





Urban Development Authority Ministry of Urban Development & Housing

Kalpitiya Development Plan 2021 - 2030

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Kalpitiya Development Plan 2021 – 2030 mainly consists of three parts and will published as Part 1, Part 2 and Part 3. The part one consists of the background of the development plan, the need for a development plan, the vision, goals and objectives of the development plan, the conceptual design and development strategies. The Part 2 of the document is containing the Planning and Building Guidelines and zoning guidelines pertaining to the planning boundary for the period of 2021 – 2030. Other annexes which are including in Part 3.

Kalpitiya Development Plan 2021 - 2030 has been prepared by the Puttalam District Office, Urban Development Authority. This has been done with the advice and guidance of various sections and resource persons of the UDA.

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Supportive Team

Environment and Landscape Division - UDA GIS Division - UDA Research and Development Division - UDA Development Planning Division - UDA

Acknowledgment

This "Development Plan" effective for the period starting from 2018 to 2030, for the area comes under the jurisdiction of Kalpitiya Pradeshiya Sabha was prepared by the Puttalam District Office, North Western Province of the Urban Development Authority with the active participation and consultation with the general public, stakeholders and development partners operating in the region.

First of all, we wish to place our sincere gratitude and appreciation to Hon. Mahinda Rajapaksha, Minister of Urban Development and Housing, Secretary to the Ministry and the Ministry staff for their guidance and encouragement rendered to us in this endeavor. We also wish to place our special thanks to Hon. Chairman, Councilors and the staff of the Kalpitiya Pradeshiya Sabha for the valuable support they have given us during this exercise.

We also wish to place on record our sincere gratitude for the numerous support that we have received by way of comments, concerns and suggestions from the participants representing key-stakeholders, development partners and the general public in the stakeholder meetings, workshops and conferences organized for this purpose.

Appreciatively thankful to former Chairman of Urban Development Authority, Dr. Jagath Munasinghe who has a new vision, especially with regard to the development plans drawn up by the Urban Development Authority, through an innovative way and the result of deep technical and practical studies.

Our special thanks also go to Architect, U.D.S. Harshan de Silva, Chairman, Urban Development Authority for his untiring leadership and guidance during this entire process of plan preparation, encouraging us to adopt new technology and applications which enabled us to produce a comprehensive document with a new outlook.

Last but not least we wish to place our sincere gratitude and appreciation for the invaluable support and guidance we have received from our fellow staff members in the Planning Division, GIS Division, Environmental Division, Research and Development Division and the Enforcement Division of the Urban Development Authority.

Honorable Minister's forward



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

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

The Kalpitiya town provide services to a large population. Accordingly, Kalpitiya Pradeshiya Sabha Planning Area has

the potential to become a town that continues to provide commercial and administrative services. This potential is further enhanced by the natural ecosystem of the surrounding area and the locations of environmental sensitive sites of value. These development plans aim to develop the Kalpitiya town by utilizing the potential of the area.

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

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

Hon. Mahinda Rajapaksa (M. P)

Minister of Urban Development & Housing

Honorable State Minister's forward



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

The development plans thus formulated are primarily aimed at building a productive citizen, a happy family, a dignified society and a prosperous nation, which are the core aspirations

of the vistas of prosperity. I also believe that these development plans will go a long way in achieving the objectives of urban development and guidelines through a formal reurbanization plan that will bring economic stability to the urban population.

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

Dr. Nalaka Godahewa (M.P)

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

Hon. Chairman's forward - Urban Development Authority



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

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

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

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

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

Archt. Harshan De Silva

Chairman

Urban Development Authority

Honorable Chairman's -forward (Kalpitiya PS)



Kalpitiya is a historical city founded upon a variety of economic activities among which tourism, fishing and agriculture stands in the forefront However, Kalpitiya is currently confronted with many obstacles in its march towards sustainable development mainly due to unplanned and haphazard activities that are taking place within its area of authority. So, a properly formulated Development Plan to guide development in a coherent and sustainable manner has become a need of the day.

Under the above circumstances, the statutory enforcement of the "Development Plan 2018 - 2030" for Kalpitiya Pradeshiya Sabha, which centered on the concept of sustainable development as

well as requisite projects and program to make it an important destination for Eco-tourism in the country, can be considered as an important first step taken toward its ultimate goal of having a self-sustainable and well-developed standalone Peninsula of Kalpitiya. At this important occasion I wish to express my sincere gratitude to officers of the Urban Development Authority for their dedicated effort to make this development plan a reality. I also place my best wishes for the successful realization of the objectives of the "Development Plan".

A.M. Infass Chairman - Pradeshiya Sabha, Kalpitiya

Preface

The area under Kalpitiya Pradeshiya Sabha is a peninsula consisting of diverse ecosystems ranging from lagoon, broad sea shore, sand dunes, arable lands and a number of small islands which provide ample opportunities particularly for tourist attraction apart from its secondary importance in terms of agricultural activities. All these aspects have received due consideration in the process of formulation of the Kalpitiya Development Plan.

Formulation of this development plan is done in accordance with the provisions of the Section 08 A (1) and (2) of the Urban Development Authority (Amendment) Act No. 04 of 1982 brought as an amendment to the Urban Development Authority Act No. 41 of 1978 and duly approved by the Parliament of the Democratic Socialist Republic of Sri Lanka.

In pursuance to Section 08 E of the same Act, the Development Plan prepared for the area under the jurisdiction of Kalpitiya Pradeshiya Sabha has been approved by the Hon. Minister of Megapolis and Western Development. Accordingly, the said Plan having published under the Extraordinary Gazette Notification No. 1564/9 dated 27.08.2008 by the Hon. Minister will be in effect in the area of Kalpitiya Pradeshiya Sabha.

The Development Plan shall be in force up to the end of the year 2030, subject to the powers of the Minister to make amendments to any of the elements of the Development Plan Where such amendments are made it shall be lawful for the authority.

This Development Plan consists of three parts. The Part – 1 consists of a Situational Report of the Kalpitiya Pradeshiya Sabha area and the analytical content, vision, goal and objectives of the Development Plan. It also deals with the existing functional situation and the interventions to be made by way of projects and programs in relevant sectors for sustainable development of the area and wellbeing of its people. Part II contains the main elements of the Development Plan, Zoning Scheme and the Zoning Guidelines. It also contains procedures involved in securing planning and building approvals with a set of complimentary Planning and Building Guidelines. All annexures related to part I and part II are including in part III.

APPROVAL OF THE DEVELOPMENT PLAN FOR THE KALPITIYA PRADESHIYA SABHA AREA

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

Mahinda Rajapaksa (M.P)

Minister of Urban Development and Housing

Ministry of Urban Development and Housing,

17th and 18th Floors,

"Suhurupaya",

Sri Subhuthipura Road,

Battaramulla.

Date:

April, 2021.

Gazette Notification



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(Published by Authority)

PART I : SECTION (I) — GENERAL

Government Notifications

APPROVAL OF THE DEVELOPMENT PLAN FOR THE PRADESHIYA SABHA AREA

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

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

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

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

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NOTICE OF APPROVAL OF THE DEVELOPMENT PLAN FOR THE PRADESHIYA SABHA LIMIT OF KALPITIYA

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

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

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

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APPROVAL OF THE DEVELOPMENT PLAN FOR THE PRADESHIYA SABHA LIMIT OF KALPITIYA

PUBLIC are hereby informed that the Development Plan prepared for the Pradeshiya Sabha Limit of Kalpitiya under Section 8 (A) of the Urban Development Authority Law No. 41 of 1978 as amended by the Act, No. 4 of 1982 has been approved on 27th April, 2021, by Hon. Mahinda Rajapaksa, Minister of Urban Development & Housing by virtue of powers vested on him under Section 8 (F) of the said Act.

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

12th July, 2021.

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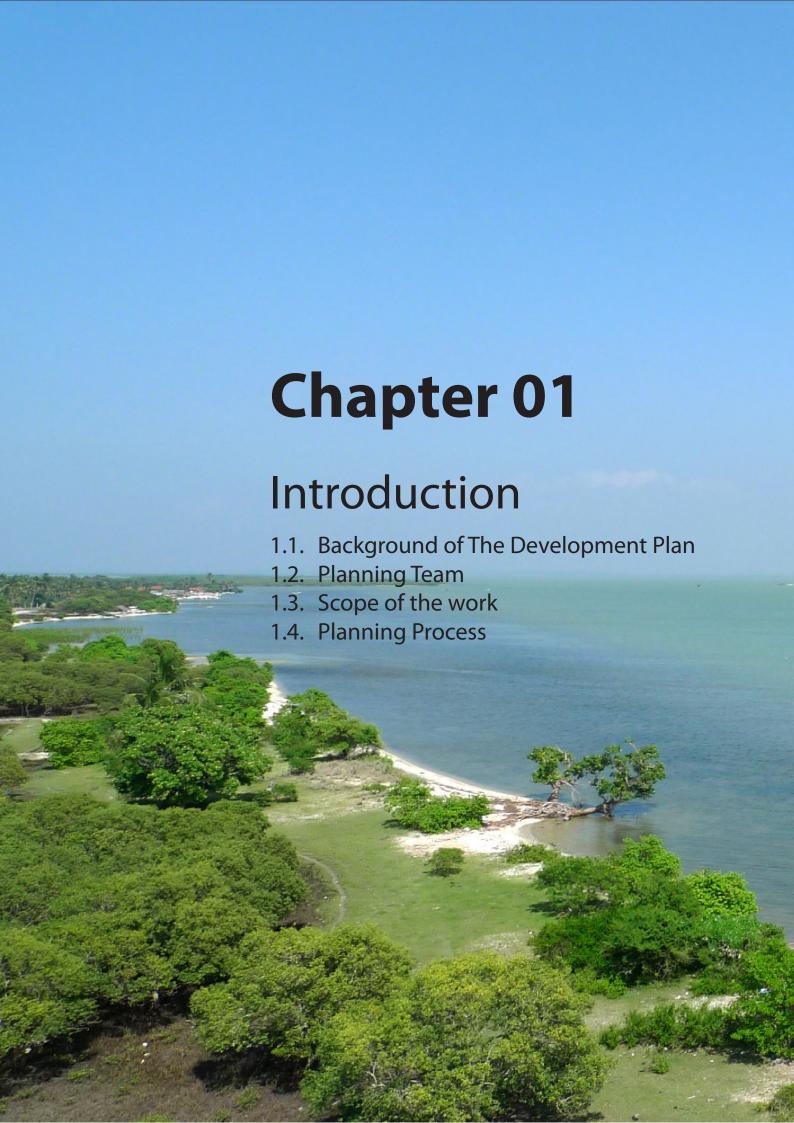
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Chapter 01

Introduction

1.1 Background of The Development Plan

The Urban Development Authority (UDA) established under the Urban Development Authority Act No. 41 of 1978 as amended by the Amendment Act No. 4 of 1982 (Section 8 Section 8A [I]) is the premier urban planning agency in Sri Lanka empowered with promotion of integrated planning and implementation of social, economic and physical development of the areas declared under the UDA law. In pursuance to its powers, UDA takes the lead role in preparation of Development Plans for designated areas with the consent of respective local authorities giving due consideration to local resource potentials and constraints as well as the needs and aspirations of the both residents and commuters.

Kalpitiya Pradeshiya Sabha was declared as an UDA area by the Extraordinary Gazette Notification No. 156/9 dated 27th August 2008 in terms of Section 3 (1) of the Urban Development Authority Act No. 41 of 1978 and it is located as a peninsula in Puttalam North Western Province.

In the year 2012, action was initiated to prepare a Development Plan restricted to the built-up area of the Pradeshiya Sabha, however subsequently in 2017, this exercise was extended to cover the entire area of the Kalpitiya Pradeshiya Sabha due to its unique physical, socio-economic and cultural characteristics. So, the current Development Plan, planned for the period starting from 2018 to 2030 will be applicable to the entire Kalpitiya Peninsula covering 259 sq. km. of land area and 48 Grama Niladhari Divisions.

The Development Plan envisages to streamline the development of land, buildings and other required infrastructure in an integrated and consolidated manner while facilitating optimum use of development potentials and devising strategies to overcome development constraints with due consideration to physical, social and economic factors to ensure sustainable development and enhanced quality of life of the people in the area.

Following a comprehensive study of the structure of the city and its surroundings and identification of the attractive physical environment of the Kalpitiya area, development strategies and guidelines for the next 10 years are also introduced in this development plan.

1.2. Planning Team

Main Stakeholders

1. Kalpitiya, Pradeshiya Saba

Main Development Consulting Institutions

- 1. National Physical Planning Department
- 2. Tourism Development Authority of Sri Lanka
- 3. Coast Conservation Department
- 4. Central Environment Authority
- 5. Provincial Environment Authority
- 6. National Housing Development Authority
- 7. National Water Supply and Drainage Board
- 8. Sri Lanka Sustainable Energy Authority
- 9. Disaster Management Center
- 10. Deputy General Managers Office Electricity Board, Kuliyapitiya
- 11. Thermal Power Plant, Norochchole
- 12. Economic Center, Norochchole
- 13. Provincial Road Development Authority
- 14. Road Development Authority
- 15. National Community Water Supply Department
- 16. Department of Fisheries and Aquatic Resources
- 17. North-western Development Authority
- 18. National Aquatic Resource Agency (NARA)

Other Stakeholders

- 1. District Secretary's Office, Puttalam
- 2. Divisional Secretary's Offices of Kalpitiya and Mundalama
- 3. Forest Conservation Department
- 4. Wildlife Conservation Department
- 5. Provincial Department of Agrarian Services
- 6. Fisherman Trade Organization, Puttalam
- 7. Provincial Department of Health Services
- 8. Zonal Education Office
- 9. Office of the Senior Superintendent of Police Puttalam
- 10. Office of the District Electricity Engineer Puttalam
- 11. Camp of the Sri Lanka Navy Kalpitiya
- 12. Wayamba Raigam Salt Company
- 13. Puttalam Salt Company

- 14. TELECOM Office, Kalpitiya
- 15. Provincial Office of the Department of Archeology
- 16. Provincial Ministry of Fisheries
- 17. Solid Waste Management Center
- 18. Department of Surveys
- 19. Department of Meteorology
- 20. Geological Surveys and Mines Bureau

Other Representations

- 1. Representatives of the Hotel Owners Association
- 2. Representatives of the Salt Producers Association
- 3. Representatives of the Fisherman's Association
- 4. Representatives of the Cultivators Association
- 5. Representatives of the Traders Association
- 6. Representatives of the Community

1.3 Scope of the Development Plan

The Kalpitiya Peninsula was identified as an area with economic benefits such as tourism, salt industry, wind power industry, agriculture and fisheries.

In addition to the national and regional connectivity, the Department of Physical Planning and the Tourism Development Authority of Sri Lanka have prepared a development plan that can be applied at the local level to comply with the national level plans prepared in accordance with the identified national policies and to help achieve the Government's vision of prosperity and policies are expected here.

The primary responsibility of all states in the world today is to eradicate poverty, create healthy people through non-toxic agriculture, provide good education for all, improve clean water and renewable energy, provide green jobs for young people through green industries, and green cities suitable for human habitation. Construction, prevention of climate change and conservation of biodiversity. It is the primary objective of achieving the United Nations Sustainable Development Goals.

The Prosperity Vision of the New Government has been formulated in this regard. The main objective of the Ten National Policies is to create a productive, contented family, create a disciplined and just society and make the citizens and prosperous nation. The Kalpitiya Development Plan 2021-2030 proposes strategic plans to assist in achieving those objectives.

In line with our national policy, we plan to contribute to the national economy in the Kalpitiya Peninsula through small scale modern technologies and high quality organic agricultural production lines with good land management.

Tourism is an important foreign exchange earner in our national economy. The main objective of the National Policy is to develop the tourism industry based on the specifics of Kalpitiya in providing \$ 10 billion foreign exchange annually to the national economy through the tourism sector.

The development plan also aims to make significant progress in the fisheries sector with the aim of restricting the import of fish products. Kalpitiya being a peninsula has been a great help to it. Efforts will be made to introduce fishing harbor development with new technology and fish processing related industries.

Improving our traditional industries is one of the primary objectives of the new Government's National Policy. Accordingly, efforts will be made to develop the relevant industry sector from the potential salt industry in Kalpitiya by creating employment opportunities as well as opening the door to self-employment by encouraging local entrepreneurs. Long-term and short-term solutions are suggested.

Prosperity Vision Contributing to the creation of a C-shaped economic corridor, the economic planning strategy of the National Policy, is also considered as an essential element in this planning process. The proximity of the proposed Puttalam town, which is proposed to be made an integral part of the national plan, especially the main town of the district, has also been a great help to the development of Kalpitiya.

In addition to economic development, the plan is designed to contribute to building a strong and prosperous nation for future generations by creating environmental protection through sustainable development.

Although the Tourism Development Plan of the Sri Lanka Tourism Development Authority has been prepared for the Kalpitiya town area and 23 adjacent islands, we intend to prepare a plan applicable only to the Kalpitiya Pradeshiya Sabha area.

The development plan also aims to study the social, economic, physical and environmental aspects of the area and formulate an appropriate integrated development plan, identify relevant projects and introduce relevant legal guidelines in physical development. Therefore, the main objective of the development plan is to transform the Kalpitiya Pradeshiya Sabha area into a prosperous area with a good economic, environmental and healthy community by the end of the year 2030.

1.4. Planning Process



1.4.1. Background Studies

The first step of the planning exercise confined to collection of data, plans, maps and other inputs required for plan preparation. Here the main resource centers were the National Physical Planning Department, Sri Lanka Tourism Development Authority, Road Development Authority, Central Environment Authority, Provincial Road Development Authority, Coast Conservation Department, Electricity Board, Offices dealing with the subjects of Health and Education, Local Authorities and the Offices of the District and Divisional Secretaries. Such data supplemented with data collected through published sources were subsequently put in to a detail and scientific analysis for the purpose of this plan preparation.

1.4.2. Identification of the Scope of the Plan

Here primarily the attention was focused on the place given to Kalpitiya in the urban hierarchy of the national and regional planning perspectives and the projects already in place according to such development strategies.

1.4.3. Identification of Development Potentials and Constraints

In the first instance, the attention was focused on gathering already known facts through direct consultation with development stakeholders currently engaged in various development projects and programs in the region. For this purpose, a stakeholder consultation meeting was conducted on 14th November 2017 at the Coastal Resource Management Center belonging to Kalpitiya, Kandakuliya, Kudawa Coast Conservation Authority with the participation of stakeholders, development partners, public and private institutions and various other community and trade organizations and associations. The comments, concerns and suggestions surfaced at this forum were carefully scrutinized and considered for the purpose of identification of potentials and constraints to be addressed in this planning exercise.

1.4.4 Devising Vision, Goal and Objectives

Centered on the vision of achieving economic prosperity without any adverse effect of on the social fabric and the physical environment in the region, the goals and objectives were set and strategies were devised to suit optimum utilization of resources potentials and overcoming its constraints for development within the planned period.

1.4.5 Descriptive Analysis

Having decided the vision, goals and objectives of the planning exercise, a scientific analysis of the existing potentials and constraints was undertaken in order to devise appropriate strategies to arrive at expected outcome of the Development Plan.

1.4.6 Formulation of Strategies

The next step of the planning exercise was confined to devising of strategic plans consisting of Proposed Land Use Plan, Proposed Zoning Plan, Proposed Tourism Development Plan, Proposed Infrastructure Development Plan and the Proposed Economic Development Plan which altogether will cater to the development of all physical, social, economic and environmental sectors in the region.

1.4.7 Formulation of Laws and Guidelines

A set of laws, rules and guidelines pertaining to building construction and land use were prepared with the dual objectives of ensuring strict adherence to strategic plans introduced in the previous step and also to avoid and or minimize obstacles that already in existence or that may likely to arise in the future.

1.4.8 Submission of Draft Plan to Local Authorities and Public Consultation

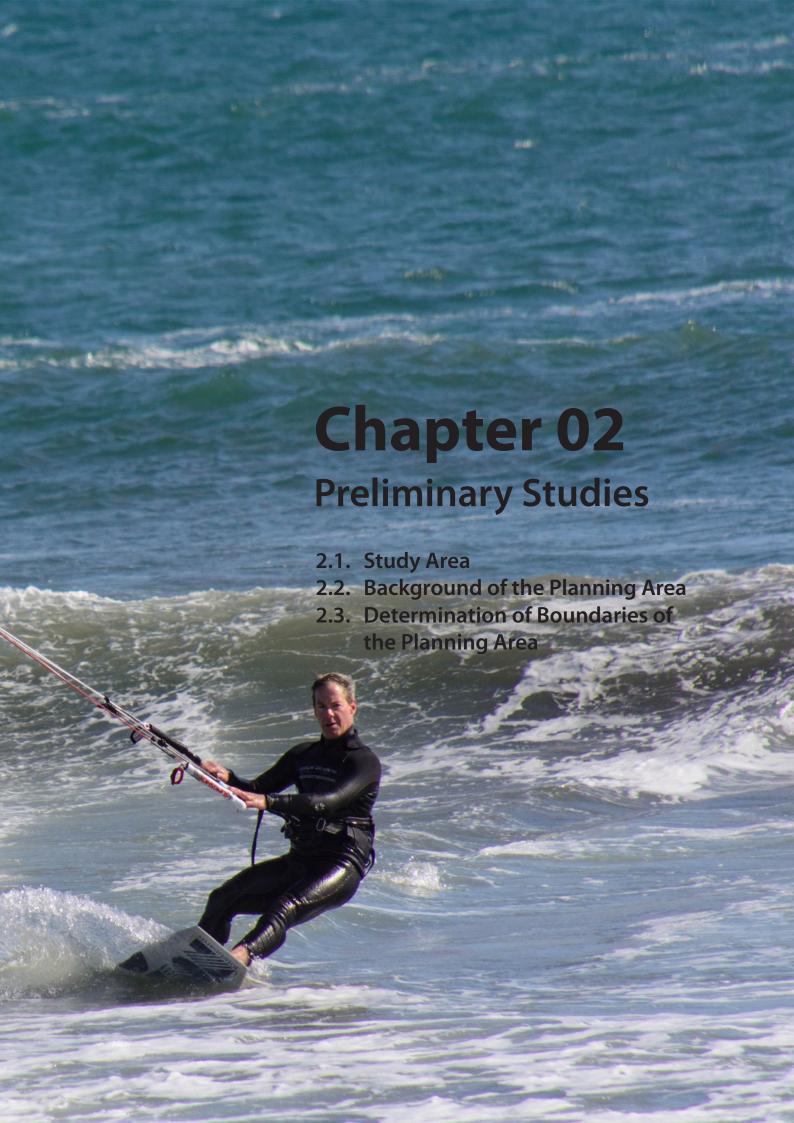
This will be undertaken once the Draft Development Plan is completed.

1.4.9 Submission of Draft Plan to UDA Planning Committee

The comments, concerns and suggestions of the Planning Committee will be incorporated to the Draft Plan to make it final.

1.4.10 Plan Approval and Publishing

Once the necessary changes are made to Draft Plan on the basis of the outcomes of the public consultation and planning committee approval stages, the Development Plan will be ready for legal publication.



Chapter 02 Preliminary Studies

2.1. Study Area

The principal study Area which consists of the area under the jurisdiction of Kalpitiya Pradeshiya Sabha Authority with an extent of 259 sq. km. is a finger shape peninsula bounded to its west and north by the Indian Ocean, to its East by the Puttalam Lagoon and to its south by the Puttalam and Arachchikattuwa Pradeshiya Sabha Authority areas.

There are two Divisional Secretariat Divisions namely Kalpitiya Divisional Secretary's Division with 31 Grama Niladhari Divisions and Mundalama Divisional Secretary's Division with 17 Grama Niladhari Divisions so the Kalpitiya Pradeshiya Sabha Authority consists a total of 48 Grama Niladhari Divisions

Palliyawatta Island

Dutch Bay Island

Kalpitiya
Town

Map No:1: Locational Details of the Planning Area



2.2. Background of the Planning Area

According to the legends, somewhere around 5th Century B.C., the Indian Prince Vijaya and his companions (believed to be the first civilized inhabitants of the Island and also the forefathers of the Sinhala race) rowing through "Kadamba Nadi" alias "Malwathu Oya" have disembarked at a place called "Aravi Aru" alias "Arippu" near present Kalpitiya town. Similarly, Kalpitiya harbor and the Kalpitiya town have been an important disembarking place for many Indian nationals who came to Sri Lanka and a center for trade with middle-east countries before the colonial era.

Since 1505, Kalpitiya town has been under the rule of Portuguese during which it has functioned as a trading center with Arabian countries. During the Dutch rule between 1640 – 1796, to consolidate their power, they have built a fortress in Kalpitiya town and the famous Dutch Canal for the purpose of transporting their merchandise. Later during the British rule between 1796 – 1948, an Army Barrack has been stationed at Kalpitiya beside its normal functioning as a center for fish products.

At present, according to the "National Physical Plan – 2030" prepared by the National Physical Planning Department, Kalpitiya has been recognized as a national level tourism center as well as an important harbor for the development of the fishing industry in the country.

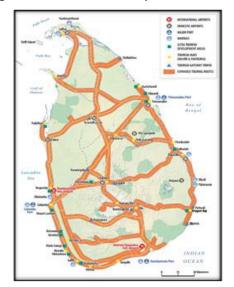




Source: National Physical Planing Department

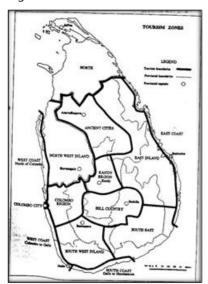
According to Sri Lanka Tourism Zoning Plan of the, Sri Lanka Tourism Development Authority, the Kalpitiya Tourism Zone comes under the Tourism Zone of the North Western Province. However, as per the National Physical Plan -2030, Kalpitiya tourism zone is expected to be amalgamated with the tourism zones in other parts of the country as well. Apart from that in year 2008 Sri Lanka Tourism Development Authority has prepared a national level Tourism Development Plan solely for Kalpitiya Tourism Zone.

Figure No: 2.2.3. National Physical Plan 2030



Source: Sri Lanka National Physical planning Department

Figure No: 2.2.4. National Tourism Zones



Source: Sri Lanka National Physical planning Department

Kalpitiya can be easily accessed by road through Palaviya – Kalpitiya road which take off at the Palaviya Junction from the Colombo – Puttalam Main Road.

The main access to Kalpitiya area is Colombo – Palavi main road, Through Palavi Junction As per the records of the Department of Census and Statistics, in year 2012 Kalpitiya Pradeshiya Sabha Authority area had a total population of 120,119 persons, which represent 0.5% of the total population of the Country, 5% of the total population of the North Western Province and 15.7% of the total population of the Puttalam District. According to same source, Kalpitiya Pradeshiya Sabha area has recorded a natural population growth rate of 0.63% between 2001 and 2012.

According to recent surveys conducted by the Urban Development Authority, estimated total population of the Kalpitiya Pradeshiya Sabha area in 2017 amount to 128,828 persons at a rate of 1.4% average annual population increase between 2012 to 2017. The total population constitute of 66,031 (51%) female and 62,797 (49%) male. In the case of age cohort wise population distribution shows 31.85% within age 0-14, 61.78% within age 15-60 and 6.37% within the over 60 year of age cohort. Accordingly, close to 62% representation of economically active group in the total population can be considered as a great potential for development of the region. As per census data of 2012, racial composition of the population in the region constitutes of 52% Muslims the majority, 32% Sinhalese, 15% Tamils and 01% other ethnic groups.

Overall population density in the region for the year 2017 amount to 497.4 persons per square kilometer with considerably high population concentrations in Grama Niladhari Divisions of Wannimundalam, Mandalakudawa, Palliwasalpaduwa, Kandakuliyakudawa and Norochchole.

Kalpitiya has a substantial daily commuting population who commute for various purposes such as purchase of fish and agriculture products, various administrative and service needs from public and private institutions located in the town and for employment opportunities. A traffic survey conducted by the Urban Development Authority in 2017 in this area shows an average daily commuting population of around 3550 persons. According to the records

of the Traffic Police, during the festival seasons of famous Talawila Church commuting population goes as high as 15,000 persons per day.

It is observed that the Kalpitiya town become more active during the night time, particularly between 7.00 p. m. to 10.00 p. m. of the day than the day light hours. The results of a one-hour survey (annexed hereto) conducted between 8.00 p. m. and 9.00 p. m. in the town has reported 1,296 persons.

In year 2017 the average housing density in the area has been around 176 units per square kilometer, while higher housing densities have been reported in the Grama Niladhari Divisions of Wannimundalam, Mandalakudawa, Palliwasalpaduwa, Kandakuliya, Kudawa and Norochchole. As per the Census of "Population and Housing 2012" conducted by the Department of Census and Statistics, under the classification of housing, records have shown 69% permanent houses, 11% semi-permanent houses and 20% temporary houses with an overall housing deficit of 1,342 units in Kalpitiya Pradeshiya Sabha Authority area.

The economy of the Kalpitiya region constitute of with the contribution of 65% from salt industry, 17% from fishing industry, 09% from tourism, 05% from power generation industry and 04% from agriculture.

As per records of the Department of Fisheries and Aquatic Resources, in the year 2016 Kalpitiya Pradeshiya Sabha area has produced 19,072.8 metric tons of raw fish products and about 752.4 metric tons of dry fish. Particularly the dry fish produced in the Kalpitiya region due to its popularity is in very high demand in the country. In terms of the income, raw fish products have earned Rs. 2,870.5 million while the dry fish products have earned Rs. 856.5 million in year 2016. With regards to fisheries industry's contribution to generation of employment, number of families depend on this industry comes to around 3,136, and a total of 10,134 employees which account for 7.8% of the total population in Kalpitiya in 2017. In Kalpitiya there are 26 main fishing villages coming under 12 Grama Niladhari Divisions. Most of the fishermen are confine to Wannimundalam, Manalkottam, Battalangunduwa, Uchchamunai, Kandakuliya, Eechchankaduwa, Kudawa and Kurichchampitiya villages.

The "Economic Center" in Norochchole functions as collection and distribution center for the agriculture products produced in the area. Average daily turnover of the Economic Center is estimated to be in the range of rupees two lakhs to one million. The daily volume of sales at the Center is in the range of 80,000 to 90,000 kg. Salt industry is one of the major sources of income in the region with an average annual net income of around Rs. 430 million between 2012 and 2017. Main salt producers in the region are the Puttalam Salt Limited and the Wayamba Raigam Salt Company.

In the case of power sector Kalpitiya region makes a substantial contribution to national grid of power distribution in the country. There are 06 Wind Power Plants in the areas of Sethapola, Norochchole, Narakkalliya, Nawakkadu, Nirmalapura and Mampuriya with a total power generation capacity of 173 (Gwh).

Kalpitiya has become a highly popular tourist attraction for both locals and foreigners due to scenic natural beauty and cultural heritages of the region and about 15,500 tourists have been recorded in 2017.

According to 2012 Census data with regards to employment characteristics, distribution of employment in the region consisted of 03% in the public sector, 12% in the private sector, 17% in agricultural sector, 16% in non-agricultural sector, 11% in foreign employments, 30% in mining, quarrying and ordinary labor jobs and another 11% in other non-specified jobs. The rate of employment in the regions stands at 95% with an unemployment rate of

05%. However, 30% of the employed population constitute of casual labors.

In the case of water supply in the region, water supplied through 19 community water supply schemes attached to the National Water Supply and Drainage Board, while supply of water to Kalpitiya town and its peripheral area is done through 22 pumping stations. Total capacity of the all Water Supply Schemes is around 2,921,000 lt./per day while the daily water requirement of the area is around 6,413,540 lt./per day (at the rate of per capita requirement of 70 liters per day). As such there is a daily water shortage of 3,492,540 liters in Kalpitiya area. In the case of supply of drinking water, 54% of the requirement is provided leaving 46% unfulfilled.

In connection with the supply of electricity, altogether 02 Grid Sub-stations and 04 Transformers (33 kv) are being used for the purpose of distribution and supply of electricity in the region. There is no serious problem with regards to supply of electricity as most of the residential units and commercial establishments are provided with electricity.

Main health institution in the area of Kalpitiya Pradeshiya Sabha is the District Hospital in Kalpitiya town. This hospital is serviced by 04 Doctors and 32 Nursing Staff. However, there are no any Specialist Doctors attached to it. The hospital constitutes of 04 Wards with 40 beds. In the year 2017 this hospital has treated around 140 outdoor patients a day with a daily admission rate of about 80 patients. In addition to this main facility there are one Divisional Hospital, 08 primary healthcare clinics, 02 Public Health Inspectors and 32 Maternity and Childcare Clinics functioning within Kalpitiya Pradeshiya Sabha area.

As far as the general education in the area is concerned, there are 40 schools with a total student population of around 24,828 and a total teacher population of 1,149 with overall teacher/student ratio of 1:22. However there are no any national level schools in the Kalpitiya Pradeshiya Sabha area which is somewhat an unsatisfactory situation from the student perspective.

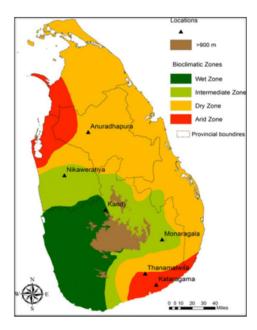
Solid waste collection in Kalpitiya urban area, which constitute 06 Grama Niladhari Divisions amount to about 05 metric tons per day. The collection and disposal are done on a regular basis by the Kalpitiya Pradeshiya Sabha and transported to a Solid Waste Management Center established on a 40 perch land in Aanawasala. However, this facility is quite insufficient to cater to the needs of the entire Pradeshiya Sabha area which collects about 132 metric tons per day. Therefor there is an acute need to find another suitable location to establish a new Solid Waste Management Center. Apart from the issue of Solid Waste, there is no proper sewerage disposal system in either Kalpitiya urban area or the Pradeshiya Sabha Authority area.

Out of the total area of 24,657.52 Ha. under Kalpitiya Pradeshiya Sabha, developed land constitute 39%, about 21% undevelopable while the remaining 40% is available for new development.

Climatically Kalpitiya comes under the category of Arid Zone with average annual temperature in the range of 28 CO - 31 CO with higher temperatures experiencing during the rainy season. Annual rainfall is around 250 mm with a substantial rainfall receiving during the North East Monsoon period of October to December. Although the rain is not available for a number of months in the year due to the advantage of being a peninsula there is plenty of ground water which can be used for domestic and agriculture needs.

Kalpitiya is unique due to its diverse eco systems operating close to each other as a result of being a narrow and elongated peninsula with relatively a small land area. The lagoon itself, the

Figure No: 2.2.5. Climatic Zones of Sri Lanka



Source: department of Meteorology

Mangrove forests in the periphery of the lagoon, prawn cultivation area in flat lands with brackish ground water table close to surface, salt producing land in close proximity to sea, low-lying areas inundated during a substantial part of the year, wide beaches and sand dunes provide a home to a variety of highly sensitive and fragile eco systems.

Sand dunes and mangrove forests are some of the important features with unique scenic beauty of the landscape, which respectively represent 08% and 05% of the total area of the Kalpitiya Pradeshiya Sabha. Apart from its unique natural eco systems, Kalpitiya hosts to a large number of historically and culturally important buildings and monuments. Among those, Dutch Fortress, Dutch Church and Dutch Mosque built during era of Dutch rule are in the forefront. Being the only town in the country surrounded by both sea and lagoon, it has become a very special place worth visiting equally for both locals and foreigners.

This section has dealt with the physical, social, economic, both cultural and historical background of the area in which the background information was collected for subsequent analytical purposes. This information has proved there is a variety of potentials which could be harnessed for the development of the region.

2.3 Determination of Boundaries of the Planning Area

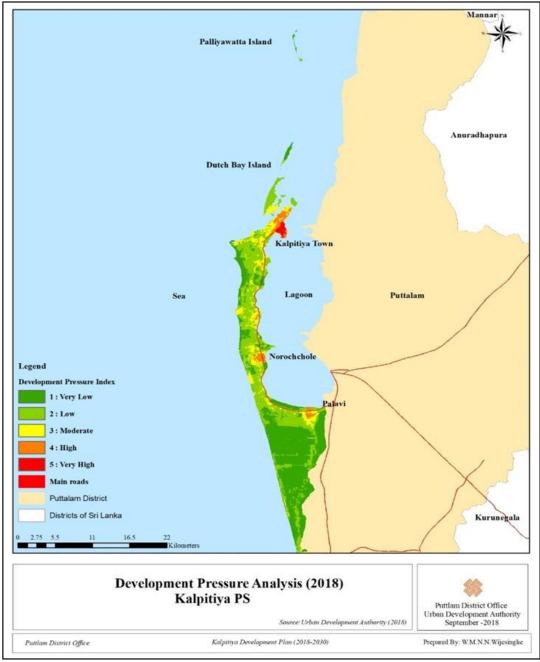
For the purpose of determination of boundaries of the planning region attention was mainly focused on the following aspects.

2.3.1. Functional Boundaries of the Planning Area

As already mentioned, Kalpitiya is home to a variety of economically important activities that include fishing industry, tourism, agriculture, power generation and salt industry which spread spatially all over the entire Kalpitiya Pradeshiya Sabha Authority area. Particularly

the tourism and fisheries activities are taking place in an area of about 55 km wide sea belt of the peninsula. Similarly, agriculture which play an important role in the local economy is mainly confined to the central part of the peninsula while the salt industry exists in close proximity to the lagoon. The wind power plants are stationed here and there without confining to any particular locality due to obvious reasons. Hence, it's obvious that the economic functions of the area go well beyond the city of Kalpitiya and its immediate surrounding but equally spread all over the entire Pradeshiya Sabha Authority area.

Map No. 2.3.1. Development Pressure Analysis - 2017



Source: Urban Development Authority

Having taken all these facts in to consideration it was decided to include entire Pradeshiya Sabha area in the Planning Region. Hence all investigations and analytical activities pertaining to plan preparation were done with respect to entire Pradeshiya Sabha encompassing 259 square kilometers of land area.

2.3.2 Administrative Boundaries of the Planning Region

Though the initial action of the plan preparation was confined to built-up area of the Kalpitiya town, subsequently for the reasons mentioned above the entire area under administrative authority of Kalpitiya Pradeshiya Sabha has been taken as the administrative boundary of the Planning Region.

Palliyawatta Island Anuradhapura **Dutch Bay Island** Puttalam Kalpitiya PS Puttalam District Districts of Sri Lanka Location and Planning Area Kalpitiya PS Puttlam District Office Urban Development Auth September -2018 Source: Urban Development Authority Puttlam District Office Kalpitiya Development Plan (2018-2030)

Map No. 2.3.2. Location and Boundaries of the Planning Region - 2017

Source: Urban Development Authority



Chapter 03

Need of the Development Plan

The prime purpose of the Development Plan rests with the necessity arisen to take full advantage of the development potentials exist in the area while overcoming constraints for its development for the upliftment of the living standard of people while preserving and enhancing the quality of both physical and natural environments. In pursuance to above objective, apart from the development plan it was necessary to identify complimentary projects, programs and at the same time rules and guidelines to streamline development to ensure sustainability in conformity with the Plan.

Kalpitiya Pradeshiya Sabha area consisting the ocean, the lagoon and the islets forms an array of diverse eco systems providing home to an equally diverse life forms of both fauna and flora some of which are endemic, have naturally become very sensitive and fragile, beside their scenic beauty and exploration curiosity. Mangrove forests in the lagoon region is a home to a many lifeforms which include a number of birds and fish species, amphibians, animals and a host of vegetations. Same story can be repeated for each of the other eco systems of strip of the ocean with coral reefs, broad beaches, large and broad sand dunes, low-lying wetlands and salty mashes. Periodically or sporadically occupied 23 islets within the Pradeshiya Sabha Authority is another ecosystem substantially different from the characteristics of the mainland.

However, at present some of these fragile eco systems have come under threat due to various human activities, particularly the mangrove forests are in recession both in extent and the quality due to various interferences. During the period in between 1981 and 1992 mangrove forest has declined by about 35 Ha. Today it has become an urgent priority to take precautionary actions to protect existing about 230 Ha. of mangrove forest in Kalpitiya area.

Excessive use of chemicals in agriculture has posed a serious threat to health of not only its inhabitants but also of the consumers of its agriculture products in all over the county apart from its contribution to pollution of the ground water table which will have serious repercussions in the future.

Existing economy of Kalpitiya Pradeshiya Sabha with contribution of 10% from tourism, 22% from agriculture industry, 35% from Salt Industry 14% from power generation and 13% from agriculture will also act as catalysts of future development of the region. However, in reality, since the full potentials of these sources have not yet been fully utilized, there is an urgent need to take appropriate actions by way of introducing and implementing projects, programs and legislations founded upon a properly formulated Development Plan to give a boost to the development process of the region.

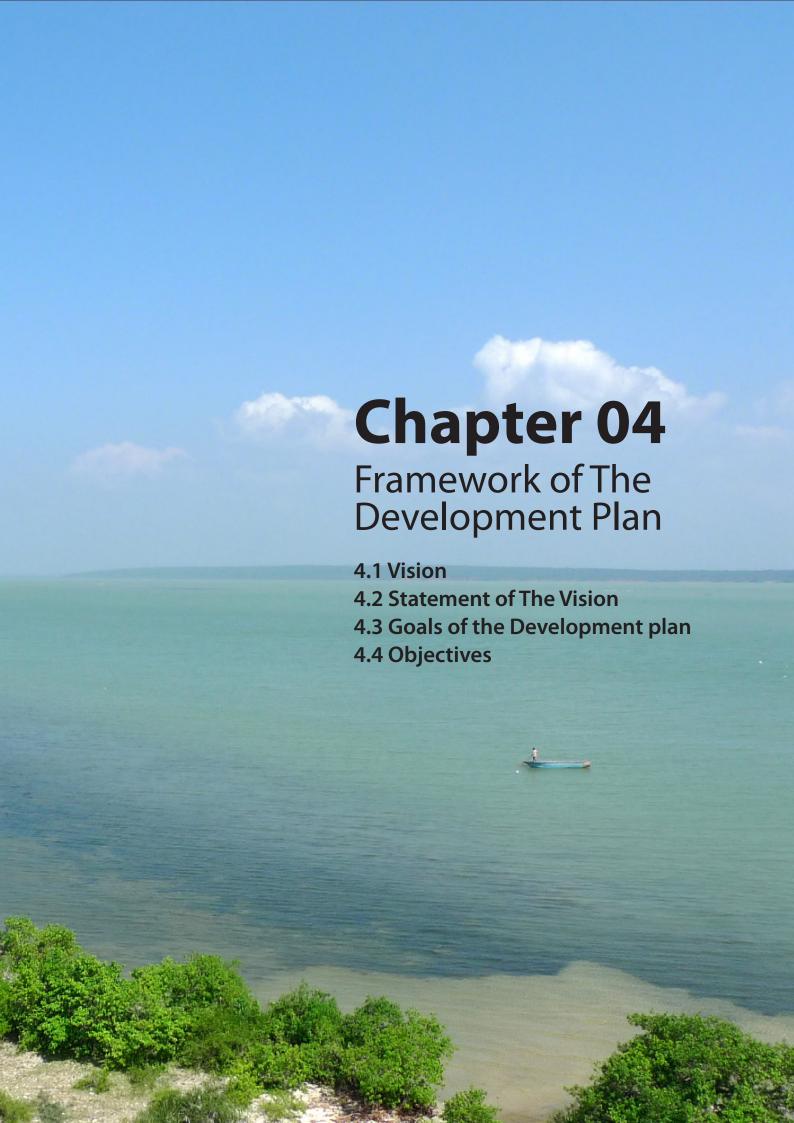
Kalpitiya region been virtually neglected for a quite a long period of time in the past, its infrastructure facilities are well below the national standards. Only 54%, little more than a half of its population receive water suitable for drinking and domestic uses. The main road that goes through the peninsula connecting main island with Kalpitiya town as well as the internal roads within the town center are not in good physical condition and in most cases

lacks suitable apparatus and arrangements for pedestrians and storm water drainage. Most of the internal access roads in the whole Pradeshiya Sabha area are dilapidated and narrow making it extremely difficult for the movement of vehicles and also lacks suitable provisions for storm water drainage. This has led to many difficulties to movement of people and in collection of solid waste which has become a threat to general health of the people and a serious threat to sensitive eco systems particularly along the beach and the mangrove forests which will also have an adverse effect on the much-relied tourism industry.

Health facilities in the region also not in par with the national standards, the main hospital in Kalpitiya town serving a population of around 130,000, not sufficiently equipped with health personnel, facilities and equipment.

Although about 95% of the economically active population is employed, 30% of them are unskilled labors involved in temporary employments here and there without any job security as well as a reliable and sufficient income for them and their dependents. Therefore, it is necessary to have some facility for vocational training and skill development to ensure employability of those who are unemployed and under employed. It is also necessary to make some arrangements to establish industries particularly for value-added products using available local resources in the region for creation of additional income and employment opportunities for the people in the area.

In view of all the above facts the need for a proper Development Plan for the area in order to preserve and enhance the existing social, economic and physical environment is very well justified.



Chapter 04

Framework of the Development Plan

4.1 Vision

"Blue Peninsular Emerging from The Nature Resort"

4.2 Statement of Vision

Environmental Tourist Resort: It is expected to attract more tourists by creating an environmentally-driven resort centre through conserving and integrating the natural environmental networks consisting of the sea, lagoon and the islands with the development that will be supported with complementary infrastructure networks such as roads, water supply and waste management to share the experiences with the tourists.

Emerging rich blue peninsular: The Kalpitiya authority area can be defined as an isolated peninsular but endowed with tranquilized and clean environment consisting of the sea and its related environmental networks and a network of islands; the area is characterized, in terms of economic activities, by agriculture, tourism industry, salt industry and the fishing industry. These sources are expected to generate more resources that will have the potential of making this town a vibrant and environmentally attractive city provided with complementary infrastructure facilities. This is the expectation of the vision.

This vision was formed through the analytical study of the information relating to development potentials and their application in the development process with a view of addressing the issues of the area to reach the vision. Accordingly, the Kalpitiya has been identified as a centre for environmental tourism, economic and physical

Development. It is the goal of this plan to undertake the development of fisheries industry, tourism industry, salt industry and agriculture for planned development by providing physical and social infrastructure networks while conserving the unique environmental features of the locality.

4.3. The Goal of the Development Plan

In order to set the development forces vision-bound, relevant for the development of the Kalpitiya Pradeshiya Sabha area (KPS), three goals have been identified and the objectives that will direct the process of the development too have been aligned towards the vision.

Goal no 01: Make the Kalpitiya area to be the most attractive tourism resort area in the Country.

Goal no 02: Make the Kalpitiya area a self-sufficient peninsular in terms of economic

development through the sectors of tourism, fisheries, agriculture and salt industry.

Goal no 03: make a pleasing environment enriched with the facilities of Infrastructure networks.

4.4. Objectives

Goal 01

Make the Kalpitiya area to be the most attractive tourism resort area in the Country.

Objectives

- i. Provide facilities to double the room capacities of the tourist hotels in the Islands; namely, Kandakuliya, Anawasala and Palliyawatta by 2030 (current room capacity is 476)
- ii. Conversion of the archaeologically and historically significant Dutch Church and the Dutch Fort, located at the downtown, to be a public place for the visitors by 2030.
- iii. Dedication of the Islands, namely the Dutch Bay and the Palliyawatta only for tourism development with the facilities to be provided by the year of 2030.
- iv. Improvement of the road and the street networks of the Kalpitiya Town by the year of 2030, to make it more attractive to the tourists to walk around freely.
- v. The wetlands and the land areas bordering the sea and the lagoon to be protected to sustain the same level by 2030.

Goal 02

Make the Kalpitiya area a self-sufficient peninsular in terms of economic development through the sectors of tourism, fisheries, agriculture and salt industry.

Objectives

- i. Providing facilities to the harbour and the boat landing sites located at the town centre for development by 2030.
- ii. Provide vocational training facilities for the unemployed youths in the KPS area to enable them to find employment opportunities in the tourism and fisheries sectors.
- iii. Provide facilities to increase the agricultural output by 20%
- iv. The Economic Centre located at Norochchole to be provided with infrastructure facilities to make it more efficient and fully fledge centre by 2022.
- v. Introduction of a modern practice to minimize the environmental pollution caused by the agricultural activities
- vi. Increase the contribution of the salt industry to the local economy by 50% by

2021 through increase of facilities

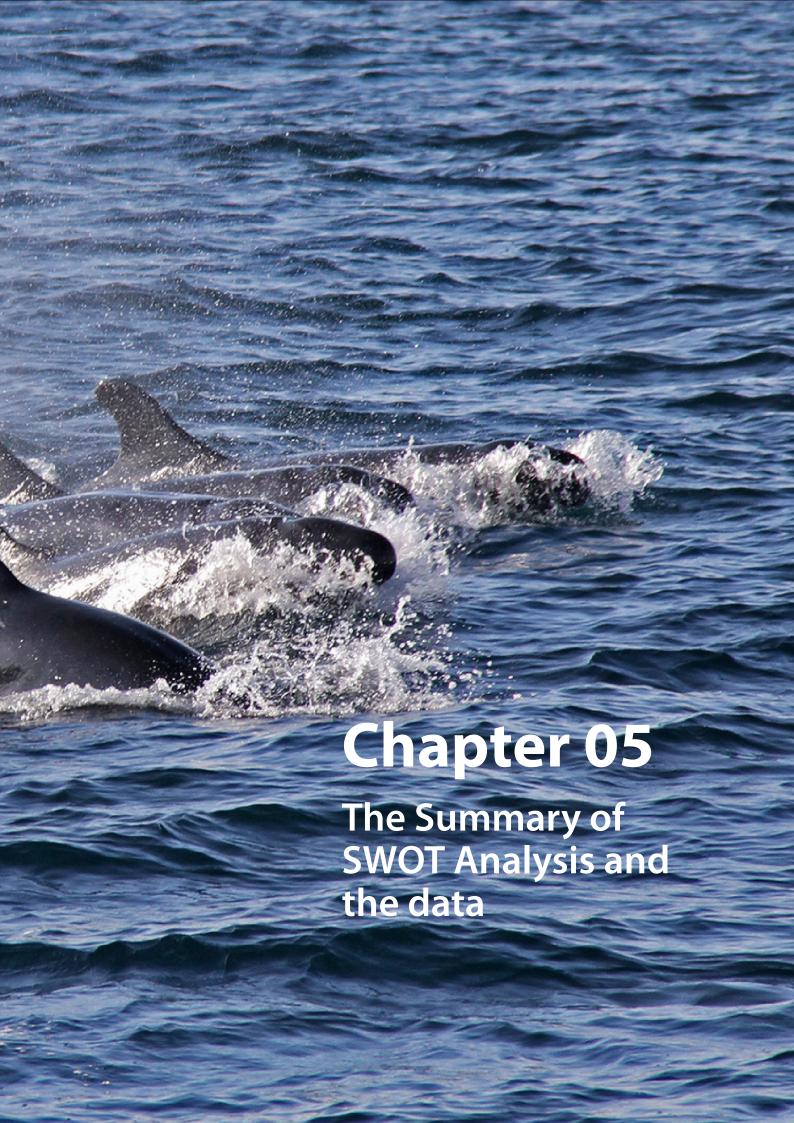
vii. Increase supply of wind turbine-generated electricity by 10% to the national grid by the year 2030.

Goal 03

Make a pleasing environment enriched with the facilities of infrastructure networks.

Objectives

- i. Provide drinking water to the 46% of the population, who lacks safe drinking water, of the KPS by 2030.
- ii. Modernization of the road network with a length of 52 Km through refurbishment. By 2030
- iii. Provide facilities to the KPS to collect and manage the solid wastes efficiently by 2025
- iv. Identify, reserve and develop a land at an appropriate location with close proximity to the town centre by 2022 to develop a fully fledge hospital.

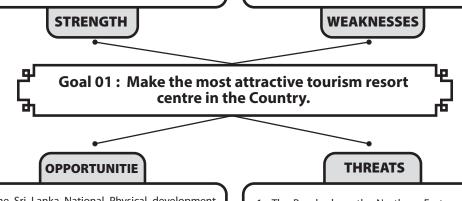


Chapter 05

The Summary of SWOT Analysis and the data

- 1. The Kalpitiya is endowed with a unique and attractive network of coastal environment consisting of a lagoon and Islands.
- 2. Availability of a group of Islands with the potential of being harnessed in the development of the tourism industry.
- 3. Greater propensity the areas surrounding the Sea, Lagoon and the Islands posses is an impetus for the tourism development.
- 4. High degree of sensitivity of the prevailing environment of the Kalpitiya area.
- 5. The Kalpitiya is a unique centre for leisure activities such as boating, kite-flying and viewing dolphins etc.
- Kalpitiya falls within the dry zone climatically and is a penninsular somewhat isolated from the rest of the Country, which sets out a friendly condition for tourism development.
- 7. High demand prevailing for environmental tourism from the foreign as well as local tourists in a context of increasing hotel rooms and growth of tourists.
- 8. Historical and archeological sites prevailing in the area can provide a great impetus for the touirism developement.
- The resident people demonstrated their eagerness to this tourism sector development through establishment of trade stalls to carry out businesses in the sector.

- 1. Although Kalpitiya posseses a group of Islands with a great potential for tourism, it has not been made use of .for tourism.
- 2. Encountering difficulties in effective enforcement of prevailing laws in conservation of natural environment .
- Lack of greeneries and shady areas in the town area.
- Declining the extent of mangrove habitat due to the human activities.
- Confinement of tourism activities only to the tourism season.
- 6. Non-availability of the Dutch Church and the Dutch Fort to the public to visit
- Number of tourist hotels available in the area is insufficient to meet the projected need in the future
- 8. Poor condition of infrastructure networks prevailing in the area such as roads, drinking water and solid wastes management.
- 9. Lack of training facility for training the people to engage in the tourism industry.



- The Sri Lanka National Physical development policy identified the Kalpitiya area as a tourism development zone.
- According to the tourism development plan Kalpitiya including 13 islands in the vicinity have been declared as tourist resort area.
- 3. A Strategic Plan proposed to link other Tourist areas with the proposed Kalpitiya torist resort

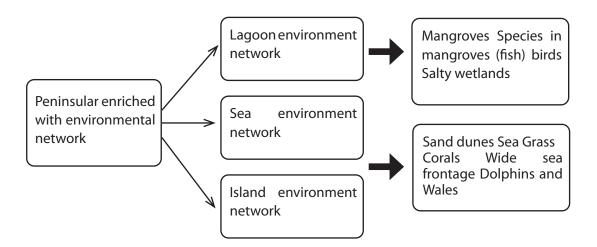
 The Beach along the Northern East coast has already become an attractive touism area, which poses a threatening challange to the tourism development in the Kalpitiya area.

5.1.1 Strengths

5.1.1.(a) Being enriched with a unique environment formed by the Lagoon, the Sea and the network of Islands,

The Kalpitiya Pradesheeya Sabha Area is primarily a peninsular by natural formation, surrounded by the sea on one direction, by the Lagoon on another direction and by the land only on one direction. The physical environment of the Kalpitiya area has been formed by the networks of Lagoon, sea and Islands

The Kalpitiya Peninsular posses a unique environment; the uniqueness of the physical environment has been created by the multiple characteristics formed by the 55 Km long sea water frontage, the lagoon with a area of 324 Square Km and a group of 23 numbers of Islands within this diverse physical



Prepared By: Puttalam District Office, UDA

Environment. This area also includes a biological network consisting of species such as special verities of birds living in the habitat of mangroves and salty wetlands, coral reefs, sand dunes, sea grass at the sea bed and a picturesque wide sea frontage. This diverse environment provides a rich habitat for the species, which are unique to this environment, such as dolphins. This physical environment is also rich in 3S, popularly known in the hospitality industry, denoting the sand, sea and the sun. This composite physical environment, which is unique to the Kalpitiya.

Area, holds a great potential for the development of the tourism industry making it as the most attractive tourist resort area of the Island. This potential is considered as the most relevant strength that needs to be made use of in the development process.

Figure no 5.1.1.1

Coastal belt & the



Figure no 5.1.1.2

Mangroves



Figure no 5.1.1.3

Dolphins



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Prepared By: Puttalam District Office, UDA

5.1.1. (b) Endowment of Islands with a potential for development of tourism.

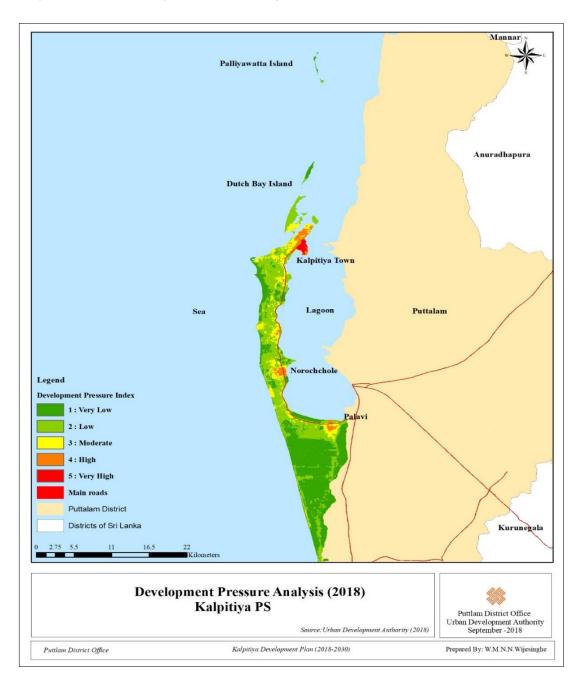
The Kalpitiya area is the only peninsular in the Country that has a network of Islands consisting of 23 numbers of Islands, two of them have been declared as an urban development area of the Urban Development Authority. The Islands of Palliyawatta and the Dutch Bay are among them.

This group of Islands, that forms a unique environment, presents a formidable strength to support the development of this area as an attractive tourist resort in the Country.

5.1.1 (c) The potential of the areas surrounding the lagoon, the sea and the Islands towards the development of the tourism industry, is highly supportive and an impetus for the development.

Through the development pressure analysis, the Kalpitiya Town, Kandakuliya and Norochchole were identified as the areas with a high degree of development potentials, particularly, owing to the reasons that these areas include the environments of the Lagoon, the Sea and the Islands. This situation offers a formidable strength to give birth to a tourism resort centre.

