Kalutara urban council area with 9 zones by the UDA for the period 2005-2020 (Annexure 05) was to create a balance development in economic social, physical and environmental sectors but its enforceable period is nearing expiry and therefore it has become necessary to amend the plan taking into account the present conditions and requirements of the town.

The national physical plan prepared by the National Physical Planning department for 2018-2050 (Annexure 06) has identified that Kalutara town falls within the economic zone closer to environmentally sensitive coastal area.


As per the Western region structure plan 2018 (Annexure 07), the Kalutara has been identified as a town falls within the tourism development zone from Aluthgama to Negombo. Based on the potential for tourism development, the requirement to promote that industry has been identified.

As shown in the Map No 2.2, the regional linkages of the Kalutara town are such that it is located on the Colombo - Wellawaya main road within a distance of 40km to the capital city of Colombo. And also, the distance to other secondary towns such as Panadura, Bandaragama, Horana, Neboda, Mathugama and Beruwela is 15Km, 17.5Km, 28Km, 20Km, 23km and 14Km respectively. In addition to that Kalutara town is connected to Colombo - Wellawaya road by proper road network such as Kalutara-Horana, Kalutara-Bandaragama, Kalutara-Mathugama and Kalutara-Nebada road. The linkages to other regions are further enhanced due to connectivity to Gelanigama interchange of Southern Highway from Kalutara with a short distance of 18Km and Dodangoda interchange with a distance of 13 Km. In addition, the Kalutara railway station situated on the coastal railway line from Maradana to Beliaththa operates for express trains which gain significant status to the Kalutara town in terms of transport facilities in the town. Thus, the Kalutara town as the main city in the district is provides much better services in terms of commercial, administrative, educational and cultural sectors.



National & Regional Connection
Kalutara DS Division
 Source : Urban Development Authority

0 1.75 3.5 7 10.5 14 Km

 **Urban Development Authority**
 December 2018

Western Province Division Kalutara Development Plan (2019 - 2030) Prepared by:Kalutara District Office

Map 2.2 : National and regional linkages of Kalutara Divisional Secretariat Area (2018)

Source : Urban Development Authority (2018)

Chapter 02 Preliminary study

Planning and Physical Context

As stated in the resource profile 2018, maintains in the Kalutara Divisional Secretariat, sailing ships have arrived in this area from ancient time up to 18th century. Because of that reason it has been denoted as “Kalathitha” and later it has been converted as Kalutara.

The sacred *Bo tree* in the upper compound of Kalutara is believed to be a branch of the Sri Mahabodhi in Anuradhapura. In the country's old map drawn by the Ptolemy in 2nd century BC, the place denoted as “Nukharatha” is believed as the area of Kalutara. In the inscription belonging to 5th century BC written in Brahme letters closer to Palunugala in the middle of Kalu Ganga which is presently conserved by the Archeological department reveals that the people had lived there at that time engaged in agricultural activities as their main livelihood. It revealed that at the time of 5th century BC, the people have lived there engaging in agricultural and commercial activities with religious background. At that time there had been two small fishery villages in the area of north and south of the Kalutara lagoon and foot paths were also created. It is said that some traders in Beruwala has exchanged goods from Sabaragamuwa area across the Kalu Ganga.

Kalutara area has been under the colonial rule for hundreds of years. During the Portuguese period (1505-1655) in 1505, Portuguese has built a fortress in Kalutara due to its natural protective location and a church was said to be built for religious activities. Thereafter during Dutch period (1655-1796) in 1655, it is said that they have put up a gravel road to Colombo having its width just sufficient for 8 soldiers to march with guns as a horizontal line parallel to the coastal line. Also, the canals have been used for exchange of goods internally.

Prior to English era 1796-1877, the administrative functions were said to be spread near the fortress area while commercial activities had been spread in linear shape in the vicinity of the harbor. Subsequently in the post English era (1877-1948) in 1887, a new bridge has been constructed across the Kalu Ganga through which some trade and service activities have taken place in the area. At the same time, administrative functions have been decentralized, an indigenous health board established in year 1878, Government agents post established in 1915, Urban Council set up in year 1923, electricity supply and water supply in years 1933 and 1940 respectively were some of the progress taken place in the area in subsequent years. Further when considered about the distribution of urban centers, some sub centers were developed in and around Kalutara North, South and Katukurunda area and the middle-class people have chosen the Kalutara North as their homeland.

After independence, (19th and 20th century) the struggle for protecting the Bodhiya in 1910, and erection of stupa in year 1980, created a renaissance in Buddhist religion. Also, having constructed the new bridge an internal road network like a grid was said to be created in the Kalutara North and south up to internal canal system in year 1990. Some of the old images pertaining to the historical evolution of the Kalutara town can be identified in Figure 2.1. In addition, the historical evolution of the Kalurata is shown in the Map in annexure 08.

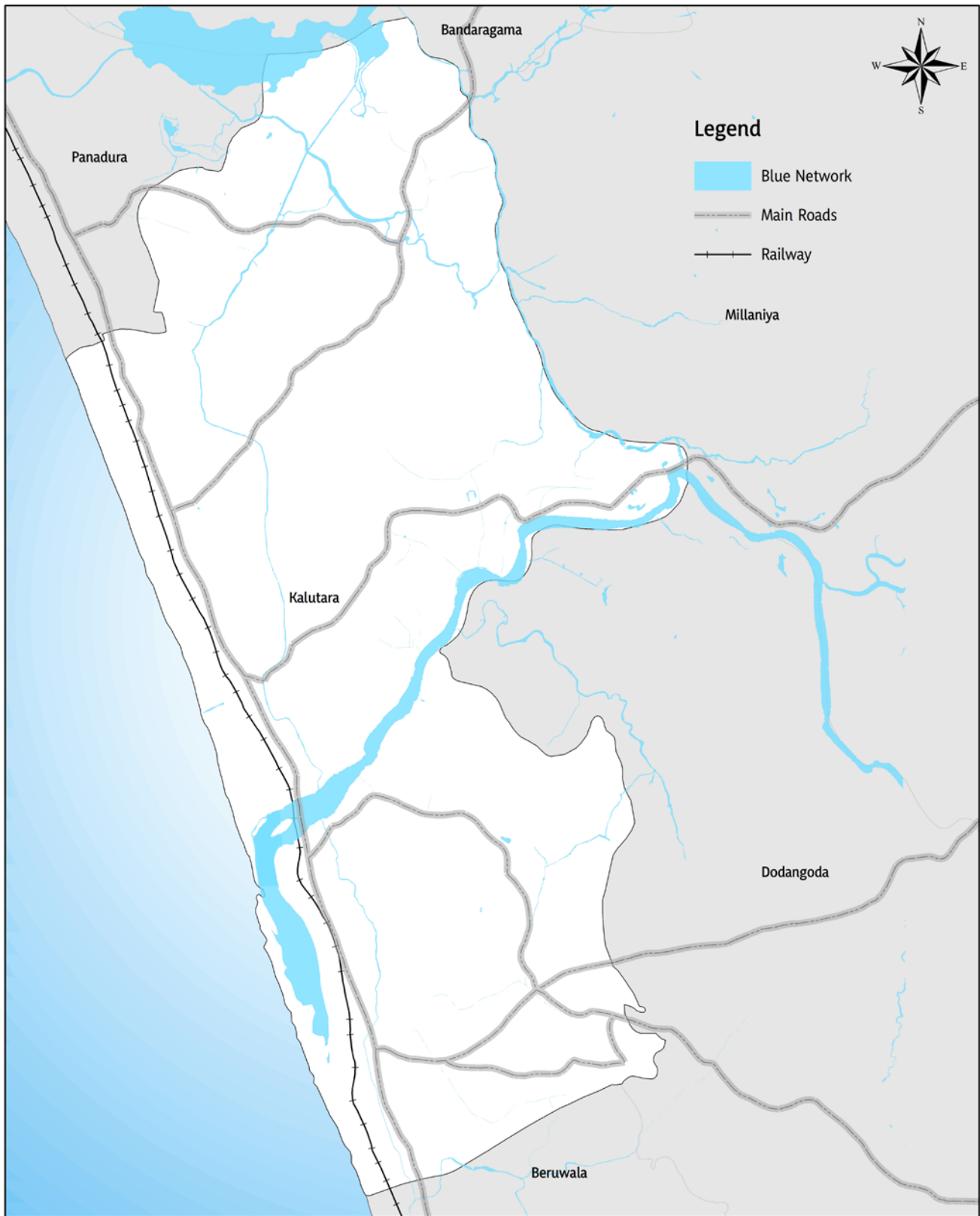
Chapter 02 Preliminary study

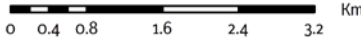

Planning and Physical Context

Thereafter, Kalutara UC area has been declared by a gazette notification number 38/16, dated 01.06.1979, as an urban development area by the UDA and part of that area has been declared as a sacred area by the Town and Country planning department on 29.01.1988. A part of the Kalutara Pradesheeya Sabha area has been declared by the gazette (Extra Ordinary) bearing number 1239/27 dated 07.06.2002 and the remaining part has been declared by the Gazette (Extra Ordinery) bearing No 1393/06 dated 18.05.2005. The 1 Km area from beach line has been declared by a gazette notification number 223/16 dated 17.12.1982 and thus the Kalutara Divisional Secrateriat area has been declared as an urban development area and is functioning to date. Some of the pictures showing the present and historical condition of the Kalutara town is given in Figure 2.1 and 2.2 (Page 26 and 27).

When considered about climatic condition and topography of the Kalutara area, it is falling within the low country wet zone. The average rainfall is 2500mm-3000mm and dally average temperature is 24-26° c and relative humidity is 80-85%. Sun light prevails constantly throughout the year but there is no heavy windy season.

As identified through the Map No 2.3, the main water source in the entire Kalutara Divisional Secretariat area is the Kalu Ganga flowing across the area which has originated from the top of the Samanala Kanda (Adam's Peak) with small waterfalls and springs added it to its way through and becoming a river and flowing to the sea from the Kalutara estuary. A large number of water canals are flowing across this area connected to the Kalu Ganga. The Heenatiyangala canal, Moren ela at southern boundary and the new canal at northern boundary are the main canals within the planning boundary. In addition, a part of the Bolgoda Lake is falling within the northern boundary of the planning area and because of that the entire northern side is filled with water throughout the year. Since this planning area generally remains as flat terrain with marshy lands, it has a balance climatic condition throughout the year.



<p>Blue Network Kalutara DS Division Source: Survey Department</p>		 <p>Urban Development Authority December 2018</p>
--	---	--

Western Province Division	Kalutara Development Plan (2019 - 2030)	Prepared by: Kalutara District Office
---------------------------	---	---------------------------------------

Map 2.3 : Natural water flowing system in the Kalutara Divisional Secretariat area (2018)

Source : Urban Development Authority (2018)

As per the census carried out by the department of census and statistics, a gradual decrease in population and the population growth rate can be identified compared to the years 2001 and 2011. The population in this urban area in year 2001 was 37,946 and in the year 2011, it was 31,987 this number has gradually decreased to 29,626 in the year 2017. During the period 2001 to 2011 the population growth rate has fallen to -1.69%. But when compared to the Kalutara Pradesheeya Sabha area, the population growth rate as per the census carried out during the period from 2001 to 2011, it was 2.0%. The population growth rate in the Kalutara Divisional Secretariat area during the same period was 1.13%. The population growth is seen towards hinterland from the coastal area which is shown in annexure 09. Accordingly, the population growth in the Kalutara Urban Council area and the Pradesheeya Sabha area can be summarised and shown in table 2.1.

Area	2001	2011	Population growth rate 2001-2011	Forecast for 2017	Forecast for 2030
Urban Council	37,946	31,987	-1.69	29,626	26,214
Pradesheeya Sabha	104,740	127,710	2.0	141,209	173,640
Div. Sec	142,686	159,697	1.13	170,835	199,854

Figure 2.1: Population Growth in the Kalutara Divisional Secretariat area 2001-2030

Source : Department of Census and Statistics (2001 - 2011)

As per above, the GN Divisions where the highest population growth can be seen are the Pulartan West 7.7%, and Kithulawa 6.3%, Thekkawaththa 3.3%. The reason to record higher growth was found to be due to relocation of people affected from Tsunami disaster and sub divisions of lands. According to the data published by the department of census and statistics, the housing stock in the Kalutara Divisional Secretariat area, in the years 2001, 2011, and 2017 were 34,391, 39,876 and 43,591 respectively. The gradual increase of the number of housing units has occurred corresponding to the population growth. The maximum population density in year 2017 was recorded as 18,722 persons per sq Km in Mahawaththa GN division and the minimum density was 487 per sq Km in Kuda Gonaduwa GN Division. The difference in population density in years 2001 and 2030 could be identified in annexure 10.

As per the census report in year 2011, 52% of the total population were female and 48% represents male population. According to the age group 0-14 years represent 24% and 15-59 group represents 63% over 60 represents 13%. Thus, the labor force in Kalutara Divisional Secretariat area is little high which is 63% of the total population. The population composition is such that the majority is Sinhalese and it is 91%.

The Kalutara town is the capital city of Kalutara district which is acting as the administrative center of the district. At the same time, it has acquired a significant place in terms of religious, cultural, environment and transport sectors. Because of this reason, the commuter population has also been increased.

Chapter 02
 Preliminary study

Planning and
 Physical Context

As per the data of department of Railway that it is recorded that around 6500 numbers of daily commuters are coming to the Kalutara due to the railway station permitted for stopping express trains. As per the data gathered from Kalutara educational division and from the trade association, 20,000 and 25,000 persons are coming for educational and commercial purposes respectively. As per the data collected from Nagoda hospital, around 5800 commuters are coming for health services and over 5000 persons are also coming for administrative purposes. Further data collected from Bodhi trust and public trustee, a considerable number of persons are coming as daily travelers to the town to visit Kalutara Bodhiya, Calido beach and Richmond castle building. This number is changing periodically during the year. Mainly, the population attract for the town because of the Kalutara Bodhiya which is as follows table 2.2.

Normal days	1000 - 1500
Normal Poya days	3500 - 4000
Special poya days	Over 8000 or more

Figure 2.2 : Population attracted for Kalutara Bodhi premises
 Source : Bodhi Trust (2018)

The commuter population is also depending on the availability of number of hotel facilities. As per the resource profile data in 2018, 5 hotels are available in the area at star grade and 50 numbers of normal hotels are available. The number of hotel rooms available in the area is 900 which are mainly concentrated in the coastal area. The 5-star hotels are identified as Tangerin, Avani, Anantara, Turyaa and Citrus.

It has been revealed that around 80,000 commuters are daily concentrated in the commercial area of the Kalutara town center.

From the ancient period, the economic background of the Kalutara area constituted predominantly with agricultural and commercial activities but according to the resource profile in 2018, service sector contributes 70% to the economy of the area. The contribution from private sector for service sector in the Divisional Secretariat area is recorded as 39% of higher figure. The contribution from fisheries sector to the economy in the planning area is only a 7% of a low figure.

The Bio degradable solid waste generated per day in the Divisional Secretariat area is recorded as 26 Metric tons and Non-Bio degradable solid waste quantity is 4 metric tons. The solid waste collection and disposal is carried out daily by the urban council and the Pradesheeya Sabha based on a plan. It is revealed that there is no proper sewage disposal mechanism in the entire Divisional Secretariat area and as a result of that lot of environmental the health issues have arisen and as such the requirement to have a proper sewage disposal system especially for the urban council area has been identified.

As per the resource Profile 2018, the pipe borne water is distributed in the area by the National Water Supply and Drainage Board and its main source is from the Kalu Ganga. Around 99% of families in the urban council area obtain pipe borne water. In addition, the number of families and the water sources from where they obtain water in the Pradesheeya Sabha area is given in table 2.3.

<i>Water source</i>	<i>Number of families</i>
<i>Pipe borne water</i>	24,274
<i>Tube wells</i>	2510
<i>Shallow wells</i>	9992
<i>Water stream and river</i>	49

Figure 2.3 : Drinking water sources

Source : Resource profile –(2018)

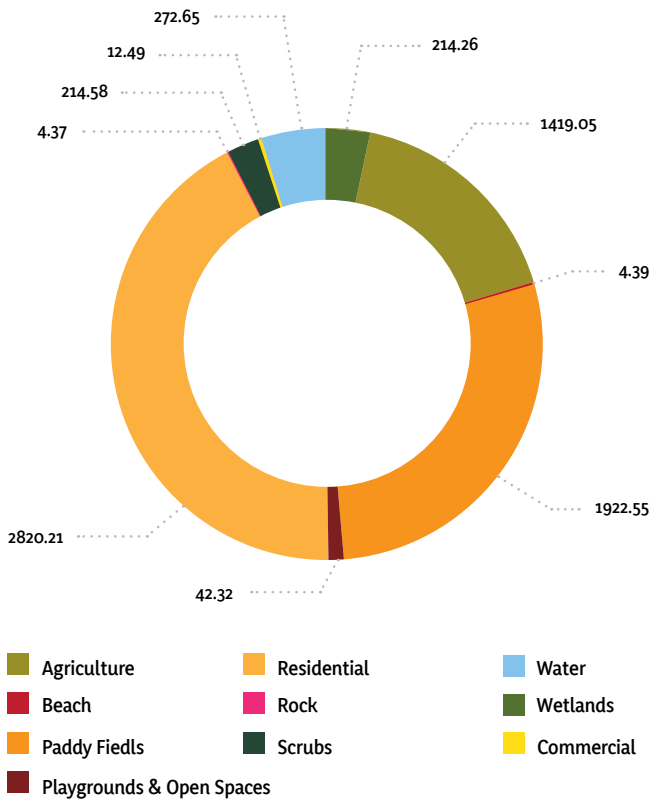
The government schools available in the entire Divisional Secretariat area are recorded as 34 and the total students as at year 2017 was 37,310. The main schools in the area are the Kalutara Maha Vidyalaya, Kalutara Ladies' School, Thissa Central School, Gnanodaya Maha Vidyalaya and Kalutara Muslims Collage. In addition to the government schools, there are few private educational institutions such as Nur Private School, Vidura collage, and two other schools run by the Cardinals fund of Sirikurusa Vidyalaya and Holy family convent. In addition to these schools, there are few high educational institutions such as national collage of education at Pasdunrata and a branch of Open University is available in the area.

In addition to above, the national level defense educational training institutions such as, Police training collage, STF training Centre, Navy training camp, Airforce training camp located within the planning area. And also vocational training institutions also located in this area such as technical college, Nurses training school and institutions connected to Marin University etc.

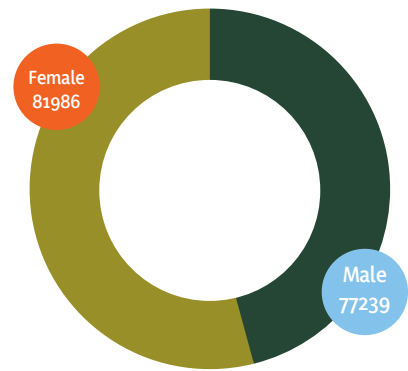
The Nagoda base hospital is the main health Centre of the planning area where 1,865 numbers of staff including 258 doctors are working in this hospital. The number of daily patients attended in OPD is recorded as 1,900 and clinical patients per week are around 6,980. The number of beds in the hospital is 859. In addition, 02 private hospitals, 01 midwives' office including its primary healthcare units of 08 numbers are available in the area.

In addition to the details described in this planning and situational context section, some important data connected to the planning area is given in summary form in figure 2.3.

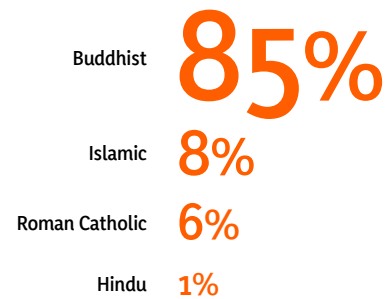
Landuse



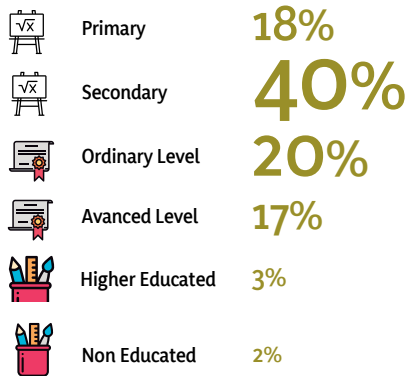
Female / Male Population



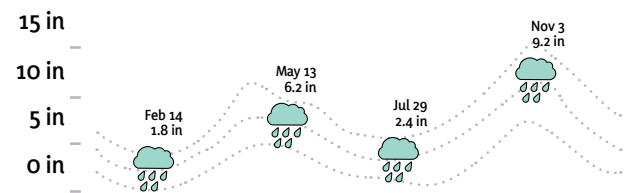
Religiou Composition



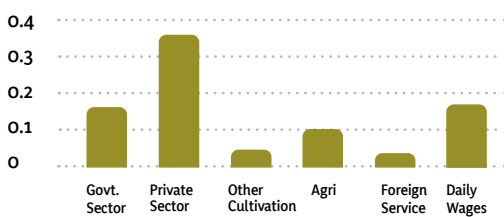
Educational Composition



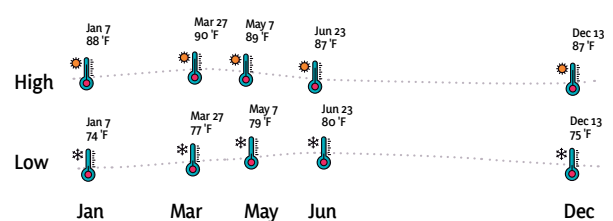
Average Monthly Rainfall



Economic Contribution of the Population



Average Maximum and Minimum Temperature



2.3. Delineation of Planning Boundary

Three factors were considered in delineation of the planning boundary for preparation of Kalutara urban development plan.

2.3.1. Functional Region

Kalutara town is the main commercial center and service provider in the area. The town area is expanded around the bus stand and various other services such as religious administrative, health, educational institutions at national level are concentrated along the main roads.

Although the faculties for tourists (hotels and restaurants etc) are located closer to the coastal area, the tourist attraction places are situated all over the area.

When overlays both, the Development pressure and Sensitivity index together, it can clearly be identified the increasing trend of Sensitivity index flowing through the main roads towards hinterland. It was the reason why the present administrative boundary of the Divisional Secretariat area of functional region was taken as the base in delineating the planning area with a view to protect the sensitive areas.

2.3.2. Geographic Region

Kalutara town located closer to the most largest estuary of Kalu Ganga is bounded by the sea. At the same time the all the branches of Kalu Ganga are spread in a vast area of the Kalutara Divisional Secretariat limit. Thus, the geographical factors such as marshy lands, water streams and environmentally sensitive areas were taken into account in delineation of boundaries of the planning area including entire Divisional Secretariat jurisdiction.

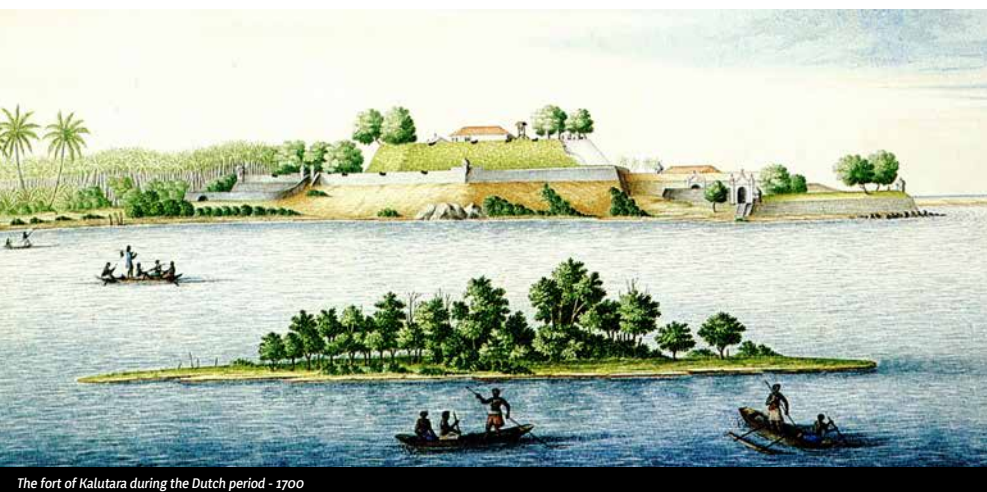
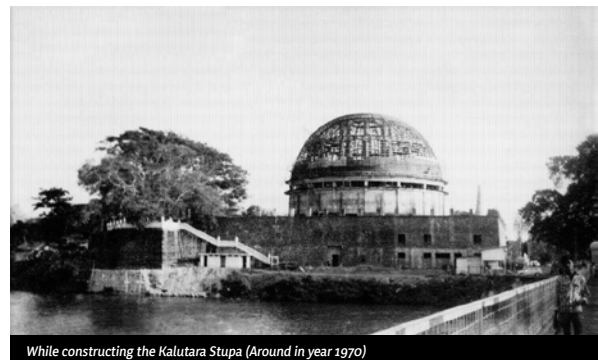
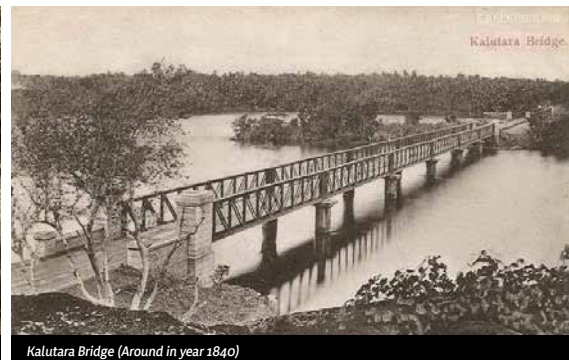
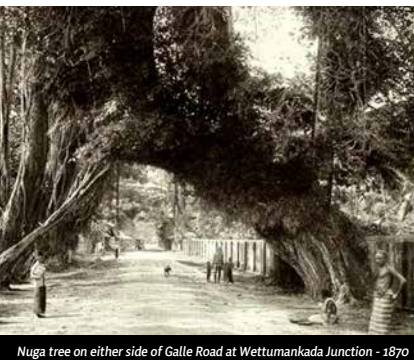
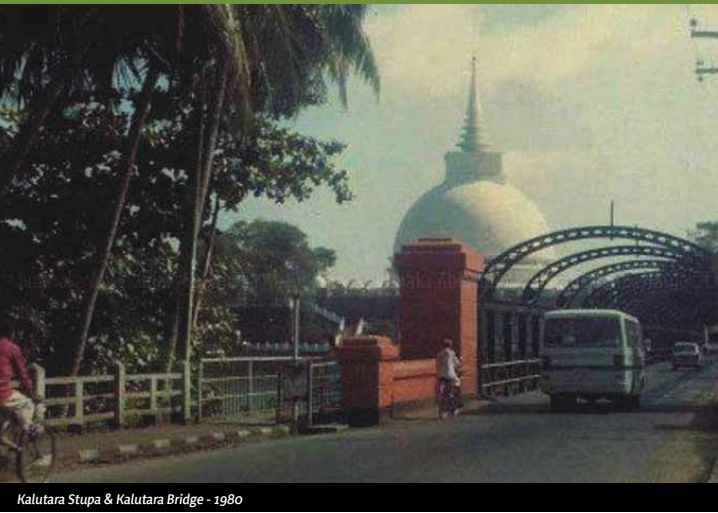
2.3.3. Administrative Boundaries

The Kalutara Divisional Secretariat area include two administrative zones. Such as;

- *Kalutara Urban Council area*
- *Kalutara Pradesheeya Sabha area.*

Since these two areas are declared as "urban development areas" by the UDA, these two zones were included in delineating the planning jurisdiction.

Figure 2.1 : Historical images of Kalutara
Source : lankapura.com





Chapter 03



Need of the Development Plan

Chapter 03 Need of the development plan

Problem 01 :
Existence of inappropriate
uses in and around the
highly populated areas

When preparing this development plan for Kalutara Divisional Secretariat area, the data collected from the preliminary study and the data collected through the stakeholders meeting held on 04.12.2017 were analyzed by using various planning related analytical methods, and those problems and potentials were prioritised based with those analysis outputs, the problems and potentials were identified. Thus, the based on those problems and the potentials, the requirement for a development plan was identified mainly based on the 05 factors and those can be prioritized as follows.

3.1 Problem 01 : Existence of inappropriate landuses in and around the highly populated areas

As a town adjoining to a main river bay with an attractive scenic beauty is acted as a center of interchange having attraction for tourism industry connected to hotel industry which is more conducive for local pilgrims and tourists.

The landuses in the areas attractive for commuters are found to be inappropriate and are not fulfilling the requirement of the people and are not making income generation in the economy of the Kalutara area. The mainly three such places were considered such as Kalutara Bodiya and place of interchange (around Kalutara bus stand and railway station), the road leading to Calido beach and the parallel road to Calido beach upto tanjerin hotel.

When considered the landuses in 20 meters zone from the main road around the Kalutara Bodhi premises and place of interchange (around Kalutara bus stand and railway station), it was found that a 24% of the lands are used for public institutions, 26% for commercial uses, 15% for religious places and 06% for flower stalls and 19% for transport sector purposes and balance 10% is presently being used for various constructions. Although the highest landuse is meant for public institutions, these landuses are not compatible for the area. Also 10-meter zone from the center line of the road leading to Calido beach and the parallel road of Calido beach line upto Tangerine Hotel are utilized 78% and 60% respectively for residential purposes which are not appropriate uses. These inappropriate landuses are obstacle to promote tourism sector development.

Because of these inappropriate landuses in and around the prominent places it has become an obstacle to develop for tourist attraction and also to provide facilities and thereby to enhance the economy of the area. This has become an issue to attract people into these areas and to slow down the development and therefore there is a requirement of a plan to address those issues

3.2 problem 02 : Environmental degradation prevailing in the Kalutara area

As a solution to the environmental degradation, the requirement of preparing a plan was recognized. Accordingly, the main environmental degradation factors can be identified as follows.

- *Adding of salt to the Kalu Ganga during the dry season (January, February, March, August, and September) has affected 56% of the total population who use the pipe born water in the area and has been identified as the most crucial issue as per the data collected by the National Water Supply and Drainage Board.*
- *Gradual deterioration of most attractive scenic Calido beach for many local and overseas tourists.*
- *Identification of vulnerable areas for flooding and landslides areas.*

The mixing of salt into the Kalu Ganga during the dry season has become an acute problem for 56% of the people in Kalutara Divisional Secretariat area and 99% of the urban council area. The Kalu Ganga is the main source of drinking water in this area. The electrical conductivity in the water during this period remains at 750 ms/cm and if this figure increased beyond 750 ms/cm, it would not be suitable for drinking purpose as disclosed by the National Water Supply and Drainage Board. Although the National Water Supply and Drainage Board use to deploy water bousers for distribution of drinking water to the people during the time of mixing salt water to the Kalu Ganga, which is not sufficiently happening.

Therefore, mixing of salt water to the Kalu Ganga as the main water source of the planning area, has been identified as an acute problem to be addressed. This issue has also become a reason to prepare a development plan for the Kalutara Divisional Secretariat area.

The Calido beach area the most attractive location for local and foreign travelers is subjected to deterioration has been identified as a problem and it has become a threat to the scenic environment in the area affecting the bio diversity of the Kalu Ganga and its sand extraction. It would also aggravate the drinking water issue prevailing at present because of the Kalu Ganga is connected to the sea at the same level. The Kalutara town was protected from the "Tsunami" occurred in in year 2004 due to existence of Calido beach and its sand dune. And therefore the deterioration of this beach line and its sand dune have become a threat to the Kalutara town from disasters like Tsunami. This Calido beach line and changes of its sand dune could be identified in Figure 3.1 In order to resolve these issues prevailing over the years and to maintain an environmental balance, some rules and regulations needs to be enforced as preventive measures for which a necessity has arisen to have a development plan.

Chapter 03
Need of the
development plan

Problem 02 :
Environmental
degradation prevailing
in the Kalutara area

The flood that occurs almost annually is a major threat to the livelihood of the area. As per the data collected from the Irrigation department at Kalutara, it has been disclosed that there is a danger of occurring minor flood annually and major flood almost once a five years in the planning area. When the river level rises to 2.5 figure, it can cause a minor flood and if it rises over level 5, there will be a major flood. As per the prevailing records, the major floods in the Kalutara area have occurred as in year 2003 (6.2 feet) in 2008, (7.1 feet) and 2017 (6.8 feet). The record from Disaster management center reveals that 11,854 families in 43 numbers of GN divisions have been affected in the Kalutara Divisional Secretariat area due to the flood that occurred in year 2017.

The National Building Research Organization has identified that a small land mass in Kithulawa GN division and Bolgoda areas are vulnerable for landslide. But these landslides can be identified as small scale earthslips by this National Building Research Organization. These issues may directly affect the livelihood of the people more frequently and if a proper solution has not been given the entire town area of Kalutara town may undergo a disastrous situation. Therefore, the necessity to prepare a development plan for Kalutara Divisional Secretariat area was identified with a view to make a comfortable place for the inhabitants to live without any environmental issues.



Figure 3.1 : Change of sand dune in Calido beach
Source : Google images

3.3. Problem 03 :

Non availability of linkages to travel between tourist attraction sites spread in the entire town area.

It has been identified that there is a potential to create a linkage of travelling path connecting all the tourist attraction points such as Kalutara Bo tree, Calido beach, Diyagama Pelunugala and Richmond castle building etc. It has been revealed that there is no such an environment created with required facilities for the tourists and lack of information and route map for travelers and lack of popularity has become an obstacle for development of tourism industry. Even at today, the travelers for other locations except for the Kalutara Bo tree, are very few and this issue needs to be addressed through a development plan.

3.4. Problem 04 :

Diminishing of threshold population of the Kalutara town due to development of peripheral areas

It has been revealed that the threshold population of the Kalutara town has gone down due to development of surrounding areas. For example, the development of Horana Industrial estate Mathugama urban forest development and southern expressway development etc have created a potential for development of outer regions and it has made an avenue to reduce the threshold population of the Kalutara town. This development trend may course to attract more people into those areas creating a threat to the Kalutara town. In order to control such situations, it has become necessary to make strategic plans and required rules and regulations through a development plan for the Kalutara Divisional Secretariat area.

3.5. Problem 05 :

The tendency of spreading the development intensity into the environmental sensitive areas out side the existing planning jurisdiction

The existing development plan (2005–2020) is confined only to the urban council area. As per the evaluation carried out regarding development pressure as shown in the map no 3.1, the development pressure flowing along the main roads towards hinterland in the Pradesheeya Sabha area. Also, as per the evaluation done regarding environmental sensitivity as shown in map 3.2 the development is flowing towards the environmentally sensitive areas. At the same time, when considered about the landuse in year 2018, 54% is covered with coconut cultivation, paddy, rubber, wetland, water bodies and scrub jungles and the landuse pattern of the planning area is shown in Annexure no 11.

Chapter 03

Need of the development plan

Problem 03 :

Non availability of linkages to travel between tourist attraction sites spread in the entire town area

Problem 04 :

Diminishing of threshold population of the Kalutara town due to development of surrounding areas

Problem 05 :

The trend of moving the development pressure towards the environmental sensitive

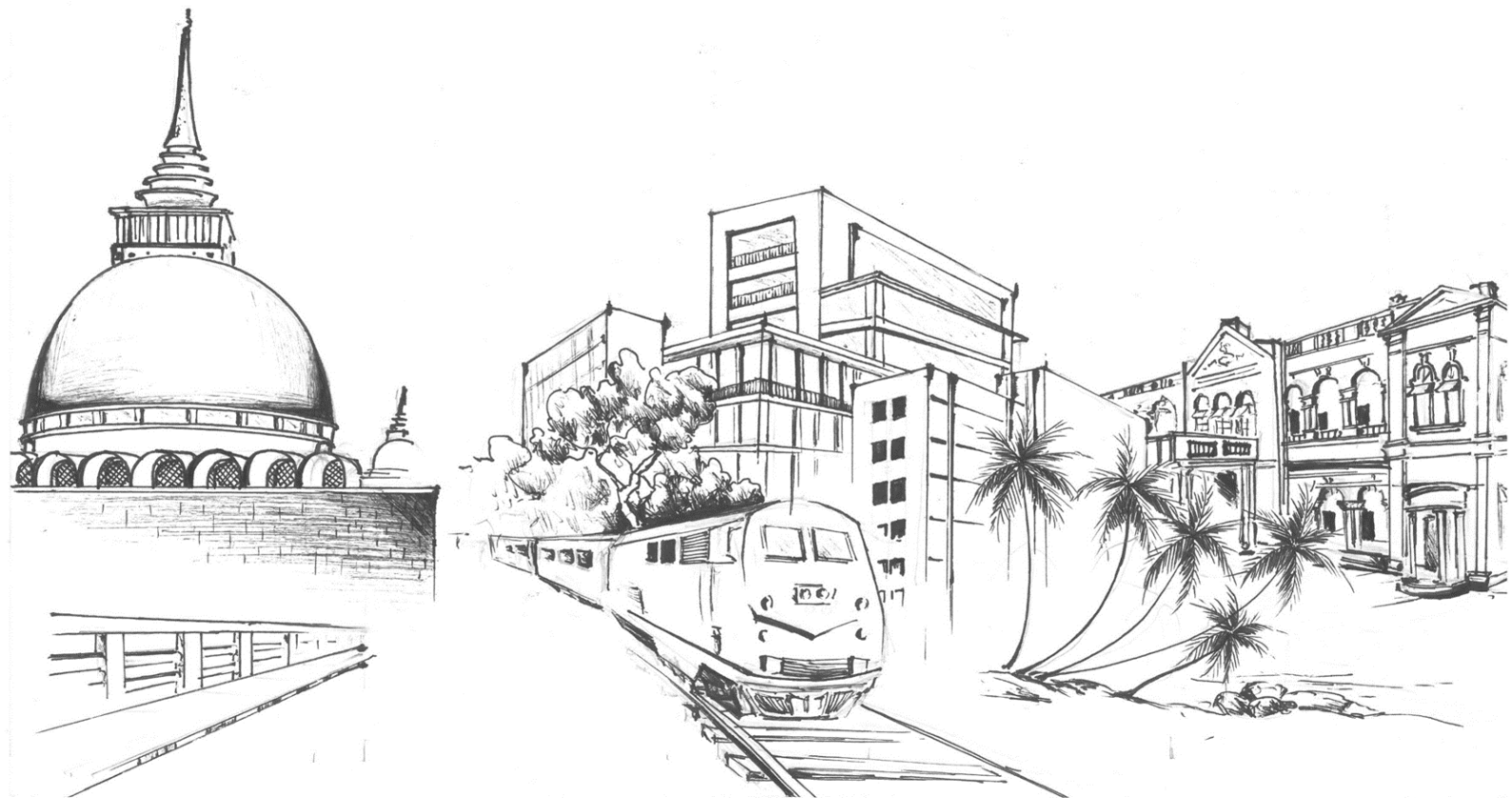
Chapter 03 Need of the development plan

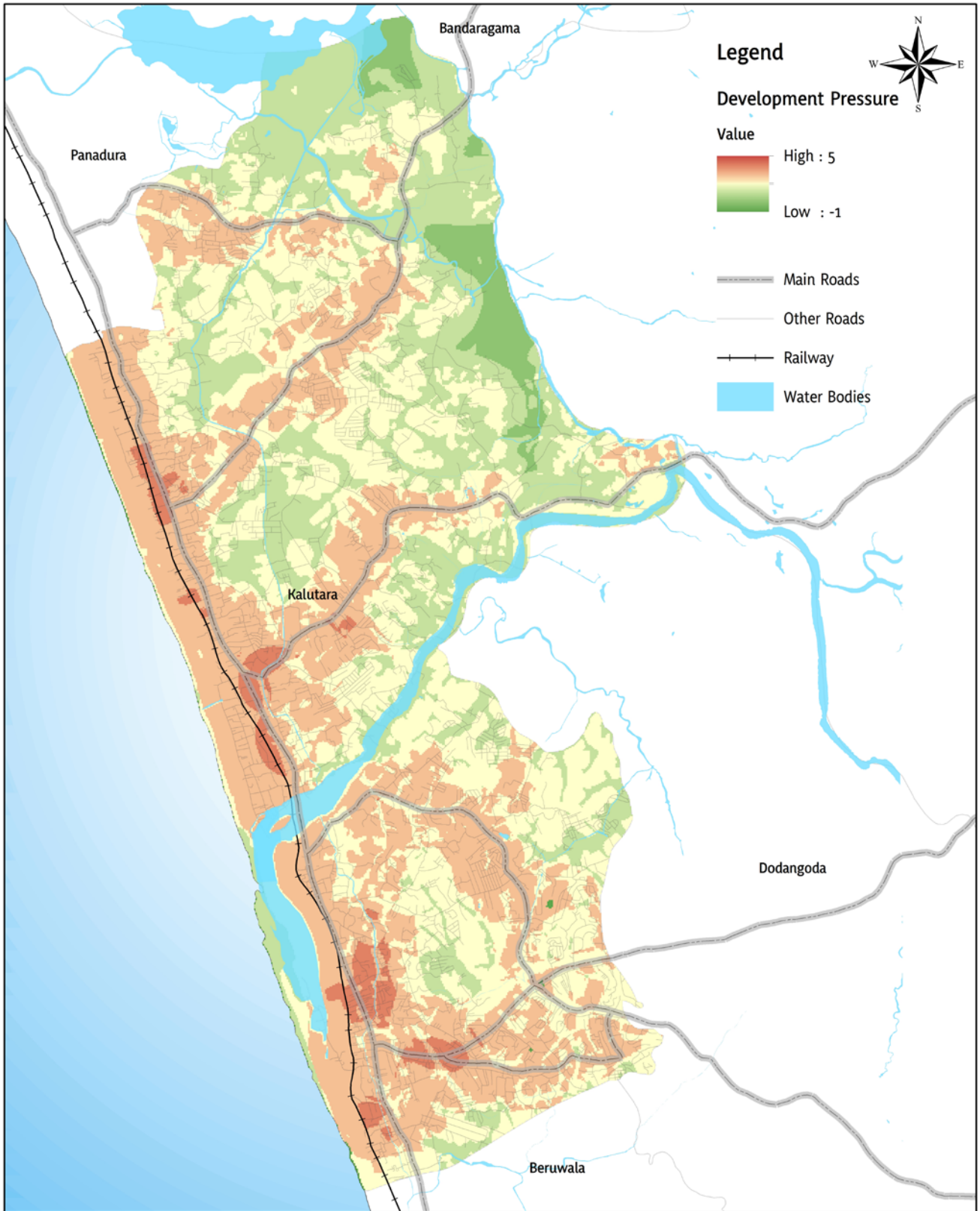
Problem 05 :

The trend of moving the development pressure towards the environmental sensitive

According to the population forecast for 2030, the GN divisions having a high population growth rate is found in Thekkawaththa (3.3%), Kithulawa (6.3%), Pulartan West (7.7%) and Delduwa (6.5%) and out of which Thekkawaththa and Kithulawa GN divisions are subjected to inundation and the Kithulawa is subjected to landslides as reported by the Disaster Management Center and the National Building Research Organization. Also, it has been revealed that there is a tendency for occupying people towards the hinterland areas due to land value. The higher land values are prevailing in coastal areas and towards either side of Galle road and comparatively low land values are recorded in hinterlands. The land value of this area is shown in Annexure 12.


Thus, the development of the area is moving beyond the planning boundary of existing plan towards the environmentally sensitive areas and flood and landslide prone areas towards Pradesheeya Sabha area. Because of this reason, the requirement of having a development plan for the entire Divisional Secretariat area comprising of both the Urban Council and the Pradesheeya Sabha areas.





Development Pressure (2018)
Kalutara DS Division
 Source : Urban Development Authority

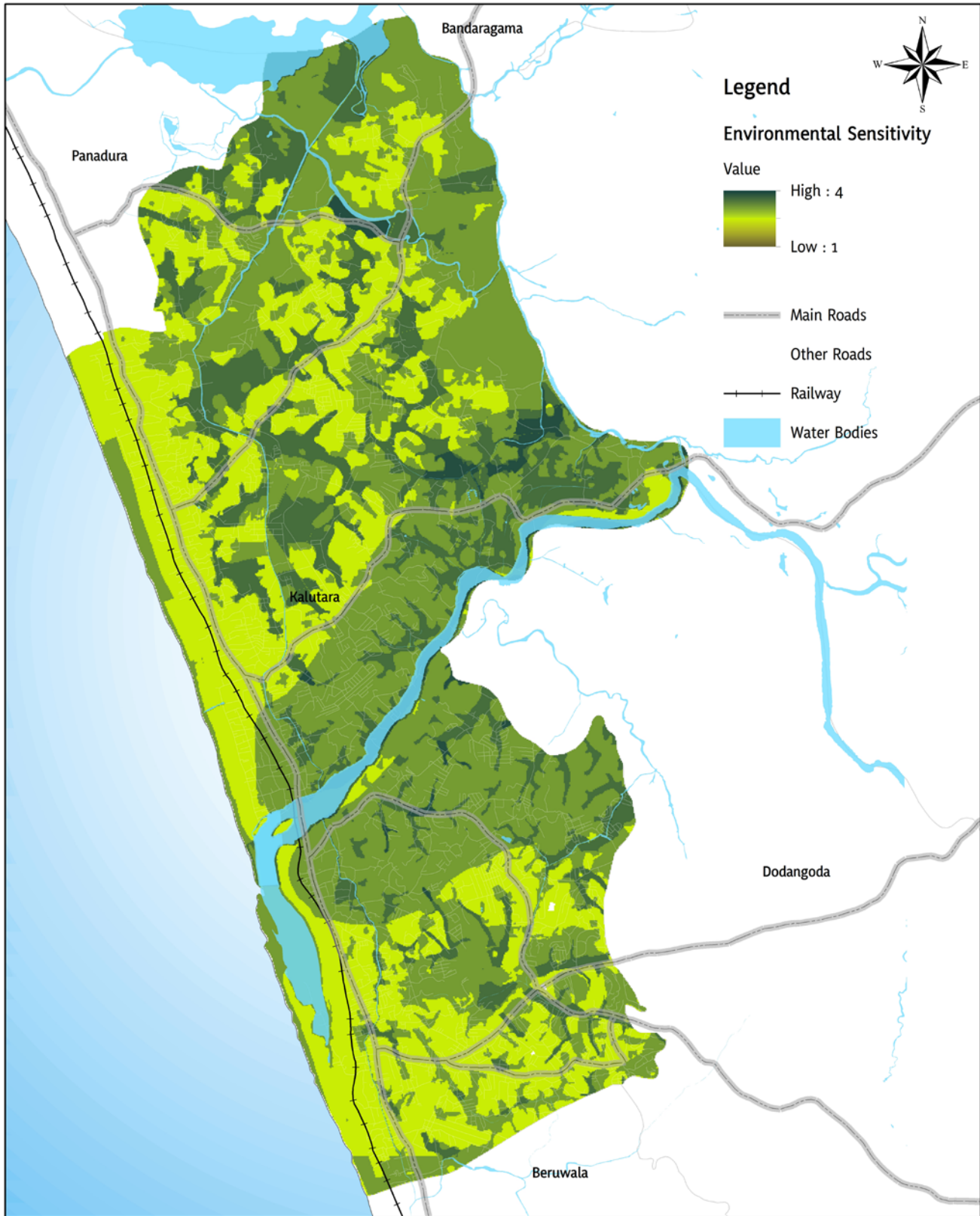
0 0.4 0.8 1.6 2.4 3.2 Km

 **Urban Development Authority**
 December 2018

Western Province Division Kalutara Development Plan (2019 - 2030) Prepared by:Kalutara District Office


Map 3.1 : Development Pressure (2018)

Source : Urban Development Authority (2018)



Environmental Sensitivity (2018)
Kalutara DS Division
 Source: Urban Development Authority

0 0.4 0.8 1.6 2.4 3.2 Km

 **Urban Development Authority**
 December 2018

Western Province Division Kalutara Development Plan (2019 - 2030) Prepared By: Kalutara District Office

Map 3.2 : Environment Sensitivity (2018)

Source : Urban Development Authority (2018)




Section two



APPROVAL OF THE DEVELOPMENT PLAN FOR THE KALUTARA URBAN DEVELOPMENT AREA COMPRISING OF KALUTARA URBAN COUNCIL AND KALUTARA PRADESHIYA SABHA AREAS

I, Patali Champika Ranawaka, Minister of Megapolis and Western Development do hereby approve the Development Plan for the Kalutara Urban Development Area comprising of Kalutara Urban Council and Kalutara Pradeshiya Sabha Areas having considered the recommendation made by the Board of Management of the Urban Development Authority on 28th June 2019 by virtue of the powers vested in me under Section 8F of the Urban Development Authority (Amendment) Act No. 4 of 1982.



**Patali Champika Ranawaka,
Minister of Megapolis and Western Development.**

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

Date: 28th June, 2019



ශ්‍රී ලංකා ප්‍රජාතාන්ත්‍රික සමාජවාදී ජනරජයේ ගැසට් පත්‍රය
අති විශේෂ

The Gazette of the Democratic Socialist Republic of Sri Lanka

EXTRAORDINARY

අංක 2129/94 - 2019 ජූනි මස 28 වැනි සිකුරාදා - 2019.06.28
No. 2129/94 - FRIDAY, JUNE 28, 2019

(Published by Authority)

PART I : SECTION (I) — GENERAL

Government Notifications

NOTICE OF APPROVAL OF THE DEVELOPMENT PLAN FOR THE KALUTARA URBAN DEVELOPMENT AREA COMPRISING OF KALUTARA URBAN COUNCIL AND KALUTARA PRADESHIYA SABHA AREAS

NOTICE is hereby given to the General Public of the Democratic Socialist Republic of Sri Lanka under Section 8G of the Urban Development Authority Law, No. 41 of 1978 as amended from time to time that I, Patali Champika Ranawaka, the Minister in charge of the subject of Megapolis & Western Development, by virtue of the powers vested in me under Section 8F of the said law, had approved the development plan on the 28th day of June, 2019 for the Kalutara Urban Development area comprising of Kalutara Urban Council and Kalutara Pradeshiya Sabha Areas, prepared under Section 8A of the said Law.

PATALI CHAMPIKA RANAWAKA,
Minister of Megapolis and Western Development.

28th June 2019.