Map no 5.1.1.(c).1: Development Pressure analysis-2018

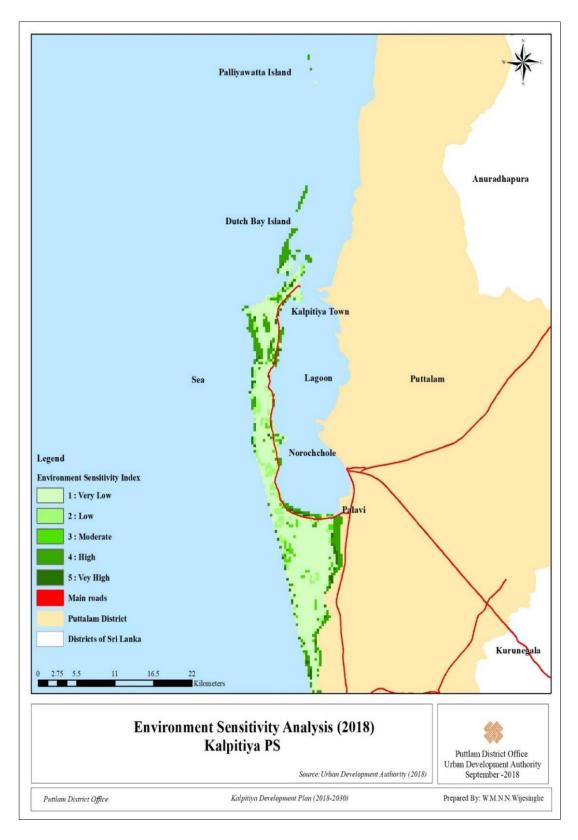


Source: Urban Development Authority

5.1.1.(d) High degree of environmental sensitivity prevailing in the Kalpitiya area.

The majority of the Kalpitiya authority area is occupied by the areas of mangroves, sand dunes, wider coastal frontage, shrub jungles, wetlands, saltern and prawns and crab farmlands. Hence the environmental sensitivity of this area prevails at a higher level, which implies that this area has a high degree of physical environment to give birth to a tourism resort based on the environmental qualities.

Map no 5.1.1. (d).1: Environmental Sensitivity Analysis – 2018



Source: Urban Development Authority

5.1.1.(e) Area being a conducive environment for the tourism industry inspired by the unique activities prevalent in the area such a flying kite, boating, watching dolphins and touring the lagoon.

There are two tourist seasons, first season spans from November to April and the second season is from May to October. It has been evident that the highest number of tourists is coming to visit this area during the first season- from November to April- The tourism activities that are prevalent during the first season are kite surfing and wind surfing as the Kalpitiya area is the most appropriate sea environment for these activities. Most number of foreign tourists are visiting Kalpitiya during the first season.

The first Activities Whales watching and Dolphin watching ii. Lunar Tour Diving Fishing The Second Activities Kite Surfing i. ii. Wind Surfing Lagoon iii. Non-functioning quota

Figure no 5.1.1. (e).1 Tourist Time Table active during the year

Source: Sri Lanka Tourism Development Authority and the Field Survey of 2017

■ No of visitors Number of visitors 2017 2500 2000 1500 1000 500 0 Dec Jani Feb Jun Jul Oct Mar Apr May Aug Nov 01st Season 02nd Season 01st Season

Graph no 5.1.1. (e).1 Number of Tourists visiting Kalpitiya-2017

Source: Sri Lanka Tourism Development Authority and the Field Survey - 2017

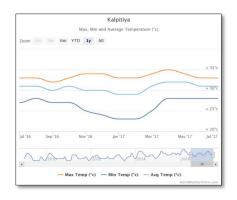
As the Kalpitiya beach is the most conducive sea beach for Kites and Wind surfing, particularly during the tourist season spanning from April to November, the influx of tourists in to this area demonstrates a growth. During this period the tourists tend to stay in this area foran average duration of two to three months. The suppliers of sailing boats, restaurants, and trainers of such activities earn a sizable income during this tourist season. In this backdrop, the Kalpitiya area seems to have the full potential of providing facilities and the most conducive environmental factors appropriate for the sport activities. This potential offers a formidable strength to plan the area for development.

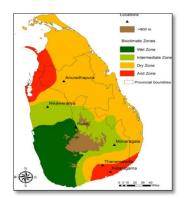
5.1.1. (f) Dry climatic condition and the isolated geographical location of the Kalpitiya Peninsular acted as the impetus for the development of the tourism industry.

The dry climatic condition and the isolated environment of the Kalpitiya town played a catalytic role in supporting the tourism industry which is unique to the Kalpitiya area. (The average annual temperature falls within the range of 27C -31C. The tourists of the West love this climatic condition as they can enjoy the sun over a longer period of time.

Figure no 5.1.1.(f).1 Temperature Maximum, Minimum, and average temperature(°C) - Kalpitiya

Figure no 5.1.1.(f).2 Climatic zones of Sri lanka.





Source: Department of Meteorology

Table no 5.1.1(f).1 Climatic conditions prevailed during the year of 2017

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature (°C)	25.6	26.1	28.5	29.3	29.7	29.2	29	29.3	29.1	27.8	26.6	26.1
Min. Temperature (°C)	21.5	21.3	23.1	24.5	26.3	25.8	28	26.1	25.6	24.6	23.1	22.8
Max. Temperature (°C)	29.8	31	33.9	34.1	33.1	32.7	32.1	32.5	32.7	31	30.1	29.5
Avg. Temperature (°F)	78.1	79.0	83.3	84.7	85.5	84.6	84.2	84.7	84.4	82.0	79.9	79.0
Min. Temperature (°F)	70.7	70.3	73.6	76.1	79.3	78.4	78.8	79.0	78.1	76.3	73.6	73.0
Max. Temperature (°F)	85.6	87.8	93.0	93.4	91.6	90.9	89.8	90.5	90.9	87.8	86.2	85.1
Precipitation / Rainfall	58	38	59	142	79	19	13	11	40	205	247	156
(mm)												

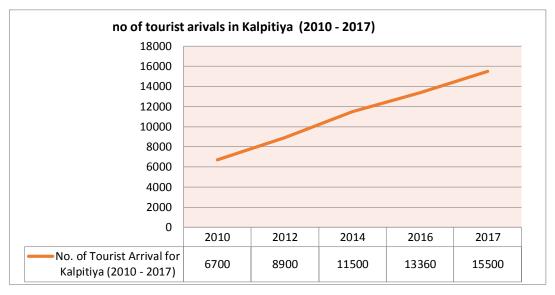
Source: Department of Meteorology

The climatic data presented so far highlights the fact that the Kalpitiya PS area remains as a dry geographical area and that this fact acts as the catalyst for the tourism development, particularly as a resort area which can provide facilities for the tourists to stay for longer durations.

5.1.1.(g) Growth in the tourist arrivals and the number of tourist hotels enhance the demand for environmental tourism by both local and foreign tourists.

The information presented so far revealed that the influx of environment–loving tourists, both local and foreign, has been increasing in this area where climatic and environmental conditions are unique to this lonely located peninsular.

Graph no 5.1.1. (g).1: Number of Tourist arrival in Kalpitiya.



Source: Field Survey carried out on Tourist Hotels- 2017

Further it has been observed that there is a tendency to undertake more hotel developments targeting the predicted arrival of tourists in the future.

Table no 5.1.1. (g).1 No of hotels constructed

Year	Number of hotels		
	constructed		
2010	03		
2011	08		
2012	14		
2013	22		
2014	32		
2015	40		
2016	52		
2017	60		

Graph no 5.1.1. (g).2 No of hotels constructed 2010-2016



Source: Field Survey carried out on Tourist Hotels- 2017

The hotels functioning in the Kalpitiya Peninsular are particularly characterized by the local construction materials used to construct them and that they have merged with the local environment which fascinated the tourists and so these hotels become more popular among the tourists.

The Hotels in the Kalpitiya area

Figure no 5.1.1. (g).1 T



Figure no 5.1.1. (g).2



Figure no 5.1.1. (g).3



Source: Field Survey carried out on Tourist Hotels-2017

The currently prevailing trend of environmental tourism kalpitiya will be a sustainable and formidable strength to promote the area as a tourism resort area in the future with the increase of duration of stay of the tourists.

5.1.1. (h) The availability of historically and archaeologically significant locations in the area that can be integrated with the planned development of tourism.

The centrally located Dutch Church and the Dutch Fort in the downtown are the places which are historically and archaeologically significant places and can be integrated with the tourism for the mutual benefits of conservation and tourism promotion. The Sri Lanka Navy established its Central Camp in the Dutch Fort and continues to occupy it.

Figure no 5.1.1. (h).1 Thalawila Church

Figure no 5.1.1. (h).2 Dutch Fort

Figure no 5.1.1. (h).3 Dutch Church







Source: Field Survey carried out on Tourist Hotels- 2017

5.1.1. (i) The small –scale traders, who run their businesses in small trade stalls, depend to a great extent on the tourism industry. This dependency motivated a tendency to integrate their businesses with the tourism industry.

The local residents produce many ornamental items with local materials fascinating the tourists. This trade provides a good opportunity for the local residents to earn a sustainable living depending on the tourism industry. Some of the small-scale traders have established eating houses and mini trade stalls providing facilities to the tourists to rest after a lengthy walk in the area. This emerging trade enables the local people to earn a sizable income during the tourist season.

The field survey carried out on the tourism industry revealed that the local residents used to supplying boats and kites to the tourists to facilitate their leisure activities and also providing trainers to train the tourists to do multiple activities on commercial basis. This tourism related activities provide them a formidable income during the tourist seasons.

These characteristics of the local economy demonstrate a tendency towards the development of the area on the basis of the tourism industry as a tourism resort centre with a potential of promoting the economic well being of the local people.

Figure no 5.1.1. (i) .1

Figure no 5.1.1. (i) .2

Figure no 5.1.1. (i) .3







Source: Field Survey carried out on Tourist Hotels- 2017

5.1.2. Weaknesses

5.1.2. (a) Although the Kalpitiya Peninsular is endowed with a group of Islands with a remarkable potential for tourism development they have not been made use of in the process of development

The Kalpitiya is the only peninsular being endowed with 23 numbers of attractive islands, with a great potential for tourism development, but has not been utilized in the process, which can be identified as a weakness.

5.1.2. (b) Issues pertaining to the weakness in enforcement of even the existing Laws in conservation of environmental resources

The provisions provided in the Coast Conservation Act, Fisheries and Acquatic Resource Act and the National Aquatic Life Development Authority Act are quite comprehensive enough to protect and conserve the sensitive environmental resources in the Kalpitiya PS area. The issues pertaining to this weakness in law enforcement led to fast degradation of the sensitive environmental resources, which has been considered as a weakness that constrains the development of the Kalpitiya area as tourist resource resort as stated in the vision.

Figure no 5.1.2. (a) .1.



Figure no 5.1.2. (b) .1.



Source: Field survey-2017

5.1.2. (c) Lack of shady areas within the town centre areas.

The town centre seems to be developed over the years in a vacum of policy and planning guidance, which led to haphazard physical developments preventing the sea breez blowing in to the town area. In the construction of buildings no rooms have been left for pavements for the pedestrian movements and tree planting spaces either. The lack of attention towards planning the city to meet the need of the people moving in the city, today it has resulted in a high temperature atmosphere, lack of shady areas and sea breez in the town environment. Under the circumstances the visitors have to undergo a harsh environmental conditions and that discourages visitors to reach the town centre and try to avoid the town centre as much as possible.

Figure no 5.1.2. (c).1



Figure no 5.1.2. (c).2



Source: Field survey-2017

5.1.2. (d) Fast depletion of Mangroves habitat due to human activities.

The mangroves habitat is a significantature of the natural environment of the Kalpitiya PS area, which the supports the existence of the natural environmental resources sustainably and conserve it naturally. Today the PS area is experiencing a fast depletion of this mangroves habitat due to haphazard social and economic activities of the people. This destruction in the natural environment can lead to slow down the tourist inflow, which has been considered as a weakness for development of the tourism industry in the time to come.

The rate of mangrove cover depletion during the period from 1981 to 1992 is depicted in the following table.

Table no 5.1.2. (d).1Mangrose habitat

Area	Year 1981	Year1992	Difference
Dutch bay	296.91 Ha	262.04 Ha	34.83 Ha.
Kalpitiya area	213.80 Ha.	135.92 Ha.	77.88 Ha.

Source: Survey carried out on the mangroves habitat -1992

5.1.2. (e) Confinement of tourism activities only to the tourism season.

During the tourist season many tourism related activities such as sailing, watching dolphins and whales and diving prevail at their maximum capacity, but during the off season these areas become deserted, though the potentials and opportunities area available to attract tourists even during the off seasons as well, by introducing programs such as meditation, lagoon touring, camping and golfing if facilities provided, which may be loved by the tourists. Lack of such forward thinking involvement in the tourism sector led to the Kalpitiya area becoming deserted during the off-seasons.

This lack of activities during the off season has been identified as a weakness.

Flgure no. 5.1.2. (e).1: Tourism activities







Spend Leisure time

Camping

Staying







Kite Surfing

Meditation

Whales watching

Source: Field Survey carried out on Tourist Hotels-2017

5.1.2. (f) Lack of free access to the historical monuments such as Dutch Fortress and the Dutch Church for the public

The Dutch Fortress and the Dutch Church are significant archaeological monuments that exist in the town centre with no access to the public. These two monuments are having significant potentials to attract visitors, both locals and foreign if right conditions are set in. Today these two monuments are deserted and isolated in the town centre and fast becoming dilapidated. This fact has been considered a weakness in the development process.

The tourist hotels functioning in the area are mostly made of local materials, but the facilities available in such hotels seem to be insufficient to meet the standards expected by the tourists. Such hotels need to be converted to standardisation through drastic improvements with necessary facilities.

5.1.2. (g) Number of Hotels functioning in the planning area is insufficient to meet the future needs of the industry

Today the hotels in operation in the Kalpitiya area can meet the needs of the touristsver, when there is a planned involvement in the development process towards a target, the hotels also must be increased in number at the parallel pace without creating a shortage of hotel rooms in the future.

Table no 5.1.2. (g) .1 Number of tourist arrivals in Kalpitiya

Year	Tourists arrivals
2010	6700
2012	8900
2014	11500
2016	13360
2017	15500
2030	29770

Table no 5.1.2. (g) .2 Hotels in operation

Year	Hotels in operation		
2010	03		
2011	08		
2012	14		
2013	22		
2014	32		
2015	40		
2016	52		
2017	60		

Source: Field Survey carried out on Tourist Hotels- 2017

5.1.2. (h) The infrastructure facilities, the basic necessity of the tourism, prevail at its minimum in the Kalpitiya area.

The tourists love to visit the Dutch Bay and other Islands, but reaching to such places is very hard as the transport facilities are at its minimum, even if the tourists reached there, they do not have access to water, services for solid wastes management etc. Further the investors find it very difficult to transport goods from the Kalpitiya town to such Islands. As such facilities are not provided by the Authorities in such places the private sector investors are reluctant to invest in tourist ventures in those areas. There are no facilities to meet the emergency needs in the Island areas, as such only the tourists are bold enough to meet any circumstance are willing to go to such places knowing the hard life they have to undergo in such environments. The collective impact of these factors keep the tourism activities in such areas at its minimum. Lack of physical and social infrastructure facilities in the Island areas has been considered a weakness in the development process.

(i) Lack of Training facilities to train the skilled labour for the tourism industry.

The people of the area do not have training facilities in the locality; as a result, they are compelled to get involved in unskilled business activities such as selling ornamental items, supplying boats on hire and providing other odd services. The professionally established tourist hotels, which run on the basis of the skilled labour, such as hotel managers, waiters, chefs and supervisors, therefore have to depend on the skilled labour available outside of the area.

The unemployment rate of this area has been recorded as 5%, but they are unable to meet the needs of the established hotels and other related institutions of the hotel industry due to lack of training facilities to acquire the skills required for them. This fact has been identified as one of the constrains that hampers the progress of the industry.

5.1.3. Opportunities

5.1.3. (a) The National Physical Plan of Sri Lanka-2030 identified the Kalpititya area as a tourism development promotion zone.



Figure no 5.1.3. (a) .1 National Physical Development Plan of Sri Lanka – 2030

Source: The Department of National Physical Planning, Sri Lanka – 2030

The Department of national Physical Planning, in its plan prepared for 2030, designated the Kalpitiya area as one of the nationally significant tourism development promotion zone, which can be treated as a compelling opportunity that will sustainably inspire the Kalpitiya Peninsular to reach the target of the development plan

5.1.3. (b) The Declaration of the Kalpitiya and its 23 islands in the vicinity as a tourism development promotion zone according to the Tourism Development Plan.

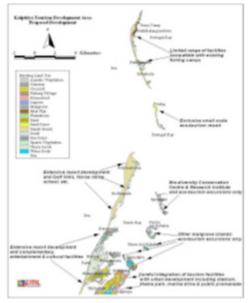
The areas so declared under this plan are appended below.

- Baththalangunduwa (Palliyawatta)
- Dutch Bay
- Wellai 1,2,3
- Periya arachchi
- Sinna Arachchi
- Uchchamunai
- Periya Arachchi (Dutch Bay)
- Sinna Arachchi (Dutch Bay)
- Iramuthiwu (Dutch Bay)
- SInna Iramathiwu
- Iramathiwu West (Dutch bay)
- Kakathiwu (Dutch Bay)
- SOmathiwu (Dutch Bay)
- Maripputhiwu
- Pullupidai
- Udayarputhi
- Maththuthiwu
- Ambibanthiwu
- Nedunthiwu
- Kiluthiwu
- Pambathiwu

Accordingly, not only the Kalpitiya Peninsular but also the areas of Authority including the islands can be designated for tourism development.

5.1.3. (c) According to the Tourism Development Plan of 2008" the integrated tourism hotel Project" is in operation.

Figure no 5.1.3. (c) .1 Kalpitiya Integrated Hotel Project



The projects listed under the Integrated Hotel Project

- Water frontage hotels, Urban Hotels.
- Water Frontage Facilities.
- Ayurveda Health Facility Centre Villages.
- Tennis Academy
- Activity Centres
- Production and land development "Eco Lodge Deluxe Hotel"
- Hotels with dedicated facilities for sports and diving
- Re-establishment of traditional Tourism
- Villages for gusts.
- Centres for Water Sports
- Boat Services
- Museums of Aquatic species
- Facility Centres
- Centres for research and conservation of biodiversity

Source: Tourism Development Authority

The Integrated Hotel Project, which is in progress creating a tourism zone, has formed a conducive environment for the development of the area as a tourism resort area.

5.1.3. (d) The Strategic Tourism Development Plan of Sri Lanka (2017-2021) has proposed to integrate the Kalpitiya Tourism Resort Zone with the National Tourism Industry.

The Tourism Zoning Plan of the Sri Lanka Tourism Development Authority while including the Kalpitiya area in the North-West Tourism Zoning Plan, the Tourism Strategic Plan (2017-2021) and the Sri Lanka National Physical Development Plan 2050 proposed to integrate the Kalpitiya area with the National Tourism Industry as a new zone.

These national level stated policy decisions created a conducive environment for the Kalpitiya area to be developed as a tourism resort area in the national context.

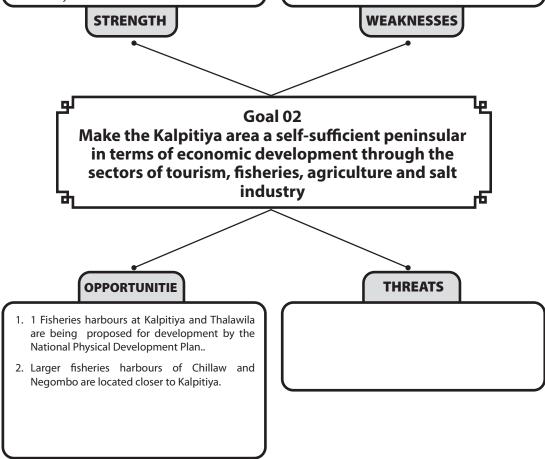
5.1.4. Constrains

5.1.4. (a) The tourism zones in the Northern and Eastern coastal belts located comparatively close to the Kalpitiya area are becoming more attractive in terms of tourism, which poses a challenge to attract the tourists to those areas.

The emerging tourism resort areas such as Mannar and Nilaweli can attract the tourists posing a threat to the Kalpitiya being developed as a resort. So it should be considered as a constrain in the development effort of the Kalpitiya area.

- Kalpitiya being endowed with potentially strong economic sectors such as fisheries, agriculture, salt industry, and the tourism industry.
- The Fisheries harbour having sufficient facilities to meet the needs of the current fishing industry and possessing the ability to receive the outside boats as well
- The dry fish and related products of Kalpitiya has a higher demand in the national market arising from its popularity.
- 4. The climatic conditions prevailing in Kalpitiya is conducive to the dry fish industry.
- 5. Majority of the cultivated lands are under the agricultural crops.
- The ability of the Norochchole Economic Centre, functioning as the main distribution centre for the agricultural products of the area.
- 7. The location of the main salterns in the area with a potential of further expansion
- 8. Possession of the right conditions for generation of solar and wind powered electricity
- 9. Availability of employable labour within the locality itself.

- Underutilization of the capacity of the fisheries harbour.
- 2. Too much dependence of the economy on the fishing industry.
- 3. Practice of illegal fishing in the locality.
- 4. Shortcomings associated with the Economic Centre cause difficulties in distribution of agricultural products.
- Lack of stores facilities to store agricultural products.
- 6. Price fluctuation for the vegetables and other agricultural products.
- 7. Sandy soil in Kalpitiya absorb more water and fertiliser causing ground water pollution.
- 8. Outside traders and workers intrude in to the areas where tourists are roaming and being engaged in industries
- 9. Insufficient internal road network slows down the efficiency of the economic activities
- 10. Limitation of investment opportunities in the area for the local residents
- 11. Low level of technical knowledge of the workers.



5.2.1. Strengths

5.2.1. (a) Kalpitiya being endowed with strong economic sectors of Fisheries, agriculture, tourism and salt productions

Table no 5.2.1. (a)

Economic base	Annual Production in Metric tons	Annual Revenue in RsBln.	% of the Total
Fish Crop	20,698	10.3	17.5
Agriculture	28,600	2.1	3.7
Tourism Industry		5.28	8.8
Salt Production	7,619,700	38	64.6

Source: Department of Fisheries and Aquatic Resources Puttalama-2017

The Kalpitiya area can be recognized as an area with a self-sufficient economy as it possesses strong economic sectors that can support the development.

5.2.1. (b) The facilities offered by the Kalpitiya Fisheries harbor has been a formidable strength to maintain a higher fish crop and that the geographical location of the fisheries harbor supports its ability to accommodate fishing boats coming from outstations.

The daily fish production of this fisheries harbor accounts for 57460 Kg. which comes to 19,050,000 Kg. (19500 Metric Tons). This sector alone generates 1500 to 1600 employment opportunities.

The facilities offered by the Kalpitiya Fisheries Harbour are depicted in the following table.

Table no 5.2.1. (b).3

Facilities Offered	Amount/No
No of boats registered	1,515
Multi-day Boats	35
No of Day-Boats	1,726
Daily fish production	57,460 Kg
Annual fish production	19,050 Mt

Table no 5.2.1. (b).2

Fishing Season	Areas of fishermen	
1 '	Negombo, Chillaw, Walachcher Galle, Hambanthota, MannarTrinc	
	Dickowita,	

Source: Kalpitiya Fishery Harbour(2017)

Figure no 5.2.1 (b).1



Kalpitiya Fisheries harbor

Figure no 5.2.1 (b).2



Kalpitiya Fisheries Harbour

Source: Field Visit on Kalpitiya Fishery Harbour

The facilities available at the Kalpitiya Fisheries Harbour have been a formidable strength to increase the income.

5.2.1. (c) Prevalent of higher demand and popularity for the dry fish being produced in Kalpitiya.

The dry fish produced in Kalpitiya has established a brand name in the Country and it has attracted a higher demand from the local as well as the foreign tourists. The dry fish production recorded during the year 2017 was 1655 Metric Tons which averaged to 2090 Kg per day.

Figure no 5.2.1.(c).1

A scene of dry fish production along the Approach road to the Dutch-Bay Jatty



Figure no 5.2,1,(c).2

Monthly Income from Dry Fish Production (2016)



Source: Fisheries and Aquatic Resource Department Puttalam(2017)

Urban Development Authority 55

5.2.1. (d) Prevalence of right climatic conditions for the dry fish production

The average higher temperature of 31 C offering right conditions for the dry fish production, is a potential factor to support a higher income level. This potential is a formidable strength that has the ability to support the development of the area.

Table no 5.2.1. (d).1

Year	Temperature Annual average (Celsius degree)	Duration of droughts experienced	
2006	28.69		
2007	29.20		
2008	28.71		
2009	28.59		
2010	29.14	April and may	
2011	28.68	February	
2012	28.33	March and April	
2013	31.00	April and may	
2014	32.87	June	
2015	28.80	May and June	
2016	30.15	June	
2017	31.00	June	

Source: Sampath Pathikada, Kalpitiya 2017

5.2.1. (e) Highest land extent being under the Agriculture.

Table no 5.2.1. (e).2:
Extent of land under fruit cultivation
cultivation

Crops (vegetable)	Land extent cultivated (Hectare)
Red chillies	71
Cabbage	72.4
Green Chillies	81
Big onions	121.4
Leaves cabbage	50.6
Caret	62.4
Reddish	76.3
Pumpkin (Batana)	63.2
Long Beans	68.5
Brinjal	112.6
Total	779.4

Table no 5.2.1. (e).1: Extent of land under fruit

Crop (Fruits)	Extent of lands (Hectares)
Cashew nut	24.2
mango	16
Orange	21.5
Lime	31.8
Plantain	22.6
Papaya	86.6
Watermelon	50.5
Total	253.2

Table no 5.2.1. (e).3 Land extents under other crops

Crops	Land extent cultivat- ed (Hectares)
Coconut	276.8
Tobacco	284.6
Maze	76.5
Other crops	54.8
Total	692.7

Source: Sampath Pathikada Kalpitiya 2016

5.2.1. (f) Sandy soil being a fertile land for the agriculture

The soil layer of the Kalpitiya Peninsular was formed by the gradual deposit of sands on the clay layer formation between the sea and the lagoon, this sandy soil is technically named by the geologists as regosol soil.

The composition of the sandy soil is depicted below.

Sand	93.46%
Carbonic matter	4.0%
Phosphate	2.5%
Potash	0.04%
P.H. Value	6.5 %

The sandy soil prevalent in Kalpitiya is very much suitable for the agriculture. This sandy soil, when added with fertilizer and water the soil condition will become more suitable for the higher yield. Accordingly, the soil condition of the Kalpitiya area can be a reliable source of agricultural output that can support the development of the area.

Figure no 5.2.1. (f) .1 Sandy Soil



Source: Field Survey 2017

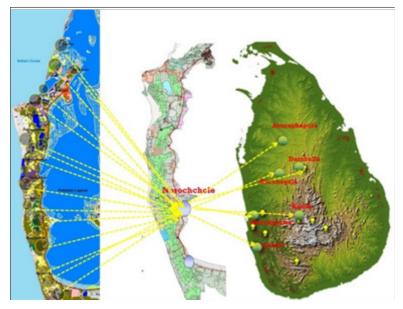
Figure no 5.2.1. (f) .2 Sandy Soil



57

5.2.1. (g) The Economic Centre located at Norochchole has the ability to distribute the agricultural products of the area throughout the Country.

Figure no 5.2.1. (g).1 Distribution of the Agricultural Productions of Norochchole



Source: Urban Development Authority-2018

The Economic centre at Norochchole supports the farmers of the locality in a great way, by providing them a better market facility, where the demand arising from most part of the Country converged at this centre for the agricultural products and this process provides them sustainable revenue

- The revenue collected per day by the Economic centre ranges from Rs. 200,000/= to Rs 1,000,000
- The total amount of vegetables traded at this centre per day ranges from 80,000 Kg to 90,000 Kg.
- Vegetable verities Reddish, Brinjal, Cucumber, Cabbage, Capsicum, Pumpkin, red onions, long beens, Noolkol,
- Areas of distribution Dambulla, Meegoda, Akurassa, Kandy, Karugasthota, Veyangoda, Kuliyapitiya, Nikaweratiya, Anamaduwa, Colombo, Thambuththegama.
- Duration of highest crop yield: April to May.
- Duration of low crop yield: December

5.2.1. (h) The location of major salt production salterns in Kalpitiya and its potential for further expansion

The salt industry in the Puttalama area has been developing from the time immemorial and reached the current level of production capacity which is only second to the salterns in Hambanthata. This industry produces 35% of the total salt production in the Country. The main Companies involved in the industry are the Puttalam Salt Limited and the Raigam Salt Company and there are other private establishments run by private entrepreneurs in the area. The salterns are primarily concentrated around the areas of Puttalama, Palawiya, and Puladiyawel. The annual average revenue generated by this industry has been estimated to be Rs 430 Mln. During the time period from 2012 to 2017.

Figure no 5.2.1. (h).1:
Revenue from salt production per annum

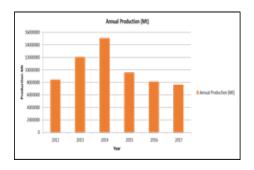


Figure no 5.2.1.(h).2: Saltern



Source: Puttalam Salt Limited and Raigam Salt Company

5.2.1. (i) Availability of potential for generation of alternative power through solar and wind power.

Kalpitiya has 6 places of wind power generators being installed at Sethapola, Norochchole, Narakkalliya, Nawakkaduwa, Nirmalapura and Mampuriya, these wind power centres generate approximately 173 Gwh of electricity which is being fed in to the national grid.

Figure no 5.2.1. (i).1:



Table no 5.2.1.(i).1:

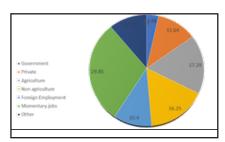
Name of Wind Farm	Declared Capacity (MW)	Units Generated (GWh)	Capacity %
Kalpitiya	9.8	29.3	34
Mampuri	10	28.3	32
Nirmalapura	10	33.9	39
Segavantivu	9.6	30	36
Uppudaluwa	10.5	19.6	22
Vidatamunai	10.4	32.1	35

Source: Ceylon Electricity Board

5.2.1. (j) Ability to find labour to the industries from the locality itself

The employment structure of the Kalpitya area revealed that the economic sectors of salt production, fisheries industry, tourism industry and agriculture can employ the local labour for their further expansion and developments. Out of the labour employed in the area 30% is employed locally on the daily wages basis. This flexible supply of labour in the local market offers the labour-based industries a better opportunity to absorb labour from the local market as and when needed. This attribute of the labour market is considered as a strength in the planning process.

Graph no 5.2.1. (j) .1 Employment Sector Distribution



Source: Resource Profile

Table no 5.2.1. (j) .1 Employment Sector Distribution

Sector	Kalpitiya Pradesheeya Sabha Area	
	Number	%
State	1731	3
Private	5778	12
Agriculture	8574	17
Non-agriculture	8054	16
Foreign employment	5159	11
Self and daily	14802	30
Other	5505	11
Total	49603	100

5.2.2. Weaknesses

5.2.2. (a) Under utilization of the fisheries harbour.

The fisheries harbour is functioning with many shortcomings, such as lack of jetties, insufficient open spaces around it, narrow access roads, lack of ice plant and storing facilities. Whereas the private sector has established their own ice plants in the area which supply the ice to the local market to satisfy the prevailing need. Owing to the lack of such facilities at the Fisheries harbour the income that should have been received by the Fisheries harbour goes elsewhere. In this context the fisheries harbour has a good opportunity to develop such infrastructure facilities as there is a felt need for it. So this shortcoming has been identified as a weakness.

5.2.2. (b) Over dependency of the local economy on the fishing industry.

The fishing-related activities regularly follow the seasonal fluctuations influencing the business activities in the town also to follow the suit as the most of such business activities also overly depend on the fishing industry. This fact is evident during the off season where

dynamism of small-scale business establishments during the fishing season all of a sudden become inactive leaving the town centre being deserted. During this off season the income level of the folk become comparatively low and their low purchasing power affect the small-scale businesses. This overly dependence of economic activities on the fishing industry has been recognize as a weakness as it affects the performance of the town.

5.2.2. (c) Prevalence of illegal fishing practices within the fisheries industry

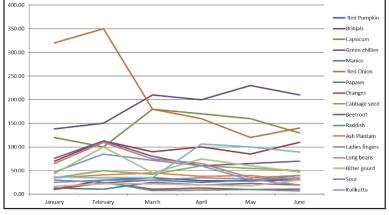
Use of illegal fishing nets, namely "Laila Nets" and "Surukku Nets" has been banned by the authorities as they can badly affect the fish breeding process, and in the long-run, because of this illegal practices fish crops could gradually diminish. It has been reported that this type of illegal fishing practices is prevalent in the areas such as Kudawa, Kandakuliya and Kalpitiya. This practice, unless eradicated, will affect the entire fishing industry irrecoverably.

5.2.2. (d) Shortcomings in the economic centre give rise to difficulties in distribution of agricultural products.

It has been observed that the Economic Centre, located at Norochchole is functioning amidst many difficulties, which are arising from its shortcomings. These short comings constrain the performance of the economic centre and thereby its efficiency has been pushed down to a minimum level. The major issues among the shortcomings are the lack of storing facilities for the agricultural products, the design of the trade stalls did not provide a sunshade to protect the stalls from the sun and the rain and lack of facilities for financial transactions of the traders. These shortcomings keep the involvement of the local residents in the agricultural marketing activities in this centre at a minimum level.

5.2.2. (e) Price fluctuations of vegetables and other agricultural products.

Graph no 5.2.2. (e) .1: Prices of vegetables and other agricultural products



Source: Sampath Pathikada, Kalpitiya- 2016

The price fluctuations of the agricultural products in the open market causes reluctance among the farmers to get themselves involved in the agricultural activities and that led to the sluggish performance of the agricultural sector.

Urban Development Authority

5.2.2. (f) Ground water pollution due to overly use of water and fertilizer in the sandy soil.

Over use of water and application of fertilizer and pesticide chemicals in the agriculture resulted in pollution of ground water.

5.2.2. (g) Intrusion of traders and workers from other towns and engagement in tourism activities.

The knowledge and the skills of the local people to themselves to be involved in the tourism industry is lacking, as such the needs emerging in the industry are met by the outside traders and workers who have the necessary skills and the knowledge. The local people are unable to face the competitive opportunities due to lack of skills among them. This has become one of the reasons as to why the income level of the local people remained at a low level. This process causes reluctance and despair among the local people to be involved in the tourism industry.

5.2.2. (h) Inefficiency in the local economy due to insufficient internal roads

The glaring shortcoming in the internal road network is the existence of only one road from Kalpitiyato Palawiya and lack of a road network to link the islands with the Kalpitiya town to facilitate the communication and economic activity floors. This weakness in the road network causes longer time duration for transport of fish which can perish the fish before it comes to the market. This may be one of the reasons as to why Kalpitiya fishermen more willingly engage in the dry fish processing industry.

5.2.2. (i) Inability of local people to engage in local investments

Majority of the local population, about 52%, earn a monthly income below Rs 15,000 and only about 05% earn a monthly income more than Rs. 32,000 which is identified as the maximum monthly income in the locality. These details of the income levels of the people explain the fact that the people have no sufficient income to make a saving out of their earnings to invest in ventures even though the opportunities exist in the open market.

Monthly income of an average family in the Kalpitiya PS area.

Table no 5.2.2. (i) .1: Average income of a family.

Monthly income of a family (Rs.)	% of families
0 – 16,000	47%
16,000 – 32,000	45%
32,000 and more	8%

Source: SampathPathikada, Kalpitiya-2017

Insufficient involvement of the local people in the economic activities that are emerging in the new sectors directly affect the out-flow of the revenue generated in the area through outsiders who come to the area for carrying out business activities and take the income out of the area. This process further keeps the local people aloof without getting them involved in the economic activities.

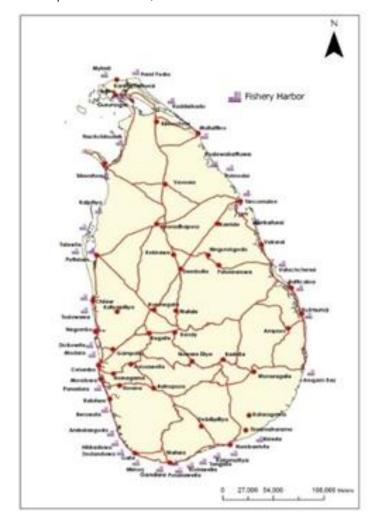
5.2.2. (j) Low level of technical knowledge and skills among the people.

As already discussed, the lack of skills and relevant knowledge among the unemployed people in the locality has been one of the main reasons as to why local people are unable to get themselves involved in the mainstream of economic activities. This situation has been aggravated by the lack of vocational training institutes to provide necessary skills for the people. The needs of the emerging industries seem to be ample but the skilled labour is not there to meet them. This is another reason that causes sluggishness in the local economy.

5.2.3 Opportunities

5.2.3. (a) The National Physical Plan 2030 envisages to develop Kalpitiya and Thalawila Fisheries Harbours.

Table no 5.2.3. (a) .1: Development of Kalpitiya and Thalawila Fisheries Harbours. (National Physical Development Plan 2030)



Source: National Physical Development Plan 2030

- Kalpitya is endowed with necessary facilities to implement a multi model transport system. (road network, internal airpot at Palawiya and Kalpitiya Harbour)
- 2. Convergence of most of the linkages with the Norochcholearera
- 1. 46% of the population in the Kalpitiya PS area do not have access to the safe drinking water
- 2. Internal roads are not in good condition and only the roads in the Kalpitiya town area has an inter connected road network.
- 3. Pollution of ground water through application of more chemicals and synthetic fertilizer in the agriculture.
- 4. Improper management of solid wastes caused environmental pollution.
- 5. Insufficient facilities in the health sector.

Goal 03 Make a pleasing environment enriched with the facilities of infrastructure networks.

OPPORTUNITIE

- 1. Water supply scheme being proposed by the National Water Supply and Drainage Board for the areas of Kalpitiya and Mundalama.
- Greater attention being focussed by the Tourism Development Authority towards the physical infrastructure networks development in Kalpitiya

THREATS

1. Kalpitiya being a peninsular has itself being constrained for development.

5.3. Strengths

5.3.1. (a) Kalpitya is endowed with necessary facilities to implement a multi model transport system. (Road network, internal airport at Palawiya and Kalpitiya Harbour)

The road network of the Kalpitiya area is consisting of roads maintained by the Road Development Authority (RDA), Provincial Road Development Authority (PRDA) and the Pradesheeya Sabha (PS). The RDA has only one main road coming under its purview while 13 roads under the PRDA and 87 local roads under the PS respectively. These roads are forming a network making other modes of transports, such as Palawiya internal Air Port and the lagoon and the harbour more accessible and integrated. In the circumstance implementation of a multi modal transport system is feasible in the Kalpitiya town

Figure no 5.3.1. (a).1 Road under RDA-(Kalpitiya-Palawiya)

Figure no 5.3.1. (a).2 Kalpitiya Fisheries Harbour

Figure no 5.3.1. (a).3 Palawiya Air Port







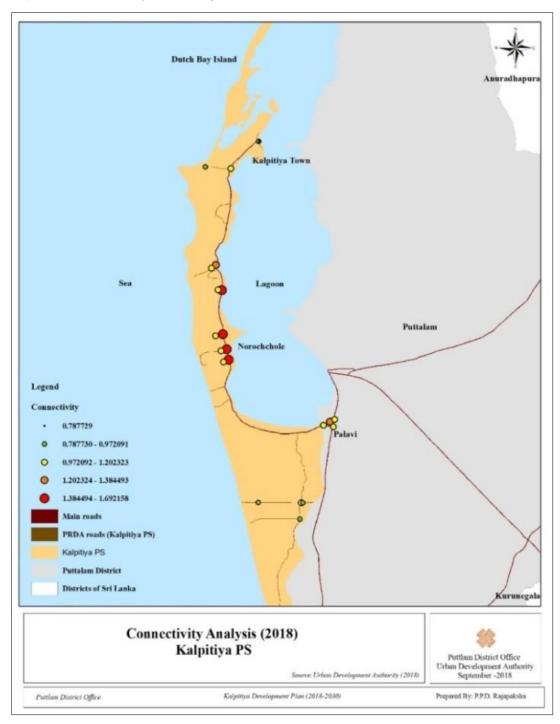
Source: Field Visits



Source: Internet

5.3.1. (b) Convergence of most of the linkages with the Norochchole area

Map no 5.3.1. (b).1: Analysis of Linkages



Source: Urban Development Authority

The Kalpitiya-Palawiya road branches off from the Colombo Puttalam main road from the Palawiya Junction and ends up at the Kalpitiya town. As this is the only road that provides access to the Kalpitiya town and the Norochchole area, which are also served by many local roads coming under the purview of the PRDA, can be identified as the area having the greatest number of linkages.

5.3.2. Weaknesses

5.3.2. (a) 46% of the population in the Kalpitiya PS area does not have access to safe drinking water

Amount of water requirement met from the total population - 54%

Deficit of water requirement from the total population - 46

Table no 5.3.2. (a).1 Drinking Water Requirement

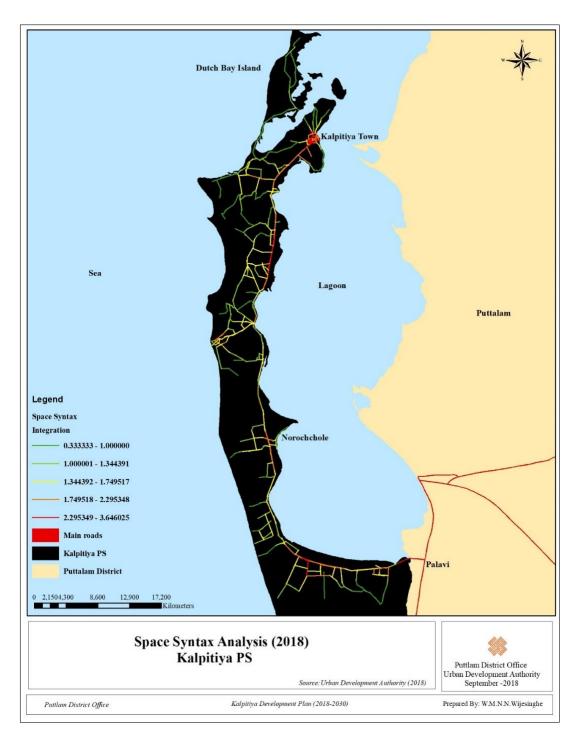
Facilities	Quantity
No of shallow wells in the PS area	11,321 (2015)
Families without water from shallow wells	19,284 (2015)
Population without shallow wells	91,622
Amount of water supplied through water supply scheme (litres)	29, 21, 000
Volume of water required per person per day (Litres)	70
Total water requirement for the entire population per day (litres)	64, 13, 540
Shortage of water for the entire population for domestic purpose per day (Litres)	34, 92, 540

Completed by: Puttalam District Office

5.3.2. (b) Internal roads are not in good condition and only the roads in the Kalpitiya town area have an interconnected road network.

The road network, including Kalpitiya Main road and the internal roads, is not developed according to the standards. The roads are narrow and not provided with side drains and the pavements for the pedestrians. This under developed road network not only brings down the efficiency of the traffic flow but also forces the pedestrian to walk on the road with no safety.

Map No 5.3.2. (b) .1: Analysis of spatial compatibility



Source: Urban Development Authority

In terms of the geographical location and the road lay out the Kalpitiya town becomes the area that maintains the most number of linkages with the rest of the areas. The reason seems to be that the town is situated at a road termination point and is well integrated with the internal road network.

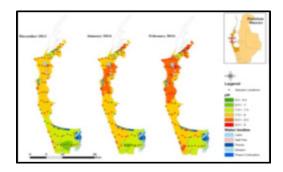
5.3.2. (c) Pollution of ground water through application of more chemicals and synthetic fertilizer in the agriculture.

- The PH value of the ground water in the Kalpitiya PS area is ranging between 6.8-8.5mg/L. The acceptable standard of PH value in Sri Lanka (in piped borne water) is 7.0-8.5 PH.
- The electro conductibility of drinking water in Kalpitiya is recorded as 103 μ S/cm 33016 μ S/cm. The acceptable level of electro conductibility water in Sri Lanka is 750 Us/cm)
- The salty level of the water in Kalpitiya has been recorded as 0.1ppt 31.40ppt

The details of quality of water in Kalpitiya as presented above help to deduce the fact that the PH value, Electro Conductibility and the level of saltiness of the water available in Kalpitiya assume a higher value according to the standards applicable in Sri Lanka, and as such this water is not safe for drinking purposes. Therefore, this fact has been considered as a weakness in the development planning process.

Figure no 5.3.2. (c).1:
The PH Value of soil in Kalpitiya

Figure no 5.3.2. (c).2
Saltiness of the water in Kalpitiya



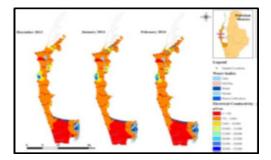
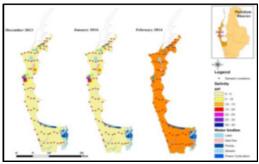


Figure no5.3.2. (c).3: Electro Conductibility of Kalpitiya soil



Source: Seminar on -2014 (SAITM - RSEA)

Urban Development Authority

5.3.2. (d) Improper management of solid wastes caused environmental pollution.

The total solid waste generated in the PS area has been recorded as 132 Metric Tons, of which approximately 40 Metric Tons are collected within the town area itself. The solid wastes collected from the town area are transported to the solid waste management centre located in a 40 perch land at Anawasala area, where the solid waste management process takes place. The studies have revealed that the capacity of the solid waste management centre is quite inadequate, in terms of capacity, labour employed and tools and equipments deployed. The solid wastes collected from the rest of the area are dumped elsewhere since there is no regular and systematic process established to deal with them. This has caused a growing environmental issue in the area.

Figure no 5.3.2. (d).1: Solid Waste management Centre





Captured on: Field Visit

Figure no 5.3.2. (e) .1 : Kalpitiya District Hospital



Source: Kalpitiya District Hospital

Table no 5.3.2(e).1: Facilities available withthe Kalpitiya District Hospital

No of Doctors 04	04
No of nurses	36
No of ards	04
Land extent of the Hospital premises	04 Acres
Dispensaries	01
No of patients' beds	40
No of patients visiting the OPD	140
No of patients coming for clinics	80
No of Clinics held	Once in three weeks

The population of the Kalpitiya area recorded as 128,828, in terms of public health, this population is taken care of by the Kalpitiya Government Hospital which is run by a team of doctors consisting of only four numbers of Doctors without a single Specialist Doctor. The standard ratio of doctors to population as implemented by the Ministry of health is one Doctor for 8000 people, by that standard the number of Doctors required for this hospital to service the public comes to 16 numbers of Doctors. Shortage of Doctors is alarming.

5.3.3. Opportunities

5.3.3. (a) Proposed Kalpitiya and Mundalama Water Supply Scheme by the National Water Supply and Drainage Board.

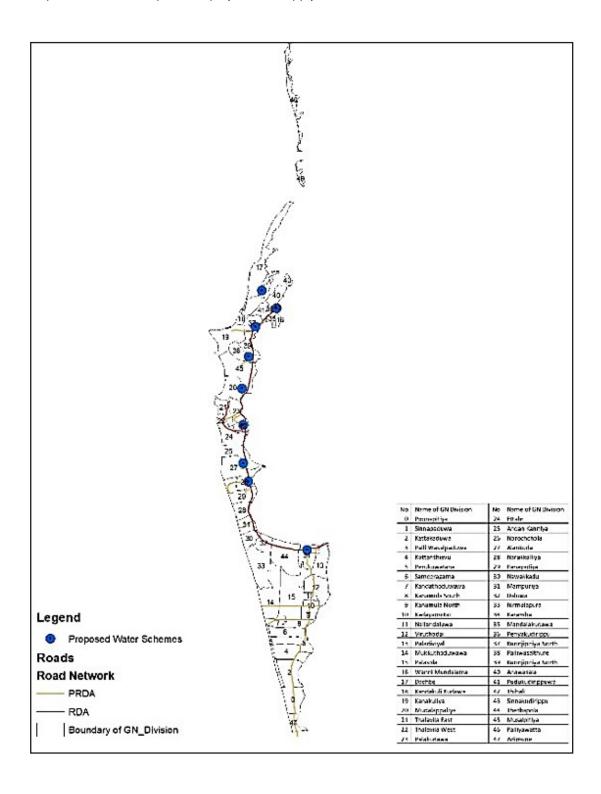
Table No: 5.3.3.1. Proposed Kalpitiya and Mundalama Water supply Scheme

Details of the Scheme	Water supply – 10,500m3/day Refinery – 9,000m3/day Norochchole Water Tank capacity – 1000m3 Kalpitiya Water tank Capacity - 2000m3
No of beneficiaries	72,000 (2040) 31 GS Divisions in the Kalpitiya PS area
Investment	Rs.12,810 Mln.

Source: National Water supply and Drainage Board

This proposed water supply scheme will be completed in the year of 2040 and envisages supplying water to a population of 72,000. The water distribution network will cover 31 GS Divisions in the Kalpitiya PS area.

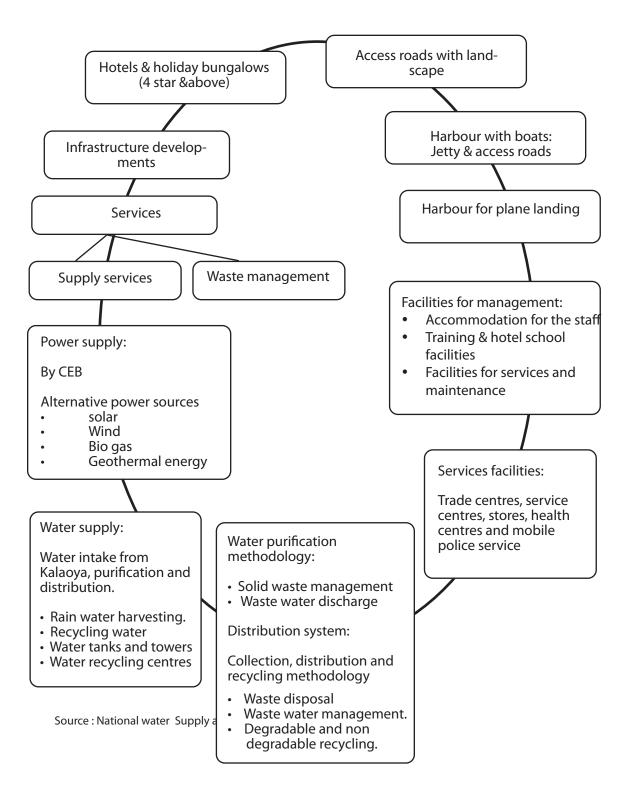
Map no 5.2.3. (a).1: Proposed kalpitiya Water Supply Scheme- 2018



Source: National Water Supply and Drainage Board

5.3.3. (b). Involvement of the Sri Lanka Tourism Development Authority in the development of the physical infrastructure networks in the Kalpitiya Pradeshiya Sabha area through its plan for tourism development.

Figure 5.3.3.b.1 Kalpitiya Integrated Tourist Circuit Bungalow project



5.3.4. Constrains

5.3.4.1 Geographical formation of the Kalpitiya PS area as a peninsular

Kalpitiya peninsular is a narrow and elongated peninsular with a length of 40 Km from the Northern tip to the South. Further it is bordered by the Indian Ocean on the West and the North and by the

laç ations for development. Fig 40km

esheeya Sabha area

n an in-depth assessment was made on the ne area that would pave the way for the vision.

Chapter 06

The Plan

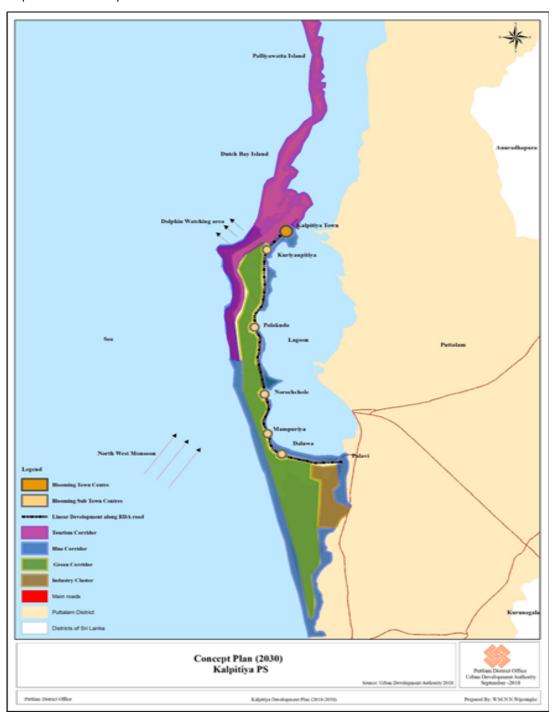
- 6.1. Conceptual Plan
- 6.2. Proposed Land use Plan
- 6.3. Physical & Social Infrastructure Facility Development Strategies
- 6.4. Economic Development Starte
- 6.5. Sustainable Environmental Development Strategies
- 6.6. Cultural and Heritage
 Management Strategies
- 6.7. Implementation Strategies



Chapter 06 The Plan

6.1. Conceptual Plan

Map no 6.1.1: Conceptual Plan 2030



Prepared By: Puttalam District Office UDA

The Concept Plan presented here is the representation of the future vision that has been formed conceptualizing the future state of the Kalpitiya area by 2030 after development of the dynamic economic sectors of Fisheries, tourism, salt industry and the agriculture. This concept plan also represents the spatial development strategy, which includes development of sub-urban centres to support the distribution of urban services in a balance manner over the entire PS are.

This development plan envisages development of the Kalpitiya town with advanced infrastructure facilities through development of selected economic sectors of the local economy. The spatial development strategy adopted in the development plan envisages to develop the Kalpitiya town as the focal point of the PS area which is holding remarkable growth prospects. Accordingly, the Kalpitiya town will be developed as the principal growth centre of the Kalpitiya PS area in the future. The spatial development strategy also envisages to develop the Norochchole as the second order town in the urban hierarchy of the Kalpitiya settlement structure while developing the towns of Kurigngnanpitiya, Palakuda, Mampuriya and Daluwa as the third order towns. It is expected that the future spatial development will follow a linear type of development along the roads that are linking the town centres in the urban hierarchy.

The concept that provides the basis for the development of the tourism sector, envisages to provide facility centres to promote the tourist activities such as Whale-watching, sailing, etc as well as service centres such as eating houses, hotels, restaurants and centres supplying tools required for multiple leisure activities in the urban and sub-urban centres. These urban centres that are developed in the urban hierarchy will be integrated with the road network, creating spatial and economic environment to inspire urban corridor development. This corridor development is expected to inspire more activities based on touring the sea and the lagoon and thereby promote the commercial development in all the urban and sub-urban centres to be planned out in the Kalpitiya area.

This development process will envisage a rise in the commercial activities by the year 2030 along the corridors that will be linking the urban and suburban centres converting the area in to one of the most attractive resort centres in the Island.

Kalpitiya has an active fishing industry, which has the potential and prospects of expansion and development through provision of services along the proposed corridors, integrating the currently-isolated fishing areas and through providing more accessible avenues to the lagoon area as well. The fishing activities in the sea as well as in the lagoon area are expected to promote under this development plan. Prawn cultivation in the lagoon area has an enormous growth prospect, which needs to be promoted while inspiring the emerging fisheries development trend in the West area of the Kalpitiya peninsular through acceleration of the process. In implementing these proposals conflicting situations are expected to rise, which should be managed without causing detrimental effects on the ongoing development process through enforcement of planning and development rules under the development plan. Therefore, this development plan will include rules and guidelines to manage such conflicting situations under the guidance of this development plan.

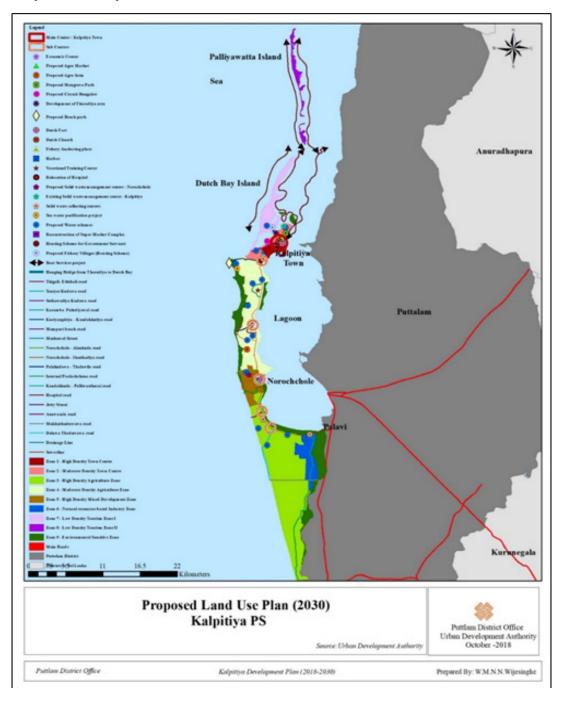
The Kalpitiya area provides a fertile land and much suitable climatic environment to make the agricultural activities more productive. Vegetables and fruits are being cultivated here in a more commercially oriented manner, showing robust growth prospects. The existing road network in the locality facilitates the distribution of agricultural products while the Norochchole Economic Centre providing better marketing facilities. This Economic Centre

has been playing a dynamic role by facilitating the marketing agricultural products brought in to the centre as well as an agricultural product distribution centre in the national context. This economic role of Kalpitiya has the potential to make itself a vibrant economic centre in the overall economy.

The salt industry has been the major income earner in the Kalpitiya area. However, there seem to be an economic force that compels the saltern owners to cultivate prawns and inland fish in the salterns in place of salt production. Therefore, integration between these two economic activities- salt producing activities and the inland fishing activities together with the prawn cultivation - can support the growth of the overall economy of the Kalpitiya PS. The development plan envisages creating a conducive environment motivating the stakeholders to increase the utilization of capacities of the economic sectors and to improve the physical environment to attract more tourists in to the area within the duration of the development plan implementation and thereby to promote the living standards of the people.

6.2. Proposed Land Use Plan

Map no 6.2.1: Proposed Land Use Plan- 2030



Prepared By: Puttalam District Office UDA

The Kalpitiya Peninsular is enriched with many sensitive environmental characters, its development needs to be undertaken along with the development of the agriculture, salt industry and fisheries industry as well. The wind power generation too needs to be given a significant place in the development process as it can play an important role in the

power generation in the national context. Under these circumstances this development plan needs to take in to consideration the physical setting of the peninsular and provide a guidance for the development process towards the envisioned future. The land use plan-2030 will provide the basis for such a development through out the planning period and the physical development of the area will follow this proposed land use plan .

This development plan was prepared with the full knowledge of the industries functioning as the economic base of the local economy, those industries, namely, agriculture, salt industry and the fisheries industry need to be protected in the development process and they need to be facilitated in the long run for their growth. Further the environmental characters also must be conserved while they are made use of in the proposed development. In this environmental conservation and development effort, it is essential to give utmost priority for the protection and conservation of mangrove, lagoon and the sea habitats networks. The wind power generation also has been taken in to consideration as a significant factor in facing the power need in the future. In this context the main aim of this development plan is to strengthening such economic, power and environmental sectors to enhance the living standards sustainably of the people.

The Kalpitiya Town will be developed as the focal point of the development while other junction towns, such as Kurigngnanpitiya, Palakuda, Norochchole, Mampuriya and Daluwa will be developed as urban sub-centres.

The existing road network is in a deplorable condition, maintenance has not been attended to timely. Many roads are short of standards required. Therefore this development plan proposes to comprehensively redevelop these roads in a phased out manner depending on the severity of conditions. In this proposal the Jetty street, Muthuwal Street, Hospital Road, and Anawasala Road which are connected with the town area are proposed to be redeveloped based on redesigned traces with provisions for pavements, side drains, sewr lines and other structures.

Figure no 6.2.1: 2030 Section of the town after implementation of the proposed projects



Source: Urban Development Authority

The existing Hospital has no sufficient land area for future expansions. As such a land has been identified according to this development plan and reserved it for development of a new hospital with all the facilities required. A housing scheme too, as a official residence for the Government Officers, who come to this area for duty on transfers, has been proposed under this development plan. Currently the Government Officers are reluctant to come and work in this area due to lack of accommodation facilities.

Fishing has been the main livelihood of the people, as such fishing villages have come in to existence over the time. The houses in these villages are lacking basic facilities. These circumstances compelled the planners to proposed housing schemes for the fishermen in Mohonthuwarama and Wannimundalama areas.

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The evidences have indicated that there is a progressive trend for development of the tourism industry, but the people of the area have no business acumen or knowledge of getting involved in such emerging industry. This fact is also to some extent true with regard to the other main industries, such as agriculture and fishing industry. The people involved in these economic sectors are following the generations old traditions without improving their technology and skills. In this background this development plan proposed to establish a vocational training centre/ This vocational training centre envisages to train people not only for the tourism industry but also for the agriculture and fisheries industry as well.

A solid waste management centre is currently functioning in Anawasala, which caters only for the town area. The solid wastes collection in other areas is not attended to, as a result many environmental issues have been cropped up. Considering this issue this plan proposes to establish a new solid waste management centre in Norochchcole area while expanding the existing centre to meet the needs of the expanded area around the Kalpitiya town. Further it proposes to introduce waste collection containers in appropriate locations.

Provision of drinking water to the kalpitiya PS area is a major issue that has been prevailing for a long time. The ground water is not suitable for drinking purposes. The NWS&DB planned a water supply scheme to the Kalpitiya area, but its capacity is not sufficient to meet the needs arising from the entire PS area. However this plan has made provisions to enable the easy implementation of the proposed water supply scheme by identifying a suitable land for the water purification plant and the storage tank establishment. It has been estimated that even after the implementation of the proposed water supply scheme only a fraction of the water need of the people can be met. Therefore this development plan has proposed a desalination plant at the Kandakuliya area.

Figure no 6.2.2 : Section of the Norochchole area after complete implementation of the proposed projects by 2030



Source: Urban Development Authority

The development plan envisages not only provision of physical infrastructure facilities, but to provide facilities for the economic development as well. Accordingly, with the view of making the Norochchole Economic Centre more efficient and effective in its provision of services, it has been proposed to modernise the economic centre by providing necessary infrastructure facilities. It has also been identified that the pollution that has been caused by the use of synthetic fertilizer and other chemicals such a insecticide and pesticides need to be arrested in the long run in order to control the environmental pollution. With this aim in mind, use of compost fertilizer in the agricultural activities need to be encouraged and the facilitation of such activities has been proposed under this development plan. A compost fertilizer trading centre has been proposed. Further refurbishment of the currently inactive public market, located in the town centre, with a view of providing a better marketing facilities for the people has also been proposed.

Promotion of the fisheries industry needs development of the basic infrastructure facilities such as development of fisheries harbours and the anchorage facilities. Proposals have also been made to develop such facilities with view of promoting the fisheries industry.

The development plan envisage to develop the Dutch Bay and the Palliyawatta Islands for tourism, with this aim in mind a boat service from the Navy Camp to transport people across the lagoon to visit the viewing compartments at WIIIpattu and Gangewadiya has been proposed. Rehabilitation of the Dutch Fortress and the Dutch Church has been proposed and to open them for the public to visit. This proposal could increase the interest of the tourists to visit these monuments after rehabilitation with the improvement of the surrounding area as well. The kandakuliya area provides access via the sand dunes to watch the dolphins and whales. Therefore development of a beach park in this area could be a catalitic project to attract more tourism activities in to this area. Further construction of a bridge from Thoradiya to Dutch Bay Island has been proposed to facilitate the transport of people and goods

Figure no: 6.2.3 : Section of the Dutch Bay Island in 2030 after the implementation of the proposed development projects



Source: Urban Development Authority

Development of a Mangroves garden at Anawasala and a Holiday Bungalow at Thudawa area have been proposed and suitable lands have been identified under this development plan.

There are two more proposals made in this development plan, one is to establish a factory to packaging fresh vegetables produced in the area and the other to develop a market centre with facilities for the people to produce handicrafts there itself so that the tourists can witness the process. This marketing centre will also provide trading stalls where traders can sell their produce to the tourists as well as the general public Accordingly this development plan has been prepared with the objective of setting up a better environment through development of necessary facilities for the people as well as the tourists who visit this area to acquire experiences...

6.3. Physical and social infrastructure development strategy.

The common issue that plagued the Kalpitiya PS area for some time, namely the roads, water supply and social infrastructure such as housing, education and health will be addressed through development proposals formulated in this plan. These proposals will facilitate the accessibility of the town and further they will make it more attractive for the visitors.

6.3.1. Plan of service development

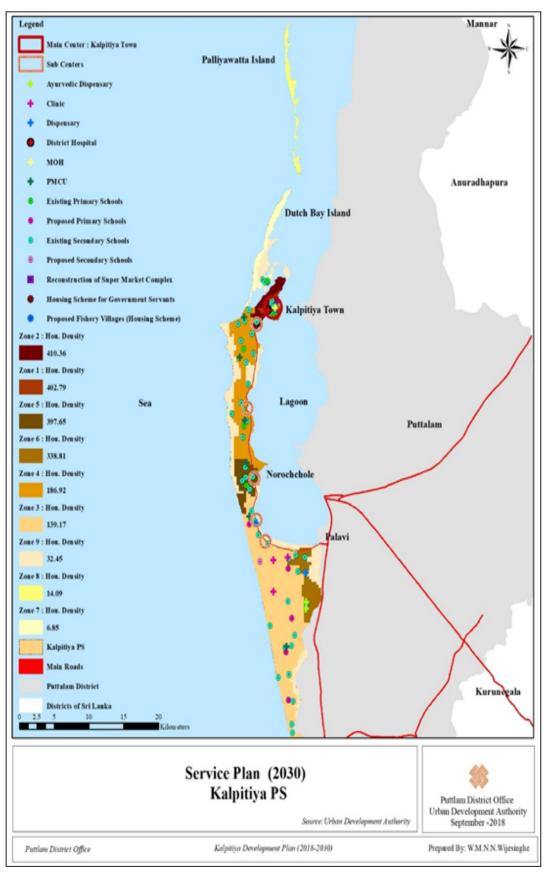
In order to approach the vision formed at the beginning of the planning process, three main objectives have been set out. Provision of services has been the principal objective of them. This service plan will set out the method of facilitation of the service components such as education, health, housing and administration and how to address the difficult issues prevailing in the area that will lead to creation of a pleasing environment for the population living in the area.

In the process of this service plan preparation, the population settled down along the main roads was taken in to consideration in determination of the role of the sub centres and the Kalpitiya town. Accordingly, the need of such services for 166,701 people to be living in 09 zones by 2030

6.3.1.1. Plan of Service Centres

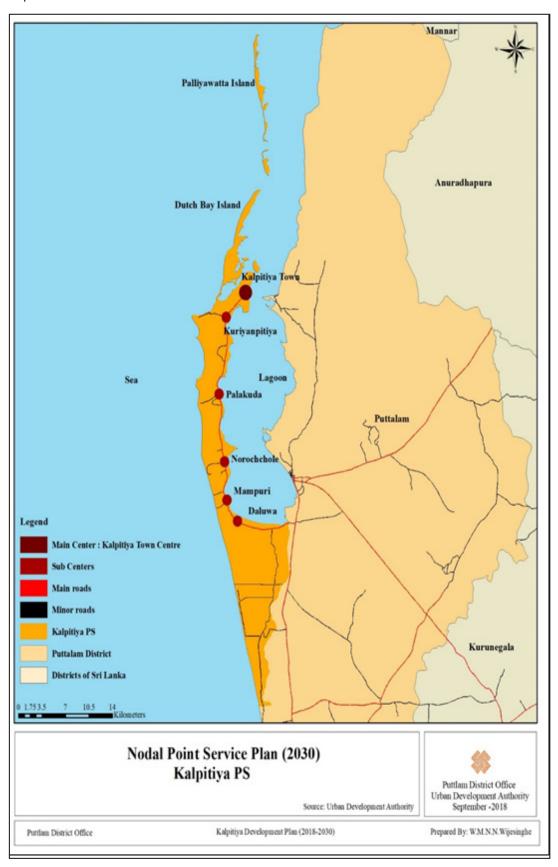
The Kalpitiya Town will be developed as the main service centre of the proposed urban settlement hierarchy as a linear type development starting from Kalpitiya town to Daluwa, while Kuringngampitiya, palakuda, Norochchole, Mampuriya and Daluwa being developed as sub urban centres in the settlement plan. In this plan, the main service centre is expected to provide higher order services such as specialized marketing services and goods, Banks and financial institutions, filling stations and administrative services. The sub centres are envisaged to provide services to meet the day to day needs of the local population.

Map no 6.3.1.1: Service Plan 2030



Prepared By: Puttalam District Office UDA

Map no 6.3.1.1.1: The Service Centre Plan 2030



Prepared By: Puttalam District Office UDA

6.3.1.2. Provision of Housing

Addressing the issue of housing is the most vital component of the service plan. This component encompasses the services that are needed to facilitate the living, working, education, health and leisure activities of the local population. The vision of this development plan envisages to provide housing for the people living in the urban and sub urban centres by the year 2030 at suitable locations and to replace the temporary and semi-permanent housing with permanent houses through implementation of new housing schemes.

The population, as enumerated in the year of 2017, was 128,828 people and the number of families recorded was 30,675. The number of housing units in that year, according to the Census, was 30,319. These data reveal that the housing backlog in the Kalpitiya area was 2119 housing units. The housing needs in the year of 2030 was estimated to be 42,744 housing units. The population of 166,701 by the year of 2030 will be distributes within the 09 zones identified within the Kalpitiya area.

Table no 6.3.1.2.3

Zone	Population /2030	Housing units/2030	Density (People/ sKm.) 2030	Density (Housing units/sKm 2030
1	17557	4502	1570.88	402.79
2	15363	3939	1600.40	410.36
3	54260	13913	542.76	139.17
4	32712	8388	729.00	186.92
5	19581	5021	1550.84	397.65
6	20498	5256	1321.37	338.81
7	288	74	26.72	6.85
8	345	89	54.93	14.09
9	6098	1564	126.56	32.45
Total	166701	42744	7523.46	165.04

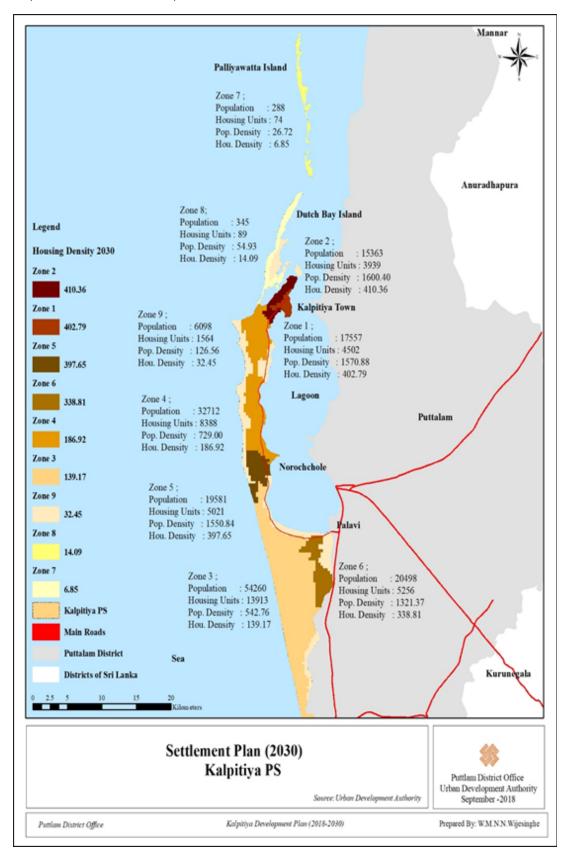
Source: Kalpitiya Resource Profile 2017

The population and housing densities are presented by the data presented in the above table, according to which the highest density prevails in the zone no 02 and that of the lowest are recorded in the rest of the zones where the islands are situated. The other characteristics are reflected vividly by the data in the table.

As factually it was established in previous sections, the fisheries industry is one of the major income earners of the Kalpitiya area and a sizable share of the population depends on it for living. However, the fishing families do not have better housing facilities necessary services. As such, this development plan envisages implementation of housing schemes at Mohonthuwarama and Mundalama villages. Suitable lands for such housing schemes will be identified under this plan at suitable locations.

This development plan also envisages developing facilities for the Government's Institutions and official residential quarters for the Government Officials working at this area on transferable basis. The proposed residential quarters will be developed at Kurigngnanpitiya area.

Map no 6.3.1.2.1: Settlement plan- 2030



Prepared By: Puttalam District Office UDA

6.3.1.3. Health Services

The health service sector is providing health services through one District Hospital which is located at the town centre, 8 primary health service centres, 02 Health Service Offices (MOH), 3 health centres and one maternity medical centre. One Ayurweda hospital is also located in the area. All these health institutions are located within the Kalpitiya Peninsular.

The District Hospital in Kalpitiya is the only District hospital in the area with a bed capacity of 40 beds providing services for a population of 128,828. The minimum standard acceptable in terms of number of beds in the hospitals, according to the WHO, 1000 people should have had 128 beds in 2017. The standard population bed ratio should have been 3:14 for 1000 people. This fact reveals that the health facilities available at Kalpitiya are inadequate.

The land where the District Hospital is located is currently inadequate to expand the hospital. Further the professional man power available at the hospital is inadequate while the built space is also insufficient. This restrictive environment of the hospital implies that the hospital cannot be expanded within the current site of the hospital and therefore a comprehensive new District Hospital complex need to be developed at a suitable location within the town area where sufficient land extent is available. The development plan will make proposals in this regard.

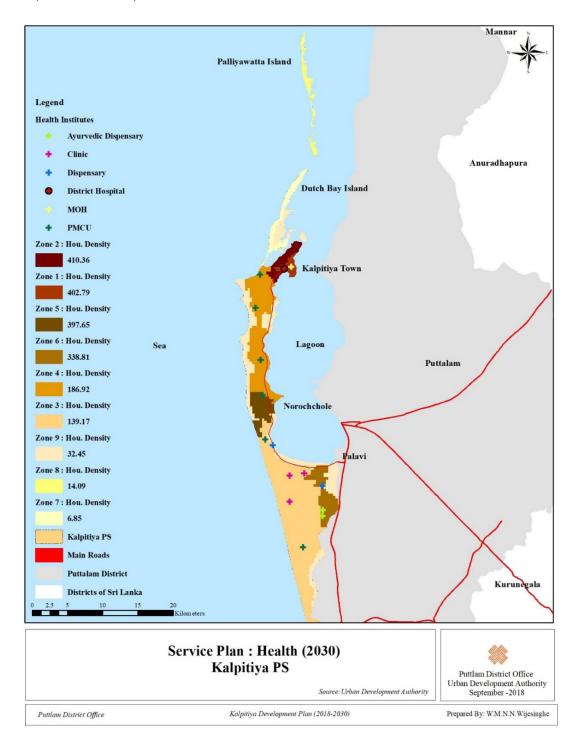
Further, a rural hospital is becoming acutely necessary to serve the expected population in the future efficiently. A suitable land for a rural hospital in the Koththantheevu area has been identified for this purpose.

A high density population is expected around the Kalpitiya town and the Kandakkuliya area, where, according to the proposals contained in this plan, two clinic centres, two pharmacies and a primary health centre will be established.

The population in the Norochchole area too will be expected to grow in density and those people will find it difficult to travel to Kalpitiya area for health services in the time to come, therefore in order to make more health facilities available within this area itself, medical centres and medical examination centres are proposed to be established in the Norochchole area. The Karamba area, the zone no 05, will be expected to grow in industries inspiring more people to settle and work there. This process is expected to increase the future population, and as such their health needs should be taken care of by the development plan including proposals to increase the health facilities in this area. In view of these MOH offices, clinics and medical centres in this area are proposed in the development plan.

The proposals contained in this plan do encourage the continuation of the existing health facilities at current locations while proposing new facilities at areas where such facilities are inadequate or lacking to meet the needs arising during the run up to the year 2030.

Map no 6.3.1.3.1: Proposed Health Service Plan-2030



Prepared By: Puttalam District Office UDA

6.3.1.4. Education Service Plan

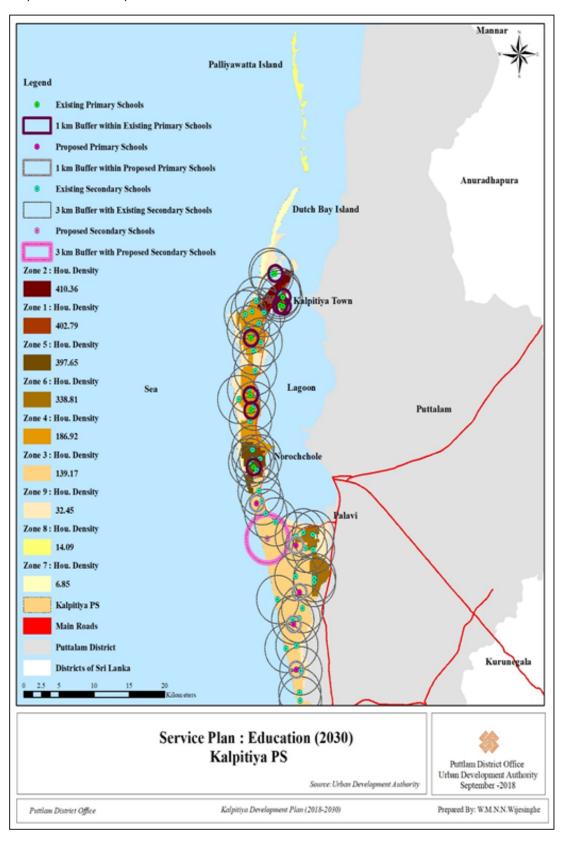
The educational services are provided with the help of 59 Government-run schools. The number of teachers staffing these schools was recorded as 936 teachers while the number of students recorded was 23987 students. The authorities of the school management states that the teacher student ratio which is estimated to be 1:26 implies that there is a shortage of teachers in the year of 2017 according to the management records. As far as the education level of the students are concerned, 36.2% of the student population received primary education, 42.6% received secondary education, 8.6% passed O' Level examination and 4.6% passed A'Level examinations while 7.2% not attended schools at all.

The standards of primary school locations require providing one primary school within a radius of one Km., but in the Kalpitiya area this standard is not met, implying there is a shortage of primary schools in the area. As such this plan proposes to locate primary schools at Mampuriya, Sethapola, Palasola, Koththanthiwu and Punapitiya villages to improve the current state of education facilities.

The standards specify that the secondary schools should be located within a radius of 3 Km. This standard is reasonably satisfied except for the area Nirmalapura village where a secondary school needs to be located. As such this plan proposes to locate a new secondary school at this village.

This plan also proposes to promote the facilities of the existing schools by providing residential quarters for the teachers, increase the number of class rooms and the sanitary facilities of the schools. This will help the management authorities to retain more teachers coming from outstations at this area and provide their services sustainably.

Map no 6.3.1.4.1: Proposed Educational Service Plan-2030



Prepared By: Puttalam District Office UDA

6.3.2. Proposed Transport Plan.

The road network of the Kalpitiya area considered being sufficient to provide services to the people and the performance of the economic activities of the area provided they are refurbished and maintain in a better condition. The traffic volume in this road network unlike in other towns in the Country traffic congestion generally retarding the economic performances is not to be seen in Kalpitiya. This state of affairs in the road network will be beneficial for the future development activities as major investments on new road developments will not arise. The geographical formation of the Kalpitiya Peninsular offered a better physical environment to develop a multi model transport network in the planning area, but it does not appear to be making use of this potential in the development of the transport network. From the Palawiya junction up to the Kalpitiya town traveling along the main road is feasible, but the internal road network of the PS area is in a condition of disrepair. As the internal road conditions are in a poor condition, the people have converted goods transport vehicles in to passenger transport vehicles in order to overcome the poor road conditions and to sustain the economic activities of the locality. These converted passenger vehicles are also used to transport the fish and other agricultural products to the market by using the poor road network in the interior areas. This state of affairs of the interior road network is realistically hampers the economic performance of almost all the economic sectors.

A better road network is basically necessary to help meeting the needs arising from the people coming to this area for various activities and the tourists visiting the area for leisure. These activities will need a better road network by 2030 to make the interior areas more efficiently accessible and thereby inspiring the tourism and other economic activities to rise as anticipated by the development plan. Therefore, this plan proposes efficient road network improvement proposals in the transport plan.

As far as the road network of the Kalpitiya area is concerned, it is apparent that the existing road network of Kalpitiya will be capable of meeting the challenges that are emerging from the implementation of the development proposals contained in this plan and the needs arising from the population that will be 166,701 by 2030.

Traffic survey carried out in the Kalpitiya area to find out the number of vehicles coming in to the Kalpitiya area is reflected in the following table.

Table no 6.3.2.1: Vehicles and passengers arriving at kalpitiya within an hour.

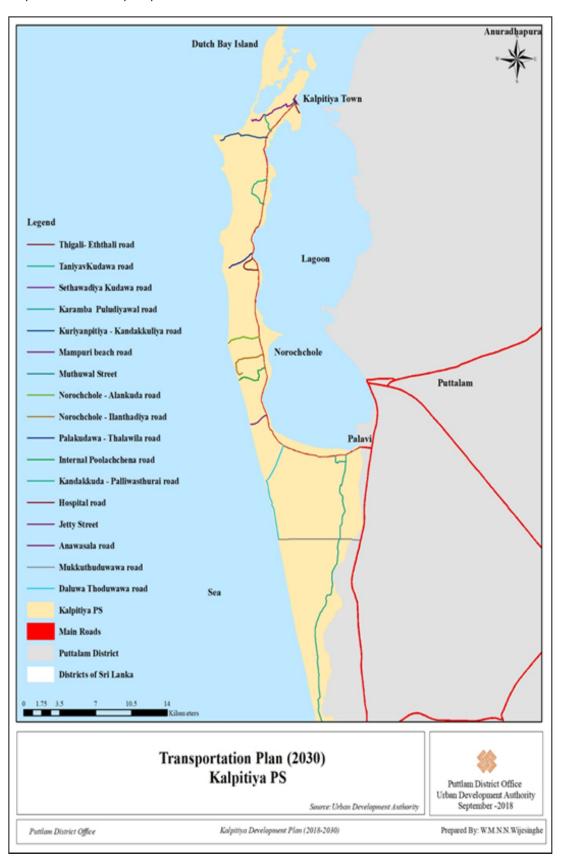
	pedestri- ans	Bicycles and motor bicycles	Common	Private
	1120	Foot bicycles - 96 Motor Bicycles- 326	Bus - 24	Cars - 68 Vans - 51 Trishaws -555 Lorries- 116 Heavy Vehicles- 13 Others- 9
	1120	422	24	895
Total	1120	1341		

Source: Field Survey on Kalpitiya

The information presented in the above table reflect that the total number of vehicles enter and exit to and from the Kalpitiya town recorded only 1341 vehicles and the pedestrians approaching the town do not exceed 1120 pedestrians. These data do not point to the conditions that will inspire new road developments to face the future needs but proper rehabilitation of the current road network and sustainably maintaining them would be quite sufficient to meet the needs of the planned conditions.

The planned locations of trade centres and other activities in the town area may potentially capable of attracting more people and vehicles creating congested traffic conditions by the year 2030, but the improvement of the current road network in the town centre alone will be sufficient to face the situation without construction of new roads. Taking these findings in to the consideration a transport plan, including proposals for improvement of the road network integrated with the interior roads to facilitate the implementation of the proposed development projects in the development plan has been, has been proposed.

Map no 6.3.2.1: Transport plan-2030



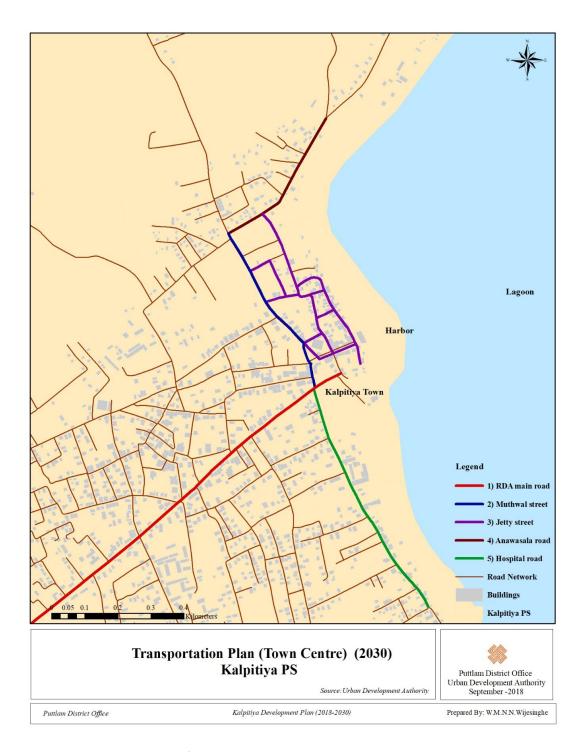
Prepared By: Puttalam District Office UDA

6.3.2.1. Refurbishment of Muthuval Street, Jetty Street, Hospital Road, Kalpitiya-Palavia Main Road, and the section of the road from the point where the Bus Stand located up to the Anawasala road and upgrade them with side drains.

The road network in the town centre is consisting of narrow roads, and is not provided with basic road infrastructures, such as side drains, pavements for the pedestrians and adequate parking spaces. These shortcomings in the existing road network contributes somewhat traffic congestion, which can be overcome by upgrading the selected roads and streets depending on the potential impacts that may be stemming from the future urban development projects to be implemented under this plan.

The proposed fisheries harbour development proposal envisages achievement of certain objectives and to facilitate the efficient and free movement of the fisher folk and the tourists in the town area. Further, more vehicular traffic is anticipated by the year 2030, so the road network improvement plan has to take care of all these factors in to consideration. Accordingly, the transport plan is expected to address these issues.

Map no 6.3.2.1.1: Transport plan of the Town Centre-2030



Prepared By: Puttalam District Office UDA

01. Upgrading and rehabilitation of Mutual Street:

Length of 2 Km to be widened to a planned width of 6 metres up to the Jetty and to be provided with other road structures such as side drains and pavements.

SINGLE STOREY BUILDING (EAST SIDE)

Figure 6.3.2.1.1. Proposed Cross section

Source: Urban Development Authority

02. Refurbishment of Jetty Street, which is bordering the Fisheries Harbour in front up to the Anwasala road.

- I. This section of the road has a length of 800 metres and will be widened to a width of 6 Metres and upgrade it with side drains and pavements.
- II. The widening and upgrading of Jetty Street to a length of 300 Metres to a width of 6m.
- III. The road running by the side of the Dutch Church up to the Jetty street (First Cross Street) is proposed to be upgraded and widened to a width of 6 Metres and to a length of 62 Metres

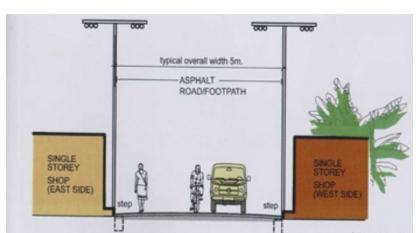
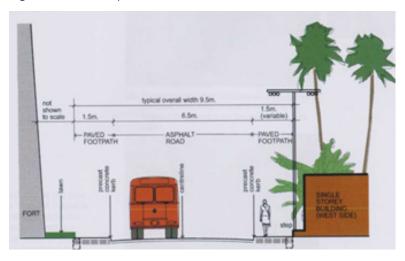


Figure 6.3.2.1.2. Proposed Cross section

03. Widening of the Hospital Road to a length of 1.15 Km and upgrade it with side drains

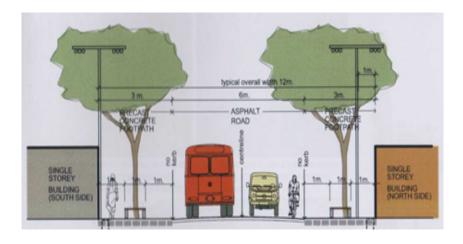
Figure 6.3.2.1.3. Proposed Cross section



Source: Urban Development Authority

04. Redevelopment of Kalpitiya-Palawiya main road up to the end of the town limit with landscaped pavements with seating facilities and streets capes with trees planted for shades.

Figure 6.3.2.1.4. Proposed Cross section



Source: Urban Development Authority

05. Rehabilitation and upgrading of the Anawasala road from the location of the Bus Stand to a length of 2.5 Km by widening to a width of 6 Metres and to be provided with side drains.

It has also been proposed to provide two vehicle parking places, one at the Dutch Fort and the other at site in front of the Navy Camp. Additionally, on-street parking facilities have also been proposed along the Kalpitiya main road. The proposed road design needs to make provisions for such facilities at selected places.

The public bus terminal in a town has to provide more facilities to meet the needs of the public while contributing more towards the efficient performance of the road network The public bus stand at the Kalpitiya Town has been a recent development, which needs to be upgraded with more facilities enabling it to begin long distance bus services from the Kalpitiya Town. Accordingly, proposals have been made in this plan

6.3.2.2. Rehabilitation of other roads within the PS area with surfaces being carpeted with premix

- 1. Sethawadiya Kudawa road upgrading with laying of pre-mix to a length of 5.4 Km.
- 2. Upgrade the Kudawa road to a length of 1.7 Km by laying with premix
- 3. Kurigngnampitiya-Kandakuliya road rehabilitation to a length of 4.9 Km with pre-mixed carpet layer and upgrade it to a PRDA managing road from the PS management grade..
- 4. Redevelopment of Kandakuda-Palliwasalthurai road to a length of 6Km and widening to a width of 6 Metres with laying of pre-mix carpet
- 5. Redevelopment of Pakakuda-Thalawila road to a length of 2.5 Km with a premix carpet being laid.
- 6. Redevelopment of Thigily-Eththale road to a length of 6.3 Km with a pre-mix carpet being laid.
- 7. Redevelopment of Norochchole-Alankuda road to a length of 3 Km with the surface being laid on with a pre-mix carpet.
- 8. Redevelopment of Norochchole-Illanthadiya road to a length of 4.6 Km with the surface being laid on with a pre-mix carpet.
- 9. Redevelopment of Pullachchena internal road to a length of 2.7 Km with the surface being laid on with a pre-mix carpet.
- 10. Redevelopment of Mampuriya Marine road to a length of 2 Km with the surface being laid on with a pre-mix carpet.
- 11. Redevelopment of Kamba-Puladidyawal road to a length of 20Km with the surface being laid on with pre-mix carpet.
- 12. Redevelopment of Daluwa-Thduwawa road to a length of 8.5 Km with the surface being laid on with pre-mix carpet
- 13. Redevelopment of Mukkuthoduwawa road to a length of 7.05 Km with the surface being laid on with pre-mix carpet

It also has been proposed to expand the public transport services covering the zones where proposed new residential developments will take place.

The development plan identified the need of a transport system to connect the islands with the town centre by motor boats, which requires development of the Jetty with necessary facilities and a sustainable boat service will have to be established. Further a bridge linking the Dutch Bay Islands with the town centre has been proposed at Thoradiya.

6.3.3. Proposed water supply scheme

The water supply plan has to play a vital role in the socio-economic development of a town and the management of the water resources need to optimize the water usage with a view to conserve it sustainably for the future needs. Currently, the population of the Kalpitiya PS area is provided with water, approximately 2,921,000 Liters, through community based water supply schemes, and 3,720600 Litres through shallow wells. Accordingly, the current usage of water in the area has been estimated to be 6,641,600 Liters per day. This current water supply needs to be ramped up to meet the needs of the increased population of 166,700 people together with the increased tourist arrivals in the area by the year 2030.

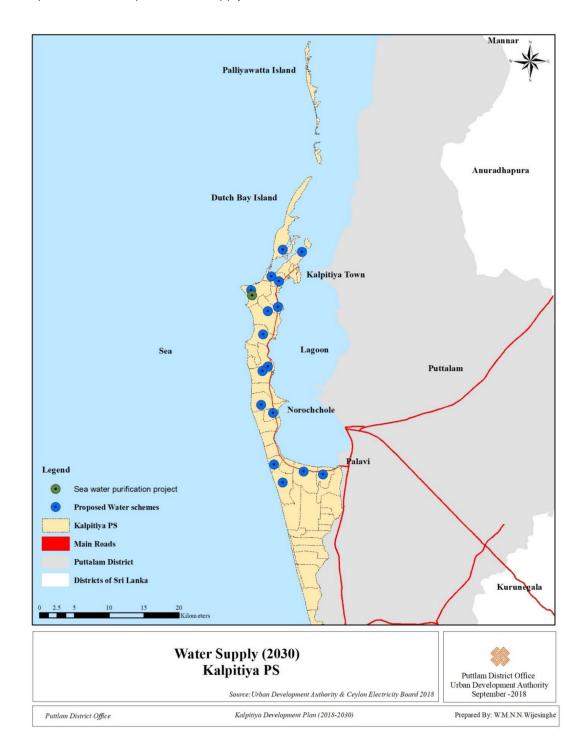
Table no 6.3.3.1: Water Supply Plan for 2030

Average water need per person per day	Litres 150	
Estimated water need by 2030 for the population forecast	Litres 25,005,150	
Current capacity of water sources	Litres 6,641,600 (Community-based supply:Litres 2,921,000) Capacity of shallow wells Litres 3,720,600	
Estimated shortage of water by the year 2030	Litres18,363,550	
Quantity of water to be supplied by the proposed water supply scheme by the year 2030	Litres 10,500,000	
Predicted shortage of water even after the implementation of the proposed water supply scheme.	Litres7,863,550	

Source: Water Supply and Drainage Board

It has been forecast that the water requirement of the population by the year 2030 will be 25,005,150 Liters per day, but the water supply capacity that will exists even after the implementation of the proposed water supply scheme will not be able to meet this target. There will be a shortage of 18,363,500 Liters by the year 2030. The proposed water supply scheme of the NWS&DB will be able to supply only 10,500,000 Litres per day by 2040. This scheme will cover only 31 GS Divisions in the Kalpitiya Divisional Secretariat division. The Kalaoya River will be the main source of water of this proposed water supply scheme. The distribution system of this scheme proposes to locate two water storage tanks at Norochchole and Kalpitiya town with the capacity to store 1000m3 and 2000m3 Litres respectively. The water distribution network will be 200 Km in length and will supply water to 72,000 families. The total water supply capacity of this scheme will be 10500 m3 which will not be sufficient to meet the total need of the population by 2030. Therefore, a proposal to purify the sea water is under consideration and a sea water purification plant to be located at Kandakuliya. This plant is expected to fulfil the shortage of water that would be experienced in 2030.

Map no 6.3.3.1.1: Proposed water supply scheme-2030



6.3.4. Proposed Power Distribution Network Plan

According to the information available the total power requirement of the population in the Kalpitiya PS area has been fulfilled. According to the information 30,139 housing units in the PS area have been given power connections in the year 2017. The power distribution network is consisting of two Grid Stations. The power cable network includes 33,000 KW network and 11,000KW network. There is another distribution network runs through the area from Norochchole which feeds the national grid.

The population in 2030 will be 166,701 according to the estimates, accordingly the number of housing units as computed will be 42,744 housing units. The per capita power consumption, according to the International Energy Agency of Sri Lanka, will be 203 KWh. As per this standard the power requirement of the families computed on the basis of the forecast population in 2030 will be as follows.

Per capita power consumption = 203 KWhPower requirement of one housing unit = 203 X16

= 3248 KWh

Power requirement of families in 2030

As estimated = 3248 X 42,744

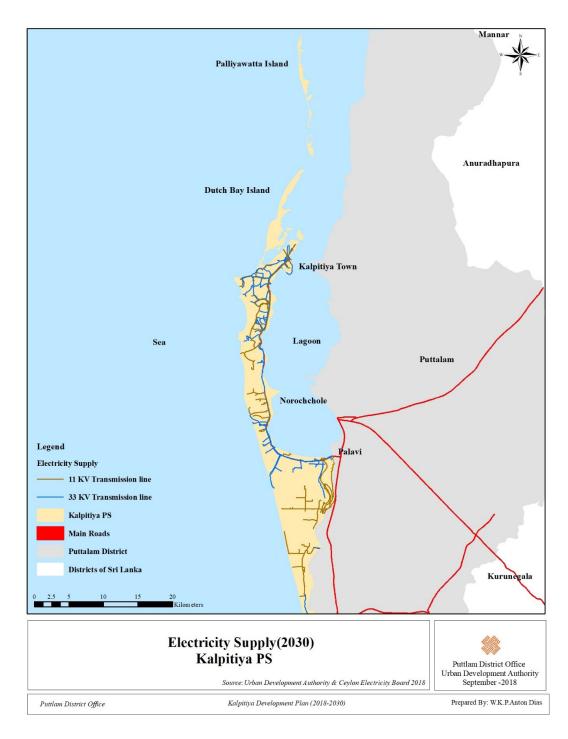
= 138, 832,512 KWh

= 138,832 MW

The economic sectors of salt industry and prawn and crab farming do not consume much power as their activities are not based on electricity power. CEB office of the DGM is of the view that the current power generation is quite sufficient to meet the needs without any difficulty. The future power need computed on the basis of the population estimates and the developments expected in other sectors such as salt production, tourism industry, agriculture, prawn and crab farming will be 138,832 MW, which will not be a difficult target to cater for as the capacity of the power generation will be sufficient to meet it.

Current power distribution network does not cover the Dutch Bay and Palliyawatta islands despite the fact that these islands have been proposed for tourism development. However, there is a great potential for solar power generation in these two islands, hence areas for installation of solar panels have been reserved in the development plan for this purpose.

Map no 6.3.4.1: Proposed Power Distribution Network Plan-2030



6.3.5. Proposed waste water and sewerage disposal plan.

The Kalpitiya-Palaviya main road, within the town area, has side drains to discharge the storm water. Rest of the roads in the road network do not have side drains to discharge the storm water. The street network within the town is not provided with side drain facilities, which allow the storm water to flow through the open streets creating difficult environment during the rainy periods. As such this development plan proposes to rehabilitate the selected roads with side drains being provided in accordance with an overall drainage plan prepared on the basis of a comprehensive drainage and sewer disposal studies undertaken by a competent authority in view of preparing such a plan for the town area by 2030.

A central sewerage disposal system is necessary to be developed within the core area of the town, where plot sizes are comparatively small and do not allow localized sewerage disposal systems to be implemented individually. This localized sewer disposal method outside the core area of the town may be practically possible in the rest of the PS area where the plot sizes are comparatively large. Taking these facts in to consideration the development plan proposes to implement localized sewerage disposal systems individually by the land owners outside of the Kalpitiya town area while a centralized sewer disposal network is implemented within the core area of the town based on a comprehensively designed sewerage system.

Map no 6. 3.5.1 : Proposed Drainage and Sewerage Plan-2030



6.3.6 Solid Waste Management Plan

The current solid waste management system in the Kalpitiya PS area is not capable of dealing with the solid waste satisfactorily. This inefficiency of the solid waste management system is vividly reflected from the heaps of solid wastes visible along the Kalpitiya-Palaviya main road and at the sub-urban junction towns, mangroves habitat areas and in areas where more tourists are moving around.

Table no 6.3.6.1.1: Solid wastes collected per day within the PS area-2017

Locality	Quantity of solid wastes Collected per day	
Within the Kalpitiya town area	Ton 05	
Solid wastes collected from the outside of the town area	Ton132	

Source: Kalpitiya PS

The total solid wastes collected from the core area of the town amounts to Tons 05, of which 2.5 Tons were collected from residential areas, 01 Ton from the commercial areas, 0.3 Tons from the hospital area and 01 Ton from the hotels and Government institutional areas.

Table no 6.3.6.1.2: Collection of Solid Waste by Use Zone

Use Zone	Solid waste %	
Residential	80%	
Industrial	15%	
Commercial	05%	

Source: Kalpitiya PS

The collection of solid wastes is implemented only in areas falling in 6 GS divisional areas, in rest of the PS areas, this waste collection service is not provided for; as a result, the people in those areas are compelled to manage their waste generated within their premises itself. However, their people who do not manage their wastes within their premises and tend to dispose them in open areas which are generally close to their houses. This procedure led to many environmental issues in the town outside areas.

The solid wastes collected from the surrounding areas of the town are transported to solid waste processing centre located 2 Km away from the town area. The centre received the wastes collected from 6 GS divisional areas and processed them to produce composts. The investigation of the site revealed that the land area of the waste processing centre is not adequate enough to deal with the total wastes coming in. Therefore, it has been proposed to expand this centre while developing a new solid waste management centre in Norochchole area as well.

The analysis of the waste collection system revealed that 80% of the solid wastes are collected from the residential areas where the local people reside, but the balance 20% is generated in the commercial area where more outsiders, who visit the area for commercial purposes, are responsible for majority of the wastes generated.

People employed in Commercial, industrial and service sectors in 2030 = 141,535

20% of the total coming to the area from outstations = $141,535 \times 20\%$

Number of people coming to the area from outstations = 28,307

Solid wastes generated by the outsiders in the town (per day) $= 141535 \times 20\%$

=28,307 Kg

Solid wastes generated by the outsiders coming for commercial

Industrial and service purposes $= 28,307 \times 3\%$

= 8492 Kg.

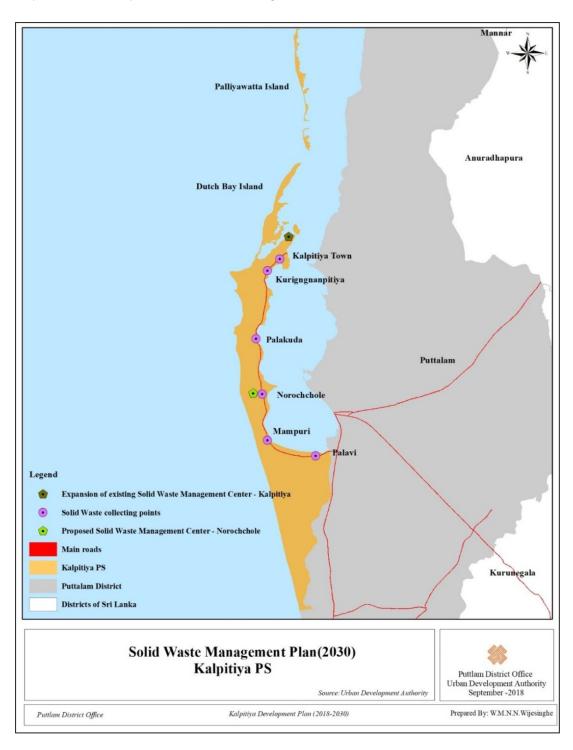
Estimated solid waste generation in 2030 according to the forecast population.

Table no 6.3.6.1.3: Estimated solid waste generation in 2030

Use sector	Forecast popula- tion-2030	Solid wastes generat- ed (per day)
Residential	166701	129 Ton
Commercial, industrial and services	28307	31 Ton
Total	160 Tons	

Source: Kalpitiya PS

Map no 6.3.6.1.1: Proposed Solid Wastes Management Plan-2030



- 6.3.6.1. Redevelopment of Anawasala Solid Wates Management Centre
- 6.3.6.2. Establishment of a new solid waste management centre at Norochchole.
- 6.3.6.3. Placement of solid waste (sorted) collection containers at suitable locations in the junction towns

6.4. Economic Development Strategies

The basic economic sectors of this area, namely, fisheries, tourism and agriculture, will be brought under this plan.

As far as current land use profile is concerned, the land area under the tourism activities amounts to 17.9% of the total land area while those of fisheries, agriculture and salt industry amount to 1.2%, 53.1% and 2.64% respectively.

The view held by the economic development plan of the Kalpitiya area needs the current basic economic sectors' development in order to generate more employment opportunities to the employable people in the planning area and thereby to address the issues relating to increase of the per capita income and the physical development. This plan also envisages to bring more recourses to the area from outside and thereby to increase the investment in service sectors and infrastructure networks of the area.

The North Western province occupies the 3rd place in the ranking of the Provincial Councils in terms of the contributions they make towards the GDP. According to the records of the 2016, the North Western Provincial economic sectors of agriculture, industry and supplies contributed to the GDP by 1.5%, 3.2% and 5.6% respectively in that year. As far as the contribution made by the Kalpitiya PS area towards the GDP is concerned, the tourism industry contributes 5.6%, Fisheries and dry fish industry 17.7%, salt industry 65.5%, power and energy 5.6% and the agriculture 2.1%. This information highlights the fact that the salt industry and the fisheries and associated industries become the most significant economic sectors that can drive the future economic and physical development of the area. The employment of the manpower of the area also revealed that 20.4% of the total employed is in the economic activities associated with the sea and the lagoon resources.

6.4.1. Proposed Tourism Development Plan.

The potentials that provide the basis for tourism development in Kalpitiya are spread almost everywhere of the PS area; the sea beach, mangroves and its habitat, bird species, salty wetlands, sand dunes, sea grass, coral reefs and the wider sea fronts are the most attractive natural environmental features that attract the tourists. Further, species unique to this area, the dolphins, sun, sandy plains and the sea (35′-sun, sand &sea) are prevalent in the area, as well as the places of religious and historical significance too are located in this area. The integrated development plan will provide the basis to develop the area as a tourist resort centre.

Kalpitiya is now emerging as a tourist resort area based on many on-going leisure activities that are prevalent in areas where sailing, lagoon touring, whales and dolphin watching

and fishing are thriving depending on the available potentials even in the absence of necessary infrastructure facilities. The tourist arrivals in the year 2030 is expected to be increased to 18,506 tourists from 15,422 tourists in 2017, following the development of the infrastructure systems that are basic to the tourism development.

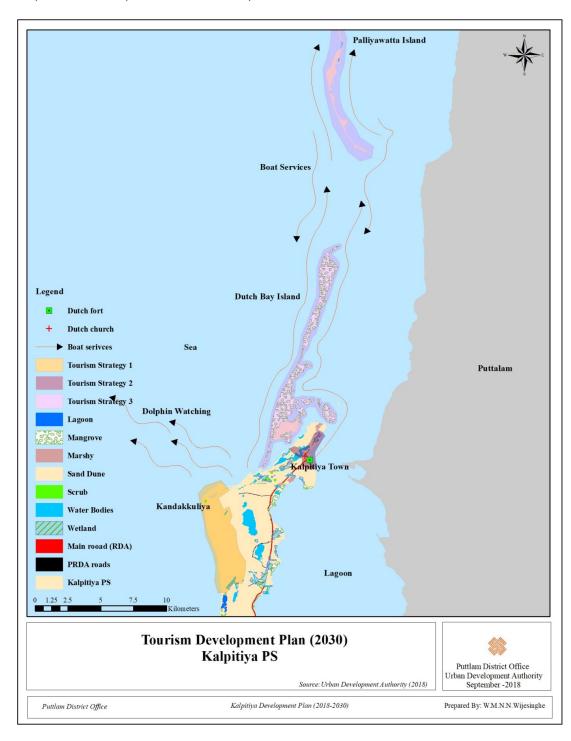
The objectives of the tourism development plan.

- 1. Utilisations of the potentials exist optimally for the tourism development.
- 2. Establishment of sustainability of the environmental
- 3. Creation of a better environment in sub-urban centres and in areas where scenic character is attractive.

Accordingly, the tourist development strategic plan includes three strategies.

- 1. Laying down a tourist corridor along the Kandakuliya beach.
- 2. Development of a tourist corridor with features of historical and archaeological significance.
- 3. Development of an Island corridor for tourism.

Map no 6.4..1.1: Proposed Tourism Development Plan (2030)



Strategy 01

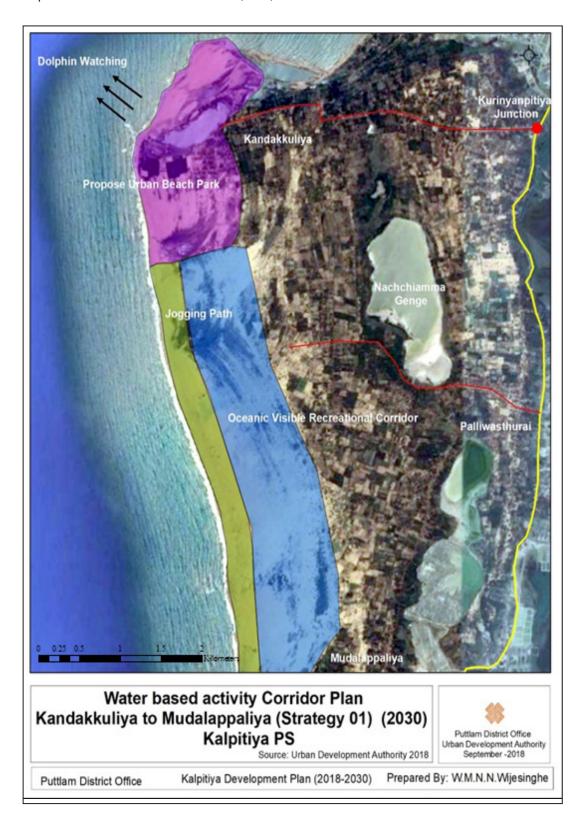
1. Laying down a tourist corridor along the Kandakuliya beach.

This corridor stretches from Kandakuliya up to the Madalappaliya. This proposed corridor includes the area where leisure activities are on the increase, specially relating to sailing and exists sand dunes which could be made use of in organizing leisure activities. This corridor could be designated as the tourist development corridor.

This proposed tourist development corridor includes three distinguished zones as follows.

- 1. Implement a planned development in the Kandakuliya area to promote the water based-sports as a beach garden
- 2. Development of walking tracks to a distance of 1 km from the Kandakuliya beach
- 3. Development of a entertainment beach frontage in Kandakuliya to a distance of a Kilometer

Map no 6.4.1.2: Tourism Beach Corridor (2030)

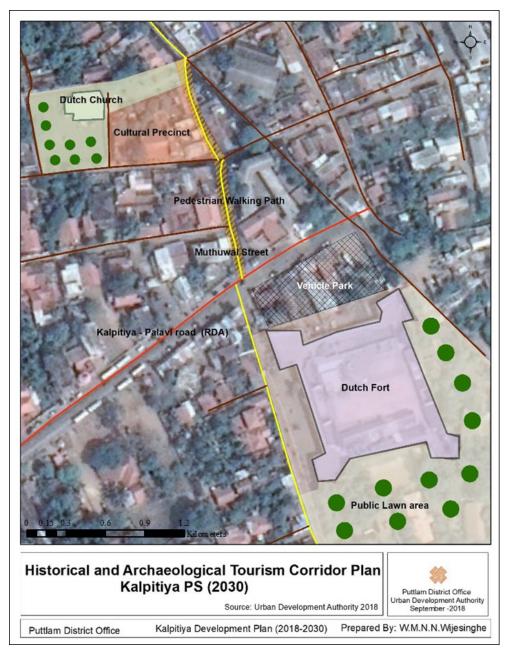


Strategy No 02

Development of a tourist corridor with features of historical and archaeological significance.

This corridor development plan envisages to include the Dutch Fort and the Dutch Church in itself as both these archaeologically significant features which posse's remarkable potentials for tourism development, are not made use of in currently emerging tourism development and as a result they are fast deteriorating in appearance and physical conditions due to gross negligence. Therefore, this plan envisages including these two significant features for integration with the proposed tourism development plan.

Map no 6.4.1.3 Proposed historic and archaeological tourism corridor.



- 1) Dutch Church and the surrounding area development
- 2) Dutch Fort and its surrounding area development to be accessible by public.
- 3) The Mutuwal road that links the Dutch Church and the Dutch Fort to be developed as a tourist corridor with facilities for the public to walk freely.

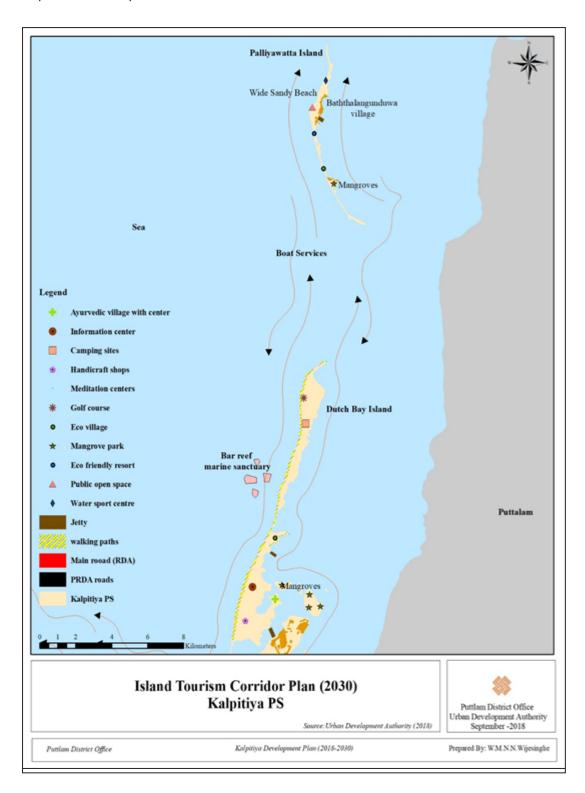
Strategy 03

Tourism island corridor.

The tourists arriving to Kalpitiya love to tour the islands, specially the Palliyawatta and Dutch Bay islands. Therefore, these two islands could be included in the proposed tourism corridor development plan.

This environment is rich of natural environmental habitats such as mangroves, diverse bird species, wetlands with salty waters, sand dunes, sea grass, coral reefs and wider sea front are unique features to this area. Further this area is full of dolphins and whales with unobstructed sun in the wide sand plains create an attractive environment for the foreign tourists, as such the development of this island environment has been proposed in the plan.

Map no 6.4.1.3: Proposed tourism island corridor



6.4.2. Proposed Fisheries development plan

Fisheries industry is a unique livelihood- earning activity in Kalpitiya and gave birth to many other fishing related activities such as prawn farming and crab processing. The sea limit of the fishing activities is 55 Km but the same in the South West sea is 74.4 Km. According to the records, 3456 families are involved in the fishing related activities such as fishing, dry fish processing, fishing net industry etc. These fishing families are provided with 27 fishing boat landing sites in PS area to serve 1883 numbers of fishing boats. These fisher folks are organized under 40 fishermen organizations which take care of the common issues encountered by the fisher folks while attending the matters relating to the welfare of them. In the year of 2016, the income generated by the fishing industry was estimated to be Rs 2870.5 Min while the same from the dry fish industry in the same year was estimated to be Rs. 856.5 Mln.

Nowadays, the demand for fisheries products are emerging in the markets of international, national, provincial and local contexts, inspiring the capacity and facility development of the sector. Therefore, the traditional fishing industry and the dry fish industry need modernisation based on a plan.

Strategy 01 – Development of existing fisheries harbours in integration with the tourism plan.

Strategy 02 – Redevelopment of the existing the boat landing sites

Map no 6.4.2.1: Proposed fisheries development plan-2030



Strategy 01 – Development of existing harbours in integration with the tourism plan.

Map no 6.4.2.2: Proposed harbour development plan (2030)



- i. Development of existing fisheries harbours in integration with the tourism activities.
- ii. Repairing the existing Jetty
- iii. Ticketing booth
- iv. Restaurant
- v. Placement of water filters
- vi. Installation of ATM machines
- vii. Public toilets and solid waste collection bins placements
- viii. Integration of the tourism activities with the harbour administration office building.
- ix. Construction of new jetties dedicated to the tourists
- x. Resting places for the tourists.
- 1) Redevelopment of the street together with the side drains where the dry fish stalls are located.

Strategy 02 – Redevelopment of existing boat landing sites

Map no 6.4.2.3: Proposed boat landing site development plan (2030)



- i. Ten numbers of store room facilities to keep the fishermen's tools
- ii. Provide suitable places for repairing boats and fishing nets
- iii. Provide trade stalls for whole sale and retail sale of fish

6.4.3 Proposed Agricultural Development Plan.

The agricultural activities occupy 52.63% of the total land area of the Kalpitiya PS area, which constitute 12796 Hectares.

North Western province of the Country makes an economic contribution of 2.1% of the GDP. The Kalpitiya PS area employs 17% of the entire labour force on agricultural activities.

The Norochchole Economic Centre has emerged as a dynamic commercial centre facilitating the farmers to trade their products daily. This economic centre, according to the records, trades vegetables enraging between 80,000 Kg to 90,000 Kg per day, the daily average revenue received has been ranging from Rs. 200,000 to Rs. 1,000,000.

The increase of agricultural products to satisfy the local and foreign demands has been a difficulty in the past due mainly to the under-utilization of lands and application of unproductive farming techniques. As such, necessity of a comprehensive development plan for the improvement of the agricultural sector has been felt for quite a sometimes in the Kalpitiya area.

Keeping an eye on these factors an agricultural development plan has been prepared.

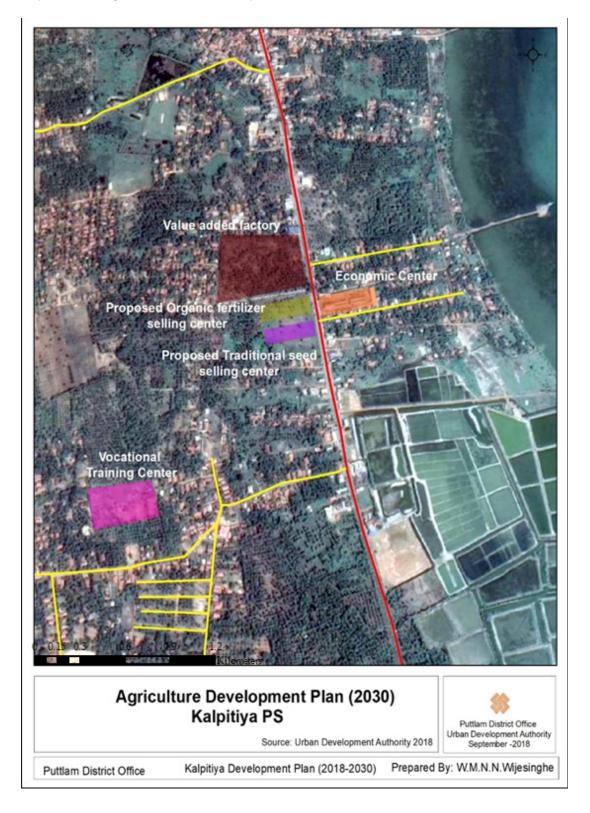
Strategy 01. Development of infrastructure networks required by the agricultural sector

- 1. Redevelopment of Norochchole Economic Centre with necessary facilities.
- 2. Establishment of a Vocational Training Centre with a view of providing training facilities not only to the farmers but also for the fishermen and the tourism employees as well.
- 3. Establishment of trading stalls for the handy crafts and vegetables and fruits.
- 4. These trading stalls should serve the tourism activities as well.