Approval of the Development Plan for the Kalutara Urban Development Area comprising of Kalutara Urban Council and Kalutara Pradeshiya Sabha Areas

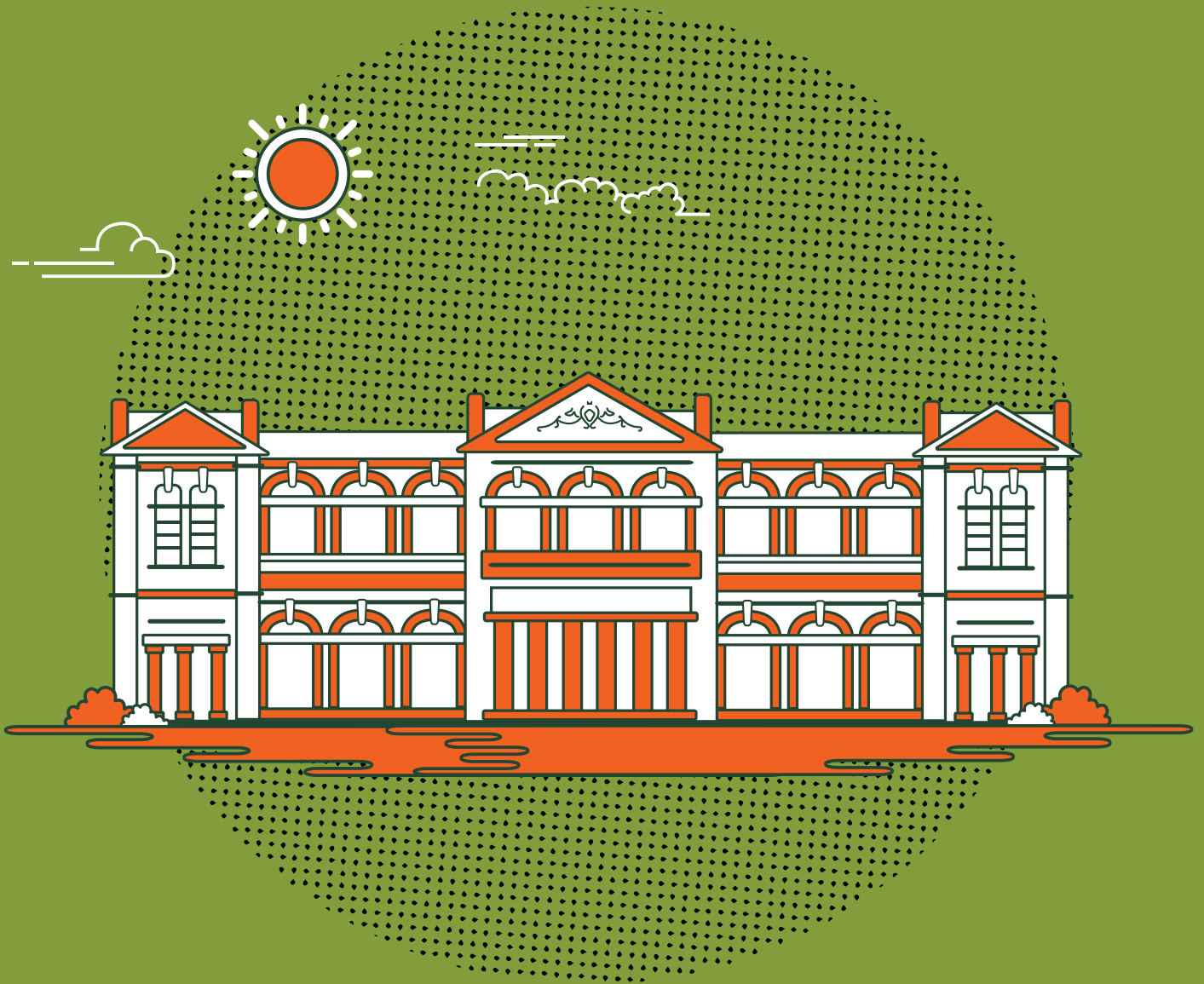
Public are hereby informed that the Development Plan prepared under Section 8A of the Urban Development Authority (Amendment) Act, No. 4 of 1982, for the Kalutara Urban Development area comprising of Kalutara Urban Council and Kalutara Pradeshiya Sabha Areas have been approved on 28th June 2019, by Hon. Patali Champika Ranawaka, Minister of Megapolis and Western Development by virtue of powers vested on him under Section 8 "F" of the said Amendment Act.

DR. JAGATH MUNASINGHE,
Chairman,
Urban Development Authority.

28th June 2019.

07 - 4553/4

Chapter 04



Framework of the Development Plan

Chapter 04
Framework of the
development plan

Vision of the
Development Plan

Vision Statement

4.1. Vision of the Development Plan

“The prime caesura of south west coast”

*An enshrined autarchic city rising by the estuary of Kalu Ganga
as a midway haven for all journeyers*

4.2. Vision Statement

Kalutara town with a distinctive landscape is located between the vast Indian Ocean and the Kalu Ganga flowing with gushing waters from venerated Adams Peak. Kalutara is a sacred city blessed by the prominent landmark of gigantic chaitya and the sacred Bo tree. The sanctity of the town is thus depicted by the term “**enshrined**”

Kalutara town contained with full of physical, social and economic resources. The backbone of the city's economy is the service sector which is sustained by the daily commuter population of over 81,700 persons. The reason for attracting such a large commuter population is due to existence of administrative, educational, tourism, religious and transport facilities concentrated in the town. Since these settings have become a reason for its sustainability and self-sufficiency and is depicted by the term “**Autarchic city**”.

The Kalutara town is located with a short distance of about 43km to the capital city of Colombo on the Colombo -Wellawaya (A2) road. It is also a main station of the Maradana - Mathara railway line. Since this railway station and the bus stand are located close by, which act as a multi model transport center (TOD Center) and acquired a prominent status in the Sri Lanka's transport system and because of that identity, the term “**Midway haven**” is denoted.

Because of it is located at the Kalu Ganga estuary an as a river-based town, it has acquired a distinct geographic identity attracting a large number of commuter population. The population of such four categories: local and foreign travelers, pilgrims, pedestrians and residents are denoted by the term “**All Journeyers**”.

Accordingly, the main goal of this plan is to create town with a full of facilities for the public by eliminating the disaster threat to make it as the “Prime caesura of south west coast” by utilizing the physical, social, economic and environmental resources in a fruitful manner.

4.3. Goals of the Development Plan

Chapter 04 Framework of the development plan

Goals of the
Development Plan

Goal 01

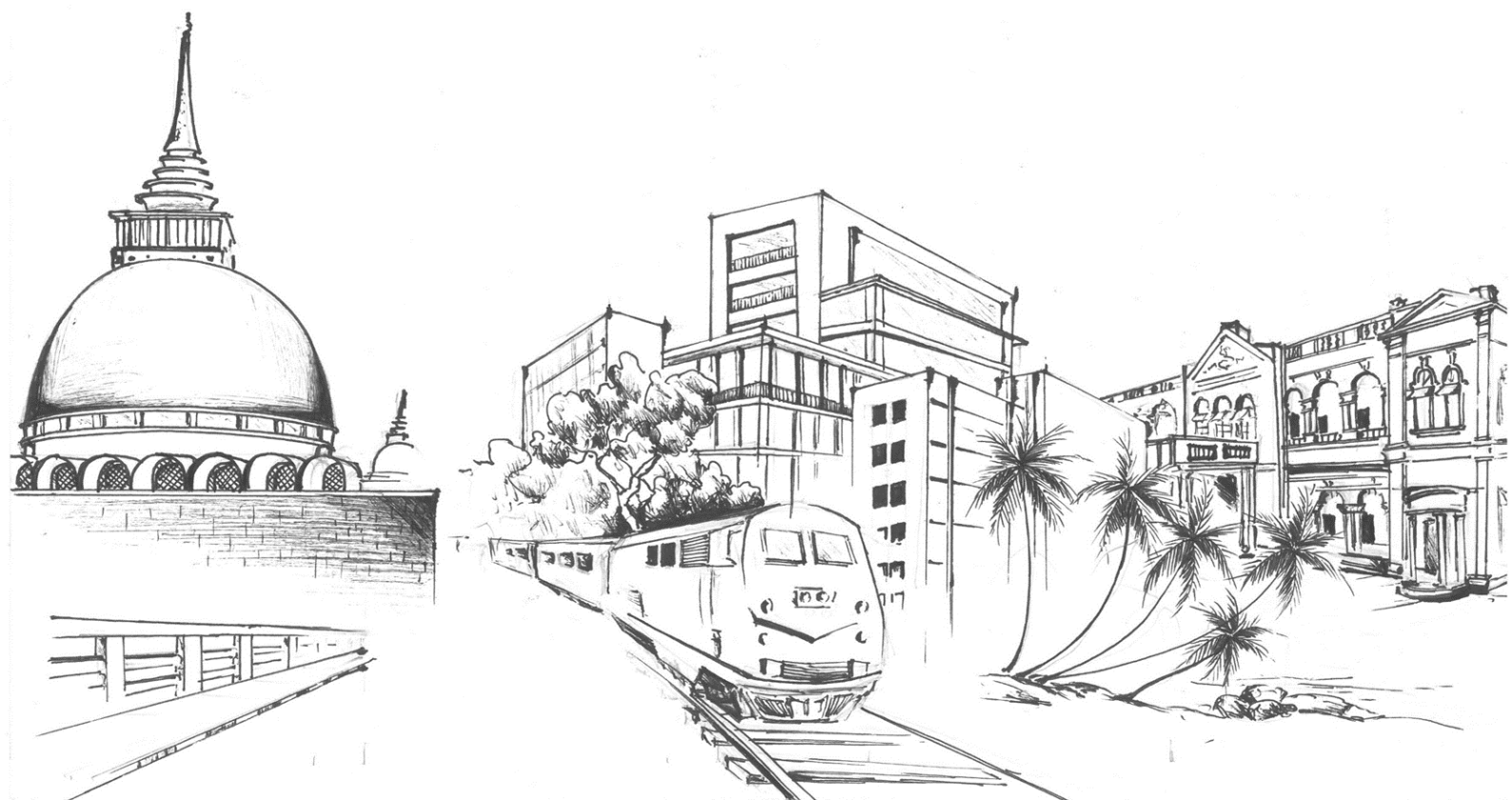
To Make the Kalutara town situated in South Western beach line abutting estuary of Kalu Ganga as the best destination for pilgrims as well as tourists.

Goal 02

To make a comfortable and convenient town livable for the residents occupying in permanent and temporary houses near the Kalu Ganga.

Goal 03

To make a conducive service center for the commuters of the Kalutara town situated at Kalu Ganga estuary



Chapter 04
Framework of the
development plan

Objectives of the
Development Plan

4.4 Objectives of the Development Plan

Goal 01

Objectives

To Make the Kalutara town situated in South Western beach line abutting estuary of Kalu Ganga as the best destination for tourist as well as pilgrims

1. Diversification of the tourism industry based on ancient heritage, beach line and green eco systems by the year 2030.
2. Making a link interconnecting Kalutara Bo tree, Calido beach and Richmond castle building for comfortable journey by the year 2030

Goal 02

Objectives

To make a comfortable and convenient town livable for the residents occupying in permanent and temporary houses near the Kalu Ganga.

1. Provision of 100% cleaned and hygienic drinking water for the entire planning area by the year 2030.
2. To minimize the coastal erosion in the beach line of about 13km from the Dhreerakanda Mawatha at the western boundary of the planning area up to Payagala south by the year 2030.
3. Creation of an environment conducive for living by controlling the vulnerability threat for flooding of 21 GN divisions through the management of 1925 ha. Of environmental sensitive areas.
4. Creation of 04 residential zones in different densities by providing required urban services and transport facilities having 02 residential nodes, 01 Health promotion node and 06 neighborhood nodes by the year 2030.

Goal 03

Objectives

To make a conducive service center for the commuters of the Kalutara town situated at Kalu Ganga estuary

1. To develop some road sections identified in the central area of the Kalutara town (2.3 Km) for the pedestrian to be able to walk safely.
2. Aiming to bring economic benefits to the town by establishing all the administrative functions in a one location, it is planned to setup 80% of the administrative services within 200 m radius from the Kalutara District Secretariat building by the year 2030.
3. To provide 80% of the secondary and tertiary level health services with a 1km distance surrounding the Kalutara general hospital by the year 2030.

Chapter 05



SWOT Analysis

5.1. SWOT analysis summery

Goal 01

To Make the Kalutara town situated in South Western beach line abutting estuary of Kalu Ganga as the best destination for tourist as well as pilgrims.

S

- Existence of large number of tourists and pilgrim's attraction places (Kalutara Bo tree, Richmond castle, Calido beach and tourist hotels)
- Existence of all the tourism sites in close proximity to each other (within 1 – 3 km)
- Location of tourist destinations Closer to main road network (RDA roads such as Kalutara-Horana, Kalutara -Bandaragama and Kalutara -Mathugama)
- When compared to the development taken place within 1km distance from river basins of many major towns that are located in river valleys, Kalutara comes to first place



W

- Existence of inappropriate landuse patterns surrounding the main attractive places (area surrounding the Bo Tree, Abru road leading to Calido beach (Only the section parallel to the calido beach up to Tanjerin hotel -2km) and beach Road (Calido Road - 600m)
- Disintegration of main tourism places



O

- Coastal development projects carried out along the calido beach line from Tangerine hotel to calido beach (within 2 km distance).
- Identification of the planning area as tourism zone under the Proposed Western Province Structure plan 2018 prepared by Urban Development Authority (The identified tourism area is from Aluthgama to Negombo)
- As per the National physical planning policy prepared for 2040, the Kalutara town belonging to Economic corridor.
- Identification of Kalutara as Regional center, place which has tourist attraction and also as a second order town considering the hierarchical order of the towns in western province by the Colombo Metropolitan Regional Structure plan (1998).
- Declaration of 10 Acre land around the Kalutara Bo Tree by Gazette notification dated 29.01.1988 by the Department of Town and Country Planning



T

- Destruction of Calido beach
- Difficulty to attract population in to Kalutara town due to development taking place in peripheral areas of Kalutara



Goal **02**

To make comfortable and convenient town livable for the residents occupying in permanent and temporary houses near the Kalu Ganga.

S

- Functioning as the main town providing Administrative and Health service in the Kalutara district.
- Usefulness of having low-lying land containing 55% of the total land area for flood control purpose.
- Having a high population growth rate (2%) in Pradesheeya Sabha area within the area of planning jurisdiction.
- Having a strong interconnection with the commercial hub of Colombo through multi transport mode of railway and highways.
- Identification of Kalutara Divisional Secretariat area as the place where most of the national level training institutions in the Kalutara district are located.



W

- Existence of higher population growth rate in flood prone areas (Thekkawaththa, Kitulawa, Pulertan west).
- 56% of the population in the planning area face with the drinking water problem due to mixing of salt water into river during the dry season (January, February, March, August and September)



O

- Ability to reduce travel time from the commercial capital of Colombo to Kalutara due to commencement of electrified railway from Colombo to Panadura.
- Proposal to erect a salinity barrier in Kalu Ganga to prevent salt mixing to river by the department of Irrigation in Kalutara district.



T

- Sea erosion in the coastal line of about 13 km from the location closer to Dhirakkanda road in the western border of the planning area up to Payagala south.
- Sea level rises as identified by the Disaster management center in their forecast for 2025.



Goal **03**

To make a conducive service center for the commuters of the Kalutara town situated at Kalu Ganga estuary

S

- Existence of the Kalutara as express railway station.
- Existence of Kalutara south railway station closer to main bus stand (100m)
- Having a proper road linkage with peripheral areas with main roads.



W

- Non-availability of pedestrian walkways in the roads (2.3km) in the middle of the town



O

- Proposal already been made to electrify the railway from Colombo to Panadura and the Potential to extend the same to Kalutara.
- Proposal made to setup a new road interchange of Southern express way at Pelpola and the possibility to have a connection to Kalutara - Horana road.



T

- Possibility to create problems to attract threshold population to the Kalutara town due to development taken place in peripheral areas with the construction of Southern express way.



5.2. Detailed SWOT Analysis

Goal 01

To Make the Kalutara town situated in South Western beach line abutting estuary of Kalu Ganga as the best destination for tourist as well as pilgrim.



Strengths | Goal 01

Availability of many places which are much attractive for tourists and pilgrims (Kalutara Bodiya, Richmond Castle, Calido beach, Tourist Hotels)

Availability of many places that are much attractive to tourists and pilgrims is an important strength to the Kalutara town. Due to the existence of the Kalutara Bo-tree, Richmond building, Calido beach, and tourist hotels as shown in picture 5.1, that tourist attraction has taken place to the Kalutara town. Among them a large number of pilgrims are coming to the Kalutara Bo Tree. The fluctuations of the number of visitors in different time range are as follows.

- *In normal days* - 1000-1500
- *Normal Poya days* - 3500-4000
- *Special Poya days* - 7000-8000

As per the annual Report in 2016 of Tourism Development Authority, 40,993 numbers of local tourists and 371,104 numbers of foreign tourists are coming to the Kalutara town. The Richmond castle building at Palathota road is also an attractive place for both local and foreign travelers. It is also used as scenic site for photography of wedding events and earning revenue of around Rs.4.5 lacks per month.

Existence of all tourism sites near each other (within 1km – 3km)

All tourist sites are located around the Kalutara town is a strength (within 1-3 km area). As shown in picture 5.1 Kalutara Bo Tree, Richmond Castle building, Diyagama Palunu rock, Calido Beach and tourist hotels are located close by which make an opportune to arrange an integrated urban tour.

Location of tourism destinations closer to main road network (RDA roads such as Kalutara-Horana, Kalutara –Bandaragama and Kalutara –Mathugama)

Existence of tourist destinations closer to main road network such as Colombo Wellawaya (A2), Kalutara – Horana, Kalutara –Bandaragama, Kalutara –Mathugama and Kalutara – Palathota has increased the attraction of both local pilgrims and the foreign travelers.

When compared to the development taken place within 1km buffer /distance from river basins of many major towns that are located in river valleys, Kalutara comes to first place

As the town developed in river basins, Trincomalee town closer to Mahaweli River, Colombo closer to Kelani River, Ambalangoda closer to Walawe River and Kalutara closer to Kalu Ganga can be identified. The functional activities within 1 km distance in these towns are given in Table 5.1.

River basin	Town	Activities
Mahaweli river	Trincomalee	Commercial, Agriculture
Kelani ganga	Colombo	Educational, Commercial, Agriculture
Walawe ganga	Ambalanthota	Educational, Commercial, Agriculture
Kalu Ganga	Kalutara	Institutional, educational, commercial, agricultural tourism

Figure 5.1 : Developments closer to main river basins
Source : Urban development authority 2018

Thus, when compared to the developments taken place in the towns located closer to river basins, the Kalutara town comes to first and which will have an impact to increase the attraction of tourists and pilgrims.

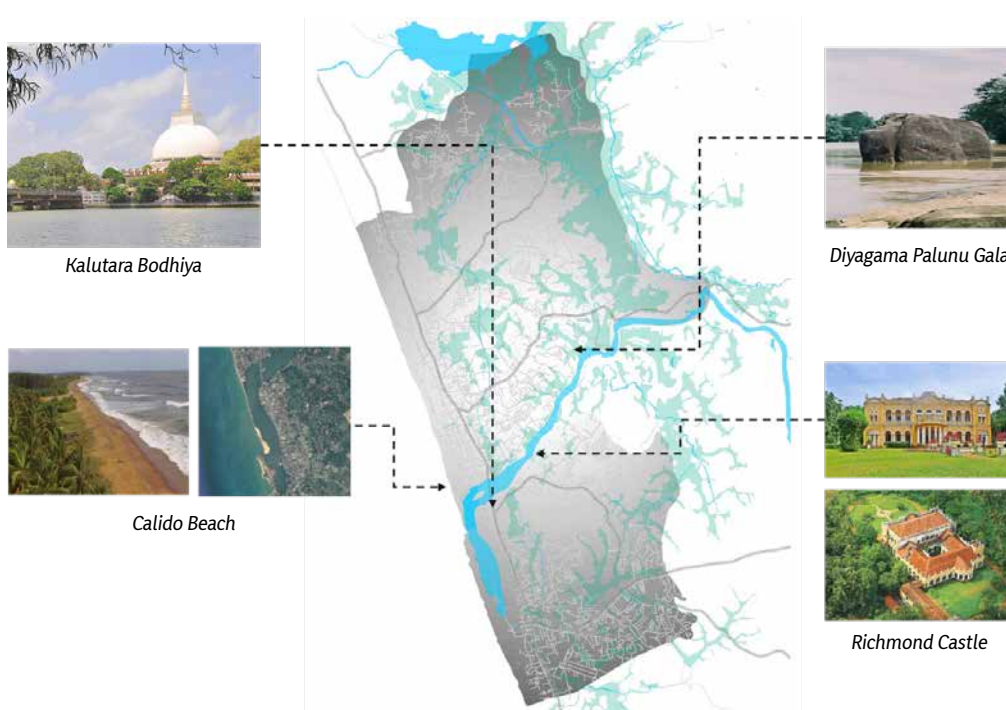


Figure 5.1 : locations of tourist attraction sites in Kalutara
Source : Urban Development Authority (2018)

Chapter 05
AWOT analysis



Weakness | Goal 01

Detailed SWOT Analysis

Existence of inappropriate landuse patterns surrounding the main attractive places (The area surrounding the Bo Tree, Abru road leading to Calido beach, (Only from the Tanjerin hotel up to the edge of the Calido beach line - 2km and beach road, (Calido Road -600m)

Kalutara is a scenic town contained with many attractive features. But landuse patterns around these locations are inappropriate and it has become a constraint for the economic development of the town.

As shown in Figure 5.2, number 3 shows that out of total land extent, 24% of the lands around the Kalutara Bo- Tree are used for administrative functions. It is only limited space of about 6% is occupied for religious and connected commercial uses. Therefore, it has become an obstacle in promoting of tourism activities.

Also, as shown in Figure 5.2., number 01 and 02 shows that the access road leading to Calido beach (Only from the Tangerine hotel up to the edge of the Calido beach line -2km) and beach road, (calido Road -600m). From the centerline of those roads, either side 50m distance was considered for this analysis. And the output shows that the most of the lands are used for residential uses such as 78% and 60% respectively while the tourism industry and related uses are in a limited space that is around 10% and 28% and that is also an obstacle for promotion of tourism activities.



Figure 5.2 : Distribution of inappropriate landuse patterns
Source : Images of "Open Street" (2018)

Disintegration of main tourism areas

There is no inter-connection between all tourism attraction sites and also the signboards or even road maps are not available. Because of this reason these sites are not unveiled to the travelers and it has become a constraint for the development of the area and also to the tourism industry.



Opportunities | Goal 01

Coastal development projects carried out along the calido beach line from Tangerine hotel to calido beach (within 2 km distance)

Projects already commenced and proposed to be commenced are the opportunities available for upliftment of the Kalutara town. For example, Calido beach development project under which summer huts, walking paths, boat jetties, sport grounds, beach football grounds, balling grounds walkways to parks of pine trees, leisure huts along the beach, toilets, security huts are proposed for upliftment of tourism sector.

Identification of the planning area as tourism zone under the Proposed Western Province Structure plan 2018 prepared by Urban Development Authority (The identified tourism area is from Aluthgama to Negombo) as shown in Figure 5.3

As per the national physical planning policy prepared for 2040, as shown in Figure 5.4, Kalutara is belonging to Kalutara economic corridor

As per the Colombo Metropolitan Structure plan -1998, Kalutara has been identified as an attractive place for tourism, regional service center and also as a second order town compared to the western province urban hierarchy as shown in Figure 5.5.

Declaration of 10-acre area closer to Kalutara Bodhi premises has been declared as a sacred area by the Town and Country Planning department on 1988.01.29.

Chapter 05
 AWOT analysis

Detailed SWOT Analysis

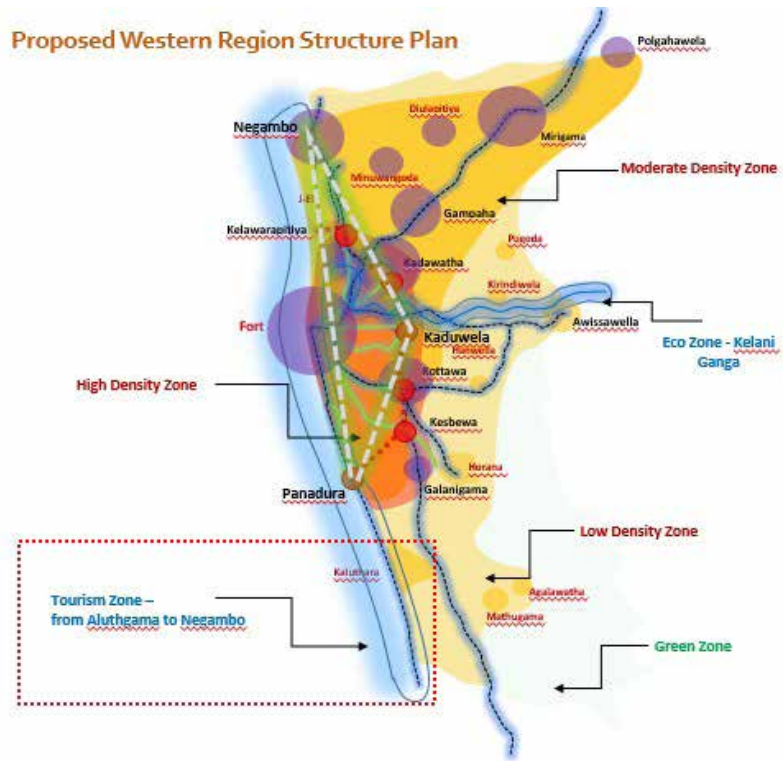


Figure 5.3 : Proposed structure plan for western province
 Source : Urban Development Authority (2018)

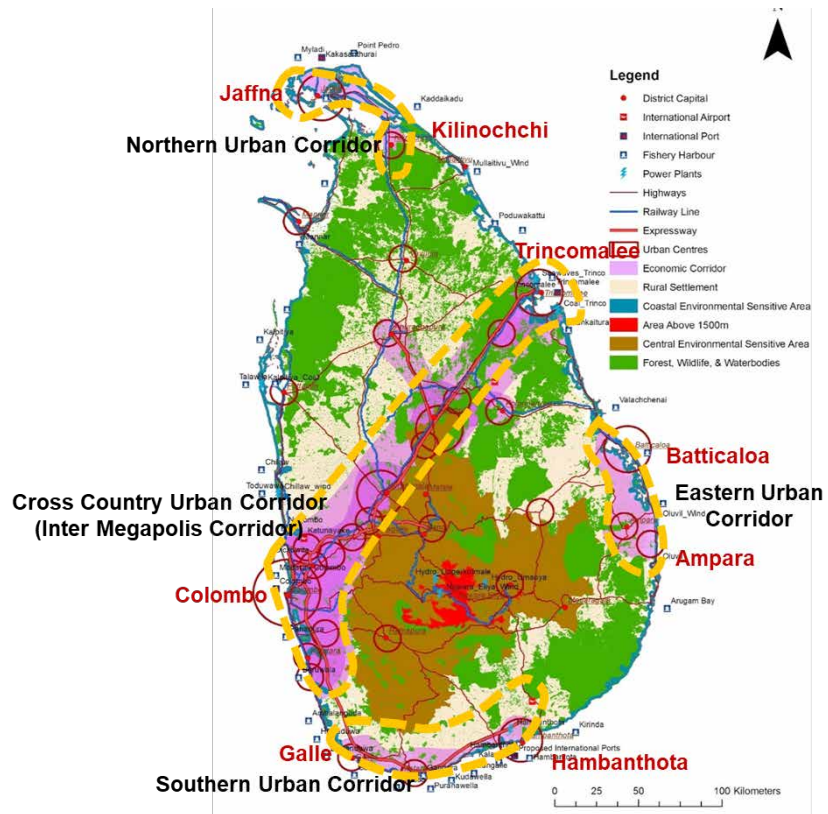


Figure 5.4 : National physical planning policy -2040
 Source : National Physical Planning Department (2018)

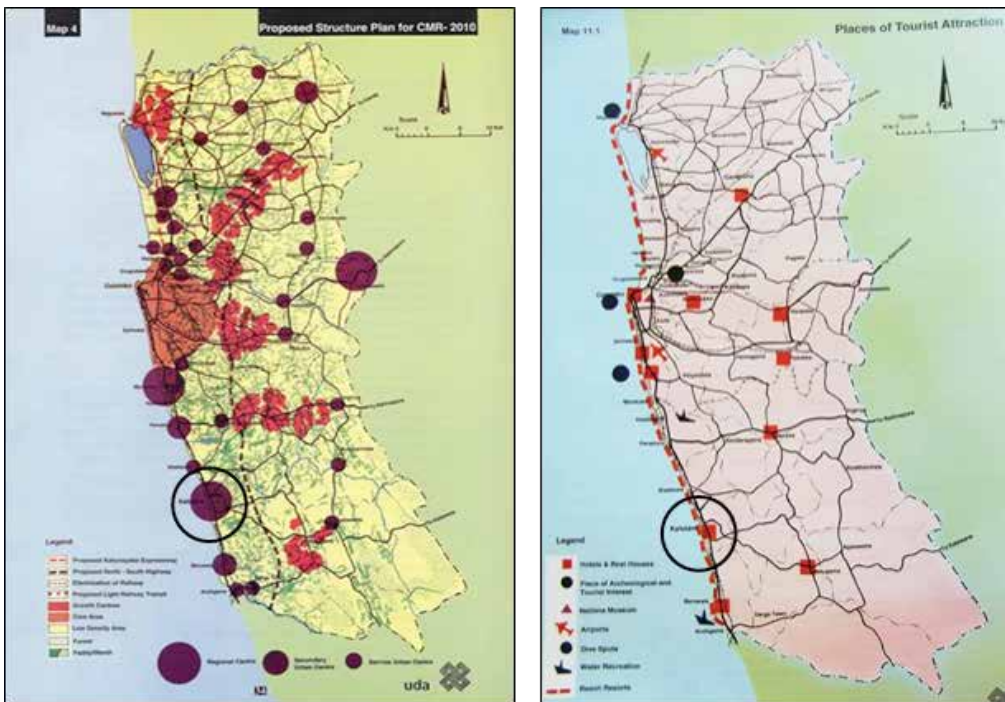


Figure 5.5 : Colombo Metropolitan Structure plan -1998
Source : Urban Development Authority (2018)

Threats | Goal 01

Destruction of Calido beach

The sea erosion in the area is the main constraint to make the Kalutara town as the best place for tourists and the pilgrims. Presently the Calido beach is subjected adverse destruction. As shown in satellite images of 2005 and 2018 in Figure 5.6 and the Figure in 5.7, this destruction can be identified. This destruction is a major problem for the scenic beauty of the town and for the development of the tourism industry.

Difficulty to attract population into Kalutara town due to development taking place in peripheral areas of Kalutara.

With the new development activities taking place around Kalutara town, there is a tendency to decrease the threshold population in the town area. For example, after the development of the southern highway, integration of the roads in the town area has got reduced and that may cause to slow down the development in the town area. The reason is that, all development activities in the Kalutara area were mainly based on railway and the road system and after development of southern highway and its interchanges in high distance to the Kalutara town, the development trend shifted to the peripheral areas.

Chapter 05
AWOT analysis

Detailed SWOT Analysis

Thus, Development of industrial zones around the Kalutara town, and development of Mathugama town, and electrification of railway up to Panadura etc would reduce the threshold population in the Kalutara town.



Figure 5.6 : Previous condition of Calido beach (2005)
Source : Images of Google Earth (2018)



Figure 5.7 : Present condition (2018) of Calido beach
Source : Images of Google Earth (2018)

Goal 02

To make a comfortable and convenient town livable for the residents occupying in permanent and temporary houses near the Kalu Ganga.

Chapter 05 AWOT analysis

Detailed SWOT Analysis



Strengths | Goal 02

Functioning as the main town providing Administrative and Health services in the Kalutara district

The main service providing institutions in the Kalutara district are located in the Kalutara Divisional Secretariat area and out of which Administrative and health institutions are the main institutions. Daily population coming to the Divisional Secretariat area to get these services is estimated to about 80,000 people. As shown in map No 5.1 Kalutara district office and many other administrative institutions are concentrated in this location. It is acted as the administrative hub of the Kalutara district. The base hospital is also located within the Divisional Secretariat area.

Usefulness of having low-lying land containing 55% of the total land area for control flood control purpose.

The paddy field, marshy lands and wetlands located in the planning area are acting as water retention areas for controlling of the flood. Due to low gradient in the land terrain, the storm water discharge is somewhat problematic in this area. However, these low-lying lands are useful for water retention purposes.

The distribution of low-lying lands in the Divisional Secretariat area is shown in the Map No 5.3 and its extent is given in table 5.2.

Landuse	Land extent (Ha)
Paddy cultivated area	471.72
Normal wetland conservation areas	1484.74
Wetland reserves	75.87

Figure 5.2 : Classification of low-lying lands

Source : Urban development Authority -2018

Chapter 05 AWOT analysis

Detailed SWOT Analysis

Having a high population growth rate (2%) in Pradesheeya Sabha area within the area of planning jurisdiction

Specially, the population growth rate is some GN divisions such as 3.3% in Thekkawattha, 6.3% in Kithulawa, 7.7% in Pulertan West and 6.5% in Delduwa which are shown in map No. 5.2. As per this trend the Kalutara town can grow as live and functional town Because of this increasing population, employment avenues will also get increased.

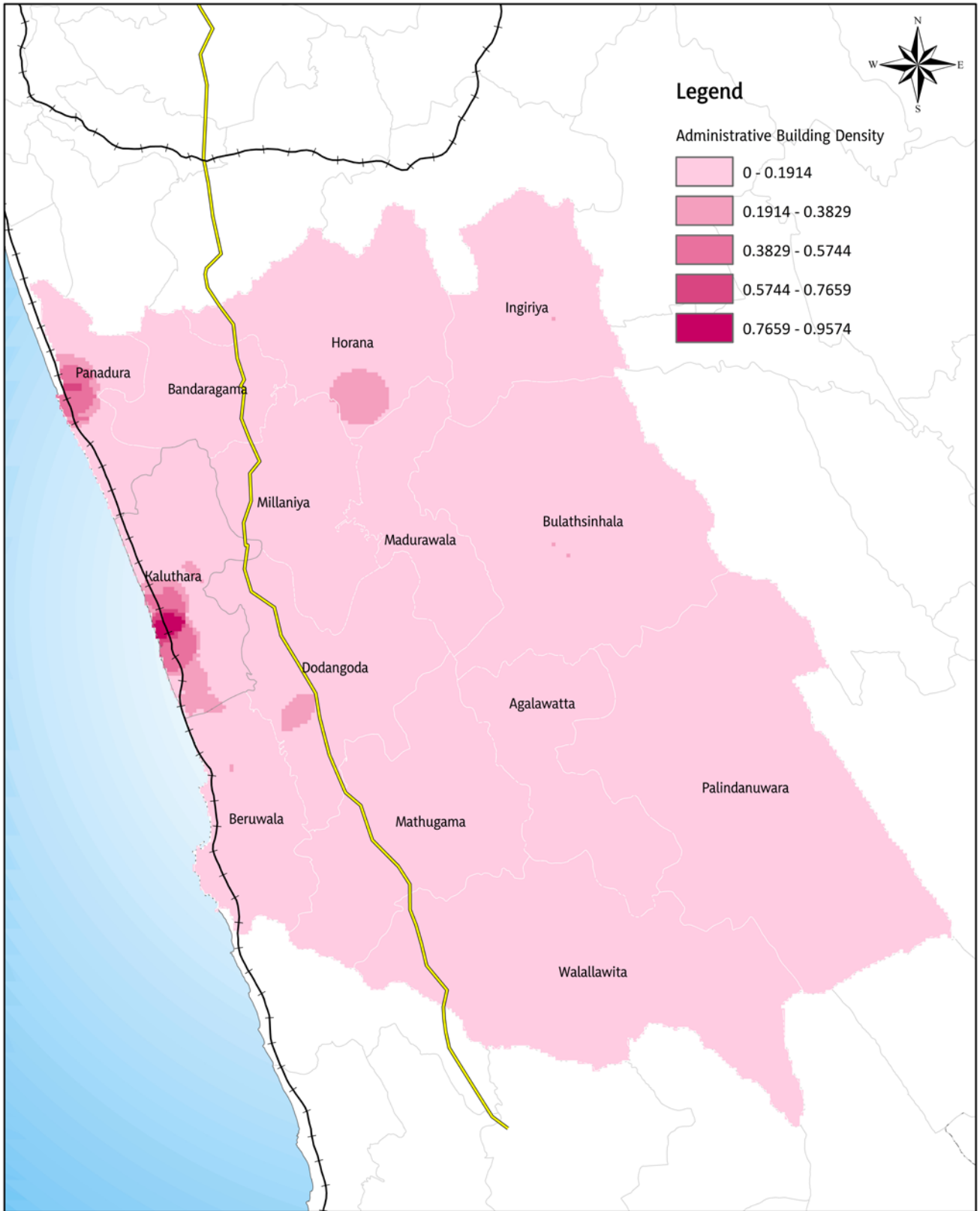
Having a strong interconnection with the commercial hub of Colombo through multi transport mode of Railway and highways

The country's commercial hub of Colombo is located in short distance of 43km having connection with railway and number of other roads. Also, in close proximity to Kalutara Divisional Secretariat area, there some entry points to Southern highway such as Galanigama(14km), Dodangoda (18km) and proposed Palpola entrance 15km. Thus, the Kalutara town is connected with the city of Colombo through the southern highway.

Identification of Kalutara Divisional Secretariat area as the place where most of the national level training institutions in the Kalutara district are located


When compared with other Divisional Secretariat areas, the most important feature is that a number of national level training institutions are located within the Kalutara Divisional Secretariat division which is as follows.

- *National Nurses Training School*
- *National Teachers Training Institute*
- *Paddy Research Institute*
- *Internal Airforce Camp*
- *STF Training Institute*
- *Police Training College*



Administrative Building Density
Kalutara DS Division
 Source: Urban Development Authority

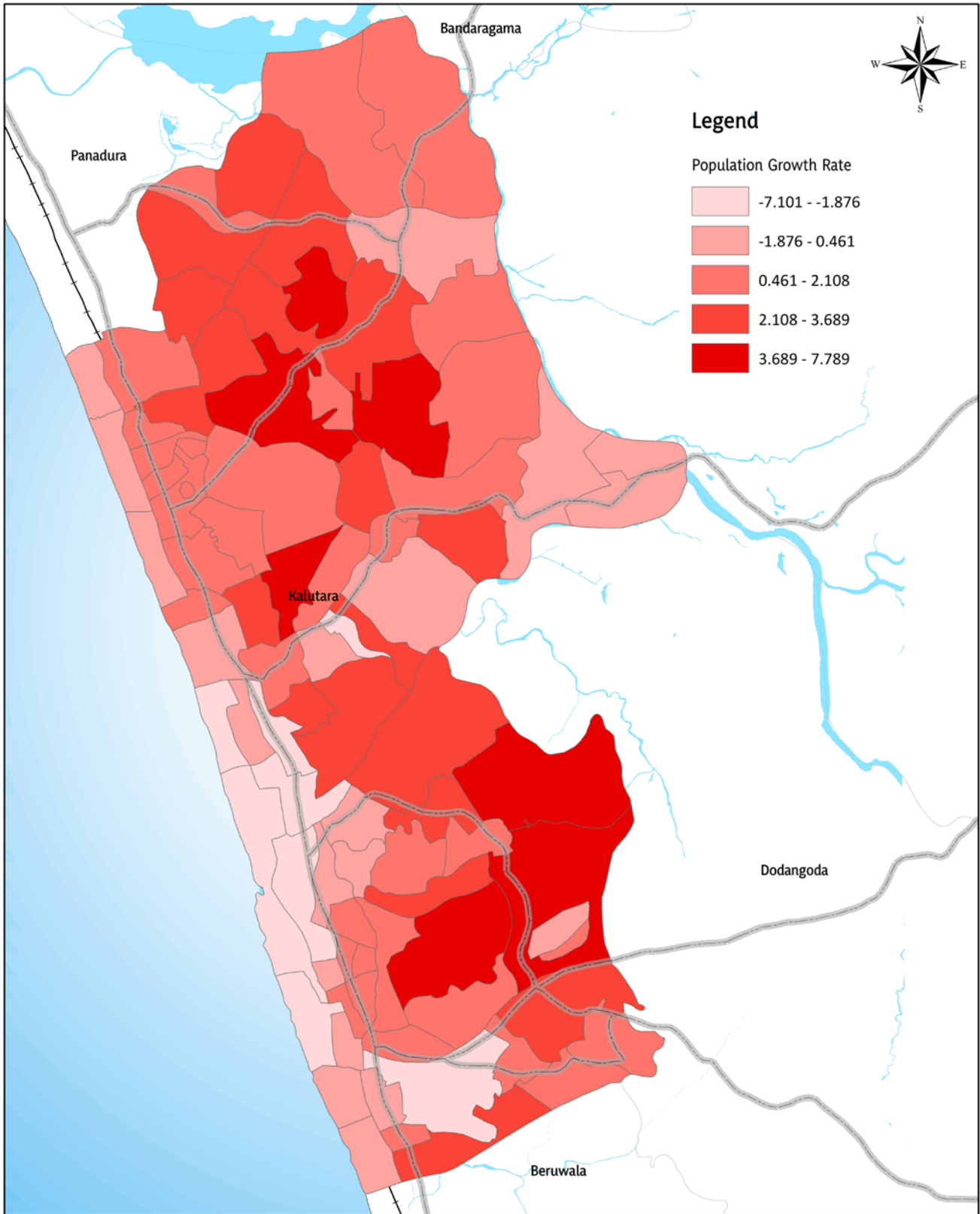
0 1.75 3.5 7 10.5 14 Km

 **Urban Development Authority**
 December 2018

Western Province Division Kalutara Development Plan (2019 - 2030) Prepared by: Kalutara District Office


Map 5.1 : Administrative building density (2018)

Source : Urban Development Authority (2018)



Population Growth (2001-2011)
Kalutara DS Division
 Source: Census & Statistics Department

0 0.4 0.8 1.6 2.4 3.2 Km

 **Urban Development Authority**
 December 2018

Western Province Division Kalutara Development Plan (2019 - 2030) Prepared By: Kalutara District Office

Map 5.2 : Population growth rate (2001- 2011)

Source : Urban Development Authority (2018)

Chapter 05
 AWOT analysis



Weakness | Goal 02

Detailed SWOT Analysis

Existence of higher population growth rate in flood prone areas (Thekkawaththa, Kitulawa, Pulartan west)

Kalutara town is subjected to flooding mostly in the months of May, September, and October. The GN divisions where the high population growth rate is found such as Thekkawaththa, Kitulawa and Pulartan west are highly vulnerable for flood and as such there is a risk of affecting a large number of people due to floods and that would cause to jeopardize the development activities of the entire planning area.

56% of the population in the planning area to face with drinking water problem due to mixing of salt water into river during the dry season (January, February, March, August and September)

Kalu Ganga is the main drinking water source in the planning area and therefore increase of salty level of the Kalu Ganga would create drinking water issue in the entire area. Since 100% of the people in UC area use pipe borne water and 56% of the people in Divisional Secretariat area use pipe borne water and as such the entire families are to face with the impact of drinking water issue. When the water level goes down in dry season especially in January, February, March, August and September the salt water flowing in to river through the lagoon and salty level rises in the river. As shown Figure 5.8, the high rate of electrical conductivity is found in water during dry season which reflects the high salty level of the water. This would affect the environmental sensitive eco system and specially damaging the food chain and systems affecting fauna. This would cause to reduce the biodiversity and break its balance.

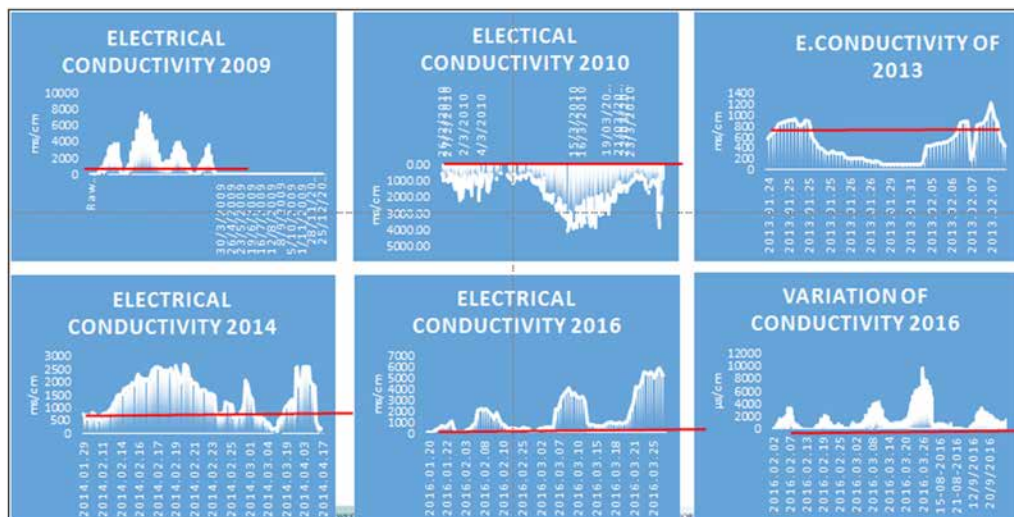


Figure 5.8 : Electrical conductivity in water in dry season
 Source : National Water Supply and Drainage Board (2018)



Opportunities | Goal 02

Chapter 05 AWOT analysis

Detailed SWOT Analysis

Ability to reduce travel time from Commercial Capital of Colombo to Kalutara due to commencement of electrified railway from Colombo to Panadura

Transport facilities will increase with the implementation of proposed electrification of the railway from Colombo and it is expected to attract 80,000 of daily commuter population by the year 2030 and they would fulfill their transport requirements efficiently without much hazel. Further it would facilitate for the people from the Kalutara Divisional Secretariat area to go for daily work in the commercial capital of Colombo to reach the destinations easily.

This new transport system will also increase the interconnection from the Commercial capital of Colombo with other main urban centers.

Presently it takes about ½ hour to reach to Kalutara from Colombo by express train and 1 ½ hours from a normal train. There is a possibility to extend electrified railway up to Kalutara and therefore this travel time may further get reduced as shown in Figure 5.9.

Proposal to erect a salinity barrier in Kalu Ganga to prevent salt mixing to river by the department of Irrigation in Kalutara district

The Kalutara district Irrigation department has decided to erect a barrier closer Kalutara bridge to prevent salt water flowing towards the upper stream of the land side. It is estimated at Rs 300 million and a feasibility study is being carried out on the same.

The Kalutara district Irrigation department has decided to erect a salinity barrier closer to Kalutara bridge to prevent salt water flowing towards the upper stream of the land side. It is estimated at Rs 300 million and feasibility study is being carried out on the same. This is also an important project to make the Kalutara town comfortable for the inhabitants

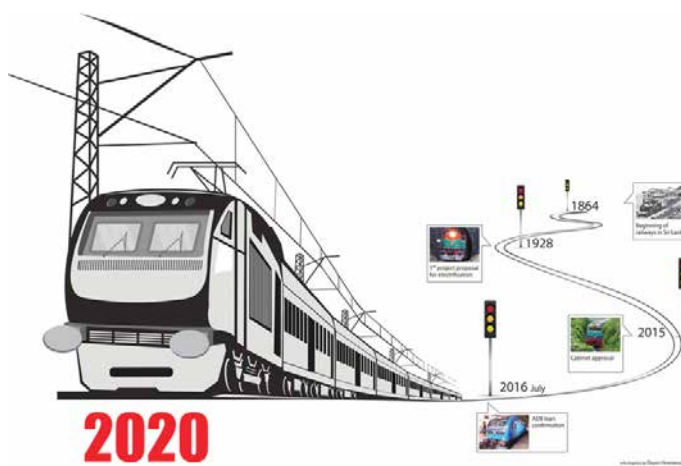


Figure 5.9 : Proposed electrified railway up to Panadura
Source : Urban Development Authority

Chapter 05
AWOT analysis



Threats | Goal 02

Detailed SWOT Analysis

Sea erosion in the coastal line of about 13 km from the location closer to Dhirakkanada road in the western border of the planning area up to Payagala South.

Sea erosion is the main barrier for the development of the Kalutara town among all other constraints. Calido beach has already been subjected to devastation. The destruction of most attractive Calido beach will badly reduce the tourist attraction and the scenic value. It also will affect to the coastal eco system. As shown in the Map No 5.4 the Coastal Conservation Department by taking into accounts the risk levels and has categorized the Kalutara beach coastal area into three zones.

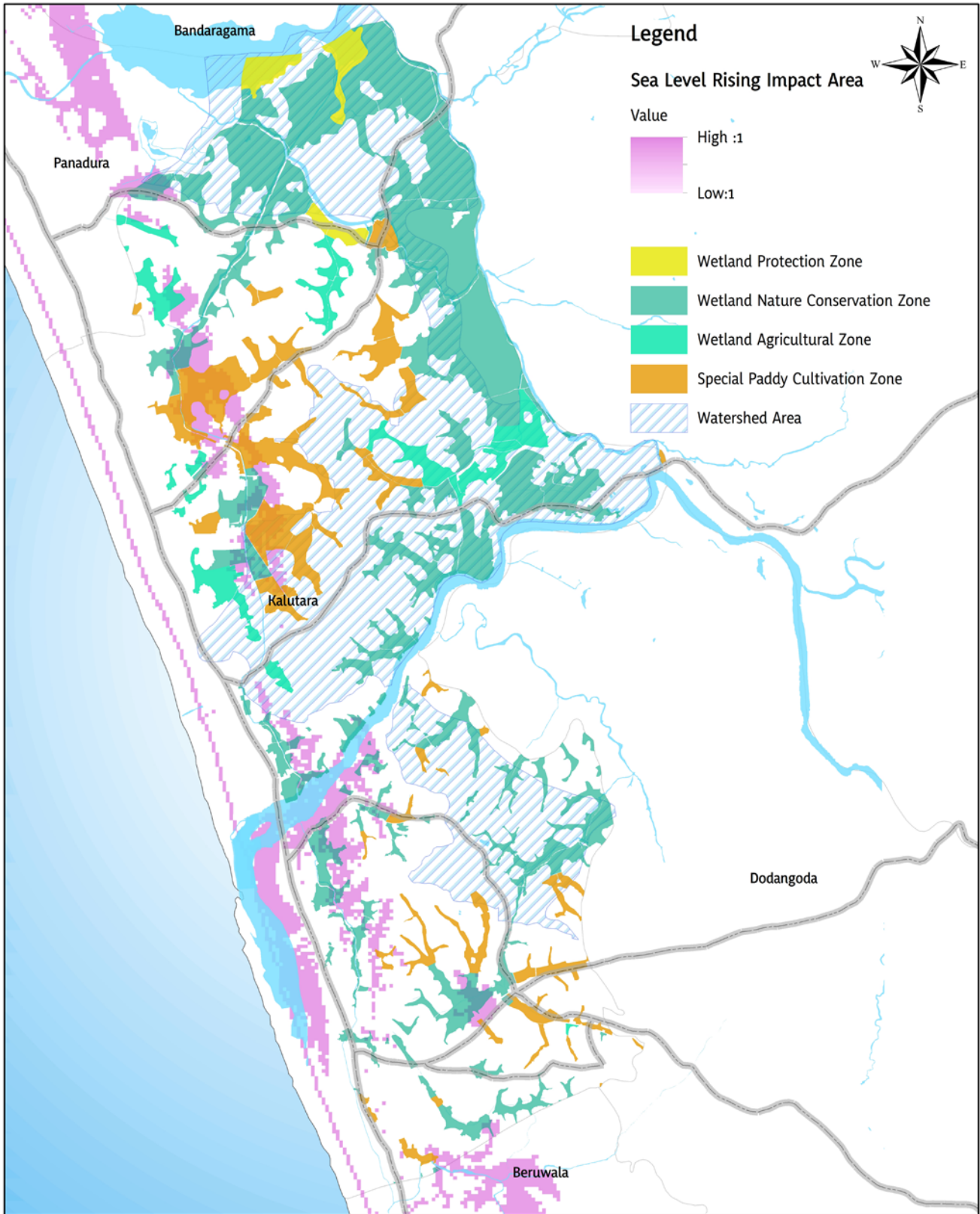
- I. *High risk Zone*
From the Tangerine hotel up to Avani hotel

- II. *Medium risk zone*
From Avani hotel up to Payagala South

- III. *Less risk zone*
From Pinwaththa railway station up to Tangerine hotel


Sea level rises as identified by the Disaster management center in their forecast for 2025.