Strategy 02 – Steps should be taken to mitigate the Environmental Pollution that has been caused by the agricultural

- 1. Establishment of compost fertilizer trading stall.
- 2. Establishment of vegetable processing industry to promote the value additions to the agricultural products.

Map no 6.4.3.1 Agricultural Sector Development Plan

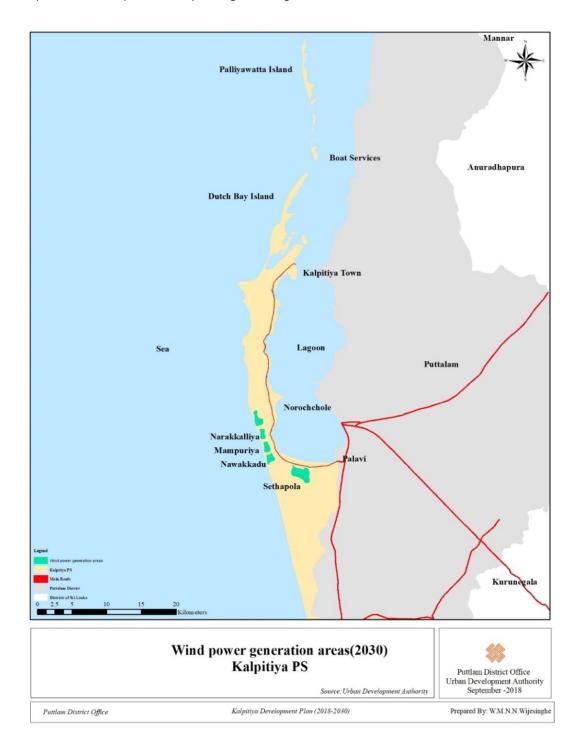


6.4.4. Wind Power Generation Plan

It has been established that the Kalpitiya area has a remarkable potential for wind power generation capacity development. The most suitable locations for installation of wind power generators are lying in areas such as Nirmalapura, Sethapola, Norochchole, Narakkalliya, Nawakkaduwa and Mampuriya areas. There are 06 numbers of wind power generators already installed in these areas and generating electricity to the tune of 173 GW, which is fed to the national grid. The computations revealed that the net electricity power fed to the national grid has been 2.5% of the total power generated by the wind power generators.

The areas surrounding Sethapola, Norochchole, Narakkalliya, Nawakkaduwa and Mampuri are having the most suitable environmental set up for harnessing the renewable energy from solar and wind. Therefore, this plan proposes to utilize unproductive lands for installation of solar panels and wind power generators in those areas to generate renewable energy to feed the national grid.

Map no 6.4.4.1: Proposed wind power generating areas. (2030)



Source: Urban Development Authority

6.5. Sustainable environmental Development Strategies

6.5.1 Proposed Environmental development plan

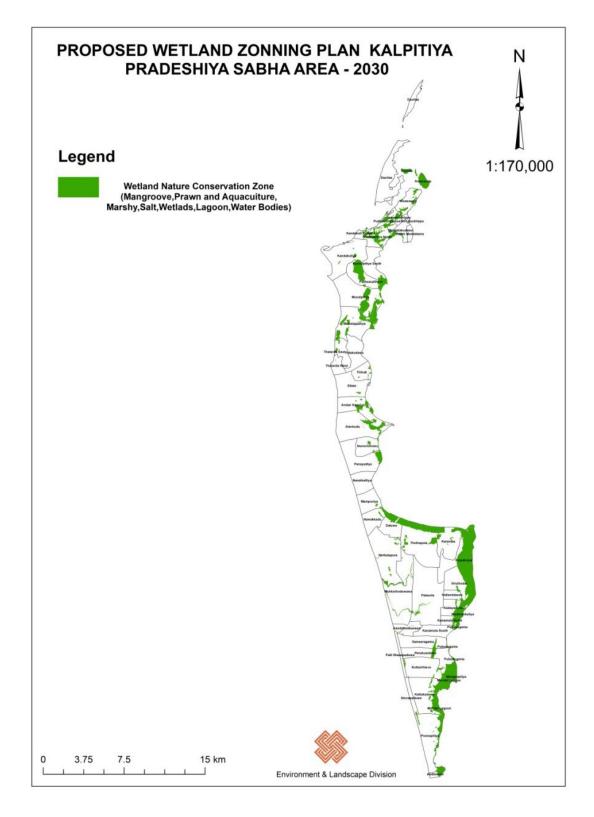
Conservation areas

• Wetlands in the Planning area

Most of the planning area is situated hugging the lagoon, setting out a fertile environment rich of mangroves habitat. It also has been characterized by paddy fields, lagoon wetlands, salterns and fertile areas for prawn and crab farming. These areas are creations of the nature, harnessing their commercial and economic potentials should be cautiously managed sustainably with a long-term conservation plan. Therefore, the wetlands which are environmentally significant have been zoned as "natural wetland conservation zone" in the proposed development plan.

The Annexure provides the detailed conditions, guidelines and permissible uses in the "natural wetland conservation zone"

Map no 6.5.1.1: Proposed wetland zoning plan 2030



Source: Environment and Landscape Division

6.5.2 Landscape Management

The vision that guides the sustainable development of Kalpitiya in to the future can be encapsulated as the "blue peninsular emerging from the nature's resort", which envisages achieving three objectives, one of which is to make the Kalpitiya area most attractive tourism resort area in the Country by 2030. In order to approach this vision, following objectives have been set out in the context of landscape plan.

- 1. Rehabilitation and conservation of the historically and archaeologically significant features such as Dutch Church and Dutch Fort by 2030 and to open them for public exhibition.
- 2. Improvement of the public areas of the Kalpitiya town by landscaping selected places by 2022 with an eye on making the entire town area more attractive and enhancing the environmental scenic characters.

The development plan envisages making an attractive tourist destination and a tourist resort out of Kalpitiyafor the foreigners. The ongoing organic development in Kalpitiya has been setting out an atmosphere appropriate for socio-economic development based on the historically and archaeologically significant features of the area and the picturesque scenic character of the sea. Accordingly, the main objective of this plan is to make Kalpitiya most attractive tourist resort destination endowed with the picturesque sea and the beach.

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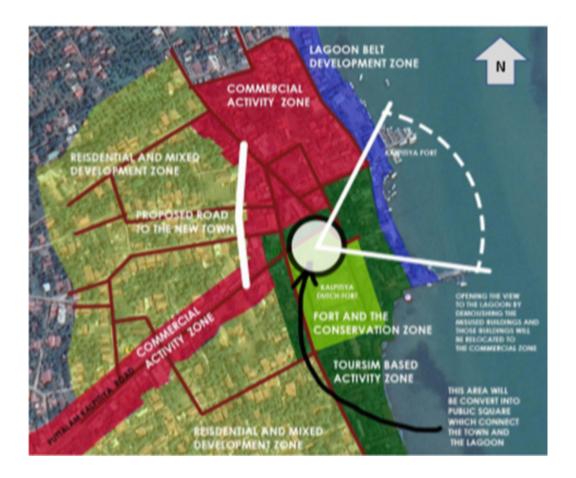
Figure no 6.5.2.1: Kalpitiya Conceptual Landscape Plan

Source: Urban Development Authority, Puttalam District Office

• Principal objective of the conceptual landscape plan.

Creation of safe and attractive public beach frontage with easy access and unobstructed view. Conservation and development of old Dutch Fort as the principal public square in the town.

Figure no 6.5.2.2: Principal town square in the Kalpitiya town.



Source: Urban Development Authority

Main features of the Conceptual Landscape Plan

1. Creation of physical improvements according to a street plan to maintain a balanced visual and physical interaction between the end and the beginning of every street in the town

Figure no 6.5.2.3: Plan for implementation of interaction between the end and the beginning of every street.



Source: Urban Development Authority

Figure no 6.5.2.4: Proposed landscape plan between the end and the beginning of every Street



Source: Urban Development Authority

132 Urban Development Authority

2. Designing of the Dutch Fort area as a town square and redesigning of the urban façade of the existing buildings to be compatible with the said square.

Figure no 6.5.2.5: Area proposed to include in the town square

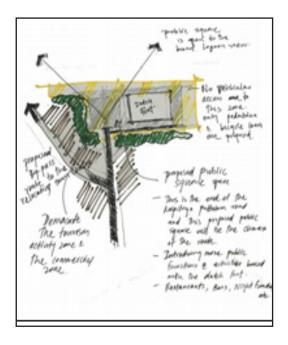
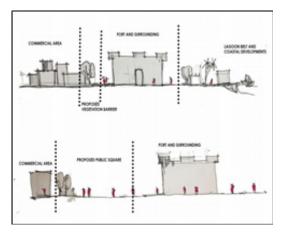


Figure no 6.5.2.6: Section of the proposed town square



Source: Urban Development Authority

3. The beach front that defines one of the boundaries of the town, should be redesigned enabling reorganization of mixed activities including those which are unique to Kalpitiya and with a face lift as a tourist activity-dominating beach.

Figure no 6.5.2.7: Tourist beach with activities which are unique to Kalpitiya



Source: Urban Development Authority

Urban Development Authority 133

4. Streets to be planted with trees in view of bringing down the heat in the town area and thereby setting out a pleasing environment for the public.

Proposals:

Development town square and the Dutch Fort to promote tourism

This area is historically significant and as such it should be landscaped to be compatible and reflecting the historical memories.

Dutch Fort

Figure no 6.5.2.8: Tourism development around Dutch Fort.



Source: Urban Development Authority

Figure no 6.5.2.9: Dutch Fort and surrounding tourism development



Source: Urban Development Authority

Dutch Church

Figure no 6.5.2.11: Dutch Church and tourism development in the surrounding



Source: Urban Development Authority

- Making the town square area the active focal point of the
- Inspire conservation of physical characters having archaeological significance.
- Promote activities between the beach and the Kalpitiya town in view of increasing interaction.

6.5.4. Public open area plans for the leisure and sport activities within the PS area- 2030

The population projection for the year 2030 within the PS area will be 166700 people, and the number of foreign tourists also could be higher than what it is today by that time. In this future scenario, open spaces for leisure and sport activities should be planned out to meet the needs of the increased population together with the tourists as well. Further such needs also could be inspired by the increased living standards which could make people to expect qualitatively more advanced facilities in public open areas. In this context, the UDA's accepted planning standard for open areas in a town has been 1.4 Hectares per 1000 people, accordingly it has been computed that the total open area requirements of the Kalpitiya PS area will be 233 Hectares by 2030.

The sea beach of Kalpitiya is already full of many leisure activities, namely, swimming, sports involving sea waves and wind blow, walking, diving, collection of ornamental fish and sailing, and fishing in the lagoon area. Touring the environmental scenic areas, watching dolphins, whales and birds are other form of leisure activities that are prevalent in this area. Taking these findings in to consideration this plan will be prepared with the objective of promoting and developing the leisure facilities.

The table no 01 and the Annexure no 1 provide the details of the locations which could be made use of for development of leisure activity centres in order to meet the needs of the people within the PS area.

Table no 6.5.4.1: Leisure activity centres

No	Туре	Extent (Ha)
01	01	Small scale parks (Pocket Park)
02	Medium scale parks(Mini Park)	3.8
03	Local Park	3.8
	Total	8.1

Source: Environment and Landscape Division

The details in the above table reveal that the existing open areas are not more than 8 Hectares in extent, but the need as computed will be 233 Hectares. This implies that the short fall comes to 225 Hectares of land extent. However, if the open beach area, with an extent of 959 Hectares, is taken in to consideration, the total extent currently available for leisure activities comes to 1017 Hectares by 2030 together with the current shortfall of 225 Hectares. Accordingly, the plan that indicates the proposed lands for the open area development is depicted in detail in the Annexure 03.

Table no 6.5.4.2 Proposed parks

No	Park Type	Extent Ha.
01	Proposed Mini Parks	5.5
02	Proposed Local Parks	22.3
03	Proposed Community Parks	30.4
04	Proposed Beach Parks	959.0
	Total Extent	1017.2

Source: Environment and Landscape Division

6.5.4.1. Strategies

I. Redevelopment of Play Grounds in the Kalpitiya PS area.

The play grounds currently in use by the public are not developed with necessary basic facilities, hence they do not conform to any standard. This plan proposes to redevelop those play grounds by attending to the matters such asorientation of the grounds where necessary, provide with sanitary facilities, such as urinals, toilets and changing rooms where necessary and convert some play grounds as indoor sport stadiums if the extent, expansion possibilities etc. permit.

II. Promotion of social entertainment facilities

This plan proposes to establish entertainment facilities according to the accepted standards to cater to the tourists as well as the local people. These facilities could include sport associations, circuit bungalows, social clubs etc. in conformity with standards acceptable to the tourists as well as the local publics.

III. Promotion of facilities for tourism

It has been proposed to provide accommodation facilities to the locals as well as the foreigners at reasonable prices to facilitate those who come to this area for researching and observing the environmental characters that are unique to this area. The development of other facilities in the area such as entertainment events of performances, commercial, transport and sports etc. could compel the visitors to stay in the area longer periods which could be commercially beneficial to the public. The lagoon frontage areas are ideal for the development of such facilities as such areas provide the best local environment for such activities.

Development of tourist bungalows, resort bungalows, health centres, swimming pools and ayurwedic hospitals to cater to the foreign tourists in conformity with high standards could provide a tremendous boost to the local economy

IV. Tree-planted belts

The Kalpitiya area possesses characteristics of a dry zone, walking on the roads in the day time is not encouraging as the shady areas are not purposely provided to facilitate the pedestrians. If the aim is to develop this area for promotion of the tourism, then providing shady areas will be essential without compelling the tourists to walk under the harsh sun. In the circumstance, this plan proposes to plant selected type of trees along the roads section by section with each section distinguished from each other depending on the type of the trees being planted. The selection of the type of the trees will be done with a vision of reflecting the bio-diversity and adding to the beauty of the environment.

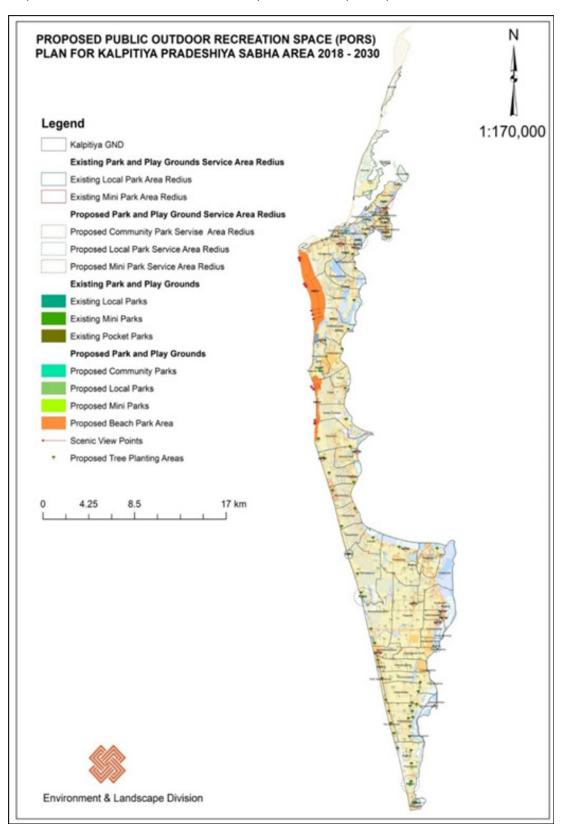
The tree planting along the main roads should be undertaken according to the landscaped plans developed on the basis of the concepts and visions formed under this development plan.

Roads proposed for tree-planting.

Main road from Palawi to Kalpitiya.

The selected types of trees that are suitable for this road are listed in the Annexure.

Map no 6.5.4.1.1: Public entertainment and open area development plan-2030



Source: Environment and Landscape Division

6.6. Cultural and Heritage Management Strategies.

6.6.1. Places of archaeologically significant

Thalawila St. Anny's Church

The St, Anny's Church located in the Thalawila West GS Division in the Kalpitiya PS area is one of the most reverenced religious location in the island. This church has also been respected by the professional architects for its architectural design characteristics, specially the surrounding area landscape characteristics, which is consisting of large open area with trees planted providing a better environment to bring down the harsh environment to a pleasing atmosphere, with an unobstructed view of the blue sea in the background.

This Church is one of the oldest Churches in the Country, the pine trees grown above the Church building harbour some of the oldest architectural features of significance that area visible vividly to the observers.

The Kalpitiya Old Dutch Fort.

The Old Dutch Fort in the Kalpitiya Town is one of the oldest and most attractive locations in the Town. This structure is falling within the purview of the Archeological Department of the Country for its conservation and sustenance for the future generations. Currently this monument is being used by the Sri Lanka Navy as one of their camps. This monument was built in 1666 by the Dutch as a fortress when the Country was under their rule in the history. Some of the remnants still visible within this structure and the surrounding, defying the natural destructive forces, are standing therein reflecting the past heritage.

The history of this Country reveals that this fortress was a special location for the Dutch at that time as it provided easy access to the Wilpattu forest and many other natural resources while it facilitated the collection and storing of the gem, gold, silver and ivory and after collection they were exported to their own Country by the sea. Today it is in a state of disrepair and is functionally and physically deteriorating. The carvings in the fortress depict that it was abandoned by the Dutch authorities in the year of 1759 implying that it had been maintained by the Dutch for a period of 93 years.

Dutch Church

This Church was built by the Dutch at a location in Sinnakudapthapuwa within the Kalpitiya town. This historical monument was rebuilt in the year of 1840. It has attractive characteristics of architectural and archeological significance, which are admired by even modern the professional architects and the archeologists. Today this monument is protected by the Archaeological Department.

6.6.2. Cultural and religious ceremonies

Annual Feast held at the Thalawila St Anny's Church

The feast ceremony is held annually in the Month of August over a full week with the participation of diverse devotees and priests arriving at this Church from many parts of the Island. The devotees who participate at this ceremony stay in this area in residence

throughout this week long period. The feast is consisting of series of religious services and finally culminate with the last service that

Will be held on a Sunday. This feast ceremony has been established in the Sri Lankan society as a cultural and religious event and has been passed down from generation to another throughout the past 150 years with no interruption.

6.6.3. Strategies

- Thalawila St. Anny's Church, Kalpitiya Old Dutch Fort and Kalpitiya Old Dutch Church
 - (a) Conservation of the above mentioned monuments which are historically and archaeologically significant.
 - (b) Sustenance of such monuments after conservation and management of them with a vision
 - (c) Carry out an awareness program among the visitors, both foreign and local, aspiring to tour the Kalpitiya area of the historical significance of the above mentioned monuments with a view of yielding benefits to the local economy.

6.7 Implementation Strategies

6.7.1 Strategic Projects and other proposed projects.

Table No 6.7.1: Strategic projects and other proposed projects

Prioritized project No	Name of the Project	Project's time period	Funding Sources
1	Redevelopment of road in the town centre	Medium term	Road Development Authority Kalpitiya PS
2	Redevelopment of roads outside the town limits	Medium term	Provincial Road Development Authority Kalpitiya PS
3	Relocation of hospital	Medium term	Provincial health Department
4	Supply of water to the Kalpitiya PS area by the National Water Supply and Drainage Board.	Long-term	National Water Supply and Drainage Board.
5	Improvement and reorganization of the public market at the town centre	Short-term	Urban Development Authority Treasury Funds Foreign funds UDA funds
6	Town Centre harbour development	Long-term	Sri Lanka Fisheries Corporation
7	Redevelopment of Norochchole Economic Centre	Short-term	Kalpitiya PS
8	Development of Beach Garden at Kandakuliya.	Short -term	Urban Development Authority Kalpitiya PS
9	Development of Solid Waste management centre at Norochchole	Medium- Term	Kalpitiya PS
10	Rehabilitation and conservation of Dutch Fort	Short-term	Urban Development Authority (UDA) Treasury funds Foreign funds
11	Rehabilitation and conservation of Dutch Church	Short-term	UDA Treasury funds Foreign funds

	1		1
12	Salt water purification plant development	Long-term	National Water Supply and Drainage Board
13	Redevelopment of Anawasala solid waste management project	Short-term	Kalpitiya PS
14	Development of holiday home Related Facility Development Project at Kandakuliya	Short-term	UDA funds Treasury funds Foreign funds
15	Fishermen's Boat landing site near the Harbour	Medium- term	Ministry of Fisheries UDA Treasury funds Foreign funds
16	Fishermen's housing scheme- Mohoththuwarama	Medium- term	UDA National Housing Development Authority (NHDA)
17	Official residential Quarters Related Facility Development Project for the Government Officials	Medium- term	UDA funds Treasury funds NHDA funds Foreign funds
18	Vocational Training centre Related Facility Development Project at Musalpitiya	Medium- term	UDA funds Treasury Funds Foreign funds
19	Development of mangroves garden at Anawasala	Short-term	UDA funds Treasury Funds Foreign funds
20	Boat transport service between Wilpaththuwa and Gangewadiya	Short-term	Sri Lanka navy Sri Lanka Tourism Development Authority (SLTDA)
21	Construction of a bridge from Thoradiya to Dutch Bay	Long-term	SLTDA Kalpitiya PS
22	Development of trade stall for compost fertilizer and vegetable products Related Facility	Short-term	UDA funds Treasury Funds Foreign funds

23	Development of Thoradiya that provide access to Dutch Bay Island	Medium- term	UDA funds Treasury Funds Foreign funds and Kalpitiya PS
24	Vegetable processing and packaging industry Related Facility Development Project	Short-term	UDA funds Treasury Funds Foreign funds
25	Envelopment of trade stalls Related Facility Development Project for sale of handicrafts, vegetable products, fruits and local foods	Short-term	Department of small industries development Ministries of Agriculture, economics, and poultry resources, far, irrigation, Fisheries,

Project Locations

Location	Province	North-West	District	Puttalama
	Divisional Secretariat	Kalpitiya	Local Authority	Kalpitiya PS
	Division	Kaipitiya	Local Authority	Kaipitiya F3

Project Justification

Type of project	New			Rede- velop- ment		Aug- men- tation			Land de- velopment only	
Type of	Conserva- tion	Con mer		Land- scape	Heri- tage	Housin cation	g re	lo-	Infra- structure facilities	Other
project									✓	
Project	Economic				Social					✓
vision	Environ- mental				Physica	al				
Project objects	Improvement of housing conditions by providing a better road network, storm water drainage and facilitate visitors coming from outside. • Minimize congestion on roads • Town beautification • Facilitate access • Creation of a sustainable economic base • Facilitate Pedestrians by providing pavements • Resolution of social issues.									
Project justifica- tion	The roads currently providing access are narrow and in a condition of disrepair, they are not even good to serve the pedestrians. This road network does not have side drains to discharge the storm water. Lacking side drains causes a serious problem during the rainy periods as the storm water runs over the surface of the road creating an impassable situation to the pedestrians. This issue is one of the constrains for development of any town. Therefore, the main objective of this project is to increase efficient accessibility to facilitate the town growth.									

Project description

Project	Short-term		Medium-term	1	Long-term		
duration	(1>year)		(1-3 years)	·	(3< years)		
Funding	Road Development Authority and Kalpitiya PS						
source	Road Development Authority and Kalpitiya PS						

Project Details

- 01. Improvement Muthwal Street widening to 06 M and carpeting the surface with side drains to a lenht of 2 Km.
 - (i) Improvement of Jetty Street running in front of the Fisheries Harbour by widening to 06M up to the Anawasala road approximately 800M together with provision of side drains.
 - (ii) Improvement of the Jetty Street running in front of the Nuga Tree up to the point it meets the Muthwal Street to a length of 300M by widening to 06 M and carpeting with premix.
 - (iii) Widening of 1st Cross Street from the Muthuwal Street where the Dutch Church is located to the Jetty Street to a width of 06M and to a lenht of 62 M
- 02. Redevelopment of Hospital road by widening to a width of 06M to a lenht of 1.15MKm and providing with side drains.
- 03. Redevelopment of the Kalpitiya-Palawiya road with a facelift according to a road landscape plan with seating facilities at shady locations and trees being planted to the end of the Town limits.
- 04. Development of Anawasala road from the location of the Bus Stand to a length of 2.5 Km by widening to a width of 06M and providing side drains and carpeting the surface with premix

Present Condition with details					
Description	Length Km	Width Meters			
Kalpitiya-Palawiya main road	05	15			
Muthwal Street	02	6			
Jetty Street	02	6			
Hospital Road	02	6			
Anawasala Road	2.5	6			

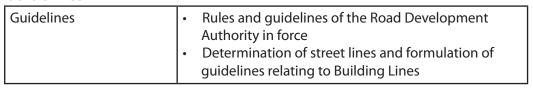
Project estimated costs

. 1 0) CCC CD				
Items of work	Cost in Rs. Mln.			
Land acquisition	100			
Side drains network	50			
Road widening	150			
Pavement development	25			
Landscaping	25			
Total estimated cost	350			

Responsible Agency

Works	Responsible Agency	Authorized Officer
Land acquisition	Road Development Authority	Executive Engineer
Side drain constructions	Do	Executive Engineer (Provincial)
Landscaping	Urban Development Authority	Director (Landscaping and Management)

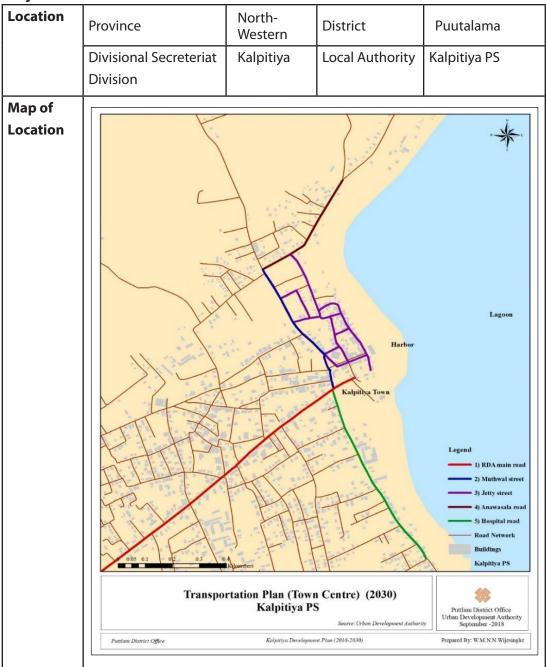
Guidelines



6.7.1.1. Project for redevelopment of roads in the visicinity of the town area

Project	Road redevelopment in the town and the surrounding area.
name	
Project	Widening and development with the side drains
Project proposal	Muthuwal Street, Jetty Street, Hospital Road, Kalpitiya-Palawiya main Road and the Anawasala Road starting from the location where the Bus Stand is. Widening and development of roads with the side drains being provided.

Project Location



Project justificatioin

Nature of the project	new		Rede pme		✓	Wxpan sion	✓	land development only	√	
Project type	Conser vation	Comm ercial		Herit age		Housing relocation			Other	
Project's	Economic			Socia	al ——					
focus	Environ mental			Phys	Physical					
Project's objecti ves	 Improvement of conditions living environment of the people comming to the residential areas by providing them with safe drinking water and better road system Traffic conjesstion minimization Town beautification Facilitate access Strenthening of the local economy Facilitate pedestrian by providing them with safe pavements. Resolution of social issues. 									
Project justific ation	Exisitng roads in the Kalpitiya town are currently in poor condition, most of them are extremely narrow and not in a condition suit for vehicular traffic not even for the pedestrian either. The lack of side drains along the roads in the town area is causing a difficult situation during the rainy season when the storm water flows over the raods denying access to the pedestrians. The roads are considered one of the basic infrastructure requirements that lays the foundation for the city's development. Therefore this reoad network rehabilitation and improvement is expected to support the city's development in the long run									

Project Details

Projects duration	Short-term (1> year)		Medium-term (1-3 years)	✓	LOng-term (3< years)	
Funding method	Road Developr	ment A	Authority and the Ka	alpitiya P	S	

Project Details

01. Widening of tht Mutuaval Street for 6 Mtrs. to a length of 2 Km with the side drains being provided up to the Jetty.

02.

- i. Widening of the Jetty Street running in fron of the Fisheries Harbour for 6 Mtrs to a length of 800 Mtrs with side drains being provided.
- ii. Widening of the Jetty Street running in front of the Nuga Tree for 6 Mtrs to a length of 300 Mtrs until meeting the Muthuval street.
- iii. Widening of the 1st Cross Street-road running by the side of the Dutch Church from the Mthuval Street up to the Jetty Street- for 6 Mtrs to a length of 62 Mtrs.
- 03. Widening and development of the Hospital road with the side drains to a length of 1.15 Km.
- 04. Kalpitiya-Palaviaya Main road development untill the road ends at the Kalpitiya town with landscaping including leisure points for the people to sit and chat. seating facilities should be provided.
- 05. Widening of the Anawasala road from the location of the Bus stand for 6 Mtrs to a length of 2.5 Km with the side drains being provided

Current position in detail Discription Length(km) width (m.) Main Road (Kalpitiya-05 15 Palaviya) Muthuwal Street 02 6 Jat Street 02 6 **Hospital Road** 02 6 Anawasala Road 2.5 6

Project funding	
Activities	Project cost Rs MIn
Land acquisition	100
Construction of drain system	50
Road widening	150
laying of Pavements	25
Landscaping	25
Total cost	350

Agencies responsible		
Activities Agency	Agency	Authorized Officer
Land acquisition	RoadDevelopment Authority	Executive Engineer
Development of Drain system	Road Development Authority	Executive Engineer
Landscaping	UDA	Director/landscaping and Management

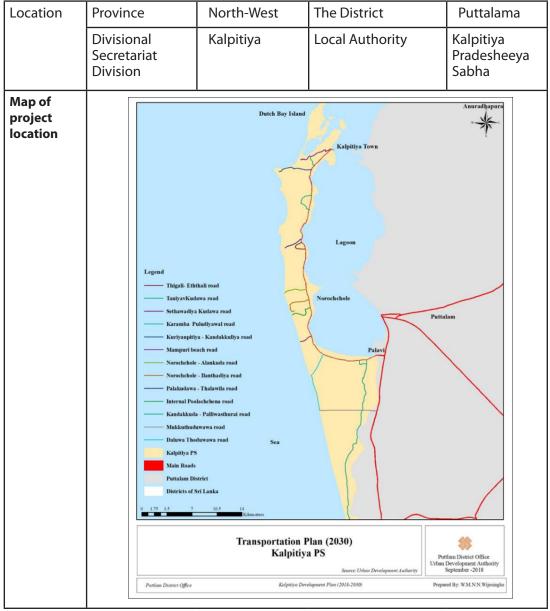
Guidelines

 Guidelines Enforcement of standards and the guidelines of the Road Development Authority Guidelines relating to the Building and Street Lines should be enforced
--

6.7.1.2. Project on redevelopment of roads outside of the Kalpitiya Town centre.

Name of	Redevelopment of roads outside of the town centre
the Project	
Project	Widening and extension of Selected roads coming within the purview of the Provincial Road Development Authority and the Kalpitiya PS
Project proposal	Sethawadiaya-Kudawa road, Kudawa Road, Kurignngampitiya-Kandakuliya Road, Kandakuda-Palliwasalthurai Road,Palakuda- Thalawila Road, Thihili-Eththale Road, Norochchole-Alangkuda Road, NMorochchole-Illanthadiya Road, Pullachchena Internal Road, Mampuriya Beach Road, Karamba-Puldiyawal Road, and development of Daluwa-Thoduwawa Road and the Mukkuthoduwawa road with surface being carpeted with premix

Project Location



Project Justification

Type of Project	New		Improv ement	✓		/ide ing	✓	Land deve		
Project type	Conser vation		Lands caping	Herita ge		Hous rehak tatio	oili-	Infra- structure facilities	Other	
								✓	<u> </u>	
Project	Econo mic			Social						
vision	Environ mental	Physical					✓			
Project objectives	Development of a pleasing environment for the local residents as well as the day population of the town.									
Project justific ation	tourism d and so or economic in a disrep	In order to achieve the objectives of the development plan, such as tourism development, improvement and conservation of the environment and so on need better road network to support the growth of the town economically and that the current road conditions in the planning area is in a disrepair state causing many hardships on the public, which need to be overcome early by improving the road conditions drastically.								

Project Details

Project duration	Short-term (1>year)		Medium-term (1-3 yers)	\[\]				
Funding	Roads falling within the purview of the Provincial Road Development							
source	Authority and th	Authority and the Kalpitiya PS.						

Project description

- 1. Norochchole-llanthadity road over a lenht of 4.6 Km to be carpeted with pre-mix and development.
- 2. Norochchole-Alankuda Road development to a lenht of 3 Km with premix carpetbeing laid.
- 3. Development of Palakuda-Thalawila road over a lenht of 2.5 Km with premix carpet being laid.
- 4. Kandakuda-Palliwasalthurai road development over a lenht of 6Km with a premix carpet being laid
- 5. Kurignngampitiya-Kandakuliya road development over a lenht of 4.9 Km with a premix carpet being laid and to be promoted to the Grade of Provincial RDA.
- 6. Karamba-Puladiyawal road development to a lenht of 20 Km with a premix carpet 7. Thihali-Eththale road development to a lenht of 6.3 Km with premix carpeting
- 7. Pulachchena internal road improvement with premix carpeting over a lenht of 2.7 Km.
- 8. Mampuriya road improvement over a lenht of 2 Km with premix carpeting.
- 9. Daluwa-Thoduwawa road development to a lenht of 8.5 Km with a premix car pet being laid.
- 10. Mukkuthoduwawa road improvement to a lenht of 7.05 Km with a premix carpet being laid

Details of Present Condition

Description	LenhtKm	Width Mtrs
Norochchole-Ilatthandiya road	4.6	6
Norochchole-Alangkuda road	3	6
Palakuda-Thalawila road	2.5	6
Kandakuda-Palliwasathurai road	6	6
Kuringngampitiya-Kandakuliya road	4.9	6
Kramba-Puldiyawal road	20	6
Thihili-Eththale road	6.3	6
Pulachchena Internal road	2.7	6
Mampuriya beach road	2	6
Daluwa-Thoduwawa road	8.5	6
Mukkuthoduwawa road	7.5	6

Proposed Plan and the necessity of a building plan

- 1. Section of the road plan
- 2. Leveling plans of drains
- 3. Landscape plans

Projects' estimated costs								
		orks item		Cost in Rs. MIn				
	Land acquisition				500			
	Side drain develo			100				
	Road widening				500			
	Pavement development				75			
	Landscaping				35			
	Total Estimated co	ost			1210			

Responsible Agency

Works Item	Responsible agency	Authorized Officer
Land acquisition	RDA	Executive Engineer
Side drain constructions	RDA	Executive Engineer (Provincial)
Road widening	RDA	Executive Engineer (Provincial)
Pavement development	RDA	Executive Engineer (Provincial)
Landscaping	UDA	Director9Landscaping &&
		management)

Guidelines		Guidelines	
prevailing			
	•	Road Development Authority	
	•	Determination of street Line and then formulate guidelines relevant to the Building Line reservations.	

6.7.1.3. Relocation of Hospital from the town centre at an alternative location

Identification of the project

Project name	Relocation of the Hospital from the town centre
Project	Relocate the Hospital at a specious site at a different location .
Project proposal	Construction of a new hospital with modern facilities

Project location

Location	Province	North-West	District	Puttalama
	Divisional	Kalpitiya	Local Authority	Kalpitiya PS
	Secrateriat			
	Division			
Boundar-	North	East	South	West
ies of the	Coconut land	Vacant land	House	Mobile Magistrate
site				Courts
Accessibil-	Kalpitiya-Palawiy	a main road		
ity				
Site			1800	
Location				Kalpitiya town
Мар		Proposed sit	adamin's Andrin Rod	
Land use	Mix developmen	t		
of the sur-				
rounding				
area				

Project Justification

Nature of the project	New Project		Redevel opment	√	Wid ning	-	Land development only	
Project	Conserv ation		Lands caping	Herita	ge	Housing relocation	Infrastructure facilities	Other
type							✓	
Project	Economic			Social				
vision	Environ mental		✓	Physical				
Project Objectives	Provide public with efficient and high-quolity health service							
Project justifi cation	Present facilities of the hospital is inadequate and accessibility is constrained The land extent available is insufficient for further expansion. Hospital is currently congessted. So relocation has been a better option in the circumstance. The patients seeking treatments from the Puttalam hospital will be brought down by development of a new hospital in Kalpitiya.							

Project Details

Present land ownership	UDA				Private		State	√	
Free External encumb- rances	✓	yes	no		If not detai	ils			
Title details	State Land Under the Divisional Secratary								
Details of SUrvey Plan	Surve Plan	•	Nar	ne of the Sur	veyor		Date	Land extent	
	i iaii	110						Acres 15	<u> </u>

Project Details

Project Duration		Medium-term (1-3 Years)	✓	Long- (3 <ye< th=""><th></th></ye<>	
Funding source					
Project details		'			
Use Zone		Zonning comp	atibility	yes	✓

Current position with details

District hospital is located on the Hospital Road in the Kalpitiya town.

Description	Number
WArds	04
Beds	40
Land Extent	Acres 04



Proposed Plan and its necessity	
4) He softed best discounted as	

1) Hospital building plan

Estimated cost	
Item	Cost in Rs. Mln.
Construction ob buildings (Floor area 7000 sqft)	650
Landscape plan	30
Sanitory Facilities	35
Car Parks	20
Total estimated cost	735

Recommended Institutions to be responsible

Items of work	Institute responsible	Authorized Officer
Hospital bulidng constructions	Provincial Health Department	Director
Land developmenr	UDA	Diirector(Landscaping and Management)
Building Plan preparation	UDA	Director (North-Western Province)

Guidelines currently in force	Guidelines
	Provincial Health guidelines in force UDA Planning and development Guidelines

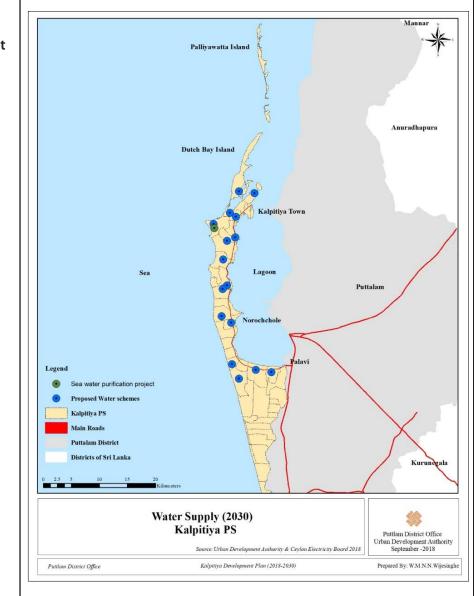
6.7.1.4. Proposed Water supply scheme for the Kalpitiya PS area.

Project Name	Proposed Water Supply Scheme of the Kalpitiya PS
Project	Supply of sufficient quantity of water for 46% of the Population in the PS area which suffered from lack of water.
Project Proposal	Water supply scheme envisages to meet the demand inspired by the projects to be implemented under the development plan such as new housing schemes, tourism industry and industrial developments that are expected to be implemented in the Kalpitiya area

Project Location

Location	Province	North-West	District	Puttalama
	Divisional	Kalpitiya	Local Authority	Kalpitiya PS
	Secretariat Division			

Map depicting the project location



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Project Justification

Project type	New		√	Redevel opment		Wide	ening		Land development only	
Project Category	Conserv ation			Lands caping	Heri- tage		Housing reloca- tion		Infrastruc- ture facilities	Other
									✓	
Project	Economic				Social					
Vision	Project Enviro nmental				Physical				✓	
Project Objectives	Provision of piped-borne safe drinking water to the residents of the Kalpitiya PS area.									
Necessity of the water supply project		rec	uires pi	pe-borne	wateı	supp			f safe drinking was the ground wat	

Project details

1 Toject actails								
Project duration	Short- term (1>Year)	Mediu (1-3 Ye	m-term ears)		Long-term (3< Years)	✓		
Total estimated cost	Rs. Mln 12810							
Source of	National Water Supply and Drainage Board							
funding								
Project	Water Storing Cap	acity	- 10500 m3/day					
details	Water purification Water storing capa		- 9000m³/ day f					
	Norochchole wate	r tank	- 1000m³					
	Water storing capa	acity of	of					
	Kalpitiya water tar	- 2000m³						
	Beneficiaries	- 72000 people (2040)						
	Water supply per o	day	- 19500 m³/ day					

Present Position in detail

Existing water supply facilities

Area	Community organization	Year established	No of water supply schemes
Kalpitiya	1		170
Kurigngnangpitiya	1	2005	294
Karamba	1	2008	300
Dutch Bay	1	2006	100
Nirmalapura	1	2006	115
Thihali	1	2010	640
Palliwasalthurai	1	2010	850
Kandakuliya	1	2010	900
Norochchole	1	2011	1526
Mudalappali	1	2011	783
Alankuda	1	2011	903
Marawanchena- Alankuda -	1	2008	250
Minniya-Nawakkaduwa	1	2008	100

Existing	Guidelines
guidelines in	1) According to the Specifications of the National Water Supply &
force	Drainage Board

6.7.1.5. Proposed Project on Redevelopment of Commercial Complex functioning at the town centre

Identification of the Project

Project name	Redevelopment of existing commercial complex at the town centre project
Project	Redevelopment and landscaping of the surrounding area of the existing commercial complex
Project proposal	Completion of incomplete commercial complex and rearrangement of spaces according to a planned design to provide proper access, increase rentable areas to the maximum possible and provide more facilities to the traders. The surrounding area will be landscaped to enhance the aesthetic value of the complex.

Project Location

Location	Province	North-West	District	Puttalama
	Divisional Secretariat Division	Kalpitiya	Local Authoriy	Kalpitiya PS
Boundaries	North	East	South	West
	Jetty Road	Navy Camp	Post Office Premises	Bus Stand Road
Access	Kalpitiya –Palawiya Ma	ain Road		
Plan Depicting the location			Harbo	ur avy Camp
Land Use Zone	Mix Residential			

Project Justification

Project	New		Redevel		Expai	nsion		Land develop-	
Туре			opment				 	ment only	
Nature of	Conser Comm		Lands	Her	itage	Reloca	ation	Infrastructure	other
the Project	vation	ercial	cap-			of ho	using	facilities	
			ing						
		✓							
Project	Eco-			Soc	ial				
Vision	nomic				1	1		,	
	Envi-			Phy	'sical				
	ronm								
D : .	ental		<u> </u>						
Project	1. Provide an attractive commercial centre for trading.								
objectives	2. Promote the aesthetic beauty of the physical environment of the town								town
	3. Provi	3. Provide more leisure areas with seating facilities to increase the envi-							
	ronmental beauty								
	4. Promote the commercial development of the town								
	5. Enhai	nce the a	esthetic k	oeau	ty of th	ne town	1		
Project	Thepubli	cmarket	doesnotp	rovi	deana	ttractive	etradi	ng en vironmentir	these
justifica-	l •							in the town but w	
tion		•						ding construction	
								The most of the bu	_
		structures standing therein are physically dilapidated and are not attractive in appearance due to their bad designs. As such complete rehabilitation of							
	the public market complex has become a necessity in the Kalpitiya town.								
	The sanit	The sanitary facilities also need to be provided which are currently lacking.							
								1	

Project Details

Current title of the land	UDA			Private		Stat	е	✓	
Free or encum- brances	√	Yes	No not de						
Ownership Details	Kalpitiya PS								
Details of the survey plan	Number of the Name of the Lisurvey plan censed Surveyor				Date	9	Extent of the land	d	
							59.30 Perches		

Project Details

Project Duration	Short-term (1>year)	✓	Medium- term (1-3 years)		Long-term (3 <years)< th=""><th></th></years)<>					
Source of funding	UDA (Treasury	UDA (Treasury funds, UDA funds and foreign funds)								
Project details	 Redesign to Provide san Provide can 	o provid nitary fac parks	he two storied pube e more trading sta cilities remises with seation	alls						

Existing	Water	✓	Electricity				
infrastructure facilities	Solid waste management	√	If not proposals for solid waste management				
Use Zone	7000		Compatibility with use zone	yes	√	No	

Current position with details

Details	Number of floors	Length M	Width M
Building	02	50	8



Project cost estimate

Item of works	Estimated cost in Rs Mln.
Refurbishment of the building	63.78
Landscaping	12.75
Lighting of the premises	25
Liquid and solid waste management	6.37
Sub total	107.91
Contingencies 10% of the cost	10.79
Project cost	118.71
Consultant's fee 2%	2.96
Sub total	121.67
VAT	18.25
Total cost	139.93

Responsible agencies

Works involved	Responsible Agency	Authorized Officer		
Refurbishment of the	UDA	Provincial Director (North-West)		
building	Kalpitiya PS	Secretary		
Landscaping and lighting	UDA	Director(Landscape&Mangement)		
the premises				
Waste water	Kalpitiya PS	Secretary		
Management	NWS&DB	General manager		

Prevailing Guidelines	Guidelines
&guidelines	Constructions to be in conformity with the
	UDA Planning & Development Guidelines

6.7.1.6 Project on the Development of the Harbour at the town Centre.

Identification of the project

Name of the	Town centre harbour development
Project	
Project	Adopt the existing harbour for tourism development
Project pro-	Development of the existing fisheries harbour for the use of the fisher-
posal	ies activities as well as the tourism activities.

Project location

Location	Province	North-West	District	Puttalama
	Divisional	Kalpitiya	Local Authority	Kalpitiya PS
	Secretariat			
	Division			
Boundaries	North	East	South	West
	Fisheries An-	Lagoon	Houses	Shops
	chorage			
Access	Jetty Street			
Map depicting the location		Orice. Orice.		Harbour
Surrounding area land use	Commercial and	residential		
	l			

Project justification

Nature of the	New		Rede	evelo	✓	Ex	pansion		Land		
project			pme	nt					development o	nly	
Project type	Conserv	Con	nme	Lands	Heri-		Houses		Infrastructure	Oth	er
	ation	rcial		caping	tage		relocatio	n	facilities		
		,	/						✓		
				T							
Project vision	Economic			✓	Socia	I					
	Environ				Physical						
	mental										
Project objec tives	Use of exist Promotion	_			for to	uris	m develo	pm	ent		
Project's necessity	Maximum Harbour in Create mor Provide a b	frastr e em	uctur ployn	e developr nent oppo	ment rtuniti		e efficien	су			

Land title	UDA		Private		State			✓	
Free/ Encumbrances	√ yes	No	If not details						
Details of title	Sri Lanka F	Sri Lanka Fisheries Corporation							
Survey plan details	Survey Plan	Surve	yor's name		Date	Land ext	ent		
						118.6 per	che	S	

Project	Short-term		Medium-term		Long-term (3<	✓				
duration	(1>years)		(1-3 years)		years)					
Funding sources	Sri Lanka Fisheries Corporation									
Project	Redevelopmen	Redevelopment of the existing fisheries habour together with the facilities								
details	for tourism as w	or tourism as well:								
	1. Repair the	Repair the existing jetty								
	2. Construction	Construction of a ticketing booth								
	3. Construction	on of a r	estaurant							
	4. Installation	of an A	TM machine							
	5. Construction baskets	on of a s	et of public toilets a	and plac	ement of waste co	llection				
	6. Integration activities	of adm	ninistrative building	g of the	harbour with the	tourism				
	7. Construction	on of a r	new jetty for the to	urists						
	8. Construction	on of a r	esting place for the	e tourist	ts					
	පැව වැඩ පලාත්බද ර 2000කට වැඩි	වතුම් ල වරග සංවර්ධ මාර්ග සංවර්ධ වේදින වර ගල්පිටිය	යෝජිත ජැවිං ත ශ්නාගාද රුද සිටිමේ ස්ථාන ආපනශාල නිකුත් දිරීමේ කුවිය පරිපා Al Wi යන් න අඛකාරයට අයක් ආර්ග වාරය සංවර්ධන සැලැස් පුලෙද්ශීය සභා බල පු)දේශය ගරික සංවර්ධන අධි	පුවත්ත ජැවත් ම්ප්රිත විශ්වාත් කාර්ග වැඩිම දිශ්වාත් කාර්ග නාගරික සංවර්ධන අධ්ක සැස්තැම්බර් 2018	ාරිය				

Prevailing	Water		✓	Electricity		✓	·		
infrastructure									
facilities									
	Solid waste	No	If not proposal				a progr		
	management		to mang	e it	place waste collecti according to a plan educate the public the waste and dum baskets.		and to to sort		
Zone	Special Commercial Zone		Zoning compatib		oility	Yes	√	No	

Current position in detail

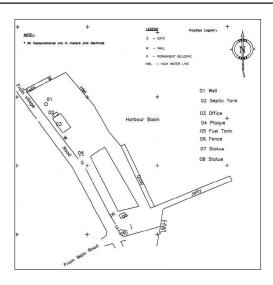
Boat anchoring area	02 Hectares	
Length of Jetty	61 Mtrs.	
Depth	4Mt6 Mt.	
Handling Capacity	3.5- 5 Tons	





Proposed plan and the necessity of architectural plans

Estimated Cost



Items of work	Estimated cost Rs. in Mln.
Refurbishment of existing building (10000 Sqr. Ft)	15
Repairing the existing Jetty (1500 Sqr. ft)	100
Construction of ticketing booth (25 Sqr. Ft.)	0.8
Construction of proposed restaurant (1000 Sqr. ft)	3.5
Installation of ATM machine	2.5
Construction of a set of public toilets (1500 sqr. ft.)	8
Construction of a new Jetty(2000 sqr.ft.)	250
Construction of a resting room for the tourists (2000 sqr.ft.)	15
Total Estimated Cost	394.8

Recommended Institutions

Activities	Relevant Institution	Authorized officer
Refurbishment of existing building	Sri Lanka Fisheries Corpora- tion-Kalpitiya	Manager
Repairing the existing Jetty and construction of a new Jetty	Sri Lanka Fisheries Corpora- tion-Kalpitiya	Manager
Construction of the ticketing booth	Sri Lanka Fisheries Corporation	Manager
Construction of the restaurant	Sri Lanka Fisheries Corpora- tion-Kalpitiya	Manager
Installation of ATM ma- chines	Sri Lanka Fisheries Corpora- tion-Kalpitiya	Manager
Construction of a set of Public toilets	Sri Lanka Fisheries Corporation	Manager
Construction of a resting room for the tourists	Sri Lanka Fisherires Corpora- tion-Kalpitiya	Manager

Prevailing	Guidelines
guidelines	
	Building constructions should comply with the UDA Planning and De-
	velopment Guidelines.

6.7.1.7. Project for Redevelopment of Norochchole Economic Centre

Identification of the project

Name of the Project	Redevelopment of Norochchole Economic Centre project
Project	Redevelopment of the Norochchole Economic Centre and provision of
Project	facilities to increase its efficiency and viability
Dueinst	Rearrange to enclose the trade stalls of the Economic Centre, installation
Project proposal	of ATM machines within the premises and provision of fuel filling station
ргорозаг	with a set of public toilets.

Project location

Location	Province	North-West	District	Puttalama
	Divisional Secre- taries Division	Kalpitiya	Lacal Authority	Kalpitiya PS
Boundaries	North	East	South	West
	PS road	Private lands	Private lands	Kalpitiya-Palawi- ya Mainroad
Access	Kalpitiya-Palawiya	Main road		
Map of project location			Existing Econom	aic Centre
Land use of the surroundings	Mixed residential			

Project Justification

Nature of	New		Re	develo	✓	Wide	en-		Land	
the project			pn	nent		ing			Develop-	
									ment	
									only	
Project Type	Conserv	Com		Lands	Herit	age	l	sing	Infrastruc-	Other
	ation	ercia	ıl	caping			relo		ture facili-	
							tion		ties	
		✓								
Project	Economic			✓	Socia	al				
	Environm				Phys	ical				
	ental									
Project									rough increas	e of the
objectives	agricultura	l proc	luc ¹	ts and fac	cilitati	on of	the t	rades.		
Project justi-		_						•	s been the agri	
fication									omic Centre, v	
	,						_		Kalpitiya PS a ut basic requir	
	1						_		ies for the agri	
		_							ning of this c	
								_	the complex	
				-			_		products due	
					_				vegetables whoper sanitary fa	
						•		•		
		no fuel station to facilitate the transport and banking facilities for the traders to facilitate their trading activities. As such installation of an ATM								
					ary facilities and development of a fuel station					
	have been	the m	nult —	iple obje	ctives	of th	is pro	ject.		

Land title	UDA.				Private		State		✓
Free/Encumbrances	✓	Yes	no	,	if no	t			
			de	tails					
Ownership details	Kalpiti	ya PS							
Survey plan Details	Survey	/ plan	Su	rveyo	r's name	Dat	e	Land exte	nt
	no.								
								02 Acres	

Project	Short- term (1>	✓	Medium-term	Long-term	
duration	year)		(1-3 years)	(3< years)	
Source of	Kalpitiya Pradeshe	eeya Sal	oha		
funding					
Project	深度 "他"以下"身"为。		TOT DE		To the
details		ade stalls station cilities trade sta	alls for shade	facilities	

Prevailing infrastruc- ture facili- ties	Water	√	Electricity			,	√
	Solid waste management method	✓	If not proposal	S			
Zoning	Mixed Developn	nent Zone I	Zoning compatibility	yes	✓	no	
Current position in detail)						•	

		·
Description	Length Mtr.	Width Mtr.
Existing trade stalls	35	15
Existing 02 trade stalls	40	15
Existing 03 trade stalls	75	8
Office	20	10
Building not in use	50	13







Proposed plan and the necessity of an architectural plan of the building.

Plans of existing buildings

Project estimated cost

Activities	Estimated cost Rs in MIn.
Widening of existing buildings 5000 sqft – 6000 sqft.	20
	23
Construction of a fuel filling station (2500 sqft)	28
Installation of ATM facility	2.5
Establishment of a car park 12500 sqft.	10
Improvement of sanitary facilities	10
Landscaping with planting trees to provide shade to the open areas.	8
Total Estimated Cost	101.5

Recommended Institutions

Activities	Relevant institutions	Authorized Officer
Preparation of detail build-	UDA and Kalpitiya PS	Director/North-West
ing plans		
Planting trees at suitable	UDA and the Kalpitiya	Director/ Landscaping and man-
locations in the Economic	PS	agement
Centre		

Guidelines in force	Guidelines	
	Building plan should be in conformity with the UDA Planning and Development Guidelines.	

6.7.1.1.8. Project to establish a beach garden - Alankuda

Identification of the project.

Project name	Establishment of a beach park project-Kandakuliya
Project	Development of a beach garden after widening the beach
Project pro-	Most suitable land will be landscaped and enhance the beauty of the
posal	beach.

Project Location

Location	Province	North-West	District	Puttalama
Location		<u> </u>		
	Divisional Secreteri-	Kalpitiya	Local Authority	Kalpitiya PS
	at Division			
Boundaries	North	East	South	West
	Vacant Land	Coconut Estate	Vacant Land	The sea
Access	Alankuda School roa	d – Alankuda Beach		
Map of proj-			A HILL ZHON THE	
ect Location		Alankuda School	Road - Alankuda	Beach
Surrounding	Agricultural, fisherie	s and Civil Security T	raining Camp.	
area land use	1			

area land use

Project Justification

Nature of the project	New		✓	Redevelo ment	p-		Widening		Land o	devel- nt only	
Project type	Conser Comme vation rcial		Lands caping	Heri age	t	Housing reloca- tion		ra- ucture ilities	Other		
				✓						Provide Tourist Related Facilitie	n d
Project	Economic				Soci	al					
vision	Environ mental			✓	Physical						
Project objectives	 Enhar Promo Increa 	 Enhance landscaping quality. Promote living standards of local residents Increase entertainment and leisure facilities 									
Project jus- tification	in the pro with facili ongoing of will also p	Alankuda beach is a wider beach with a potential of being adopted in the promotion of tourism activities. This beach could be developed with facilities for multiple leisure activities with a view of supporting the ongoing effort of promoting the tourism industry in the area. This project will also promote the revenue generating capacity of the PS as well as the general local residents.									

oject actam.	-						
Current land	UDA			Private		state	✓
title							
Free/Encum-	✓ yes	no		if not			
brances		deta	ails				
Details of title	Divisional Secre	Divisional Secretariat is the owner					
Details of the	Survey Plan	Surv	veyor's r	name	Date	Land extent	
survey plan	No.						
	-	No s	survey p	olan available		300 Acres	

Project	Short-term	✓	Medium-term		Long-term (3<	
duration	(1>year)		(1-3 years)		years)	
Source of	UDA and the Pra	deshe	eya Sabhaa			
funding						
Project				A 300	CASE NEW YORK	
details	Dolphin viewing are		Sea view belt Beach Garden	all restaur		

Prevailing	Water	There is a likeli-	Electricity		Currently not	
infra-		hood of providing			available but	
structure		water though not			could be pro-	
facilities		currently available.			vided	
	Solid waste	Coordinated program involving the PS could be executed to				
	manage-	collect sorted solid wastes through placement of collection				
	ment meth-	baskets at suitable locations.				
	od					
Zone	Zone no 02 (N	ledium central zone)	Zoning com-		✓	
			patibility			

Current position

Wider beach









Activities	Estimated cost Rs. in Mln.
Preparation of access road to a lenght of 500 Mtrs.	20
Construction of three small restaurants each with 50 sqft.	10
Viewing conpartments	25
Walking track one Km in length	12
Walking tracks with sea viewing pads to a length of 01 Km.	18
Total Estimated Cost	85

Recomended Agencies

Acitivities	Recomended Agency	Authorized Officer
Access road preparation	Road Development Authority	Director (North-West)
	Kalpitiya PS	Secretary
Construction of small	UDA	Director (North-West)
restaurants	Kalpitiya PS	Secretary
Viewing Compartments	UDA	Director/North-West
	Kalpitiya PS	Secretary
Walking Tracks	UDA	Director/North-West
	Kalpitiya PS	Secretary
Walking tracks with sea	UDA	Director/North-West
viewing pads	Kalpitiya PS	Secretary

Prevailing	Guidelines
Guidelines	All constructions should be in conformity with the UDA Planning and
	Development Guidelines

6.7.1.9. Solid Wates Management Centre project-Norochchole

Name of the Project	Project for solid waste management centre-Norochchole
Project	Establishment of a solid waste management centre for producing compost fertilizer
Project pro- posal	ಲೆරCollection, processing and management of solid waste to produce compost fertilizer for the agriculture.

Project Location

Location	Province	North-West	District	Puttalama		
	Divisional Secretariat Division	Kalpitiya	Local Authority	Kalpitiya PS		
Boundaries	North	East	South	West		
	Vacant land	Houses	Vacant land	Vacant land		
Access	By road branching o	ff from the Kalp	pitiya- Palawiya mai	n road.		
Plan depicting the location	Alangkuda Jur	nction				
Land use of	Vacant lands					
the sur- rounding area						

Project Justification

Nature of	New	✓	l	edevelop-		Wider	ning		Land	
the Project			m	nent					devel-	
									opment	
			Ц						only	
Project type	Conserva-	Com-		Landscap-	Herit	age	Hous	ing	Infra-	Other
	tion	mercia	ı	ing			reloc	ation	struc-	
									ture	
									facilities	
									✓	
Project	Economic		Social							
vision	Environmenta			Physical ✓					✓	
Project objectives	Creation of people Yield of compost	d benef	its	through co	onser	vation	of en			
Project justification	Currently the solid wastes and establis wastes colle is also havin So compost wastes procein the agriculture towards the	in the shed prected had consing can essing can essing can essing can	No as ide su cen ac	orochchole edure. As become an erable exte upport thes stre. Furthe tivities to	area such n abs nt of se acti r it als some	due to a cent olute r lands ivities o coulo	o lack re for necess under through	of a some of a s	suitable lo essing the orochcho ultural ac s propose e chemica	e solid le area tivities. d solid I usage

Land title	UDA				Private		State	✓
Free/Encum- brances	√	Yes	No If not details					
Ownership	Divisio	onal Sec	cretari	at				
Survey plan	Surve	y plan	Nam	e of the	Surveyor	Date	Land Extent	
details	no							
							06 Acres	

Project details

Project duration	Short-term (1> year)	Medium-term (1-3 years)	√	Long-term (3< years)	
Source of funding	Kalpitiya PS				

Prevailing infrastruc-ture facilities		Wa- ter	Possible to provide water but current-ly not available	Electricity		Electric be prov current availab	vided b ly not	
Land use zone	9		05 (High-density I use zone)	Zoning compatibility	yes	√	no	
Current position	on							

Vacant land





Estimated Cost of the Project

Activities	Estimated cost in Rs. Mln.
Development of the access road	20
Land preparation and development	40
Construction of buildings for collection and storing solid	18
wastes with a floor area of 6000 sqft.	
Office building with a floor area of 1000 sqft.	20
Building for storing compost with a floor area of 12000 sqft.	35
Total Estimated Cost	133

Recommended agencies to be responsible

Activities	Recommended agency	Authorized Officer
Access road preparation	Road Development Authority	Director/North-West
	Kalpitiya PS	Secretary
Land development	UDA	Director/North-West
	Kalpitiya PS	Secretary
Construction of buildings for	UDA	Director/North-West
collection and storing of solid wastes	Kalpitiya PS	Secretary
Office buildings	UDA	Director/North-West
	Kalpitiya PS	Secretary
Buildings for storing compost	UDA	Director/North-West
fertilizer	Kalpitiya PS	Secretary

Prevailing	Guidelines
guidelines	
	All the building constructions should comply the UDA Planning and Development Guidelines.
	The process of solid waste collection, storing and processing should comply the standards and guidelines of the Central Environmental Authority

6.7.1.10. Conservation and rehabilitation of the Dutch Fortress project

Project Identification

Name of	Dutch Fortress rehabilitation project
the Project	
Project	Tourism attraction through upholding the historical and locational sig-
	nificance of the Dutch Fortress.
Project	Conservation and provide facilities for attraction of tourists
proposal	

Project location

Location	Province	North-West	District	Puttalama
Location	Divisional Secre-			
		Kalpitiya	Local Authority	Kalpitiya PS
B 1 :	tariat Division		6 1	100
Boundaries	North	East	South	West
	Navy Camp	Hospital	Hospital road	Main road
Access	End of the Kalpitiya	a-Palawiya main roa	d and the Hospital	road.
Map of project				
location			A. A. A.	
location			The state of	2-
				#
	4 70		A STATE OF THE STA	
			LL CONTRACTOR OF THE PARTY OF T	Navy Camp
	15亿国门主	En MO	The state of the s	
		la	tch Fortress	
	Togo of	Du Du	ich Fortress	
	Live Man			
	Kald		Act I	
Surround-	Commercial and ac	dministrative	og all the second secon	
Surround- ing land	Commercial and ac	dministrative		

Project justification

Nature of	New			Rede	vel-	✓	٧	Vid-		Land deve	lop-	
the project			opme	ent		e	ning		ment only	,		
Project	Con-	Со	m-	Land-		Heri-		Hous	i- [nfrastruc-	Other	
type	serva-	me	ercial	scap	ing	tage		ing	t	ure facil-		
	tion							relo-	i	ties		
								ca-				
								tion				
						✓						
Project	Economic				Socia	Social						
vision	Environmental				Physical						✓	
Project objectives	heritage	e an sed	d ther	oper	n it up	o for th	ne	publi	c. Ap	rea as an a opropriate a I maintain i	activities	can
Project justi- fication	of the to	own tress	and is as a h	being istoric	occu al her	pied b itage n	y t	he Sri ds to I	Lank be ha	cated at the ka Navy. The arnessed to nomic resou	e potent attract r	ial of

Land title	UDA		Private		State			✓
Free/Encum-		No	l l					
brances	✓ Yes	If not de	If not details					
Ownership	Currently Navy Camp is in possession							
details								
Details of Sur-	No of the sur-	Surveyo	or's name		Date	Lā	and Exten	t
vey Plan	vey plan	vey plan						
						03 Hed	tares	

Project Dura-	Short-term	✓	Medium-term		Long-term				
tion	(1>year)		(1-3 years)		(3< years)				
•	(1>year) (1-3 years) (3< years) UDA/Treasury funds/ Foreign funds Proposed open area museum								
	ii. Developi iii. Construc iv. Landscap open are	 ii. Development of the museum iii. Construction of a restaurant iv. Landscaping and development of the surrounding area as an open area for the public. 							

Prevailing infrastructure facilities			√	Powe	ower		√	
	Soloid waste management method	yes	no	<	If not proposals		Place waste collecting containers	

Current position with details

Details	Length Mtrs.	Width Mtrs.
Dutch church	24	15



Prposed plan and the necessity of architectural plan

Plans of the Dutch Church and its land

Project cost

Activities	Estimated cost Rs. In MIns.
Dutch Church improvement	10
Tourist Information Centre with a floor area of 1500sqft	20
Establishment of an Art Theatre with a floor area of 2000 sqft.	40
Planting of shady trees along the access road to the Church	5
Establishment of a handy craft centre with a floor area of 100 sqft	15
Creation of a landscaped area behind the Church	5
Landscaping the triangular site in front of the Dutch Church with shady trees	5
Total Estimated Cost	100

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Recommended responsible agencies

Activities	Agency	Authorized Officer
Dutch Church redevelopment	Dpt. Of Archeology	Director
Establish an tourist information centre	UDA	Director/North-West
Establish Art Theatre	Dpt. Of Archeology	Director
Tree plantinf along the access road to the Church	UDA	Director /Landscaping & Management
Landscaping the area behind the Church	UDA	Director /Landscaping & Management
Handy craft trading centre	UDA	Director /North-West
Landscaping the triangula site in fornt of the Church	UDA	Director /Landscaping & Management
Develop a carpark	UDA	Director /North-West

Prevailing ru-	Guidelines
galations	
	All the bulding constructions should compley the UDA Planning and Development Guidelines.

6.7.1.12. Desalination project

Identification of the project

Name of the	Desalination project-Kandakuliya
Project	
Project	Establishment of a desalination project at Kandakuliya
Project pro- posal	Supply of drinking water in this area is an acute problem and limitation of water sources is another problem that prevent implementing water supply project covering the entire planning area. So desalination has become the option available for this water problem.

Project location

Location	Province	North-West	District	Puttalama
	Divisional Secre-	Kalpitiya	Local	Kalpitiya PS
	teriat Division		Authoreity	
Boundaries	North	East	South	West
	Bech	Vacant land	The beach	The sea
Access	Kurigngnanpitiya-	-Kandakuliya		
Map of project location	යෝජික	98c	කන්දක්කුලි	
Surrounding land use	Civil Security Fo	rce and vacant la	ands	

Project justification

Nature of the	new	✓	Red	evelop-		Ex	rpan-		Land deve	l-	
project			mer	nt		sic	on		opment only		
Project type	Conser-	Comr	mer-	Land-	Heri	i-	Housi	ng	Infra-	Ot	her
	vation	cial		scaping	tage	5	reloca	ı-	structure		
							tion		facility		
									✓		
Project	Economic		1	<u> </u>	Social				一		
vision									╁		
VISIOII	Environm	entai			Phy:	Physical					✓
Project ob-	Supply of	safe d	rinkir	ng water to	the p	eo	ple of K	 (alpit	iya		
jectuives											
Project justi-	\$6% of th	e Kalp	itiya p	opulation	do no	ot h	ave ac	cess 1	o safe drink	ing	wa-
fication	ter and th	ter and there are no reliable water sources to fetch sufficient water. So									
	desalinati	desalination is the only option.									
				1-1							

Title of the	UDA.				Private		State	✓	
land									
Free/Encum-	Yes	√	No			<u>_</u>			
brances				If not details					
Land Owner-	Divisio	Divisional Secratariet							
ship									
Suyey plan	Plan no Surve			yor's n	ame	Date	Land extent		
details						<u> </u>			
							10 Acres		

Project's details

Project	Short-term		Medium-term		Long-	✓
duration	(1>year)	(1.3 years)		term (3<		
	(1/year)		(1-3 years)		years)	
Funding	National Water					
sources	Supply and					
	Drainage Board					

Zone	Mixed Development	Use zone	yes	✓	no	
	Zone I	compatibility				
Current position						

Vacant land



Estimated project cost Rs. 250 Mln.

Recommended Agency

Activities	Agency	Authorized officer
Desalination project	National Water Supply and	General manger
	Drainage Bopard	

Prevailing	Guidelines
guidelines	Constructions according to the standards of the National Water Sup-
	ply and Drainage Board

Urban Development Authority

6.7.1.13. Redevelopment of existing solid wastes management centre project

Identification of the project

Project name	Redevelopment of existing solid waste management centre
The project	Secure sufficient land area for the existing solid wastes management centre
Poject pro- posal	Construction of buildings for the use of the existing solid waste management centre

Project location

		1		, ,
Location	Province	North-West	District	Puttalama
	Divisional Secreteri-	Kalpitiya	Local Authority	Kalpitiya PS
	at Division			
Boundaries	North	East	South	West
	Vacant land	Vacant land	Vacant land	Vacant land
Access	Anawasala road			
Map of Project location		alwasal de la constant de la constan		
Surrounding land use	Vacant lands			
iaiiu use				

Project justification

Nature of the project	New			De- vel- op- ment			Expant	ion	✓	1	nd De- opment ly	
Projct type	Conser- vation	Cor	nmer-		nd- ping	Ι.,	eri- age	Hous- ing relo- cation	Infa- struc- ture fa cilities	a- s	Other	
Project vi- sion	Eco- nomic Environ- mental					Ĺ	ocial hysical				√	
Focus of the project	i. Creation of an attractive environment for the people ii. Reaping economic benifits of environmental protection											
Project justi- fication	pacity. Th This proj	Kalpitiya needs an efficient solid waste management centre with sufficient capacity. The improvement of the existing one is constrained due to lack of lands. This project focuses on providing sufficient lands for the expansion of the existing solid waste processing centre.										

Projcr description

Land title	UDA				Private		State		✓
Free/encum- brances	Yes	✓	No tails		not provide d	le-			
Ownership	Prades Sabhaa	•							
Details of the survey pland of the land	Survey no	plan	Name of		he Surveyor		Date of the Plan		
Land Extend	03 Acr	es							·

Project details

Project dura-	Short-term	✓	Medium-term		Long-		
tion	(1> year)		(1-3 years)		term		
					(3< years)		
Method of	Kalpitiya PS						
funding							
Project details	Present land area occupied by the solid wastes management centre						
	will be expanded up to 5 Acres						

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Existing infrastructure facilities		✓			Electricity		✓
	yes	✓	No			If not propo	sals
Zone			Zoning compat-		yes		✓
			ibility				

Current details

Description	Length Mtrs.	Width Mtrs.
Building 01	24	10
Building 02	30	8





Proposed plan and the necessity of building plans

Plan of existing buildings

Estimated cost of the project

Activities	Estimated cost Rs. in Mln.
Construction of buildings with an estimated floor area of 3000 sqft to keep the solid wastes collected in store until the processing begins	10
Building for storing compost with a floor area of 10000 sqft	25
Total Estimated Cost	35

Recommended agencies for responsibility

Activities	Recomended Agency	Authorized officer
Building constructions	Kalpitiya PS	Secretary

Prevailing Guidelines	Guidelines enforceable	
	All the building constructions should comply the UDA Planning and Development Guidelines	

6.7.1.14. Project for construction of a holiday home related facilities development

Name of the	Construction of a holiday home related facilities development proj-
Project	ect at Alankuda
Duringt	To disease a Haliston beauty developed as the state of th
Project	Facilitate a Holiday home development for both local and foreign tourists
Project proposal	Provide accommodation facilities for the local and foreign tourists

Project location

	l	N N	In	T D I			
Location	Province	North-West	District	Puttalama			
	Divisional Secretar-	Kalpitiya	Local Authority	Kalpitiya PS			
	iat Division						
Boundaries	North	East	South	West			
	Vacanta Land	Vacant land	Vacant Land	The sea			
Access	Alankuda School Ro	ad – Alankuda Bead	ch				
Map of the project location	Alankuda School Road – Alankuda Beach Prosed Land Prosed Land Alankuda School Road – Alankuda Beach						
Land use	Vacant lands and the	e wider beach					
of the sur-							
rounding							
area							

Project justification

Nature	New		✓	Re	develop-		Ε	xpan-		Land	
of the				me	ent		si	ion	devel-		
project										opment	
										only	
Project	Conser-	Cor	n-	La	ınd-	Heri-	i- Reloca-		Infrastructure		Oth-
type	vation	me	rcial	sc	aping	tage		tion of	facilit	ies	er
								houses			
			✓								
Project	Economic				√	Social					
vison	Environmental					Physical					
Project	Provision of accommodation facilities for the foreign and local tourists							5			
focus											
Project	Tourism is	s em	erging	as	a strong	econo	om	nic sector	in the	Kalpitiya a	rea due
justifi-	to its picturesque environment characteristics, but the accommodation										
cation	facilities are currently very limited to satisfy the ever increasing demand. In this backdrop development of holiday home will be an asset to the tourism										
	industry ii					•			e an a	sset to the	tourism

Current land	UDA				Private		State	✓	
title									
Free/Encum-	yes	✓	No I	f not d	etails				
brances									
Ownershi	Land	Land owned by the Divisional Secreteriat							
details									
Details of	Survey Name of the Survey					or	Date	Land extent	
the survey	plan no								
plan								02 Acres	

Project details

Project	Short-term		Medium-term		Long-term				
duration	(1> year)	√	(1-3 years)		(3< years)				
Funding	UDA/Treasury fu	nds/fc	reign funds						
method									
Project	The proposed holiday bungaloew will be developed with all the facilities								
description	needs of the off development wi view of merging	necessary to meet the needs of the tourists while accommodating the needs of the officers of the UDA who will visit Kalpitiya on duty. This development will be consisting of number of small buildings with a view of merging them with the environment and to construct them with materials of environmental friendly.							

Prevailing infrastructure facilities		Water	Provision of water is feasible but currently the wate is not available	Elec ity	tric-		feasil	sion is ole bu ently n able	ıt
	Solid wastes management methodology		Solid waste man placement of was suitable locations wastes with the co	to c	ting collec	conta t sort	iners ed so	at	
Zone	Mixed Zone	Development	Compatibility of zon- ye				✓	no	

Current position

Vacant land



Estimated Cost of the project						
	Activiti	Estimated cost Rs. in MIn				
Holiday bungalo	ow developmen	30				
Total Est	imated Cost		30			
	Recommended agencies for responsibility					
Activ	vities	Recomended Agency	Authorized Officer			
Construction o	f a Holiday	UDA	Director/North-West			
bungalow						
Prevailing	vailing Guidelines					
Guidelines	Guideillies					

Buildings should be in conformity with the UDA Development Guide-

lines

6.7.1.15. Development of Ancourages

Identification of the project

Name of the project	Project for development of fisheries boat anchourage for fishermen- Sangupali
Project	Provide facilities for the achourage located near the fisheries habour.
Project proposal	Current anchourage is functioning without facilities. So this project envisages providing necessary facilities for the fishermen. This development will be expected to streangthen the fisheries industry in Kalpitiya.

Location	Province	North-West	District	Puttalam
	Divisional Secreteriat	Kalpitiya	Local Author-	Kalpitiya PS
	Division		ity	
Boundaries	North	East	South	West
	National Acquatic Re-	Lagoon	Kalpitiya Har-	Houses
	sources Research and		bour	
	Development Agency			
Access	Jetty Street			
Map of				
project location				
			Fishery	

Land use	Mixed Development consisting of harbour, fishermen's houses and
of the	dry fish trading stalls
surrounding	
area	

Nature of	New			Redeve	ļ-		Expan-		Laı	nd	
the project				opment	t		sion		De	vel-	
						•			ор	ment	
									on	ly	
Project type	Conser-	Cor	n-	Land-	Н	eri-	Housing		Infras	struc-	Other
	vation	mei	rcial	scap-	ta	ige	relocatio	n	ture f	acil-	
				ing					ities		
			✓								
Project vision	Economic			✓	S	Social					
VISIOII	ENvironmental				Physical						
Focus of the project	1	Advancement of living standards of the fishing community through providing facilities to empower them.									
Project justificatios	facilities to be the fishermer	The angupali Anchorage is currently functioning without adequate facilities to facilitate the fishermen as well as the public who visit this place to buy fish. It has no facilities to repare the boats, no place to keep the fishermen's tools in store and no trading facilities to support the fishermen as well as the customers. So this project is expected to provide such facilities with a vision of redeveloping the project area on a new					isit this to keep ort the orovide				

Current title	UDA			Private			State		✓
Free/Encum- brances	yes	✓	No If not pro						
Ownership details	Divisi	Divisional Secreteriat owns the land							
Survey Plan details	Surve	•	Surveyo	Dat	e	Lan	d extent	,	
						0.34	12 Hectare	S	

	1	ı			1	
Project	Short-term		Medium-term	√	Long-term	
duration	(1>year)		(1-3 years)		(3< years)	
Method of	Ministry of Fishe	ries				
funding	UDA/Treasury fur	nds/Fo	reign funds			
Project	i. Facilities	for fish	ning boat repairs			
details	ii. Construc	tion of	fishing boat yard	s to rep	air the boats	
	iii. Construc their gea	tion of rs.	store room facilti	es for tl	ne fishermen to k	кеер
	iv. Fish tradi	ng sta	lls for both whole	sale an	d retale sale	
	Fishery Anch	Kal	活	Project Development A	Fish Retail & Whole sale Market (2030)	nt Authority 2018

Prevailing infrastructure facilities	Water			✓		Elec	ctricity		√
Solid waste management method	Solid waste manage- ment meth- od	yes		No	✓	id w mar mer	ot sol- vaste nage- nt posals	Placement waste co containe implement program collect the	llecting rs and nt a to
Zone	Special Commercial Zone	Zoni com _l	•	ility	yes		✓	no	

Current Position





Estimated Cost of the Project

Activities	Estimated Cost Rs. in Mln
Construction of boat yard	2
Construct storing facilities to keep the fishermen's gears with a floor area of 1000 sqft.	7
Construction of trading stalls with a total floor area of 1500 sqft.	15
Total Estimated Cost	24

Recommended Agencies

Activities	Recomended agency	Authorized Officer
Construction of	Ministry of Fisheries	Director
boatyards	Willistry of Fisheries	
Store rooms to keep	UDA	Director/North-West
the fishermen's gears	Ministry of Fisheries	Director
Construction of	Ministry of Fisheries	Director
whole sale and re-	UDA	Director/North-West
tail sale fish trading		
stalls		

Prevailing Guidelines	Guidelines
	Building constructions should comply the Development Guidelines of the UDA

6.7.1.16. Fishermen's housing scheme

Project identificatio

Project name	Fishereis housing scheme Mohoththuwarama
Project	Provide better houses to the fishermen currently occupyiong the temporary and semi permanent houses
Project pro- posal	Provide houses with necessary facilities to the people involved in the fishing activities

Location	Province	North-Western province	District	Puttalama
	Divisional Se-	Kalppitya	Local Authority	Kalpitiya PS
	creteriat Divi-			
	sion			
Boundaries	North	East	South	West
	Vacant land	Vacant land	Vacant land	Vacant land
Access	Mohonthuwaraı	ma- Via sandune at	Dutch Bay by boa	at
Map of Project location		Dutch Bay Is	sland	Anawasala
Surrounding Land use	Residential and	vacant lands.		

Nature of the project	New		✓	Redev opme			Expan- sion		Land de opment			
Project type	COn- serva- tion	COm- mer- cial	S	and- cap- ng		Heri- Housinf Infrastructur tage reloca- facilities tion		'e	Ot	her		
							✓					
Project's focuss	Economic					Social			✓			
	Environmental					Physical			✓			
Project's objectives	Uplift the	_	star	ndards	of th	ne fish	nermen by a	ddres	sing thei	r bas	ic i	issue
Project justifica- tion	a very had need of planned the long-	The fishermen living in the Mohoththuwarama area are currently earning a very hard life and are living in substandards houses. Housing is a basic need of the people, so providing those people with better houses in a planned housing scheme could support uplifting their living standards in the long-run. Providing a better housing to the fishermen in this area has been identified as one of the basic needs of the Kalpitiya PS area.										

Project details

Current land	UDA				Private		State		✓
titlte									
Free/Encum-	yes		no						
brances		_	If not prov	vide					
Ownership	State	tate Land Reform Commission							
Survey plan	Surv	ey	Surveyor	's name		Date	Land ex	tent	
details	plan	no							
							05 Acres	5	

Project dura- tion	Short- term (1> Year)	Medium-tern (1-3 years)	ı	Long-term (3< years)	✓					
Funding meth-	UDA and Nation	JDA and National Housing Development Authority								
od										
Estimated Cost	Rs.300 Mln.			,						

Project details	Plan and and implement Construction of 50 numbers of houses in a
	50 Acre land, each house including 1000 sqft of floor space with the
	necessary infrastructure faicilities being provided.

Prevailing	water	Currently not	Electricity			Can p	rovide
infrastruc-		available but pos-				electr	icity
ture		sibility exists to				thoug	gh cur-
facilities		provide water				rently	not
						availa	ble
	Solid waste	A program needs to	be deviced	jointly with the PS			
	management						
	method						
Use Zone		Tourism Develop-	Zone	yes		no	
	ment Zone		compati-		✓		
			bility				
Current positi	Current position						

Vacant land

Recommended agencies to be responsible

Actgivitie	es	Agency	Authorized officers				
Construction of	of 50	UDA	Director/North-West				
nos of housing	units	National Housing Development	Director				
		Authority	Divertor				
		Ministry of Fisheries	Director				
		Kalpitiya PS	Secretary				
Landscape planning		LIDA	Director/Landscaping				
		UDA	and Management				
Power supply		Ceylon Electricity Board	Director				
Supply of water	er	National Water Supply and Drainage	Director				
		Board					
	,						
Prevailing		Guidelines					
guidelines		Constrcution of houses should be in conformity with the UDA Development Guidelines					

6.7.1.17. Project for provision of residential quarters related facilities development to the Government's Officers.

Project Identification

Project name	Official Residential Quarters related facilities development for the Government's OfficersNorochchole
Project	Facilitate Official Residential Quarters for the Government's Officers Norochchole
Project pro- posal	Providing residential facilities to the Government Officers transferred to this area for services

Location	Province	North-Wst Province	District	Puttalama
	Divisional Secreteriat	Kalpitiya	Local Authority	Kalpitiya PS
	Division			
Boundaries	North	East	South	West
	Vacant Land	Lagoon	Vacant land	Vacant land
Access	Palawiya-Kalpitiya ma	ain road		
Map of project location				Proposed Land
Surround- ing land use	Mixed use zone with the Kalpitiya- Palawiy		gh a by road bran	ching off from

Project na-	New				Rede-		Ex-		Lar	nd de-	
ture				✓	velop-		pan-		vel	opment	
					ment		sion		onl	У	
Project type	COnser-	Con	n-	Lan	dscap-	Heri-	Hou	s-	Infr	astruc-	Other
	vation	mer	-	ing		tage	ingı	e-	ture	e facil-	
		cial					loca	tion	itie	s	
								/			
Project	Economic			•		Socia	nl			,	/
focus	Environ- mental					Phys	ical			,	/
Project ob- jectives	ii. Increa more	ii. Increase efficiency of Government's public services and make it more productive									
Project justification	Most of the find it hard in this area facilities, we such hous. This issue of public serve for the Goroutstations project will the Govern	I to so h. The hich es ar of the rice. T vernr s, has l be b	ecuey a cand e General hermonia hermoni	re acuse to cannover reformation Secometrical	ccommode compelled them a mode ot rende nment Of e, a scher rvents, wo e imperate I for the o	ations to stay nental r their ficers i me to p ho cor tive. Th	to stay y in sul agony servic n Kalp provide ne to t is prop and it v	during through the second throug	ng th dard ugh o th a result emmo rea o Resi	heir office houses out their peacefu ted in in- odation n transfe idential o	e tenure without stay in al mind. efficient facilities ers from quarters

Land title	UDA				Private		State		
Free/Encum-	Yes	√	No					 	
brances			If not	provide	details				
Ownership	Divisio	ivisional Secretary owns the land							
Survey plan	Survey	/ plan	Name	of the	Surveyor	Date	Land ex-		
details	numb	er					tent		
							0.634 Hect	are	

Project dura- tion	Short-term (1>year)	Medium-term (1-3 years)	✓	Long-term (3< years)	
Funding method	UDA/Treasury fu	unds/ Foreign funds/ NHD/	A funds		
Project details	Acres in extent	for the Government Office and currently is in vacant rith other infrastructure fa	position.	This scheme wil	l be

Prevailing infrastructure facilities		Possibility of providing water to this scheme exists	electricity	√	Power can be provided			
		A program needs to be deviced to implement a joint program with the Pradesheeya Sabhaa						
Use Zone			Zoning compati- bility	yes				
Current position in	detail			•				

Current position





Project estimated cost						
Activities	Estimated cost in Rs. Mln.)					
Construction of 150 housing units	15000					
Landscaping	70					
Total Estimated Cost	15070					

Recommended agencies to be responsible							
Activities		Agencies	Authorized officers				
Construction of	hous-	UDA	Director/North-Western Province				
es		National Housing Development Authority	Director				
Landscaping		UDA	Director/Landscaping and Management				
Prevailing guidelines	Guid	Guidelines					
	1	Construction of houses should be in conformity with the UDA Development Guidelines					

6.7.1.18. Establishment of a Vocational Training Centre related facilities development project

Identification of the project

Project name	Establishment of a Vocational Traing Centre related facilities development project at Musalpitiya
project	Multi Purpose Vacational Training Centre to provide training facilities to those aspiring to be involeved in fisheris, tourism, agriculture and so on.
Project pro- posal	Kalpitiya records a high unemployment rate, so this training centre will provide such unemployed people with an opportunity to develop their skills to enable them to join with an industry as they wish after training.

Location	Province	North-Western Province	District	Puttalama
	Divisinal Secreteriat Division	Kal;pitiya	Local Authority	Kalpitiya PS
Boundaries	Noth	East	South	West
	Vacant land	Kalpitiya-Palawiya main road	Vacant land	The sea
Access	Kalpitiya-Palawiya m	nain road		
Map of proj-				
ect location	Pro	posed Land		

Surrounding Land use	Undeveloped lands with access from the Kalpitiya-Palawiya main road.

Nature of	N	lew				rede-		Ex	oan-		Land	de-		
the proj-					✓	velop-		sio			 velor	men	t	
ect						ment					only			
Project		Onser-	COm-	T	Land	dscap-	her	i-	Housin	a a	Infra-		Ot	her
type	_v	ation	mer-		ing		tag	e	relocati	_	struc	_		
,,			cial		,						ture			
											facilit	ies		
											-	/		
Focus of the	e	Eco-			-		Soc	ial						
project		nomic												
ENviron-						•	Phy	sical					<u> </u>	
mental														
Project Ob-	.					acilities				indu	stries i	n the	are	ea .
jectives						ourism a d labour	nd ag	gricu	ilture.					
		iii. Upl	ift livin	g s	stanc	dard of tl			e who w	ill fine	d jobs	in the	est	tab-
		lish	lished industries after training.											
Project jus-		Kalpitiya						-			-			
tification		it is currently constrained by lack of skilled labour force who can support												
		the industries such as fisheries, tourism and agriculture which have a high												
		potential for futher developments. At the same time there is a high-rate of unempleyemt in existence vis some vis the shortage of skilled labour												
		in the industries mentioned above. So the proposed vaocational training												
		centre w												
		sustaina	ble de	/elo	opm	ent in th	e tim	e to	come.	1				

Land title	UDA				Pri- vate		State	√
Free/Encum- brances	yes	yes ✓		not provide ils	e			
Ownership	Land owr	Land owned by the Divisional Secretary						
Survey plan details	Survey plan no		Surv nam	eyor's e	Date		Land ex- tent	
							05 Acres	

Project dura- tion	Short-term (1> year)	Medium-term (1-3 yeras)	✓	Long-term (3< years)	
Funding	UDA/Treasury				
method	funds/ UDA				
	funds/Foreign				
	funds				

Prevailing in-	Water	Water supply to the	Power		Power s		/
frastructure		site is feasible			is feasib	ole	
facilities							
	Method of solid waste manage- ment	Cordinated program will be implemented with the Pradesheeya Sabhaa					
Use Zone	Agricultural Zon	ne	Zoning compati- bility	yes	✓	No	

Current position

Vacant land



Projct cost	
Activities	Cost in Rs. Mln.
Construction of the Vocational Training Centre with a floor area of 4000 sqft	28
Total Estimated Cost	28

Recommended agencies to be responsible

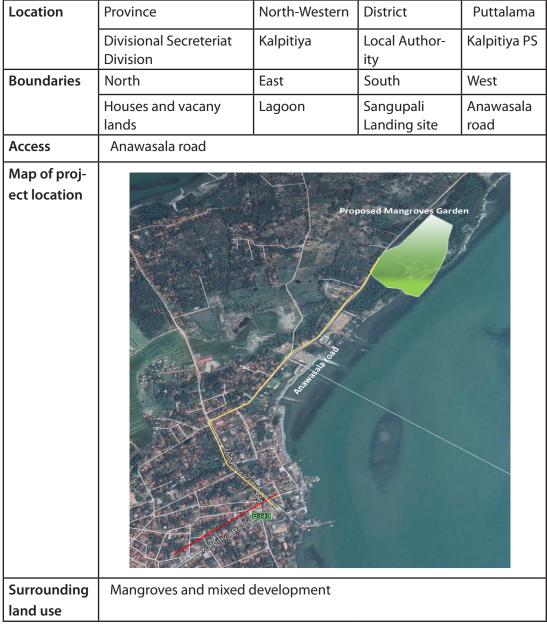
Activities	Agency	Authorized Officers
Construction of the training centre	UDA	Director/ North-Western province

Prevailing	Guidelines
Guidelines	Training Centre construction should comply with the UDA De-
	velopment Guidelines.

7.7.1.19. Development of a Mangrove garden project

Project identification

Name of the	Development of Mangrove Garden - Anawasala
Project	
Project	Development of Mangroves Garden with a view of conserving the areas of thickly-growth Mangroves
Project pro- posal	Conservation of the mangrove habitat in integration with the activities related to tourism while enhancing the natural environmental beauty which is unique to the area



Nature of	New		/	Pro-		Expan-		Land de		
the project				mo-		sion		velopm		
				tion	Y			only		
Project type	Conser-	Comn	ner-	Land-	Heri-	Relo-	Infr	astruc-	Oth	er
	vation	cial		scap-	tage	cation	ture	e facil-		
				ing		of	ities	5		
						houses				
				✓						
Project	Eco-				Social					
focus	nomic					-				
	Environ-					Physical				
	mental									
Project ob-						environme	ental	conserva	tion	
jectives				oio-divers		nvironme	ntal (charactei	and	
		eauty.	1011 01	anique	iatarar C	invironine	· · · · · · ·	criaractei	una	
Project justi-	With the v	iew of c	onsei	ving the	depletin	ig mangro	ves h	abitat, a ı	mang	rove
fication	garden wi							_		
	tourists by							_		- 1
	viewing d		_		_	_				
	boat tour the value									- 1
	from depl		CIIVII	TOTILITETIC			uie		re na	bitat

Land title	UDA				Private		State	✓	
Free/Encum- brances	yes	✓	No	If not	proposals				
CUrrentPos- session	Land R	Land Reform COmmission							
Survey Plan	Survey	plan	Suveyor's name			Plan	Land ex	tent	
Details	no.					no			
							02 Acre	s	

Project Du-	Short-term		Medium-term		Long-term				
ration	(1> year)		(1-3 years)		(3< years)	\			
Funding method	UDA/Treasury fu	JDA/Treasury funds/UDA funds/Foreign funds							
Project de-	Proposed activit	Proposed activitei in the Mangroves Garden:							
tails	ii. Develop	ment (of viewing decks of walking tacks and of meditation kiosks		ies for bout tour	ing			

Prevailing infrastructure facilities	Water		√		Power			√	
	Solid wastes manage- ment meth- od	yes	✓	no		If not prop	details o osals		
Use Zone	Mixed Development Zone I				Zone compatibility		yes		
Current position	on								

Area is under mangroves habitat



Estimated cost of the project							
Activities	Estimated Cost Rs. In Mln.						
Viewing decks construction	20						
Walking tracks construction within the Mangroves gareden	10						
Construction meditation centres	0.8						
Total Estimated Cost	30.8						

Recommended Agencies to be resposible

Activities	Agency	Authorized Officers		
Viewing decks construc-	UDA	Director/North-Western Province		
tion	Kalpitiya PS	Secretary		
Walking tracks construc-	UDA	Director/North-Western Province		
tion within the Man-	Kalpitiya PS	Secretary		
groves gareden				
Boat touring facilities	UDA	Director/North-Western Province		
through mangroves garden	Kalpitiya PS	Secretary		
Construction meditation	UDA	Director/North-Western Province		
centres	Kalpitiya PS	Secretary		

Prevaing Guidelines	Guidelines
	Building constructions should be in conformity with the Development Guidelines of the UDA

7.7.1.20. Project for initiation and management of a boat service between Wilpatthu and Gangewadiya

Project identification

Initiation of a boat service between Wilpatthu and Gangewadiya proj-
ect
Proposed to initiate a boat service from the Navy camp via the lagoon
to Gangewadiya to view the viewing Gangewadiya and its surround-
ingws

Location	Province	North-Western Province	District	Puttalama
	Divisional Secreteri-	Kalpitiya	Local Authority	Kalpitiya PS
	at Division			
Tour start	Kalpitiya navy camp			
Map of project location	Navy Camp Jetty	Boat service		gewadiya

Nature of	Na		Dua	Т	F.,		1	احتجاما		
	New	Ш.	Promo-		Ex-			d develo	op-	
the Project		🗸	tion		pan-		ment only			
					sion					
Project type	Conser-	Com-	Landscap-	Heri-	Relocat	tion	Infr	a-	Oth	1-
	vation	mer-	ing	tage	of hous	ses	stru	cture	er	
		cial					faci	lities		
		✓					✓			
Project	Econom-			Social	-	-				
Focus	ic		✓							
	ENvironj-			Physica						
	mental									
Project objectives	 i. Facilitate easy access to the tourists to reach Gangewadiaya and Wilpatthu viewing compartment. ii. Provide an enloyable journey to the tourists and thereby contribute more to the local economy. iii. Promote the attraction of the Kalpitiya town 									
Project justification	iii. Promote the attraction of the Kalpitiya town									

Project description

Project	Shot-term		Medi-		Long-term	
duration	(1> year)	✓	um-term		(3< years)	
			(1-3 years)			
Funding	Sri Lanka Navy	and the	Sri Lanka Touris	im Develo	opmewnt Authori	ty
method						
Estimated	Rs. 15 Mln.					
cost						

The jetty in existence in the Navy Camp, which is located in the Town Centre could be made use of in starting a boat service therefrom to facilitate people travelling to Gangewadiya, Wilpatthu and the Islands.



Recommended agencies to be resposible

Activities	Agencies	Authorized Officers		
Boat services	Sri Lanka Navy	Officer in Charge		
	Sri lanka Tourism Development	Director		
	Authority (SLTDA)			

Prevailing regula-	Guidelines
tuions	Complying with the rules and guidelines of the Sri lanka Navy and the SLTDA

6.7.1.21. Construction of a bridge from Thoradiya to Dutch Bay

Project identifiaction

Project name	Project for construction of a bridge from Thoradiya to Dutch Bay									
Project pro- posal	To reach the Dutch Bay island people currently use the boat services and during some seasons of the year walking along the beach via sand dunes is also possible. There is no any other way of reaching the Dutchbay easier way than this current method. Therefore, construction of a bridge to facilitate reaching Dutchbay island has been proposed.									
Project loca-	Province	North-Western	District	Puttalama						
tion	Divisional Secreteriat Division	Kalpitiya	Local Au- thority	Kalpitiya PS						
Boundaries of the bridge base	From Thoradiya (exist	ing jetty) to Mohot	:hthuwarama	at Dutch Bay.						
Map of project location		Jatty	an moad							

Nature of	New		Promo-		Expan-		Land			
the project	INCW		tion		sion		devel-			
the project			tion		SION		GCVC.			
							opment			
			ı		ı		only			
Project type	Conser-	Com-	land-	Heri-	Reloca		Infra-	Other		
	vation	mer-	scaping	tage	of hou	ıses	struc-			
		cial					ture fa-			
							cilities			
							√			
Project's	Econom-			Social						
focus	ic									
	Environ-			Physic	:al	•				
	mental						~	√		
Project objectives	ii. En lar iii. De	hance liv nd. evgelop t		ards of p	people li	ving in t	he Dutch B			
Project justification	ists As already mentioned, currently people reach the Dutch Bay by boats, which is not safe and this service is not meeting the emergency needs of the residents of the Island too. The second alternative route the people use is walking alone the beach, which is in some seasons impassable as it goes under sea water. This walking along the beach is also very hard as the people have to cross the sand dunes. All these obstacles make the journey to the Dutch Bay very difficult. However, the Dutch Bay has a great potential for tourism development, tourists would love to sea this area if a safe travelling can be provided and the residents of the Island will have many opportunities to advance their lively hood when the bridge becomes servocable. In this backdrop this project proposal has been proposed.									

Project	Short-		Medium-term	Long-term	
duration	term (1> year)		(1-3 years)	(3< years)	
Funding method	SLTDA and kalp	oitiya P	5		
Project					
Details		AND ADDRESS OF THE PARTY OF THE			

Project's Estimated Cost							
Activitie	Estimated Cost Rs. MIn						
Construction of the bridge	80						
Total Estimated Cost	80						

Recommended agencie to be responsible

Activities	Agency	Authorized officer			
Construction of the bridge	SLTDA	Director			

6.7.1.22 Project for construction of a trading centre related facilities development for sale of agricultural goods and compost fertilizer

Identification of the project

Project name	Proposed project for construction of a trading centre related facilities development for sale of agricultural goods and compost.
Project proposal	With the aim of reducing the use of synthetic fertilizer, for the benefit of minimizing the environmental pollution which is currently happening through agricultural activities, this project proposal has been made. This project could also promote the compost usage amongthe farmers in the long run that will be most beneficial in protecting the environment and thereby inspiring the tourism.

Location	Province	North-West- ern Province	District	Puttalama					
	Divisional Secreteriat Division	Kalpitiya	Local Authority	Kalpitiya PS					
Boundaries	North	East	South	West					
	Vacant land	Kalpiti- ya-Palawiya main road	The Sea and a va- cant land						
Access	Kalpitiya-Palawia	aya main road							
Map of project locationj		Main road Kalpitiya-Palawiaya main road Proposed Land							
Surrounding land use	Lands in the sur being proposed t			e many propojects					

Project natur	New		✓	Promo- tion		р	/x- an- ion		Land de- velopment only		
Project type	Conser- vation	Com- mercial		Land- scapig	Heri- tage		Reloca- tion of houses		Infrastruc- ture facil- ities	Other	
			✓								
Project's focus	Eco- nomic										
	Environ- mental	.									
Project's objectives	 i. Minimization of environmental pollution which is currently happening through agricultural activities. ii. Convert Kalpitiya a environmental friendly area. iii. Create more means of income for the for the residents of the locality. 										
Project justi- fication	undergrou chemical f proposal l and the s	The use of chemical fertilizer has not only polluting the soil but pullute the underground water sources as well. Therefore, sustainably reducting the chemical fertilizer useage has become essential. With this aim in mind this proposal has been made to safeguard the uunderground water sources and the soil of the locality though facilitating the supply of compost among the farmers.									

Land title	UDA.				Private		State		✓			
Free/Encum- brances	yes	✓	No	If not								
Current possession of the land	Posse	Possession is under the Divisional Secreteriat										
Survey plan details	Survey plan no		Surveyor's name		Date of the plan	Land extent						
							80) perc	hes			

Project du-	Short-term	,	Medium-term		Long-term			
ration	(1> year)	~	(1-3 years)		(3< years)			
Funding	UDA/ Tereasury	funds/ UDA	A funds/ Foreign fu	ınds				
method								
Project de-	The proposed	trade cent	re will include t	rading	facilities as we	ll as		
tails			for agricultural go		nd compost ferti	lizer.		
	This complex wi	This complex will be a single storied building.						

Prevailing	Water	Supply of water	Power	Power					
infrastructure		is feasible				er through the			
facilities						national grid fea-			
Solid waste		sioble							
management method	the sor	Implement a joint program with the PS to ivlove the public to collect the sorted solid wastes in to the bins that will be placed at convenient loactions to the public, and then to dispose of them appropriately.							
Use zone	Mixed	Residential Zone	Zoning compat- ibility	yes	✓	no			
	•					•			

Current position

Vacant land



Urban Development Authority 227

Estimated cost of	the project	
	Activities	Estimated Cost Rs. In MIns.
	Proposed trading stalls each with floor area of 900 sqft	5
	Proposed compost trading stalls each with a floor area of 800 sqft	4
	Total Estimated Cost	9

Activities	Agency	Authorized Officers
Construction of buildings	UDA	Director/North-Western province
Supply of water	NWS&DB	The Manager
Power supply	CEB	The Manager

Recommended agencies to be resposible

Prevailing guidelines	Guidelines
	The construction of buildings should be in conformity with the UDA Development Guidelines.

6.7.1. 23 Development of Thoradiya area that provides access to the Dutch Bay island

Identification of the project

Project name	Project for development of Thoradiya area providing access to the Dutch Bay Island
Project proposal	This project envisages to develop the Thoradiya area by making use of the existing Jetty in combination with the development of the tourism industry while providing access to the Dutch Bay Island and creating a picturesque environment to please the tourists.

Location	Province	North-Western province	District	Puttalama
	Divisional Secret- eriat Division	Kalpitiya	Local Author- ity	Kalpitiya PS
Boundaries	North	East	South	West
	Lagoon	Dry fish trade stalls	Lagoon	Lagoon
Access	Mohoththuwarama	road (Muthuwal Stree	et)	
Map of project location		ජැවිය යෝ වේමානොන්තු වි	Sික භූමිය ාරම මාර්ගය	
Surrounding land uses		ea includes dry fish tra	ding stalls, dry fi	sh workers

Nature of the project	New		✓	Promo- tion		Explored	pant-		Land de- velopment only			
Project type	COnser- vation	ı	Com- mer- cial	Land- scaping	Heri tage		Relocation of houses				Infra- structure facilities	Other
			✓	✓								
Project's focus	Economic			✓	Soci	al				✓		
	Environ- mental				Phy	sica	I					
Project's objectives	 i. Develop a pleasant environment for the tourists ii. Facilitate the dry fish traders to carry out their businesses conveniently iii. Planting trees in the surrounding area to create more shady areas bringing down the heat. 											
Project justification	convenient Currently t boat transp time until a service the which they parking fac this place f A proposal from this p	t t hi	ransportansport facility of the countries of the countrie	ort facility to facilitates lities, but of aches the great facilitates of park in the control of the facilitates of the facilit	o tho the due to jetty. ce ins an a lence nake ade to Bay Is	se vopeo o incade of the decoration of the decor	who war ple and efficience ding to t ire feelir oc man e people in as no instruct d. There re the n	the to the to ty they his issu- ng rega- ner as a are co shady a brido fore thi ecessa	rtunity to prisit Dutch Bay burists to sect have to was ue of inefficient arding their was there is no compelled to areas being of ge by the year is area develory conditions tear 2030.	v Island. ure the te their nt boat vehicles vehicle stay at created. ar 2030 ppment		

Title	UDA				Private		State	✓
Free/En- cumbrances	yes	√	No If no	ot provide deta	ils			
Current possession	Land F	Land Reform COmmision						
Details of survey plan	Plan n	0	Sur	veyor's name		Date	Land Extent	
·							1 Acre	

Project du- ration	Short-term (1> year)			Medium-term (1-3 years)	✓	Long-term (3< years)		
Funding Method	UDA/1	IDA/ Treasury funds/ UDA funds/ Foreign funds						
Project de- tails	i.	Redevelopment of existing dry fish trading stalls according to standards.						
	ii.	Constru	ction of a re	staurant for the to	urists			
	iii.	Develop	Development of a car park					
	iv.	Landscape the area to create more shady areas for the public by planting trees						

Prevailing infrastructure facilities Solid waste management method	water	Supply of water is feasible	Power		sul thi the tio gri	wer pply rough e na- nal d is asible		
		Systematize the waste collection by providing collection facilities (containers) at suitable locations						
Use zone	Mixed Deve Zone I	lopment	Zoning compatibility	Yes	✓	No		

Current poition

Coconut land



Estimated cost of the project

	Activities	Estimated Cost Rs. In MIns.
Ī	Modernization of dry fish trading stalls	10
(Construction of a restaurant	3
Ī	Development of car park	8
Ī	Landscaping	10
	Total Estimated Cost	31

Agencies recommended to be resposible

Activities	Agencies	Authorized Officers
Improvement of dry fish stalls	UDA	Directo/North-Western Province
	PS	Secretary
Construction of restaurant	UDA	Directo/North-Western Province
	PS	Secretary
Construction of a car park	UDA	Directo/North-Western Province
	PS	Secretary
Landscaping	UDA	Directo/North-Western Province

Prevailing guidelines	Guidelines
	Construction of buildings and the car park should comply the UDA Development Guidelines.

6.7.1.24. Establishment of a fresh vegetable and fruit canning industry related facilities development project

Project identification

Project name	Establishment of a fresh vegetable and fruit canning industry related facilities development project
Project proposal	Considerable share of population of the Kalpitiya area depends on agriculture, but they do not get the full benefit of the agricultural products as the surpluses are mostly wasted. This project envisages to cann the surpluss agricultural products and to market them over a longer period of time. This proposed industry is expected to facilitate this process and to stablise the market prices of the fruit and the vegetables. So the farmers will be benifitted ultimately.

Location	Province North-Western province		District	Puttalama				
	Divisional Secrete- riat Division	Kalpitiya	Local Authority	Kalpitiya PS				
Boundaries	North	East	South	West				
	Vacant Land	Vacant land	Vacant land	Vacant land				
Access	Kalpitiya-Palawiya main road							
Map of the project location		To da Lung on						
Surrounding land use	Vacant lands and	low income housir	ng areas					

Project	new			Promo-		Ex-		Land dev	vel-	
nature			\checkmark	tion		pan-		opment	only	
						sion				
Project type	Conser-	Com-	Landso	aping	Heri-	Relo-		Infra-	othe	er
	vation	mer-			tage	cation		struc-		
		cial				of		ture		
						hous	-	facili-		
						es		ties		
		✓								
Project's	Eco-				Social					
focus	nomic			✓						
	Environ-				Physica	al	I			
	mental									
Project objectives	The proposed industry could support the farmers to protect their surplusses of fruits and vegetables and stablise the price fluctuations seasonally. Thiindustry will also generate more employement opportunities to the unemployed people in the area and in the process general well being of the people will be enhanced over the time sustainably. This development will be a significant development in view of the role of the agricultural sector that plays in the overall economy of the locality. Prevailing conditions that have been made up of marketing of surpuluss agricultural products and lack of infrastructure facilities cause frustration among the farmers to engage in the agricultural activities over a longer period of time. This industry would greatly help the farmers to stay in the sector and to continue the engagement in the acricultural activities with enjoying the full benefit of this industry as it will eradicate the problems createdby the market surpluses of their products.									
Project jus- tification										

Land title	UDA				Private		State	✓	
Free/Encum- brances	yes	✓	no If n	ot provide (details				
Current pos- session	Land o	Land currenly under the Divisional Secretary's possession							
Survey plan details	Plan no		Sui	Surveyor's name		Dtae	Land ex- tent		
				_			02 Acres		

Project details

Project	Short-term		Medium-term		Long-term	
duration	(1> year)	√	(1-3 years)		(3< years)	
Funding	UDA/Treasury fund	ds/UDA	funds/ Foreign fu	ınds.		
method						
Project	Canning of fresh vegetables and fruit industry:					
details	1. Office building					
	 Industry will include two separated sections to facilitaste fruits and vegetables processing separately. Car park 					

Prevailing infrastructure facilities	Water	Supply of water is fea- sible	Power			Power: is feasil	
Method of solid waste management	A method to be imolemented with the PS to manage the solid wastes.						
Use zone	Mixed Dev Zone II	elopment	Zoning com- patibility	yes	✓	no	
Current poition	້ າ		· ·				



E	stimated project cost	
	Activities	Estimated cost Rs. In MIns
	Construction of the building with a floor area of 10,000 sqft.	40
	Total Estimated Cost	40

Activities	Activities Age		Authorized Officers
Construction of the building		UDA	Director/ North-Western province
Recommen	ded agencies to be	e responsible	
Prevailing	Guidelines		
guidelines	Construction of ment Guidelines	_	uld comply with the UDA Develop-

6.7.1.25. Project for establishment of a centre related facilities development for producing and trading of indigenous handicrafts and foods.

Identification of the project

Project name	Indigenous food and handicraft centre related facilities development Project
Project proposal	A trading centre, at the gateway to the Kalpitiya town has, been proposed to be established with a view of reflecting the uniqueness of Kalpitiya where indigenous foods and handicrafts will be on display for trading purposes to impress upon the tourists. This project will attract the tourists in the first place and thereby the income of the people involved in it will be promoted. The handi crafts will be produced at this centre to display the process to the visitors. The food items also will be processed at this centre in order to display the indigenous food processing methods to the visitors.

Project location

Location	Province	North-Wetern Province	District	Puttala- ma
	Divisional Secret- eriat Division	Kalpitiya	Local Author- ity	Kalpitiya PS
Boundaries	North	East	South	West
	Vacant land	Kalpitiya-Palawiya main road	Vacant lands and wetlands	The sea
Access	Kalpitiya_Palawiy	a Main road		
Map of project location			Poposed	
Surrounding Land use	An area with Vaca	nnt lands, wetlands, a	nd salterns	

Project justification

Nature of	New	П		Promo-		Exp	ansion		Land	
the project			✓	tion					develop-	
									ment only	
Project type	Conser-	C	Om-	Land-	Her	i-	Reloca-		Infra-	Other
	vation	n	ner-	scaping	tag	e	tion of		structure	
		c	ial				houses		facilities	
			✓							
Project's	Econom-				Soc	ial				
focus	ic			✓						
	Environ-	Г			Phy	sical				
	mental									
Project's										
objectives				omotion for he income l						
Project justi-	It has bee	n d	observ	ved that the	farr	ners	are loos	sing	their enthus	iasm in
fication			_				•		to multiple r	
					_			_	iculture this	
	1 ' '								better oppoural products	· · · · · ·
	1 -			•		_	_		so possible t	
			_				_		come. Furth	
									people to p	
	handicrafts and to display its process to interest the visitors. The tourists									
		ove to experience the handi craft producing process and to own some of								
		hem so that they take them to their own countries as souvenirs to help hemselves memorizing their experiences. Kalpitiya needs good food								
		themselves memorizing their experiences. Kalpitiya needs good food centres to serve the visitors as currently such places are lacking there.								
	This propo	se	d cent	tre will meet	that	nee	d too.			

Project details

Land title	UDA					Private		State	✓	
Free/Encum- brances	Yes	✓		No		If not pro	vide			
Details of current possession	Under	the pos	ses	sion of t	he idivi	sional Seci	reteriat Di	ivision		
Survey plan details	Plan n	an no Surveyor's name				Dtae	Land Extent	:		
acturis .								01 Acre		

Project details

Project du-	Short-term	,	Medium term		Long-term			
ration	(1>year)	√	(1-3 years)		(3 <years)< th=""><th></th></years)<>			
Funding	DPt. Of Small Indu	stries, A	gricultural Minist	ry and	d Fisheries Ministry	,		
method								
Project de-	This centre will be	This centre will be a single storied building with provision of floor spaces						
tails	for the following,							
	i. Vegetable	i. Vegetable and fruit stalls						
	ii. Handy cra	. Handy craft trading stalls						
	iii. Indigenou	s food s	talls					

Prevaing infrastructure	Water	Water	Power			Supply	is
facilities		supply is				feasible	<u>;</u>
Solid waste manage-		feasible					
ment method	Implement a waste management program with the PS						
Use zone	Mixed Development Zone II		Compatibility with the use zone	yes	√	No	
Current position						'	

vacant land



Estimated cost of the project							
Activities	Estimated cost Rs. in MIns.						
Construction of handi craft trading stalls, each with	1						
150 sqft of floor space							
Fresh vegetable and fruit trading stalls each with 200	1.2						
sqft of floor space							
Indigeneous food stalls each with 250 sqft of floor	1.5						
space							
Total Estimated cost	3.7						

Recommended agencies to be resposible

Activities	Agencies	Authorized Officers
Construction of handicraft stalls	UDA	Director/ North-Western province
Vegetable and fruit stall construction	UDA	Director/ North-Western province
Indigeneous food stall	UDA	Director/ North-Western province
constructions		

Prevailing guide-	Guidelines
lines	
	Construction of buildings should be in conformity with the UDA
	Development Guidelines

6.7.2. Framework of the responsible Agencies

Plan	Sectoral-Plan and the ongoing projects	Relevant Agency	Agency responsible for project implementation
Supply plan	Setor plan		
	1.Housing plan		
	i. Official residential quarters for Government Officcers	1. National Housing Development Authority	
		Urban Development Authority	Preparation of Building plans & provide consultancy services
		3.	
	ii. Fishermen"s housing project	1.Dept. of Fisheries and Aquatic Resources	
		2.	
		3.	
	Sectoral Plan		
	2. Health Plan		
	i. Relocation and development of new hospital	1.Provincial Health Dpt.	
		2.Kalpitiya PS	
	Ongoing Projects	3.	
Transport	Ongoing Projects	1 Kalatria DC	<u> </u>
Plan	i. Town Centre road development project	1. Kalpitiya PS	
Tan	development project	2.	
	ii. Road development out side	3.	
	the town area	2.	
	the town area	3.	
	iii. Construction of pavement		
	project	Kalpitiya PS 2.	
	project	3.	
	iv. Construction of a bridge from Tharandiya to Dutch Bay Island	1.Road Development Authority	
		Kalpitiya PS	
		3.	

	Ongoimg Projects		
Water sup- ply plan	i. Desalination projerct	1. national Water Supply & Drainage Board	
		2.	
		3.	
	ii. Water Supply scheme of the Kalpitiya PS area	1. National Water Supply & Drainage Board	
		2.	
Power	i.	1.	
supply and		2.	
distribution plan		3.	
Waste water	i. Waste water and sewerage	1. Kalpitiya PS	
and sewer	disposal project within the	2.	
disposal plan	town area	3.	
Solid wastes	i. Expansion of the existing	1. Kalpitiya PS	
manage-	solid waste management	2.	
ment plan	centre	3.	
	ii. Establishment of a solid	1. Kalpitiya PS	
	waste management centre in	2.	
	Norochchole	3.	
	1. Refurbishment of Punlic	Kalpitiya PS	
	market	2.Urban Development Authority	Provide building plans and consultancy services
Economic	1 Aquiqueltual contou plan	3.	
Plan	1. Agricultral sector plani. Re-development of	1. Kalpitiya PS	
	Economic Centre at Norochchole	2. Urban Development Authority 3.	Provide building plans and consultancy services
	ii. Agricultural goods trading centre	1. Dpt. of Agricultural Development 2.	
		3.	

::: Fatablish	1	
iii. Establishment of agro farm	1.	
	2.	
	3.	
iv. Establishment of vocation-	1.	
al training centre	2.	
	3.	
2.Fisheries Development Plan		
i. Fisheries Harbour develop-	1. Port Devel-	
ment	oplment Author-	
	ity	
	2. Kalpitiya PS	
	3.	
ii. Fisheries boat landing sites	1. DPt. of	
development	Fisheries and	
•	Acquatic	
	resource	
	Development	
	2.	
	3.	
3. Tourism Development Plan	3.	
i. Dutch Church refurbish-	1. Dpt. of	
ment project	Archeology	
ment project	2. Kalpitiya PS	
	3.	
ii. Refurbishment of Dutch For-		
tress for touirsm	Archeology	
	2. Kalpitiya PS	
iii. Develop a pedestrian walk	1Dpt. of	
way from Dutch Church to the	Archeology	
Dutch Fortress	2. Kalpitiya PS	
	3.	
iv. Kandakuliya Beach Garden	1. Kalpitiya PS	
development project	2.UDA	Provide building
		plans and consultan-
		cy services
	3.	
v.Development of walking	1. Kalpitiya PS	
tracks	2. UDA	Provide building
		plans and
	2	consultancy services
	3.	

vi. Development of Holiday	1.	Kalpitiya PS
Circuit Bungalow	2. UDA	Provide building plans and
		consultancy services
	3.	
vii. Development of	1.Kalpitiya PS	
Mangrooves Garden	2.UDA	Provide building plans and consultancy services
	3.	
viii. Initiation of Boat	1.Sri Lanka Navy	
Service from WIIpaththu to	2.	
Gangewadiya.	3.	





Chapter 07

Development Zones and Zoning Guidelines

7.1. Introduction

Kalpitiya Development Plan (2021-2030) is developed to achieve the vision of "Blue Peninsular Emerging from The Nature Resort" based on the expected development. This development plan has introduced goals and objectives to achieve the vision for the next 10 years. In addition, six strategic plans have been introduced for the implementation of these goals and objectives. The land and Building Development Strategic Plan is one of the said strategic plans.