Sea level rises and its impact to the Kalutara district and its risk level as per the study carried out by the Disaster Management Center can be identified in Map No 5.5.



Sea Level Rising Impact Area (2025)
Kalutara DS Division
 Source: Disaster Management Center

0 0.45 0.9 1.8 2.7 3.6 Km

 **Urban Development Authority**
 December 2018

Western Province Division Kalutara Development Plan (2019 - 2030) Prepared By: Kalutara District Office

Map 5.5 : Danger zones in sea level rises (2025)

Source : Urban Development Authority (2018)

Goal 03

To make a conducive service center for the commuters of the Kalutara town situated at Kalu Ganga estuary

Chapter 05 AWOT analysis

Detailed SWOT Analysis



Strength | Goal 03

Remaining the Kalutara as an express railway station

Kalutara is one of the main railway stations in Sri Lanka. Both the express and normal speed trains are stopped in the Kalutara station and it has become a facility for the passengers who travel in Colombo south railway line. It is also a double line railway station.

As shown in Figure No 5.11, 6500 passengers are daily coming to Kalutara town as stated in the annual data of CGR. Also, there are four stations located within the Kalutara Divisional Secretariat area. Such as Station No 01, Kalutara North, Kalutara South, and Katukurunda.

The people living in the Kalutara Divisional Secretariat area could fulfill their transport requirements easily is strength for development of the Kalutara town as the transit point.

Existence of Kalutara south railway station closer to main Bus stand (100m)

As shown in the Figure 5.10, Kalutara South Railway station and bus stand are located closer to each other and as such people can get their transport facilities conveniently and efficiently. Because of this potential, there is a possibility to set up a Transport oriented development hub based on the transport facility.

Having a proper road linkage with peripheral areas with main roads.

As shown in the Map No. 5.6, the Kalutara town has a strong connection with peripheral areas through the main road linkages such as Kalutara - Bandaragama, Kalutara - Horana and Kalutara - Mathugama.

Chapter 05
 AWOT analysis

Detailed SWOT Analysis

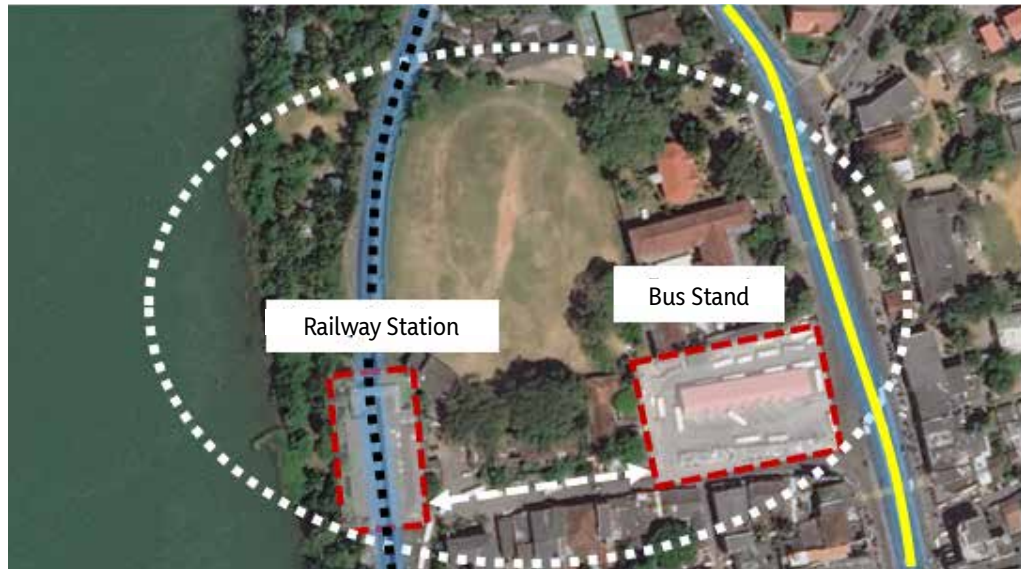


Figure 5.10 : location of Railway Station and Bus stand in Kalutara
 Source : Images of "Open Street" (2018)

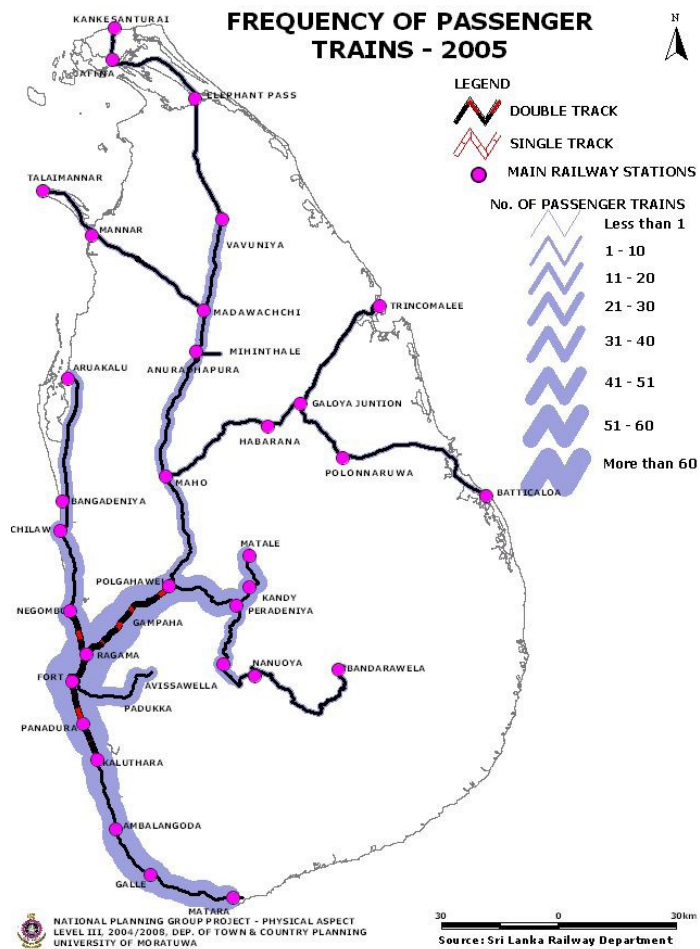



Figure 5.11 : Details about Trains
 Source : Department of Town and Country planning, University of Moratuwa (2005)



Road Network
Kalutara DS Division
 Source: Survey Department

0 0.45 0.9 1.8 2.7 3.6 Km

 **Urban Development Authority**
 December 2018

Western Province Division Kalutara Development Plan (2019 - 2030) Prepared By: Kalutara District Office

Map 5.6: Distribution of Railway and road system (2018)

Source : Urban Development Authority (2018)

Chapter 05
AWOT analysis



Weakness | Goal 03

Detailed SWOT Analysis

Non availability of pedestrian walkways in the roads in the middle of the town (2.3km)

Due to haphazard landuse pattern in the town area and non availability of pedestrian walkways in the central area of the town, there is no any conducive environment for the walkability. The roads that were identified are given in the Figure No 5.12 and are as follows.

<i>From Kalutara Clock tower to Three way junction</i>	- 853 m
<i>Station road</i>	- 180 m
<i>Goodshed road</i>	- 338 m
<i>Sarananda road</i>	- 270 m
<i>Chamli Gunawardena Mawatha</i>	- 190 m
<i>Gnanodaya Mawatha</i>	- 180 m
<i>Gregory road</i>	- 348 m



Figure 5.12 : Roads which are not having pedestrian walkways
Source : Images of "Open Street" (2018)



Opportunities | Goal 03

Chapter 05 AWOT analysis

Detailed SWOT Analysis

Proposal already been made to electrify the railway from Colombo to Panadura and the Potential to extend the same to Kalutara

The proposed electrification of railway up to Panadura town can be made use to develop Kalutara town as people friendly town.

Proposal made to setup a new road interchange of Southern express way at Pelpola and the possibility to have a connection to Kalutara - Horana road.

As per the figure 5.13, there is potential to make new road linkage to the Kalutara town via new road interchange of southern expressway at pelpola and Kalutara-Horana road

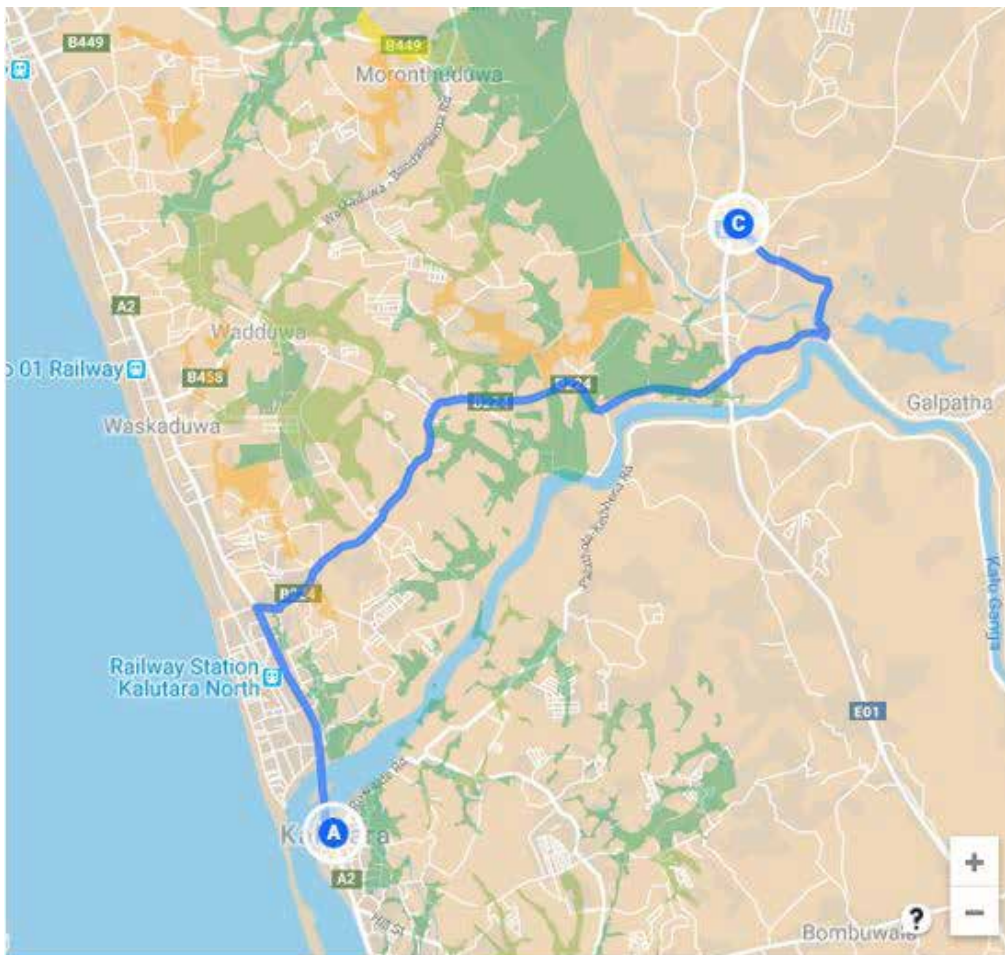


Figure 5.13 : Connection of Pelpola road interchange with Kalutara town through Kalutara-Horana road
Source : Images of "Google" (2018)

Chapter 05
AWOT analysis



Threats | Goal 03

Detailed SWOT Analysis

Possibility to create problems to attract threshold population to the Kalutara town due to development taken place in peripheral areas with the construction of Southern express way

Because of the Southern expressway, a rapid development has taken place in the peripheral areas of the Kalutara town. As shown in the Figure no 5.14, as a result of Gelanigama and Dodangoda road interchanges, those areas are being developed with high concentration of population and because of that Kalutara town may lose the threshold population required for the proper functioning of the town.

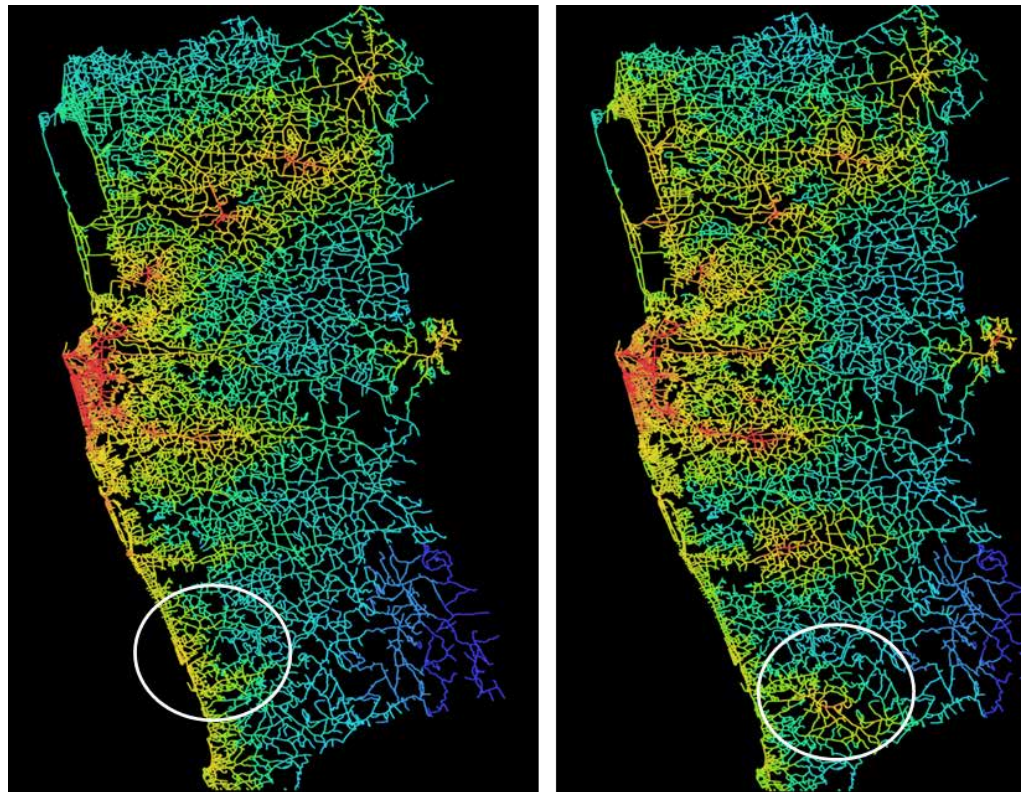


Figure 5.14 : Changes taken place in spatial integration after construction of Southern Highway
Source : Urban Development Authority (2018)

Chapter 06



The Plan

Chapter 06
The Plan

Conceptual Plan

6.1. Conceptual Plan

Under the conceptual plan, a basic figurative analysis is done with a view to determine the future development scenario of the planning area. Accordingly, a planning concept was developed to achieve a sustainable development in the planning area by resolving the problems identified through the analysis done for the plan prepared for the year 2030.

Based on the conceptual plan, it is expected to develop the area by developing basically 05 sectors to reach to the vision of the plan. Those sectors include the development of diversified zones, revival of tourism industry based on the opportunity of facing the western boundary of the planning area to the sea. Creation of environmental friendly tourism industry by making use of the potential of facing a northern part of the planning area to the Bolgoda Lake. Based on the historically important heritage sites with the natural setting of the Kalu Ganga, it is expected to develop the tourism industry while developing the Nagoda area as health promotion zone.

In addition, it is proposed to develop 04 residential zones with different densities making the environment comfortable and safe living by minimizing the disasters through protection of the environmental sensitive areas.

To provide services to these 04 residential zones, it has been proposed to develop a main commercial hub in the middle of the town, 06 neighborhood nodes, 02 residential nodes, and another node for providing health services. It is proposed to develop the Kalutara town as the main commercial node of the town. The Palathota, Kolaniya, Malwaththa, Uggalbada, Millagas junction and Elamodara are proposed to be developed as the neighborhood nodes. The Central junction and Moronthuduwa are to be developed as residential nodes. The Nagoda junction was identified as the health promotion node ultimately; all these nodes are to be connected into the central business area through the road system.

By taking into account the divers of activities in the middle of the town closer to Kalu Ganga, that area is to be developed as Central Business District (CBD). These divers of activities include four types of functions such as administrative, religious, commercial, and transport.

Also, three sub urban centers such as Waskaduwa, Nagas junction and Katukurunda are to be connected to the central business area through Galle road.

Upliftment of tourism sector is one of the strategies to develop the economic condition of the planning area. Accordingly, it is proposed to develop the western coast line as high-density tourism Zone without letting it to cause any environmental damage and also to develop the Bolgoda environmental friendly tourism promotion zone in a sustainable manner by protecting its environmental sensitivity. Based on the natural setting of the Kalu Ganga and the area where the historical and heritage sites are located

is proposed to convert as a tourism promotion zone focusing with Kalutara Bo tree, Richmond castle building. The development of health sector is also proposed with a view to facilitate for the public for which the Nagoda area was identified as high density health zone considering the availability of existing hospital with other facilities.

In addition, the roads and other infrastructure development is also proposed under this conceptual plan to facilitate for tourists, commuters who are coming for various services, and the residents of the area. The conceptual plan was thus prepared based on all the above mentioned factors which includes the strategic plan for economic development (Console Caesura) ,strategic plan for Infrastructure development (Conjoined Caesura), strategic plan for Housing density and distribution (Cushy Caesura), strategic plan for sustainable environment Development (Cyan Caesura) and finally strategic plan for cultural,Religious and heritage management.

Thus, the ultimate out come which is expected is to make the town 'as the prime caesura" of south west coast by providing all facilities through implementation of above mentioned strategic plans ensuring disaster free comfortable environment for the inhabitants, commuters, tourists and pilgrims. This conceptual plan is given in figure.6.1

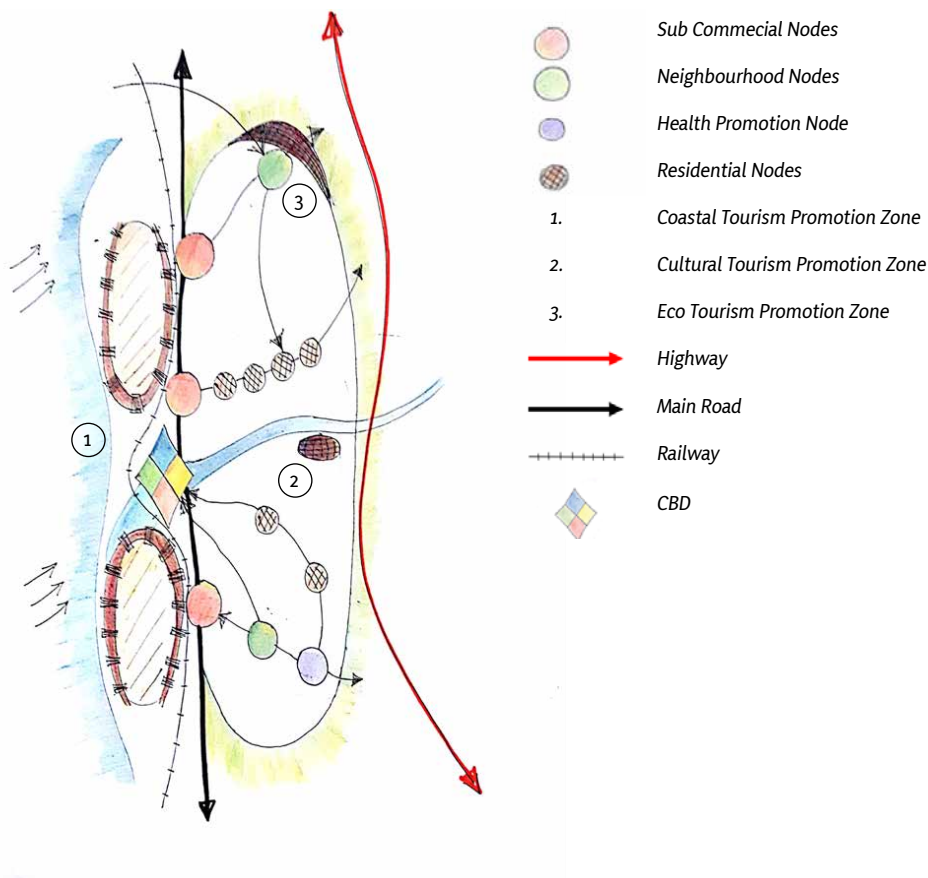


Figure 6.1 : Conceptual plan
Source : Urban Development Authority (2018)

Chapter 06
The Plan

Proposed Landuse Plan

6.2. Proposed Landuse Plan

It is the expectation of this plan to develop the planning area as “the prime caesura” of south west coast by achieving the vision, goals and objectives of this plan through the zoning plan for Kalutara Divisional Secretariat area. The identical character of the area will have to be preserved as it is when implementation of this plan.

The urban form of the Kalutara Divisional Secretariat area is expected to be maintained with different perspectives with different densities and different building heights to maintain its attractiveness. In addition, it is proposed to create a scenic and divers of urban design perspective through development of open spaces, roads and all other identified sectors. What is stressed here is to ensure the compatibility of the building density and shapes with the natural environment in introducing proposed landuse plan in the spatial setting of the area.

The Kalutara town which is located at the Kalu Ganga estuary is identified in this plan as a special node town on the Colombo - Wellawaya road and Maradana -Mathara railway line. In addition, its central area contained with various activities such as religious, administrative, and transport activities. Kalu Ganga estuary point where the Kalu Ganga connected to Indian Ocean is also an identical character inherited to this town with divers of landuses, with buildings and with different height ranges.

When considered about the landuse in Kalutara planning area, 55% of the land or half of the total land area was identified as greeneries mixed with the water bodies such as Kalu Ganga, lagoon and other natural water areas bringing a high natural beauty with full of scenic views.

Despite all these potentials, there are some constrains for extracting those potentials to town development.

Although the commercial, administrative, religious and educational activities are concentrated in the, commercial area in the middle of the town and religious zone at the estuary point of Kalu Ganga, those activities are not properly planned out making a way to get maximum contribution to the city economy. A proper linkage is also not seen among scenic beach, kalu lagoon, historical places (Kalutara Bodhi premises, Richmond castle building), Bolgoda environmental zone which are attractive for tourists. Due to existence of flat terrain and lower elevation, the area is subjected to inundation all most in every year. The population density in those areas is increased as predicted for 2030. Therefore, the proposed landuse strategy was identified to create an environment conducive for the inhabitants, commuters and tourists by resolving all the constraints to achieve the vision of the plan the “prime caesura” of south west coast. Accordingly, while protecting the natural environment, the proposed landuse distribution pattern was identified as follows.

As the western part of the planning area is bounded to the sea and existence of Kalutara Bo -tree and Kalu Ganga estuary, is an identical feature to attract tourists. By protecting and developing linkages with central business area, it was proposed to be developed as Religious zone.

As per the cross section shown in Figure 6.2, if a traveler starts his journey at Calido beach could see the natural river and nearby Bo tree and from that point onwards, high density commercial zone can be seen where within a radius of 300 meters from Kalutara bo-tree, the building heights are to be maintained less than the height of Kalutara stupa. After this zone moderate density commercial zone I, wetland protection zone and thereafter high-density residential zone and again high density health zone can be identified. Thus, it is proposed to develop the area as different functional zones in different densities as follows.

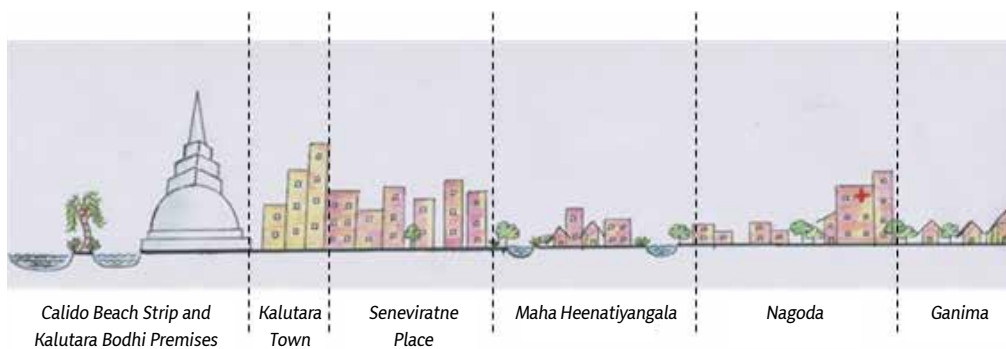


Figure 6.2 : Cross Section 1 (A-A)

Source : Urban Development Authority (2018)

In order to create some diversified urban landuses, regulations parameters like zoning factor and plot coverage are identified to be used. The regulations have to be enforced to achieve different density areas. By using the advantage of falling the western boundary into coastal line of the sea, the area starting from Tangerine hotel towards the calido beach is identified as high density tourism zone 1 and from there onwards was identified as moderate density commercial zone 1. The next zone, high density residential zone is to be maintained by controlling the building heights strategically making the conserved reservations of the Kalu Ganga to be visible for the people. The next zone is to be maintained as low density residential zone by considering the overflow of Kalu Ganga. This development zones can be identified by cross section Figure No 6.3 .

Chapter 06
 The Plan

Proposed Landuse Plan

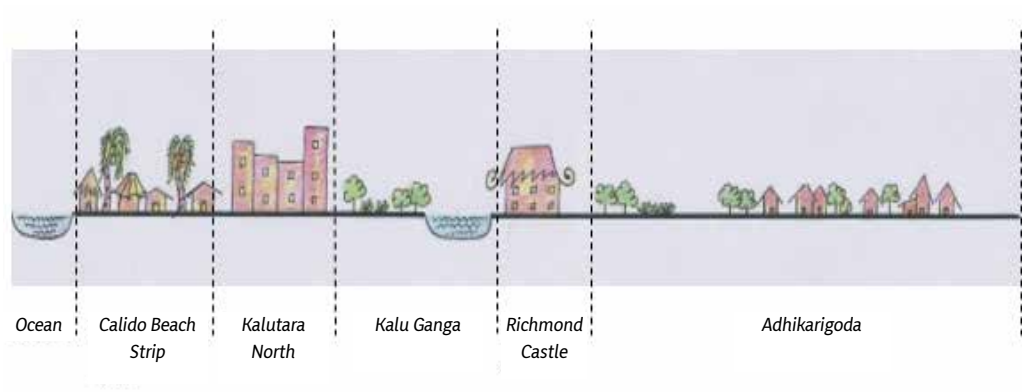


Figure 6.3 : Cross Section 2 (B-B)
 Source : Urban Development Authority (2018)

Since district level institutions such as Pasdunrata Teachers' Training School, Nurses' Training School, Police Training School, STF Training Camp, District Branch of Open University, Katukurunda airport etc, this area has become attractive for the people. The existence of motor race track has become much popular attraction and is strength to the area. Accordingly, it is proposed to develop the surroundings of this internal airport area as high density height controlled residential zone. When considered about the cross section of the development in this area, firstly, the observer can identify the Kalu Ganga lagoon as starting point and secondly moderate density commercial zone 1 and thereafter he could identify the height controlled high density residential cluster. The cross section of this zone is given in Figure 6.4.

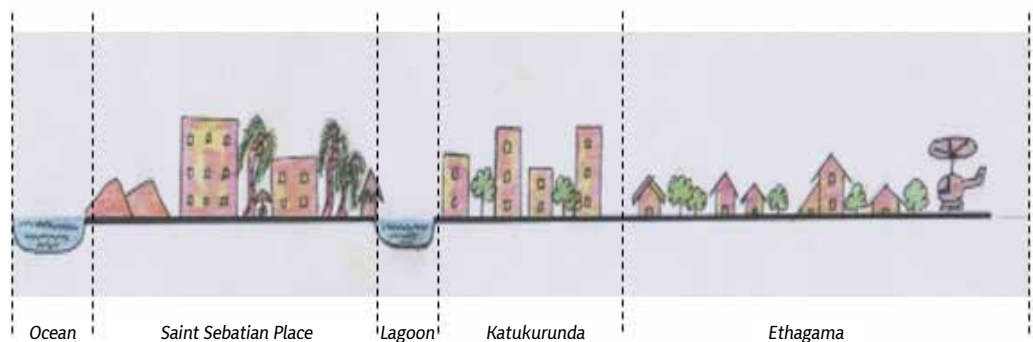


Figure 6.4 : Cross Section 3 (C-C)
 Source : Urban Development Authority (2018)

The Moronthuduwa area is proposed to be developed as residential node. The Moronthuduwa area is accessible from Wadduwa – Moronthuduwa and Kalutara – Bandaragama road and is located within a short distance of 8 km to Galanigama highway interchange and that high potential is to be utilized for its developments.

When paying attention to the development of Moronthuduwa residential node, an observer can first witness the environmentally protected high density tourism zone II, moderate density Commercial zone 1, wetland protection zone, Moderate density residential zone, low density residential zone and finally, low density tourism zone in environmental friendly Bolgoda area can be seen. The cross section relevant to this is given as Figure No. 6.5.

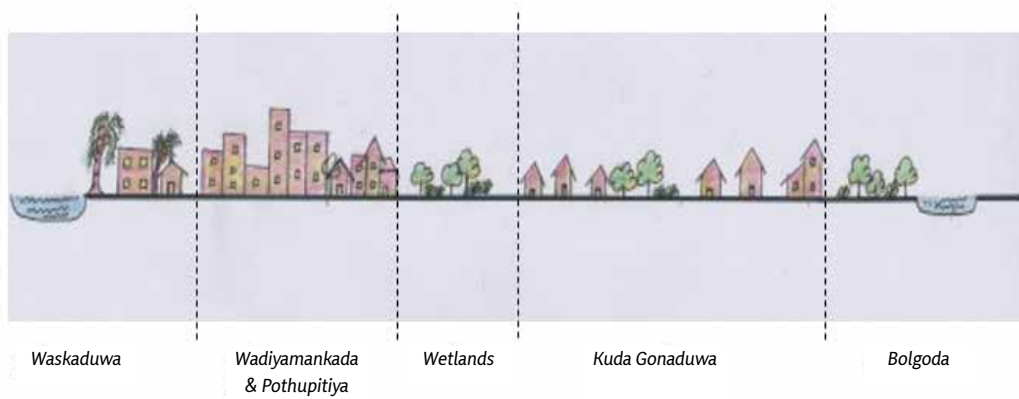
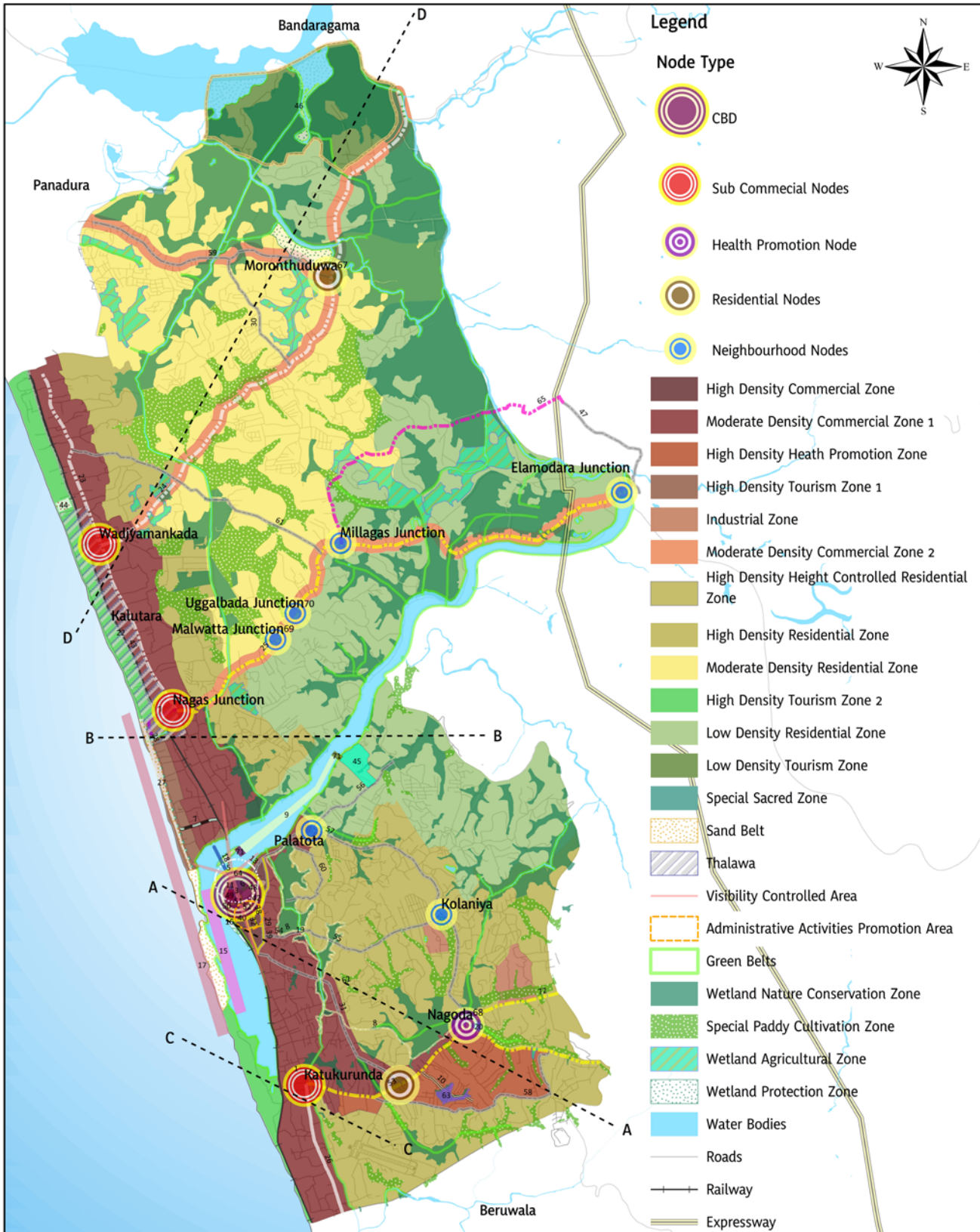


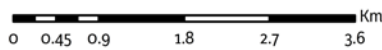
Figure 6.5 : Cross Section 4 (D-D)

Source : Urban Development Authority (2018)

Thus, the future basic landuse scenario and the urban design perspective in the planning area is described in this chapter which is given in Map No 6.1 and thereby it is the final goal to be achieved as to develop the town the "prime caesura" of south west coast by introducing different activities spread in the area through proposed landuse plan representing urban design layout and economic development strategies,



Proposed Landuse Plan
Kalutara DS Division
 Source : Urban Development Authority



Urban Development Authority
 December 2018

Map 6.1 : Proposed Landuse Plan (2030)

Source : Urban Development Authority

6.3. Strategic Plan for Infrastructure Development

Provision of all physical, social and infrastructure facilities required for the expected residential population and commuter population in the planning area is described in detail as follows.

6.3.1. Service management plan

When considered about the service facilities connected to planning area, it is important to identify the availability of health facilities, hospital facilities, educational and also school facilities etc.

6.3.1.1. Health facilities

Kalutara area is presently having health facilities at a higher standard. The Kalutara base hospital is the main hospital in the district and presently about 1900 peoples are daily receiving services from this hospital. The number of persons coming to the hospital such as hospitalized patients, visitors those who are coming for clinical treatments are estimated to around 5767 persons per day. At the same time, some clinical services and sub clinical services are provided by the MOH office. Two private hospitals are also available in the area (Philip, Family Care). In addition, two dispensaries and 5 other medical centers under the district hospital are in operation in the area. Nurses' training school is also located in the area. One of the main medical facility centers presently under construction is the childcare and maternity hospital (400 Beds) and ENT hospital which could be identified as the main facility among the proposed projects.

Thus, the medical facilities presently available in the planning area are found to be adequate to cater to the present population as well as future increasing population as well.

The details about hospitals available in the planning area and considering the maximum walkability distance as 500m, an analysis has been done to see whether the health service is adequate for the planning area and found that the facilities are distributed in the planning area in the manner which is sufficient to meet the requirement and is given in annexure 13.

Therefore, there is no much requirement to further increase the institutions for health services but need only the improvement of the present health facilities.

6.3.1.2. Education facilities

When considered about the education facilities in the planning area, identification of schools belongs to Kalutara educational division is important. Accordingly, Category 1AB schools 08 numbers, 1C schools 06 numbers, T2 (6-11) schools 17 numbers and T3 schools 03 numbers can be identified. Also there are 03 schools having special educational sections (Thissa Vidyalaya, Delduwa Vidyalaya and Welapura Central colladge) are available in the area.

Chapter 06 The Plan

Strategic Plan for Infrastructure Development

Education facilities

Roads and transport development plan

When considered about the education facilities to identify the schools, an analysis was done taking into account the availability of schools in the area with a maximum walkability distance as 500m and found that the educational facilities are also adequately available to fulfill the educational requirements of the entire planning area. Distribution of these schools can be identified in annexre 14.

This aducational facility fulfills the present educational requirement and it will be sufficient for the future edicational requirements as well. Therefore, it is worth while to improve the facilities of these schools with available infrastructure and maintain the same for future rather than constructing new schools.

6.3.2. Roads and transport development plan.

Kalutara town provides an important service as a transport center in the district. Specially the passengers who use public transport facilities to travel to Colombo not only within the Divisional Secretariat area but also from the divisional secretary areas of Mathugama and Walallawita are also have to go through the Kalutara town. The main factor for the passengers to travel across the Kalutara town is the availability of transport facilities through the Colombo- Galle- Wellawaya road (A2) and the Railway from Maradana to Mathara. Attraction of passengers to the Kalutara town has been increased especially due to usage of Kalutara south station as an express train operating point. The location of Kalutara bus stand closer to the Kalutara South railway station has become convenient for the peoples to fulfill their transport facilities. Transport oriented development (TOD) taking place at present at this location.

It is expected to provide transport facilities to the high-density residential Zones through the development of roads that were identified in the Divisional Secretariat area under this plan. It would further improve the direct linkages between Kalutara town and identified residential Zones. Under the proposed transport plan, it is also proposed to develop pedestrian walkways within the town area.

As stated in the Volume one of this plan, the daily commuters to the town is estimated to over 80,000 people and high percentage of these people are moving from the location of Clock tower in the town center and the area up to three - way junction on the Galle road in order to fulfill their transport, administrative and commercial requirements. Under the proposed plan for 2030, the pavements of the roads in the middle area of the town are to be developed to facilitate the daily commuter population. By implementing the transport plan, following objectives are to be achieved.

1. *To develop some road sections identified in the central area of the Kalutara town (2.3km) for the pedestrian to be able to walk with safety.*
2. *Creation of 04 residential zones in different densities by providing required urban services and transport facilities having 02 residential nodes, 01 Health promotion node and 06 neighborhood nodes by the year 2030.*

In order to achieve these objectives, there is a requirement to implement a transport plan. In this plan it is expected to improve the linkages between the residential zones identified under the strategic plan for Housing density and distribution and the development of urban centers in the Kalutara south area while improving the linkages with other towns at regional level. Accordingly, the proposed transport plan comprised with two sectors.

1. *Road development plan*
2. *Transport development plan*

01. Road development plan

The spatial form of the Kalutara planning area could be built up through the road development plan identified under the Kalutara development plan 2019 - 2030. Accordingly, the area falling between Indian Ocean from left side and Kalutara Palathota road (Gangabada road) and from there onwards up to Nagoda junction in southern side has been identified to be developed as development promotional zone. From that point onwards Galle road, Kalutara -Bandaragama road, Kalutara -Horana road, Kalutara-Mathugama road have been identified as development corridors. Accordingly, it is expected to develop the road system in such a way that it could promote the high density commercial zone and development corridors and also to improve the linkages between the zones identified under the strategic plan for Housing density and distribution and with the Kalutara central area. Under the road development plan, 03 main actions need to be taken as follows.

I. *Widening of identified roads.*

Under this, it is proposed to increase of the traffic lanes and to introduce facility providing lanes.

II. *Making linkages between roads.*

Making linkages between roads that were identified after analyzing through Space syntax. (Roads that are not connected at present) It is expected to build up spatial configuration. This strategy is to be adopted specially in development of promotional zone.

III. *Creation of pedestrian walkways in some identified roads.*

Pedestrian walkways in some identified roads under road development plan are to be developed under which central area of the town is proposed to be covered.

The roads developable under this plan are described under the Strategic plan for project implementation

Chapter 06 The Plan

Strategic Plan for Infrastructure Development

Roads and transport development plan

Water supply plan

02. Transport Development Plan

The interconnection between Kalutara town and residential nodes are to be improved under which following two actions are to be taken.

- I. *Development of passenger bus terminals*
- II. *Introduction of new passenger routes*

It is proposed to develop the linkage between residential zones identified under strategic plan for housing density and distribution with the Kalutara town and also to develop passenger bus terminals in the residential zones. In addition to that, Requirement of developing bus terminals in the identified road junctions in the residential zones were identified under the identified nodes development projects.

Also, in addition to the existing bus routes, some new bus routes have been identified through which the linkage to the Kalutara town (Kalutara south) from residential areas identified under this plan will be improved. The new bus routes thus identified include:

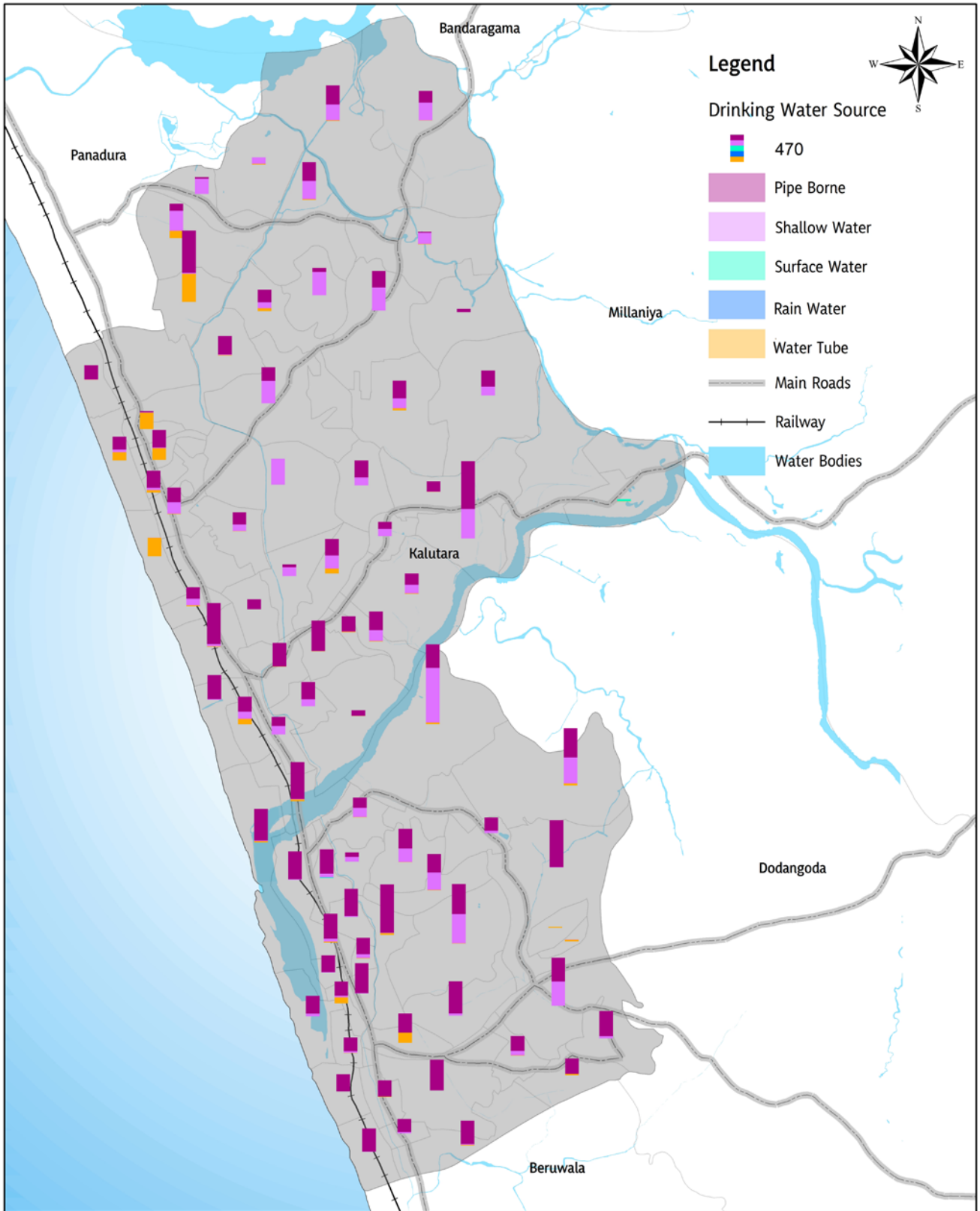
- *Bus service between Kalutara and Neboda via Hill Street.
(In addition to the Kalutara Neboda existing bus service)*
- *Kalutara- Bus service at the Duwa temple junction
(From Kalutara town to Duwa Temple road junction via
Duwa temple road)*
- *Kalutara – pelpola bus service up to proposed new
highway interchange*

6.3.3. Water supply plan

The population forecasted by the National Water Supply and Drainage Board for Kalutara Divisional Secretariat area is 196,556. This number is almost similar to the forecasted population used for the preparation of this Kalutara development plan 2019-2030. (Forecasted population by the UDA is 199,000)


According to the National Water Supply and Drainage Board, they have the capacity to provide water for 93% of the population in the Kalutara Divisional Secretariat area by the year 2030. The balance 7% could be managed with other sources such as tube wells and wells. As identified in the map No 6.2 different water sources are used for obtaining water to the planning area. The National Water Supply and Drainage Board has the capacity to provide water to the newly identified high density residential zones. The main issue connected to the drinking water in the Kalutara area is the mixing of salt water to the main source of Kalu Ganga during few months in every year. This issue has been identified under the detailed analysis of weaknesses in objective 02.

As a solution, a salinity water barrier is proposed by the National Water Supply and Drainage Board along with Irrigation department for which feasibility study is being carried out. A detail about this project is given under the Strategic plan for sustainable environment development.



Drinking Water Source (2018)
Kalutara DS Division
 Source: Urban Development Authority

0 0.4 0.8 1.6 2.4 3.2 Km

 **Urban Development Authority**
 December 2018

Western Province Division Kalutara Development Plan (2019 - 2030) Prepared By: Kalutara District Office

Map 6.2 : Water sources in the planning area (2018)

Source : Urban development authority (2018)

Chapter 06
The Plan

Strategic Plan for
Infrastructure Development

Electricity supply plan

6.3.4. Electricity supply plan

Electricity for the Kalutara Divisional Secretariat area is provided by both, the Ceylon Electricity Board as well as Lanka Electricity Company Ltd. Electricity for the Kalutara urban area is provided by the Electricity Company while other areas are provided by the Ceylon Electricity Board which is shown in Figure no 6.6. 100% electricity supply is available in the Divisional Secretariat area. These two institutions have the capacity to provide forecasted population of 199,000 by the year 2030.