Especially, beyond the traditional land use and traditional zoning plans, this plan will provide the opportunity for development based on the density, and it is intended to create the proposed urban form.

In this chapter, development zones and zoning guidelines have been described in detail. In here, development zones, zoning factor, permissible uses for development zones and common guidelines affecting those development zones have been described.

It can be said that the preparation of this zoning plan and its boundary verification is a result of several spatial analyses related to the planning area. The planning concept of the Kalpitiya development plan (2021-2030), the development pressure analysis, the sensitivity analysis, liveability analysis and potential space analysis, the distance from main cities and the expansion of infrastructure facilities have used to identify these zones.

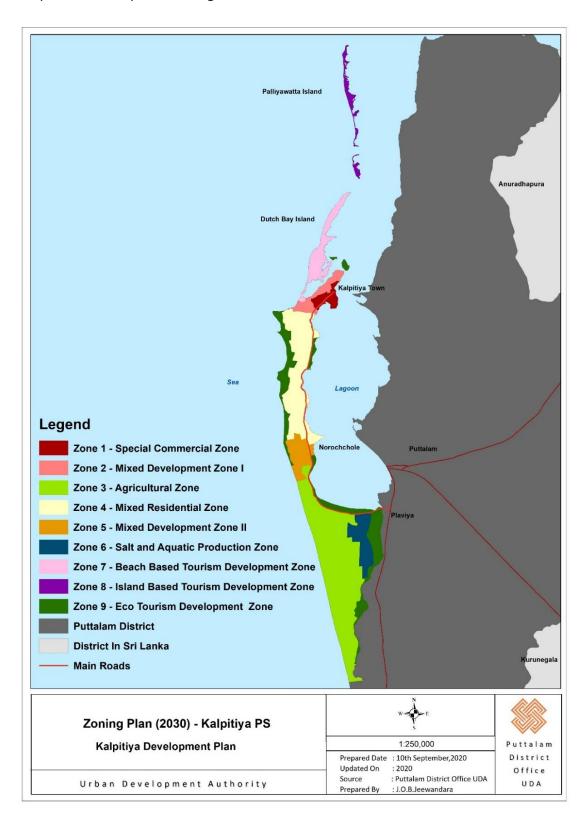
7.2. Development Zones

Table no: 7.2.1. Development Zones

Zone No:	Name of Zone	Area of Zone (sq.k.m.))	Total Area (%)
1	zone 1- Special Commercial Zone	11.18	0.04315257
2	Zone 2-Mixed Development Zone I	9.60	0.037062725
3	Zone 3- Agricultural Zone	99.97	0.385987582
4	Zone 4- Mixed Residential Zone	44.87	0.173254382
5	Zone 5- Mixed Development Zone II	12.63	0.048749582
6	Zone 6- Salt and Aquatic Production Zone	15.51	0.059895076
7	Zone 7- Beach Based Tourism Development Zone	10.77	0.041586301
8	Zone 8- Island Based Tourism Development Zone	6.29	0.024276713
9	Zone 9- Eco Tourism Development Zone	48.18	0.186035069
Total		259	1

The Kalpitiya council area was identified under 09 zones.

Map No 7.2.1. Proposed Zoning Plan 2021-2030



7.3. Zoning Factor

The zoning factor is a new concept introduced to replace the practically implemented land area ratio. This determines the maximum amount of development that can be done within the space available in a given area. In particular, it gives the property owner a fair opportunity to carry out his development.

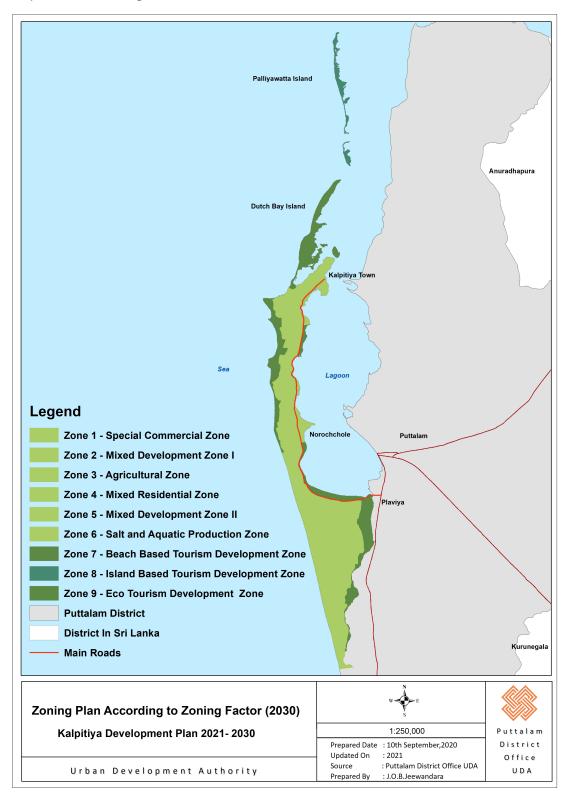
Kalpitiya Development Plan (2021-2030) is expected to be a density based development in the area by the year 2030. Particularly high density is expected in Special Commercial Zone, Mixed Development Zone I, II, Mixed Residential Zone, Agriculture Zone, Salt and Aquatic Production Zone and Tourism Development Zone respectively.

Looking at the cross-section of the city, it is expected that the conceptual plan of the future city will show a gradual sinking from the center of the main city to the boundary of the design area. Accordingly, the method of calculating the zoning coefficient of the Kalpitiya Development Plan is given in Forms A, B and E

Note: Determination of Permissible Floor area for developments According to the Form 'A' 'B' in Schedule 6 to Part IV of the Extraordinary Gazette Notification No. 2235/54 dated Thursday 08th July 2021, the coefficients applicable to the Kalpitiya Development Plan indicated by Table No: 7.1 and 7.2

In determining the open space of the building pertaining to the said permissible floor area, the form 'E' of the above Gazette is indicated and it is specified in the Kalpitiya Development Plan Table No: 7.3

Map No 7.3.1. Zoning Factor 2021-2030



Schedule I

ıtio
Area Ra
Permitted Floor Area Ratio
rmitted
- Pe
Form A
0 71.
Table No 71. Form A -

Minimum Road Midth	ne fac	tor = 0.50	- 0.74	Zon	e factor	= 0.75-U	6:	Zon	e factor =	1.00-1.2	4	Zone	factor =	1.25-1.49		Zone	factor =	1.50-1.74	\dashv	Zone fa	ctor = 1.	75-1.99	7	Zone fact	or = 2.00	-2.24
4 4 <th>Ĭ.</th> <th>m Road Wi</th> <th>dth</th> <th>Σ</th> <th>nimum F</th> <th>Road Wid</th> <th>th.</th> <th>Μin</th> <th>imum Ro</th> <th>ad Width</th> <th></th> <th>Mini</th> <th>mum Roa</th> <th>ad Width</th> <th></th> <th>Mini</th> <th>mum Ros</th> <th>d Width</th> <th></th> <th>Minim</th> <th>ım Road</th> <th>Width</th> <th></th> <th>Minimur</th> <th>Road W</th> <th>idth</th>	Ĭ.	m Road Wi	dth	Σ	nimum F	Road Wid	th.	Μin	imum Ro	ad Width		Mini	mum Roa	ad Width		Mini	mum Ros	d Width		Minim	ım Road	Width		Minimur	Road W	idth
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1 1 1 1 1 1 1 1 1 2 2	1	┝	1.7	1.5	1.8	2.2	2.5	2.1	2.4	2.9	3.3	⊢	┝	┝	4.0	3.1	H	⊢	⊢	2	H	┝	┝	4.5	5.7	6.5
1 1 1 1 1 1 2 2 2 2	17	H	1.8	1.6	1.9	2.3	2.7	2.2	2.5	3.0	3.6	2.7	┝	⊢	4.5	3.2	⊢	⊢	H	⊢	H	┝	H	2.0	6.1	8.0
1 1 1 1 1 2 2 2 2 2	Ţ,		2.0	1.7	2.1	2.5	3.0	2.3	2.7	3.4	4.0	2.9			5.0	3.4								5.1	6.7	9.0
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This part This	i		2.8	2.5	2.8	3.5	4.0	3.0	3.8	4.5	5.5	3.5	_	9.0	H	4.0		H			H	6		H	8.0	*12
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θe fe	Minim	m Road Wi	dth	Ξ̈́	nimum R	Road Widt	۽ ا	Αin	imum Ro	ad Width	1_	Mini	mum Roa	id Width	\dagger	Mini	num Roa	d Width	+	Minim	ım Road	Width	-	Minimum	Road Wi	dth
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20 Colon School	shall k	e conside	red for	the roads	; identif	fied as 7.	m wide	road in	the parti	icular de	evelopm	าent Plar	_													
r parking shall no may be in from N			Factor = 0.50	Fig. 20	F F F F F F F F F F	Land extent Xone factor = 0.50 - 0.74 Zone factor = 0.75 - 0.75 Zone factor = 0.75 - 0.75 Zone factor = 0.75 - 0.75<	F F F F F F F F F F	Cand extent	F F F F F F F F F F	Fig. Fig.	Fig. Fig.	Factors 1,500 - 0,74	Fig. Fig.	6 Egg Egg	Color Colo	The field of the control of the con	Simple S	1 1 1 1 1 1 1 1 1 1	Sone factor = 1.00-1.24 Zone factor = 1.251-1.49 Zone factor = 1.251-1.49 Zone factor = 1.251-1.49 Zone factor = 1.251-1.49 Zone factor = 1.251-1.40 \$\tilde{\text{p}}\$ \$\tilde{\text{p}}\$	Some factor = 1,00-1,24 Zone factor = 1,20-1,14 Zone factor = 1,50-1,14 Zone factor = 1,	Maintann Road Width Minimum Road Width Mini	Fig. Fig.	Total Fatical Total Fatical Total Fatical Total Fatical Fatical Total Fatical Tota	Figure F	Transference = 1,00-1,24 Transference = 1,25-1,499 Transference = 1,10-1,144 T	Figure F

Table No 7.2 - Form B - Number of Floors for 3.0m & 4.5m wide Roads

	Form B	- Number o	f Floors for 3	.0m & 4.5m v	vide Roads	
Minimum	Minimum			Maximum N	umber of Floo	ors
Road	Site	* Plot	Zone	Zone	Zone	Zone Factor
Width	Frontage	Coverage	Factor 0.5	Factor	Factor	3.50 - 4.00
Widti	Tromage		- 0.74	0.75 - 1.24	1.25 - 3.49	3.30 - 4.00
3m	6m	65%	1 (G)	2 (G+1)	3 (G+2)	3 (G+2)
4.5m	6m	65%	1 (G)	2 (G+1)	3 (G+2)	4 (G+3)

Number of floors are indicated including parking areas

Number of units allowed for each road shall not be changed

Table No 7.3 - Form E - Setbacks & Open Spaces

		Forr	n E - S	etbacl	ks & Op	en Spa	ces			
		Minimum	Plot Co	verage*	Rear Spa	ace (m)	Side Spac	e (m)	Light We	II for NLV
Building Category	Building Height (m)	Site Frontage (m)	Non Resi- dential	Resi- dential	When no NLV is taking this end	When NLV is taking this end	When no NLV is taking this end	When NLV is taking this end	Mini- mum width	Mini- mum Area
	less than 7	6	80%**	65%	2.3m	2.3m	-	2.3m	2.3m	5 Sq.m
Low Rise	7 less than 15	6	65%	65%	3.0m	3.0m	-	3.0m	3.0m	9 Sq.m
Inter Mediate Rise	15 less than 30	12	65%	65%	4.0m	4.0m	1.0m and 3.0m	4.0m	4.0m	16 Sq.m
Middle Rise	30 less than 50	20	65%	65%	4.0m	5.0m	3.0m both side	5.0m	5.0m	25 Sq.m
High Dies	50 less than 75	30	50%***	50%***	5.0m	6.0m	4.0m both side	6.0m	6.0m	36 Sq.m
High Rise	75 and above	Above 40m	50%***	50%***	5.0m	6.0m	5.0m both side	6.0m	6.0m	***

NLV - Natural Light & Ventilation

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

^{*} Where no plot coverage specified under the zoning regulations

^{*} Where no Plot Coverage specified under the zoning regulations

^{**} The entire development is for non-residential activities

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

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

7.4. Common Guidelines of Zoning

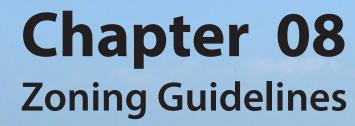
These guidelines apply to the entire area within the administrative limits of the Kalpitiya Pradeshiya Sabha Area which has been declared as an Urban Development Area in the Extraordinary Gazette Notification No. 1564/9 and dated27th August2008 under Section 3 of the Urban Development Authority Act No. 41 of 1978.

In addition to the provisions of this zoning plan, the Planning and Development Regulations Applicable to any development work is regulated by the Gazette Notification No 2235/54 dated 08th July 2021. The said legalized Planning and Development Regulations also apply to the Kalpitiya Pradeshiya Sabha Area.

- 1. A barrier zone should be maintained for wetlands, willows, beach and lagoons within the jurisdiction of the Pradeshiya Sabha as follows.
 - i. A barrier zone of 15m should be maintained for willows.
 - ii. A barrier zone of 15m should be maintained from the wet land boundary.
 - iii. A barrier zone of 30m should be maintained from the beach and lagoon.
- 2. Maintaining reserves along the coast and lagoons and subject to the rules and guidelines of the relevant institutions.
- 3. Tourist Hotels, Industries and when developing more than 400 hotels and lodges, a treatment plant must be installed and maintained to treat the wastewater.
- 4. All the development work should be carried out within the building approved for the purpose, unless otherwise directed by the Authority
- 5. The construction of several separate buildings within one plot of land or to carry out separate development activities within it shall not be permitted unless the Authority otherwise dictates.
- 6. In addition to the residential use approved by the residential building, it is permissible for any other use that is in conformity. In such case, the maximum extent for such use. 25 Sqm. and facilities, including sanitary facilities, should be independently provided.
- 7. Residential activities may be allowed in all zones subject to the provisions set out in each zone.
- 8. Provisions imposed by other institutions shall apply to all development activities in addition to the provisions of this Plan.

- 9. The boundary walls are not permitted except for plant fences or similar structures on landing ground that is connected to waterways.
- 10. Construction and development of playgrounds and parks shall comply with the specifications of the plan for recreational development provided by this plan.
- 11. In addition to the uses set out separately in the relevant zone, other uses may be permitted subject to conditions, if the Authority is satisfied.
- 12. No reclamation of wetlands existing in the Pradeshiya Sabha area will be permitted.
- 13. No part of the building beyond the building line, that is, cantilever, enclosure, balcony, attic or any other part shall be extended.
- 14. The following command applies to line houses.
 - I. When the line houses are being built, the common wall should be constructed in such a way that the common wall separates the two walls and the thickness of the cavity must not be less than 1/3 thickness in double walls.
 - II. If there is a fire in the line houses, every common wall must be erected up to a height of 1 m in order to prevent the spread. This common wall must be made of fireproof materials.
- 15. According to zoning, if a land belongs to two or more zones, then the guidelines of the zone in which most of the land belongs should be applied to it.
- 16. A plot of land or any property belonging to any zone in the Development Plan shall not be used for any other use permitted within that relevant zone.
- 17. Adequate parking facilities should be provided within the premises according to the size of the building and parking will not be permitted within the building limits.
- 18. The Department of Archeology shall make any changes or repairs in the areas registered as protected monuments, conservation sites, excavated sites and proposed sites for conservation in the Kalpitiya Pradeshiya Sabha Area within the recommendation of that department.
- 19. Approval of the relevant Ministry of Religious Affairs and the Divisional Secretary should be obtained for the construction of places of worship in all zones.
- 20. In all development activities, the remaining land area should not be used as a solid surface in any way except for the plot cover.
- 21. Building restrictions should be placed on canals owned by the Local Government Institution, canals owned by the Irrigation Department and canals owned by the Agrarian Services Department on the recommendation of the relevant institutions.
- 22. At the discretion of the Urban Development Authority, plant ladders, barbed wire fences and barrier walls connecting the waterways to the waterways will be allowed boundary wall with holes for rainwater drainage.

- 23. The minimum width of the access road should be 9 meters for all the development over 600 sqm except residential and tourist hotel developments.
- 24. Preliminary planning Clarence of the Urban Development Authority should be obtained for all development activities exceeding 400 sqm of non-residential uses.
- 25. According to the Extraordinary Gazette Notification No. 1468/15 dated 17.10.2006, all buildings should provide facilities with proper standardization to persons with disabilities.
- 26. It is not recommended to remove all natural sand dunes and if any removal is done, the recommendation should be obtained from an EIA report.





Chapter 08

Zoning Guidelines

8.1. Special Commercial Zone

Map No 8.1. Special commercial Zone

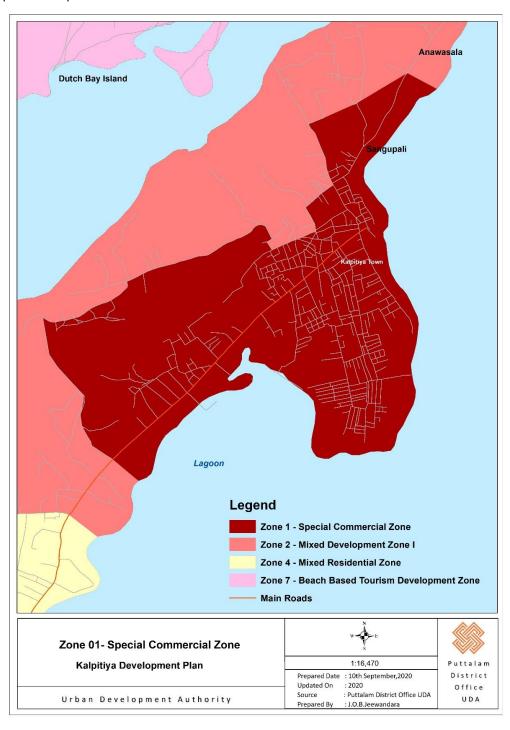


Table No 8.1. Special commercial Zone

Zone No	01
Development Zone	Special commercial Zone
Zonal Interpretation	The objective of establishing this zone is to provide the people living in the Kalpitiya Pradeshiya Sabha area and providing necessary services to the people who come to the area as well as to provide a service where a service is provided only through the supply of infrastructure.
Zoning Factor	1.40
Boundary (Geo-coordinates)	Annexure 2.1
Approved Height Limit	Depending on the zone coefficient
Approved Plot	Residential - Max 66%
Coverage	Commercial - no more than 80%
	Government and Public Use - A maximum of 60%
Common	i. Minimum land area commercial: 06 & Residential Perch. 08
Requirements for the Zone	ii. Parking space at the premises will be provided on the premises or through common parking lots.
	iii. Lagoons, canals and low-lying areas in this zone should be maintained in the same way.
	iv. When developing a project in this region, the recommendations should be obtained from the institutions concerned

No	Permitted Uses	Minimum Plot Size (Sqm)
	Hairdressing / Beauty Institutions	150
	Retailer Outlets	150
	Fish Outlet	150
	Meat Outlet (Processed meat only)	150
	Liquor Shop	150
	Storage/Warehouse related to fishing	750
	Bakery	300
-	Other Parts of vehicle	500
ŗĠ	Restaurant	500
Commercial	Tourist Hotels	500
шo	Eco friendly restaurants	500
O	Tourist Centers	500
	Fisheries	500
	SPA	500
	Daycare	500
	Film Halls	1000
	Fitness Centers	1000
	Fancy Goods Outlets	150
	Book Shops	150
al	Residential Homes	200
Residential	Flats	500
	Apartments	500
Education	Pre schools	500
	Government Hospitals	4000
£	Private Hospitals	2000
Health	Pharmacy	150
Ĭ	Medical Counselling Centers	500
	Ayurvedic Medical Centers	500
	Community Halls / Cultural Centers	500
	Library	500
on	Fuel Stations	1000
Ш	Common Car Parks	1000
Common	Children Parks	2000
	Parks	2000
	Open Areas	1000

	Landscape Areas	1000
	·	
	Environmental Monitoring Centers	500
	Natural Parks	500
	Jogging Tracks	
	Viewing Compartments	
	Information Centers	1000
Administrative	Government Offices	1000
	Government Offices Complex	2000
	Professional offices	150
Bank	Banks, Financial Institutions	1000
	ATM Centers	150

8.2. Mixed Development Zone

Map No 8.2. Mixed Development Zone I

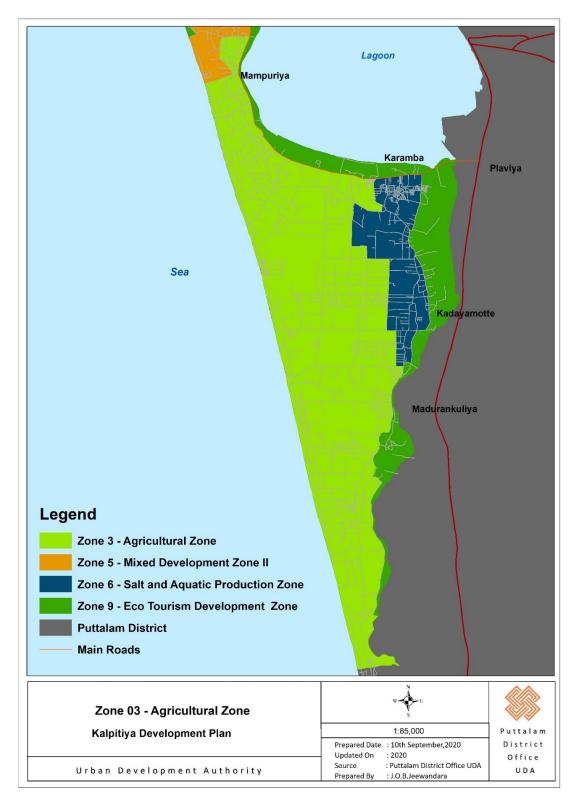


Table No 8.2. Mixed Development Zone I

Zone No	02
Development Zone	Mixed Development Zone I
Zonal Interpretation	To convert this zone into a mixed development zone in the commercial residential and industrial sector
Boundary (Geo-coordinates)	Annexure 2.2
Zoning Factor	1.33
Approved Height Limit	Depending on the zone coefficient
	Residential 66%
Approved Plot Coverage	Non-residential 80%
	tourist hotels 50%
	I. Minimum Area - Per. 12
Common Requirements for the Zone	II. There should also be room for parking stops in the land or common parking hemmers.
	III. Lagoons, drains, paddy fields in this region should be maintained in such manner.
	IV. When developing a project in this region, the recommendations should be obtained from the institutions concerned.

No	Permitted Uses	Minimum Plot Size (Sqm)
	Hairdressing / Beauty Institutions	300
	Fitness Centers	300
	Retailer Outlets	300
	Wholesale Outlets	750
	Branch Outlets	750
	Fish Outlet	300
	Meat Outlet (Processed meat only)	300
	Building materials shops i. Sand, mate, cement, wire, tube, material.	750
	ii. Other Building Materials	750
	Liquor Shop	300
	Storage/Warehouse related to fishing	1000
	Bakery	300
	Auto Parts Storefronts	
_	i. Body Parts	300
ŗĊ.	ii. Other Parts	
me	Wooden shops	300
Commercial	Tourist Hotels	1000
Ŭ	Restaurant	300
	Holiday Resorts	1000
	Reception Hall	300
	Vehicle sales points	1000
	Auto repair stations	300
	Service Centers	1000
	Vehicle Washing Centers	1000
	Handicraft products / Indoor Industries (non-polluting)	300
	Film Halls	1000
	Lodges	500
	SPA	500
	Community Halls / Cultural Centers	1000
	Outdoor Theaters	1000
	Information Centers	300
	Solar power plants	2000
	Residential Homes	300
_	Flats	300
ıtia	Apartments	300
Residential	Hostels	500
esi	Housing Complex	2000
Ř	Pre School	1000
	Elderly Homes	1000

	Community of Control	2000
Education	Government and Semi government schools	3000
	International Schools	3000
	Government / Private Universities	3000
	Technical Collage and vocational training institutions	3000
	Vocational training institutions	3000
	Pre School	1000
	Institutions for tertiary education courses	1000
	Tuition Classes	1000
	Government Hospitals	4000
ŧ	Private Hospitals	1000
Health	Laboratory services	300
エ	Pharmacy	300
	Medical Counselling Centers	300
	Sports centers are Indoor,	1000
	Libraries	300
	Fuel Stations	1000
	Gas and electricity (filling stations for vehicles)	1000
	Common Car Parks	1000
	Children Parks	1000
Common	Parks	1000
E	Open Areas	1000
ပိ	Landscape Areas	1000
	Community Halls / Cultural Centers	1000
	Outdoor theaters	1000
	Information Centers	1000
	Environmental Monitoring Centers	1000
	Jogging Tracks	
	Viewing Compartments	
iive	Government Offices	300
stra	Government Offices Complex	1000
Administrative	Professional offices	1000
논	Banks, Financial Institutions	1000
Bank	ATM Centers	300

8.3. Agricultural Zone

Map No 8.3. Agricultural Zone

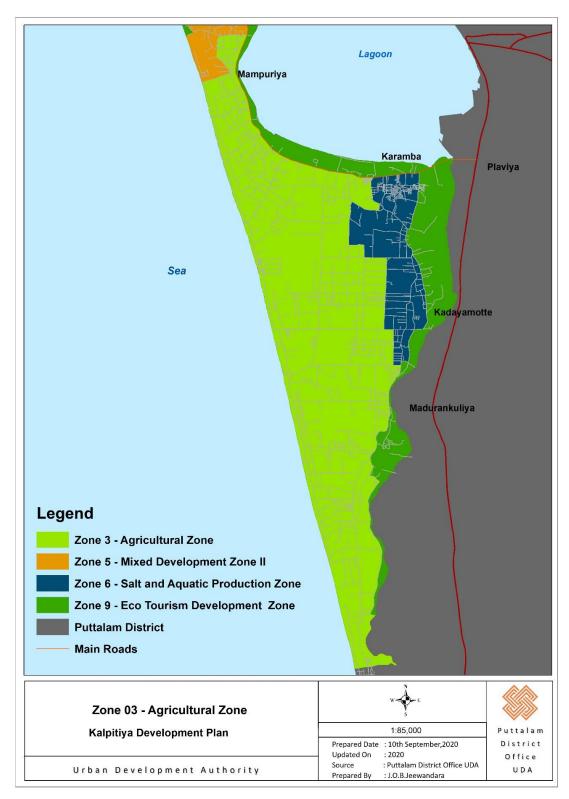


Table No 8.3. Agricultural Zone

Zone No	03		
Development Zone	Agricultural Zone		
Zonal Interpretation	The objective of this zone is to develop a high-density zone by providing for the development of agriculture and fisheries development as well as the need to expand the population within the existing vacant lands.		
Boundary (Geo- coordinates)	Annexure 2.3		
Zoning Factor	1.04		
Approved Height Limit	Depending on the zone coefficient		
Approved Plot	Residential 66%		
Coverage	Non-residential 80%		
Common	I. Minimum Area - Per. 12		
Requirements for the Zone	II. There should also be room for parking stops in the land or common parking hemmers.		
	III. Lagoons, paddy fields in this region should be maintained in such manner.		
	IV. When developing a project in this region, the recommendations should be obtained from the relevant institutions.		

No	Permitted Uses	Minimum Plot Size (Sqm)
	Sports centers are Indoor,	1000
	Retailer Outlets	375
	Meat Outlet (Processed meat only)	375
	Bakery	375
	Tourist Hotels	1000
	Holiday Resorts	1000
la l	Reception Halls	1000
Commercia	Handicraft products / Indoor Industries (non-polluting)	1000
E	Agricultural raw material based industries	1000
00	Eco-friendly restaurants	1000
	Eco-friendly centers	1000
	Tourist Centers	1000
	Lodge	1000
	SPA	375
	Liquor	375
	Restaurant	375
	Residential Homes, rural	375
)	Apartments	1000
der	Hostels	1000
Residential	Day-care	1000
	Elderly homes	1000
Education	Pre School	1000
	Government Hospitals (Dispensaries)	3000
ج	Small Private Hospitals	3000
Health	Small Dispensaries Government – Private	375
ヹ	Pharmacy	375
	Ayurvedic Medical Centers	375
	Libraries	375
	Outdoor theaters	1000
	Children Parks	1000
ے	Parks	1000
Common	Open Areas	1000
l uc	Community Halls / Cultural Centers	1000
Ŭ	Fitness Centers	1000
	Information Cnters	375
	Natural Parks	1000
	Jogging Tracks	

	Environmental Monitoring Centers	
	Viewing Compartments	
	Fuel Stations	1000
	Gas and electricity (filling stations for vehicles)	1000
	Common Car Parks	1000
Ve	Vocational Training Centers	1000
rati	Government Offices	1000
Administrative	Professional offices	375
Bank	Banks, Financial Institutions	375
Ва	ATM Centers	375

8.4. Mixed Residential Zone

Map No: 8.4. Mixed Residential Zone

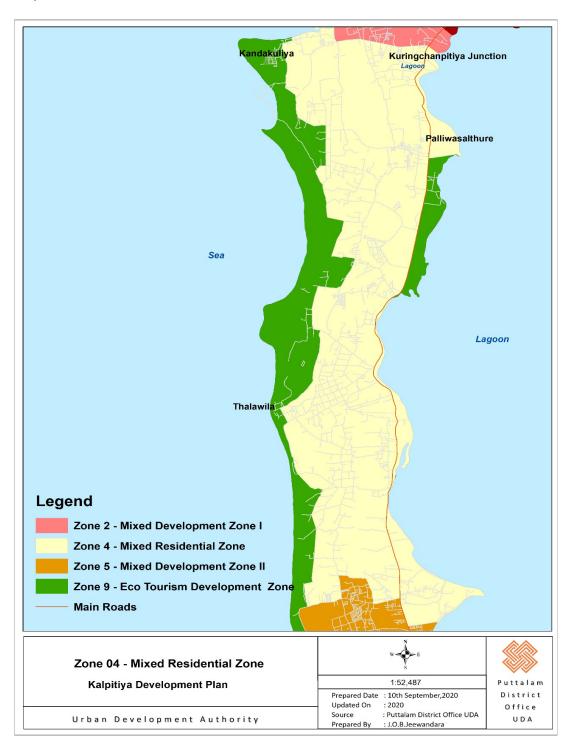


Table No: 8.4. Mixed Residential Zone

Zone No	04		
Development Zone	Mixed Residential Zone		
Zonal Interpretation	Providing facilities to spread the population in vacant land where the agricultural sector is in a position to promote agriculture		
Boundary (Geo-coordinates)	Annexure 2.4		
Zoning Factor	1.21		
Approved Height Limit	Depending on the zone coefficient		
	Residential 66%		
Approved Plot Coverage	Non-residential 80%		
	Tourism Hotel 50%		
	i. The minimum land area per. 12 (300 square meters)		
Common Requirements for the Zone	ii. There should also be room for parking stops in the land or common parking hemmers.		
	iii. Lagoons, lagoons, paddy fields in this region should be maintained in such manner.		
	iv. Appropriate recommendations should be obtained from the institutions concerned when developing a project in this region.		

No	Permitted Uses	Minimum Plot Size (Sqm)
	Hairdressing / Beauty Institutions	300
	Film Halls	1000
	Retailer Outlets	300
	Branch Outlets	500
	Fish Outlet	300
	Meat Outlet (Processed meat only)	300
	Building materials shops	
	i. Sand, mate, cement, wire, tube, material.	1000
	ii. Other Building Materials	
	Bakery	300
<u>la</u>	Liquor Shop	300
Jero	Tourist Hotels	1000
Commercia	Restaurant	300
Ö	Holiday Resorts	1000
	Lodge	1000
	Reception Hall	1000
	Eco friendly restaurants	300
	Tourist Centers	300
	Handicraft products / Indoor Industries (non-polluting)	1000
	Stores and Warehouse	1000
	Wholesale stores	1000
	Wooden Shops	300
	Vehicle sales points	1000
	SPA	300
=	Residential Homes	300
ntia	Flats	1000
de	Apartments	1000
Residenti	Hostels	1000
<u>~</u>	Housing Complex	2000
	Pre School	1000
	Agro Research Institutions and Training Institutes	1000
	Government and semi government schools	2000
Education	International schools	2000
cat	Government and private universities	4000
n D:	Technical schools	4000
	Vocational training institutions	2000
	Institutions for tertiary education courses	2000
	Tuition Class	300

Laboratory services 300			
Medical Centers 500		Medical Advisory Service Centers	2000
Pharmacy 300		·	300
Government Hospitals 2000		Medical Centers	500
Government Hospitals 2000	alth	Pharmacy	300
Government Hospitals 2000	He	Ayurvedic centers	300
Private Hospitals 2000		Government Hospitals	4000
Libraries 300		Dispensaries	2000
Day care		Private Hospitals	2000
Elderly Homes		Libraries	300
Fitness centers 2000		Day care	300
Fuel Stations		Elderly Homes	2000
Children Parks		Fitness centers	2000
Parks 1000		Fuel Stations	1000
Landscape Areas 1000		Children Parks	1000
Landscape Areas 1000	non	Parks	1000
Landscape Areas 1000	mm	Open Areas	1000
Sports centers (Indoor) Outdoor Theaters Cultural Centers Community Halls Gas and electricity (filling stations for vehicles) Government Offices Professional offices 300	Ö	Common Car Parks	1000
Outdoor Theaters 2000 Cultural Centers 500 Community Halls 2000 Gas and electricity (filling stations for vehicles) 1000 Government Offices 1000 Professional offices 300		Landscape Areas	1000
Cultural Centers 500 Community Halls 2000 Gas and electricity (filling stations for vehicles) 1000 Government Offices 1000 Professional offices 300		Sports centers (Indoor)	2000
Community Halls Gas and electricity (filling stations for vehicles) Government Offices Professional offices 300		Outdoor Theaters	2000
Gas and electricity (filling stations for vehicles) Government Offices Professional offices 300		Cultural Centers	500
Government Offices 1000 Professional offices 300		Community Halls	2000
Professional offices 300		Gas and electricity (filling stations for vehicles)	1000
	ive	Government Offices	1000
	ministrati	Professional offices	300
ATM Centers		Ranks Financial Institutions	300
Maria Centers 1000	ank .		300
1000	Ba	Anni Centers	1000

8.5. Mixed Development Zone II

Map No: 8.5. Mixed Development Zone II



Table No: 8.5. Mixed Development Zone II

Zone No	05		
Development Zone	Mixed Development Zone II		
Zonal Interpretation	The objective of this region is to develop sub urban areas in addition to the urban center in addition to commercial and other services.		
Boundary (Geo- coordinates)	Annexure 2.5		
Zoning Factor	1.34		
Approved Height Limit	Depending on the zone coefficient		
Approved Plot Coverage	Residential 66%		
	Non-residential 80%		
Common Requirements for the Zone	i. The minimum land area per. 12 (300 square meters)ii. There should also be room for parking stops in the land or common parking hemmers.		
	iii. Lagoons, lagoons, paddy fields in this region should be maintained in such manner.		
	iv. Appropriate recommendations should be obtained from the institutions concerned when developing a project in this region.		

No	Permitted Uses	Minimum Plot Size (Sqm)
	Stores and Warehouse	1000
	Hairdressing / Beauty Institutions	150
	Fitness Centers	250
	Retailer Outlets	150
	Wholesale Centers	1000
	Branch Outlets	500
	Fish Outlet	150
	Meat Outlet (Processed meat only)	150
	Building materials shops	
	i. Sand, mate, cement, wire, tube, material.ii. Other Building Materials	750
	Liquor Shops	150
<u>_</u>	Stores and Warehouse	1000
rcii	Bakery	150
me	Auto Parts Storefronts	
Commercial	i. Body Parts	500
	ii. Other Parts	
	Wooden Shops	500
	Tourist Hotels	1000
	Restaurant	150
	Holiday Resorts	1000
	Reception Hall	1000
	Vehicle sales points	1000
	Auto repair stations	1000
	Service Centers	1000
	Vehicle Washing Centers	1000
	Lodges	1000
	Day care	1000
<u>_</u>	Residential Homes	300
nti	Flats	500
de	Apartments	600
Residential	Hostels	1000
	Housing Complex	1000
	Government and Semi government schools	4000
Ĕ	Government / Private Universities	4000
Education	Technical Collage and vocational training institutions	2000
UC	Vocational training institutions	1000
Ed	Pre School	500
	Institutions for tertiary education courses	500

	Tuition Classes	250
	Rural Hospitals (Dispensary)	2000
	Ayurvedic Medical Centers	300
	Medical Counselling Centers	2000
Health	Medical Centers	500
- Fea	Laboratory Services	1000
_	Pharmacy	300
	Government Hospitals	4000
	Private Hospitals	4000
	Community Halls	500
	Cultural Centers	1000
	Sports centers (Indoor)	1000
	Libraries	500
	Elderly Homes	1000
	Fuel Stations	1000
no	Gas and electricity (filling stations for vehicles)	1000
Common	Vehicle Washing Centers	1000
Ō	Common Car Parks	1000
	Outdoor theaters	1000
	Children Parks	1000
	Parks	1000
	Film Halls	1000
	Open Areas	1000
	Landscape Areas	1000
Ve	Government Offices	250
Administrative	Government Offices Complex	1000
	Professional offices	150
¥	Banks, Financial Institutions	500
Bank	ATM Centers	150

8.6. Salt and Aquatic Production Zone

Map No: 8.6. Salt and Aquatic Production Zone

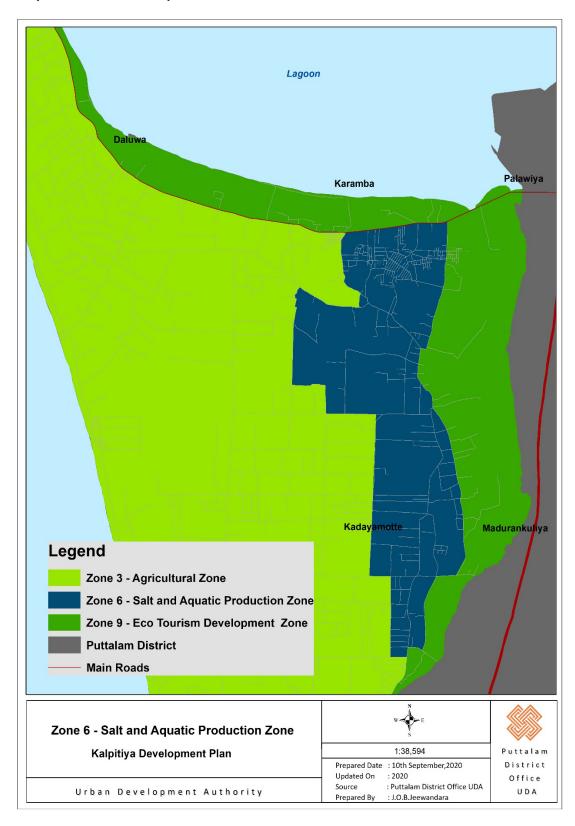


Table No: 8.6. Salt and Aquatic Production Zone

Zone No	06	
Development Zone	Salt and Aquatic Production Zone	
Zonal Interpretation	To be a zone in which the wind power industry and the salt manufacturing industry based on natural resources are based in this region.	
Boundary (Geo- coordinates)	Annexure 2.6	
Zoning Factor	1.07	
Approved Height Limit	Depending on the zone coefficient	
Approved Plot Coverage	Residential 66% Non-residential 80% Industry 70%	
	i. Minimum land area per. 20	
Common Requirements for the Zone	ii. There should also be room for parking stops in the lan or common parking hemmers.	
	iii. Lagoons, lagoons, paddy fields in this region should be maintained in such manner.	
	iv. When developing a project in this region, clear recommendations should be obtained from the agencies involved.	

No	Permitted Uses	Minimum Plot Size (Sqm)
	Retailer Outlets	500
	Fish Outlet	500
	Meat Outlet (Processed meat only)	500
	Building materials shops	2000
cial	i. Sand, mate, cement, wire, tube, material.	
Commercial	ii. Other Building Materials	
ב ב	Bakery	500
ဝိ	Tourist Hotel	2000
	Restaurant	500
	Handicraft products / Indoor Industries (non-polluting)	500
	Tourist Centers	500
	Eco friendly restaurants	500
Residential	Residential Homes	500
	Pre Schools	500
Education	Agro Research Institutions and Training Institutes	2000
Health	Pharmacy	500
	Children Parks	1000
_	Parks	1000
ш ОШ	Open Areas	1000
Common	Landscape Areas	1000
Ŭ	Community Halls	500
	Cultural Centers	1000
ā	Government Offices	500
Administrative	Professional offices	500
Bank	ATM Centers	500

8.7. Beach Based Tourism Development Zone

Map No 8.7. Beach based Tourism Development Zone

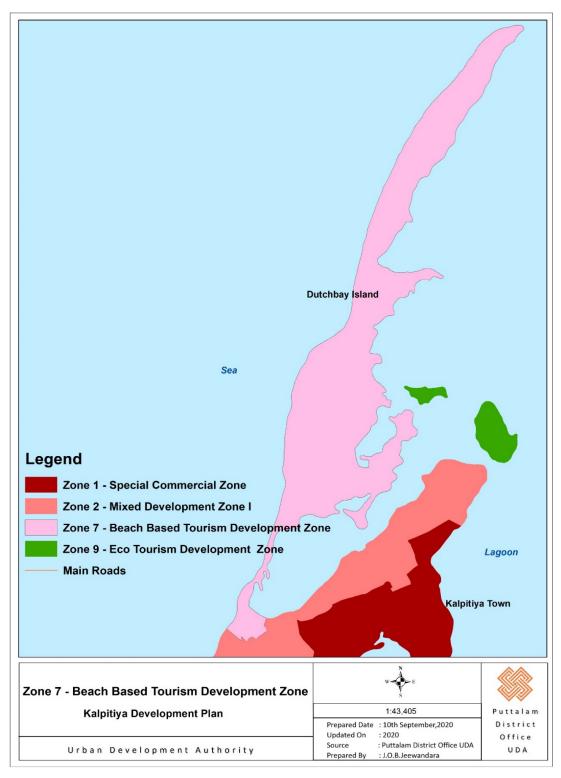


Table No 8.7. Beach based Tourism Development Zone

Zone No	07		
Development Zone	Beach based Tourism Development Zone		
Zonal Interpretation	Creation of a low dynastic environment led by tourism		
Boundary (Geo-coordinates)	Annexure 2.7		
Zoning Factor	0.53		
Approved Height Limit	Depending on the zone coefficient		
	Residential 66%		
Approved Plot Coverage	Non-residential 80%		
_	Industry 70%		
	i. Minimum land area per. 40 (1000 sq. M)		
Common Requirements for the Zone	ii. There should also be room for parking stops in the land or common parking hemmers.		
	iii. Lagoons, lagoons, paddy fields in this region should be maintained in such manner.		
	iv. When developing a project in this region, the recommendations should be obtained from the institutions concerned.		

No	Permitted Uses	Minimum Plot Size (Sqm)
	Retailer Outlets	1000
	Fish Outlet	1000
	Meat Outlet (Processed meat only)	1000
	Sports centers (Indoor)	2000
	Film Halls	2000
	Bakery	1000
_	Tourist Hotels	2000
rci:	Restaurant	1000
me	Holiday Resorts	1000
Commercia	Lodges	1000
Ü	SPA	1000
	Fitness Centers	1000
	Eco friendly restaurants	1000
	Tourist Centers	1000
	Hairdressing / Beauty Institutions	1000
	Fitness Centers	1000
	Information Centers	1000
Residential	Residential Homes	375
	Local Ayurvedic Medical Centers	1000
Health	Small Medical Centers	1000
Ŧ	Small Pharmacy	1000
	Libraries	1000
Common	Community Halls	1000
T L	Cultural Centers	1000
O	Eco-friendly camps	
	Viewing compartments	
Bank	Banking	1000

8.8. Island Based Tourism Development Zone

Map No: 8.8. Island Based Tourism Development Zone

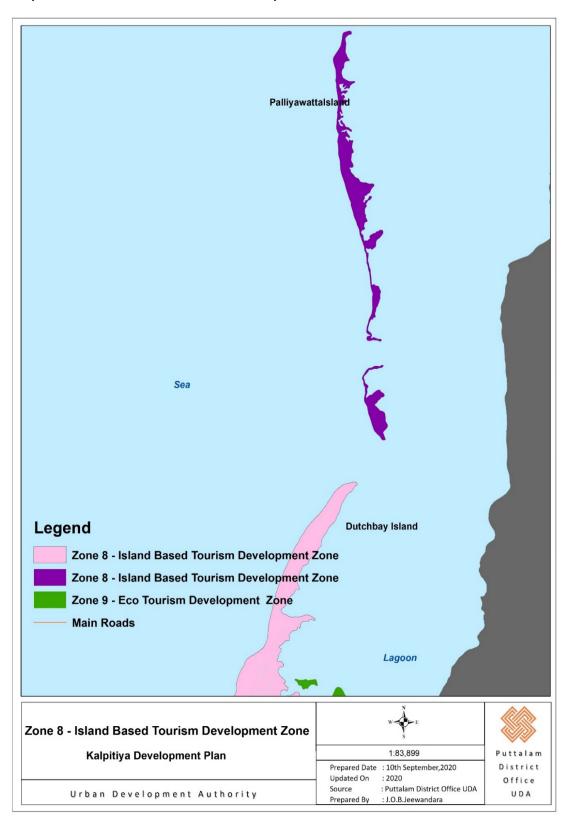


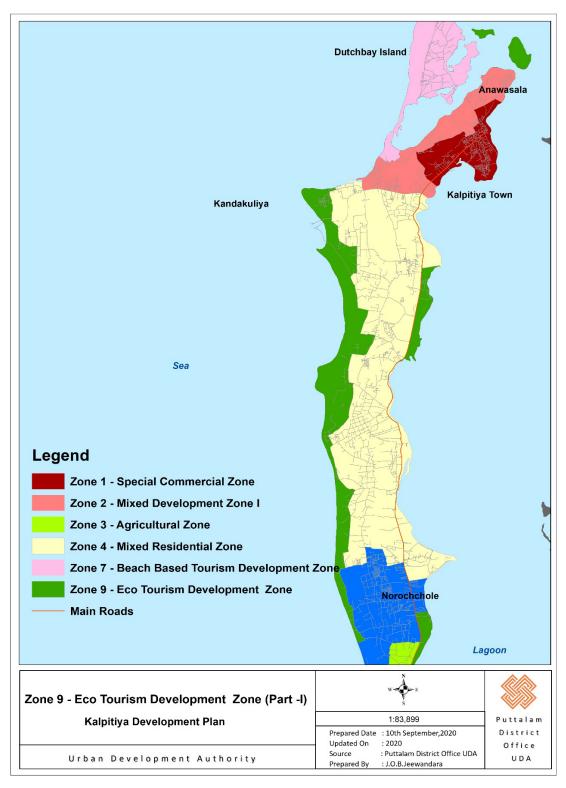
Table No: 8.8. Island Based Tourism Development Zone

Zone No	08		
Development Zone	Island Based Tourism Development Zone		
Zonal Interpretation	Introducing tourism with a low-cost environment		
Boundary (Geo- coordinates)	Annexure 2.8		
Zoning Factor	0.27		
Approved Height Limit	Depending on the zone coefficient		
	Residential 66%		
Approved Plot Coverage	Non-residential 80%		
	Industry 70%		
	i. Minimum land area per. 40 (1000 sq. M)		
Common Requirements for the Zone	ii. There should also be room for parking stops in the land or common parking hemmers.		
	iii. Lagoons, lagoons, paddy fields in this region should be maintained in such manner.		
	iv. When developing a project in this region, the recommendations should be obtained from the institutions concerned.		

No	Permitted Uses	Minimum Plot Size (Sqm)
	Retailer Outlets	1000
<u></u>	Tourist Hotels	1000
Commercial	Restaurant	1000
me	Holiday Resorts	1000
E O	Environmental Monitoring Centers	1000
U	Fisheries	1000
	SPA	1000
Residential	Residential Homes	1000
Health	Activities related to health facilities	
e	Education	1000
ativ	Public facilities	1000
strä	Open Spaces	1000
Ë	Eco-friendly camps	1000
Administrative	Viewing compartments	1000
Bank	Banking	150

8.9. Eco Tourism Development Zone

Map No 8.9. Eco Tourism Development Zone (Part 01)



Map No: 8.10. Eco Tourism Development Zone (Part 02)

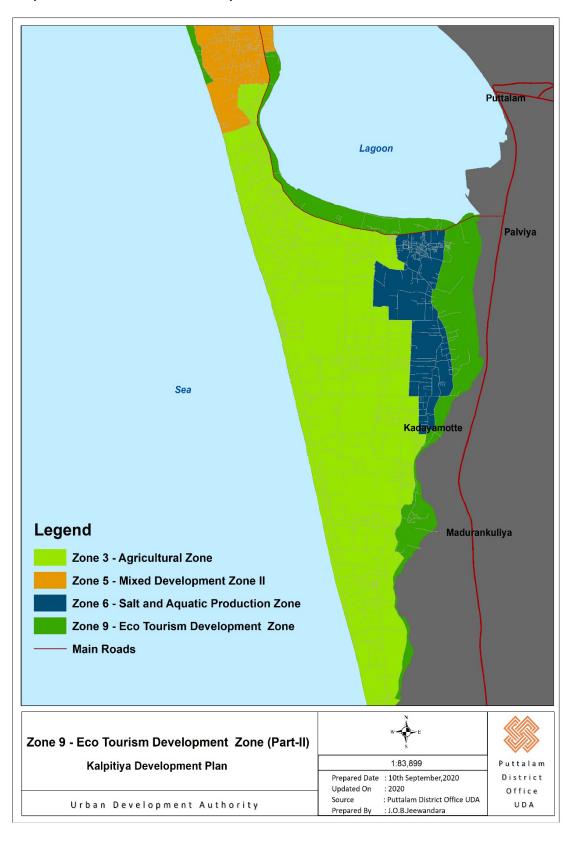
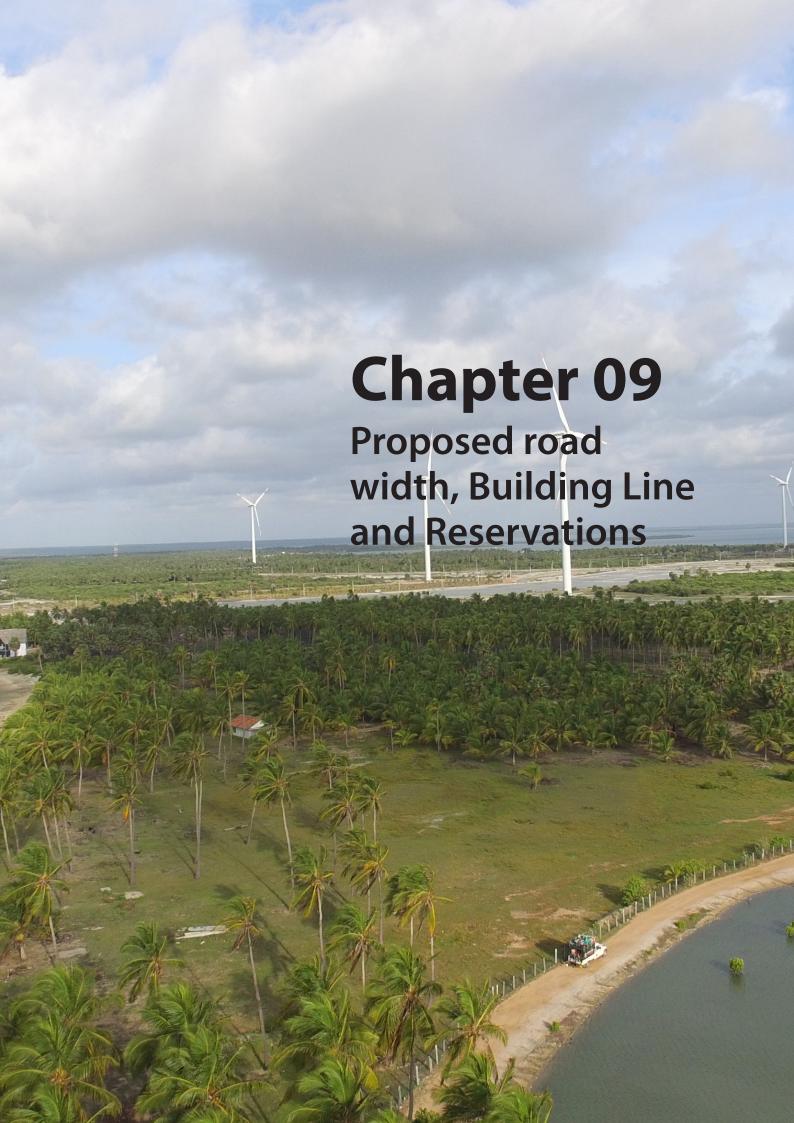


Table No: 8..9. Eco Tourism Development Zone

Zone No	09		
Development Zone	Eco Tourism Development Zone		
Zonal Interpretation	The objective of establishing this zone is to protect the environment sensitive areas within the Kalpitiya Pradeshiya Sabha area and thereby protect the environment.		
Boundary (Geo- coordinates)	Annexure 2.9		
Zoning Factor	0.96		
Approved Height Limit	Depending on the zone coefficient		
Approved Plot Coverage	Residential 66% Non-residential 50%		
Common Requirements for the Zone	 i. Minimum land area per. 30 ii. There should also be room for parking stops in the land or common parking hemmers. iii. Lagoons, lagoons, paddy fields in this region should be maintained in such manner. iv. When developing a project in this region, the recommendations should be obtained from the institutions concerned. 		

No	Permitted Uses	Minimum Plot Size (Sqm)
	Tourist Centers	750
	Environmental Monitoring Centers	750
	Eco-friendly restaurants	750
	Fitness Centers	750
<u></u>	Tourist Hotels	1000
Commercial	Restaurant	750
l me	Holiday Resorts	750
l mo	Reception Hall	750
0	Lodges	750
	Handicraft products / Indoor Industries (non-polluting)	750
	Fitness Centers	750
	Environmental Monitoring Centers	750
	Fisheries	750
	Eco-friendly camps	1000
	Walking lanes built on towers	
	Children Parks	
ڃ	Parks	
Common	Open Areas	
L C	Landscape Areas	
0	Natural Parks	
	Jogging Tracks	
	Eco-friendly camps	
	Viewing compartments	
Bank		



Chapter 09

Proposed road width, Building Line and Reservations

The Kalpitiya Development Plan provides for proposed road widths for roads to be widened on a priority basis in road network development, while building lines have been introduced for other roads. Canal Reservation Areas for Canals, Streams, Rivers, and Reservoirs have been declared by the SLLDC under the Gazette Notification No. 1662/17 of 14.07.2010. For the areas not covered by above gazette notification the reservations introduced in tables 9.1.1., 9.1.2. and 9.1.3. will applied.