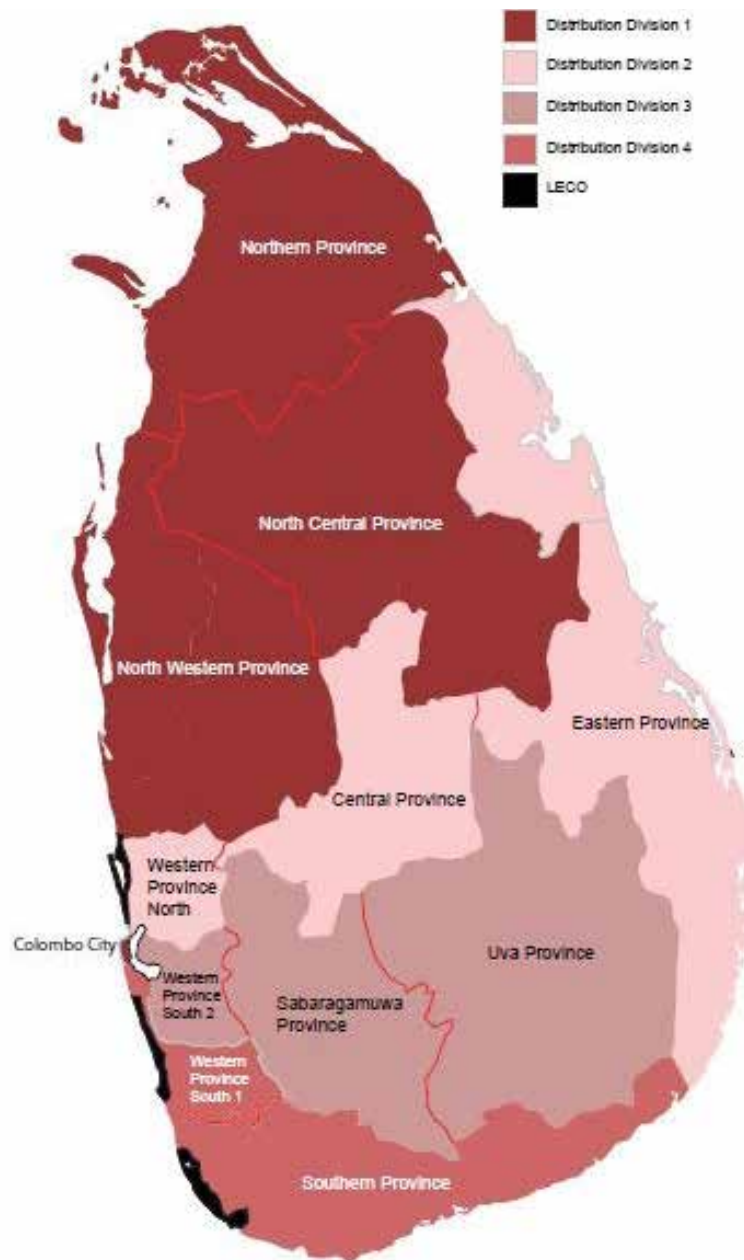


Figure 6.6 : Areas covered for supplying electricity by the CEB and LECO in Sri Lanka
Source : Electricity Board (2018)

6.3.5. Waste water management plan

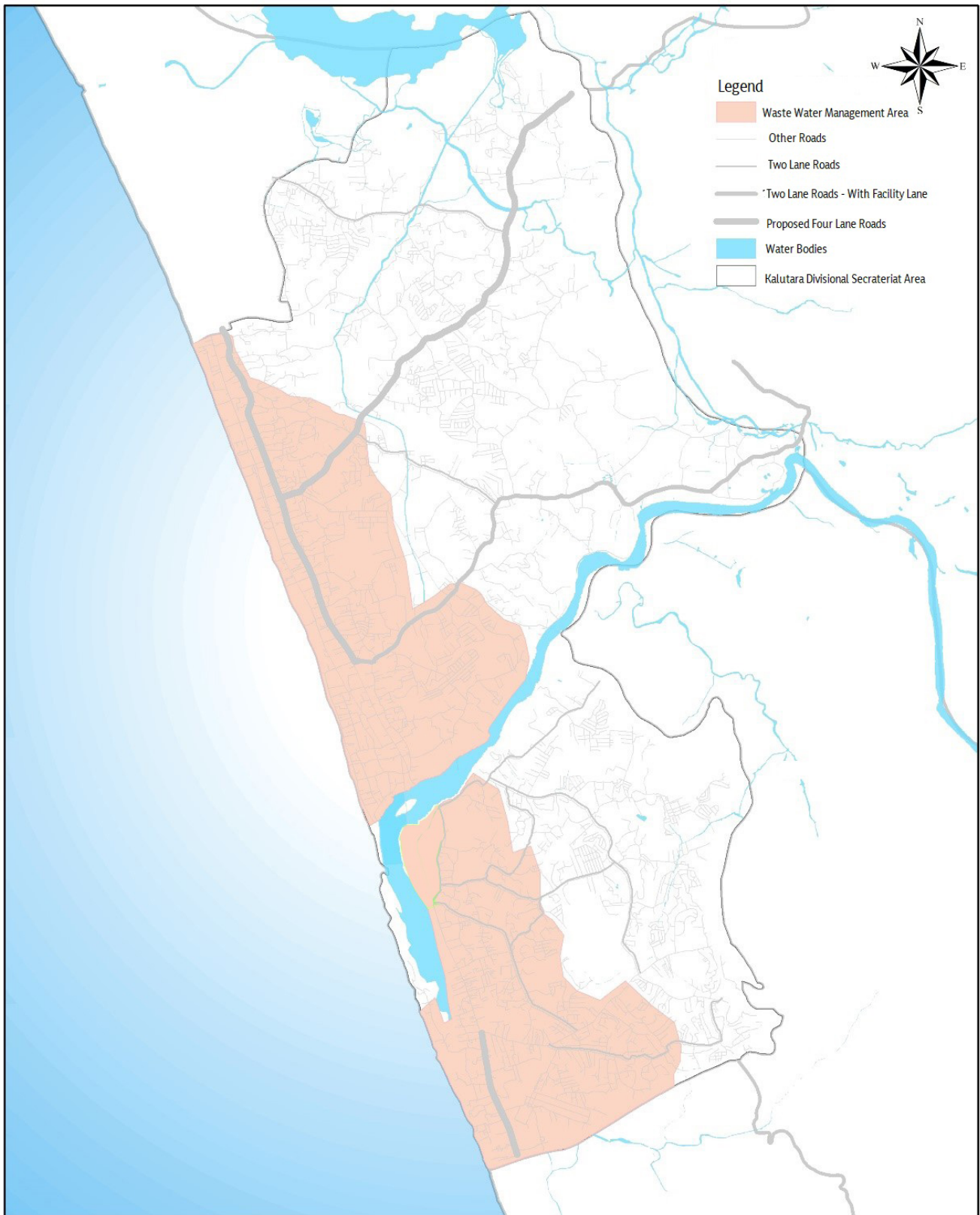
Because of the development pressure in the Kalutara urban area, land sub divisions are increased tremendously. Due to high building density in the areas of Kalutara north and south, present swage system of using septic tanks would no longer hygienic for the area. Using of septic tanks for sewerage disposal is not practical and therefore as shown in Map No:6.3, the National Water Supply and Drainage Board has a proposal for the Kalutara urban area and for some selected GN divisions in the Pradesheeya Sabha area to implement a waste water project for which the identified GN divisions are as follows.

1. Kalutara North
2. Deshastra
3. Deshastra West
4. Vidyasara
5. Thotupola
6. Kalutara South
7. Kalutara South- A
8. Welapura
9. Mahawaththa
10. Kudaheenetiyanigala
11. Kurunduwaththa
12. Akkaragoda
13. Nagoda West
14. Wettumankada
15. Kalapuwa
16. Katukurunda
17. Pohaddaramulla West
18. Pohaddaramulla East
19. Pothupitiya North
20. Pothupitiya South
21. Pothupitiya West
22. Meda Pothupitiya
23. Kudawaskaduwa North
24. Kudawaskaduwa West
25. Kudawaskaduwa East
26. Kudawaskaduwa South
27. Mahawaskaduwa North
28. Dediawela
29. Mahawaskaduwa South
30. Wilegoda North
31. Malwaththa
32. Botnicwaththa
33. Jawaththa
34. Ethanamadala
35. palathota
36. Vilegoda South
37. Illukwaththa
38. Atawila
39. Waththamulla
40. Mahaheenetiyanigala
41. Alubogahalanda
42. Kajuduwaththa
43. Kalamulla North
44. Kalamulla East
45. Kalamulla South
46. Ethanamadala East
47. Ethenamadala West
48. Uswaththa

Chapter 06 The Plan

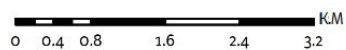
Strategic Plan for Infrastructure Development

Waste water management plan



Waste Water Management Area
Kalutara Divisional Secretariat Area

Source : Urban Development Authority



Urban Development Authority
December 2018

Western Province Division

Kalutara Development Plan (2019 - 2030)

Prepared by : Kalutara District Office

Map 6.3 : Areas covered by the waste water management plan (2018)

Source : Urban development authority (2018)

6.3.6. Solid waste management plan

The non-liquid material which is generated from the various human activities such as domestic, trade, commercial, industrial, agriculture and other common activities are defined as solid waste. Food related waste, left out packing waste such as papers, metallic, plastic, glass, cloths, left out material from home gardens industrial waste etc are the type of waste identified. Solid waste generations, storage, collection, transport and disposal etc are the activities involved in management of solid waste.

Present condition in the Kalutara urban council area.

The Kalutara planning area is comprised with Kalutara urban council area and Kalutara Pradesiya Sabha area. As shown in the figure 6.7, the daily generation of solid waste in Kalutara planning area is around 30 Tons.

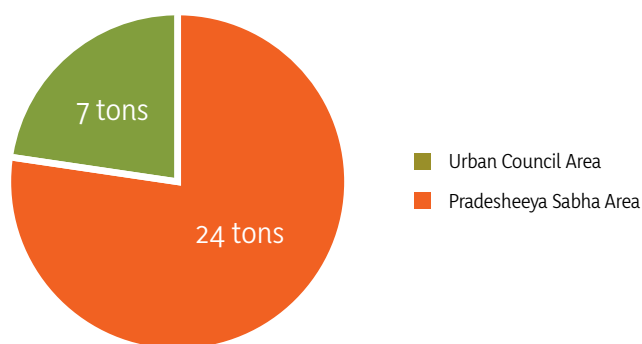


Figure 6.7 : Daily Generation of Solid Waste
Source : Kalutara Urban Council and Pradesheeya Sabha (2018)

Out of the above quantity, the degradable solid waste generated in urban council area per day is estimated to around 21 tons and non-degradable waste is around 3 tons. In Kalutara Praseshiya Sabha area, the daily generated solid waste quantity is around 7 tons and out of which 5.5 tons are degradable waste and 1.5 tons are non-degradable waste. It is shown in figure 6.8.

Generated Solid Waste by Type (tons)

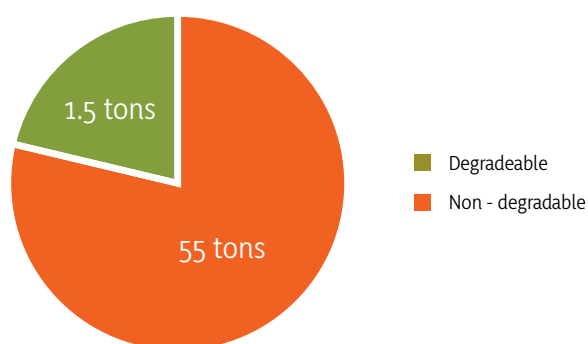


Figure 6.8 : Generated Solid Waste
Source : Kalutara Pradesheeya Sabha (2018)

Chapter 06 The Plan

Strategic Plan for Infrastructure Development

Solid waste management plan

The waste generated from this area is disposed into Pohorawaththa dumping yard. The western province waste management authority is running this Pohorawaththa waste management center in an area of 6 acres belonging to the Kalutara Urban Council. This solid waste management center has been started in year 2011 where 5 to 6 tons of compost production is taking place daily and it is 150-160 tons per month.

One Kg of compost is sold at Rs 11 and it earns a revenue of Rs 8 lacks per month. In this Pohorawaththa Resource Management Center, a bio gas unit has also been set up and bio gas generated there, are used for the requirement of this center. The Pohorawaththa solid waste disposal yard is shown in Map No 6.4. As per the forecasted residential population for 2030, the population growth in the urban council are shows a minus figure and as such generation of solid waste quantity may go down and it may be around 21 Tons in the year 2030. According to the residential population in the planning area by the year 2030, the quantity of solid waste that could be forecasted to about 30 Tons per day.

According to the forecasted commuter population in the urban council area, the waste that could be generated is estimated to 84 tons and in Pradesheeya Sabha area around 7 tons can be forecasted by the year 2030. As per this estimation, forecasted quantity of waste in Kalutara planning area by the year 2030 would be around 121 Tons per day. The planning strategies to reduce the generation of this quantity in coordination with the urban council, Pradesheeya Sabha as the responsible agencies and with participation of public are as follows.

Strategies for Solid waste management

Strategy 01 – Minimizing the generation of solid waste

- I. *Introduction of methods to encourage people in domestic, trade, industrial sectors to minimize the solid waste generation.*

Conducting of awareness program and educational program in public places, school etc and also to introduce "10R" systems, a concept of minimizing the generation of waste. ie; preveting from usage, refusing, reduction, reusing, repairing, converting, recycling, re- thinking, remembering, repeting.

Strategy 02 – Separation of waste at the points where it generates.

- I. *Conducting of awareness programs in residential and commercial areas through the local authority.*
- *Conducting of educational and awareness programs to enlighten the public not to mix up the Non-degradable bio waste with degradable waste and also to inform the public that non separated waste would not be collected by introducing "No separation-No collection" policy to motivate the people about the importance of separation.*

Example - to maintain separate waste dustbins for different waste types generated as domestic, institutional, trade and industrial origins.

(a)	Compost	-	Green colour
(b)	Papers	-	Blue colour
(c)	Plastic	-	Orange colour
(d)	Metal	-	Brown colour
(e)	Glass	-	Red colour

Strategy 03 – Promotion of making compost through degradable waste and motivation of people, introduction of profitable market to sell compost.

- I. *To make compost through degradable waste at the location where it generates like residential and institutional premises. Example: Compost bin, compost pit, Bio- tank, etc.*
- II. *To make available space from the compost yards managed by the local authority for the large-scale degradable waste generators to make compost by using simple methods.*

Example - Making of compost by using simple technical methods in an area managed by the local authority for the hotels, hospitals and the residential areas where the normal composting is not done,

- III. *To encourage every house holder to maintain a compost bin by using easy technology and to motivate them to use it for cultivation of organic vegetables and fruits and to promote the market for organic vegetables.*

Strategy 04 – Setting up of bio gas units in state organizations, hospitals

- I. *Food waste and agricultural waste can easily be converted into bio gas which can be used for cooking and lighting etc.*

Strategy 05 – Arranging a program to use degradable food wastes for piggery farms

- I. *Provision of biodegradable food waste for piggery farms as animal food*

Strategy 06 – Usage of suitable technology for recycling of non-degradable waste.

- I. *Organizing of workshop in schools and institutions to change attitudes regarding reuse of the waste material*
- II. *Setting up of purchasing centers of reusable waste, (glass, papers, metal) motivation of people, introducing markets and entrepreneurs to collect such material*
- III. *Registration of buyers who are ready to purchase recyclable waste from local authorities and keeping contact with them and providing information to the public*

Chapter 06 The Plan

Strategic Plan for
Infrastructure Development

Solid waste
management plan

Chapter 06 The Plan

Strategic Plan for Infrastructure Development

Solid waste management plan

- IV. *Introduction of waste fairs to sell reusable metal, plastics, discarded electrical parts etc collected from solid waste yards.*

Strategy 07 – Setting up of institutional structure to prevent discharging of clinical waste from hospitals.

- I. *Making compulsory for separation of clinical waste*
- II. *Making compulsory to ensure that the clinical waste is not infective before disposing the same.*
- III. *Setting up of a suitable system within the hospital premises to dispose the clinical solid waste.*

Strategy 08 – Making an efficiency system for collection and transport of solid waste.

- I. *Implementation of door to door collection*
- II. *Introduction of dates and the type of solid waste collected in those dates (Plastics, Coconut Shells ,glass) by relevant local authority*
- III. *Ringing a bell when waste collecting trucks are coming*
- IV. *Provision of equipment and facilities to the compost yards run by the local authorities*
- V. *Keeping separate compartments for solid waste in collecting trucks*
- VI. *To collect waste by using hand carts in the places where collection trucks cannot move in.*

Strategy 09 – Setting up of sanitary filling sites.

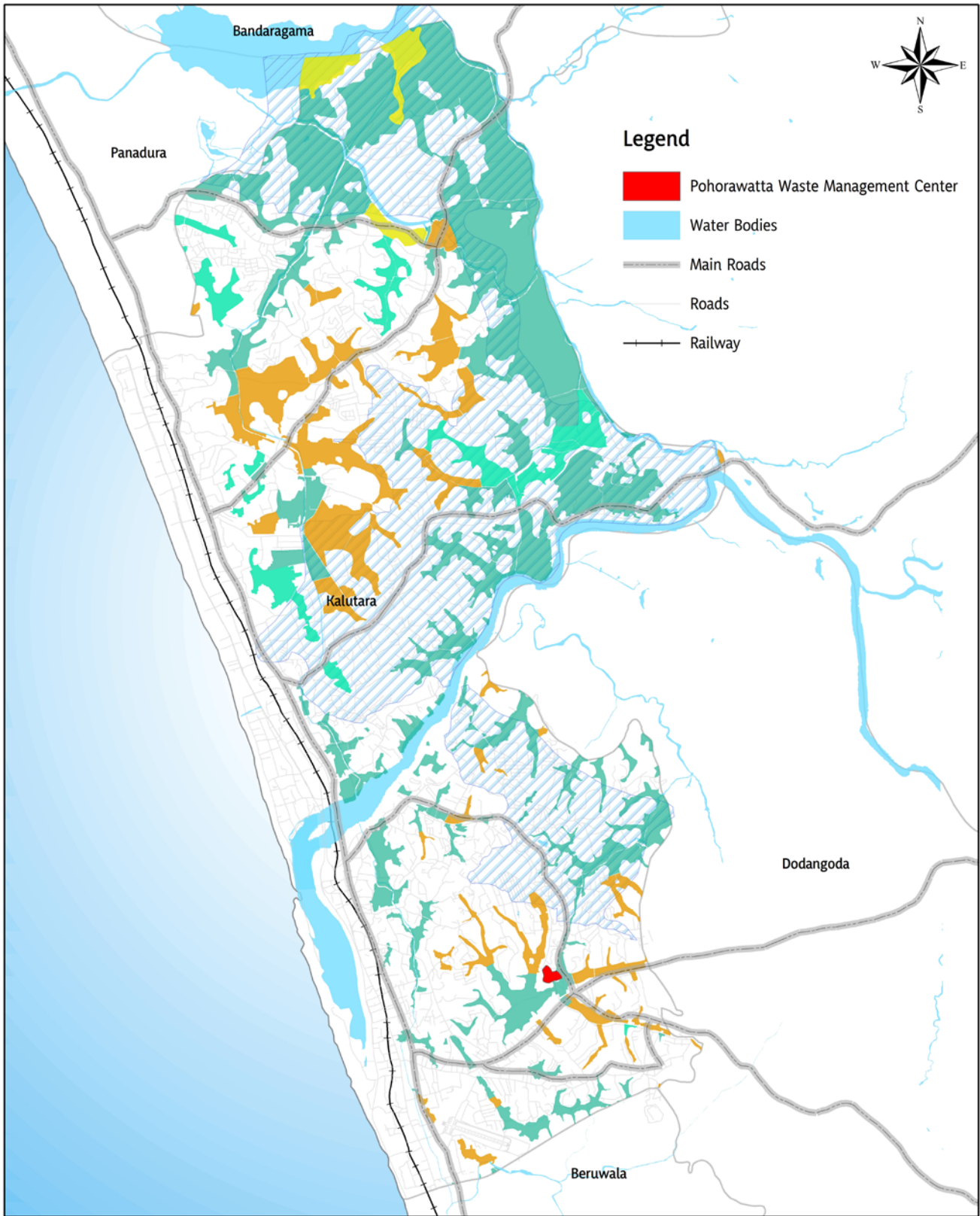
- I. *The non degradable material and non recyclable material are suitable for filling of lands. Setting up of a sanitary filling site by a single local authority is financially not practical and therefore to do it collectively by few local authorities.*

Strategy 10 – Setting up of an electronics waste (E – Waste) management center.

Discarded computers, keyboards, televisions, mobile phones etc should not be disposed together with other urban solid wastes and those material to be kept separately to hand over to the buyers registered in the CEA.

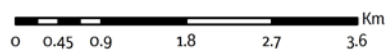
Strategy 11 – Appointment of follow-up committee

To make follow up action through setting up of a committee representing relevant institutions.



**Location of Pohorawatta Waste Management Center
Kalutara DS Division**

Source : Urban Development Authority



Urban Development Authority
December 2018

Western Province Division

Kalutara Development Plan (2019 - 2030)

Prepared By: Kalutara District Office

Map 6.4 : Location of Pohorawatta solid waste management center (2018)

Source : Urban Development Authority (2018)

Chapter 06
The Plan

Strategic Plan for
Economic Development

Economic
development plan

6.4. Strategic Plan for Economic Development

Under this plan strategies have been worked out to uplift the economic condition of the area by making use of the potentials and this plan comprised with two parts such as tourism development and health promotion plan.

6.4.1. Economic development plan

It is important to pay attention regarding various sectors in development of economic condition of the Kalutara Divisional Secretariat area. Basically, commercial activities are concentrated around the Kalutara town and commercial nodes are located in Moronthuduwa, Uggalboda junction and Palathota junction. The service sector is the main contributor in the economic composition of the Divisional Secretariat area. Kalutara being the main administrative center in the district, a large number of population attracted to the town for commercial, transport and other purposes.

As described in chapter one, around 80,000 people are daily coming to the Kalutara town for administrative, educational, health and various other purposes. The religious importance and tourism industry connected to Kalutara town are the main reason to attract many people to the town. This commuter population makes a positive impact to the economic activities of the town. However, with the construction of southern highway and various other national level investments around other areas in the district make negative effects to the commuter population to the town.

Accordingly, by taking into account strength, weaknesses opportunities and threats, this economic plan was prepared. The objectives to be achieved through the economic development plan are as follows.

1. *Aiming to bring economic benefits to the town by establishing all the administrative functions in a one location, it is planned to setup 80% of the administrative services within 200 m radius from the Kalutara District Secretariat building by the year 2030.*
2. *To provide 80% of the secondary and tertiary level health services with a 1km distance surrounding the Kalutara general hospital by the year 2030*

In order to reach to this target, two strategies are to be adopted.

1. *District level administrative functions spread all over in the Divisional Secretariat area to be setup within the District Secretariat premises.*
2. *Increase of interconnection between tertiary level health institutions establish within and around the Kalutara base hospital premises.*

In order to achieve this target administrative and health development plan has been prepared.

6.4.1.1 Administrative and health zone development plan.

Out of the commuter population who come to Kalutara town, the majorities are coming for administrative and health services because of the fact that the Kalutara is the main administrative center of the Kalutara district and the base hospital to be one of main hospital in the western province. As per the main development presently taking place, the number of people seeking treatment will also be increased in future. To facilitate for all those who are coming to the town and also to uplift the economic condition of the town, the plan for administrative and health services zones have been prepared through which it is expected to achieve an agglomeration economic benefit to the town. Thus, the objectives 02 and 03 of the economic plan can be achieved. It is described under Strategic plan for project implementation.

6.4.2. Tourism Development Plan

As explained above Kalutara town is an attractive place for pilgrims and tourists. Because of the tourist attraction the private sector has moved into construct tourist hotels related to tourism sector in the area. Accordingly, a tourism development plan has been prepared to improve the contribution of the tourism sector to the economy of Divisional Secretariat area by taking into account potentials and constrains. Arrival of pilgrims to the town is seen throughout the year and as most of them are local travelers, they also contribute to the economy of the Kalutara town. The places of tourist attraction are proposed to be developed by recognizing the potentials. Tourism development plan as shown in the Map no.6.5 has been prepared by improving the linkages between such places.

Accordingly, the most attractive location of Kalutara Bo tree premises and surrounding area is proposed to be developed as heritage tourism for which a separate zone is identified. A Richmond castle premise is also to be developed as heritage tourism zone. The area abutting Kalu Ganga between Kalutara Bo-Tree and Richman castle premises is to be developed as River front tourism promenade. The area abutting Calido beach is to be developed as sea front tourism promenade. Also, the area like Moronthuduwa, Gonaduwa is proposed to be developed as low density tourism zone for which the area where the Keppu ela connecting point to Kalu Ganga and Bolgoda lake can be developed in traveling in water ways to improve the tourist attraction. According to these strategies, the tourism activities in the Kalutara area are proposed to be diversified. Thus, cultural tourism activities, environmental tourism activities, and beach related tourism activities can be promoted, and tourists have the opportunity get different experience within a short distance. This would help to attract both local and foreign travelers to this area. As per above the tourism development plan its objectives and strategies can be identified as follows.

Chapter 06 The Plan

Strategic Plan for Economic Development

Economic
development plan

Tourism
Development Plan

Chapter 06 The Plan

Strategic Plan for
Economic Development

Tourism
Development Plan

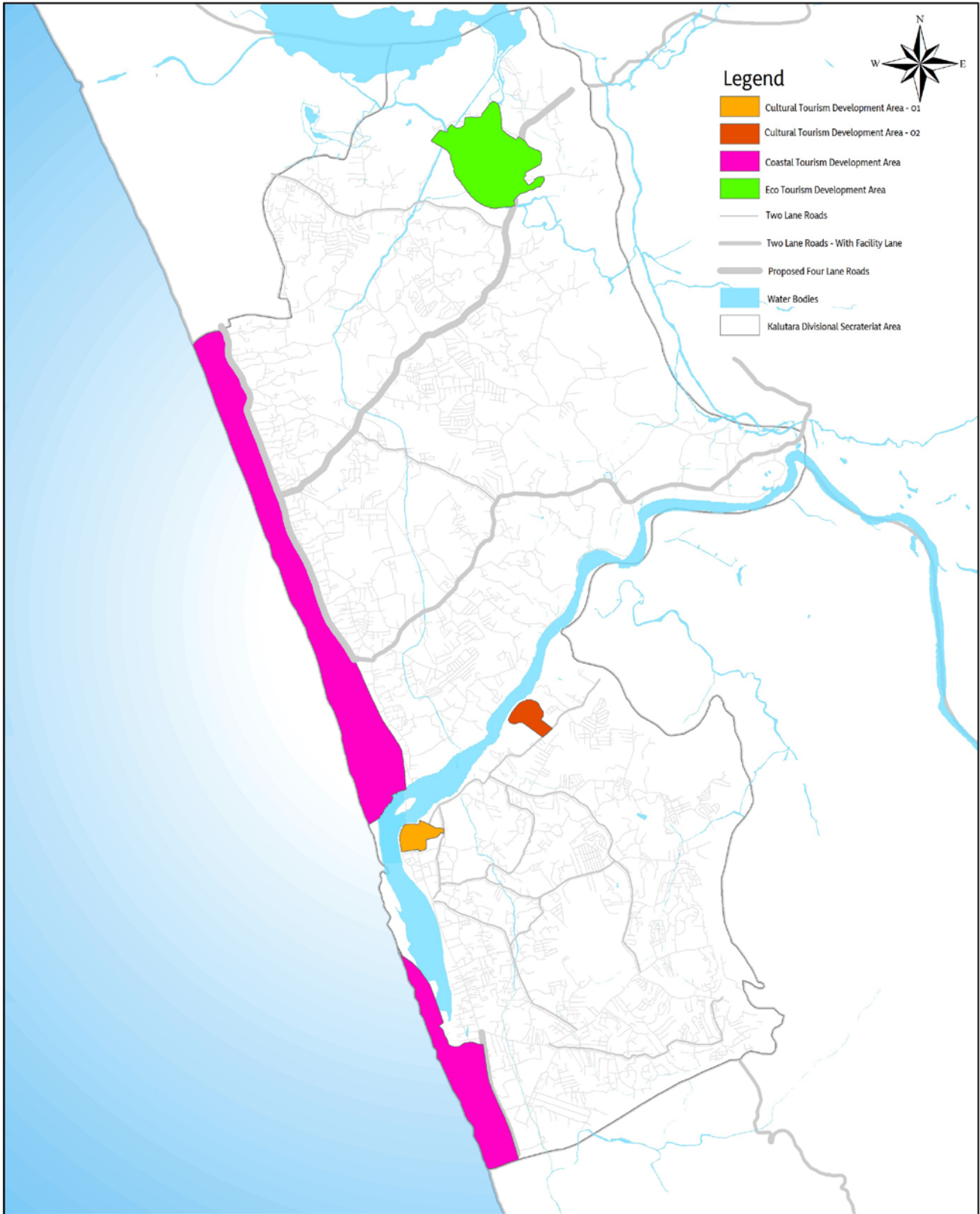
Objectives

01. *Making a link interconnecting Kalutara Bo tree, Calido beach and Richmond castle building for comfortable journey by the year 2030*

Strategies

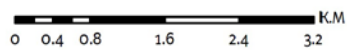
- I. *To create a cultural tourism zones based on both the Kalutara Bo Tree premises and Richmond Castle premises.*
- II. *Creation of two tourism zones based on Kalu Ganga and Calido beach line*

The development projects to take place under this plan are described under Strategic plan for project implementation.



Tourism Development Plan
Kalutara Divisional Secretariat Area

Source: Urban Development Authority



Urban Development Authority
December 2018

Western Province Division

Kalutara Development Plan (2019 - 2030)

Prepared by : Kalutara District Office

Map 6.5 : Tourism Development Plan

Source : Urban Development Authority (2018)

Chapter 06
The Plan

6.5. Strategic Plan for Sustainable Environment Development

Strategic Plan for Sustainable
Environment Development

Environmental
conservation plan

In Kalutara planning area is having a several distinct environmental features inherited to that area. The environmental setting of the Kalutara planning area is determined due to integration of the factors such as location of the town closer to Kalu Ganga estuary, remaining of 55% of the land area as wetlands and locating the town abutting to sea etc. At the same time, this area is subjected to disaster at national level and by taking into above factors the sustainable environmental development strategies mentioned in this chapter are adopted in order to create a sustainable environmental condition in this area. Accordingly, it is expected to achieve following objectives through Strategic plan for sustainable environment development.

- a. *Provision of 100% cleaned and hygienic drinking water for the entire planning area by the year 2030.*
- b. *To minimize the coastal erosion in the beach line of about 13km from the Dhreerakanda Mawatha at western boundary of the planning area up to Payagala south by the year 2030.*
- c. *Creation of an environment conducive for living by controlling the vulnerability threat for flooding of 21 GN divisions through the management of 1925 ha. Of environmental sensitive areas*

6.5.1. Environmental conservation plan

The main objective of the environmental conservation strategy is to protect the wetlands and environmentally sensitive areas located in the planning area, protection of blue network and coastal environmental system, management of salty level of water, and management of disasters. By protecting the wetland, water retention capacity can be increased while preventing the flood risk level and that will protect the bio diversity.

6.5.1.1. Strategy for protection of wetland and environmental sensitive areas

To protect the wetland and environmental sensitive areas, mainly it has been identified a wetland zoning under the wetland and sensitive areas protection strategies. According to the western province wetland management plan it is described as follows. Since the main canals and sub canal are not properly maintained, drainage system is not functioning properly. Also, due to growing of inversive plants, the free flow of water is disturbed. Also due to unauthorized constructions in low-lying areas in haphazard manner and all these issues are to be addressed under the above strategy. Accordingly, the wetlands identified in the Kalutara planning area can be zoned in the following manner.

The wetlands identified in Kalutara planning area can be zoned as follows.

- I. *Wetland protection zone*
- II. *Wetland Nature Conservation Zone*
- III. *Wetland agricultural zone*
- IV. *Special paddy cultivation zone*

This zoning is given in Map No 6.6.

1. *Wetland protection zone*

Bolgoda lake - environmental zone is remained as partly unveiled lagoon between Kelani and Kalu Ganga valleys. Two lake systems are connected to Bolgoda Lake (North & south) for which following canals are connected such as, Weres Ganga, Bolgoda ganaga, Panape ela, Rambana ela, Mahaoya and Thalpitiya ela. The Bolgoda Lake is having high bio diversity but due to discharge of industrial waste, unplanned developemnt activities in surrounding areas, land encroachments and inversive plants, it has been subjected to various threats. To control these issues, and to streamline the development activities, the Central Environmental Authority has declared this area as a environmental protection zone by a Gazette notification bearing No 1634/ 23 dated 30/12/2009. (Source; Environmental sensitive areas in Sri Lanka -CEA)

In southern side of the Bolgoda Lake, Vertebrate species including 45 fish species, 16 Amphibians species, 40 reptiles, 97 Bird species, and 31 mammal species have been identified. (National wetland directory of Sri Lanka by CEA-2006)

Two Grama Niladhari Divisions in southern side of the Bolgoda Lake is belonging to Kalutara planning area such as Maha gonaduwa, and Kuda Gonaduwa.

2. *Wetland Nature Conservation Zone*

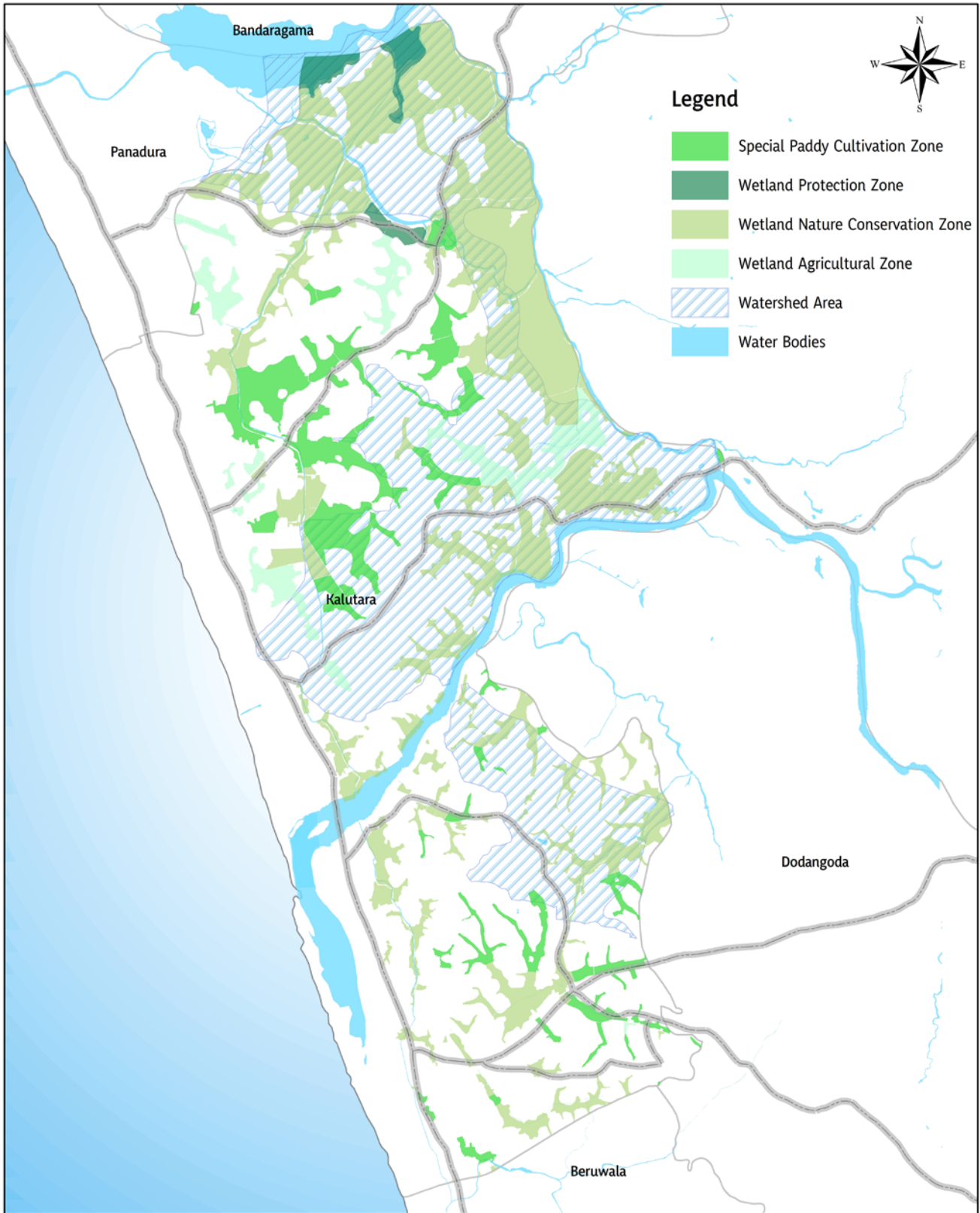
A canal system such as Aluth ela, Heenetiayangala ela, Keppu ela is situated based on the main water sources of Kalu Ganga and Bolgoda Lake. The wetlands located based on these canals are included to Wetland Nature Conservation Zone

3. *Wetland agricultural zone*

Except paddy cultivation areas, other important areas connected to agriculture like "owita and deniya" etc are included into this zone

4. *Special paddy cultivation zone*

All paddy lands and abounded paddy lands in Kalutara planning area are included into this zone and they are maintained as water retention and drainage areas



- Legend**
- Special Paddy Cultivation Zone
 - Wetland Protection Zone
 - Wetland Nature Conservation Zone
 - Wetland Agricultural Zone
 - Watershed Area
 - Water Bodies



Wetland Distribution (2018)
Kalutara DS Division
 Source : Western Province Environmental Sensitive Wetlands and Field surveys

0 0.45 0.9 1.8 2.7 3.6 Km

Urban Development Authority
December 2018

Western Province Division Kalutara Development Plan (2019 - 2030) Prepared By: Kalutara District Office

Map 6.6 : Wetland Zoning Plan (2019–2030)

Source : Urban Development Authority (2018)

6.5.1.2. Strategy for protection of existing Natural Water Flowing system

Under this, existing water sources spread in the planning area of 444.78 ha is to be protected for which actions to be taken are given below.

Action 01

Introduction of environmental protection zone.

Under the Kalutara development plan for 2005-2020 declared by the Gazette notification dated 7th Jun 2005, reservation zone identified for the canals and the river are given in table 6.1 and same reservations are included into this plan as well. Details regarding this are stated in regulation in Volume II.

Name of the water way	Width of the reservation (meter)	In feet
Kalu Ganga	20 m from the bank	66 feet
Bolgoda lake	12 m from the bank	40 Feet
Heenetiyangala ela and aluth ela	06 m from the bank	20 feet

Table 6.1 : reservations for the river, canals and other water streams in the planning area
Source : UDA (2018)

In addition to the above, the reservations declared by the Sri Lanka Land Reclamation and Development Corporation by the Gazette notification bearing no 1662/17 dated 14.07.2016 are expected to be used for other canals in the Divisional Secretariat area.

6.5.1.3. Coastal environmental management strategy

The sea erosion is one of the main constrains for development of Kalutara town. Already the Calido beach line is subjected to devastations. Destruction of this most attractive beach is much detrimental to its scenic beauty and to reduce the tourist attraction. Also, it has caused swear damage to the coastal environmental system. To minimize the damages the actions identified in this plan are as follows.

Action 01

Rules and regulations introduced as per the coastal conservation and coastal resources management Act for regulating the coastal development activities are proposed to be adopted as it is.

Protection of coastal areas and coastal resource management is regulated by using the gazette notification bearing no 58 of 1981. It is proposed to use the same regulation under this Kalutara development plan as well. The Coastal area of Kalutara DS division has been classified as three risk categories according to the risk ranging trend. That is,

Chapter 06 The Plan

Strategic Plan for Sustainable Environment Development

Environmental conservation plan

I. *High Coastal Risk Area (from Tangerine hotel up to Avani hotel)*

55m from the boundary where the permanent plants are grown is included as a reservation into this zone.

- In the region up to 20 m from the boundary of permanent plants is not allowed for any development
- From there, permission for limited developments will be allowed up to 35 meters.

II. *Moderate Coastal Risk Area (from Avani hotel -Payagala South)*

50m from the boundary where the permanent plants are grown is included as a reservation into this zone.

- Of which 20 m closer to sea is not allowed for any development activity. And from that point onwards up to 30m development activities are limited.

III. *Low Coastal Risk Area (from Pinwaththa railway station - Tangerine hotel)*

35m from the boundary where the permanent plants are grown is included as a reservation into this zone.

- Of which 10 m closer to sea is not allowed for any development activity. And from that point onwards up to 25m development activities are controlled.

Action 02

To re erect the sand dune remains in the area.

Following issues have been identified due to devastation of sand dune

- *As a result of mixing salt water in to river, drinking water issue has arisen*
- *Damages caused to the bio diversity in the eco system of the river as it would break its eco balance*
- *Direct impact caused to sand extraction in Kalu Ganga*
- *Creation of a vulnerability for natural disaster like Tsunami*

As a solution to these issues, the sand dune which was there in 1.7 km coastal line is proposed to be re erected by nourishment method and to make it as permanent sand dune by the year 2030.

Action 03

Mangrove planting project for identified areas.

It is proposed to plant mangrove plants in an area of about 10 acres in the area between railway station and lagoon and thereby to minimize the sea erosion and wind distraction.

Action 04

Implementation of a project to plant some bushes plants in High Coastal Risk Area for a distance of 2 km from Tangerine hotel to Calido beach

It is expected to protect the coastal line without any damages to the scenery and expected to maintain as a natural environment maintaining the scenery.

6.5.2 Landscape plan

Since the Kalutara planning area is situated in the landmass of Kalu Ganga basin, it has an identical landscape inherited from the ancient time blending with Kalu Ganga, sea, Calido beach, internal canal system and wetland areas. It is expected to implement the strategic developments in the identified locations to create the landscape scenario of the planning area with a view to achieve the vision of the development plan for 2019-2030 "The prime caesura of south west coast". Those locations are as follows.

The projects that were identified in order to enhance the aesthetic value in some of the locations in Kalutara planning area include;

1. *Landscape development in Nagoda Junction*
2. *Landscape developement in the Richmond building premises*
3. *Landscaping in front of the court complex premises*
4. *Landscape developement in Calido Beach*
5. *Setting up of a leaner park based on the part of the Kuda Heenetiyangala canal in the high density residential zone.*
6. *Landscape improvements in front of the Child and maternity hospital premises*
7. *Landscaping at the Moronthuduwa Junction*
8. *Development of urban park*
9. *Landscape developement in Children Park*
10. *Landscaping in the land strip (Thalawa) between railway line and Galle road located in the middle part of twin bridges at Kalutara.*

Further details are given under the Tourism Development plan, Strategic plan for sustainable environment development and strategic plan for project implementation.

Chapter 06 The Plan

Strategic Plan for Sustainable
Environment Development

Environmental
conservation plan

Landscape plan

Chapter 06
The Plan

Strategic Plan for Sustainable
Environment Development

Disaster management plan

6.5.3. Disaster management plan

Identification of disaster prone areas and actions to be taken to minimize those disasters are described under this plan.

Existing disaster situation

The disaster types in Kalutara planning area include:

- I. *Flood*
- II. *Drinking water issue*
- III. *Existence of vulnerable places for Landslide*
- IV. *Tsunami*
- V. *Storm water discharge*

i. Flood

Kalutara planning area is subjected to major floods almost in every five years. The flood level is measured at the Palathota measurement point. GN divisional areas on either side of the Kalu Ganga area basically subjected to flooding. In addition, inundation is also taking place due to overflow of drainage lines during heavy rainy days. Flood situation in years 2014–2018 is given in table 6.2.

<i>Year</i>	<i>Number of families affected</i>	<i>Number of persons affected</i>
<i>From 02.06.2014 to 06.06.2014</i>	1224	4054
<i>2015.09.29</i>	160	689
<i>2015.11.15</i>	178	809
<i>From 16.05.2016 to 28.05.2016</i>	241	993
<i>26.05.2017 to 24.06.2017</i>	2942	11854

Table 6.2 : *Details about the disaster condition due to floods in the Kalutara Divisional Secretariat area during the years 2014-2018 | Source : National disaster resilient center disaster incidents report -Kalutara district (2018)*

ii. Drinking water issue

Kalu Ganga is the main drinking water resource in the Kalutara planning area. Due to mixing of salt water into Kalu Ganga during the dry season (January, February, March, August and September) the people who are using pipe borne water are affected. Water distribution is carried out by the Kethhena water purification plant. In dry season electrical conductivity of the water is increased and if the figure increased beyond 750ms/c, the water is not suitable for drinking purpose as stated by the National Water Supply and Drainage Board.

Year	No of families affected	No of persons affected
17.03.2016 to 28.03.2016	1978	8383
29.09.2015 to 13.02.1017	17,332	75,017

Table 6.3 : Details about the drinking water issue in the Kalutara Divisional Secretariat area during the period from 2014 to 2018 | **Source :** National disaster resilient center disaster incidents report -Kalutara district (2018)

56% of the population in the Kalutara Divisional Secretariat area 99% of the population in urban council area is faced with this issue. During the period of this issue, the drinking water is distributed but it is said to be not adequate. To resolve this issue, short-term and long-term solutions to be found.

As a short-term solution, it has been planned out to pump the water from Kuda Ganga into Kethhena purification plant at Polathumodara and to distribute for the area. As long-term solution, it has been proposed to erect a salinity water barrier in the Kalu Ganga.

iii. Areas vulnerable for landslides

Data related to landslide disasters were obtained from National Building Research Organization. As per the land slide Hazard Zoning mapping report 2012, the GN divisions identified as vulnerable are given below.

- a. Mahagonaduwa (701)
- b. Kithulawa (723)
- c. Pulerton West (729C)

iv. Tsunami

During the 2002 Tsunami disaster, 8491 families affected in the Kalutara planning area and house damages reported as 1891. The affected GN divisions were ;

- | | |
|-----------------------------------|----------------------------------|
| IV. Deshstra Kalutara west (717D) | XII. Kudawaskaduwa West (710B) |
| V. Ethagama West (732A) | XIII. Maha waskaduwa North(714A) |
| VI. Kalamulla North (731) | XIV. Maha waskaduwa South (714) |
| VII. Kalamulla South (731A) | XV. Pohoddaramulla West (707A) |
| VIII. Kalapuwa(730A) | XVI. Pothupitiya West (708C) |
| IX. Kalutara North (717) | XVII. Thotupola (717B) |
| X. Kalutara South (725) | XVIII. Vidyasara (717C) |
| XI. Kalutara South A (725A) | XIX. Wettumakada (730) |

Source : preliminary report-2, 2004 census on persons and buildings affected due to Tsunami, Kalutara Divisional Secretariat Division, Kalutara District- Department of Census and Statistics - 2005.

Chapter 06 The Plan

Strategic Plan for Sustainable Environment Development

Disaster management plan

v. Storm water issue

Kudawaskaduwa and Maha waskaduwa areas have been identified under the Storm water drainage management plan. Storm water drainage project has been worked out covering an area of 1.15 Sq km and is proposed to be constructed between railway line and Gale road. The Sri Lanka land Reclamation and Development Corporation has already prepared a plan which is given in annexure No 15.

6.5.3.1 Zoning under the disaster management plan

As per the disaster condition of the Kalutara urban area, basically this area can be categorized into three zones

- I. *Green belt zone*
- II. *Low density residential zone*
- III. *Coastal protection zone*

i. Green belt zone

Kalu Ganga reservation (20meters), Heenetiayangala reservation (20 Meters), Aluth ela reservation (20Meters),

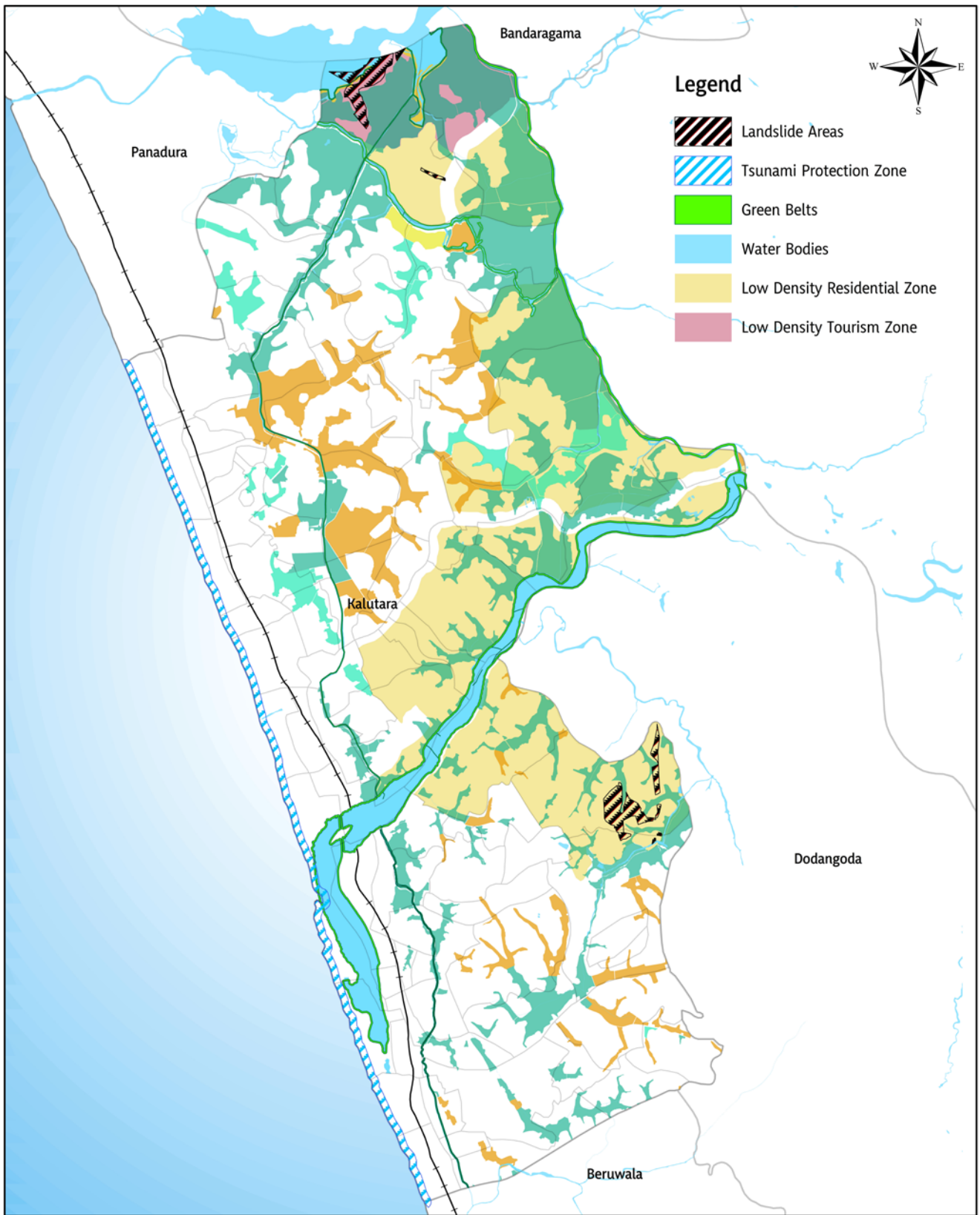
Bolgoda lake reservation (20Meters) Keppu ela reservation (20Meters) is included into this zone and is incorporated in to the various zones under the zoning plan. These green belts are to be reserved for water retention purpose and as open spaces

ii. Low density residential zone

The GN divisions affected due to floods and the vulnerable areas for landslides as identified by the NBRO are included into this zone. This zone has been incorporated into low density residential zone and low density tourism zone in the zoning plan. All marshy lands, paddy lands and low-lying areas are to be protected to minimize the flood and the existing forest cover needs to be protected to minimize the landslides.

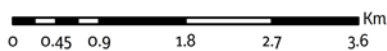
iii. Coastal protection zone

Keeping 100 meters of beach line as a conservation zone. (As per the Coast conservation amended Act No 49 of 2011), Mangrove planting, seating arrangements, recreational and leisure activities can be set up in this zone. The zoning map identified under the disaster management plan is given in Map No. 6.7 and related rules and regulations are given in Volume II.



Disaster Management Plan (2019-2030)
Kalutara DS Division

Source: Disaster Risk Report
 National Building & Research Organization



Urban Development Authority
 December 2018

Western Province Division

Kalutara Development Plan (2019 - 2030)

Prepared by: Environment & Landscape Division

Map 6.7: Disaster Mitigation Zoning Plan for Kalutara Planning Area (2019 - 2030)

Source : Environment & Landscape Division

Chapter 06 The Plan

Strategic Plan for Sustainable Environment Development

Spatial plan for public open spaces and recreational activities

6.5.4. Spatial plan for public open spaces and recreational activities

Assessment of open space requirements for the projected population in the planning area is described under this plan. Accordingly, the existing land area available for the active and passive recreational activities and future requirements were assessed while paying attention its' environmental beauty.

As per the UDA planning standard, 1Ha per every 1000 population has to be provided as public open spaces in the development plan. As recorded in the census report, the population in the planning jurisdiction of the Kalutara in the year 2017 was 170,835. As per the analysis of data in the development plan, forecasted population for the year 2030 would be 199,854. Accordingly, a minimum of 200 Ha of land area needs to be provided as public open spaces and for recreational facilities.

Active and passive recreational facilities presently available in the Kalutara planning area.

The recreational facilities in the Kalutara planning area is considered under two types such as active and passive recreational facilities. Under the active recreational facilities there should be facilities for the public to get actively involved such as

- *Sports*
- *Swimming*
- *Athletics*
- *Walking*
- *Boating*
- *Traditional fishing*

The facilities for fulfilling above mentioned requirements in the Kalutara planning area is limited and is described in Table 6.4. The rules and regulation/guidelines connected to same is given in volume II of this Kalutara development plan.

<i>Ser.No</i>	<i>Park type</i>	<i>Extent (Ha)</i>
1.	<i>Smallest parks (pocket parks (EPP))</i>	1.06
2.	<i>Small parks (Mini Parks ELP)</i>	18.54
3.	<i>Middle level parks (Local parks (ELP))</i>	1.45
4.	<i>Beach parks (EBP)</i>	19.47
	Total	40.52

Table 6.4 : Direct recreational areas in the Kalutara Urban area
Source : Urban Development Authority (2018)

As per the information given in table 6.4, 40.52 ha. of land extent is available as open areas in the Kalutara planning area. For the existing population of 170,835 an area of 170 Ha. is required to be kept as open spaces. But the available open space in the Kalutara

Chapter 06 The Plan

Strategic Plan for Sustainable Environment Development

Spatial plan for public
open spaces and
recreational activities

planning area as shown in Table 6.4, is not adequate for the existing population and also the facilities in the existing open areas is also not adequate.

The recreational areas and places for knowledge improvements are as follows.

1. *Public libraries - 6*
 - a. *No of libraries belonging to Pradesheeya Sabha -3*
 - b. *No of libraries belonging to Urban Council -2*
 - c. *No of Libraries belonging to Kalutara Bodhi Trust - 1*
2. *Town hall - 1*
3. *Cinema halls - 4*
 - a. *Prisco*
 - b. *Chithra*
 - c. *New Minarwa*
 - d. *Don Plaza*
4. *Reading room - 3*
5. *Community hall - 37*

Forecasted population for the year 2030 is 199,854. To cater for this population a minimum of 200 ha needs to be provided as open spaces. Further details about the Spatial Plan for Public Outdoor Recreational Space in the Kalutara planning area is given in Map No 6.8, Table No 6.5 and annexure 16 & 17.

<i>Ser.no</i>	<i>Park type</i>	<i>Extent (Ha)</i>
1.	<i>Proposed local parks</i>	<i>1.08</i>
2.	<i>Proposed linear parks</i>	<i>118</i>
3.	<i>Beach parks</i>	<i>45.01</i>
	Total	164.28
4.	<i>Existing Public Open & Recreation Space</i>	<i>40.51</i>
	Grand Total	204.79

Table No 6.5 : Spatial plan for proposed recreational and open areas in the Kalutara planning area by 2019-2030 / Source : Urban Development Authority (2018)

Chapter 06 The Plan

Strategic Plan for Sustainable Environment Development

Spatial plan for public
open spaces and
recreational activities

6.5.4.1. Strategies for proposed Public Outdoor Recreational Space plan

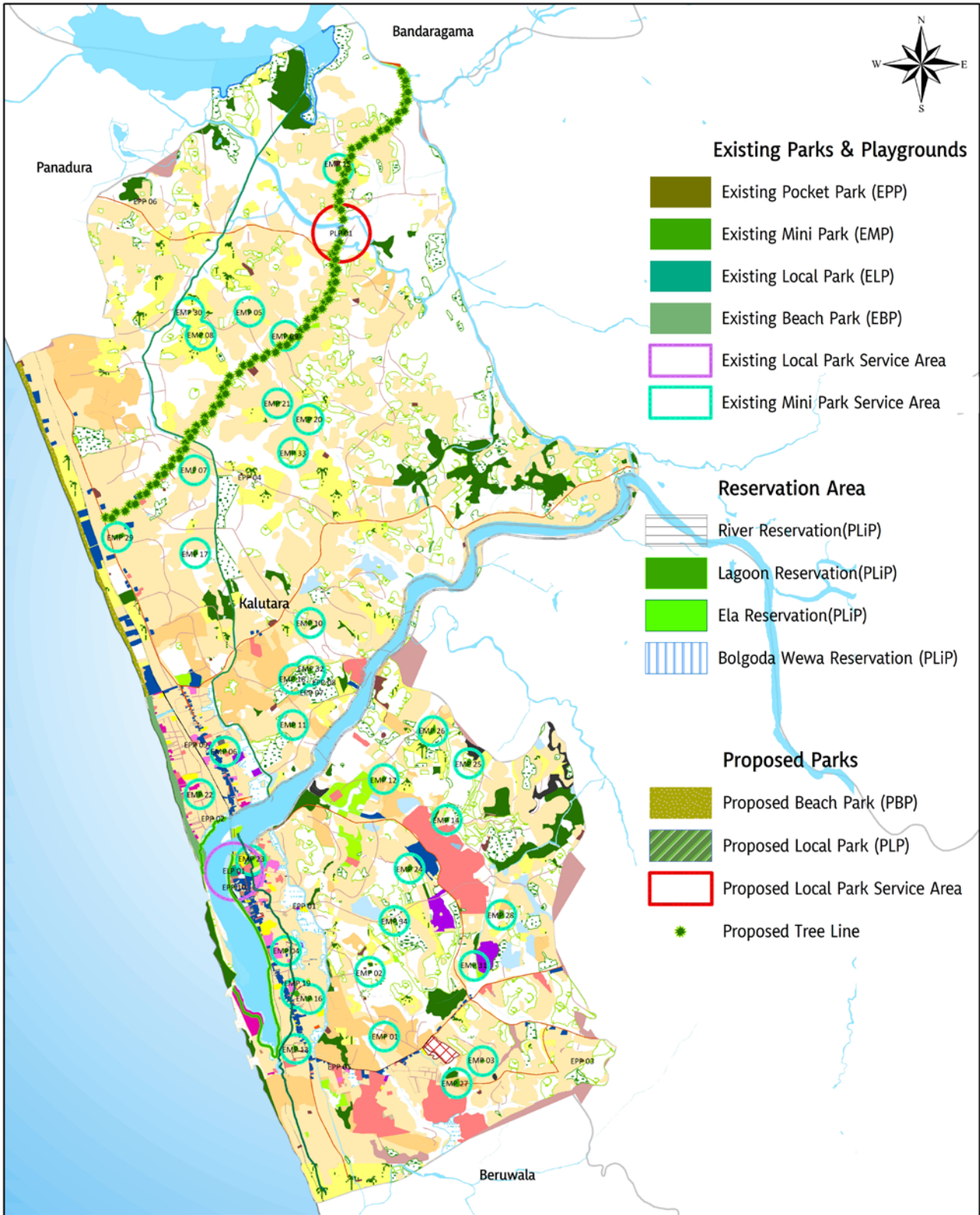
Attention will be paid to the following factors

- *Using, rehabilitating and classifying of all existing playgrounds and other vacant areas usable as open space and recreational purposes in maximum possible level.*
- *Rehabilitation of all existing playgrounds with facilities*
- *Development of existing open spaces and vacant land areas as parks and playgrounds in an environmentally friendly manner.*
- *Controlling of unauthorized construction through enforcement of rules and regulations related to open spaces*
- *Improvement of the mechanism of maintenance and management of existing playgrounds and parks*
- *Enhancing the landscape quality through tree planting stretches*
 - *Suitable plant types can be used to suit with the available space. Trees may be selected to bring an identical feature to the town.*
 - *Landscaping and tree planting to be done in road development activities as per the planning concept*
- *Establishment of high-end sport societies, holiday homes, bungalows, tourist hotels etc suitable for fulfilling the requirements of the local and foreign tourists as a social and recreational facilities.*

6.5.4.2. Strategies for reducing the temperature by the year 2030

- All government and semi government buildings are to be built according to the standard of Green Building Council of Sri Lanka.
- When constructing offices and residential buildings proposed to introduce Green roof with water sprinklers
- To direct the house builders to apply light colors in painting of buildings
- Introduction of green parking concept for all proposed parking areas and rehabilitation of existing car parks as green parking areas.
- Interlock paving to be allowed if the water absorption capability is ensured and allowed only light colour material.
- To do maintenance of existing playgrounds, parks, open spaces and proposed open spaces to be planned out and implemented according to the green concept

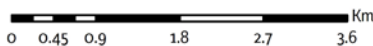
Detail about existing open spaces are given in annexure 17.



Public Outdoor Recreational Space Plan (2018)

Kalutara DS Division

Source : Western Province Environmental Sensitive Wetlands and Field surveys



Urban Development Authority
December 2018

Western Province Division

Kalutara Development Plan (2019 - 2030)

Prepared By: Environmental & Landscape Division

Map 6.8 : Public Outdoor Recreational Space Plan in the Kalutara Planning Area (2019 - 2030)

Source : Environmental & Landscape Division

Chapter 06 The Plan

Strategic Plan for Sustainable Environment Development

Agriculture plan

6.5.5. Agriculture plan

As per the data of Nagoda agrarian service center, the main agricultural activities in the planning area include paddy, rubber, coconut and Cinnamon. Out of the total land extent of the planning area the extent of land utilized for Rubber - 10.5%, Coconut- 5.22%, Cinnamon -0.4 % and paddy -30.7%.

The contribution from agricultural sector to the entire economy of the Kalutara Divisional Secretariat area is very low and is recorded as 4.59% and it is proposed to protect the existing low-lying areas and to maintain its contribution to the economy. Further details are described in wetland agriculture zone under the environmental conservation plan and the relevant regulations are given in volume II.

Rubber cultivation is mainly spread in Kithulawa GN division and is 10.5% of the total land extent. According to the Rubber development authority data, the numbers of small rubber land holders are 85. The main issues connected to rubber cultivation are as follows.

1. *Using of rubber lands for industrial uses*
2. *Price dropping in rubber market converting rubber land for cultivation of another crops*
3. *Shortage of trained labors*
4. *Using of rubber land for residential purposes through sub division of rubber lands*

To improve the productivity, the proposal made by the rubber Research institute at Agalawaththa and Rubber development department is required to be implemented. According to that the proposals of rubber development department are as follows.

1. *Taking action to encourage the tenants of state lands and private land owners to cultivate rubber plantation as natural forest cover in order to prevent soil erosion and landslides in watershed areas.*
2. *Recommending to increase rubber subsidy amount making it dabble for small rubber land holders.*
3. *Encouraging of farmers through agricultural extension programs by introducing intercrops in certain intervals with rubber plantation as well as putting rain covers to increase the productivity.*

The coconut cultivation is basically spread in Waththamulla GN division and is 5.2% of the total land extent. The Coconut development board has given some subsidies and it is proposed under this plan to continue the said program.

6.6. Strategic plan for Cultural, Religious and Heritage Management

Since the Kalutara planning area is having a diver of cultural features, the cultural heritage is proposed to be managed by protecting its identity.

The strategy is to take appropriate action to protect the areas of cultural importance in the Divisional Secretariat area.

Accordingly, the area around the Kalutara Bodhi premises has been declared as sacred area and special regulations to control the developments such as height of the buildings, building front colour, and permissible uses etc within a distance of 300m from Bo Tree are introduced in regulations specified in volume ii.

Kalutara Divisional Secretariat area is a mix cultured area and as such different religious and cultural heritage feature can be seen.

Among religious places majority are the Buddhist centers as the majority of the population is belonging to Buddhist.

6.6.1 Some Buddhist religious centers in the area

1. *Historical Kalutara Bodhi premises*
2. *Ashokarama Maha Viharaya Kalutara North*
3. *Sri Sudharmakara Purana Viharaya*
4. *Valukarama Maha Viharaya*
5. *Mahegarjanarama Purana Sri maha Viharaya*
6. *Pulinathalarama Maha Viharaya*
7. *Kande Purana Viharaya*
8. *Sri Negrodarama Maha Viharaya*
9. *Rajguru Sri subhuthi Maha Viharaya*
10. *Purana Vivekarama vajrakothe Viharaya*
11. *Ganewaththa Purana Viharaya*
12. *Mal Asne Rajamaha Viharaya*

6.6.2 Cultural events

Numerous cultural events are held based on these temples. Mihindu Maha Perahera is a main event. Out of the above temples, Kalapugama Sri Sumangalaramaya, Uggalboda Malasne Rajamaha Viharaya, Ethagama Wijayarama Viharaya are mainly conducting a procession of Mihindu Perahera. In addition to the following cultural events enhance the cultural heritage in the area.

Chapter 06 The Plan

Cultural, Religious and Heritage Management Plan

Cultural events

Conservation areas

1. *Henawaththa Munasinghe Vijayaraja Viharaya- Annual Binara Maha Perahera*
2. *Kalutara south Deeparama viharaya- Sambuddha jayanthi Maha Perahera.*
3. *Kithulawa Mihikathawaththa Sri Sambodhi Viharaya- Annual Esala Perahera*

In addition to above mentioned Buddhist temples, other religious places are in existence in the Kalutara Divisional Secretariat area.

Muslim religious centers

1. *Mosque at De Silva road Kalutara south*
2. *Mosque at Wettumakada road Kalutara south*
3. *Nakkhandia Mosque Kalutara south*
4. *Mosque at Maha heenetiyanigala Eladoru Pathul Hasanya Mosque*
5. *Aldoru Pathul Hasanya Mosque, John street, Kalutara*
6. *Mosque, No 269, Galle road, Kalutara*

Catholic Churches

1. *Deva Sabhawa, Thotupla road, Kalutara North*
2. *St. Johns church, Thotupola road, Kalutara North*
3. *Most Eden church, Thekkawaththa, Kalutara south*
4. *Sirikurusa Church, Kalutara south*
5. *Methodist church, No 220, Galle road, Kalutara*
6. *St. Winaya Agradhutha Church, STF road, Nagoda*
7. *Phillip Nery church, No 17, Phillip Neri road, Karukurunda, Kalutara*
8. *St. Anthony's church, Kalamulla, Kalutara*
9. *Infant Jesus church, Kalamulla, Kalutara*
10. *St. Mary's Church (Gallen Church) Kalamulla Road, Kalutara*
11. *St. Sabastian Church*

Others

1. *Kalutara Sri Amman Kovil*
2. *Old Katharagama Devalaya*
3. *St. Yohana Church*
4. *Uggalboda Maha Devalaya*

Out of these religious places, Annual Weal perahera in Kalutara Amman Kovil, annual perahera in Katukurunda old katharagama devalaya are identified as another two main cultural events. In addition, annual processions are held in almost all the churches.

6.6.3 Conservation areas

In addition to above, some culturally or historically important places are located in the planning areas which are given in table 6.6.

Chapter 06 The Plan

Cultural, Religious and Heritage Management Plan

Conservation areas

Strategic Plan for Housing Density and Distribution

<i>Cultural</i>	<i>Historical</i>
<ol style="list-style-type: none"> 1. <i>Richmond Castle building</i> 2. <i>Diyagama Pelunugala</i> 	<ol style="list-style-type: none"> 1. <i>Urban council building</i> 2. <i>Gnanodaya Vidyalaya</i> 3. <i>Office of the Supd. of Police</i> 4. <i>District court building</i> 5. <i>Kalutara clock tower</i>

figure 6.6 : Historically and culturally important places in Kalutara planning area

Source : Urban Development Authority (2017)

The measures to be taken for conservation of these places are described under the tourism development plan and related regulations are given in volume ii.

Special cultural area has not been proposed under this plan to protect the said cultural places and events. Also, a separate plan for cultural and heritage has also not been prepared but necessary strategic actions to protect and conserve those important sites have been considered. Further conservation sites are monitored by the Archeological department.

6.7. Strategic Plan for Housing Density and Distribution

The residential zones to be developed by the 2030, residential promotional nodes and density and distribution area described under this plan.

Based on the vision of the plan, the Kalutara town to be developed as a disaster free town comfortable for the inhabitants and this plan was prepared for achieving of this vision.

The reason for preparing this Strategic plan for Housing density and distribution was to disperse the population due to the fact that the Divisional Secretariat area is vulnerable for natural disasters and having environmental sensitive areas and therefore concentration in one place may cause issues in providing facilities. Therefore, it is proposed to provide services in disperse manner. Accordingly, the way that the distribution of increasing population by the year 2030 was analyzed through Residential compatibility analyses to determine the dense areas and lesser dense areas. Annexure 18.

Accordingly, the target which needs to be achieved under this plan is to set up 4 residential zones comprising with 06 neighbourhood nodes, 02 residential nodes and a health service node.

To reach to this objective two strategies to be adopted.

1. *Controlling the population in disaster prone areas and environmental sensitive areas subjected to water retention by using zoning regulations.*
2. *Creation of four residential zones in different densities by providing urban facilities and infrastructure in a disperse manner and also by using zoning regulations.*

Chapter 06 The Plan

Strategic Plan for Housing Density and Distribution

To provide services for dispersing the population, the easy accessibility to the services, road linkages to Nodes and vision of the plan was considered in identifying Nodes for providing service to the settlement zones. Firstly, the existing services and the accessibility to those services was analyzed by using “easiness to achieve services” method as shown in annexure 19. Secondly the weightage for each node based on the road linkages was identified through “nodal point priority analysis” as shown in annexure 20. Base on above analysis outputs, developable residential nodes were identified as follows.

- *Residential Nodes – Central Junction, Moronthuduwa*
- *Neighborhood Nodes- Palathota, kolaniya, Malwaththa, Uggalboda, Millagas junction, Elamodara*
- *Health Promotion Nodes – Nagoda*

Thus, the distribution of 199,854 numbers of people as forecasted for 2030 among different density zones is as follows.

It was assumed that the forecasted population in commercial area will remain unchanged and is 29626. Accordingly balance forecasted population to be distributed in other areas is 170228 which is to be distributed among four residential zones in three densities. For this purpose, existing densities in Kalutara Divisional Secretariat the maximum and minimum were considered. It was done so because of the fact that those densities remained unchanged even in present development conditions and there is a probability to remain that density with future development conditions as well.

The maximum residential density in Kalutara Divisional Secretariat area is 21426.6 persons per Sq. Km. This density was applied for high density residential zone and high-density height control zone. The minimum density of 903.88 persons per sq.km was applied to the low-density residential zone. The medium value of above two was applied to moderate density residential zone. Thus, the maximum population that can be distributed among these four zones was calculated.

Maximum population = maximum population density x land area

As per maximum population ratio, the balance population (170,228) was distributed among four residential zones thereby the suitable population for those zones were counted.

Balance population density ratio = proposed population related to zone.

Thus, the population distribution in residential zones identified in different densities are given in table 6.7.

Chapter 06 The Plan

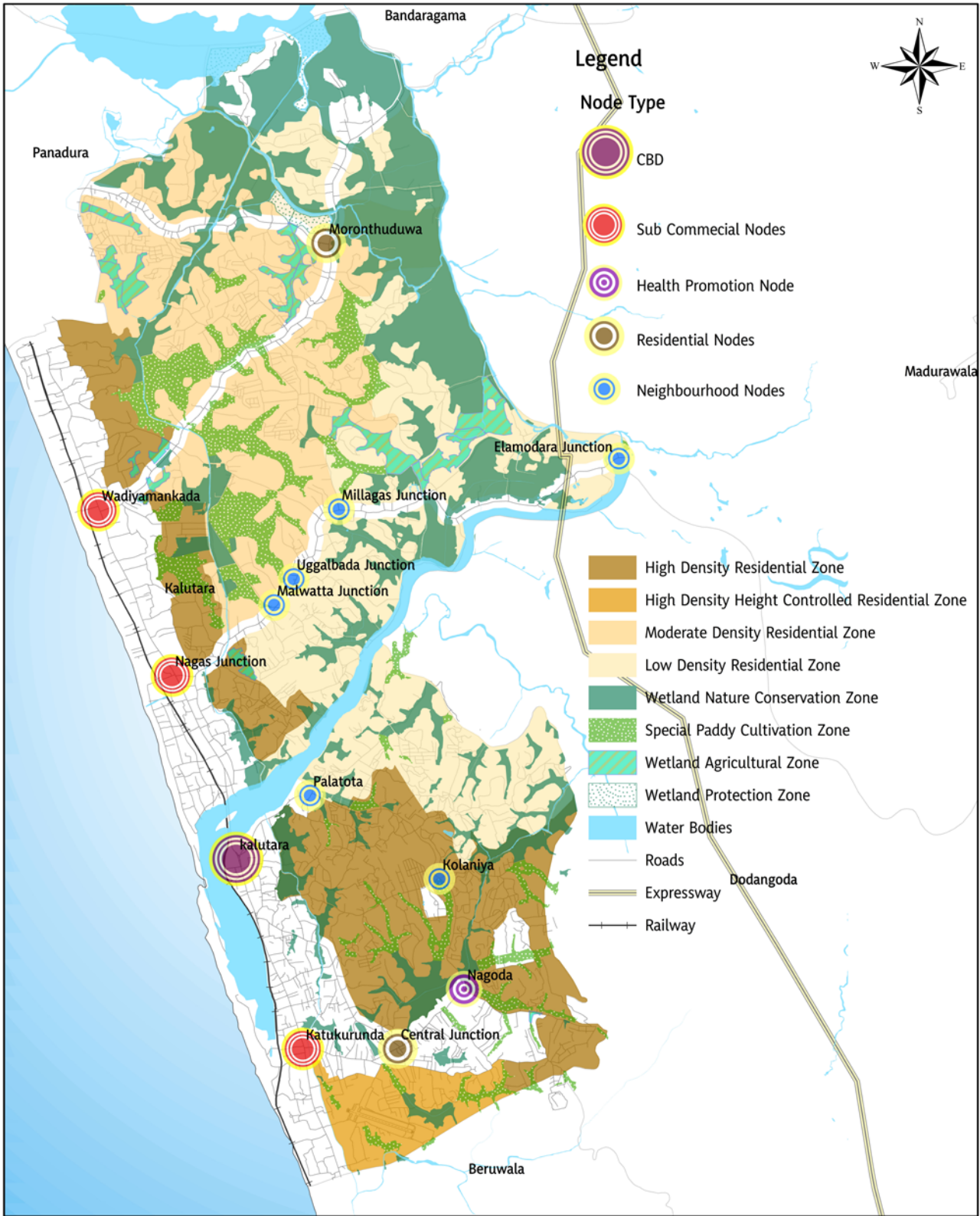
Strategic Plan for Housing Density and Distribution

<i>Residential zone</i>	<i>Population</i>	<i>Proposed density</i>
<i>High density residential zone</i>	91568	6324.61
<i>High density height control residential zone</i>	15895	6297.27
<i>Moderate density residential zone</i>	57599	3281.40
<i>Low density residential zone</i>	5166	3281.90
Total population	170228	265.62

Table 6.7 : The population distribution in residential zones identified in different densities

Source: : Urban Development Authority (2018)

The forecasted population in the planning area under the residential plan thus distributed among four residential zones is shown in map No.6.9.



**Proposed Settlement Plan
Kalutara DS Division**

Source : Urban Development Authority

Urban Development Authority
December 2018

Western Province Division Kalutara Development Plan (2019 - 2030) Prepared by: Kalutara District Office

Map 6.9 : Housing Density and Distribution in Kalutara Planning Area (2019 - 2030)

Source : Urban Development Authority (2018)

6.8. Strategic plan for Project Implementation

Five strategic plans have been identified to reach to the vision and objectives of the development plan prepared for Kalutara Divisional Secretariat area. As explained above, these 05 plans include Strategic plan for infrastructure development, Strategic plan for economic development, Strategic plan for sustainable environment development, Strategic plan for cultural and heritage management plan, strategic plan for housing density and distribution plan under which 72 projects have been identified. The Prioritized list of these 72 projects are described under this implementation plan.

Prioritizing of strategic projects

As first step in prioritizing these projects, the importance to reach to the vision was taken into account as the base and also the social and environmental impacts were considered. Thus, fair wise comparison was done. Thereafter, based on the possibility to reach to the target through these prioritized projects, were lined up under 03 Goals of this plan under the weighted check list method. The projects thus worked out and the implementing agencies are given as follows.

The time duration for implementation of these projects in years starting from 2019 is given with the details as follows. In addition to that the projects which are identified under this Kalutara Development plan (2019–2030) can be identified in annexure 21.

	<i>Strategic project</i>	<i>Project fall under</i>	<i>Implementing agency</i>	<i>In 5 years</i>	<i>In 10 years</i>
1.	Relocation of Court complex to "Saralakkwatta" land at Vettumakada area in Galle road, Kalutara south	Tourism Development Plan	Ministry of Justice		
2.	Old bungalow use as officials residence of GA closer to court complex in Kalutara south to be converted as "Laksala"	-do-	UDA.		
3.	Existing court complex premises to be converted as luxury commercial complex	-do-	UDA		
4.	Implementation of waste water drainage plan for selected GN divisions in Div. Sec. area	Sewage And Waste Water Management Plan	NWS & DB		
5.	Landscaping of land area between Galle Road and Railway line at the location of Kalutara twin bridge	Tourism Development Plan	Kalutara UC, UDA		

	<i>Strategic project</i>	<i>Project fall under</i>	<i>Implementing agency</i>	<i>In 5 years</i>	<i>In 10 years</i>
6.	<i>Tree planting in either side of road in Palathota Rd from clock tower to Ayurvedic center of the Kalutara UC, up to Kalutara town hall and up to the connecting point of Gregory road.</i>	<i>-do-</i>	<i>Kalutara UC, UDA</i>		
7.	<i>Development of Abru Mawatha and Sri Sumanjala Mawatha -South as access Rd to Calido beach</i>	<i>Road and Transport Plan</i>	<i>Kalutara UC, PRDA.</i>		
8.	<i>Development of a leaner park in the area identified in either side of Heenetiyangala canal</i>	<i>Tourism Development Plan</i>	<i>Kalutara UC, UDA</i>		
9.	<i>Erection of floating trade stalls in identified locations in Kalu Ganga</i>	<i>Tourism Development Plan</i>	<i>Kalutara UC, UDA</i>		
10.	<i>Development of new road project to incorporate Child care and Maternity hospital with Kalutara base hospital</i>	<i>Road and Transport Plan</i>	<i>Kalutara UC, UDA, SLLR&DC</i>		
11	<i>Refurbishment of flower stalls line belonging to Kalutara Bo-Tree premises</i>	<i>Tourism Development Plan</i>	<i>Kalutara Bodhi Trust</i>		
12.	<i>Rehabilitation of Drainage system for flood controlling in Kalutara Divisional Secretariat Division.</i>	<i>Road and Transport Plan</i>	<i>Kalutara UC,UDA</i>		
13.	<i>Controlling of building heights and colors in frontages in an area of 300 meters from the Kalutara stupa</i>	<i>Tourism Development Plan</i>	<i>UDA, Kalutara UC, Kalutara PS</i>		
14.	<i>Protection water stream reservation</i>	<i>Environmental Conservation Plan</i>	<i>UDA,Kalutara UC,Kalutara PS,Irrigation Department</i>		
15.	<i>Creation of a permanent estuary for Kalu Ganga and conservation of sand bar</i>	<i>Environmental Conservation Plan</i>	<i>C.C.D., Department of Irrigation, Coastal project section of Mega police project</i>		
16	<i>Planting of Mangrove in Kalu Ganga reservation</i>	<i>Environmental Conservation Plan</i>	<i>C.E.A., Dept of Irrigation</i>		
17	<i>Erection of breakwaters in Calido Beach in Kalutara south</i>	<i>Environmental Conservation Plan and Water Supply Plan</i>	<i>C.C.D., Irrigation Dept., Coastal project section of Mega police project</i>		


	<i>Strategic project</i>	<i>Project fall under</i>	<i>Implementing agency</i>	<i>In 5 years</i>	<i>In 10 years</i>
18	Errection of salinity barrier for in Kalu Ganga	strategic plan for Sustainable environment development and water supply plan	Department of Irrigation, NWS&DB		
19	Flood management project- Duwa temple Road, Kalutara south	Environmental conservation plan	Department of Irrigation		
20	Flood management project- Nagoda junction Kalutara south	Environmental Conservation Plan	Department of Irrigation		
21	Conservation of areas vulnerable for landslide in Kalutara planning area	Environmental Conservation Plan	NBRO		
22	Waskaduwa -Storm water drainage Management plan	Disaster Management Plan	Department of Irrigation		
23	Development of Nagas handiya-Wadduwa road as a 4 lane road	Road And Transport Plan	RDA		
24	Development of Wadiyamankada-Bandaragamaroad as a 4 lane road	Road And Transport Plan	RDA		
25	Development of Kalutara-Horana road as a 2 lane road with service facility lane.	Road And Transport Plan	RDA		
26	Development of Katukurunda-Daluwaththa road as a 4 lane road	Road And Transport Plan	RDA		
27	Calido beach development project - Kalutara south	Tourism Development Plan	UDA		
28	project for planting of bushes towards suthern side about 02 km distance along the Calido beach from the Tanjerin hotel	strategic plan for Sustainable environment development and water supply plan	Kalutara UC,		
29	U.D.A .	Road and transport plan	RDA		
30	Development of Old road (Sir, Siril de Soysa Mawatha) as a 2 lane road	Road and Transport Plan	RDA		
31	Development of hilweediya as a 2 lane road	Road and Transport Plan	RDA		
32	Development of user-friendly pedestrian walkways in Galle Road	Road and Transport Plan	RDA		

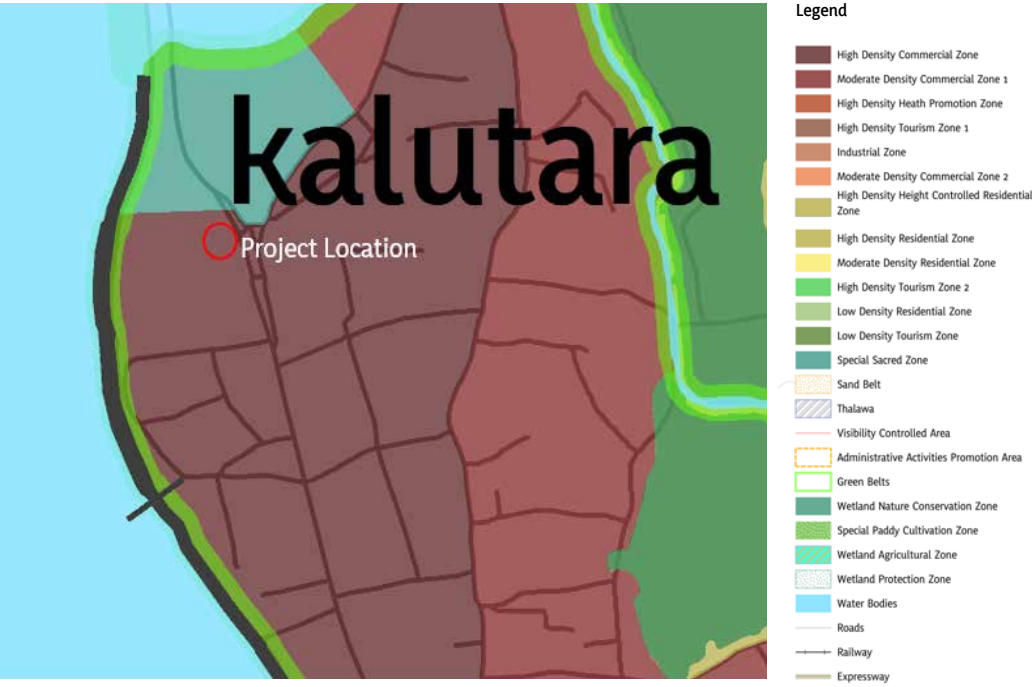
	<i>Strategic project</i>	<i>Project fall under</i>	<i>Implementing agency</i>	<i>In 5 years</i>	<i>In 10 years</i>
33	<i>Development of user-friendly pedestrian walkways in Station Road</i>	<i>Road and Transport Plan</i>	<i>RDA</i>		
34	<i>Development of user-friendly pedestrian walkways in Good shed road</i>	<i>Road and Transport Plan</i>	<i>RDA</i>		
35	<i>Development of user-friendly pedestrian walkways in Sarananda road</i>	<i>Road and Transport Plan</i>	<i>RDA</i>		
36	<i>Development of user-friendly pedestrian walkways in Chamli Gunawardena road</i>	<i>Road and Transport Plan</i>	<i>RDA</i>		
37	<i>Development of user-friendly pedestrian walkways in Gnanodaya Mawatha</i>	<i>Road and Transport Plan</i>	<i>RDA</i>		
38	<i>Development of user-friendly pedestrian walkways in Gregory road</i>	<i>Road and Transport Plan</i>	<i>RDA</i>		
39	<i>Development of user-friendly pedestrian walkways in Old road</i>	<i>Road and Transport Plan</i>	<i>RDA</i>		
40	<i>Construction of Market complex and Multistoried car park in Good shed road</i>	<i>Road and Transport Plan</i>	<i>UDA</i>		
41	<i>Construction of underground Pedestrian walk way near Clock tower in Kalutara town</i>	<i>Road and Transport Plan</i>	<i>RDA</i>		
42	<i>Construction of administrative complex at Sarananda Mawatha, Kalutara South</i>	<i>Economic Development plan</i>	<i>UDA</i>		
43	<i>Development of Beach parallel road as access Road to star class hotels</i>	<i>Road and Transport Plan</i>	<i>Kalutara PS</i>		
44	<i>Pohoddaramulla Beach park development project - Kalutara North</i>	<i>Tourism Development Plan</i>	<i>UDA, Kalutara PS</i>		
45	<i>Landscaping in Richmon castle building premises – Kalutara South</i>	<i>Tourism Development Plan</i>	<i>Ministry of Justice</i>		
46	<i>Development of Gonaduwa Eco tourism zone</i>	<i>Tourism Development Plan</i>	<i>Sri lanka Tourism Development Authority,UDA</i>		
47	<i>Development of road from Elamodara junction up to Pelpola interchange as 02 lane road together with a service providing lane</i>	<i>Road and Transport Plan</i>	<i>RDA</i>		

	<i>Strategic project</i>	<i>Project fall under</i>	<i>Implementing agency</i>	<i>In 5 years</i>	<i>In 10 years</i>
48	Rehabilitation of Kalutara urban park including Kalutara UC, Playground, Urban council auditorium	Tourism Development plan	Kalutara UC		
49	Development of Kalutara public playground	Tourism Development plan	Kalutara UC, Ministry of Sports		
50	Development of Kalutara south Railway station	Tourism Development plan	C.G.R., S.L.T.D.A.		
51	Rehabilitation of Kalutara Bus stand	Tourism Development plan	Kalutara UC, UDA		
52	Construction of Proposed Carpark near Saranada road, Kalutara South	Tourism Development plan	Kalutara UC ,UDA		
53	Development of Katukurunda-Mathugama road from Nagoda junction up to ganima as 02 lane road together with a service providing lane.	Road and Transport Plan	Kalutara UC ,UDA		
54	Development of Duwa temple road up to Gemunu mawatha as 2 lane road - Kalutara south	Road and Transport Plan	RDA		
55	Development of Gemunu Mawatha up to kolaniya junction as a 2 lane road - Kalutara south	Road and Transport Plan	RDA		
56	Development of Gangabada road from Kalutara south Clock tower up to panwila junction as a 2 lane road	Road and Transport Plan	RDA		
57	Development of police training collage road from Kalutara south Palathota Junction up to Nagoda junction as a 2 lane road	Road and Transport Plan	RDA		
58	Development of Kalutara south Gallassa road (Upali Sahabandu Mawatha) as 2 lane road	Road and Transport Plan	RDA		
59	Development of Wadduwa-Moronthuduwa road as a 2 lane road	Road and Transport Plan	RDA		
60	Development of Kalutara south Wilegoda road together with New road as a 2 lane road	Road and Transport Plan	RDA		

	<i>Strategic project</i>	<i>Project fall under</i>	<i>Implementing agency</i>	<i>In 5 years</i>	<i>In 10 years</i>
61	Development of Pothupitiya -Panapitiya road as a 2 lane road	Road and Transport Plan	Kalutara PS		
62	Development of Atawila road as a 2 lane road	Road and Transport Plan	Kalutara PS		
63	Kalutara base hospital square Development project	Economic Development plan	SLLR&DC		
64	Erection of a Seema malakaya adjoining Kalutara Bo-Tree in the Kalu Ganga	Tourism Development Plan	Kalutara Bodhi Trust		
65	Development of alternative road for proposed Pelpola Interchange as a 2 lane road (Starting point-Millagas junction)	Road and Transport Plan	RDA		
66	Protection of View of the Kalutara Stupa	Tourism Development Plan	Kalutara UC,UDA		
67	Development of Moronthuduwa junction	Strategic plan for Housing Density and Distribution	UDA		
68	Development of nagoda junction	Strategic plan for Housing Density and Distribution	UDA		
69	Development of Commercial center at Malwaththa junction in Kalutara -Horana road	Strategic plan for Housing Density and Distribution	UDA		
70	Development of public building with libry and commercial complex at Uggalboda at Kalutara -Horana road	Strategic plan for Housing Density and Distribution	Kalutara PS		
71	Erection of two Boat yards closer to Richmond Building premises and the Car park premises belonging to Kalutara Bodhi trust	Tourism Development Plan	SLTDA		
72	Development of Nagoda Bombuwala road as a two-lane road with service facility lane	Road and Transport Plan	RDA		

6.8.1. Strategic projects


<i>Identification of project</i>				
Project Heading	Luxury Commercial complex - Kalutara			
Project	Redevelopment of existing Court complex as luxury Commercial complex			
Project proposal	<p>The Vision of the Kalutara development plan 2019-2030 is the “prime caesura of south west coast” This plan has recognized the requirement of providing services to the inhabitants, commuters, tourists and the travelers passing across the town. As per the tourism development plan prepared under the Kalutara development plan for 2019-2030, it is expected to develop the Kalutara Bo-Tree area as a cultural tourism zone.</p> <p>Also, Kalutara Railway station and bus stand are also located in this locality. All these landuses are concentrated in central part of the town. There is a high commercial value and demand for lands in the area closer Kalutara Bo-Tree premises on the Colombo Galle road area, Railway station and bus stand area, But some incompatible landuses can be seen in this area like court complex. Therefore, such lands need to be utilized for competitive commercial uses to uplift the economy of the town. Therefore, it is proposed to relocate the existing court complex to the identified alternative land at Sarawak waththa at Katukurunda area. The existing two court complex buildings are proposed to be refurbished to use as luxury shopping promenade.</p>			
<i>Location of the project</i>				
Location	Province	Western	District	Kalutara
	Div.Sec area	Kalutara	Local Authority	Kalutara UC
Boundaries	North	East	South	West
	Town club road	Colombo Galle Rd	Kalutara Bus stand	Kalutara public playground
Access	Colombo Galle road (A2)			
Location map				

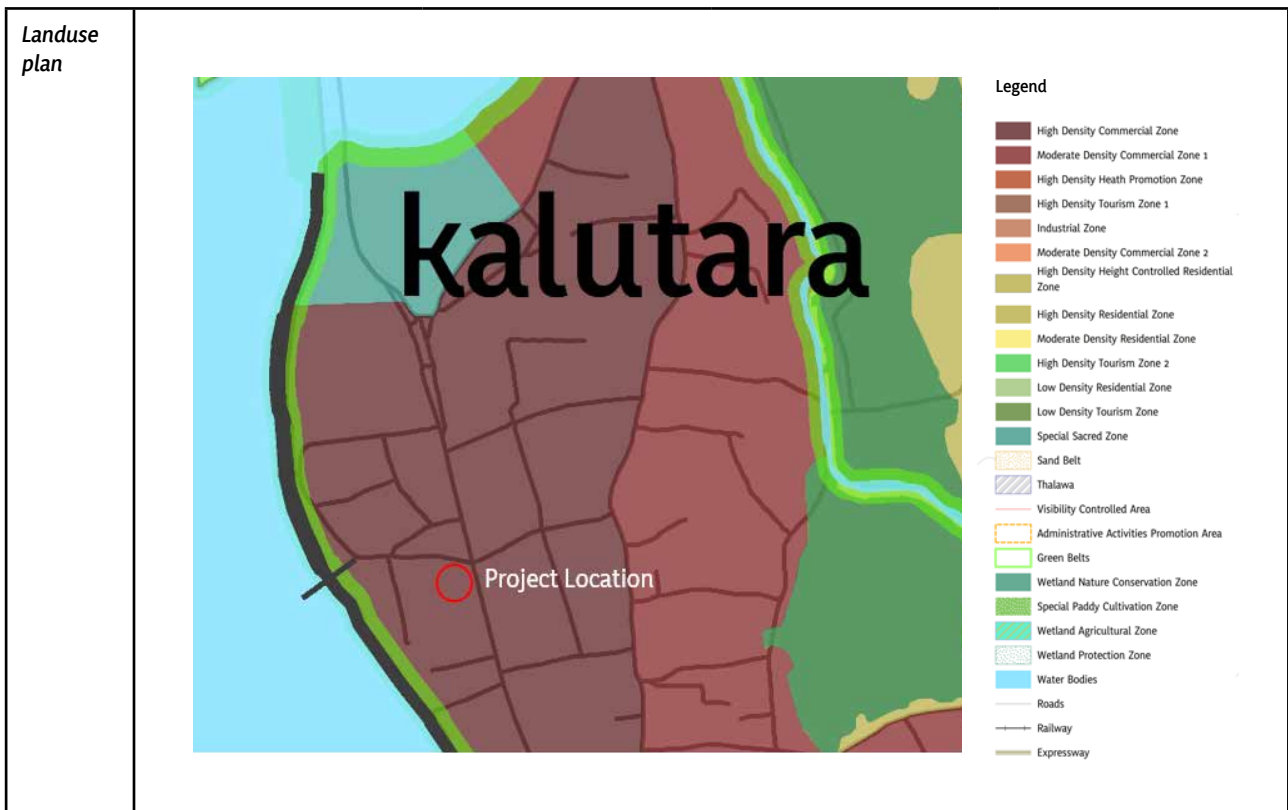
<p>Landuse plan</p>								
<p>Justification of the Project</p>								
<p>Nature of the Project</p>	<p>New</p>	<p>√</p>	<p>To be developed</p>		<p>To be dispersed</p>		<p>Only to develop the land</p>	
<p>Project Category</p>	<p>Conservation</p>	<p>Commercial</p>	<p>Landscaping</p>	<p>Heritage</p>	<p>Residential</p>	<p>Reestablishment</p>	<p>Others</p>	
		<p>√</p>						
<p>Targets of the Project</p>	<p>Environmental</p>		<p>Economical</p>	<p>√</p>	<p>Social</p>			
<p>Project target</p>	<ol style="list-style-type: none"> 1. Obtaining of investments for luxury commercial activities 2. Development status of commercial activities to be used for tourism developments 3. Establishment of common public space in the middle of the town area 4. Beautification of the town dur to landscaping of the project area 5. Relief to the parking issue in the town due to provision of parking facilities in the project site 							
<p>Rationale of the project</p>	<p>Kalutara being the main town in the district, around 80,000 people daily come to the town for various purposes such as administrative, health, transport etc. Further due to existence of tourist attraction sites and 5 star hotels, a considerable number of travelers local and foreign are attracted to the town. Also, being a town located on the Colombo Galle main road a large number of commuters are daily crossing across the town.</p> <p>This project would enable the them to fulfill their commercial requirements while increasing the attraction of tourist to the town. This project was identified aiming on the vision of the Kalutara development plan for 2019-2030. Accordingly, the Kalutara Bo-tree area was identified under the tourism development plan as a Cultural tourism zone. Tourist attraction will increase in this area and the proposed luxury commercial complex is a requirement to cater to the increasing population. Further, the existence of Railway station and Bus stand in the near by area and that would facilitate this project to become success.</p>							

<i>Details about the land</i>						
Land owned by	UDA		Private		State	√ other
Present status of the land	Where the Kalutara high court exists		Description about relocation			
land ownership	Land belongs to the Judiciary Service Commission					
Survey plan	No	Surveyor	Date	Land extent		
				Acres	Rood	Perch.

<i>Project Implementation</i>					
Implementation method	By the UDA	Institutions responsible	UDA	Funding source	Treasury funds thro. UDA
Zone	High density commercial zone		Zoning compatible	Yes	

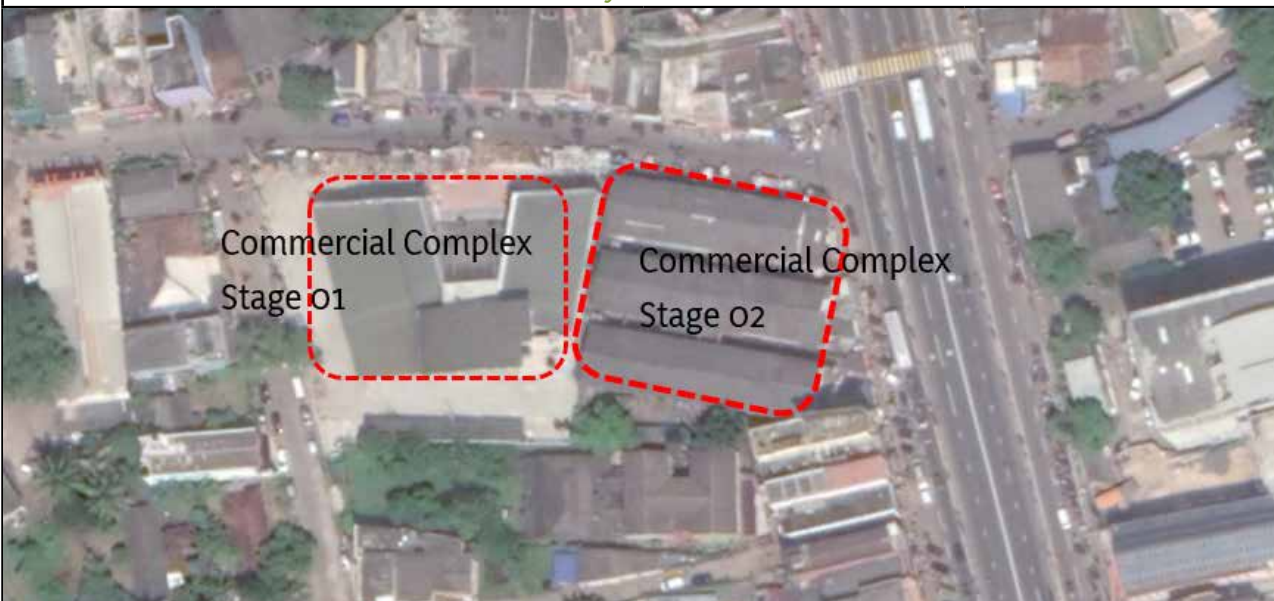


<i>Identification of project</i>				
Project heading	Commercial complex Stage II			
Project	Construction of Commercial complex and Multistoried car park			
Project proposal	<p>Shopping complex at Good shed road belongs to UC has been constructed about decade ago. Building constructed to suit with the economic condition prevailed at that time is now at dilapidated condition. There is a possibility to develop this for much valuable use than todays use which is located in the town center. This building comprised with ground floor and upper floor is situated facing Galle road and good shed road. Due to congestion in these two roads parking facilities are not adequate for its customers. By considering all these facts it was decided to construct new commercial building with multistoried carpark in lieu of existing building.</p> <p>Because of this building, parking facilities would be available for all commuters who come to the town for various requirements. Since this is located closer to District Secretariat those vehicles also could be parked in this new remises and it would also facilitate for the existing customers to park their vehicles</p>			
<i>Project location</i>				
Location	Province	Western	District	Kalutara
	Div. Secretariat	Kalutara	Local authority	Kalutara UC
Boundaries	North	East	South	West
	Goodshed road	Galle road	Private shops	New commercial complex of UC
Access	Colombo Galle road (A2)			
Location Map				




Justification

Nature of the Project	New	√	Developable		To disperse		Land development only	
Project Category	Conservation	Commercial	Landscaping	Heritage	Residential	Re erection	Others	
		√						
Project Targets	Environmental			Economical		√	Social	
Project target	<ol style="list-style-type: none"> To solve the parking issue in the town To make commercial development through the project 							
Rationale of the project	<p>Market complex belonging to Kalutara UC located at Good shed road in Kalutara south presently remain at dilapidated condition. This premise closer to Galle road is having a high commercial value at present. But existing building comprised with only ground floor and upper floor only. The maximum potential has not been extracted. Therefore, it is appropriate to use this premises for construction of commercial complex with multistoried car par.</p> <p>The way that the Galle road is existence in Kalutara town (middle road,) the customers who come by private vehicles are facing with inconvenience. Because of this project it would facilitate to provide parking facilities for those customers and they could park private vehicles and do the marketing in the town.</p> <p>This project is connected with pedestrian walkways plan. It is expected to provide pedestrian walkways in either side of Galle road with tree planting and therefore the people could park their vehicles in this car park in the middle of the town and fullfil there requirements. Because of the tree planting along pedestrian walkways, people can walk into their destinations easily.</p> <p>With the implementation of this project, the traffic congestion in the town may get resolved to considerable extent while adding a New shopping complex to the town.</p>							

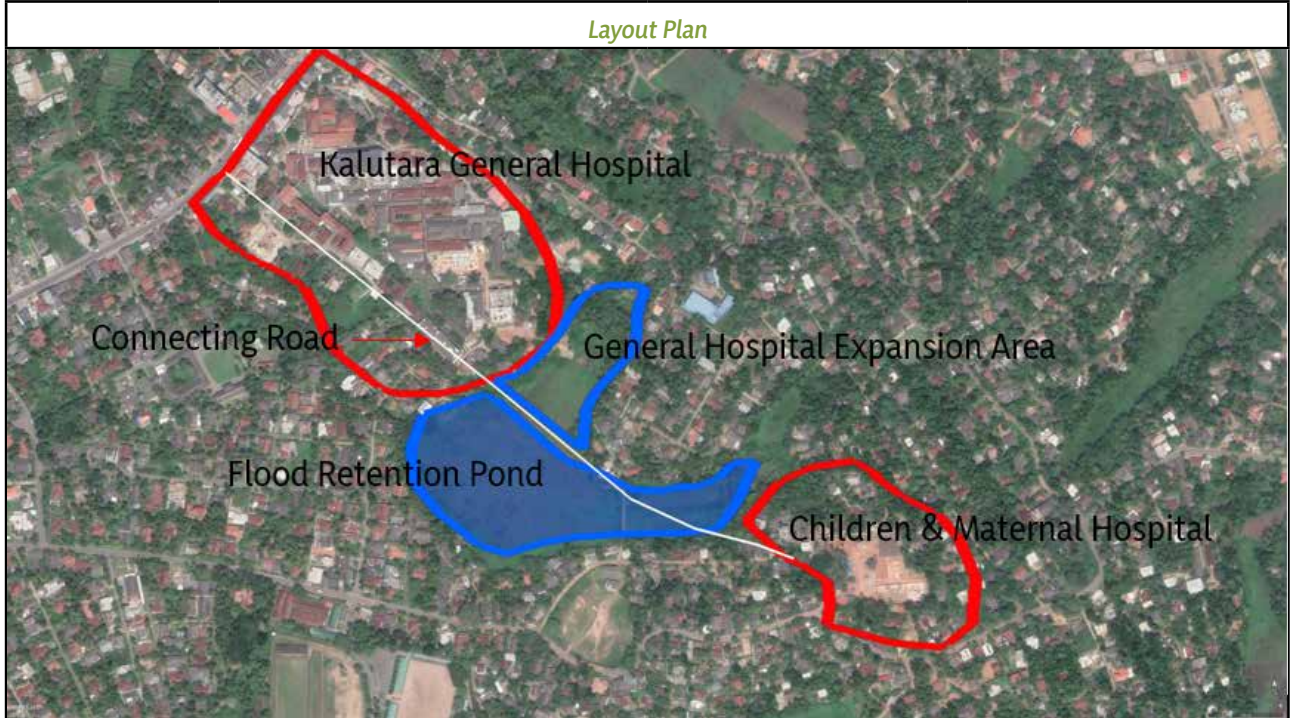
<i>Details about the land</i>						
Land owned by	UDA		Private		State	√ Other
Present status of the land	Old market building owned by Kalutara UC		Description about relocation			
Land ownership	Land belongs to Kalutara UC					
Survey plan	No	Surveyor		Date	Land extent	
					Acres	Óz. Perch.
<i>Project Implementation</i>						
Implementation method	By the UDA	Institutions responsible	UDA	Funding source	Treasury funds thro. UDA	
Zone	High density commercial zone		Zoning compatible		Yes	
<i>Layout Plan</i>						
						