9.1. Proposed road widths are in operation

9.1.1. Roads owned by the Road Development Authority

	Road Name	Existing Road width (m)		Proposed Building Line (Center of the road) (m)
01	Colombo – Palaviya Road	10	15	

9.1.2. Roads owned by Provincial Road Development Authority

Table 9.1.2. Roads owned by Provincial Road Development Authority

	Road Name	Existing Road width (m)	Proposed Road width (m)	Proposed Building Line (Center of the road) (m)
01	Kurinjanpitiya - Kandakuliya road			10
02	Kandakuda - Pallivasalthurai road			10
03	Norochcholai - Alankuda road			10
04	Thigali - Ettale road			10
05	Palakuda - Talawila road			10
06	Norochcholai - Illanthadiya road			10
07	Karamba - Udappuwa road			10
08	Talawila Church Road			10
09	Kalpitiya - Anavasala road			10
10	Kalpitiya - Wanni Mundalama road			10
11	Karamba - Pulidiyan road			10
12	Pulachchenai Internal Road			10
13	Mampuriya Beach Road			10

9.1.3. Proposed building line on the roads owned by the Pradeshiya Sabha

Table 9.1.3. Proposed building line on the roads owned by PS

	Road Name	Existing Road width (m)	Proposed Build- ing Line (Center of the road) (m)	Road Name
01	Anawasal Janasavipura Road	Company watta Road		7.5
02	Muthuwal Road	Thraiyadi Road		9.0
03	Grand Mosque Road	St. Marry's Road		7.5
04	Kalpitiya-Kandakuliya road	Thettawadi Road		7.5
05	Burger Street			7.5
06	Marikkar Street			7.5
07	Hill Street			9.0
08	Jetty Road			9.0
09	Wannimundalama Road	Hospital Road		9.0
10	Malay Road			7.5
11	Manalthottam Road			7.5
12	U.M.U. Road	Housing Complex Road		7.5
13	Mandalakudawa Beach Road			9.0
14	Kandakuliya Sinhala School Road			7.5
15	Kandakuliya Muslim School Road			7.5
16	Kandakuliya Thalayadi Road			7.5
17	Kandakuliya Redbana Road			7.5
18	Kandakuliya Temple Road			7.5
19	Narikuda Road			7.5
20	Kurinjampitiya-Thalayadi Road			7.5
21	St. Anthony's Avenue			7.5
22	Sammattiwadiya Main Road			7.5
23	Pallivasalthurai Vellankarai 10 Road			7.5
24	Saragama Road			7.5
25	Ammatottam Main Road			7.5
26	Nachchikali Salton Road No. 01			7.5
27	Nachchikali Salton Road No. 02			7.5
28	Mudalaipali Wattacholai Road			7.5
29	Kandakuda School Road	90 acres Road		7.5
30	Kappaladi Mudalaipali Road			7.5

31	Kappaladi Mosque Road	Odakkarei Road	7.5
32	Talawila New Colony Road		7.5
34	Father Oberis Fernando Mawatha		7.5
35	Talawila School Road		7.5
36	Thigali Marikkar Road	Kurinjamottai Road	7.5
37	Thigali School Road		7.5
38	Ettala Colony Beach Road	Erumpukodal Road	7.5
39	Eththanil Chemmukulam	Alankuda, School Road	7.5
40	Alankuda Kurukkuchenai Road		7.5
41	Koiyawadi Road		7.5
42	Poolachchenai Main Road		7.5
43	Paniyadiya Main Road		7.5
44	Pulachchenai Mosque Road		7.5
45	Narakkalli Church Road		7.5
46	Mampuri Koienchenai Road		7.5
45	Mampuri Colony Road		7.5
46	Navakkadu Church Road	10 th mile post	7.5
47	Navakkadu Colony Road		7.5
48	Navakkadu Nirmalapura Road		7.5
49	Daluwa Seemanthoduwa Road		7.5
50	Daluwa Kaduwatta Road		7.5
51	Wetland Melcolony Road		7.5
52	Thetapola Colony Road		7.5
53	Thetapola Church Road		7.5
54	Kadayamottai Karamba Road	Manikaran Road	7.5
55	Karamba Puladiyawal Road		7.5
56	Palasola Melkolani Road		7.5
57	Palasola Malihachenai Road		7.5
58	Sangakattu Temple Para	Dangaha Road	7.5
59	Nallandaluwa Temple Road		7.5
60	Viruthoda Main Road		7.5
61	Chanathoduwa Road		7.5
62	Mukkuthoduwa Sinnapadu Road		7.5
63	Ranaviru Wasantha Mawatha	Kurinjavettai Road	7.5
64	Kadayamotta Kottantivu Road		7.5
65	Navakkadu Road		7.5

66	Sameeragama Pallivasal- paduwa Road		7.5
67	Sameeragama Kandathodu- wa Minipitiya Road		7.5
68	Karuwamadu Road		7.5
69	Kottantivu Colony Road		7.5
70	Kottantivu Temple Road		7.5
71	Kottantivu Bambiwattan Road		7.5
72	Kattaikadu Church Road		7.5
73	Kattakadu Minipitiya Road		7.5
74	Puthukudirippu Inner Road		7.5
75	Kadayamottai Rahumath- gama Road		7.5
76	Navakkadu Inner Road		7.5
77	Norochcholai Church Road		7.5
78	Palasola Church Road		7.5
79	Kalpitiya Vellankarai Road		7.5
80	Thoridi Karadipane Road		7.5
81	Kandakuda Temple Road		7.5
82	Burger Street		7.5
83	Marikkar Street		7.5
84	Hill Street	Bazaar Street	7.5
85	Kurinjanpitiya	Thillayadi Road	7.5
86	St. Anthony's Avenue		7.5
87	Navakkadu Church Road	!0 th mile Post	7.5
88	Navakkadu Colony Road		7.5



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No	Divsion and no	Grama Seva Division	Population
NO	Divsion and no	Giailla Seva Division	2012
1	603	Thethapola	2056
2	603A	Karamba	7703
3	605	Nawakkaduwa	1884
4	605A	Daluwa	1010
5	605 B	Nirmalapura	2033
6	619	Mampuriya	2815
7	620	Narakkalliya	2507
8	621	Paniyadiya	2534
9	621A	Norochchole	7029
10	622	Alangkudawa	6608
11	622A	Andankandiya	1168
12	623	Eththala	3267
13	624	Thigali	2503
14	626	Mudalappaliya	4003
15	626A	Thalawila -North	1738
16	626B	Thalawila-West	1091
17	626C	Palakudawa	2464
18	628	Musalpitiya	1963
19	628A	Palliwasalthurai	3897
20	629	Kurigngnanpitiya-North	2120
21	629A	Kandakuliya	4548
22	629B	Kurigngnanpitiya-South	2204
23	629C	Kandakuliya Kudawa	619
24	630	Periya Kudirippuwa	1085
25	630A	Pudukudirippuwa	2063
26	630B	Wannimundalama	2263
27	630C	Mandalakudawa	6217
28	631	Sinnakudirippuwa	1065
29	631A	Anawasala	3482
30	633	Dutchbay	1259
31	633A	Palliyawatta	1207
32	601A	Puladiyawal	2466
33	601	Virathoda	3232
34	599C	Kanamulla North	1944
35	599	Kadayamotte	2028
36	601B	Nallandaluwa	1641

37	601C	Palasola	2498
38	599A	Mukkuthoduwawa	2644
39	599B	Kandathoduwawa	1458
40	599D	Kanmulla-South	1708
41	598A	Samiragama	1182
42	598B	Palliwasalpaduwa	1937
43	598C	Perukuwatana	1363
44	598	Koththanthiwu	2011
45	597	kattakaduwa	2107
46	597B	Sinnapaduwa	1364
47	597A	Punapitiya	1510
48	594A	Adimunai	2621
			120119

Annexure 02: Population distribution by nationality and religion- 2012

	Population distribution by nationality and religion-2012												
	Nationality									eligi	on		
	Grama Sewa Niladhari Division	Singhala	Tamil	Muslim	Burger	Other	Total	Buddhist	Hindu	Islam	Catholic	Other	Total
1	593 Pulichchaku- lama	1082	507	3058	-	-	4647	836	513	3051	247		4647
2	593B Tharakudi- willuwa	878	160	1786	-	-	2824	674	162	1786	202		2824
3	594 Udappuwa	-	1002	-	-	-	1002	-	938	-	64		1002
4	594 B Udappuwa	18	2823	246	-	-	3087	18	2770	246	53		3087
5	594 A ANdimune	-	2967	-	-	-	2967	-	2953	-	14		2967
6	597A Poonapitiya	66	1413	13	-	-	1492	5	879	13	551	44	1492
7	597 B Sinnapad- uawa	1468	10	-	-	-	1478	31	-	-	1447		1478
8	598 Koththan- thiwu	395	105	1892	-	-	2392	210	6	1892	284		2392
9	598 B Palliwasal- paduwa	2153	19	4		5	2181	168	-	5	2003	5	2181
10	598 C Perathu- watana	489	134	1101	-	-	1724	103	130	1101	390		1724
11	599 A Kan- dathoduwawa	1436	-	-	-	-	1436	73	-	-	1363		1436
12	601 Wiruthoda	11	5	3359	-	-	3375	11	5	3359	-		3375
13	608 A Welasu- manapura	2562	29	1	-	-	2592	2127	7	1	449	8	2592
14	608 B Weerapura	2790	179	143	-	-	3112	1814	179	143	976		3112
15	609 Madurankuli- ya	2010	235	693	-	-	2938	1340	132	693	735	38	2938
16	609A Pubudu- gama	1056	-	376	-	-	1432	551	-	376	505		1432
17	601A Pulariyawal	164	-	2630	-	-	2794	52	-	2643	99		2794
18	610Mandalama	765	189	1	-	-	955	318	188	1	448		955
19	610 C Karathan- willuwa	994	548	26	-	-	1568	494	514	26	534		1568
20	610 B Nawadank- ulama	723	2	-	-	-	725	342	-	-	383		725
21	601B Nallanda- luwa	97	4	1654	-	-	1755	91	4	1654	6		1755
22	593A Angunawila	887	16	1	-	-	904	360	16	1	527		904
23	597A Kattakadu- wa	164	1759	186	-	-	2109	164	-	186	1759		2109
24	599 Kadayamatta	97	19	1978	-	-	2094	14	-	1978	102		2094
25	599A Muk- kuthoduwawa	3057	47	-	-	-	3104	307	18	-	2766	13	3104

26	599D Kanamulla	102	16	2106	-	-	2224	34	16	2106	68		2224
27	610D Kudirip- puwa	565	703	8	-	-	1276	255	589	8	412	12	1276
28	610A Manga- laeliya	1192	6	10	-	1	1208	503	-	10	675	20	1208
29	601C Palasola	3169	39	74	-	-	3282	702	34	74	2472		3282
30	598A Sameerag- ama	43	71	1169	-	14	1297	11	21	1169	92	4	1297
31	599C Kanamulla North	41	19	2503	-	-	2563	17	12	2521	13		2563
	Total	28474	13026	25018		19	66537	11625	10086	25043	19639	144	66537

Annexure 03: Population distribution by age cohort -2012

Pop	Population distribution by age cohort -2012									
	Gramasewa Niladhari	Years	0-14	Years	15-59	Years	s 60	Total		
	Division	Female	Male	Female	Male	Female	Male			
1	593 Pulichchakulama	864	718	1323	1386	234	122	4647		
2	593B Tharakudiwilluwa	411	398	967	928	73	47	2824		
3	594 Udappuwa	101	82	416	338	38	27	1002		
4	594 B Udappuwa	390	378	1054	1027	125	113	3087		
5	594 A ANdimune	331	310	1019	987	199	121	2967		
6	597A Poonapitiya	227	203	476	490	48	48	1492		
7	597 B Sinnapaduawa	196	176	540	499	40	27	1478		
8	598 Koththanthiwu	392	381	748	739	67	65	2392		
9	598 B Palliwasalpaduwa	285	302	728	729	83	54	2181		
10	598 C Perathuwatana	343	314	552	378	73	64	1724		
11	599 A Kandathoduwawa	198	161	474	459	81	63	1436		
12	601 Wiruthoda	545	570	1031	1047	106	76	3375		
13	608 A Welasumanapura	245	249	799	770	275	254	2592		
14	608B Weerapura	255	435	1250	1017	92	63	3112		
15	609 Madurankuliya	590	595	788	765	97	103	2938		
16	609A Pubudugama	206	180	475	447	63	61	1432		
17	601A Pulariyawal	643	384	684	880	108	95	2794		
18	610Mandalama	105	96	331	306	64	53	955		
19	610 C Karathanwilluwa	229	198	490	503	79	69	1568		
20	610 B Nawadankulama	132	145	194	168	44	42	725		
21	601B Nallandaluwa	228	181	651	603	59	33	1755		
22	593A Angunawila	102	97	318	313	41	33	904		
23	597A Kattakaduwa	341	349	644	597	93	85	2109		
24	599 Kadayamatta	420	531	576	475	59	33	2094		
25	599A Mukkuthoduwawa	352	451	1055	1041	107	98	3104		
26	599D Kanamulla	417	337	664	554	145	107	2224		
27	610D Kudirippuwa	150	131	553	350	42	50	1276		
28	610A Mangalaeliya	156	170	390	400	60	32	1208		
29	601C Palasola	602	529	779	683	393	296	3282		
30	598A Sameeragama	243	231	416	348	33	26	1297		
31	599C Kanamulla North	466	400	796	692	134	75	2563		
	Total	10165	9682	21181	19919	3155	2435	66537		

Annexure 04: Population 2017

	5			Female	male
No	Division no	GS Division	2017		
1	603	Thethapola	1904	968	936
2	603A	Karamba	7929	3391	4538
3	605	Nawakkaduwa	1958	1006	952
4	605A	DAluwa	1059	563	496
5	605B	Nirmalapura	2094	1052	1042
6	619	mampuriya	2950	1520	1430
7	620	Narakkalliya	2845	1428	1417
8	621	Paniyadiya	3580	1720	1860
9	621A	Norochchole	7418	3795	3623
10	622	Alankudawa	6943	3478	3465
11	622A	Andankanniya	1264	655	609
12	623	Eththala	3063	1685	1378
13	624	Thigili	2130	1220	910
14	626	Mudalappaliya	4823	2611	2212
15	626A	Thalawila East	1970	1027	943
16	626B	Thalawila West	1156	604	552
17	626C	Palathudawa	2671	1392	1279
18	628	Musalpitiya	2748	1484	1264
19	628A	Palliwasalthurai	2720	1411	1309
20	629	Kurigngnanpitiya-North	2682	1263	1419
21	629A	Kandakuliya	3897	2213	1684
22	629B	Kurigngnanpitiya-South	2312	1227	1085
23	629C	Kandakuliyakudawa	546	284	262
24	630	Periyakudiruppuwa	1560	782	778
25	630A	Pudukudiruppuwa	1472	710	762
26	630B	Wannimandalama	2516	1316	1200
27	630C	Mandalakudawa	4780	2502	2278
28	631	Sinnakudirippuwa	1224	659	565
29	631A	Anawasala	3571	1828	1743
30	633	Dutchbay	1439	697	742
31	633A	Palliyawatta	1560	786	774
32	601A	Puladiyawal	2990	1542	1448
33	601	Wiruthoda	3818	1980	1838
34	599C	Kanamulla -North	2549	1180	1369
35	599	Kadayamotte	2310	1190	1120
36	601B	Nallandaluwa	1760	937	823
37	601C	Palasola	3572	1964	1608
38	599A	Mukkuthoduwawa	3315	1772	1543
39	599B	kandathoduwawa	1436	753	683
40	599D	Kanamulla-South	2394	1257	1137

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41	598A	Sameeragama	1633	917	716
42	598B	Palliwasalpaduwa	2238	1122	1116
43	598C	Perakuwatana	1602	889	713
44	598	Koththanthiwu	2486	1268	1218
45	597	Kattakaduwa	2256	1148	1108
46	597B	Sinnapaduwa	1405	719	686
47	597A	Punapitiya	1526	734	792
48	594A	Adimune	2754	1382	1372
		Total	128828	66031	62797

Annexure 05 : Population Density- 2017

				Land	Gross
	GS	Gramamsewa Niladhari		extent	population
No	Division	Division	2017	sqkm	density
	no				People/sqkm
1	603	Thethapola	1904	11.6	164.137931
2	603A	Karamba	7929	5.7	1391.052632
3	605	Nawakkaduwa	1958	3.3	593.3333333
4	605A	DAluwa	1059	3.5	302.5714286
5	605B	Nirmalapura	2094	10.1	207.3267327
6	619	mampuriya	2950	3.5	842.8571429
7	620	Narakkalliya	2845	3.5	812.8571429
8	621	Paniyadiya	3580	7	511.4285714
9	621A	Norochchole	7418	3.2	2318.125
10	622	Alankudawa	6943	8.4	826.547619
11	622A	Andankanniya	1264	5.9	214.2372881
12	623	Eththala	3063	5.5	556.9090909
13	624	Thigili	2130	2.4	887.5
14	626	Mudalappaliya	4823	7.3	660.6849315
15	626A	Thalawila East	1970	3.6	547.2222222
16	626B	Thalawila West	1156	1.9	608.4210526
17	626C	Palathudawa	2671	4.1	651.4634146
18	628	Musalpitiya	2748	10.6	259.245283
19	628A	Palliwasalthurai	2720	4.4	618.1818182
20	629	Kurigngnanpitiya-North	2682	3.7	724.8648649
21	629A	Kandakuliya	3897	8.8	442.8409091
22	629B	Kurigngnanpitiya-South	2312	3.9	592.8205128
23	629C	Kandakuliyakudawa	546	1.5	364
24	630	Periyakudiruppuwa	1560	0.6	2600
25	630A	Pudukudiruppuwa	1472	2.3	640
26	630B	Wannimandalama	2516	0.8	3145
27	630C	Mandalakudawa	4780	1.5	3186.666667
28	631	Sinnakudirippuwa	1224	0.9	1360
29	631A	Anawasala	3571	3.2	1115.9375
30	633	Dutchbay	1439	15	95.93333333
31	633A	Palliyawatta	1560	6.1	255.7377049
32	601A	Puladiyawal	2990	8.1	369.1358025
33	601	Wiruthoda	3818	7.3	523.0136986
34	599C	Kanamulla -North	2549	1.5	1699.333333
35	599	Kadayamotte	2310	3	770
36	601B	Nallandaluwa	1760	14	125.7142857
37	601C	Palasola	3572	14.2	251.5492958

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38	599A	Mukkuthoduwawa	3315	11.8	280.9322034
39	599B	kandathoduwawa	1436	2.4	598.3333333
40	599D	Kanamulla-South	2394	3.3	725.4545455
41	598A	Sameeragama	1633	4.8	340.2083333
42	598B	Palliwasalpaduwa	2238	0.9	2486.666667
43	598C	Perakuwatana	1602	5.4	296.6666667
44	598	Koththanthiwu	2486	6.8	365.5882353
45	597	Kattakaduwa	2256	7.8	289.2307692
46	597B	Sinnapaduwa	1405	1.2	1170.833333
47	597A	Punapitiya	1526	9	169.555556
48	594A	Adimune	2754	3.7	744.3243243
		Total	128828	259	497.4054054

Annexure 06: Vehicles exit from Kalpitiya- 2017 (From Kalpitiya towards Palawiya)

Time: 11.45 AM to 12.00 Noon.

Transport mode	Total
Bus	01
Cars	07
Vans	04
Three wheelers	58
Motor Bicycles	32
Lorries	10
Heavy Vehicles	03
Other	01

Annexure 07:- Survey data on vehicle parks

Location	Bus	Small bus	Car	Van	Jeep	Three wheel- ers	Motor bicy- cle	Lorry	Heavy vehicle	Oth- er
Main road South	02	01	02	06		32	29	08	01	09
Bazzar street				03		06	17	03		07
Muthuwal road				01		08	04	05		02

Annexure 08: Vehicles reaching Kalpitiya-2017 Vehicles reaching Kalpitiya-2017 (from Palawiya towards kalpitiya)

Time: 11.45 AM to 12.00 Noon

Transport mode	Total
Bus	01
Car	04
Van	03
Three wheelers	60
Motor Bicycles	50
Lorry	12
Heavy vehicles	01
Others	20

Annexure 09: Vehicles entering Kalpitiya 2017 Vehicles entering Kalpitiya 2017(from Palawiya towards kalpitiya)

Time: 9.00 AM to 9.15 AM

Transport mode	Total		
Bus	10		
Car	27		
Van	32		
Three wheelers	67		
Motor Bicycles	167		
Lorry	90		
Heavy vehicles	02		
Others	13		

Annexure 10: Vehicles leaving Kalpitiya 2017

Vehicles leaving Kalpitiya 2017 (From Kalpitiya towards Palawiya)

Time: 9.00 AM to 9.15 AM

Transport Mode	Total
Bus	06
Car	20
Van	14
Three wheelers	98
Motor Bicycles	150
Lorry	62
Heavy vehicles	00
Others	02

Annexure 11: Housing Density 2001, 2012, 2017

			2	001	2	012	2	017
	GS Division	Sqkm	Units	Density	Units	Density	Units	Density
1	Thethapola	11.4	456	40	535	46.22	571	50.1
2	Karamba	5.7	1553	272.45	1773	310.52	1893	332.1
3	Nawakkaduwa	3.3	385	128.3	481	144.5	514	155.8
4	DAluwa	3.5	229	65.4	293	81.4	312	89.1
5	Nirmalapura	10.1	383	37.9	533	52.67	569	56.3
6	mampuriya	3.5	610	174.2	717	202	761	217.4
7	Narakkalliya	3.5	378	108	379	101.14	405	115.7
8	Paniyadiya	7	537	83.8	658	93.85	702	100.3
9	Norochchole	3.2	1200	375	1541	469.6	1645	514.1
10	Alankudawa	8.4	1595	189.8	1468	164.16	1567	186.5
11	Andankanniya	5.9	266	45.08	296	50.16	316	53.6
12	Eththala	5.5	526	95.6	758	138.18	809	147.1
13	Thigili	2.4	509	212	512	210	547	227.9
14	Mudalappaliya	7.3	782	107	885	121.36	945	129.5
15	Thalawila East	3.6	384	106.6	460	128	491	136.4
16	Thalawila West	1.9	247	130	287	147.36	306	161.1
17	Palathudawa	Palathudawa	565	137.8	633	162.19	676	164.9
18	Musalpitiya	Musalpitiya	421	39.7	467	42.73	499	47.1
19	Palliwasalthurai	Palliwasalthu- rai	797	181.1	894	201.5	955	217.0
20	Kurigngnanpiti- ya-North	Kurigngnanpit- iya-North	543	146.7	512	138.1	546	147.6
21	Kandakuliya	Kandakuliya	975	110.7	1099	12.32	1173	133.3
22	Kurigngnanpiti- ya-South	Kurigngnanpit- iya-South	443	113.5	543	140.25	579	148.5
23	Kandakuli- yakudawa	Kandakuli- yakudawa	186	143	155	103.33	166	110.7
24	Periyakudirup- puwa	Periyakudirup- puwa	247	416.6	233	166.66	248	413.3
25	Pudukudirup- puwa	Pudukudirup- puwa	450	195.6	459	200	490	213.0
26	Wannimanda- lama	Wannimanda- lama	302	376.8	497	620	530	662.5
27	Mandalakudawa	Mandalakuda- wa	1260	840	1349	883.33	1440	960.0
28	Sinnakudirip- puwa	Sinnakudirip- puwa	239	597	228	567.5	243	607.5
29	Anawasala	Anawasala	632	197.5	774	245.62	826	258.1
30	Dutchbay	Dutchbay	314	21.2	276	18.51	294	19.9
31	Palliyawatta	Palliyawatta	469	95.71	417	84.4	445	90.8
32	Puladiyawal	Puladiyawal	508	137.29	612	164.4	653	176.5
33	Wiruthoda	Wiruthoda	578	79.17	723	97.9	772	105.8

34	Kanamulla -North	Kanamulla -North	311	207.33	416	275.3	444	296.0
35	Kadayamotte	Kadayamotte	402	134	438	144.3	467	155.7
36	Nallandaluwa	Nallandaluwa	369	153.7	374	15	399	16.6
37	Palasola	Palasola	566	39.85	696	49	743	52.3
38	Mukkuthodu- wawa	Mukkuthodu- wawa	690	58.47	742	63.3	792	67.1
39	kandathodu- wawa	kandathodu- wawa	326	135.83	393	161.25	419	174.6
40	Kanamul- la-South	Kanamul- la-South	368	111.51	372	112.12	410	124.2
41	Sameeragama	Sameeragama	278	57.91	274	56.66	292	60.8
42	Palliwasalpadu- wa	Palliwasal- paduwa	377	418.88	491	550	541	601.1
43	Perakuwatana	Perakuwatana	266	49.25	313	91.48	334	61.9
44	Koththanthiwu	6.8	444	65.29	523	75.55	558	82.1
45	Kattakaduwa	7.8	508	65.12	545	69.16	578	74.1
46	Sinnapaduwa	1.2	266	221.66	363	303.33	387	322.5
47	Punapitiya	9	352	39.11	390	43.33333	416	46.2
48	Adimune	3.7	553	149.45	610	164	651	175.9
	Total	262.5	25045	95.40952	28387	108.141	30319	9460.5

Annexure 12: Labour force - 2016

Age co- hort	Popula- tion	Population not coming under labour force	Labour force	Unemploye- ment	Employed	Unem- ploye- ment %
15 – 18	6838	3681	3157	1305	1852	59%
19 – 60	37323	6648	30675	7803	22872	75%
60 <	5039	2386	2653	1103	1550	58%
Total	49200	12715	36485	10211	26274	72%

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Annexure 13: Employment by age group - 2016

	IN the Country						Over seas						
		F	ull tim	e	S	hort tin	ne	Full time			Short time		
Age	cohort	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Yrs	15-18	495	312	807	667	353	1020	09	07	16	05	04	1852
Yrs	19-60	5225	179	7024	10037	4036	14073	77	52	129	782	864	22872
Yrs	60 <	369 118 487 612 451		1063	0	0	0	0	0	1550			
Total		6089	2229	8318	11316	4840	16156	86	145	145	787	868	26274

Annexure 14: Employement internal and over seas by age group - 2016

,	Age cohort	Internal	Over seas	Total
Yrs	15 - 18	1827	25	1852
Yrs	19 - 60	21097	1775	22872
Yrs	60 up	1550	0	1550
	Total	24474	1800	26274

Annexure15: Distribution of employment by sectors

			l .	elf- loyed	Over employ		daily		
Male/Female	State sector	Private sector	Agriculture	Non- agriculture	FUIltime	Short time	Mines/estate/daily Iabour	Other	Total
Male	332	426	419	1528	54	814	3683	455	7711
Female	424	612	3594	6765	94	914	4883	1277	18563
Total	756	1038	4013	8293	148	1728	8566	1732	26274

Annexure16: Emploement by nature of the job

Position	Number	Post	Number
Executive/Managerial	122	Trade	1332
Teaching	390	Self-employed	5934
Clarical	294	Labour	7213
Technician	323	Farmers	4233
Security	75	Planters	207
Over seas jobs	1800	Other	4351
Total			26274

Annexure 17: Fisheries Industry 2017

Ministry of Fisheries and Acquatic Development

Fish capture per month

Novenber 2017

Table 1: Fish Production Mtric Tons

Fis	sheries sub sector	2013	2014	2015	2016	2016 Jan Nove.	2017 Jan Nove.	Differ- ance % 2017/ 2016	Differ- ance in total as a %
1	Off shore/ Deep Sea	177,950	180,450	183,870	182,830	165,560	174,830	5.6	35.9
2	Coastal	267,980	278,850	269,020	274,160	250,450	238,550	-4.8	49.0
	Total Ma- rine	445,930	459,300	452,890	456,990	416,010	413,380	-0.6	84.9
3	Inland Capture	55,020	68,820	57,060	58,410	53,750	61,120	13.7	12.5
4	Inland Culture	7,460	1,780	3,150	9,490	8,610	8,340	-3.1	1.7
5	Shrimp Farms	4,430	5,150	7,090	6,030	4,630	4,230	-8.6	0.9
	Total In- land	66,910	75,750	67,300	73,930	66,990	73,690	10.0	15.1
	Sri Lanka	512,840	535,050	520,190	530,920	483,000	487,070	0.8	100.0
	urce: Depa quatic Dev		es and						

Annexure 18: Land area and the annual yield of crops cultivated under other crops - 2017

Crop	Land area cultivated (Acres)	Annual Yield
Fruits		
Plantain	136.5	569400
Pineapple	5	624
mangoes	3.5	52000
Passion fruit	1.53	5490
Guava	152.25	1907700
Rambutang	0	0
Papaya	221.254	1304760
Orange	0	0
Pomegranade	52.5	143614
Orrange	5	80800
Lime	0.002	100
Watermelon	20	409200
	2	0
Total	597.536	4473688
Vegetables		
Long beans	524.5	970500
Gourd	41	151969.2
Ribguareds	41.3	94300
Brinjal	149.5	653100
Chillies	924.25	4616974
Bitterguard	54.75	315370
Ladiesfingers	301.5	1249102.8
Onions	954.5	3896802.5
Capscum	336	1269259.8
	185	902383
	411.5	2069500
Total	3923.8	16189261.3
Grain crops		
Green grams	0	0
Ground cashew	1	600
Pea	0	0
sweet corn	0	0
Sesame	0	0
Total	1	600
Small export crops		
Pepper	0	0
Coffee	0	0

Coco	0	0
Clove	0	0
Cardamom	0	0
Cinamon	0	0
Beetle	0	0
Tobacco	10	8000
Total	10	8000

Annexure 19: Rainfall (CLimate)

Year	Annual rain fall (MM)	Times of floods experienced
2006	1035.10	October to November
2207	662.60	
2008	280.38	
2009	688.32	
2010	714.90	December
2011	942.80	November
2012	680.20	
2013	228.60	
2014	1012.60	December
2015	1624.70	November
2016	853.00	December

Annexure 20: Temperrature (Statistics for 10 years)

Year	Annual rain fall MM	Floods experienced
2006	28.69	
2207	29.20	
2008	28.71	
2009	28.59	
2010	29.14	April-May
2011	28.68	February
2012	28.33	March and April
2013	31.00	Apri and May
2014	32.87	June
2015	28.80	May and June
2016	30.15	JUne

Annexure 21: Sustainable development strategies: Provincial Guidelines, conditions and permissible uses.

Conditions

- 1. Prior approval of the Agencies listed under the numbers of 01, 03, 04, 06 and 10 in the Circular no 13 dated 24th of September 1990 issued by the Urban Development Authority should be secured for development of any wetland within the Kalpitiya pradesheeya Sabha area. IN the event when the ownership of any wetland is falling within the purview of agencies listed under the numbers of 02, 05, 07, 08, 09 and 11 the recommendation or approval of relevant agency shall be secured.
- 2. Development of any wetland that potentially could have an impact on the environment should be recommended or cleared by the agencies listed under the numbers of 03 and 06 and such letter of clearance or recommendation issued by such an agency should be renewed annually.
- 3. The Clearing Certificate or recommendation issued by the agency listed under no 01 for development of any wetland as recommended by the Planning Committee should be renewed annually.
- 4. Development of any wetland falling within the area of beach zone should be approved by the agencies listed under the 05 and 12 prior to the development.
- 5. The water ways, water badies and reservations declared under the Circular no 1662/17 dated 14/12/2010 should be maintained.
- 6. Any development within a wetland that could cause obstructions to the capacity of flood water detention areas or watercourses should not be carried out.
- 7. Elimination of species, except for the invasive plants and specieis, from the environmentally sensitive wetlands should not be carried out.
- 8. Every development permitted within wetlands should be carried out according to the professional standards and the green-building requirements.
- 9. Motor boats or any other power driven vehicles should not be used in catching the fish or any other aquatic species.

Guidelines

- 1. Permitted wetlands for filling should be developed with provisions for storm water drainage.
- 2. The approved developments within the wetland areas should be carried out strictly according to the specifications of the approved plans, professional guidelines and the

- specifications without causing obstructions to the storm water drainage and storm water detection capacities of the existing wetlands subject to the approvals of the agencies listed under from 01 up to the 13.
- 3. Action should be taken to conserve areas having landscape, cultural, archaeological and bio-diversity significances.
- 4. Developments permitted within the wetlands should be carried out with precautionary measures to protect foot paths and public bathing places or they can be relocated appropriately at a closest location to the existing location.
- 5. The permitted developers should secure the guidance and advices of the qualified professionals or professional institutions in planning, implementation and supervision of approved developments.
- 6. Breeding grounds of fish and other aquatic species should be protected.
- 7. Dumping solid, liquid, electronic and clinical wastes in to the wetlands is strictly prohibited.
- 8. Discharge of waste water, after treatment, in to the wetlands will be allowed only subject to the approval of the Central Environmental Authority.

Fishing should be carried out only with the man-powered boats.

- i. Sri Lanka Land Reclamation and Development Corporation
- ii. Department of Irrigation
- iii. Central Environmental Authority
- iv. Urban Development Authority.
- v. Department of Coast and Coastal Resource Conservation
- vi. Relevant Local Authority
- vii. Department of Forest Conservation
- viii. Department of Wild Life Conservation
- ix. National Building Research Organization
- x. Department of Agrarian Development
- xi. Department of Archeology
- xii. Marine Environment protection Authority.
- xiii. National Aquatic Resources Research and Development Authority.

Permissible uses within the wetland conservation areas.

- i. Natural Gardens prepared in the manner to conserve the wetlands.
- ii. Facilities for environmental tourism-such as Cabanas stand on stilts
- iii. Natures-friendly entertainment activities
- iv. Fishing
- v. Transport by water- only if safely implementable.
- vi. Watching sea turtles
- vii. Collection of ornamental fish
- viii. Watching Dolphins
- ix. Camping closer to the beach
- x. Watching birds
- xi. Diving
- xii. Government approved public infrastructure projects of national significance
- xiii. Agriculture.

Other uses are prohibited in this zone.

Annexure 22: Special conditions for development of wetland conservation areas.

Conditions for development	Natural Wetland Conservation Zone.
1. Flood detention Capacity	The development should conform to the conditions of the approval of the Sri Lanka Land Reclamation and Development Corporation and the standards of the Department of Irrigation
2. Minimum land extent required for construction of a building	4 Hectares (10 Acres) Permissable uses will be allowed in small plots of lands but construction of buildings shall not be permitted.
3. Maximum permissible land extent for reclamation	2% of the land or 32 Perches which ever is the lowest Reclaimed land area can be used for roads, vehicle parks, toilets or treatment of waste water.
4. Plot coverage-Foot print of the building	Should not exceed 1% of the reclaimed area (toilets – 16 perches0 Thebuildings within the reclaimed area should be constructed on stilts.
5. Approved infrastructure projects-Power, Water supply, Telephone cables and internal roads	\$% of the project area or maximum of 64 perches which ever is the minimum
6. Maximum ground floor extent of individual buildings permissible.	100 sqmtrs-4 Perches
7. Miximum height of permissible buildings	7 Mtrs above the natural ground level-should be constructed, in conformity with the overall concept of conservation, on stilts, in hidden locations to be able to observe the nature- Ground Floor + 1 Floor
8. Type of buildings	The individual or group of buildings could be designed in environmentally friendly manner with roof to be able to merge with the nature and should not obstruct the view of the nature from the roads or public areas.
9. Sub division of lands	Prohibitted
10. Establishment of boundaries	Boundary walls are prohibited. Non mesionery constructions along the boundaries parallel to an edge of a highland without obstructing the storm water floor and the view of the nature, of a fence may be considered for approvale subject to the condition that boundary marks should be located at intervals of 10 Mtrs of each other and with the approval of the UDA.

11. Relaxation of above	Only when relaxation are necessary to implement an
conditions	approved public infrastructure project.

Note:- Work places or yards falling within the purview of the defined projects under the Central Environmental Authority Act, belonging to the Central Environmental Authority, Sri Lanka Land Reclamation and Development Corporation, Agrarian Service Department, Coast Conservation and Marine Resource management Department, Department of Irrigation and Urban Development Authority could be considered for permission.

Any development in contravention of the above mentioned guidelines and conditions will be dealt with under the powers of the Urban Development Authority Act.

Annexure 23: Existing Play Grounds within the Pradesheeya Saba Area

No	Туре	Extent	Current use	GS Division
	(Pocket Parks)			
01	EPP ₁	0.2	Play ground	630 Periyakudirippu
02	EPP ₂	0.2	Play ground	626 Mudalappaliya
03	EPP ₃	0.1	Play ground	626 Mudalappaliya
	Total	0.5		
	(Mini Parks)			
04	EMP ₁	0.3	Play ground	629 A Kandakuliya
05	EMP ₂	0.7	Play ground	621 A Norochchole
06	EMP ₃	0.5	Play ground	621 Paniadiya
07	EMP ₄	0.9	Play ground	
08	EMP5	0.7	Play ground	599 Kadayamotai
09	EMP ₆	0.7	Play ground	599 B Kandathoduwawa
	Total	3.8		
	Local Parks			
10	ELP ₁	1.0	Play ground	629 Kurugngnanpitiya- North
11	ELP ₂	1.5	Play ground	605 B Nirmalapura
12	ELP ₃	1.3	Play ground	(597 A) Punapitiya
	Sub total	3.8		
	Total	8.1		

Annexure 24: Proposed direct and indirect entertainment facility projects within the Kalpitiya PS area for the year 2030.

No	Proposed garden s (Mini Parks)	Extent in Hectares	Current use	GS Division
1	PMP ₁	0.4	Vacant Land	(631 A) Anawasala
2	PMP ₂	0.3	Vacant Land	Sinnakudirippuwa
3	PMP ₃	0.7	Vacant Land	(630 C) Mandalakudawa
4	PMP ₄	0.9	Vacant Land	(630 C) mandalakudawa
5	PMP ₅	0.6	Vacant Land	(629) Kurigngnanpitiya
6	PMP ₆	0.5	Vacant Land	(601) Wiruthodaya
7	PMP ₇	0.3	Vacant Land	(601) Wiruthodaya
8	PMP ₈	0.5	Vacant Land	(603) Thethapola
9	PMP ₉	0.6	Vacant Land	(621) Paniyadiya
10	PMP ₁₀	0.7	Vacant Land	(626) Madalappaliya
	Total	5.5		
02.	Local Parks			
11	PLP ₁	1.4	Vacant Land	(631 A) Anawasala
12	PLP ₂	1.1	Vacant Land	(630 C) Mandalakudawa
13	PLP ₃	1.5	Vacant Land	(630 C) Mandalakudawa
14	PLP ₄	1.5	Vacant Land	(630 B) Wannimundalama
15	PLP ₅	2.0	Vacant Land	(630 B) Wannimundalama
16	PLP ₆	2.8	Vacant Land	Pudikudirippuwa
17	PLP ₇	1.1	Vacant Land	(629) Kurigngnanpitiya North
18	PLP ₈	1.1	Vacant Land	(628) Musalpitiya
19	PLP ₉	2.1	Vacant Land	(629 A) Kandakuliya
20	PLP ₁₀	1.0	Vacant Land	(601) Wiruthodaya
21	PLP ₁₁	1.3	Vacant Land	Kanamula South
22	PLP ₁₂	1.8	Vacant Land	Sameeragama
23	PLP ₁₃	2.7	Vacant Land	Poonapitiya
24	PLP ₁₄	1.9	Vacant Land	(603) Thethapola
	Total	22.3		
03.	Community Parks			
25	PCP ₁	5.5	Vacant Land	(631 A) Anawasala
26	PCP ₂	3.6	Vacant Land	(629) Kurugngnanpitiya-North
27	PCP ₃	3.4	Vacant Land	(629) Kurigngnanpitiya North
28	PCP ₄	3.0	Vacant Land	(629 B Kurigngnanpitiya South
29	PCP ₅	5.5	Vacant Land	Poonapitiya
30	PCP ₆	3.7	Vacant Land	Nirmalapitiya
31	PCP ₇	5.7	Vacant Land	Thalawila West
	Total	30.4		

	ProposedBeach			
	Park			
32	Proposed Beach	959 .0	Sand dunes	
	Park			
	Sub total	959.0		
	Total	1017.2		

Annexure 25: Permissable uses in public open entertainment areas

No	Gerden type	Extent	Permissable uses
01	Pocket	Between 1-2	Play grounds dedicated to Children
	Parks	Hectares	Pocket Play grounds
		(0.5-2.5 Acres)	Linear forest garden
			Leisure garden
02	Local	1-3 Hectars	Foot ball ground with a children's garden
	Gardens	2.5-7.5 Acres	Resting places
			Mini forest gardens
			Training tracks
03	Community Gardens	3-6 hectares - (15-7.5 Acres)	 2 hectare play ground with training facili- ties for foot ball, Hocky, and track and
			 Cricket gound1-1.5 hectares
			 Play ground for netball, volley ball .5-2.5 Hectares
			 Special play ground for children 0.25 hectares
			Garden 0.25 hectsares
			Leisure areas in the nature.
04	Beach	Extent of the	restaurant
	garden	beach will be	 Mobile trade stalls
		dependent on the Kalpitiya beach	 Souvenir trade stalls Changing rooms/ places
			Children's play areas
			Police post
			Seating facilities
			Small dustbins
			Drinking water taps
			Sport equipments
			Lighting of the beach

Annexure 26: Type of trees for tree planting

Large trees

- 05. Tamarindus indicus
- 06. Dialium avoideum
- 07. Bombax ceiba
- 08. Mimosups elengi
- 09. Pterocarpus indicus
- 10. Tamarindus indicus
- 11. Cassia siamea
- 12. Sterculia foetida
- 13. Berrya cordifolia

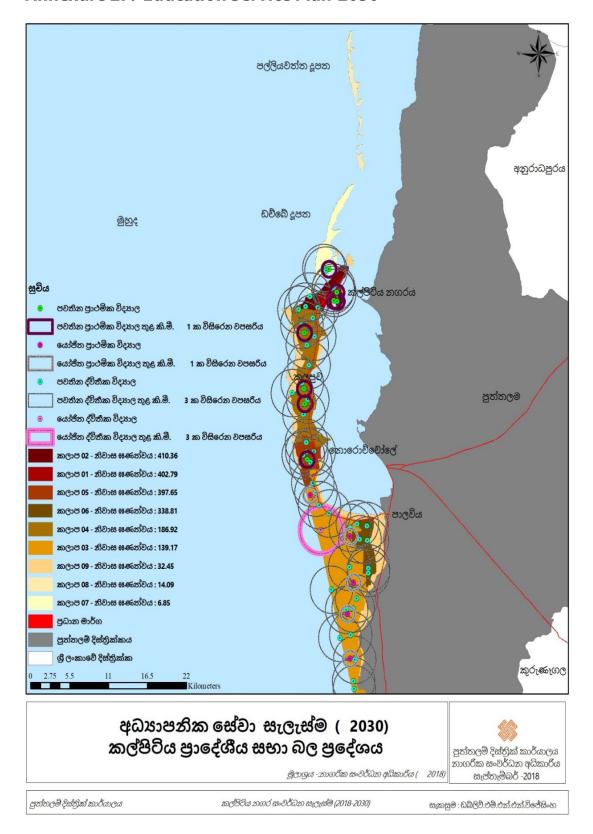
Medium size trees

- 01. Azadirachta indica
- 02. Cassia fistula
- 03. Albizia lebbeck
- 04. Butea mosperma
- 05. Cassia roxburghii
- 06. Nauclea orientalis
- 07. Gmelina arborea
- 08. Cassine glauca
- 09. Erythrina variegata

Small tress

- 01. Bauhinia tomentosa
- 02. Morinda tinctoria
- 03. Cochlospermum religiosum
- 04. Cordia dichtoma
- 05. Aegle marmelos
- 06. Bauhinia racemosa
- 07. Bauhinia variegata
- 08. Saraca indica
- 09. Hibiscus tiliaceus
- 10. Phyllanthus acidus

Annexure 27: Education Service Plan-2030



Source: Urban Development Authority

Annexure 28: Zoning Determinations

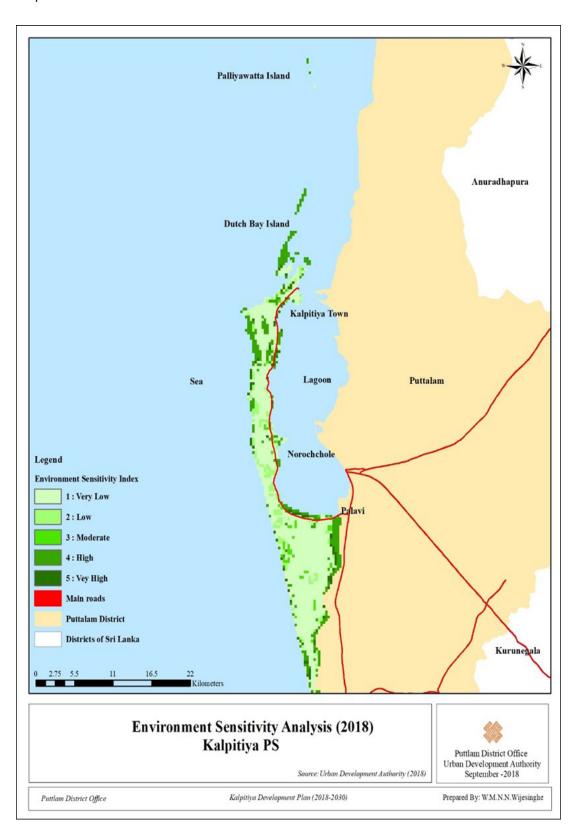
The Zoning based on following analysis,

- Development Pressure Analysis
- Environmental Sensitivity Analysis
- Suitability Analysis

Determinants of Development Pressure Analysis,

Key Features	Weight	Description		Scale
Accessibility Index (AI)	20			1-5
Accessibility by ma- jor roads (A Class Road)	1	Distance Mea- surement	Euclidean Distance	
Accessibility by minor roads (B &C Class Road)	0.7	Distance Mea- surement	Euclidean Distance	
Accessibility by local roads	0.4	Distance Mea- surement	Euclidean Distance	
Urbanization Index (UI)	30			1-5
Connectivity Level		IIRR	Inverse distance weighted	1-5
Population Index (PI)	30			1-5
Population Density	50	Number of Person per area	Classify the class using the standard classification method. Eg: The geometric spacing	1-5
Population Growth	50	Annual Growth Rate	Classify the class using the standard classification method. Eg: The geometric spacing	1-5
		1		
Land Use Classifi-	20 50		Banking, Commercial, Industrial, Orga-	1-5
cation			nizational, Health, Educational, Public Tourism, Utilities, Social, Park and Playgrounds, Transport, Residential, Entertaining Activities, Security	4
			Vacant land, home gardening, coconut cultivation, open spaces, other cultivations, rubber cultivations, abandoned paddy fields	3
			Teak, Mixed Agriculture, Chena, Ar- cheological, Sussex Land, Grassland, Scrubland, Paddy fields	2
			Mangroves, marshes, lakes, sand dunes and beaches, sea, lagoon	1
Housing Density	50	Number of houses per area	Building Density.	1-5

Map No 10.1.1

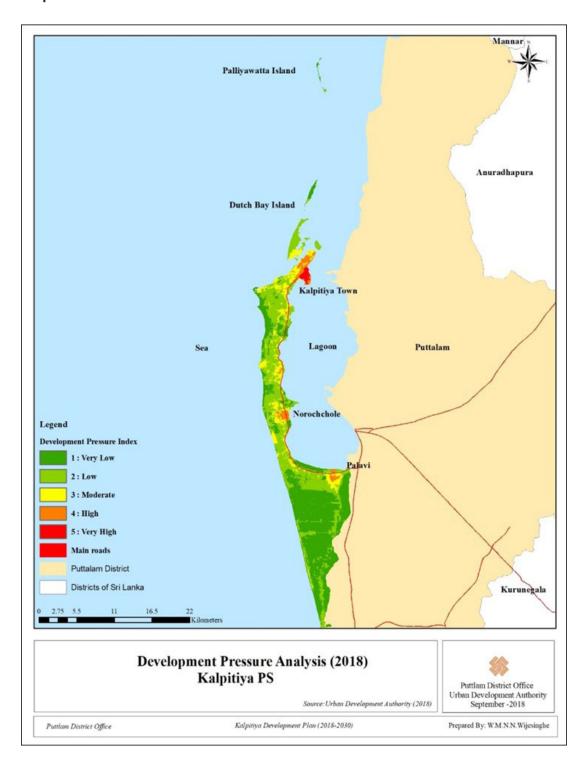


Source: Urban Development Authority

Determinants of Environmental Sensitivity Analysis,

Key Features	Weight	Description		Scale
Accessibility Index (AI)	20			1-5
Accessibility by major roads (A Class Road)	1	Distance Measurement	Euclidean Distance	
Accessibility by minor roads (B &C Class Road)	0.7	Distance Measurement	Euclidean Distance	
Accessibility by local roads	0.4	Distance Measurement	Euclidean Distance	
Urbanization Index (UI)	30	T	T	1-5
Connectivity Level		IIRR	Inverse distance weighted	1-5
Population Index (PI)	30			1-5
Population Density	50	Number of Person per area	Classify the class using the standard classification method. Eg: The geometric spacing	1-5
Population Growth	50	Annual Growth Rate	Classify the class using the standard classification method. Eg: The geometric spacing	1-5
Landuse Index (LI)	20			1-5
Land Use Classification	50		Banking, Commercial, Industrial, Organizational, Health, Educational, Public	5
			Tourism, Utilities, Social, Park and Playgrounds, Transport, Residential, Entertaining Activities, Security	4
			Vacant land, home gardening, coconut cultivation, open spaces, other cultivations, rubber cultivations, abandoned paddy fields	3
			Teak, Mixed Agriculture, Chena, Archeological, Sussex Land, Grassland, Scrubland, Paddy fields	2
			Mangroves, marshes, lakes, sand dunes and beaches, sea, lagoon	1
Housing Density	50	Number of houses per area	Building Density.	1-5

Map No 10.1.2

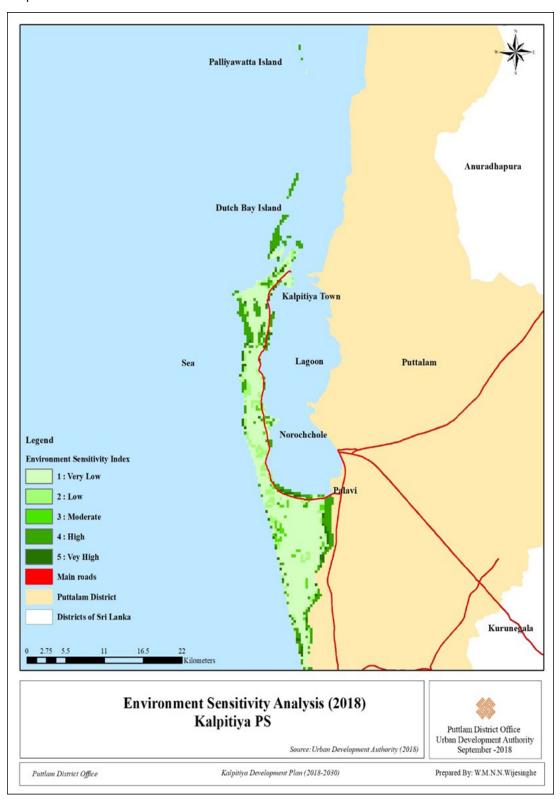


Source: Urban Development Authority

Determinants of Suitability Analysis for residential zones

Key Features	Weight	Description		Scale
Landuse Index (LI)	30	Developable lands	Developable lands	
			Identify areas without following factors	
			1Developed high-density settlements	
			2. Areas affected by the paddy lands, lowlands and floods	
Accessibility Index (AI)	25	Immediately accessible lands		1-5
		Distance to main road	Euclidean Distance	5
		Distance to secondary road	Euclidean Distance	4
		Distance to minor road	Euclidean Distance	3
		Foot paths and other roads	Euclidean Distance	2
Special Accessibility	15	Lands with special access		1-5
		Located near the school (Educational institutions)	Euclidean Distance	
		Located near hospitals	Euclidean Distance	
		Located near the administrative services	Euclidean Distance	
		Located near the banks and public market	Euclidean Distance	
Infrastructure Facilities	20	Lands with infrastructure facilities		1-5
		Water distribution network		
		Electricity distribution network		

Map No 10.1.3



Source: Urban Development Authority

The results gaining through overlaying Development Pressure Analysis, Environmental Sensitivity Analysis and Suitability Analysis for residential zones used to determine how the zonal density of Kalpitiya area should be,

The area was identified under nine (09) Zones.

Zone no:	Name of the Zone	Area(sq.m)
1	Special Commercial Zone	11.18
2	Mixed Development Zone	9.60
3	Agricultural Zone	99.97
4	Mixed Residential Zone I	44.87
5	Mixed Devlopment Zone II	12.63
6	Salt & Aquatic Production Zone	15.51
7	Beach Based Tourism Development Zone	10.77
8	Island Based Tourism Development Zone	6.29
9	Eco Tourism Development Zone	48.18
Total		259.00

Annexure 29: Zoning Boundaries (Geo-coordinates) Special commercial Zone (Zone 01)

No.	Х	Υ
1	8.215016°	79.747280°
2	8.216532°	79.744272°
3	8.217716°	79.742483°
4	8.219789°	79.741463°
5	8.222098°	79.741771°
6	8.224383°	79.739772°
7	8.224691°	79.739104°
8	8.228842°	79.738165°
9	8.228468°	79.739214°
10	8.229688°	79.742453°
11	8.230695°	79.744563°
12	8.231965°	79.745452°
13	8.234192°	79.751815°
14	8.234302°	79.752497°
15	8.235344°	79.754119°
16	8.236376°	79.756264°
17	8.236937°	79.757033°
18	8.235716°	79.758017°
19	8.235432°	79.757771°
20	8.235327°	79.757240°
21	8.234942°	79.757326°
22	8.234400°	79.757411°
23	8.235436°	79.759575°
24	8.236387°	79.761908°
25	8.236948°	79.761783°
26	8.238257°	79.761033°
27	8.238487°	79.761057°
28	8.239549°	79.762380°
29	8.240149°	79.762977°
30	8.240406°	79.763385°
31	8.241491°	79.762949°
32	8.242457°	79.762664°
33	8.243936°	79.762178°
34	8.244860°	79.761776°
35	8.245658°	79.761244°
36	8.246179°	79.762523°
37	8.247476°	79.765466°
38	8.247258°	79.768499°

39	8.246714°	79.769883°
40	8.245283°	79.768585°
41	8.243856°	79.767363°
42	8.242533°	79.766357°
43	8.241366°	79.765748°
44	8.241262°	79.765979°
45	8.240620°	79.766024°
46	8.239798°	79.766195°
47	8.238665°	79.766613°
48	8.237615°	79.767157°
49	8.237371°	79.767086°
50	8.236002°	79.767490°
51	8.235640°	79.767182°
52	8.235106°	79.767181°
53	8.235092°	79.766961°
54	8.233812°	79.767250°
55	8.231912°	79.768204°
	8.230641°	79.768943°
	8.229413°	79.769871°
 58	8.228469°	79.770423°
	8.227959°	79.770516°
60	8.227146°	79.770575°
61	8.224903°	79.770515°
62	8.223008°	79.770267°
63	8.222161°	79.770364°
64	8.221154°	79.770175°
	8.219426°	79.769592°
	8.218655°	79.769250°
67	8.218010°	79.769415°
	8.217583°	79.769176°
69	8.217216°	79.768939°
70	8.217348°	79.768098°
71	8.217079°	79.767383°
72	8.216937°	79.766619°
73	8.216843°	79.766311°
74	8.216843°	79.765712°
75	8.216733°	79.765483°
76	8.216655°	79.765145°
77	8.216506°	79.764918°
	8.216561°	79.764572°
	8.216265°	79.763903°
80	8.216265°	79.763378°
	0.210203	75.705570

81	8.216437°	79.762996°
82	8.216641°	79.762580°
83	8.216947°	79.762190°
84	8.217320°	79.761866°
85	8.218099°	79.761839°
86	8.220220°	79.762283°
87	8.221306°	79.761760°
88	8.222279°	79.760864°
89	8.223095°	79.759733°
90	8.223817°	79.758368°
91	8.224751°	79.756651°
92	8.224806°	79.756328°
93	8.224095°	79.755915°
94	8.223304°	79.755597°
95	8.222773°	79.755277°
96	8.222120°	79.754737°
97	8.221916°	79.754512°
98	8.221807°	79.754016°
99	8.221356°	79.753494°
100	8.221145°	79.753180°
101	8.220865°	79.752821°
102	8.220642°	79.752447°
103	8.220550°	79.752092°
104	8.220416°	79.751832°
105	8.220292°	79.751572°
106	8.219891°	79.751030°
107	8.219409°	79.750364°
108	8.219079°	79.750064°
109	8.218757°	79.749858°
110	8.218645°	79.749541°
111	8.218600°	79.749260°
112	8.218473°	79.749367°
113	8.218262°	79.749286°
114	8.218145°	79.749074°
115	8.217957°	79.748840°
116	8.217802°	79.748613°
117	8.217654°	79.748548°
118	8.217521°	79.748429°
119	8.217173°	79.748388°
120	8.216927°	79.748206°
121	8.216671°	79.747989°
122	8.216352°	79.747897°
	•	

123	8.216153°	79.747869°
124	8.216007°	79.747814°
125	8.215852°	79.747663°
126	8.215617°	79.747735°
127	8.215438°	79.747683°
128	8.215292°	79.747597°
129	8.215219°	79.747459°

Mixed Development Zone I (Zone 02)

No.	X	Υ
1	8.210173°	79.745042°
2	8.211748°	79.740550°
3	8.211830°	79.736808°
4	8.211581°	79.733760°
5	8.211537°	79.733091°
6	8.211938°	79.731279°
7	8.212217°	79.730219°
8	8.212519°	79.728546°
9	8.213091°	79.725871°
10	8.213500°	79.724157°
11	8.213679°	79.722973°
12	8.213475°	79.720811°
13	8.212922°	79.717497°
14	8.212916°	79.717320°
15	8.212942°	79.717264°
16	8.213397°	79.717169°
17	8.213673°	79.716887°
18	8.216129°	79.716779°
19	8.216660°	79.716686°
20	8.217906°	79.716165°
21	8.219573°	79.718137°
22	8.221570°	79.719900°
23	8.223035°	79.721212°
24	8.224837°	79.722903°
25	8.226596°	79.724634°
26	8.225126°	79.726642°
27	8.224029°	79.727713°
28	8.224615°	79.728037°
29	8.225183°	79.728791°
30	8.224603°	79.729637°
31	8.225393°	79.730733°
32	8.226364°	79.731891°
33	8.227896°	79.732873°
34	8.227793°	79.733656°
35	8.227921°	79.734465°
36	8.228179°	79.734552°
37	8.228522°	79.734870°
38	8.228813°	79.735332°

39	8.229088°	79.736072°
40	8.229131°	79.736737°
41	8.229493°	79.737805°
42	8.229937°	79.738759°
43	8.230650°	79.739921°
44	8.231310°	79.740589°
45	8.232038°	79.741031°
46	8.232723°	79.741179°
47	8.233631°	79.741375°
48	8.234211°	79.741692°
49	8.234404°	79.741977°
50	8.234684°	79.742302°
51	8.235058°	79.742514°
52	8.235261°	79.742883°
53	8.235462°	79.743295°
54	8.235796°	79.743778°
55	8.236234°	79.744329°
56	8.237029°	79.744849°
57	8.237596°	79.745092°
58	8.237807°	79.745364°
59	8.237905°	79.745379°
60	8.238046°	79.745688°
61	8.238373°	79.745999°
62	8.238775°	79.746311°
63	8.239048°	79.746509°
64	8.239395°	79.746706°
65	8.239893°	79.747045°
66	8.240271°	79.747161°
67	8.240671°	79.747334°
68	8.241131°	79.747604°
69	8.241398°	79.747724°
70	8.241219°	79.747918°
71	8.241200°	79.748252°
72	8.241264°	79.748388°
73	8.241153°	79.748652°
74	8.241050°	79.748744°
75	8.241116°	79.748865°
76	8.241047°	79.749049°
77	8.241112°	79.749449°
78	8.241817°	79.750465°
79	8.242382°	79.751111°
80	8.242611°	79.751227°

81	8.242793°	79.751325°
82	8.242978°	79.751374°
83	8.243147°	79.751483°
84	8.243235°	79.751727°
85	8.243983°	79.751890°
86	8.244037°	79.752173°
87	8.244231°	79.752447°
88	8.244403°	79.752628°
89	8.244750°	79.752891°
90	8.245007°	79.753085°
91	8.245292°	79.753381°
92	8.245560°	79.753689°
93	8.245833°	79.754150°
94	8.245949°	79.754390°
95	8.245956°	79.754510°
96	8.246340°	79.755029°
97	8.246696°	79.755308°
98	8.247122°	79.755662°
99	8.247363°	79.755924°
100	8.248002°	79.756576°
101	8.248645°	79.757120°
102	8.249050°	79.757331°
103	8.249424°	79.757458°
104	8.249905°	79.757592°
105	8.250332°	79.757764°
106	8.250682°	79.757936°
107	8.250925°	79.757865°
108	8.251204°	79.757997°
109	8.251411°	79.758189°
110	8.251559°	79.758498°
111	8.251466°	79.758665°
112	8.251305°	79.758959°
113	8.251150°	79.759445°
114	8.251177°	79.759874°
115	8.251339°	79.760226°
116	8.251580°	79.760495°
117	8.251831°	79.760507°
118	8.252023°	79.760442°
119	8.252189°	79.760490°
120	8.252456°	79.760771°
121	8.252775°	79.760967°
122	8.253268°	79.761628°

122	0.2524120	70.7610110
123	8.253412°	79.761911°
124	8.253914°	79.762425°
125	8.254188°	79.762686°
126	8.254710°	79.763019°
127	8.254937°	79.763261°
128	8.255168°	79.763682°
129	8.255510°	79.764017°
130	8.255972°	79.764440°
131	8.256413°	79.764620°
132	8.256975°	79.764682°
133	8.257593°	79.764518°
134	8.258131°	79.764312°
135	8.258622°	79.764057°
136	8.259148°	79.763895°
137	8.259378°	79.764045°
138	8.259389°	79.764576°
139	8.259459°	79.765074°
140	8.259651°	79.765563°
141	8.259903°	79.766044°
142	8.260096°	79.766334°
143	8.260398°	79.766751°
144	8.260682°	79.766927°
145	8.261022°	79.767091°
146	8.261466°	79.767239°
147	8.261807°	79.767267°
148	8.262074°	79.767286°
149	8.262296°	79.767343°
150	8.262550°	79.767419°
151	8.262789°	79.767388°
152	8.263052°	79.767351°
153	8.263135°	79.767514°
154	8.263047°	79.767607°
155	8.262909°	79.767615°
156	8.262853°	79.767642°
157	8.262717°	79.767614°
158	8.262567°	79.767590°
159	8.262465°	79.767657°
160	8.262375°	79.767837°
161	8.262320°	79.768001°
162	8.262351°	79.768248°
163	8.262423°	79.768445°
 164	8.262419°	79.768622°