<i>Identification of project</i>				
Project heading	Kalutara Hospital Square development project			
Project	New project to incorporate Child care and Maternity hospital with Kalutara base hospital			
Project proposal	<p>One of the main reasons to attract commuter population to the town is to get health services. The existence of Nagoda hospital as the main government hospital of the Kalutara district, is the reason for coming to the commuter population. Presently a major investment on health sector is taking place around Kalutara base hospital. The child care hospital and Maternity hospital presently under construction at Nagoda hospital premises can be cited as example. Under this project, the Kalutara base hospital premises is expected to be developed as hospital square project. This health square project would facilitate the public to get their health requirements fulfilled from the required places. The sub projects to be implemented under this program are as follows.</p> <ol style="list-style-type: none"> 1. Construction of new road connecting base hospital premises and Child care and Maternity hospital premises 2. Expansion of the Kalutara hospital premises under the low-lying developments. 3. Implementation of flood management project under the low-lying developments. 			
<i>Project location</i>				
Location	Province	Western	District	Kalutara
	Div. Secretariat	Kalutara	Local authority	Kalutara UC
Boundaries	North	East	South	West
	Private land	Private land	Sarananda Mawatha	Private land
Access				
Location Map	<p>The map shows an aerial view of a residential and commercial area. A large red dashed circle highlights the Kalutara General Hospital complex. A yellow dashed circle highlights a large open area labeled 'Project Site'. Another red dashed circle highlights a smaller area labeled 'Children & Maternal Hospital'.</p>			

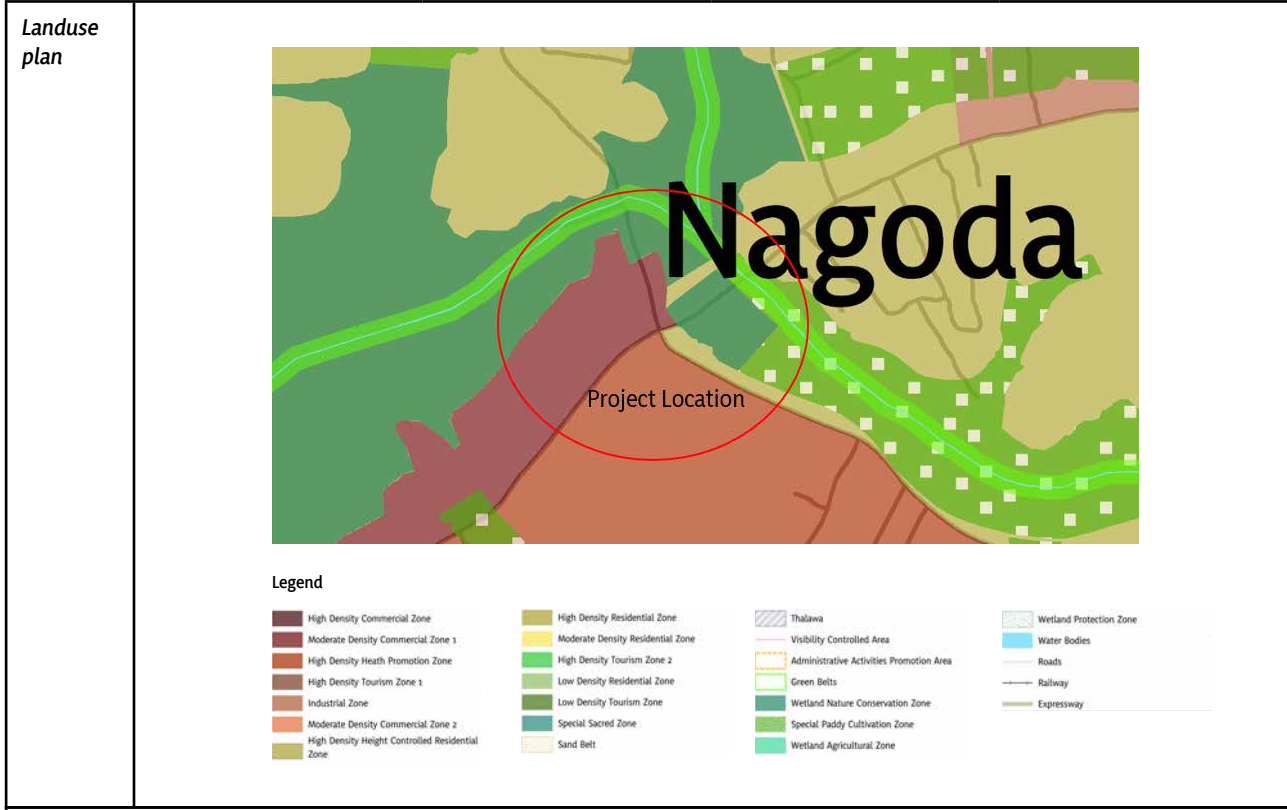
<p>Landuse plan</p>	 <p>Central Junction</p> <p>Project Location</p> <p>Legend</p> <table border="0"> <tr> <td>High Density Commercial Zone</td> <td>High Density Residential Zone</td> <td>Thalawa</td> <td>Wetland Protection Zone</td> </tr> <tr> <td>Moderate Density Commercial Zone 1</td> <td>Moderate Density Residential Zone</td> <td>Visibility Controlled Area</td> <td>Water Bodies</td> </tr> <tr> <td>High Density Health Promotion Zone</td> <td>High Density Tourism Zone 2</td> <td>Administrative Activities Promotion Area</td> <td>Roads</td> </tr> <tr> <td>High Density Tourism Zone 1</td> <td>Low Density Residential Zone</td> <td>Green Belts</td> <td>Railway</td> </tr> <tr> <td>Industrial Zone</td> <td>Low Density Tourism Zone</td> <td>Wetland Nature Conservation Zone</td> <td>Expressway</td> </tr> <tr> <td>Moderate Density Commercial Zone 2</td> <td>Special Sacred Zone</td> <td>Special Paddy Cultivation Zone</td> <td></td> </tr> <tr> <td>High Density Height Controlled Residential Zone</td> <td>Sand Belt</td> <td>Wetland Agricultural Zone</td> <td></td> </tr> </table>							High Density Commercial Zone	High Density Residential Zone	Thalawa	Wetland Protection Zone	Moderate Density Commercial Zone 1	Moderate Density Residential Zone	Visibility Controlled Area	Water Bodies	High Density Health Promotion Zone	High Density Tourism Zone 2	Administrative Activities Promotion Area	Roads	High Density Tourism Zone 1	Low Density Residential Zone	Green Belts	Railway	Industrial Zone	Low Density Tourism Zone	Wetland Nature Conservation Zone	Expressway	Moderate Density Commercial Zone 2	Special Sacred Zone	Special Paddy Cultivation Zone		High Density Height Controlled Residential Zone	Sand Belt	Wetland Agricultural Zone	
High Density Commercial Zone	High Density Residential Zone	Thalawa	Wetland Protection Zone																																
Moderate Density Commercial Zone 1	Moderate Density Residential Zone	Visibility Controlled Area	Water Bodies																																
High Density Health Promotion Zone	High Density Tourism Zone 2	Administrative Activities Promotion Area	Roads																																
High Density Tourism Zone 1	Low Density Residential Zone	Green Belts	Railway																																
Industrial Zone	Low Density Tourism Zone	Wetland Nature Conservation Zone	Expressway																																
Moderate Density Commercial Zone 2	Special Sacred Zone	Special Paddy Cultivation Zone																																	
High Density Height Controlled Residential Zone	Sand Belt	Wetland Agricultural Zone																																	
Justification																																			
Nature of the Project	New		Developable		To disperse	Land development only	√																												
Project Category	Conservation	Commercial	Landscaping	Heritage	Residential	Re erection	Others √																												
Project Targets	Environmental		Economical		Social		√																												
Project target	<ol style="list-style-type: none"> Creation of a compacted economy based on health focusing with base hospital child care and maternity hospital People who come for obtaining health service could also be able to reach to child care and maternity hospital as well. Creation of an opportunity to expand the hospital premises Ability to make solution for flood situation 																																		
Rationale of the project	<p>Kalutara town is one of the main health service providing centers in the Kalutara district as well as in the entire western region. Nagoda hospital is one such main hospital. Presently a rapid development is taking place in health sector because of the big investment made for this area.</p> <p>Out of the commuter population, a considerable number is coming for health service and with the large investment made in this section this population may further increased. The development that is taking place can be made use in fruitful manner for economic development which was identified under the administrative and health sector development in the Kalutara development plan for 2019-2030. Thus, 1km area focusing on hospital premises has been proposed to set up tertiary level health facilities.</p> <p>Obtaining the benefit of agglomerated economy was the very reason as to why this proposal was made. When all services connected to health sector is concentrated into one location there should be a threshold population and thereby an opportunity would be created to extract the economic benefit to the town.</p> <p>The hospital premises development in Kalutara is one such projects. A new road connecting hospital premises and Child care and Maternity hospital is to be constructed. Further the low-lying area between hospital and the road is to be developed. Under this low-lying area development, it is expected to expand the hospital premises, medical hostel and retention lake for flood control etc.</p>																																		

<i>Details about the land</i>						
Land owned by	UDA		Private		State	√ Other
Present status of the land	Abundant paddy field		Description about relocation			
Land ownership						
Survey plan	No	Surveyor	Date	Land extent		
				Acres	Ó.	Perch

<i>Project Implementation</i>					
Implementation method	By the UDA	Institutions responsible	SLLR & DC /Health Ministry	Funding source	SLLR & DC /Health Ministry
Zone	High density Health promotion zone		Zoning compatible	Yes	



<i>Identification of project</i>				
Project heading	Nagoda junction development project			
Project	Development of infrastructure facilities at Nagada junction			
Project proposal	<p>As per the Kalutara development plan 2019-2030, it is expected to develop the Nagoda junction as health service nodes. With the development of health service, the commuter population to get health service will also increase and in order to provide the facilities for the increasing population this location needs to be developed. The requirement to reduce traffic congestion, land availability and the requirement of developing infrastructure have been identified.</p> <p>Further the people living in surrounding areas are getting their basic needs fulfilled from this junction. Population is also increasing around this area and therefore there is a threshold population for the expected development of its sustainability. Accordingly, the projects to be implemented at this location are as follows.</p> <ol style="list-style-type: none"> 1. Proposed pedestrian walkways and drainage improvements 2. Development of alternative roads. 3. Bus stand development 4. Circular road development (Planned by RDA) 5. Canal development 6. Walkways for physical exercise 			
<i>Project location</i>				
Location	Province	Western	District	Kalutara
	Div. Secretariat	Kalutara	Local authority	Kalutara PS
Boundaries	North	East	South	West
	Private land	Private land	Sarananda Mawatha	Private land
Access				
Location Map				



Justification

Project Category	Conservation	Commercial	Landscaping	Heritage	Residential	Re erection	Others	
		√						
Project Targets	Environmental			Economical			Social	√

Project target

1. Development of Nagoda junction as most active junction
2. Creation of Nagoda junction as a facility center for the people coming to Nagoda hospital
3. To solve the traffic problem in the Nagoda junction area.


Rationale of the project

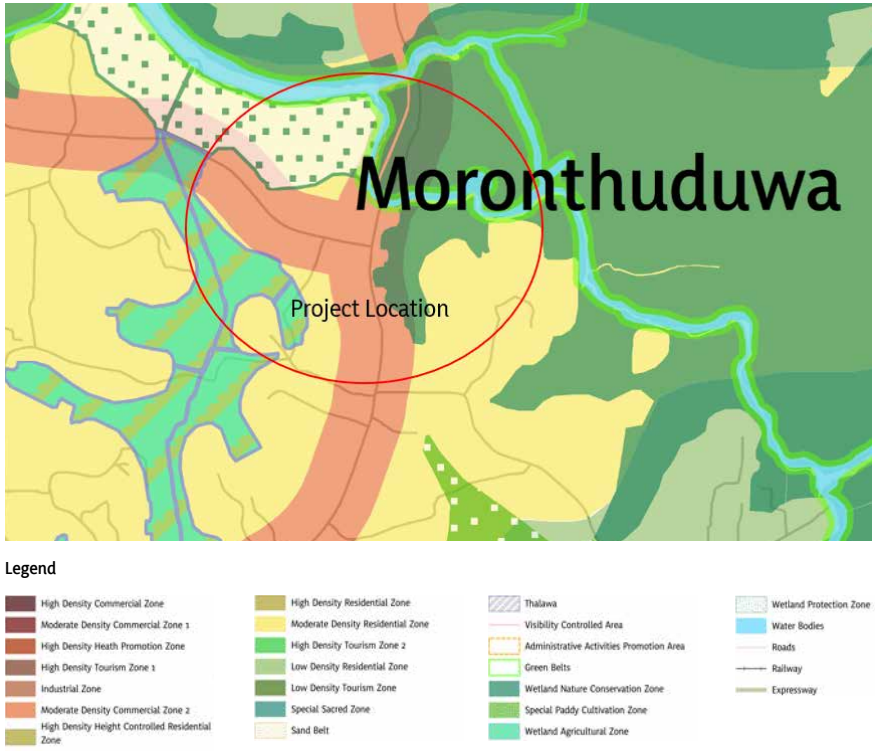
All government institutions, district level institutions and administrative institutions and also the public utility providing agencies like health, and education etc are located within the town limit, the daily commuter population is recorded as 80,000. A large number of commuter population is seen in Nagoda junction but infrastructure facilities are still at a poor state. Since the nagoda is a four way junction, RDA has proposed to provide a roundabout. The Nagoda area is some what highly populated residential zone, this plan has proposed to develop it as health promotion zone. Because of this development there will be high population and in order to cater to them a bus stand, pavements and drainage improvements needs to be done.

As common facilities for the public, a community hall is expected to be set up and in order to ease the traffic congestion necessity has arisen to construct a by road. In terms of health facilities Kalutara town has already been come to a satisfactory state and it is proposed under this development plan to develop the Nagoda as health promotion zone. At the same time, it is expected to develop as high-density residential zone and as such there will high demand for health service due to population increase. Since Nagoda junction is at low elevation in mean sea level due to existence of large number of low-lying areas, the area is some what vulnerable for flooding and therefore necessity has arisen to rehabilitate the storm water canals enabling to enhance the environmental conditions. There is also possibility to create urban parks in some low-lying areas along with walking paths.

Details about the land						
Land owned by	UDA	Private	State	√	Other	
Present status of the land	Abundant paddy field		Description about relocation			
Land ownership						
Survey plan	No	Surveyor	Date	Land extent		
				Acres	ඊ.	Perch.
Project Implementation						
Implementation method	By the UDA	Institutions responsible	SLLR & DC /Kalutara PS	Funding source	SLLR & DC Kalutara PS	
Zone	High density Health promotion zone		Zoning compatible	Yes		

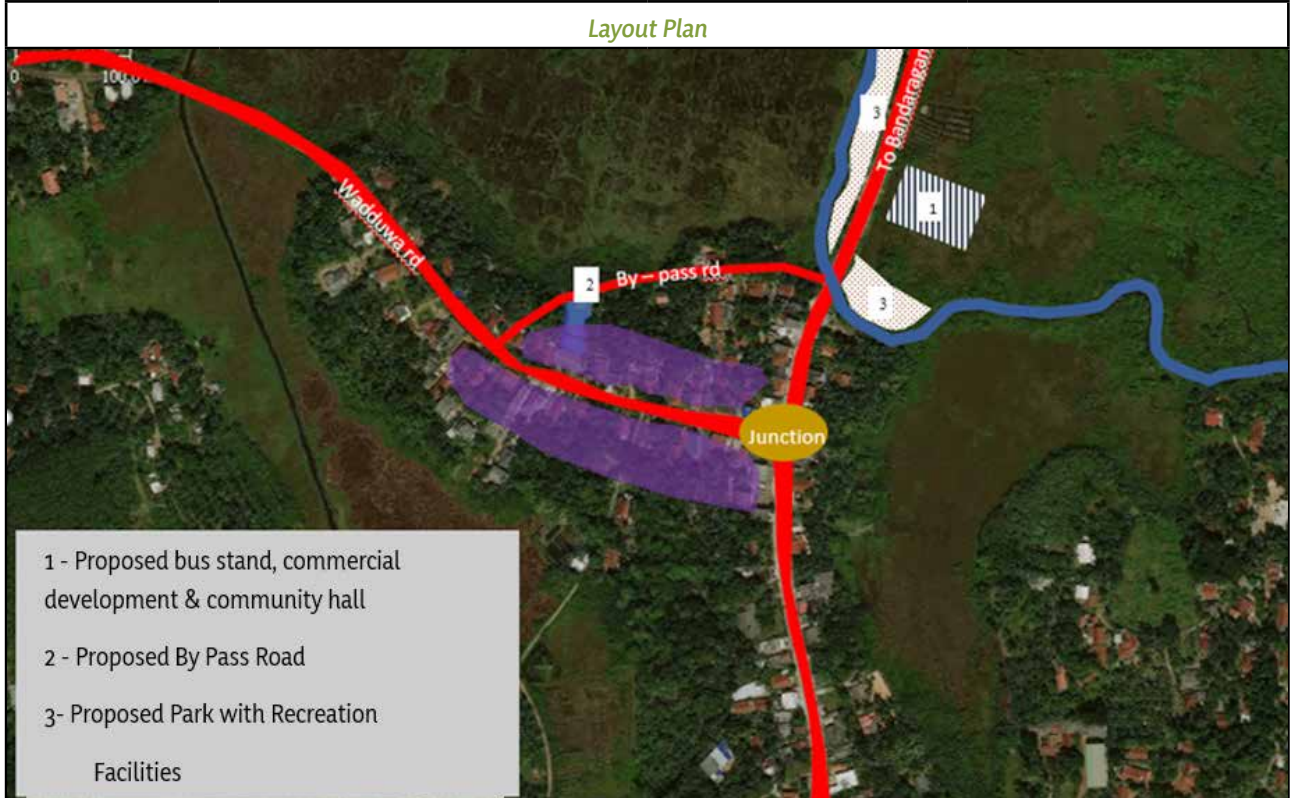


Identification of project				
Project heading	Moronthuduwa junction development project			
Project	Development of infrastructure facilities at Moronthuduwa junction			
Project proposal	<p>Under the Kalutara development plan 2019-2030, Moronthuduwa junction is proposed to be developed as a residential node. The Moronthuduwa junction is having direct linkage with Kalutara town as well as Wadduwa and Bandaragama town. Because of it is located on the Kalutara Bandatagama road, a rapid development is taking place. Since the Kalutara-Bandaragama road is being used as an access road to get into Southern high way and as it is used for reaching to Sri Jayawardenpura capital a rapid development is seen. Because of this population increase, it can reach to the threshold level to activate its economic activities. Accordingly, it has become necessary to develop the Moronthuduwa junction to suit with the present and future socio-economic conditions of the area under which following sub projects are to be implemented.</p> <ol style="list-style-type: none"> 1. Development of Bus stand, commercial building and community building 2. Recreational zone 			
Project location				
Location	Province	Western	District	Kalutara
	Div. Secretariat	Kalutara	Local authority	Kalutara PS
Boundaries	North	East	South	West
Access				
Location Map				

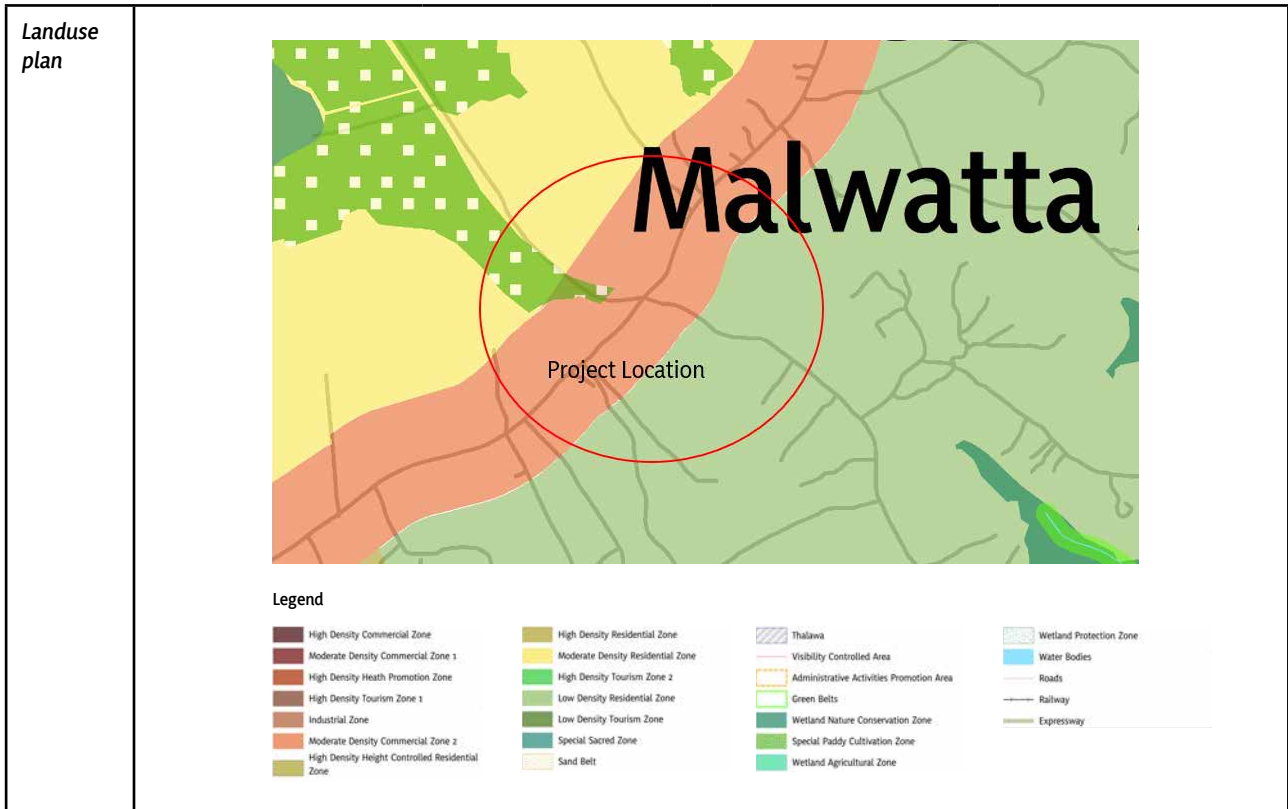
<p>Landuse plan</p>	 <p>Legend</p> <ul style="list-style-type: none"> High Density Commercial Zone Moderate Density Commercial Zone 1 High Density Heath Promotion Zone High Density Tourism Zone 1 Industrial Zone Moderate Density Commercial Zone 2 High Density Height Controlled Residential Zone High Density Residential Zone Moderate Density Residential Zone High Density Tourism Zone 2 Low Density Residential Zone Low Density Tourism Zone Special Sacred Zone Sand Belt Thalawa Visibility Controlled Area Administrative Activities Promotion Area Green Belts Wetland Nature Conservation Zone Special Paddy Cultivation Zone Wetland Agricultural Zone Wetland Protection Zone Water Bodies Roads Railway Expressway 						
<p>Justification</p>							
<p>Project Category</p>	<p>Conservation</p>	<p>Commercial</p>	<p>Landscaping</p>	<p>Heritage</p>	<p>Residential</p>	<p>Re erection</p>	<p>Others</p>
		<p>√</p>					
<p>Project Targets</p>	<p>Environmental</p>			<p>Economical</p>		<p>√</p>	<p>Social</p>
<p>Project target</p>	<p>1. Development of Moronthuduwa junction as residential zone by providing basic facilities</p>						
<p>Rationale of the project</p>	<p>The infrastructure development presently taking place and proposed to take place as residential zone of the Moronthuduwa can be introduced as most attractive residential area in future. For these increasing population the existing commercial development may not adequate and as such a necessity has arisen to set up a new commercial canter. Also, there is a requirement to build a community center. It is also important to provide walkways recreational and leisure areas and it will improve the environmental conditions of the area while minimizing the threat of flooding the area.</p> <p>The because of the developemnts proposed under the development plan and the developement of infrastructure of the area (its proximity to Galanigama interchange within 8km, and the development taking place along the Wadduwa -Morronthuduwa road and due to proposed commercial complex, there will be high concentration of population to this area. For the population who come for commercial requirements and for other purposes, parking facilities have to be provided with enhancing the scenic beauty of the location. Transport facilities with proper bus halts are to be provided. Because of these infrastructure developments along with bus stand and other development this location can be congested and to address that issue, it may require a byroad to be constructed.</p> <p>Due to infrastructure and other development activities, and the proposal to develop a residential zone, it has been proposed to construct a commercial center and a community hall. It is also necessary to reduce the threat of flooding while developing the parks with walkways for beautification as proposed.</p> <p>For the increasing population and also for the customers come to this location a car park and a bus stand to fulfill transport facilities, and to avoid the congestion it is proposed to construct a by road.</p>						

Details about the land						
Land owned by	UDA		Private	√	State	Other
Present status of the land	Abundant paddy field		Description about relocation			
Land ownership						
Survey plan	No	Surveyor	Date	Land extent		
				Acres	ó.	Perch.

Project Implementation					
Implementation method	By the UDA	Institutions responsible	SLLR & DC /Kalutara PS	Funding source	SLLR & DC Kalutara PS
Zone	Moderate density commercial zone ii		Zoning compatible	Yes	



<i>Identification of project</i>				
Project heading	Malwaththa junction development project			
Project	Development of infrastructure facilities around Malwaththa junction			
Project proposal	<p>Malwaththa junction is located on the Kalutara - Horana road is 4.6 km distance from Kalutara town. This junction is used to get access to Kalutara -hoarana road from the areas such as Wijerathna waththa, Jawaththa and Ethnamadala areas. With the land developments taken place in Jawaththa and Ethnamadala area, there is high population growth in this area and as such by taking into these facts, a project proposal was worked out to develop the Malwaththa junction under the Kalutara development plan 2029-2030 and accordingly the following sub projects have been identified.</p> <ol style="list-style-type: none"> 1. Construction of commercial building 2. Widening of Malwaththa road as 30ft wide road 3. Widening of Adirikele road as 30ft wide road 			
<i>Project location</i>				
Location	Province	Western	District	Kalutara
	Div. Secretariat	Kalutara	Local authority	Kalutara PS
Boundaries	North	East	South	West
Access				
Location Map				



Justification

Project Category	Conservation	Commercial	Landscaping	Heritage	Residential	Re erection	Others
		√					
Project Targets	Environmental			Economical		√	Social
Project target	<ol style="list-style-type: none"> Construction of Commercial complex at Malwaththa junction located on the Kalutara- Horana road Solution for the parking issue that may require in future at the Malwaththa junction located on the Kalutara- Horana road 						
Rationale of the project	<p>Kalutara -Horana road is a "A" grad road. The proposed Pelpola interchange is to be linked in to Kalutara Horana road and this will become an access road to Highway. Therefore, it is proposed to develop the Kalutara Horana road as two-lane road under the Kalutara development plan for 2019-2030. Presently lot of land sales are going on along this road and there is a tendency to develop new residential zones along the Kalutara Horna road. By taking into account these factors, the Malwaththa junction was identified to be developed under this plan.</p> <p>Under this New commercial building is to be developed to fulfill the needs of the public along with development of roads in this area.</p>						


Details about the land

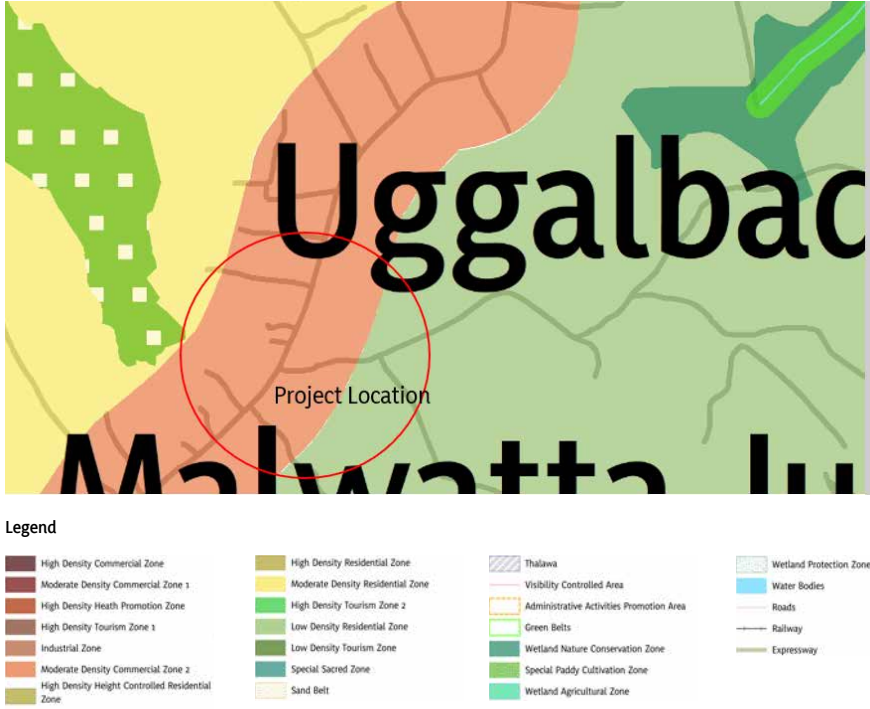
Land owned by	UDA		Private	√	State	√	Other
Present status of the land	Abundant paddy field		Description about relocation				
land ownership							

Survey plan	No	Surveyor	Date	Land extent		
						Acres
Project Implementation						
Implementation method	By the UDA	Institutions responsible	UDA /Kalutara PS	Funding source	SLLR & DC Kalutara PS	
Zone	Moderate density commercial zone ii	Zoning compatible		Yes		

Layout Plan



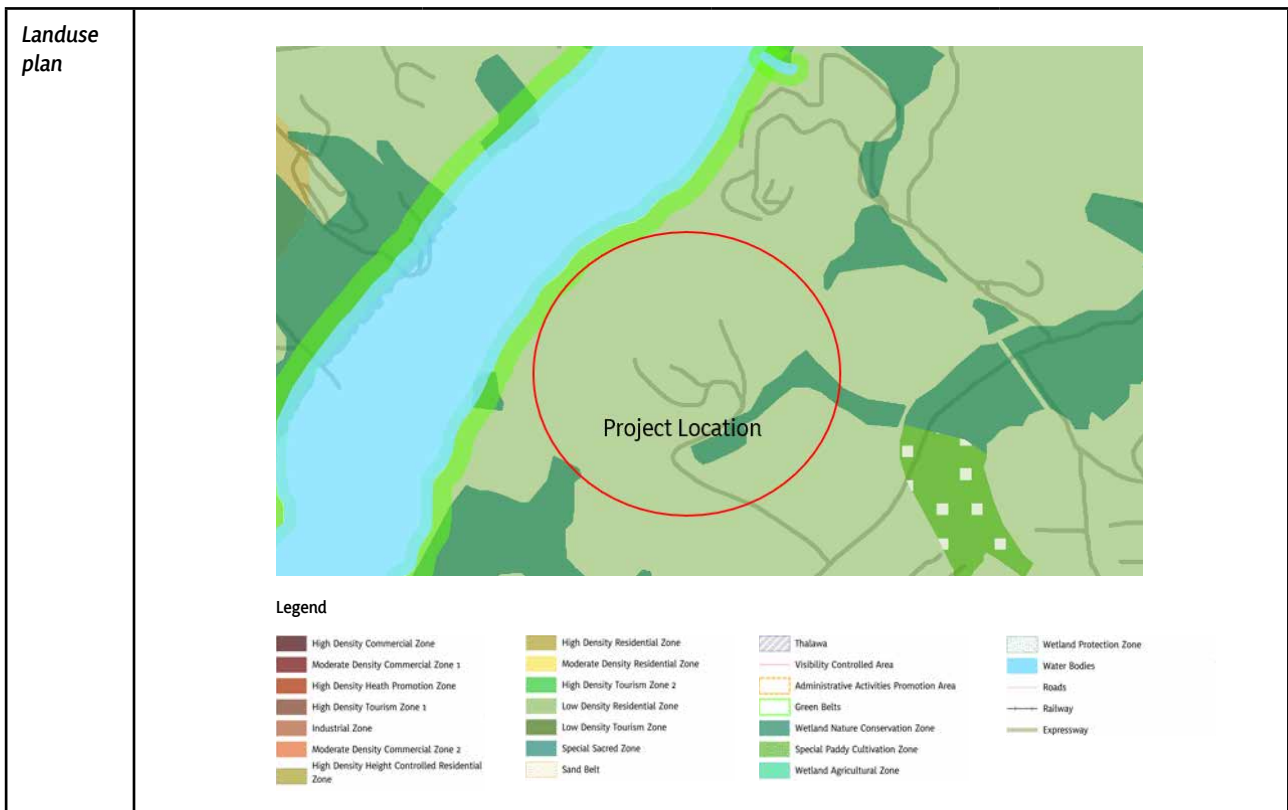
<i>Identification of project</i>				
Project heading	Uggalboda junction development project			
Project	Development of infrastructure facilities around Uggalboda junction			
Project proposal	<p>Under the neighborhood plan, the Uggalboda junction has been identified to be developed as Neighborhood Node. The residents living in the surrounding areas of Uggalboda junction get their commercial requirements fulfilled from the Uggalboda junction which is located on the Kalutara Horana road. Due to rapid land development taking place around this junction there is tendency to increase the population into the threshold level.</p> <p>Accordingly, under the Uggalboda junction development project following sub projects have been identified for implementation.</p> <ol style="list-style-type: none"> 1. Construction of a Community hall including a library 2. Construction of Commercial building 			
<i>Project location</i>				
Location	Province	Western	District	Kalutara
	Div. Secretariat	Kalutara	Local authority	Kalutara PS
Boundaries	North	East	South	West
Access				
Location Map				

<p>Landuse plan</p>							
<p>Justification</p>							
<p>Project Category</p>	Conservation	Commercial	Landscaping	Heritage	Residential	Re erection	Others √
<p>Project Targets</p>	Environmental		Economical		Social		
<p>Project target</p>	<ol style="list-style-type: none"> 1. Construction of Commercial complex at Uggalboda junction located on the Kalutara- Horana road with basic facilities for the people 2. Construction of Community hall with a library as social infrastructure for the people living in the area. 						
<p>Rationale of the project</p>	<p>Under the neighborhood plan, the Uggalboda junction has been identified to be developed as Neighborhood Node. Kalutara -Horana road is a “A” grade road and which is to be linked into the proposed Pelpola interchange.</p> <p>Accordingly, Kalutara -Horana road will be an access road to Southern highway in near future . Therefore, under the Kalutara urban development plan 2019-2030, Kalutara-Horana road was proposed to be developed as 2 lane road with service walkways.</p> <p>Presently a lot of land sales are taking place around the Kalutara Horana road and therefore new neighborhood zones are being developed.</p> <p>Considering all these factors, Uggalboda junction was identified for development under which social infrastructure development to be provided which include a Community hall and commercial complex.</p>						
<p>Details about the land</p>							
<p>Land owned by</p>	UDA	Private	√	State	√	Other	
<p>Present status of the land</p>	Abundant paddy field			Description about relocation			

land ownership						
Survey plan	No	Surveyor	Date	Land extent		
				Acres	ó.	Perch.
Project Implementation						
Implementation method	By the UDA	Institutions responsible	UDA /Kalutara PS	Funding source	SLLR & DC Kalutara PS	
Zone	Moderate density commercial zone ii	Zoning compatible		Yes		
Layout Plan						



Identification of project				
Project heading	Richmond castle premises development project			
Project	Development of a botanical garden in the Richmond castle premises			
Project proposal	Richmond castle building premises presently in the custody of public Trustee is one of the most tourist attraction sites located at Palathota road Kalutara. This building has been constructed in a land area of 42 acres abutting to Kalu Ganga and presently around 100- 150 travelers are visiting the site daily. Under the Kalutara urban development plan for 2019- 2030, a tourism development plan was prepared for the area covering Richmond Castle building premises, Kalutara Bo-tree and Calido beach. Accordingly, Richmond castle building is to be developed as tourist attraction site under which 8 acres of land is proposed to be landscaped from the car park at Kalutara Bo Tree up to Richmond castle building. it is expected to operate a boat service in the Kalu Ganga.			
Project location				
Location	Province	Western	District	Kalutara
	Div. Secretariat	Kalutara	Local authority	Kalutara PS
Boundaries	North	East	South	West
	Kalu Ganga	Private land	Kalutara Kethhena road	Land belonging all Ceylon Buddhist Society
Access	Kalutara -Kethhena road			
Location Map				



Justification of the project

Project Category	Conservation	Commercial	Landscaping	Heritage	Residential	Re erection	Others	
			√					
Project Targets	Environmental			Economical			Social	√

Project target

1. establishment of Cultural tourism zone in and around Richmond castle building premises.
2. To make Commercial development around Richmond castle building premises (Specially at Palathota junction, around the area at Kalutara-Palathota road)

Rationale of the project

Under the Tourism development plan of Kalutara urban development plan 2019-2030, it was identified to diversify the tourism activities in the Kalutara Divisional Secretariat area. Accordingly, in the areas surrounding the Kalutara Bo-Tree and at the Richmond castle building, it has been proposed to setup two tourism cultural tourism zones.

Richmond castle building is situated within 3 km distance from the Kalutara town on the Thekkawaththa road. The building is presently in the custody of Public Trustee. About 100 visitors are coming daily to visit the building. Under the tourism development plan of the Kalutara development plan for 2019-2030, it is expected to set up cultural tourism zone around Richmond castle building and it is expected to develop the premises targeting to attract 500 to 800 tourist per day. Around 1000 to 1500 travelers are coming to Kalutara Bo-tree premises and it is expected to attract the same travelers to this premises as well. Thus, it would create an opportunity for the tourist to visit all these site within one day stay at Kalutara town

Details about the land

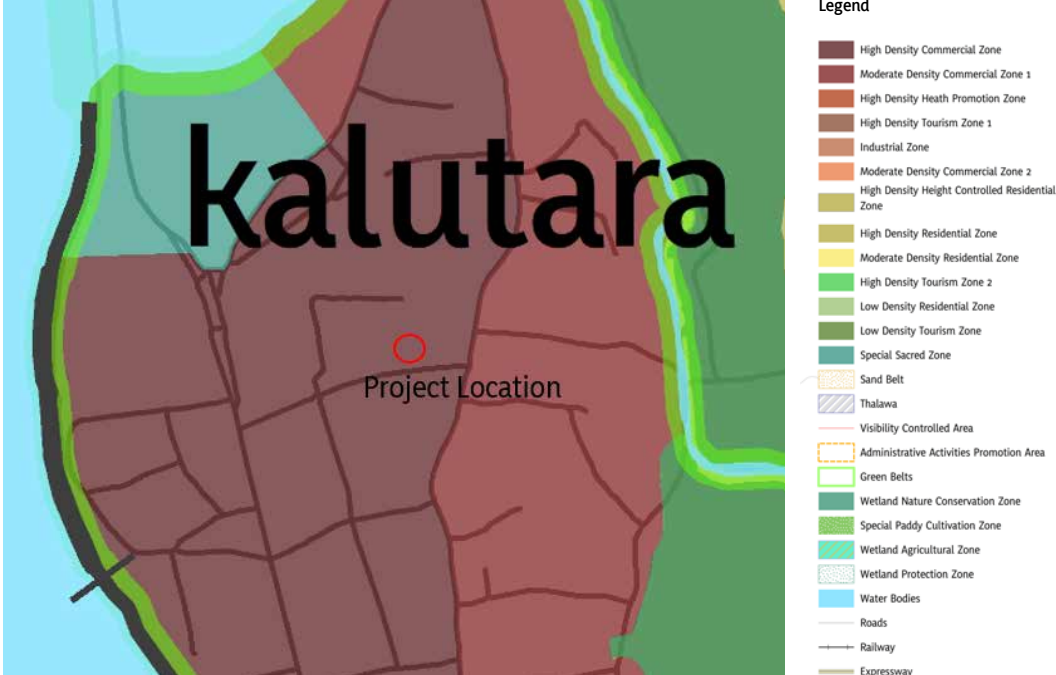
Land owned by	Under the custody of Public Trustee		Private		State	√	Other	
Present status of the land	Tourism attraction site		Description about relocation					

Survey plan	No	Surveyor	Date	Land extent		
						Acres
Project Implementation						
Implementation method	By the UDA	Institutions responsible	UDA /Kalutara PS	Funding source	SLLR & DC Kalutara PS	
Zone	Moderate density commercial zone ii	Zoning compatible		Yes		

Layout Plan



<i>Identification of project</i>				
Project heading	Kalutara New Administrative complex			
Project	Proposed new administrative complex at Sarananda Mawatha Kalutara			
Project proposal	<p>Kalutara is the main administrative center of the Kalutara district. The most of the government institutions in the district are located in Kalutara town. Presently these administrative institutions are scattered in the town. Out of daily commuters, a considerable number is coming for administrative purposes. The main administrative centre of the town is the District Secretariat where a new administrative building is under construction at present. In addition, a new administrative building is being constructed on Gregory road in Kalutara south. These new buildings are to be used to relocate all government institutions.</p> <p>These new buildings are not adequate to house all the government institutions. Due to in adequacy of parking facilities in these administrative complexes, a parking issue have arisen at the district Secretariat area.</p> <p>Due to existence of administrative institutions in isolation, it has caused inconvenient to the public and specially the district labor office, land registry, department of valuation, and inland revenue department can be cited as examples. The location of the department of Agriculture and Excise department at Nagoda area is also can be cited as examples. By taking into all these factors, the plan prepared as administrative and health zone developments under the Kalutara development plan 2019-2030 has identified the necessity of deriving the benefit of having compacted economy. Therefore, as identified under the Kalutara development plan 2019-2030, all administrative functions at district level needs to be setup within 500 distance from District Secretariat. The proposed project can be introduced as one such project formulated to achieve the above mentioned objective.</p>			
<i>Project location</i>				
Location	Province	Western	District	Kalutaraa
	Div. Secretariat	Kalutara	Local authority	Kalutara UC
Boundaries	North	East	South	West
	Private land	Private land	Sarananda Mawatha	Private land
Access	Sarananda Mawatha			
Location Map				

<p>Landuse plan</p>								
<p>Justification</p>								
<p>Nature of the Project</p>	<p>New</p>	<p>√</p>	<p>Developable</p>		<p>To disperse</p>		<p>Land development only</p>	
<p>Project Category</p>	<p>Conservation</p>	<p>Commercial</p>	<p>Landscaping</p>	<p>Heritage</p>	<p>Residential</p>	<p>Re erection</p>	<p>Others</p>	<p>√</p>
<p>Project Targets</p>	<p>Environmental</p>		<p>Economical</p>		<p>√</p>	<p>Social</p>		
<p>Project target</p>	<ol style="list-style-type: none"> There will be an economic benefit to the town due to concentration of all administrative functions in one location (Compacted economy) The project would facilitate the people to fulfill their administrative requirements conveniently 							
<p>Rationale of the project</p>	<p>The main administrative functions in the Kalutara district are located in the Kalutara town in dispersed manner. By concentrating all these institutions into one location, it would facilitate the people to get their services done conveniently and it would help to uplift the economy of the town. Due to concentration of administrative activities in one location, it would gain benefit to the town because of the agglomeration of activities.</p> <p>The main theme of the Health and administrative zones development proposed under the economic development plan of the Kalutara Urban development plan for 2019-2030 was to extract the benefits from compacted economy by concentrating administrative and health services into one location. As per the economic development plan, all administrative functions at district level to be setup within 500 distance from District Secretariat.</p> <p>This is one of the projects at Sarananda Mawatha at Kalutara south to achieve the above mentioned objectives. This project to be implemented at the Building material corporation site at Sarananda Mawathaa. It is proposed to construct this administrative complex with multistoried car park. This would also facilitate to ease the traffic congestion at this location.</p>							

<i>Details about the land</i>							
Land owned by	UDA		Private		State	√	Other
Present status of the land	Building material corporation in Kalutara is presently in operation		Description about relocation				
Land ownership	Building material corporation						
Survey plan	No	Surveyor		Date	Land extent		
					Acres	óž.	Perch.
<i>Project Implementation</i>							
Implementation method	By the UDA	Institutions responsible	UDA	Funding source	Treasury funds thro. UDA		
Zone	High density commercial zone		Zoning compatible		Yes		

6.8.2. Institutional Setting

No.	Main Plan	Sub plan	Sub plan and the project	Relevant Agency	Responsibility of each agency
01.	Strategic plan for Infrastructure development	Road and Transport Development plan	<p>Construction of 04 land road between Nagas Handiya and Wadduwa</p> <p>Construction of 04 land road between Wadiyamankada and Bandaragama</p> <p>Development of by road connecting Nagoda base hospital premises and Child care and maternity hospital presently under construction</p> <p>Construction of 02 lane road with a service lane between Horana and Elamodara</p> <p>Construction of 04 lane road Katukurunda – Daluwatta</p> <p>Development of old road (Sir.Sinyl de Soysa Mawatha) as a 02 lane road</p> <p>Development of Mawala- Maharekma road as 02 lane road</p> <p>Development of Hill street as 02 lane road</p> <p>Development of user friendly pedestrian way along Station road</p> <p>Development of user friendly pedestrian ways along Galle road</p> <p>Development of user friendly pedestrian way along Goodshed road</p>	<ul style="list-style-type: none"> RDA RDA Kalutara UC UDA Ministry of health. Div.Sec. Office SLLR & DC RDA RDA Kalutara UC Kalutara PS PRDA RDA Kalutara UC RDA Kalutara UC RDA Kalutara UC RDA Kalutara UC 	<ul style="list-style-type: none"> Proj.implementation Proj.implementation Feasibility study Funding arrangement Proj.implementation Proj.implementation Proj.implementation Proj.implementation Proj.implementation Proj.implementation Proj.implementation Plan preparation Proj.implementation Proj.implementation Plan preparation Proj.implementation Plan preparation Proj.implementation

No.	Main Plan	Sub plan	Sub plan and the project	Relevant Agency	Responsibility of each agency
01	Strategic plan for Infrastructure development	Road and Transport Development plan	Development of user friendly pedestrian way along Sarananda road Development of user friendly pedestrian way along Chamli Gunawardena Mawatha Development of user friendly pedestrian way along Gnanodaya Mawatha Development of user friendly pedestrian way along Gregory road Development of user friendly pedestrian way along old road Pedestrian underpass near Kalutara Clock tower Development of Beach parallel road as O2 lane road Development of by-road as O2 lane road between Elamodara junction -Pelpola highway interchange Development of Duwa temple road at Kalutara south as O2 lane road Development of Gemunu Mawatha in Kalutara south as O2 lane road Development of Gangabada Road from Clock tower at Kalutara south to Panwila Junction as O2 lane road	<ul style="list-style-type: none"> • Kalutara UC • Kalutara UC • Kalutara UC • RDA • Kalutara UC • R.D.A • Kalutara UC • R.D.A • RDA • RDA • RDA • RDA • RDA • RDA 	<ul style="list-style-type: none"> • Plan preparation • Proj.implementation • Plan preparation • Proj.implementation • Plan preparation • Proj.Implementation • Plan preparation • Proj.Implementation • Plan preparation • Proj.Implementation • Feasibility study • Plan preparation • Funding arrangement • Proj.implementation • Plan preparation • Funding arrangement • Proj.implementation • Funding arrangement • Proj.implementation • Funding arrangement • Proj.implementation • Funding arrangement • Proj.implementation • Funding arrangement • Proj.implementation

No.	Main Plan	Sub plan	Sub plan and the project	Relevant Agency	Responsibility of each agency
01	Strategic plan for Infrastructure development	Solid waste management plan	<p>Promotion of compost making from fast bio degradable solid waste and motivations of public for the same by introducing profitable markets</p> <p>Establishing bio-gas making plants at the hospital and government office premises.</p> <p>Make arrangements to provide bio-degradable food wastes to piggy farms.</p> <p>Introduction of suitable technical methods for recycling of non-bio-degradable solid waste</p> <p>Establishment of institutional setup to prevent mixing of hospital clinical waste with other waste collected in urban areas.</p> <p>Making an efficient mechanism for collection and transport of solid waste.</p> <p>Setting up of Sanitary land filling sites</p> <p>Establishment of Electronic waste management yard</p> <p>Setting up of a monitoring committee</p>	<ul style="list-style-type: none"> • Kalutara UC • Kalutara PS • Kalutara UC • Kalutara PS • Kalutara UC • Kalutara PS • Kalutara UC • Kalutara PS • Kalutara UC • Kalutara PS • Kalutara UC • Kalutara PS • Kalutara UC • Kalutara PS 	<ul style="list-style-type: none"> • Proj.implementation • Proj.implementation • Proj.implementation • Proj.implementation • Proj.implementation • Proj.implementation • Proj.implementation • Proj.implementation • Proj.implementation • Proj.implementation • Proj.implementation • Proj.implementation • Proj.implementation • Proj.implementation
02.	Strategic plan for economic development	Economic development plan	<p>Kalutara hospital squire development project</p> <p>Relocation of Court complex to Saralakkwatta land in Wettumakada area at Galle road Kalutara south</p>	<ul style="list-style-type: none"> • Kalutara UC • Kalutara PS • Judicial Service Commission • Kalutara Div.Sec • Kalutara UC • UDA 	<ul style="list-style-type: none"> • Proj.implementation • Funding arrangement • Land acquisition • Proj.implementation

No.	Main Plan	Sub plan	Sub plan and the project	Relevant Agency	Responsibility of each agency
02.	Strategic plan for economic development	Economic development plan	<p>Redevelopment of old GA's banglow located near Court complex at Kalutara south for a "Laksala" sale out let</p> <p>Redevelopment of existing court complex premises for luxury Commercial complex</p> <p>Construction of Commercial complex with multistoried car park at Good shed road, Kalutara south</p> <p>Construction of administrative complex at Sarananda Mawatha, Kalutara South</p> <p>Redevelopment of Kalutara public playground</p> <p>Redevelopment of Kalutara Bus stand</p>	<ul style="list-style-type: none"> • Judicial Service Commission • Archy. dept • UDA • Div.sec/Kalutara <ul style="list-style-type: none"> • Bodhi Trust • UDA <ul style="list-style-type: none"> • Kalutara UC • UDA <ul style="list-style-type: none"> • UDA 	<ul style="list-style-type: none"> • Obtaining recommendation from Arch.dept • Funding arrangement • Land acquisition Proj. implementation <ul style="list-style-type: none"> • Land acquisition • Plan preparation • Funding arrangement • Proj.implementation <ul style="list-style-type: none"> • Land acquisition • Plan preparation • Funding arrangement • Proj.implementation <ul style="list-style-type: none"> • Land acquisition • Plan preparation • Funding arrangement • Proj.implementation
			<p>Redevelopment of Kalutara railway station in Kalutara South</p> <p>Construction of Vehicular park at Sarananda Mawatha</p>	<ul style="list-style-type: none"> • Kalutara UC • Sport My. • UDA <ul style="list-style-type: none"> • Kalutara UC • UDA <ul style="list-style-type: none"> • C.G.R. • Tourism dev.Authority <ul style="list-style-type: none"> • Kalutara UC • UDA 	<ul style="list-style-type: none"> • Plan preparation • Funding arrangement • Supply of consultancy service • Proj.implementation <ul style="list-style-type: none"> • Plan preparation • Funding arrangement • Proj.implementation <ul style="list-style-type: none"> • Plan preparation • Funding arrangement • Proj.implementation <ul style="list-style-type: none"> • Proj.implementation
	Strategic plan for economic development	Economic development plan			

No.	Main Plan	Sub plan	Sub plan and the project	Relevant Agency	Responsibility of each agency
02.	Strategic plan for economic development	Tourism development plan	<p>Erection of twin boat yards at the Vehicular park belonging to Kalutara Bodhi trust and near the Richmond castle building premises bordering Kalu Ganga</p> <p>Development of Abru Mawatha and South Sri Sumangala road as access road to Calido beach</p> <p>Erection of floating trade stalls in selected locations in Kalu Ganga</p> <p>Redevelopment of flower stalls at Kalutara Bodhi premises</p> <p>Calido Beach Development project in Kalutara south</p> <p>Development project of Pohoddala beach at Kalutara south</p> <p>Development of landscaping work at Richmond castle building premises</p>	<ul style="list-style-type: none"> • Tourism Dev.Authority • Dep. Of Irrigation Service • UDA <ul style="list-style-type: none"> • Kalutara UC • UDA <ul style="list-style-type: none"> • Kalutara UC • UDA • Irrigation Department <ul style="list-style-type: none"> • Kalutara UC • UDA • Bodhi Trust <ul style="list-style-type: none"> • UDA • Coast cons. dept • Tourism dev. Authority • Kalutara UC <ul style="list-style-type: none"> • Coast cons. dept • UDA • Kalutara PS <ul style="list-style-type: none"> • Justice ministry • Kalutara PS 	<ul style="list-style-type: none"> • Plan preparation • Feasibility study • Funding arrangement • Proj.implementation <ul style="list-style-type: none"> • Proj.implementation <ul style="list-style-type: none"> • Feasibility study • Proj.implementation <ul style="list-style-type: none"> • Proj.implementation <ul style="list-style-type: none"> • Feasibility study • Proj.implementation <ul style="list-style-type: none"> • Land acquisition • Plan preparation • Funding arrangement • Proj.implementation <ul style="list-style-type: none"> • Plan preparation • Funding arrangement • Proj.implementation
02	Strategic plan for economic development	Tourism development plan	Development of Gonaduwa eco-tourism zone	<ul style="list-style-type: none"> • Tourism dev. authority • UDA • Irrigation dept • Kalutara PS • SLLR&DC 	<ul style="list-style-type: none"> • Plan preparation • Funding arrangement • Feasibility study • Proj.implementation

No.	Main Plan	Sub plan	Sub plan and the project	Relevant Agency	Responsibility of each agency
02	Strategic plan for economic development	Tourism development plan	Erecting of Seemamalakaya in Kalu Ganga at the Kalutara Bodhi premises	<ul style="list-style-type: none"> • Kalutara Bodhi Trust • SLLR&DC • Irrigation dept • UDA 	<ul style="list-style-type: none"> • Plan preparation • Funding arrangement • Feasibility study • Proj.implementation
03	Strategic plan for sustainable environment development plan	Environmental conservation plan	Development of linear park in the identified land strip in either side of Kuda heenetyangala canal	<ul style="list-style-type: none"> • Kalutara UC • UDA • Department of Agrarian Service • SLLR&DC 	<ul style="list-style-type: none"> • Feasibility study • Plan preparation • Funding arrangement • Proj.implementation
			Wetland conservation	<ul style="list-style-type: none"> • UDA • SLLR&DC • Kalutara UC • Department of Agrarian Service • Kalutara PS 	<ul style="list-style-type: none"> • Enforcement of zoning regulations pertaining to Wet lands
			Protection of reservations of water ways	<ul style="list-style-type: none"> • UDA • Kalutara UC • Department of Agrarian Service • Kalutara PS 	<ul style="list-style-type: none"> • Enforcement of zoning regulations pertaining to river and canal reservations
			project for planting of bushes towards southern side about 02 km distance along the Calido beach from the Tanjerin hotel	<ul style="list-style-type: none"> • Kalutara UC • UDA • Coast conservation dept. • Tourism dev. authority 	<ul style="list-style-type: none"> • Plan preparation • Funding arrangement • Feasibility study • Proj. implementation
		Landscape management Plan	Landscaping in the land strip between railway line and Galle road falling in the middle of Kalutara twin bridges.	<ul style="list-style-type: none"> • CGR • Kalutara UC • UDA • RDA • Bodhi Trust 	<ul style="list-style-type: none"> • Feasibility study • Plan preparation • Funding arrangement • Proj.implementation
			Tree planting in either side of road in Palathota Rd from clock tower to Ayurvedic center of the Kalutara UC, up to Kalutara kaluthara town hall and up to the connecting point of Gregory road.	<ul style="list-style-type: none"> • Kalutara UC • RDA • UDA 	<ul style="list-style-type: none"> • Enforcement of zoning regulations pertaining to Wet lands

No.	Main Plan	Sub plan	Sub plan and the project	Relevant Agency	Responsibility of each agency
03	Strategic plan for sustainable environment development plan	Landscape management Plan	<p>Rehabilitation of Kalutara urban park including Kalutara UC, Park Playground, Urban council auditorium</p> <p>Rehabilitation of drainage system for controlling floods</p> <p>Conservation of sand dune and making a permanent estuary</p> <p>Planting of mangrove in the Kalutara lagoon reservation</p> <p>Planting of mangrove along the beach line</p> <p>Construction of break water wall in the Calido beach at Kalutara south</p> <p>Construction of Salinity barrier in the Kalu Ganga</p> <p>Flood control near Duwa temple road Kalutara south</p>	<ul style="list-style-type: none"> Kalutara UC UDA Irrigation dept <ul style="list-style-type: none"> Kalutara UC Disaster Management center <ul style="list-style-type: none"> Coast conservation dept. Irrigation dept Coast conservation section of Megapolis ministry <ul style="list-style-type: none"> C.E.A. Irrigation dept Coast conservation dept <ul style="list-style-type: none"> Coast conservation dept <ul style="list-style-type: none"> Coast conservation dept Coast conservation section of Megapolis ministry <ul style="list-style-type: none"> Irrigation dept NWS & DB <ul style="list-style-type: none"> Irrigation dept Disaster mgt center Department of Agrarian Service SLLR&DC 	<ul style="list-style-type: none"> Enforcement of zoning regulations pertaining to river and canal reservations <ul style="list-style-type: none"> Plan preparation Funding arrangement Feasibility study Proj. implementation <ul style="list-style-type: none"> Proj. implementation <ul style="list-style-type: none"> Proj. implementation <ul style="list-style-type: none"> Plan preparation Funding arrangement Consultance service Proj. implementation <ul style="list-style-type: none"> Feasibility study Funding arrangement Proj. implementation <ul style="list-style-type: none"> Feasibility study Funding arrangement Proj. implementation <ul style="list-style-type: none"> Feasibility study Funding arrangement Proj. implementation

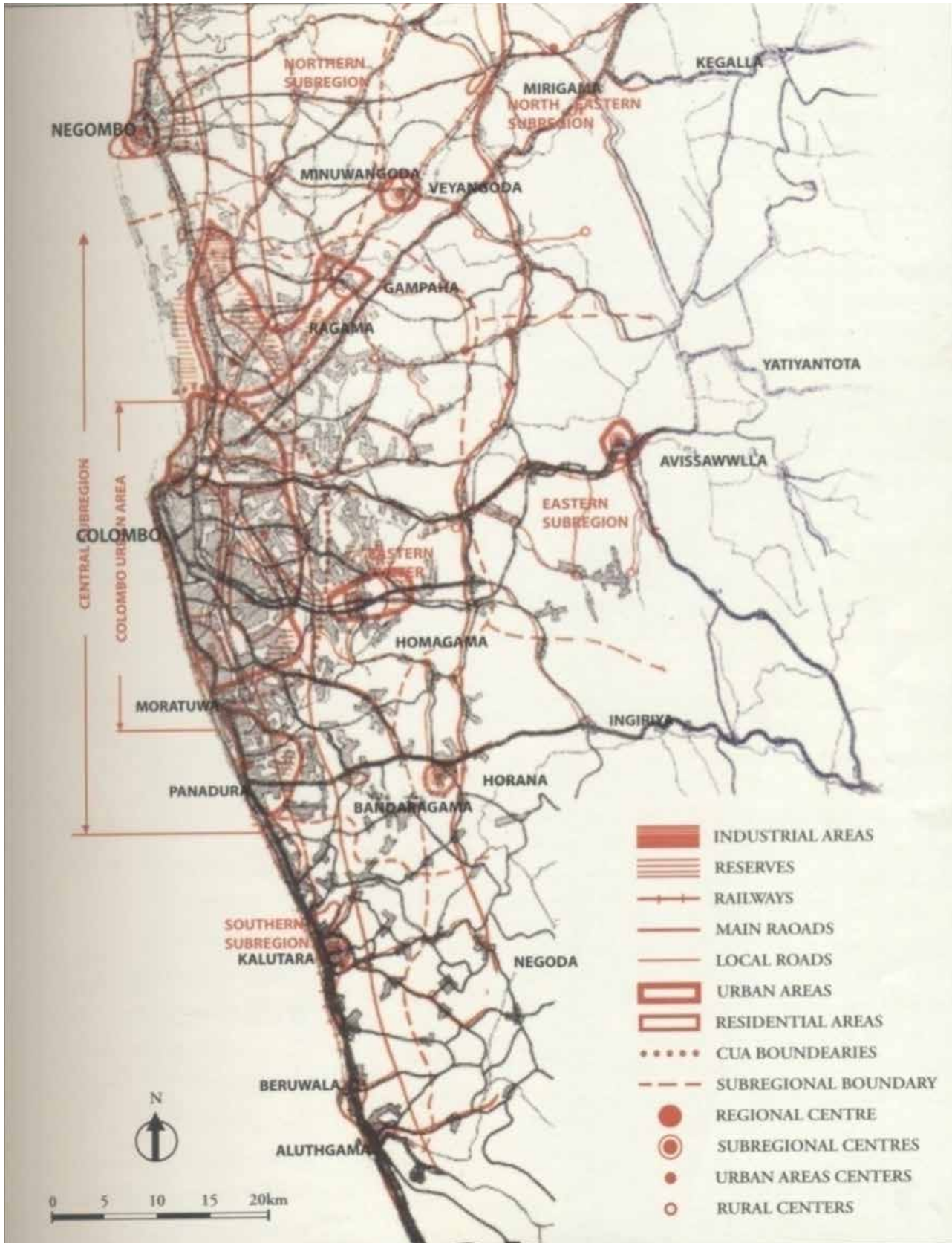
No.	Main Plan	Sub plan	Sub plan and the project	Relevant Agency	Responsibility of each agency
03	Strategic plan for sustainable environment development plan	Landscape management Plan	Flood control at Nagoda junction at Kalutara south	<ul style="list-style-type: none"> • Irrigation dept • Disaster mgt center • Department of Agrarian Service • SLLR&DC • NBRO 	<ul style="list-style-type: none"> • Feasibility study • Funding arrangement • Proj.implementation • Enforcement of regulations pertaining to land slide areas
		Public Outdoor Recreational Space plan	Conservation of areas vulnerable for landslides in planning area	<ul style="list-style-type: none"> • SLLR&DC • Coast conservation dept • C.G.R. • Irrigation dept 	<ul style="list-style-type: none"> • Proj.implementation
04	strategic plan for Housing density and distribution plan		Development of Moronthuduwa Junction	<ul style="list-style-type: none"> • UDA • Kalutara PS • SLLR&Dc • Irrigation dept 	<ul style="list-style-type: none"> • Plan preparation • Feasibility study • Funding arrangement • Proj.implementation
			Development of Nagoda Junction	<ul style="list-style-type: none"> • UDA • Kalutara PS • SLLR&DC • Irrigation dept. 	<ul style="list-style-type: none"> • Plan preparation • Feasibility study • Funding arrangement • Proj.implementation
			Development of Commercial center at Malwatta junction at Kalutara Horana road	<ul style="list-style-type: none"> • UDA • Kalutara PS 	<ul style="list-style-type: none"> • Plan preparation • Feasibility study • Funding arrangement • Proj.implementation
05	strategic plan for Cultural, religious and heritage management plan		Development of public building at Uggalboda at Kalutara Horana road	<ul style="list-style-type: none"> • UDA • Kalutara PS 	<ul style="list-style-type: none"> • Plan preparation • Feasibility study • Funding arrangement • Proj.implementation • Enforcement of regulations pertaining to protection of viewing paths of Kalutara Stupa
			Protection of viewing paths of Kalutara Sthupa	<ul style="list-style-type: none"> • UDA • Kalutara PS 	<ul style="list-style-type: none"> • Enforcement of regulations pertaining to protection of viewing paths of Kalutara Stupa



Annexures

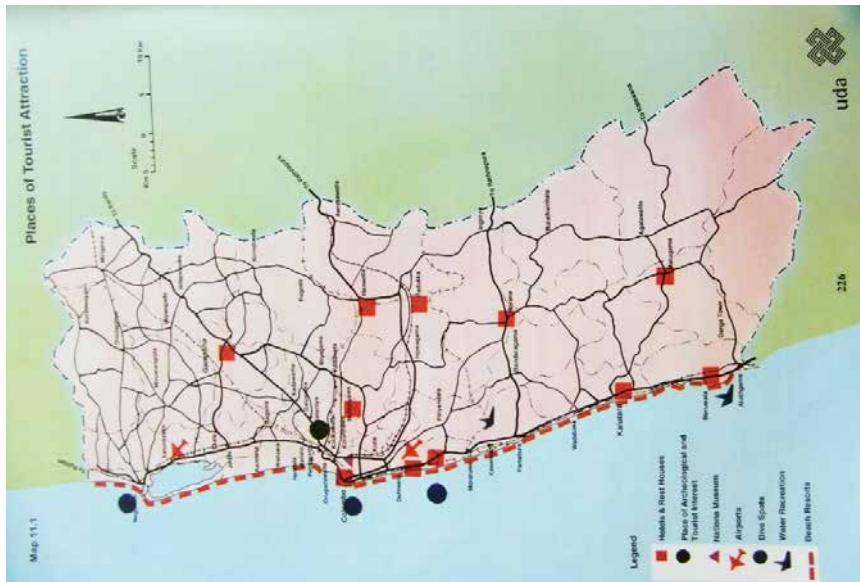
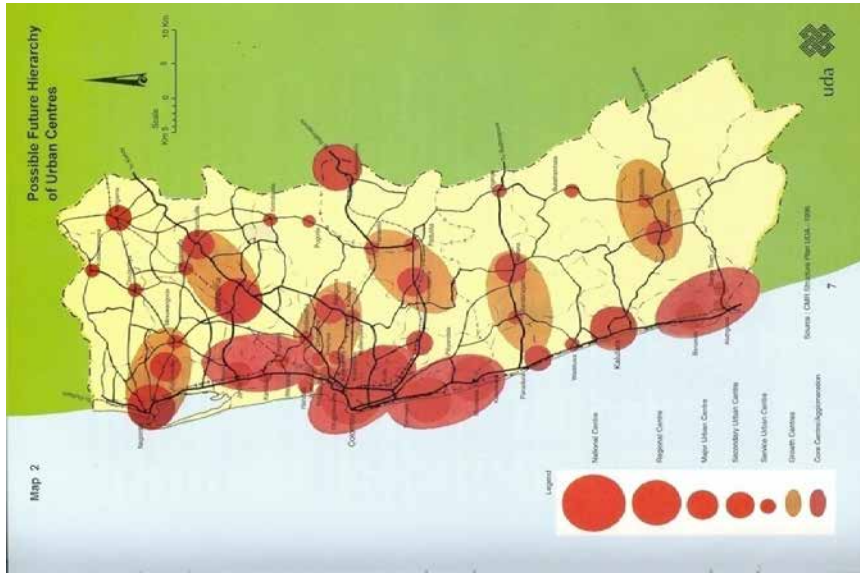


Annexure 01: Colombo Master plan (1978)



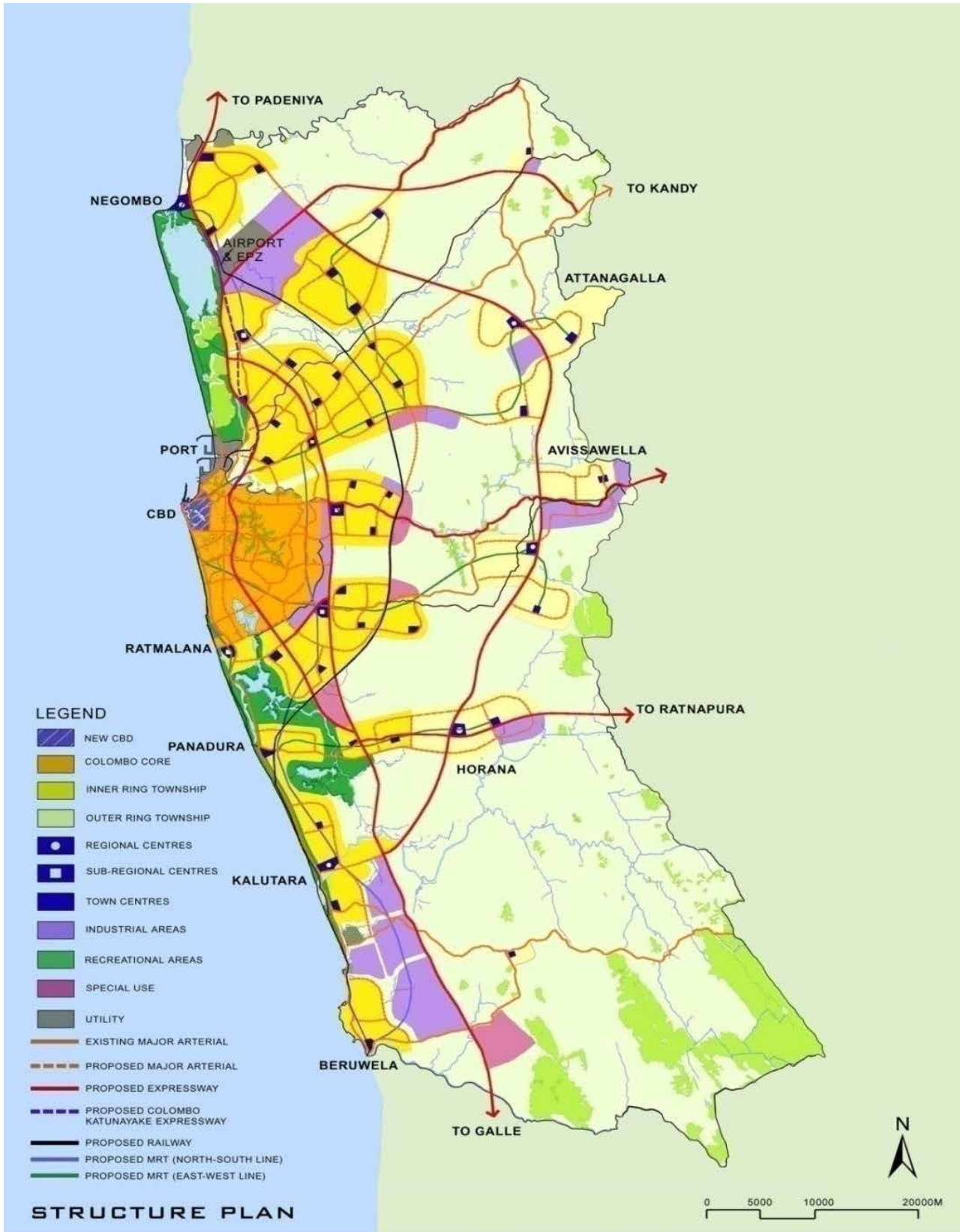
Source : Urban Development Authority (1978)

Annexure 02: Colombo Metropolitan Regional Structure plan (1998)



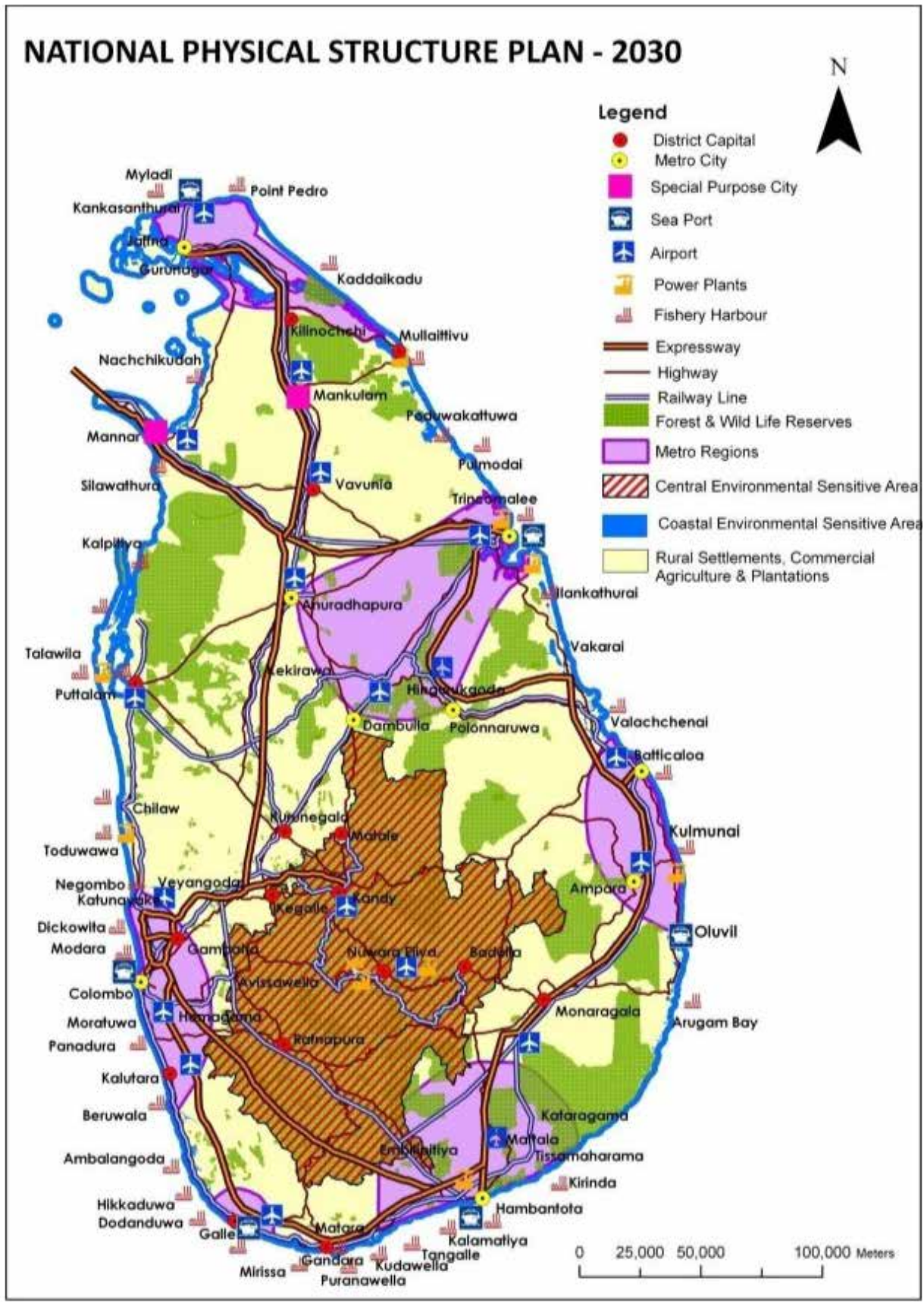
Source :Urban Development Authority (1998)

Annexure 03: Colombo Megapole Plan (CESMA) - (2004)



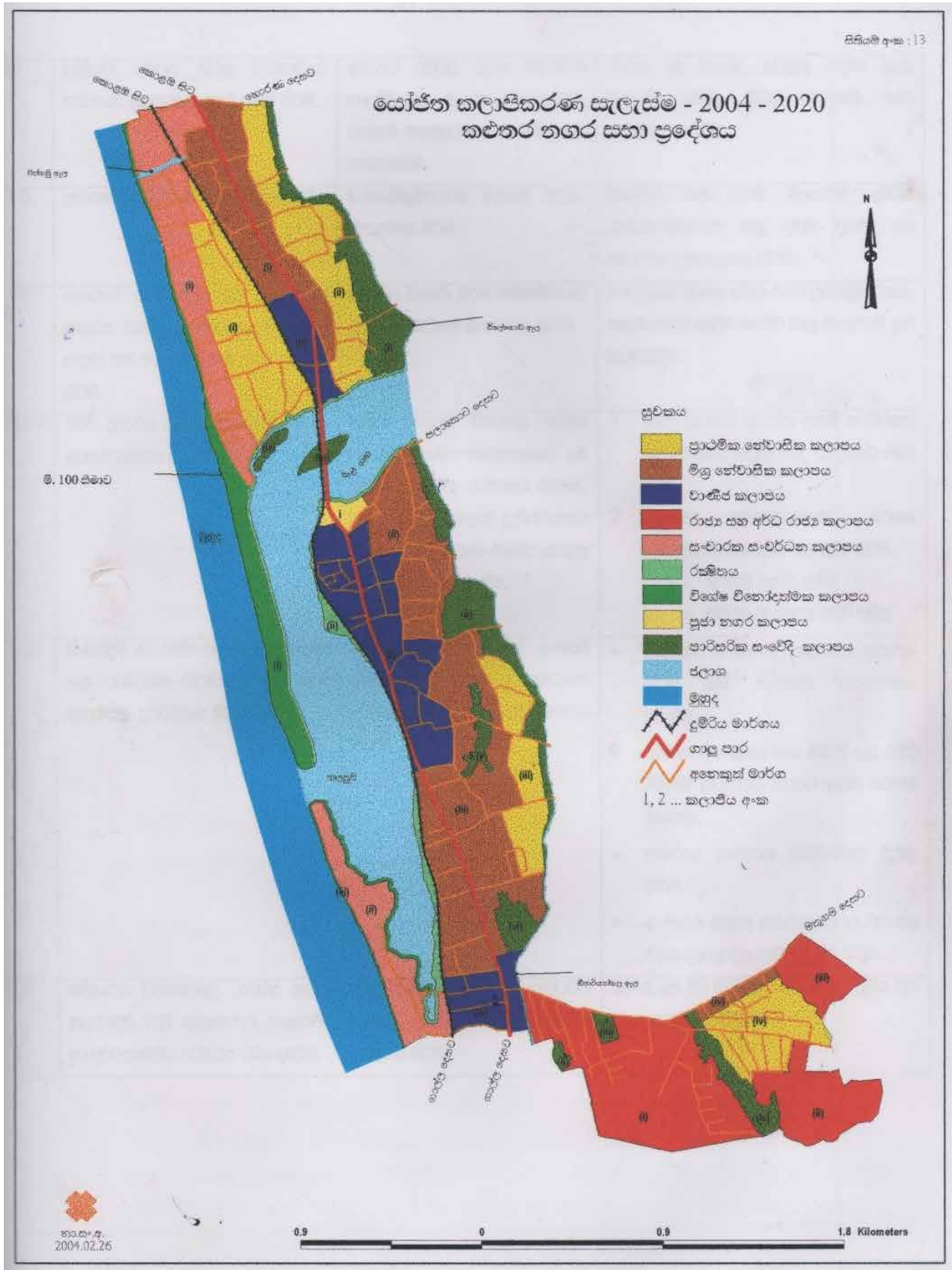
Source : Urban development Authority (2004)

Annexure 04: National Physical planning policy (2011-2030)



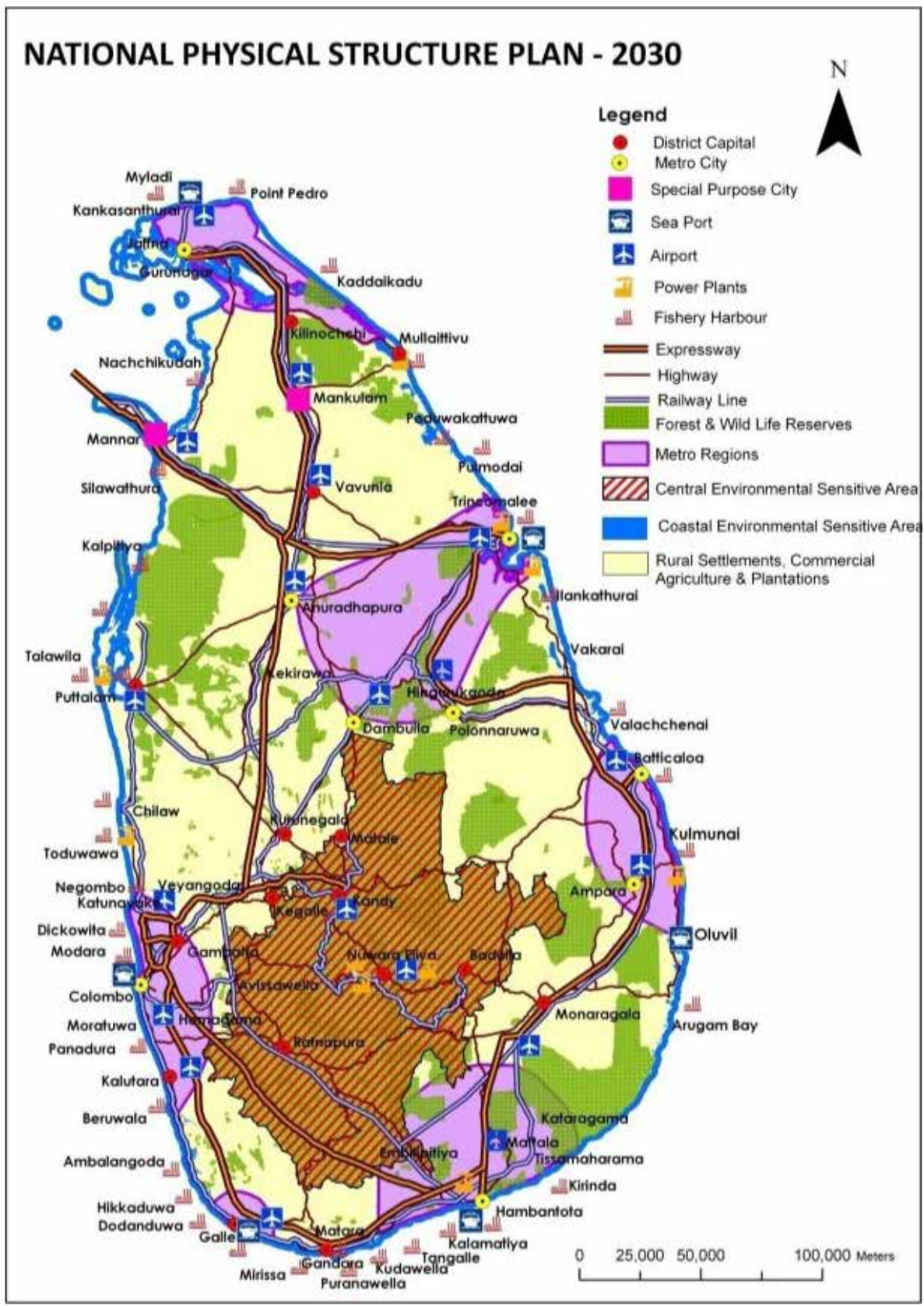
Source : National Physical Planning Department (2011)

Annexure 05: Kalutara Development Plan (2005-2020)
 prepared by the UDA



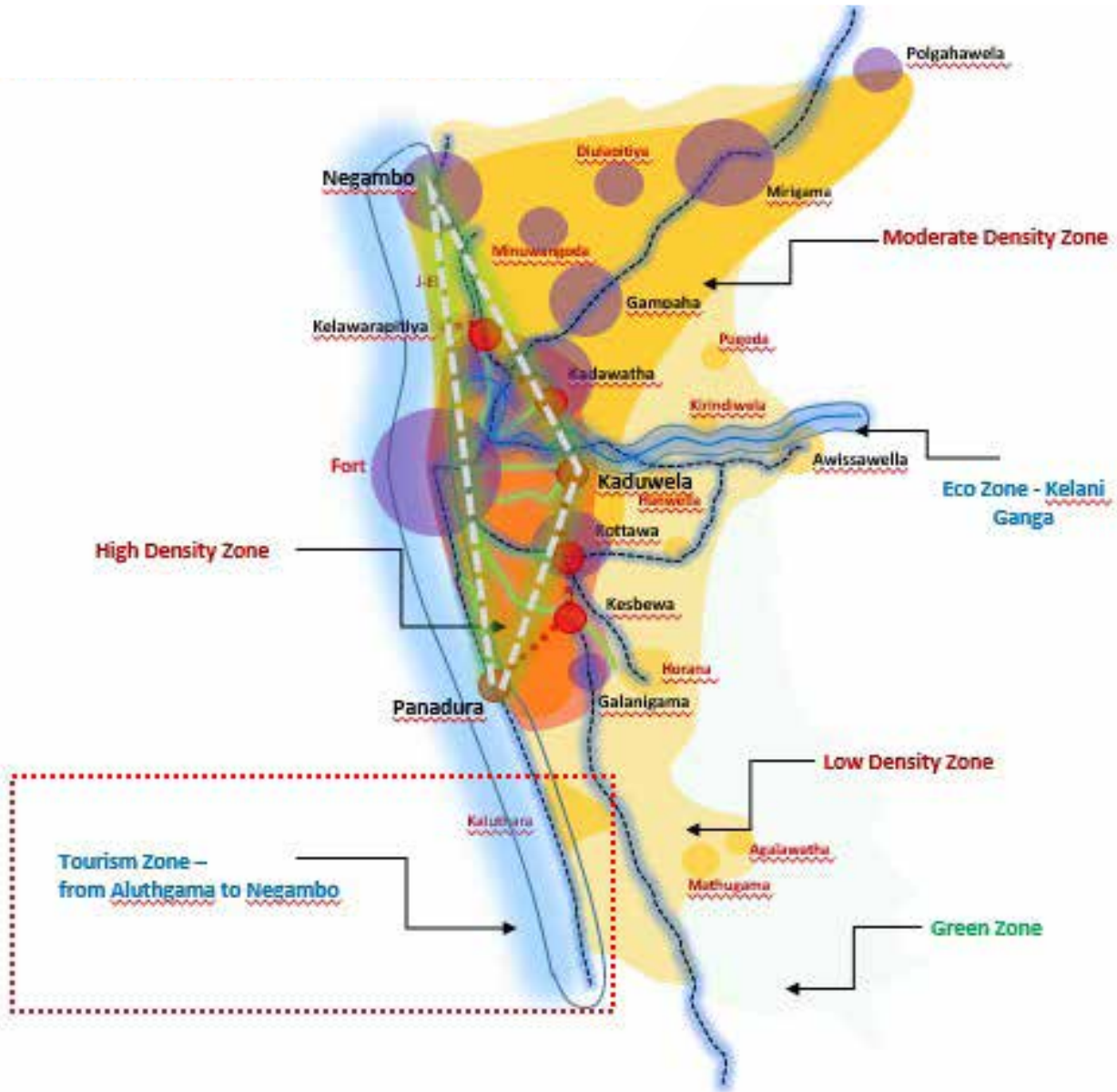
Source : Urban Development Authority (2005)

Annexure 06: Plan prepared by the National Physical Planning Department (2018-2050)



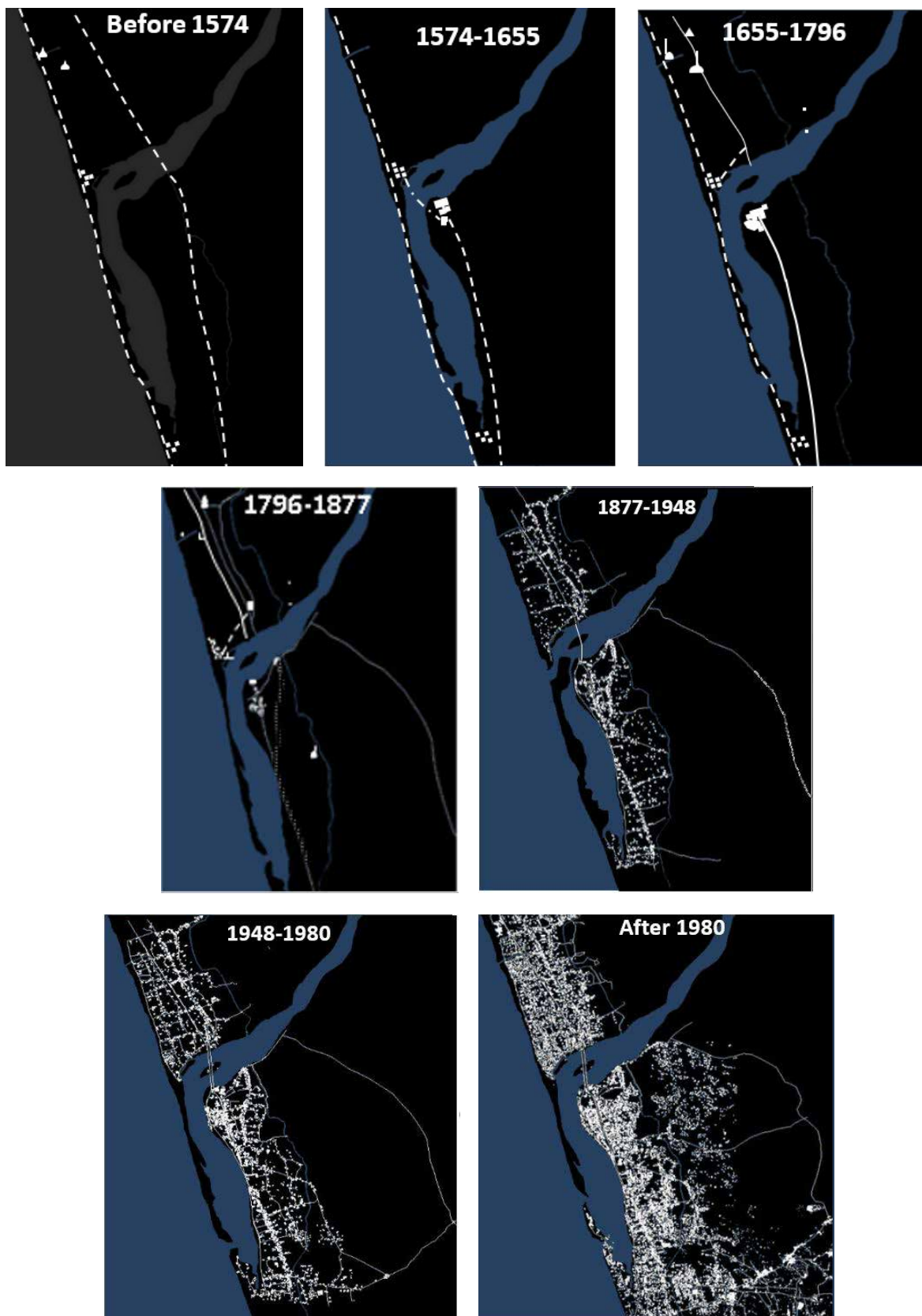
Source : National Physical Planning Department (2018)

Annexure 07: Proposed Western Region Structure Plan - 2018



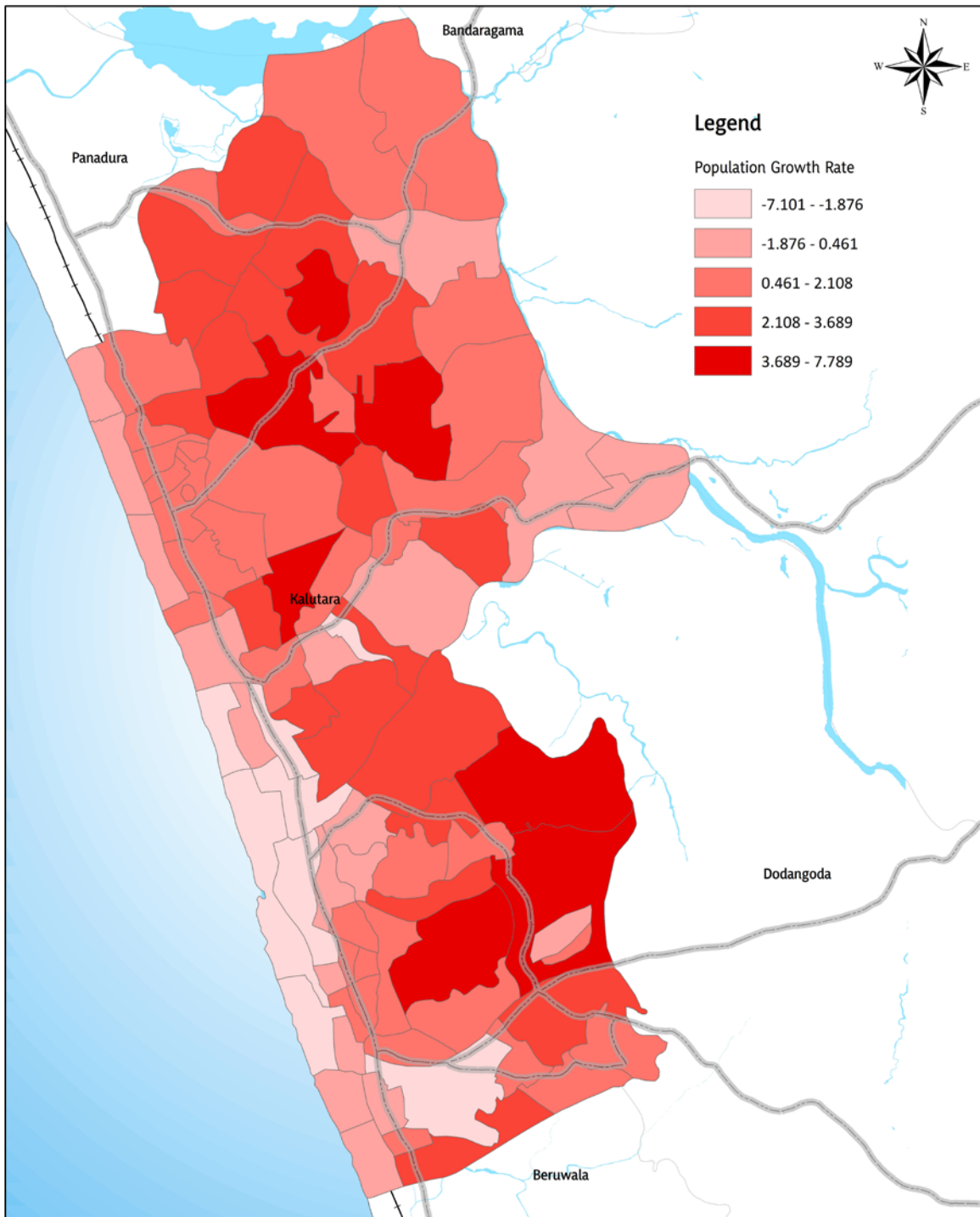
Source : Urban Development Authority (2018)

Annexure o8: Historical evolution of Kalutara town

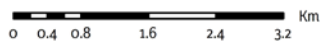


Source : Evolutionary process of Kalutara by Chethika Abenayake (2005)

Annexure 09: Population growth in Kalutara Divisional Secretariat area (2001-2011)

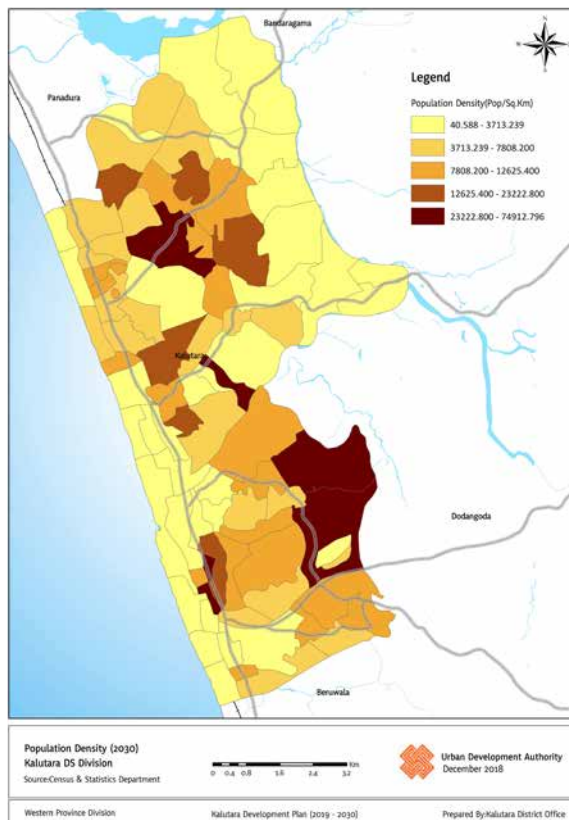
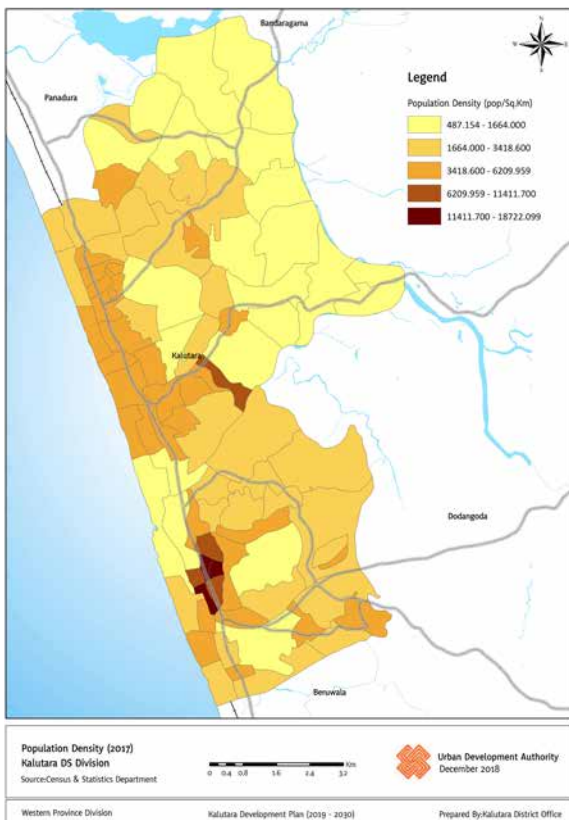
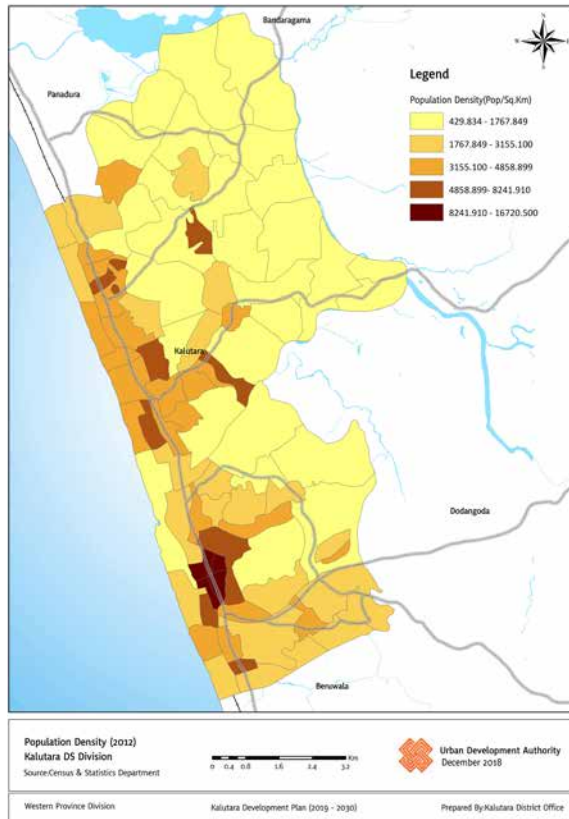
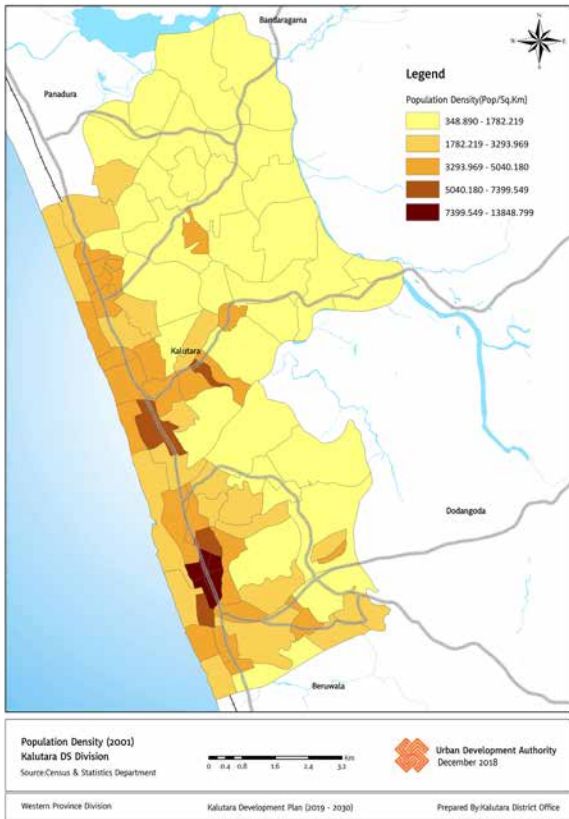


Population Growth (2001-2011)
 Kalutara DS Division
 Source: Census & Statistics Department



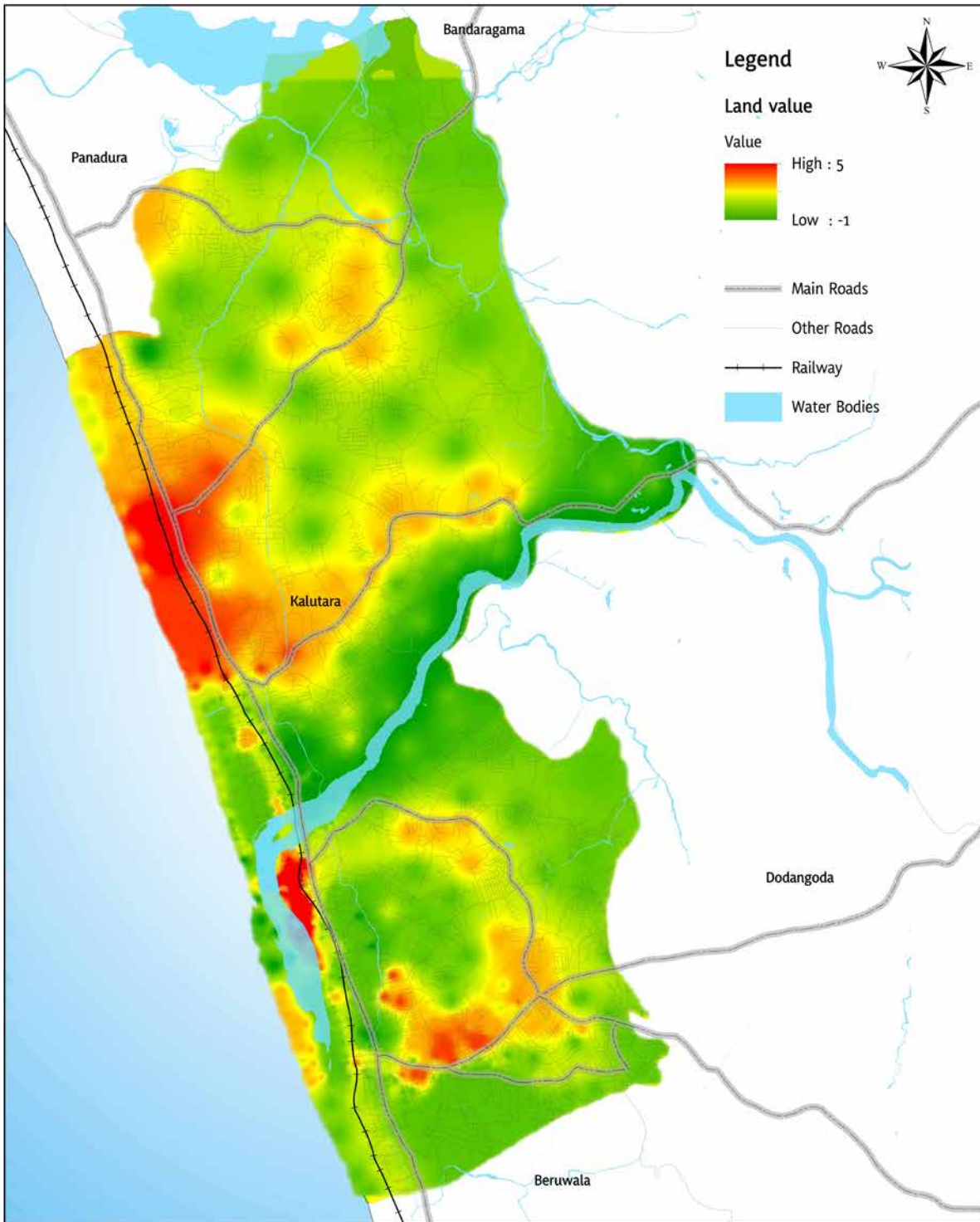
Urban Development Authority
 December 2018

Annexure 10: Population density change in planning area from 2001 to 2030



Source : Urban Development Authority (2018)

Annexure 12: Land value in planning area (2018)



Land Value (2018)
 Kalutara DS Division
 Source: Valuation Department

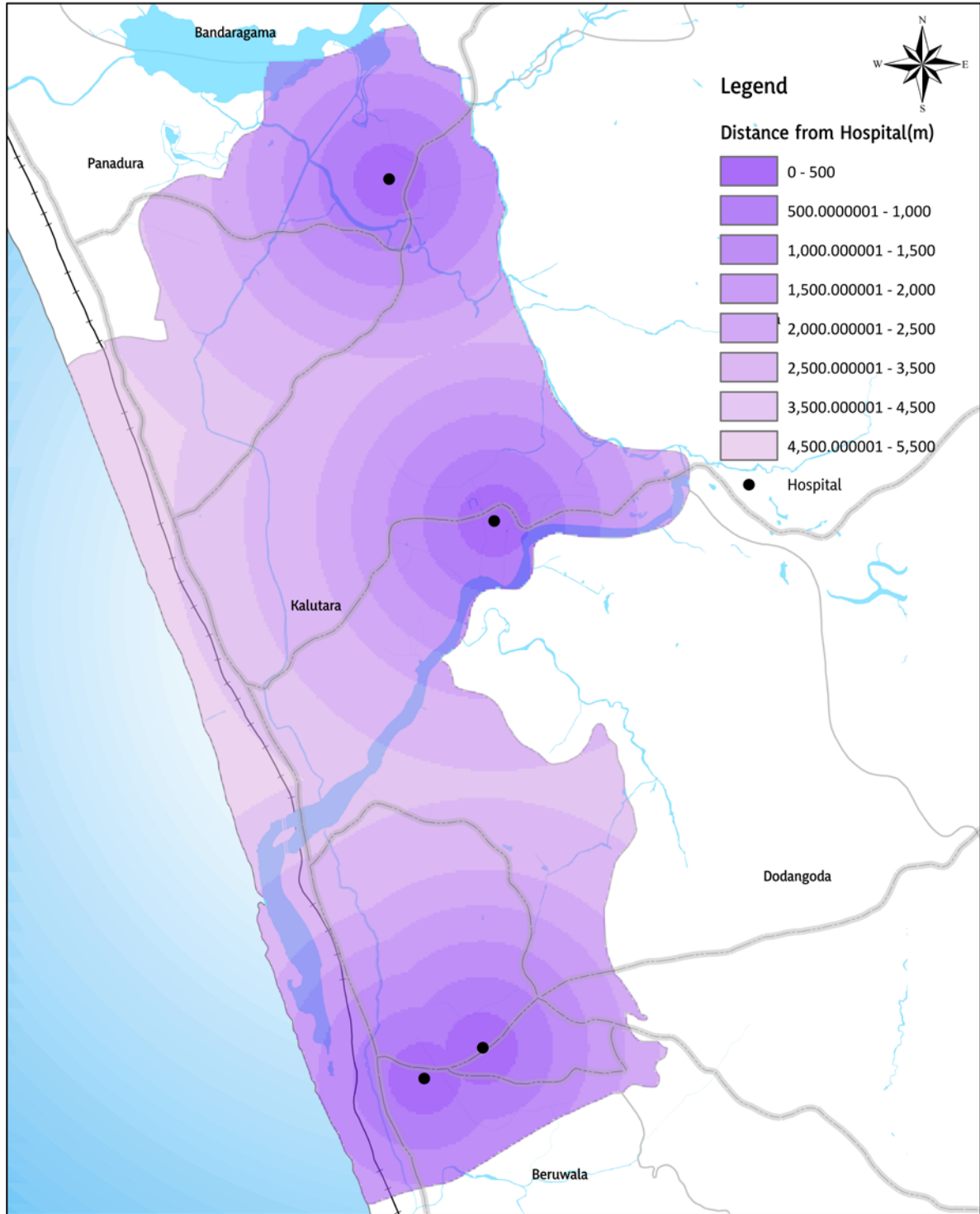
0 0.4 0.8 1.6 2.4 3.2 Km

Urban Development Authority
 December 2018

Western Province Division Kalutara Development Plan (2019 - 2030) Prepared By: Kalutara District Office


Source : Urban Development Authority (2018)

Annexure 13: Distribution of Health facilities (2018)



Serviciability(Health Services)
 Kalutara DS Division
 Source: Urban Development Authority

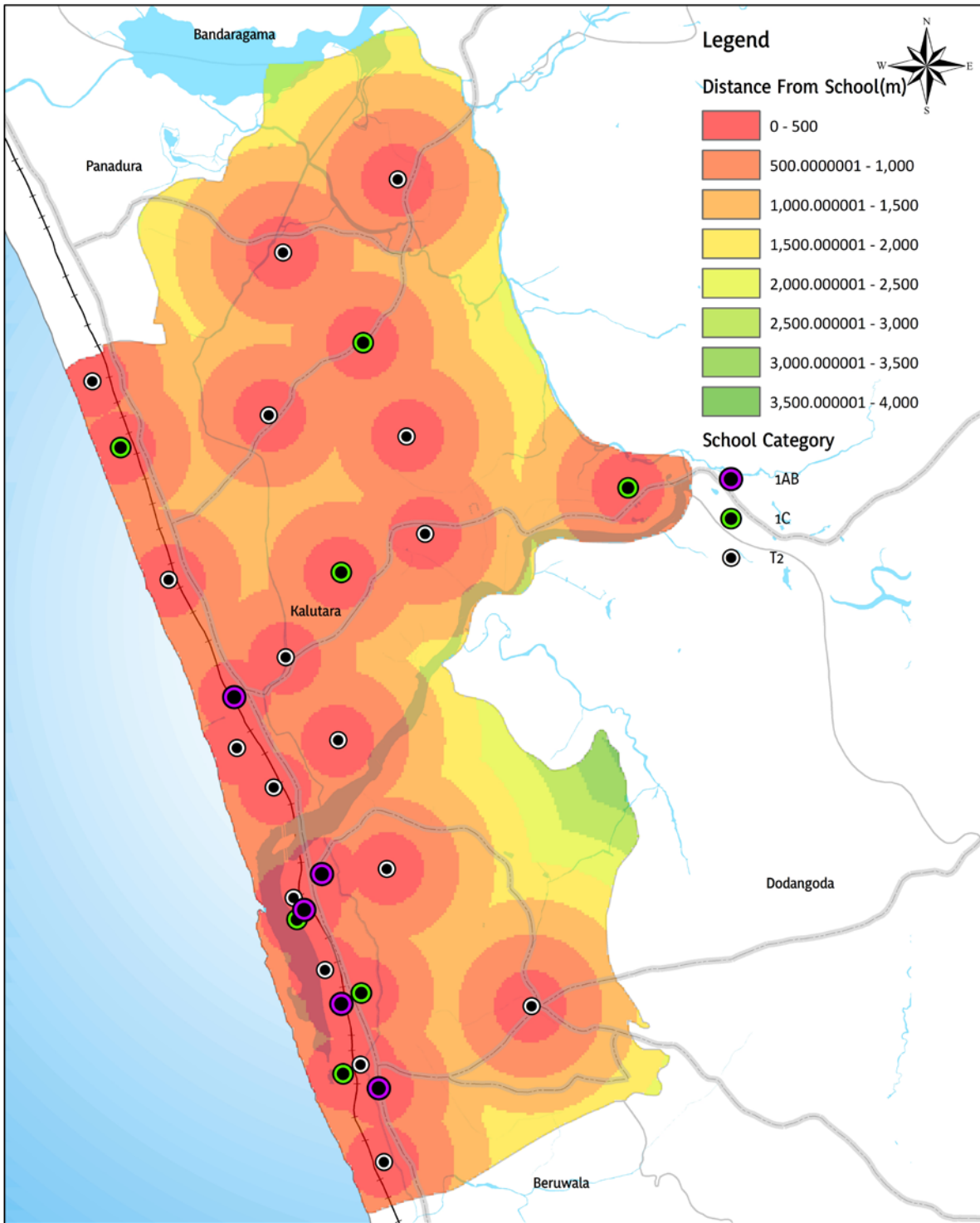
0 0.45 0.9 1.8 2.7 3.6 Km

 Urban Development Authority
 December 2018

Western Province Division Kalutara Development Plan (2019 - 2030) Prepared By:Kalutara District Office

Source : Urban Development Authority (2018)

Annexure 14: Distribution of educational facilities (2018)



Serviciability (Educational Services)
 Kalutara DS Division
 Source:Urban Development Authority

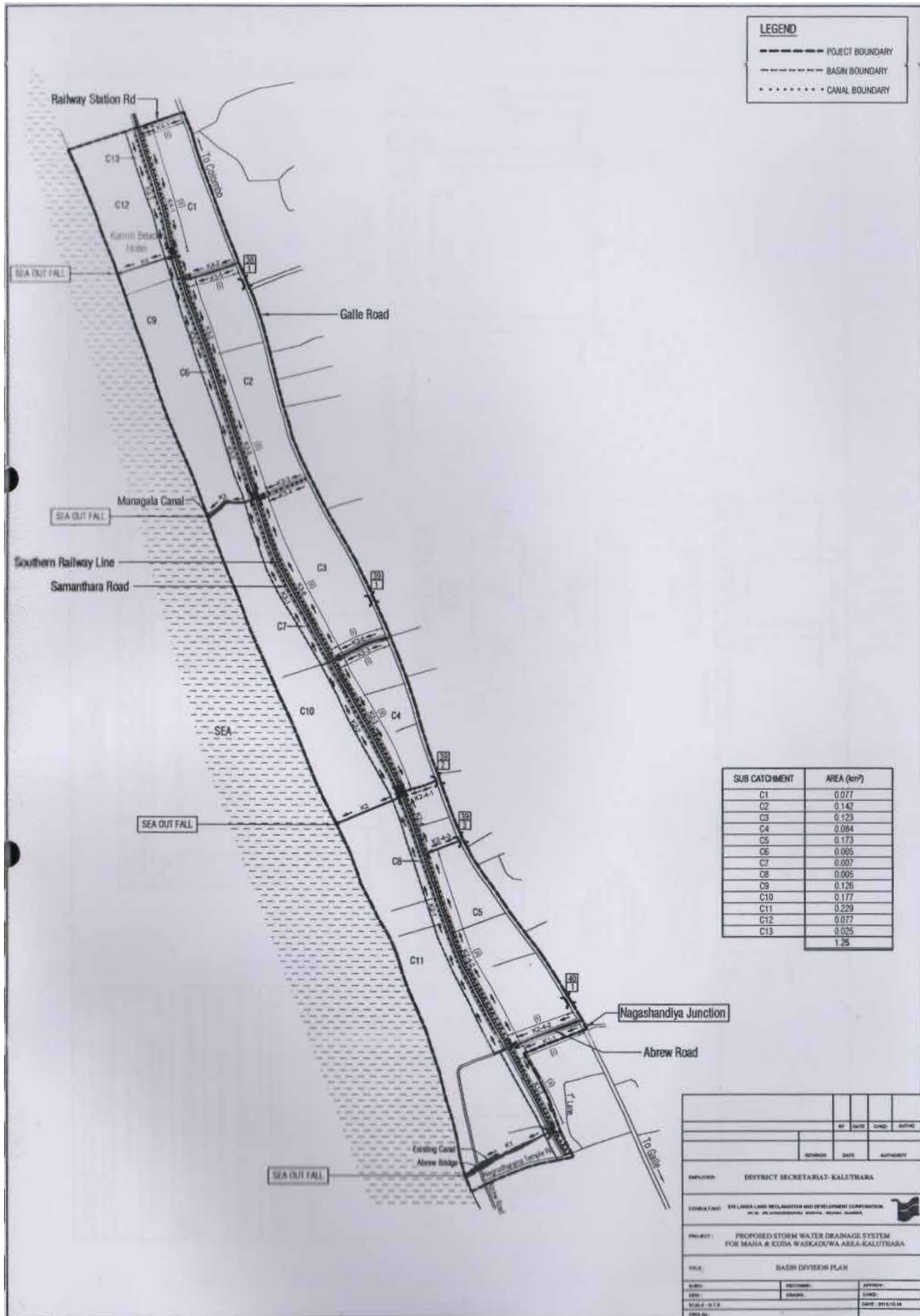
0 0.45 0.9 1.8 2.7 3.6 Km

Urban Development Authority
 December 2018

Western Province Division Kalutara Development Plan (2019 - 2030) Prepared By:Kalutara District Office

Source : Urban Development Authority (2018)

Annexure 15: Waste water Management plan for Kuda Waskaduwa and Maha Waskaduwa (2015)



Source : Sri Lanka land reclamation and development corporation (2015 October)

Annexure 16: Direct and indirect recreational facilities plan for Kalutara Divisional Secretariat area (2019-2030)

Serno	Type	Existing use	Extent (Ha)	Proposed use	GN.division
01	Proposed Community Parks(PCP)				
	PCP	Marshy land	1.08	Middle level lower grade	Moronthuduwa North
02	Proposed Beach Parks (PBP)				
	PBP 01	Beach	2.23	Beach park	Maha Waskaduwa South, Maha waskaduwa North, Kuda waskaduwa west, pothupitiya West, Pohoddramulla South
	PBP 02	Beach	1.08	Beach park	Lagoon, kalamulla North, Kalamulla South
03	Proposed linear parks (PLiP)				
	PLiP 01 Kalu Ganga reservation 20m		36.07	linear park	
	PLiP 02 Heenetiyanigala canal reservation		6.87	linear park	
	PLiP 03 Aluth ela reservation		14.33	linear park	
	PLiP 04 Bolgoda reservation		5.35	linear park	
	PLiP 05 Keppu Ela reservation		20.96	linear park	
	PLiP 06 Ela reservation 20m		8.48	linear park	
	PLiP 07 Kalu Ganga lagoon reservation		25.94	බේබිය උද්ඝාන	
	එකතුව හෙක්ටයාර් :- 204.79				

Source : Environmental and landscape Division- UDA (2018)

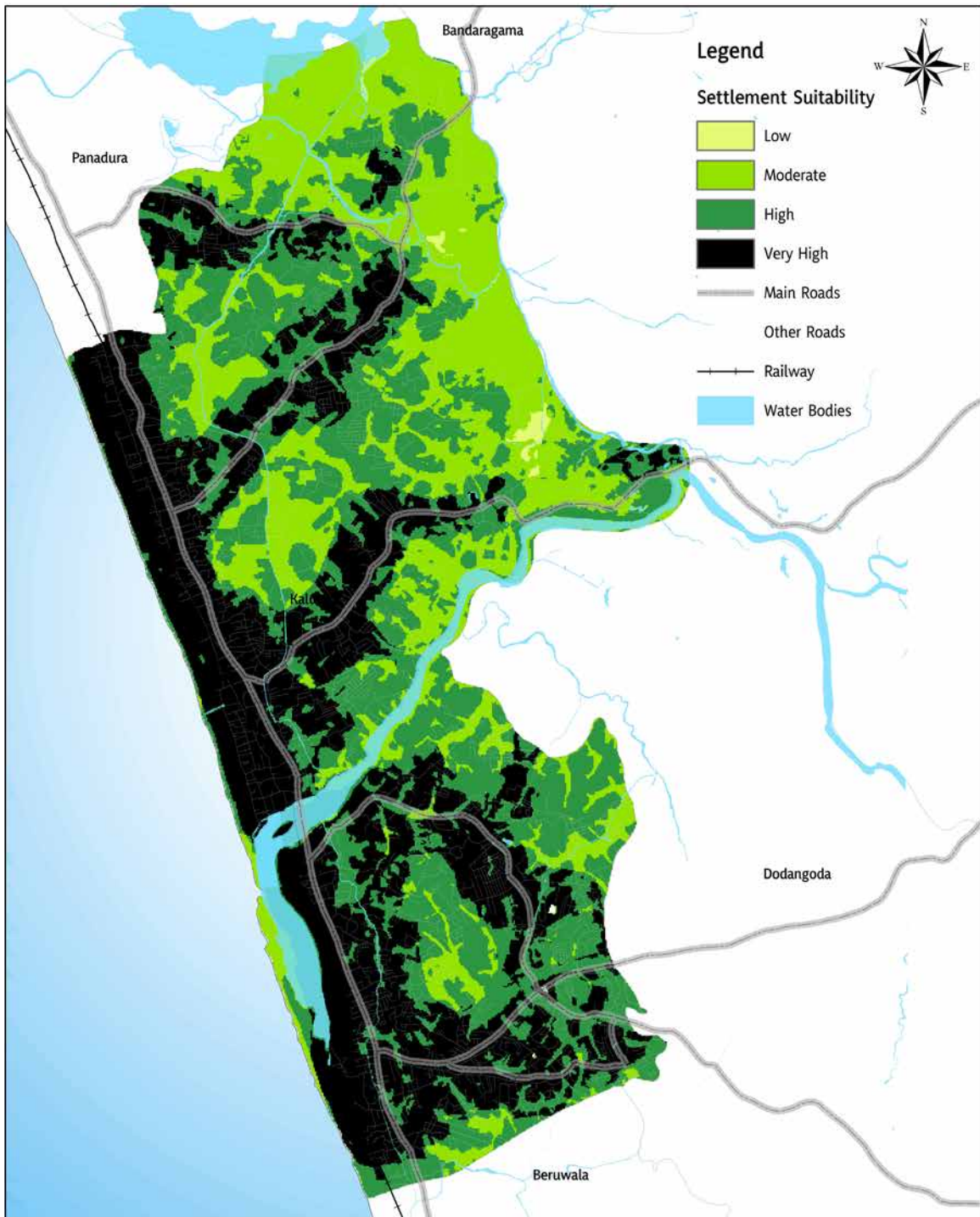
Annexure 17: Details about existing open spaces in Kalutara Divisional Secretariat area

Ser No	Type	Open space	Extent (Ha)	GN Division
01	Playgrounds			
	EPP 02	Tennis ground	0.13	Kalutara North
	EPP 03	Weniwelketiya playground	0.18	Weniwelketiya
	EPP 04	Mananduwa Estate playground	0.18	Nugagoda
	EPP 06	Melagama Uthurakanda udawaththa playground	0.08	Melagama North
	EPP 07	Blumountant land sale	0.11	Ethanamadala
	EPP 08	Blumountant land sale Blumountant land sale	0.08	Ethanamadala
	EPP 09	Open space near Kalutara North railway station	0.16	Widyasara
	EPP 10	Kalutara UC open space	0.08	Kalutara South
	EMP 01	Alubogahalanda Playground	0.21	Alubogahalanda
	EMP 02	Nimthere aspuwa playground	0.24	Waththamulla
	EMP 03	Katulowigaha playground	0.25	Kajuduawaththa
	EMP 04	Bothuwawththa playground	0.3	Kalutara South
	EMP 05	Mawella Sithumsevena Playground	0.36	Maharekma
	EMP 06	Jubili Playground	0.4	Deshathra
	EMP 07	Nugagoda Playground	0.43	Nugagoda
	EMP 08	Galvuwaththa Playground	0.45	Pothupitiya East
	EMP 09	Kurunda Playground	0.46	Maharekma
	EMP 10	Malwaththa Galwaththa Playground	0.48	Wijeratnewaththa
	EMP 11	Ethanamadala school Playground	0.48	Botnicwaththa
	EMP 12	Wijayagama Playground	0.5	Thekkawaththa
	EMP 13	Renjas Playground	0.53	Katukurunda
	EMP 14	Kithulawa Playground	0.54	Kithulawa
	EMP 15	Gonaduwa Playground	0.56	Maha Gonaduwa
	EMP 16	Kaleel Place Playground	0.58	Kurunduwaththa
	EMP 17	Samagipura Playground	0.63	Kudawaskaduwa East
	EMP 18	Ethanamadala Playground	0.63	Ethanamadala
	EMP 19	Keththerama Playground	0.66	Wettumakada
	EMP 20	Delduwawaththa Playground	0.67	Kalpugama West
	EMP 21	Ariyagama Playground	0.68	Ariyagama
	EMP 22	Kaluganwila Playground	0.7	Kalutara North
	EMP 24	Isuruuyana Playground	0.73	Alwiswaththa
	EMP 25	Mihikathawaththa Playground	0.78	Kithulawa
	EMP 26	Panwila Ternce Playground	0.79	Thekkawaththa
	EMP 27	Luwis silva Playground	0.88	Galassa
	EMP 28	Rajawaththa Playground	0.91	Pulerton west

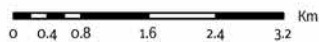
	EMP 29	Wadiyawaththa Playground	0.92	Kudawaskaduwa North
	EMP 30	Winros land sale	0.21	Mawala South
	EMP 31	Pulerton land sale	0.43	Pilerton West
	EMP 32	Blumounten land sale	0.47	Ethnamadala
	EMP 33	Isuruuyana land sale	0.48	Ariyagama
	EMP 34	Matlife land sale	0.50	Waththamulla
	ELP 01	Kalutara UC Playground	1.45	Kalutara West
02	Children Parks			
	EPP 01	Children park near Doowa temple	0.04	Kuda Henetiyangala
	EPP 05	Karukurunda Children park	0.02	Uswaththa
	EMP 23	Kalutara UC Children park	0.7	Kalutara South
03	Beach parks			
	EBP 01	Celido beach	19.47	Deshathra west, Kalutara North
				Total - 40.52 Hac.

Source : Environmental and landscape Division-UDA (2018)

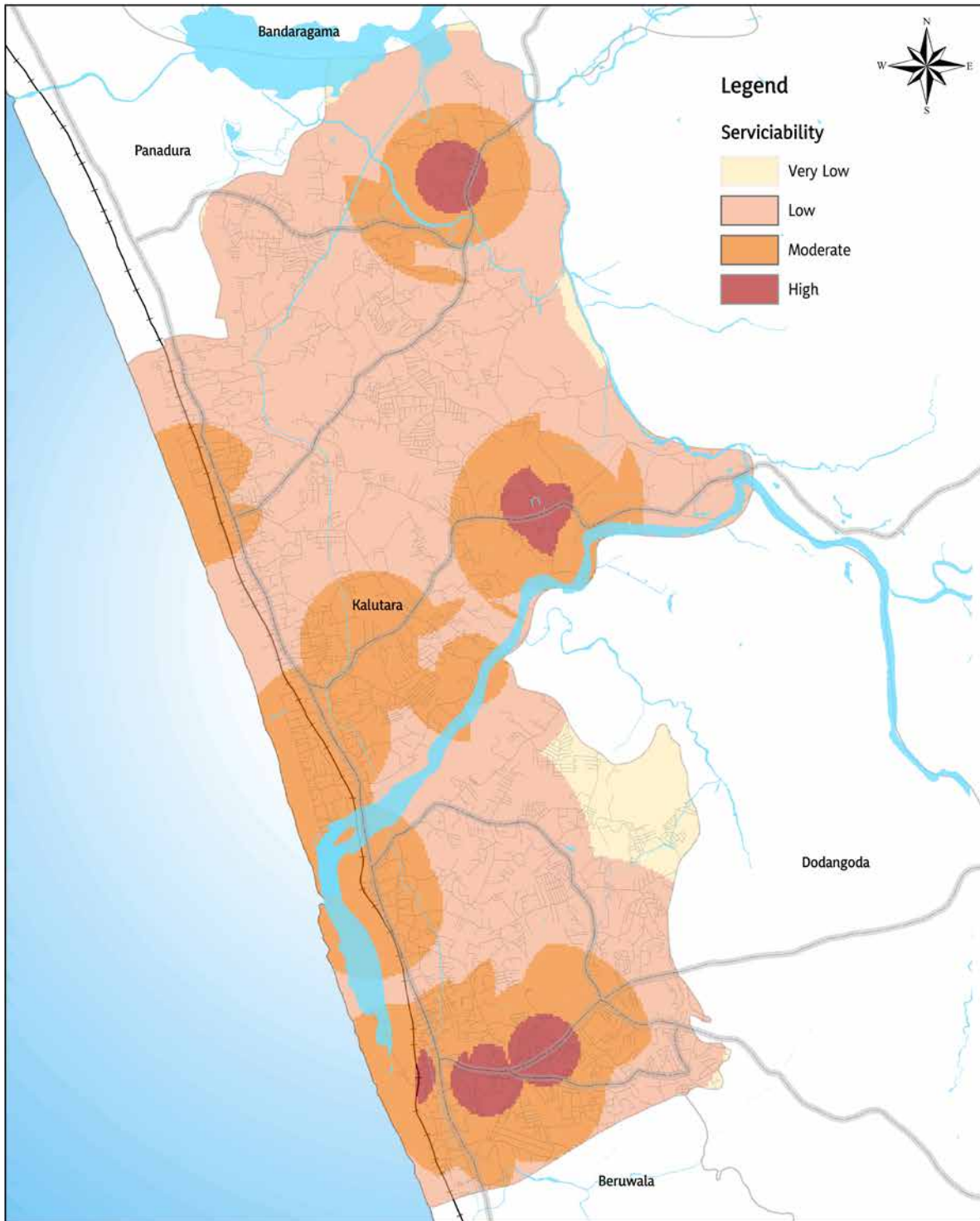
Annexure 18: Analysis of Residential compatibility in Kalutara Divisional Secretariat area



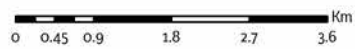
Settlement Suitability (2018)
 Kalutara DS Division
 Source: Urban Development Authority



Annexure 19 : Analysis of Service facilities



Serviciability
Kalutara DS Division
Source:Urban Development Authority



Urban Development Authority
December 2018

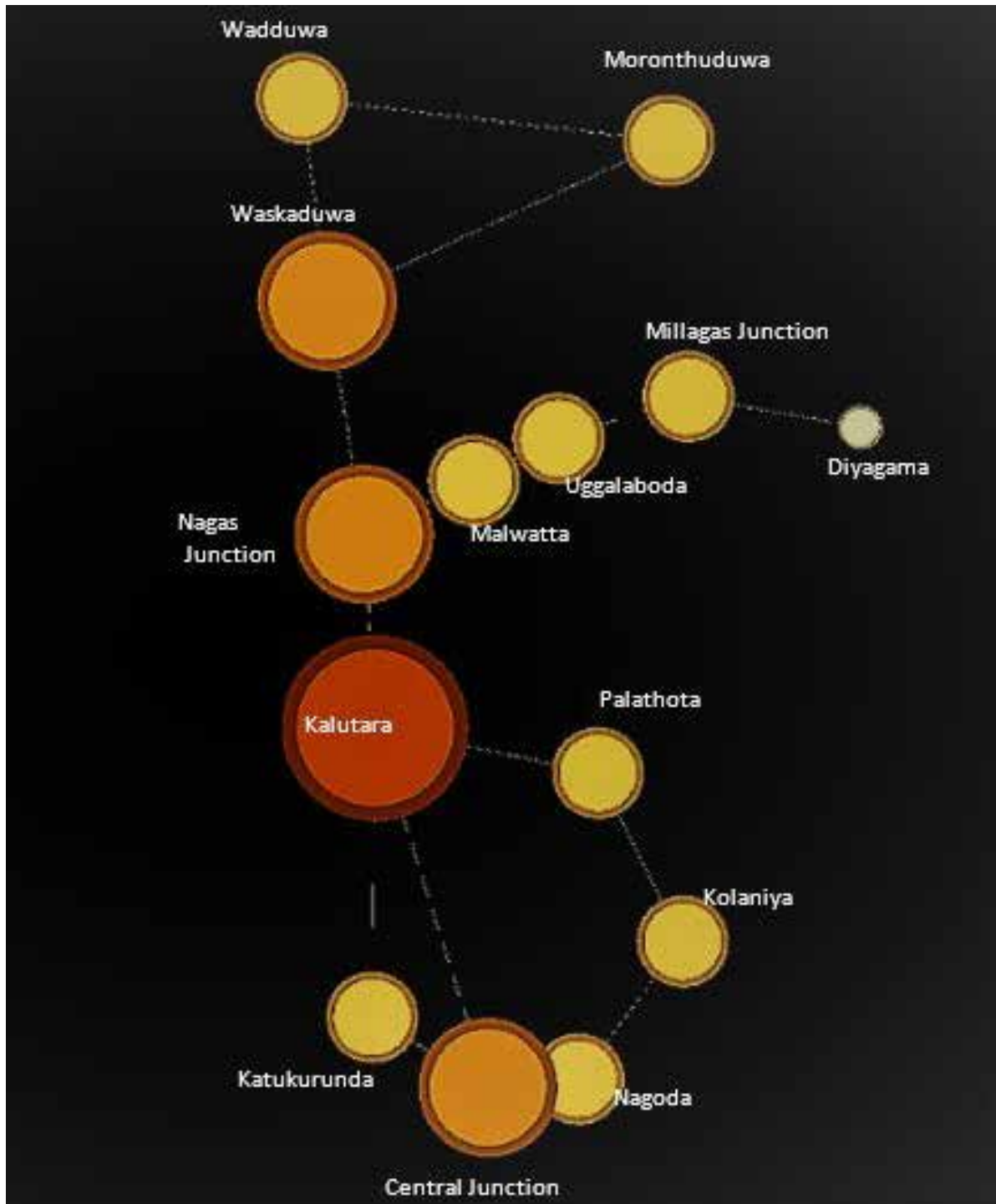
Western Province Division

Kalutara Development Plan (2019 - 2030)

Prepared By:Kalutara District Office

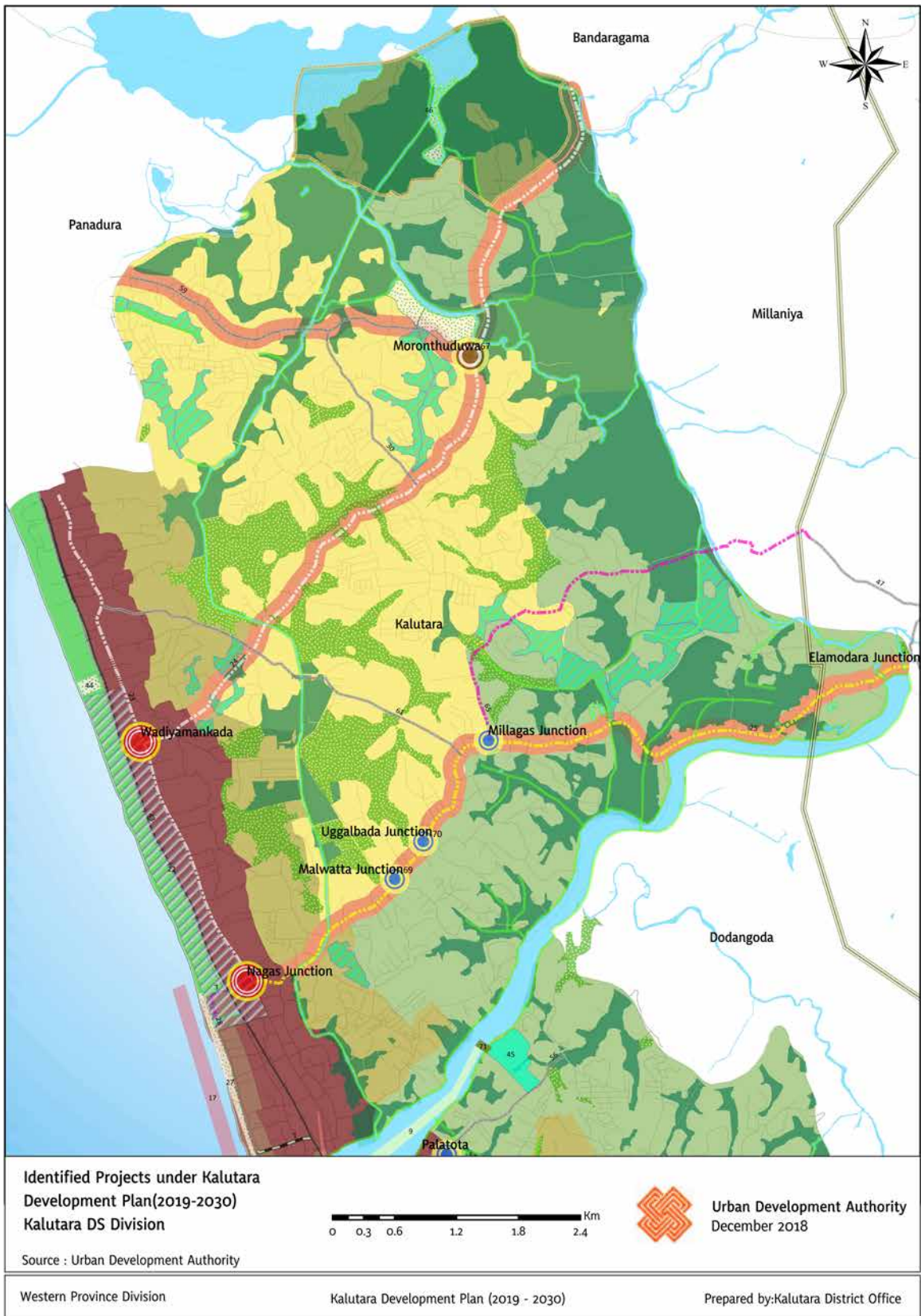
Source : Urban Development Authority (2018)

Annexure 20: Analysis of Noddle priorities

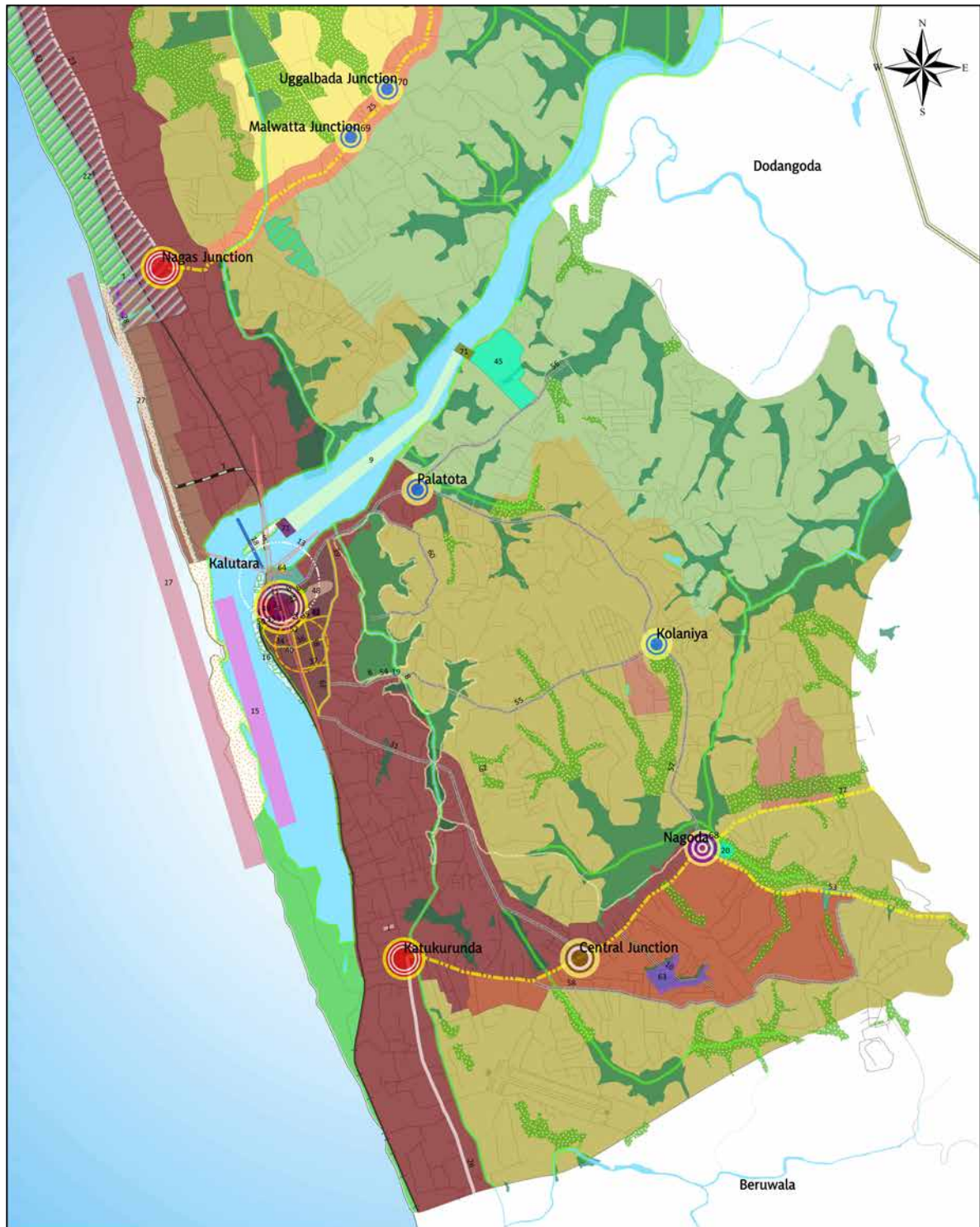


Source : Urban Development Authority (2018)

Annexure 21 : Projects which are identified under the Kalutara Development plan (2019-2030)



Source : Urban Development Authority (2018)

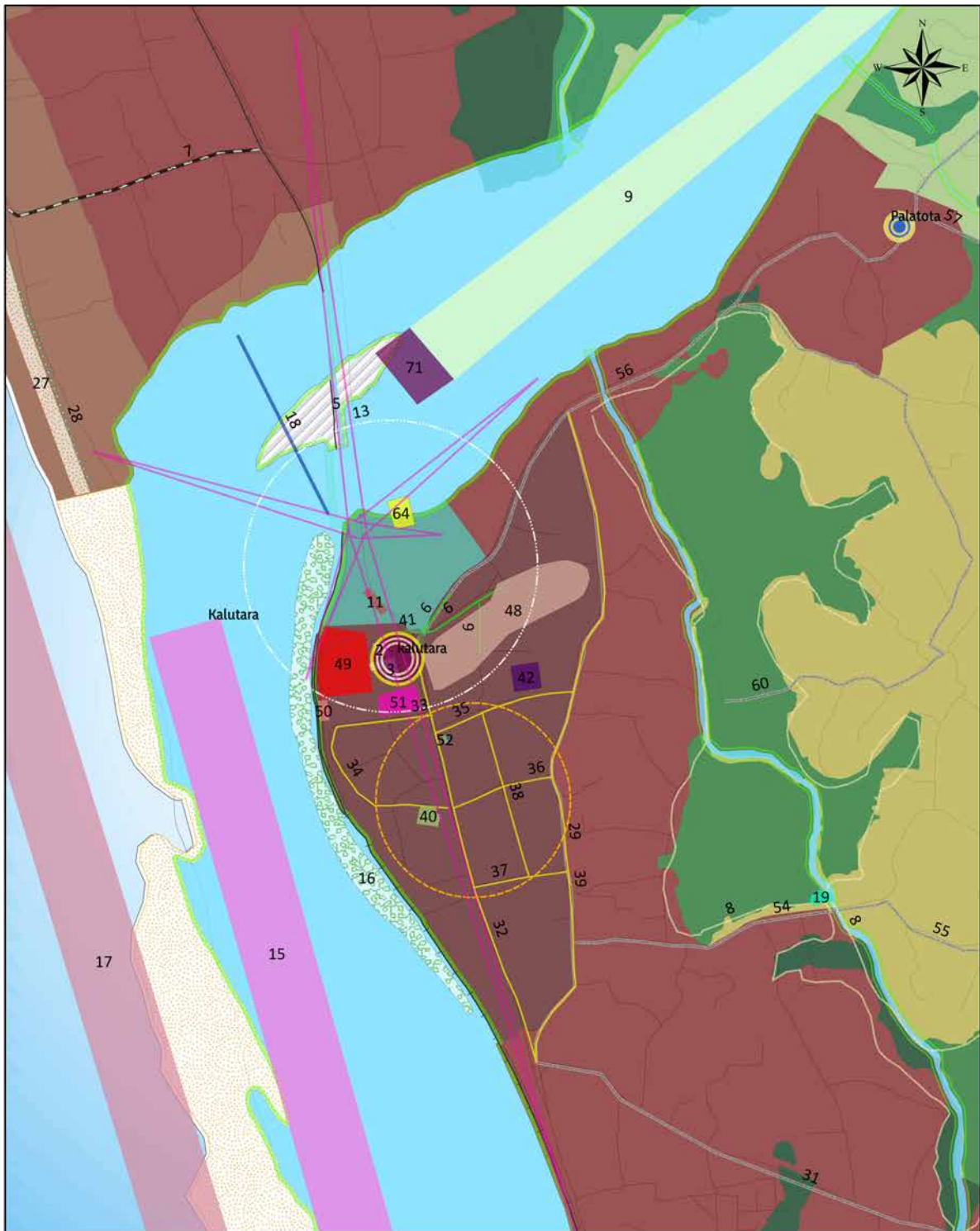


Identified Projects under Kalutara
 Development Plan(2019-2030)
 Kalutara DS Division

Source : Urban Development Authority



Urban Development Authority
 December 2018



**Identified Projects under Kalutara
Development Plan(2019-2030)
Kalutara DS Division**

Source : Urban Development Authority



**Urban Development Authority
December 2018**

List of Maps

Map 2.1.	Kalutara Divisional Secretariat area (2018)	13
Map 2.2.	National and regional linkages of Kalutara Divisional Secretariat Area (2018)	15
Map 2.3.	Natural water flowing system in the Kalutara Divisional Secretariat area (2018)	18
Map 3.1.	Development pressure (2018)	33
Map 3.2.	Environmental sensitivity (2018)	34
Map 5.1.	Administrative Building Density (2018)	59
Map 5.2.	Population Growth Rate (2001- 2011)	60
Map 5.3.	Distribution of Low-Lying Lands (2018)	61
Map 5.4.	Coastal Risk Areas (2018)	65
Map 5.5.	Sea Level rising Impact Area (2025)	66
Map 5.6.	Distribution of Railway and Road System (2018)	69
Map 6.1.	Proposed Land Use Plan (2030)	80
Map 6.2.	Drinking Water Sources in the Kalutara DSD (2018)	85
Map 6.3.	Waste Water Management Areas (2018)	88
Map 6.4.	Location of Pohorawatta Solid Waste Management Center (2018)	93
Map 6.5.	Tourism Development Plan (2018)	97
Map 6.6.	Wetland Zoning Plan (2019-2030)	100
Map 6.7.	Disaster Mitigation Zoning Plan for Kalutara DSD (2019- 2030)	107
Map 6.8.	Public Outdoor Recreational Space Plan in the Kalutara Planning Area (2019-2030)	111
Map 6.9.	Housing Density and Distribution in Kalutara DSD (2019-2030)	118

List of Tables

Table 2.1.	Population Growth in the Kalutara Divisional Secretariat Area 2001-2030	19
Table.2.2	Population Attracted for Kalutara Bodhi Premises	20
Table 2.3	Drinking Water Sources	21
Table 5.1.	Developments Closer to Main River Basins	51
Table 5.2.	Classification of Low-Lying Lands	57
Table 6.1.	Reservations for the River, Canals and Other Water Streams in the Planning Area	101
Table 6.2.	Details about the Disaster Condition due to Floods in the Kalutara Divisional Secretariat Area during the Years 2014-2018	104
Table 6.3.	Details about the Drinking Water issue in the Kalutara Divisional Secretariat area during the Period from 2014 to 2018	105
Table 6.4	Direct Recreational areas in the Kalutara Urban Area	108
Table 6.5.	Spatial Plan for Public Outdoor Recreational Space in the Kalutara Planning Area by 2019-2030	109
Table 6.6.	Historically and Culturally Important Places in Kalutara Planning Area	115
Table 6.7.	The Population Distribution in Residential Zones Identified in Different Densities	117

List of Figures

Figure 2.1.	Historical images of Kalutara	24
Figure 2.2.	Present Kalutara town	25
Figure 2.3	Summary of Data Related to Planning Area	22
Figure 3.1	Change of Sand dune which belongs to Calido Beach	30
Figure 5.1.	Locations of Tourist Attraction Sites in Kalutara	51
Figure 5.2.	Distribution of inappropriate Land Use Patterns	52
Figure 5.3.	Proposed Structure Plan for Western Province (2018)	54
Figure 5.4.	National Physical Planning Policy -2040	54
Figure 5.5.	Colombo Metropolitan Regional Structure Plan -1998	55
Figure 5.6.	Previous Condition of Calido Beach (2005)	56
Figure 5.7.	Present Condition (2018) of Calido Beach	56
Figure 5.8.	Electrical Conductivity in Water in Dry Season	62
Figure 5.9.	Proposed Electrified Railway up to Panadura	63
Figure 5.10.	Location of Railway Station and Bus Stand in Kalutara	68
Figure 5.11.	Details about trains	68
Picture 5.12.	Roads which are not having Pedestrian walk ways	70
Picture 5.13.	Connection of Pelpola Road interchange with Kalutara Town through Kalutara-Horana Road	71
Picture 5.14.	Changes Taken Place in Spatial Integration after Construction of Southern Highway	72
Figure 6.1.	Conceptual Plan	75
Figure 6.2.	Cross Section 1 (A-A)	77
Figure 6.3.	Cross Section 2 (B-B)	78
Figure 6.4.	Cross Section 3 (C-C)	78
Figure 6.5.	Cross Section 4 (D-D)	79
Figure 6.6.	Areas Covered for Supplying Electricity by the CEB and LECO in Sri Lanka	86
Figure 6.7.	Daily Generation of Solid Waste (Ton)	89
Figure 6.8.	Solid Waste Types	89

List of annexures

Annexure 1.	Colombo Master Plan (1978)	162
Annexure 2.	Colombo Metropolitan Regional Structure Plan (CMRSP) – 1998	163
Annexure 3.	Colombo Megapolice Plan (CESMA) –2004	164
Annexure 4.	National Physical Plan (2011–2030)	165
Annexure 5.	Kalutara Development Plan (2005–2020) prepared by the U.D.A.	166
Annexure 6.	Plan prepared by the National Physical Planning Department (2018–2050)	167
Annexure 7.	Proposed Western Region Structure Plan prepared by the U.D.A.– 2018	168
Annexure 8.	Historical evolution of Kalutara town	169
Annexure 9.	Population growth in Kalutara Divisional Secretariat area (2001–2011)	170
Annexure 10.	Population density change in planning area from 2001 to 2030	171
Annexure 11.	Land use (2018)	172
Annexure 12.	Land value in planning area (2018)	173
Annexure 13.	Distribution of health facilities (2018)	174
Annexure 14.	Distribution of educational facilities (2018)	175
Annexure 15.	Waste water Management plan for Kuda Waskaduwa and Maha Waskaduwa (2015)	176
Annexure 16.	Direct and indirect recreational facilities plan for Kalutara Divisional Secretariat area (2019–2030)	177
Annexure 17.	Details about existing open spaces in Kalutara Divisional Secretariat area	178–179
Annexure 18.	Analysis of residential compatibility in Kalutara Divisional Secretariat area	180
Annexure 19.	Analysis of Service Facilities	181
Annexure 20.	Analysis of Noddle Priorities	182
Annexure 21.	Projects which are identified under the Kalutara Development Plan (2019–2030)	183

References

- Evolutionary Process of Kalutara Town by Chethika Abenayake, 2005
- Census and Statistic Department (<http://www.statistics.gov.lk/>)
- Coast Conservation and Coastal Resource Management Department (<https://lankainformation.lk/government-departments/4242-oast-conservation-and-coastal-resource-management-department>)
- Planning Guidelines for Urban and Natural Disaster Mitigation Prepared by UDA in Associated with Disaster Management Center, 2013
- Sri Lanka Urban Multi Hazard Mitigation Project, January 2000 (SLUMDMP)
- Urban Public Outdoor Recreation Space Planning in Sri Lanka Book Prepared by Environment & Landscape Division, UDA
- Annual Statical Report- 2016, Sri Lanka Tourism Development Authority
- Bodhi Trust, Kalutara
- Disaster Management Plan, Kaluthara District, November 2014
- Landslide Hazard Zoning Mapping Report, 2012
- Resource Profile -2018
- Wetland Management Plan of Western Province, Urban Development Authority ,2016
- Guidelines for Building a Safe House, National Building and Research Organization, 2016
- Disaster Report of National Disaster Relief Services Centre, Kalutara District



Kalutara District Office, Western Province Division
Urban Development Authority
Ministry of Megapolis & Western Development