165	8.262382°	79.768736°
166	8.262419°	79.768903°
167	8.262426°	79.769101°
168	8.262452°	79.769325°
169	8.262412°	79.769716°
170	8.262397°	79.770138°
171	8.262242°	79.770705°
172	8.262073°	79.771116°
173	8.261859°	79.771880°
174	8.261806°	79.772339°
175	8.261777°	79.772926°
176	8.261598°	79.773725°
177	8.261574°	79.774534°
178	8.261333°	79.775087°
179	8.261374°	79.775854°
180	8.261383°	79.776669°
181	8.261239°	79.776827°
182	8.260549°	79.777075°
183	8.259535°	79.777591°
184	8.259126°	79.777764°
185	8.258584°	79.777406°
186	8.258423°	79.777449°
187	8.257386°	79.776630°
188	8.257888°	79.776941°
189	8.257386°	79.776630°
190	8.256645°	79.776137°
191	8.256022°	79.775612°
192	8.255198°	79.775140°
193	8.254859°	79.775021°
194	8.254573°	79.774965°
195	8.254408°	79.774804°
196	8.254135°	79.774686°
197	8.253922°	79.774398°
198	8.253799°	79.774255°
199	8.253573°	79.773985°
200	8.253140°	79.773693°
201	8.252025°	79.773225°
202	8.251322°	79.773263°
203	8.250595°	79.772939°
204	8.249440°	79.772511°
205	8.248429°	79.771798°
206	8.247958°	79.771080°

207	8.247657°	79.770705°
208	8.246714°	79.769883°
209	8.247258°	79.768499°
210	8.247476°	79.765466°
211	8.246179°	79.762523°
212	8.245658°	79.761244°
213	8.244860°	79.761776°
214	8.243936°	79.762178°
215	8.242457°	79.762664°
216	8.241491°	79.762949°
217	8.240406°	79.763385°
218	8.239549°	79.762380°
219	8.238487°	79.761057°
220	8.237419°	79.761597°
221	8.236387°	79.761908°
222	8.235867°	79.760610°
223	8.235436°	79.759575°
224	8.234952°	79.758478°
225	8.234751°	79.758101°
226	8.235392°	79.757664°
227	8.235620°	79.757991°
228	8.235722°	79.758023°
229	8.236791°	79.757538°
230	8.236937°	79.757033°
231	8.236760°	79.756605°
232	8.236376°	79.756264°
233	8.235344°	79.754119°
234	8.234302°	79.752497°
235	8.234192°	79.751815°
236	8.231965°	79.745452°
237	8.230695°	79.744563°
238	8.229688°	79.742453°
239	8.228468°	79.739214°
240	8.228842°	79.738165°
241	8.226514°	79.738355°
242	8.225187°	79.738770°
230	8.224650°	79.739131°
231	8.224383°	79.739772°
232	8.223112°	79.740768°
233	8.222098°	79.741771°
234	8.221794°	79.741858°
235	8.220050°	79.741471°
	0.220030	/ / / / / / / /

236	8.219598°	79.741537°
237	8.218138°	79.742331°
238	8.217727°	79.742483°
239	8.216532°	79.744272°
240	8.215016°	79.747280°
241	8.214530°	79.747124°
242	8.214183°	79.746629°
243	8.213657°	79.745891°
244	8.213066°	79.745676°
245	8.212190°	79.745329°
246	8.211532°	79.745194°
247	8.210944°	79.745266°
248	8.210872°	79.745502°
249	8.210173°	79.745042°

Agriculture Zone (Zone 03)

No	Х	Υ
01	79.742286°	8.029932°
02	79.729198°	8.029566°
03	79.727856°	8.025203°
04	79.728106°	8.024143°
05	79.734455°	8.018634°
06	79.734982°	8.014611°
07	79.722556°	8.010808°
08	79.786725°	7.771031°
09	79.793040°	7.769940°
10	79.791062°	7.794679°
11	79.794842°	7.848363°
12	79.801180°	7.872824°
13	79.808474°	7.895257°
14	79.800528°	7.910320°
15	79.798837°	7.939351°
16	79.788346°	7.944599°
17	79.782162°	7.944587°
18	79.783572°	7.962185°
19	79.796288°	7.959409°
20	79.791597°	7.964865°
21	79.792009°	7.972191°
22	79.755540°	7.980533°
23	79.735809°	8.014694°

Mixed Residential Zone (Zone 04

No	Х	Y
1	8.049630°	79.741851°
2	8.049553°	79.741380°
3	8.049590°	79.740310°
4	8.049435°	79.740214°
5	8.049535°	79.739033°
6	8.049664°	79.737066°
7	8.050835°	79.736757°
8	8.053334°	79.736112°
9	8.053530°	79.736060°
10	8.060691°	79.733934°
11	8.062355°	79.733815°
12	8.061612°	79.730849°
13	8.060809°	79.727916°
14	8.060717°	79.727171°
15	8.060818°	79.727017°
16	8.061085°	79.727050°
17	8.061744°	79.727009°
18	8.062290°	79.726915°
19	8.062861°	79.726749°
20	8.063239°	79.726740°
21	8.063633°	79.726761°
22	8.063972°	79.726700°
23	8.064346°	79.726537°
24	8.064641°	79.726391°
25	8.065494°	79.726041°
26	8.066012°	79.725843°
27	8.066657°	79.725653°
28	8.067716°	79.725126°
29	8.067503°	79.724329°
30	8.067547°	79.724222°
31	8.067770°	79.724070°
32	8.067779°	79.723774°
33	8.067729°	79.723224°
34	8.067725°	79.722375°
35	8.067734°	79.722027°
36	8.067759°	79.721598°
37	8.067866°	79.721123°
38	8.067929°	79.720903°
39	8.068316°	79.720716°

41 8.068403° 79.720028° 42 8.068479° 79.718176° 43 8.067081° 79.718513° 44 8.066138° 79.718675° 45 8.064600° 79.718768° 46 8.064195° 79.71868° 46 8.064195° 79.718948° 47 8.062094° 79.719056° 48 8.061857° 79.718331° 49 8.061268° 79.712712° 50 8.060953° 79.713742° 51 8.064004° 79.713188° 52 8.067083° 79.712966° 53 8.073067° 79.711063° 54 8.077525° 79.711063° 55 8.079257° 79.710418° 55 8.088120° 79.712162° 58 8.089587° 79.713340° 59 8.089775° 79.71340° 60 8.090471° 79.713706° 61 8.090660° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.71340° 64 8.091722° 79.714304° 65 8.0890860° 79.713706° 69 8.091799° 79.712413° 67 8.089080° 79.712413° 68 8.092239° 79.708478° 79 8.092556° 79.708478° 79 8.092556° 79.708478° 79 79.708559° 79 8.092556° 79.708478° 79 79.708559° 79 8.095610° 79.708559° 79 8.095610° 79.708559° 79 8.095610° 79.70905° 79 8.095897° 79.70905° 79 8.09597° 79.70905°	40	8.068388°	79.720586°
43 8.067081° 79.718513° 44 8.066138° 79.718675° 45 8.064600° 79.718768° 46 8.064195° 79.718948° 47 8.062094° 79.719056° 48 8.061857° 79.718331° 49 8.061268° 79.71217° 50 8.060953° 79.713742° 51 8.064004° 79.713188° 52 8.067083° 79.712966° 53 8.073067° 79.711114° 55 8.079257° 79.711314° 56 8.084839° 79.711344° 57 8.087120° 79.712162° 58 8.089587° 79.713747° 61 8.090471° 79.713747° 61 8.09060° 79.713706° 62 8.091375° 79.71450° 63 8.091375° 79.714304° 64 8.091722° 79.714304° 65 8.092047° 79.713127° 66 8.092037° 79.713127° 66 8.092038° 79.713727° 67 8.08720° 79.713740° 68 8.091720° 79.713740° 69 8.091375° 79.714500° 69 8.091375° 79.714304° 61 8.090660° 79.713706° 62 8.091375° 79.714304° 63 8.091382° 79.714304° 64 8.091722° 79.714304° 65 8.092047° 79.713127° 66 8.092047° 79.713127° 67 8.089608° 79.709756° 68 8.09233° 79.708400° 70 8.092239° 79.708400° 71 8.092576° 79.708482° 72 8.093233° 79.708400° 73 8.093703° 79.708555° 75 8.094453° 79.708897° 77 8.095610° 79.708897° 78 8.09597° 79.709009°	41	8.068403°	79.720028°
44 8.066138° 79.718675° 45 8.064600° 79.718768° 46 8.064195° 79.718948° 47 8.062094° 79.719056° 48 8.061857° 79.718331° 49 8.061268° 79.717217° 50 8.060953° 79.713742° 51 8.064004° 79.713188° 52 8.067083° 79.712966° 53 8.073067° 79.711063° 54 8.077525° 79.711314° 55 8.089257° 79.710418° 56 8.084839° 79.712162° 58 8.089587° 79.71340° 59 8.089775° 79.71340° 60 8.090471° 79.713703° 60 8.090471° 79.713706° 61 8.090600° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714550° 63 8.091722° 79.714501° 64 8.091722° 79.714011° 65 8.092047° 79.713706° 66 8.090470° 79.713706° 67 8.089608° 79.709716° 68 8.091799° 79.71413° 67 8.089608° 79.709756° 68 8.09231° 79.708970° 69 8.091601° 79.708970° 69 8.091601° 79.708970° 70 8.09233° 79.708970° 71 8.092576° 79.708897° 72 8.093233° 79.708420° 73 8.093233° 79.708420° 74 8.09410° 79.708555° 75 8.094453° 79.708897° 77 8.095610° 79.708897° 78 8.09597° 79.709009°	42	8.068479°	79.718176°
45 8.064600° 79.718768° 46 8.064195° 79.718948° 47 8.062094° 79.719056° 48 8.061857° 79.718331° 49 8.061268° 79.717217° 50 8.060953° 79.713742° 51 8.064004° 79.712966° 53 8.073067° 79.711063° 54 8.077525° 79.711314° 55 8.079257° 79.710418° 56 8.084839° 79.712162° 58 8.089787° 79.713340° 59 8.089775° 79.71340° 60 8.090471° 79.713747° 61 8.09060° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714061° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091382° 79.713127° 66 8.091382° 79.713706° 67 8.089608° 79.713706° 68 8.091382° 79.713706° 69 8.091601° 79.708970° 69 8.091601° 79.708970° 69 8.091601° 79.708970° 69 8.09239° 79.708756° 79.708756° 79.708756° 79.708756° 79.708756° 79.708756° 79.708940° 70 8.09239° 79.708756° 79.708758° 79.708855° 71 8.09233° 79.708478° 72 8.093233° 79.708482° 73 8.094453° 79.708855° 74 8.094110° 79.708855° 75 8.094453° 79.708855° 76 8.094619° 79.708897° 79.708897° 79.708897° 79.708897° 79.7089897° 79.708909° 79.709009°	43	8.067081°	79.718513°
46 8.064195° 79.718948° 47 8.062094° 79.719056° 48 8.061857° 79.718331° 49 8.061268° 79.717217° 50 8.060953° 79.713742° 51 8.064004° 79.713188° 52 8.067083° 79.711363° 54 8.077525° 79.711314° 55 8.077525° 79.711314° 56 8.084839° 79.712162° 58 8.089587° 79.713340° 59 8.089755° 79.713747° 61 8.090660° 79.713703° 62 8.091375° 79.714550° 63 8.091382° 79.714304° 64 8.091722° 79.714061° 65 8.089047° 79.713127° 66 8.090231° 79.708728° 79 8.089239° 79.708728° 71 8.092239° 79.708759° 79 708879° 79 708879° 79 7088798° 79 8.099233° 79.708559° 79 708879° 79 709082° 78 8.09597° 79.70909°	44	8.066138°	79.718675°
47 8.062094° 79.719056° 48 8.061857° 79.718331° 49 8.061268° 79.717217° 50 8.060953° 79.713742° 51 8.064004° 79.713188° 52 8.067083° 79.711063° 53 8.073067° 79.711114° 55 8.079257° 79.711314° 56 8.084839° 79.712162° 58 8.089587° 79.713340° 59 8.089775° 79.71340° 60 8.090471° 79.713747° 61 8.090660° 79.713706° 62 8.091375° 79.71450° 63 8.091382° 79.714304° 64 8.091722° 79.714304° 65 8.089047° 79.713127° 66 8.091799° 79.712413° 67 8.089068° 79.71327° 68 8.092047° 79.71327° 69 8.091799° 79.712413° 67 8.089608° 79.708970° 69 8.091601° 79.708970° 69 8.091601° 79.708970° 70 8.09233° 79.708478° 71 8.092576° 79.708559° 74 8.094110° 79.708555° 75 8.094453° 79.70887° 77 8.095610° 79.70909° 78 8.095849° 79.70909° 79 79.708878° 79 8.095610° 79.70909° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.708879° 79 79.709009°	45	8.064600°	79.718768°
48 8.061857° 79.718331° 49 8.061268° 79.717217° 50 8.060953° 79.713742° 51 8.064004° 79.713188° 52 8.067083° 79.712966° 53 8.073067° 79.711063° 54 8.077525° 79.711314° 55 8.079257° 79.710418° 56 8.084839° 79.712162° 58 8.089587° 79.71340° 59 8.089755° 79.713340° 59 8.089775° 79.713340° 60 8.090471° 79.713747° 61 8.090660° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714304° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.709870° 69 8.091601° 79.708970° 69 8.091601° 79.708970° 70 8.092239° 79.708482° 71 8.092576° 79.708482° 74 8.09410° 79.708897° 75 8.094619° 79.708897° 76 8.095849° 79.70909° 79.709090° 79 8.095997° 79.709090°	46	8.064195°	79.718948°
49 8.061268° 79.717217° 50 8.060953° 79.713742° 51 8.064004° 79.713188° 52 8.067083° 79.712966° 53 8.073067° 79.711063° 54 8.077525° 79.711314° 55 8.079257° 79.710418° 56 8.084839° 79.71384° 57 8.087120° 79.71340° 58 8.089587° 79.713340° 59 8.089775° 79.713703° 60 8.090471° 79.713747° 61 8.090660° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714304° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091729° 79.712413° 67 8.089608° 79.708970° 68 8.090231° 79.708970° 69 8.091601° 79.708940° 70 8.09239° 79.708488° 72 8.093333° 79.708482°	47	8.062094°	79.719056°
50 8.060953° 79.713742° 51 8.064004° 79.713188° 52 8.067083° 79.712966° 53 8.073067° 79.711063° 54 8.077525° 79.711314° 55 8.079257° 79.710418° 56 8.084839° 79.711384° 57 8.087120° 79.712162° 58 8.089587° 79.713340° 59 8.08975° 79.71370° 60 8.090471° 79.71370° 61 8.090660° 79.71370° 62 8.091375° 79.714550° 63 8.091382° 79.714304° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708940° 70 8.092239° 79.70840° 71 8.092576° 79.708472° 75 8.094453° 79.7084	48	8.061857°	79.718331°
51 8.064004° 79.713188° 52 8.067083° 79.712966° 53 8.073067° 79.711063° 54 8.077525° 79.711314° 55 8.079257° 79.710418° 56 8.084839° 79.711384° 57 8.087120° 79.712162° 58 8.089587° 79.713340° 59 8.089775° 79.713703° 60 8.090471° 79.713747° 61 8.090660° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714406° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708970° 69 8.091601° 79.708400° 70 8.092239° 79.708478° 71 8.092576° 79.708478° 72 8.093233° 79.708482° 75 8.094453° 79.708897°	49	8.061268°	79.717217°
52 8.067083° 79.712966° 53 8.073067° 79.711063° 54 8.077525° 79.711314° 55 8.079257° 79.710418° 56 8.084839° 79.711384° 57 8.087120° 79.712162° 58 8.089587° 79.713340° 59 8.089775° 79.713703° 60 8.090471° 79.713747° 61 8.090660° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714304° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708970° 69 8.091601° 79.70840° 70 8.092239° 79.708478° 71 8.092576° 79.708400° 73 8.093703° 79.708555° 74 8.094110° 79.708555° 75 8.094453° 79.708897°	50	8.060953°	79.713742°
53 8.073067° 79.711063° 54 8.077525° 79.711314° 55 8.079257° 79.710418° 56 8.084839° 79.711384° 57 8.087120° 79.712162° 58 8.089587° 79.713340° 59 8.089775° 79.713703° 60 8.090471° 79.713747° 61 8.090660° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714404° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708970° 69 8.091601° 79.70840° 70 8.092239° 79.708478° 71 8.092576° 79.708400° 73 8.093703° 79.708555° 74 8.094110° 79.708555° 75 8.094453° 79.708482° 76 8.094619° 79.708897°	51	8.064004°	79.713188°
54 8.077525° 79.711314° 55 8.079257° 79.710418° 56 8.084839° 79.711384° 57 8.087120° 79.712162° 58 8.089587° 79.713340° 59 8.089775° 79.713703° 60 8.090471° 79.713747° 61 8.090660° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714304° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708970° 69 8.091601° 79.708940° 70 8.092239° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708555° 74 8.094110° 79.708897° 75 8.094453° 79.708897° 76 8.095610° 79.709082° 78 8.095997° 79.709075°	52	8.067083°	79.712966°
55 8.079257° 79.710418° 56 8.084839° 79.711384° 57 8.087120° 79.712162° 58 8.089587° 79.713340° 59 8.089775° 79.713703° 60 8.090471° 79.713747° 61 8.090660° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714304° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708970° 69 8.091601° 79.708940° 70 8.092239° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708555° 74 8.094110° 79.708897° 75 8.094453° 79.708897° 76 8.094619° 79.709082° 78 8.095849° 79	53	8.073067°	79.711063°
56 8.084839° 79.711384° 57 8.087120° 79.712162° 58 8.089587° 79.713340° 59 8.089775° 79.713703° 60 8.090471° 79.713747° 61 8.090660° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714061° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708970° 69 8.091601° 79.708940° 70 8.092239° 79.708478° 71 8.092576° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708555° 74 8.094110° 79.708897° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117°	54	8.077525°	79.711314°
57 8.087120° 79.712162° 58 8.089587° 79.713340° 59 8.089775° 79.713703° 60 8.090471° 79.713747° 61 8.090660° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714004° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708970° 69 8.091601° 79.708940° 70 8.092239° 79.708728° 71 8.092576° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708555° 74 8.094110° 79.708857° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095610° 79.709075° 80 8.095997° 79.709009°	55	8.079257°	79.710418°
58 8.089587° 79.713340° 59 8.089775° 79.713703° 60 8.090471° 79.713747° 61 8.090660° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714304° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708940° 70 8.09239° 79.708728° 71 8.092576° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708559° 74 8.094110° 79.708897° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095997° 79.7090075° 80 8.095997° 79.709009°	56	8.084839°	79.711384°
59 8.089775° 79.713703° 60 8.090471° 79.713747° 61 8.090660° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714304° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708940° 69 8.091601° 79.708728° 70 8.092239° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708559° 74 8.094110° 79.708555° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709075° 80 8.095971° 79.709009°	57	8.087120°	79.712162°
60 8.090471° 79.713747° 61 8.090660° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714304° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708970° 69 8.091601° 79.708940° 70 8.092239° 79.70848° 71 8.092576° 79.708400° 72 8.093233° 79.708400° 73 8.093703° 79.708559° 74 8.094110° 79.708555° 75 8.094619° 79.708482° 76 8.095610° 79.70982° 78 8.095849° 79.709117° 79 8.095997° 79.709009°	58	8.089587°	79.713340°
61 8.090660° 79.713706° 62 8.091375° 79.714550° 63 8.091382° 79.714304° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708970° 69 8.091601° 79.708728° 70 8.092239° 79.708728° 71 8.092576° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708555° 74 8.094110° 79.708555° 75 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.7090117° 79 8.095997° 79.709009°	59	8.089775°	79.713703°
62 8.091375° 79.714550° 63 8.091382° 79.714304° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708970° 69 8.091601° 79.708940° 70 8.092239° 79.708728° 71 8.092576° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708559° 74 8.094110° 79.708555° 75 8.094453° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709009° 80 8.095971° 79.709009°	60	8.090471°	79.713747°
63 8.091382° 79.714304° 64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708940° 69 8.091601° 79.708940° 70 8.092239° 79.708728° 71 8.092576° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708559° 74 8.094110° 79.708555° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709075° 80 8.0959971° 79.709009°	61	8.090660°	79.713706°
64 8.091722° 79.714061° 65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708970° 69 8.091601° 79.708728° 70 8.092239° 79.708728° 71 8.092576° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708559° 74 8.094110° 79.708555° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709009° 80 8.095971° 79.709009°	62	8.091375°	79.714550°
65 8.092047° 79.713127° 66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708970° 69 8.091601° 79.70840° 70 8.092239° 79.708728° 71 8.092576° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708559° 74 8.094110° 79.708555° 75 8.094453° 79.708482° 76 8.094619° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709009° 80 8.095971° 79.709009°	63	8.091382°	79.714304°
66 8.091799° 79.712413° 67 8.089608° 79.709756° 68 8.090231° 79.708970° 69 8.091601° 79.708728° 70 8.092239° 79.708478° 71 8.092576° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708555° 74 8.094110° 79.708555° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709009° 80 8.095971° 79.709009°	64	8.091722°	79.714061°
67 8.089608° 79.709756° 68 8.090231° 79.708970° 69 8.091601° 79.708940° 70 8.092239° 79.708728° 71 8.092576° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708559° 74 8.094110° 79.708555° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709075° 80 8.095971° 79.709009°	65	8.092047°	79.713127°
68 8.090231° 79.708970° 69 8.091601° 79.708940° 70 8.092239° 79.708728° 71 8.092576° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708559° 74 8.094110° 79.708555° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709075° 80 8.095971° 79.709009°	66	8.091799°	79.712413°
69 8.091601° 79.708940° 70 8.092239° 79.708728° 71 8.092576° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708559° 74 8.094110° 79.708555° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709075° 80 8.095971° 79.709009°	67	8.089608°	79.709756°
70 8.092239° 79.708728° 71 8.092576° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708559° 74 8.094110° 79.708555° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709075° 80 8.095971° 79.709009°	68	8.090231°	79.708970°
71 8.092576° 79.708478° 72 8.093233° 79.708400° 73 8.093703° 79.708559° 74 8.094110° 79.708555° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709075° 80 8.095971° 79.709009°	69	8.091601°	79.708940°
72 8.093233° 79.708400° 73 8.093703° 79.708559° 74 8.094110° 79.708555° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709075° 80 8.095971° 79.709009°	70	8.092239°	79.708728°
73 8.093703° 79.708559° 74 8.094110° 79.708555° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709075° 80 8.095971° 79.709009°	71	8.092576°	79.708478°
74 8.094110° 79.708555° 75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709075° 80 8.095971° 79.709009°	72	8.093233°	79.708400°
75 8.094453° 79.708482° 76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709075° 80 8.095971° 79.709009°	73	8.093703°	79.708559°
76 8.094619° 79.708897° 77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709075° 80 8.095971° 79.709009°	74	8.094110°	79.708555°
77 8.095610° 79.709082° 78 8.095849° 79.709117° 79 8.095997° 79.709075° 80 8.095971° 79.709009°	75	8.094453°	79.708482°
78 8.095849° 79.709117° 79 8.095997° 79.709075° 80 8.095971° 79.709009°	76	8.094619°	79.708897°
79 8.095997° 79.709075° 80 8.095971° 79.709009°	77	8.095610°	79.709082°
80 8.095971° 79.709009°	78	8.095849°	79.709117°
	79	8.095997°	79.709075°
81 8.096018° 79.708564°	80	8.095971°	79.709009°
	81	8.096018°	79.708564°

82	8.095882°	79.707913°
83	8.095879°	79.707916°
84	8.095741°	79.707358°
85	8.095887°	79.707251°
86	8.096229°	79.707107°
87	8.096675°	79.706889°
88	8.097187°	79.706805°
89	8.097890°	79.706705°
90	8.098910°	79.706535°
91	8.099998°	79.706312°
92	8.100796°	79.706321°
93	8.101221°	79.706306°
94	8.101727°	79.706138°
95	8.102840°	79.705963°
96	8.103948°	79.705748°
97	8.104462°	79.705587°
98	8.105114°	79.705326°
99	8.105815°	79.705075°
100	8.107139°	79.704657°
101	8.107865°	79.704437°
102	8.108906°	79.704367°
103	8.109489°	79.704942°
104	8.109825°	79.705350°
105	8.110377°	79.705081°
106	8.110918°	79.704810°
107	8.112013°	79.704251°
108	8.113596°	79.703420°
109	8.114369°	79.705081°
110	8.115226°	79.705959°
111	8.115828°	79.706982°
112	8.116298°	79.707719°
113	8.117307°	79.708586°
114	8.117958°	79.709392°
115	8.118833°	79.710177°
116	8.119523°	79.710692°
117	8.120370°	79.711332°
118	8.121168°	79.711723°
119	8.121826°	79.711613°
120	8.122708°	79.711685°
121	8.124081°	79.711861°
122	8.124851°	79.711985°
123	8.126671°	79.712503°
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124	0.1270649	70.712002°
124	8.127864°	79.712893°
125	8.128834°	79.713231°
126	8.130398°	79.713370°
127	8.131983°	79.713551°
128	8.132605°	79.713478°
129	8.133355°	79.713217°
130	8.134814°	79.713497°
131	8.134941°	79.712573°
132	8.135161°	79.711871°
133	8.135307°	79.711669°
134	8.136224°	79.711484°
135	8.137358°	79.711476°
136	8.138733°	79.711473°
137	8.139435°	79.711478°
138	8.140338°	79.711370°
139	8.141600°	79.711605°
140	8.142806°	79.711857°
141	8.144578°	79.712258°
142	8.146690°	79.712991°
143	8.146521°	79.714741°
144	8.146340°	79.716488°
145	8.146212°	79.717537°
146	8.146572°	79.718609°
147	8.148231°	79.719472°
148	8.149713°	79.720147°
149	8.150569°	79.720754°
150	8.151472°	79.721262°
151	8.152694°	79.721784°
152	8.153966°	79.722125°
153	8.154244°	79.722177°
154	8.154495°	79.721091°
155	8.154788°	79.719233°
156	8.155450°	79.719505°
157	8.155683°	79.718870°
158	8.156725°	79.719236°
159	8.157506°	79.719258°
160	8.157581°	79.719005°
161	8.159348°	79.719367°
162	8.159227°	79.718731°
163	8.164355°	79.719434°
164	8.164674°	79.715457°
165	8.165390°	79.715223°

166	8.168319°	79.714934°
167	8.169076°	79.714991°
168	8.169920°	79.714836°
169	8.170706°	79.714777°
170	8.172694°	79.714220°
171	8.174133°	79.714074°
172	8.174217°	79.713996°
173	8.174796°	79.713509°
174	8.175198°	79.713269°
175	8.176193°	79.712851°
176	8.176974°	79.712496°
177	8.177717°	79.712247°
178	8.177930°	79.712228°
179	8.178177°	79.712538°
180	8.178594°	79.712625°
181	8.178879°	79.713061°
182	8.179304°	79.713258°
183	8.179268°	79.713736°
184	8.179360°	79.714125°
185	8.179296°	79.714750°
186	8.180562°	79.714763°
187	8.182962°	79.714787°
188	8.185722°	79.714771°
189	8.187902°	79.714781°
190	8.190337°	79.714772°
191	8.190360°	79.714015°
192	8.190140°	79.711761°
193	8.191008°	79.709947°
194	8.192016°	79.708266°
195	8.192326°	79.707858°
196	8.192470°	79.707715°
197	8.192890°	79.707637°
198	8.193435°	79.707402°
199	8.193998°	79.707365°
200	8.194423°	79.707237°
201	8.195794°	79.707234°
202	8.196389°	79.707307°
203	8.196612°	79.707297°
204	8.196825°	79.707194°
205	8.197005°	79.707203°
206	8.197401°	79.707157°
207	8.197837°	79.707143°

200	0.1001249	70.7071559
208	8.198124°	79.707155°
209	8.198345°	79.707058°
210	8.198605°	79.706977°
211	8.199233°	79.706107°
212	8.200087°	79.704955°
213	8.200253°	79.704669°
214	8.200383°	79.704569°
215	8.200520°	79.704509°
216	8.200757°	79.704578°
217	8.201070°	79.704624°
218	8.201309°	79.704690°
219	8.201731°	79.704631°
220	8.202111°	79.704609°
221	8.202472°	79.704660°
222	8.202838°	79.704700°
223	8.203257°	79.704687°
224	8.203615°	79.704619°
225	8.203929°	79.704752°
226	8.204236°	79.704822°
227	8.204563°	79.704905°
228	8.205039°	79.705001°
229	8.206061°	79.705023°
230	8.207075°	79.704920°
231	8.207711°	79.704618°
232	8.208093°	79.704607°
233	8.208673°	79.704657°
234	8.209696°	79.704262°
235	8.211168°	79.703683°
236	8.211544°	79.703716°
237	8.212355°	79.703748°
238	8.212465°	79.704000°
239	8.213322°	79.703804°
240	8.213467°	79.703809°
241	8.213623°	79.704091°
242	8.213733°	79.704206°
230	8.213760°	79.704357°
231	8.213915°	79.704532°
232	8.214073°	79.704507°
233	8.214210°	79.704444°
234	8.214356°	79.704445°
235	8.214361°	79.704505°
236	8.214278°	79.704560°
		•

237	8.214151°	79.704643°
238	8.214124°	79.704764°
239	8.214131°	79.704934°
240	8.214177°	79.705063°
241	8.214263°	79.705197°
242	8.214364°	79.705272°
243	8.214528°	79.705336°
244	8.214707°	79.705381°
245	8.214966°	79.705445°
246	8.214938°	79.705585°
247	8.214752°	79.705800°
248	8.214721°	79.706254°
249	8.214808°	79.707032°
250	8.215137°	79.707794°
251	8.215370°	79.707859°
252	8.215560°	79.707786°
253	8.215713°	79.707690°
254	8.215897°	79.707638°
255	8.216028°	79.707757°
256	8.216097°	79.708045°
257	8.215993°	79.708391°
258	8.215867°	79.708687°
259	8.215886°	79.709018°
260	8.215910°	79.709228°
261	8.215833°	79.709398°
262	8.215611°	79.709501°
263	8.215647°	79.709891°
264	8.215862°	79.709967°
265	8.216016°	79.709884°
266	8.216138°	79.710016°
267	8.216026°	79.710323°
268	8.215985°	79.710568°
269	8.215983°	79.710924°
270	8.215907°	79.711419°
271	8.216035°	79.712905°
272	8.216094°	79.713928°
273	8.216438°	79.714088°
274	8.216385°	79.714694°
275	8.216692°	79.715388°
276	8.217108°	79.716350°
277	8.216660°	79.716686°
278	8.216129°	79.716779°
		

279	8.213673°	79.716887°
250	8.213397°	79.717169°
251	8.212942°	79.717264°
252	8.212916°	79.717320°
253	8.212922°	79.717497°
254	8.213475°	79.720811°
255	8.213679°	79.722973°
256	8.213500°	79.724157°
257	8.213091°	79.725871°
258	8.212519°	79.728546°
259	8.212217°	79.730219°
260	8.211938°	79.731279°
261	8.211537°	79.733091°
262	8.211581°	79.733760°
263	8.211830°	79.736808°
267	8.211748°	79.740550°
268	8.210173°	79.745042°
269	8.209683°	79.744320°
270	8.209652°	79.743890°
271	8.209386°	79.743707°
272	8.209207°	79.743561°
273	8.209209°	79.743302°
274	8.209007°	79.743266°
275	8.208787°	79.743047°
276	8.208551°	79.742699°
277	8.208266°	79.742311°
278	8.208096°	79.742113°
279	8.207836°	79.741936°
280	8.207543°	79.741908°
281	8.206936°	79.742180°
282	8.205730°	79.742849°
283	8.204991°	79.743245°
284	8.204766°	79.743185°
285	8.204884°	79.742639°
286	8.204636°	79.741638°
287	8.204491°	79.741456°
288	8.204516°	79.741177°
289	8.204376°	79.740862°
290	8.204198°	79.740429°
291	8.204123°	79.740169°
292	8.203984°	79.739625°
293	8.203250°	79.739018°
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294	8.202147°	79.738425°
295	8.201747°	79.738223°
296	8.201811°	79.737734°
297	8.201510°	79.737611°
298	8.200923°	79.737887°
299	8.201023°	79.738171°
300	8.200878°	79.738476°
301	8.200659°	79.738719°
302	8.200231°	79.738908°
303	8.198922°	79.739444°
304	8.197689°	79.740108°
305	8.196912°	79.740305°
306	8.195428°	79.739351°
307	8.193416°	79.740952°
308	8.191833°	79.743296°
309	8.190510°	79.745420°
310	8.188385°	79.747827°
311	8.186706°	79.748615°
312	8.184436°	79.748811°
313	8.183724°	79.748842°
314	8.183291°	79.748865°
315	8.182869°	79.749038°
316	8.182522°	79.747183°
317	8.181549°	79.741390°
318	8.181591°	79.740690°
319	8.179806°	79.740582°
320	8.176535°	79.740398°
321	8.172975°	79.740123°
322	8.168271°	79.739251°
323	8.161873°	79.737960°
324	8.150134°	79.735518°
325	8.145318°	79.733812°
326	8.145034°	79.733640°
327	8.144788°	79.734418°
328	8.144387°	79.734441°
329	8.144313°	79.733260°
285	8.143459°	79.732052°
286	8.143215°	79.732187°
287	8.142471°	79.731298°
288	8.141057°	79.730330°
289	8.140108°	79.729660°
290	8.138686°	79.728487°

291	8.135989°	79.728124°
292	8.135558°	79.728330°
293	8.134958°	79.728089°
294	8.133990°	79.727655°
295	8.131667°	79.728921°
296	8.129465°	79.729466°
297	8.128806°	79.729470°
298	8.128142°	79.729135°
299	8.127544°	79.728798°
300	8.126875°	79.728446°
301	8.125676°	79.727711°
302	8.123410°	79.727110°
303	8.122534°	79.727185°
304	8.121391°	79.728076°
305	8.120914°	79.728591°
306	8.120517°	79.729192°
307	8.120270°	79.729753°
308	8.120094°	79.730166°
309	8.119864°	79.730433°
310	8.119032°	79.731583°
311	8.118370°	79.732181°
312	8.117531°	79.732986°
313	8.117112°	79.733184°
314	8.116506°	79.733215°
315	8.115939°	79.733729°
316	8.115172°	79.734258°
317	8.114182°	79.734504°
318	8.113413°	79.734644°
319	8.112925°	79.734922°
320	8.112677°	79.734787°
321	8.112301°	79.734705°
322	8.112006°	79.734807°
323	8.111701°	79.734950°
324	8.111413°	79.735062°
325	8.110735°	79.735559°
326	8.110268°	79.735726°
327	8.109756°	79.735879°
328	8.109365°	79.735862°
329	8.108949°	79.735748°
330	8.108572°	79.735660°
331	8.108118°	79.735762°
332	8.107759°	79.735904°
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333	8.107425°	79.735904°
334	8.107266°	79.735861°
335	8.107297°	79.735662°
336	8.107295°	79.735357°
337	8.107551°	79.735529°
338	8.107856°	79.735569°
339	8.108019°	79.735471°
340	8.108122°	79.735293°
341	8.108054°	79.735206°
342	8.107922°	79.735253°
343	8.107786°	79.735180°
344	8.107673°	79.735023°
345	8.107561°	79.734906°
346	8.107726°	79.734810°
347	8.107818°	79.734617°
348	8.107734°	79.734457°
349	8.107664°	79.734355°
350	8.107696°	79.734292°
351	8.107649°	79.734318°
352	8.107427°	79.733869°
353	8.107281°	79.733636°
354	8.107020°	79.733794°
355	8.106700°	79.733931°
356	8.106313°	79.734074°
357	8.106557°	79.734272°
358	8.106758°	79.734654°
359	8.106907°	79.734949°
360	8.107057°	79.735266°
361	8.107193°	79.735533°
362	8.107161°	79.735906°
363	8.107105°	79.736113°
364	8.106959°	79.736066°
365	8.106831°	79.735977°
366	8.106671°	79.736017°
367	8.106469°	79.736082°
368	8.106303°	79.735957°
369	8.106158°	79.735912°
370	8.106015°	79.735976°
371	8.105853°	79.736137°
372	8.105676°	79.735949°
373	8.105480°	79.735907°
374	8.105271°	79.735927°

375	8.105080°	79.735874°
376	8.104685°	79.735759°
377	8.104345°	79.735673°
378	8.104139°	79.735704°
379	8.103988°	79.735625°
380	8.103402°	79.735371°
381	8.103146°	79.735126°
382	8.102659°	79.734954°
383	8.102214°	79.734932°
384	8.101701°	79.734787°
385	8.101329°	79.734886°
386	8.100890°	79.734877°
387	8.100619°	79.734937°
388	8.100261°	79.734887°
389	8.099913°	79.734933°
390	8.099505°	79.735030°
391	8.099235°	79.735019°
	8.098988°	79.734819°
	8.098560°	79.734691°
	8.098072°	79.734641°
 395	8.097624°	79.734517°
396	8.097831°	79.734277°
	8.097739°	79.734003°
398	8.097586°	79.733706°
	8.097689°	79.733495°
400	8.097939°	79.733565°
401	8.098267°	79.733699°
402	8.098667°	79.734046°
403	8.098964°	79.734452°
404	8.099320°	79.734381°
405	8.099301°	79.733998°
406	8.099459°	79.733734°
407	8.099278°	79.733598°
408	8.099030°	79.733489°
409	8.098499°	79.732990°
410	8.097970°	79.732730°
411	8.097615°	79.732510°
412	8.097327°	79.732434°
413	8.096914°	79.732283°
414	8.096557°	79.732225°
415	8.095817°	79.732222°
416	8.095599°	79.732165°
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417	8.095039°	79.732245°
418	8.094787°	79.732203°
419	8.094599°	79.732338°
420	8.094467°	79.732225°
421	8.094453°	79.732353°
422	8.094322°	79.732316°
423	8.094242°	79.732167°
424	8.094007°	79.732197°
425	8.093980°	79.732298°
426	8.093445°	79.732075°
427	8.093233°	79.731811°
428	8.092729°	79.731858°
429	8.092263°	79.731887°
430	8.091860°	79.731944°
431	8.091520°	79.731846°
432	8.091283°	79.731658°
433	8.091296°	79.731432°
434	8.091064°	79.731362°
435	8.091035°	79.731113°
436	8.089587°	79.730949°
437	8.088876°	79.731018°
438	8.087378°	79.730843°
439	8.086089°	79.730928°
440	8.084804°	79.731357°
441	8.083365°	79.732242°
442	8.083034°	79.732551°
443	8.080386°	79.734590°
444	8.078145°	79.736249°
445	8.076157°	79.737564°
446	8.074869°	79.737571°
447	8.074610°	79.736728°
448	8.073999°	79.735710°
449	8.073866°	79.735942°
450	8.074109°	79.736504°
451	8.073012°	79.737306°
452	8.071769°	79.738405°
453	8.070425°	79.740013°
454	8.068858°	79.742402°
455	8.067251°	79.745528°
456	8.066032°	79.748647°
457	8.065442°	79.751429°
458	8.064859°	79.753555°
		

459	8.064198°	79.754534°
460	8.063459°	79.755051°
461	8.063108°	79.754846°
462	8.063241°	79.753904°
463	8.063151°	79.752615°
464	8.062857°	79.751484°
465	8.062231°	79.750433°
466	8.061302°	79.749513°
467	8.060323°	79.748509°
455	8.059398°	79.747378°
456	8.058937°	79.746907°
457	8.058540°	79.746024°
458	8.058093°	79.745378°
459	8.056691°	79.744015°
460	8.055738°	79.743212°
461	8.054346°	79.742071°
462	8.052640°	79.741661°
463	8.051050°	79.741702°

Mixed Development Zone II (Zone 05

No	Х	Υ
1	8.042243°	79.743171°
2	8.042134°	79.740099°
3	8.041954°	79.740116°
4	8.041865°	79.738530°
5	8.040258°	79.738839°
6	8.039079°	79.739067°
7	8.034657°	79.740235°
8	8.032726°	79.740740°
9	8.032234°	79.740750°
10	8.029958°	79.740338°
11	8.030130°	79.739024°
12	8.030167°	79.738527°
13	8.029946°	79.738401°
14	8.029668°	79.738334°
15	8.029567°	79.738246°
16	8.029681°	79.737539°
17	8.029973°	79.736273°
18	8.030109°	79.735733°
19	8.030016°	79.734761°
20	8.029904°	79.733715°
21	8.029891°	79.733155°
22	8.029879°	79.732868°
23	8.029699°	79.732290°
24	8.029735°	79.731841°
25	8.029712°	79.731184°
26	8.029620°	79.730891°
27	8.029507°	79.729960°
28	8.029696°	79.729231°
29	8.028607°	79.728681°
30	8.027939°	79.728270°
31	8.027091°	79.728241°
32	8.027030°	79.728338°
33	8.026642°	79.728307°
34	8.026276°	79.728191°
35	8.025975°	79.728104°
36	8.025236°	79.727870°
37	8.024864°	79.728561°
38	8.024551°	79.728359°

39	8.024171°	79.728048°
40	8.021012°	79.727902°
41	8.020737°	79.728155°
42	8.020555°	79.728625°
43	8.020120°	79.728961°
44	8.019809°	79.729316°
45	8.019508°	79.729860°
46	8.018917°	79.730439°
47	8.018229°	79.730983°
48	8.016811°	79.732426°
49	8.016753°	79.732388°
50	8.016547°	79.732488°
51	8.016421°	79.732637°
52	8.016216°	79.732880°
53	8.015161°	79.733173°
54	8.014528°	79.733410°
55	8.013869°	79.731722°
56	8.013412°	79.730365°
57	8.012553°	79.728395°
58	8.012141°	79.727473°
59	8.011917°	79.726357°
60	8.011465°	79.724725°
61	8.010910°	79.722602°
62	8.010570°	79.721486°
63	8.014950°	79.720216°
64	8.017425°	79.719438°
65	8.024172°	79.717431°
66	8.028513°	79.716208°
67	8.041784°	79.711386°
68	8.042735°	79.713350°
69	8.043005°	79.713800°
70	8.044658°	79.712980°
71	8.044745°	79.712868°
72	8.044546°	79.712432°
73	8.047151°	79.711258°
74	8.047307°	79.711601°
75	8.048634°	79.711131°
76	8.049768°	79.710777°
77	8.050185°	79.711091°
78	8.050799°	79.710819°
79	8.051506°	79.710622°
80	8.052081°	79.710675°

81	8.053603°	79.709907°
82	8.055842°	79.708958°
83	8.057091°	79.708542°
84	8.057454°	79.708373°
85	8.058437°	79.708266°
86	8.058897°	79.708469°
87	8.059226°	79.708447°
88	8.059442°	79.708688°
89	8.059884°	79.710235°
90	8.060401°	79.711886°
91	8.060659°	79.713142°
92	8.060953°	79.713742°
93	8.061268°	79.717217°
94	8.061857°	79.718331°
95	8.062094°	79.719056°
96	8.064195°	79.718948°
97	8.064600°	79.718768°
98	8.066138°	79.718675°
99	8.067081°	79.718513°
100	8.068479°	79.718176°
101	8.068403°	79.720028°
102	8.068388°	79.720586°
103	8.068316°	79.720716°
104	8.067929°	79.720903°
105	8.067866°	79.721123°
106	8.067759°	79.721598°
107	8.067734°	79.722027°
108	8.067725°	79.722375°
109	8.067729°	79.723224°
110	8.067779°	79.723774°
111	8.067770°	79.724070°
112	8.067547°	79.724222°
113	8.067503°	79.724329°
114	8.067716°	79.725126°
115	8.066657°	79.725653°
116	8.066012°	79.725843°
117	8.065494°	79.726041°
118	8.064641°	79.726391°
119	8.064346°	79.726537°
120	8.063972°	79.726700°
121	8.063633°	79.726761°
122	8.063239°	79.726740°
		1

123	8.062861°	79.726749°
124	8.062290°	79.726915°
125	8.061744°	79.727009°
126	8.061085°	79.727050°
127	8.060818°	79.727017°
128	8.060717°	79.727171°
129	8.060809°	79.727916°
130	8.061612°	79.730849°
131	8.062355°	79.733815°
132	8.060691°	79.733934°
133	8.053530°	79.736060°
134	8.053334°	79.736112°
135	8.052804°	79.741436°
136	8.052640°	79.741661°
137	8.051050°	79.741702°
138	8.049630°	79.741851°
139	8.047031°	79.741845°
140	8.044269°	79.742206°
141	8.042243°	79.743171°

Salt & Aquatic Production Zone (Zone 06)

No	Х	Y
1	7.974141°	79.810696°
2	7.968866°	79.810644°
3	7.967267°	79.810534°
4	7.966470°	79.810363°
5	7.963725°	79.810365°
6	7.962279°	79.809993°
7	7.961996°	79.809944°
8	7.960823°	79.809649°
9	7.959990°	79.809245°
10	7.959183°	79.809110°
11	7.957044°	79.808365°
12	7.956140°	79.808086°
13	7.954716°	79.807982°
14	7.954087°	79.807827°
15	7.953373°	79.807545°
16	7.952741°	79.807300°
17	7.951608°	79.807054°
18	7.951182°	79.806937°
 19	7.951103°	79.806821°
20	7.951356°	79.805861°
21	7.949485°	79.805656°
22	7.948369°	79.805449°
23	7.947220°	79.805345°
24	7.946137°	79.805292°
25	7.945204°	79.805849°
26	7.944056°	79.806648°
27	7.943882°	79.806829°
28	7.943625°	79.807343°
29	7.942941°	79.807933°
30	7.941999°	79.808065°
31	7.940562°	79.808183°
32	7.939198°	79.809208°
33	7.937550°	79.810233°
34	7.936318°	79.810811°
35	7.934601°	79.811345°
36	7.933167°	79.811647°
37	7.930872°	79.812140°
38	7.928619°	79.812502°

39	7.927070°	79.812892°
40	7.925776°	79.813288°
41	7.925301°	79.813377°
42	7.924807°	79.813400°
43	7.924393°	79.813317°
44	7.924283°	79.813198°
45	7.923633°	79.813257°
46	7.923244°	79.813441°
47	7.922216°	79.813656°
48	7.921032°	79.813755°
49	7.918723°	79.813822°
50	7.916995°	79.813883°
51	7.916362°	79.813888°
52	7.915120°	79.814072°
53	7.914467°	79.814211°
54	7.913502°	79.814316°
55	7.913069°	79.814130°
56	7.912329°	79.813661°
57	7.910485°	79.812562°
58	7.910373°	79.811319°
59	7.910233°	79.808893°
60	7.909572°	79.808573°
61	7.908133°	79.807761°
62	7.906455°	79.807041°
63	7.905689°	79.806709°
64	7.905288°	79.806628°
65	7.904256°	79.806630°
66	7.903190°	79.806673°
67	7.901982°	79.806854°
68	7.901098°	79.806923°
69	7.899434°	79.806922°
70	7.898083°	79.806758°
71	7.896875°	79.806246°
72	7.897188°	79.805686°
73	7.897462°	79.805279°
74	7.897457°	79.804204°
75	7.897483°	79.803609°
76	7.896641°	79.803491°
77	7.895651°	79.803388°
78	7.895748°	79.800363°
79	7.897468°	79.800345°
80	7.898464°	79.800357°

82 7.903069° 79.800430° 83 7.905336° 79.800422° 84 7.910285° 79.800422° 84 7.910285° 79.800422° 85 7.910267° 79.796450° 86 7.915107° 79.796658° 87 7.918646° 79.796588° 88 7.924858° 79.797117° 89 7.928824° 79.797312° 90 7.934833° 79.797531° 91 7.939465° 79.79710° 92 7.939496° 79.788583° 93 7.939496° 79.782045° 94 7.944663° 79.782184° 95 7.955651° 79.782184° 96 7.955651° 79.782366° 97 7.955887° 79.782364° 98 7.956678° 79.782364° 99 7.957751° 79.78247° 100 7.958674° 79.782922° 101 7.958674° 79.78290° 102 7.960159° 79.782910° 103 7.960274° 79.78294° 106 7.951601° 79.78294° 107 7.96230° 79.783474° 108 7.961601° 79.783009° 110 7.959784° 79.783009° 111 7.959784° 79.78258° 112 7.958789° 79.78515° 113 7.958798° 79.788515° 114 7.958949° 79.7889997° 115 7.958798° 79.788515° 110 7.958874° 79.788222° 111 7.9598949° 79.788515° 112 7.958849° 79.788515° 113 7.958789° 79.782528° 114 7.958812° 79.782528° 115 7.958749° 79.782528° 116 7.958590° 79.78472° 116 7.958590° 79.794425° 117 7.958664° 79.794550° 118 7.958989° 79.794472° 120 7.960396° 79.794550° 119 7.958659° 79.794550° 119 7.958659° 79.794550° 119 7.958815° 79.794472° 120 7.960396° 79.794550° 121 7.961087° 79.794300°		7.902019°	79.800377°
83 7.905336° 79.800422° 84 7.910285° 79.800484° 85 7.910267° 79.796450° 86 7.915107° 79.796658° 87 7.918646° 79.796858° 88 7.924858° 79.797117° 89 7.928824° 79.797312° 90 7.934833° 79.797531° 91 7.939465° 79.788583° 93 7.939496° 79.782045° 94 7.944663° 79.782161° 95 7.948750° 79.782161° 96 7.955651° 79.782364° 97 7.955887° 79.782364° 98 7.956678° 79.782747° 100 7.958647° 79.782922° 101 7.958674° 79.782922° 101 7.960159° 79.782920° 102 7.961007° 79.78209° 105 7.961007° 79.78209° 106 7.961601° 79.783009° 107 7.962230° 79.783474° 108 7.961669° 79.783474° 109 7.958949° 79.783629° 110 7.958699° 79.782920° 111 7.958784° 79.782920° 110 7.960699° 79.782990° 111 7.958784° 79.783009° 112 7.958949° 79.788997° 113 7.958788° 79.788997° 114 7.958949° 79.788997° 115 7.958798° 79.789997° 116 7.958852° 79.794550° 117 7.958640° 79.788997° 118 7.958089° 79.794425° 119 7.958080° 79.794520° 110 7.958089° 79.794425° 110 7.959815° 79.794755°	82		79.800430°
85 7.910267° 79.796450° 86 7.915107° 79.796658° 87 7.918646° 79.796858° 88 7.924858° 79.797117° 89 7.928824° 79.797312° 90 7.934833° 79.797531° 91 7.939465° 79.797710° 92 7.939496° 79.782045° 94 7.944663° 79.782161° 95 7.948750° 79.782164° 96 7.955687° 79.782364° 97 7.955887° 79.782364° 98 7.956678° 79.782364° 99 7.957751° 79.782364° 100 7.958647° 79.782922° 101 7.958674° 79.782910° 102 7.960159° 79.782910° 103 7.960274° 79.782954° 106 7.961601° 79.782954° 107 7.962330° 79.783474° 108 7.961669° 79.783997° 110 7.959849° 79.783999° 110 7.959849° 79.783999° 111 7.959784° 79.783999° 112 7.950159° 79.783999° 113 7.95029° 79.788515° 114 7.958849° 79.788997° 115 7.96159° 79.788997° 116 7.958812° 79.788997° 117 7.958949° 79.788997° 118 7.958749° 79.793272° 116 7.95864° 79.793272° 116 7.9585909° 79.788515° 117 7.958949° 79.788997° 118 7.958798° 79.794550° 119 7.958815° 79.794425° 110 7.958815° 79.794425° 110 7.959815° 79.794520° 120 7.960396° 79.78420° 121 7.9560896° 79.79455°	83	7.905336°	79.800422°
86 7.915107° 79.796658° 87 7.918646° 79.796858° 88 7.924858° 79.797117° 89 7.928824° 79.797312° 90 7.934833° 79.797710° 91 7.939465° 79.797710° 92 7.939496° 79.788583° 93 7.939496° 79.782045° 94 7.944663° 79.782161° 95 7.948750° 79.782184° 96 7.955651° 79.782326° 97 7.955887° 79.782364° 98 7.956678° 79.782584° 99 7.957751° 79.782747° 100 7.958647° 79.782922° 101 7.958674° 79.782629° 102 7.960159° 79.782910° 103 7.960274° 79.782910° 104 7.960896° 79.782591° 105 7.961207° 79.782954° 106 7.961601° 79.783443° 109 7.962230°	84	7.910285°	79.800484°
86 7.915107° 79.796658° 87 7.918646° 79.796858° 88 7.924858° 79.797117° 89 7.928824° 79.797312° 90 7.934833° 79.797710° 91 7.939465° 79.797710° 92 7.939496° 79.788583° 93 7.939496° 79.782045° 94 7.944663° 79.782161° 95 7.948750° 79.782184° 96 7.955651° 79.782326° 97 7.955887° 79.782364° 98 7.956678° 79.782584° 99 7.957751° 79.782747° 100 7.958647° 79.782922° 101 7.958674° 79.782629° 102 7.960159° 79.782910° 103 7.960274° 79.782910° 104 7.960896° 79.782591° 105 7.961207° 79.782954° 106 7.961601° 79.783443° 109 7.962230°	85		79.796450°
88 7.924858° 79.797117° 89 7.92824° 79.797312° 90 7.934833° 79.797531° 91 7.939465° 79.797710° 92 7.939496° 79.788583° 93 7.939496° 79.782045° 94 7.944663° 79.782161° 95 7.948750° 79.782326° 97 7.955651° 79.782326° 98 7.955687° 79.782344° 99 7.957751° 79.782747° 100 7.958647° 79.782922° 101 7.958647° 79.782922° 101 7.958674° 79.782921° 102 7.960159° 79.782991° 103 7.960274° 79.782591° 104 7.960896° 79.782591° 105 7.961207° 79.78291° 106 7.961601° 79.783009° 107 7.962230° 79.783474° 108 7.961569° 79.78483° 109 7.960699° 79.785996° 110 7.958949° 79.785996° 111 7.959784° 79.785996° 112 7.958949° 79.788997° 113 7.958949° 79.788997° 114 7.958949° 79.788997° 115 7.958798° 79.788997° 116 7.958592° 79.788997° 117 7.958864° 79.793272° 118 7.958909° 79.794755° 119 7.958664° 79.794425° 119 7.958815° 79.794425° 119 7.958815° 79.794425° 119 7.958815° 79.794472° 120 7.960396° 79.78420° 121 7.961087° 79.794755°	86		79.796658°
89 7.928824° 79.797312° 90 7.934833° 79.797531° 91 7.939465° 79.797710° 92 7.939496° 79.788583° 93 7.939496° 79.782045° 94 7.944663° 79.782161° 95 7.948750° 79.782364° 96 7.9555651° 79.782346° 97 7.955887° 79.782344° 98 7.956678° 79.782244° 99 7.957751° 79.782747° 100 7.958647° 79.782922° 101 7.958674° 79.782922° 101 7.958674° 79.782629° 102 7.960159° 79.782910° 103 7.960274° 79.782694° 104 7.960896° 79.782591° 105 7.961207° 79.78294° 106 7.961601° 79.78309° 107 7.962230° 79.784483° 109 7.960699° 79.788515° 111 7.958949°	87	7.918646°	79.796858°
90 7.934833° 79.797531° 91 7.939465° 79.797710° 92 7.939496° 79.788583° 93 7.939496° 79.782045° 94 7.944663° 79.782161° 95 7.948750° 79.782184° 96 7.955651° 79.782326° 97 7.955887° 79.782346° 98 7.956678° 79.782584° 99 7.957751° 79.782747° 100 7.958647° 79.782922° 101 7.958674° 79.78269° 102 7.960159° 79.782910° 103 7.960230° 79.782594° 104 7.960896° 79.782591° 105 7.961207° 79.78294° 106 7.961601° 79.783009° 107 7.962230° 79.783474° 108 7.961569° 79.783474° 109 7.956069° 79.783474° 110 7.958684° 79.782520° 111 7.958784° 79.783009° 110 7.961207° 79.783009° 111 7.958784° 79.785996° 112 7.958849° 79.788591° 113 7.958784° 79.788591° 114 7.958812° 79.788515° 115 7.958798° 79.789997° 116 7.958864° 79.793272° 117 7.958864° 79.793272° 118 7.958899° 79.794425° 119 7.959815° 79.79455° 119 7.959815° 79.79455° 120 7.960396° 79.79455°	88	7.924858°	79.797117°
91 7.939465° 79.797710° 92 7.939496° 79.788583° 93 7.939496° 79.782045° 94 7.944663° 79.782161° 95 7.948750° 79.782184° 96 7.955651° 79.782326° 97 7.955887° 79.782364° 98 7.956678° 79.782584° 99 7.957751° 79.782922° 100 7.958647° 79.782922° 101 7.958674° 79.782629° 102 7.960159° 79.782694° 104 7.960896° 79.782591° 105 7.961207° 79.782944° 106 7.961601° 79.783009° 107 7.962230° 79.783474° 108 7.961699° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.785996° 111 7.959209° 79.788997° 113 7.958749° 79.788997° 114 7.958812° 79.782922° 115 7.958749° 79.783999° 116 7.958812° 79.793272° 116 7.958592° 79.794425° 117 7.958664° 79.794520° 118 7.959089° 79.794425° 119 7.959815° 79.794550° 120 7.960396° 79.794520° 121 7.951087° 79.794755°	89	7.928824°	79.797312°
92 7.939496° 79.788583° 93 7.939496° 79.782045° 94 7.944663° 79.782161° 95 7.948750° 79.782184° 96 7.955651° 79.782326° 97 7.955887° 79.782364° 98 7.956678° 79.782584° 99 7.957751° 79.782747° 100 7.958647° 79.782922° 101 7.958674° 79.782629° 102 7.960159° 79.7829210° 103 7.960274° 79.782591° 104 7.960896° 79.782591° 105 7.961207° 79.783009° 107 7.962230° 79.783474° 108 7.961601° 79.783474° 109 7.960699° 79.784483° 109 7.956969° 79.785996° 110 7.955784° 79.785996° 111 7.959784° 79.786997° 112 7.958949° 79.789997° 113 7.958798° 79.789997° 114 7.958812° 79.789997° 115 7.958798° 79.792528° 116 7.958799° 79.793272° 116 7.958799° 79.794425° 119 7.959815° 79.794520° 120 7.960396° 79.794520° 121 7.96187° 79.794550° 121 7.96187° 79.794550°	90	7.934833°	79.797531°
93 7.939496° 79.782045° 94 7.944663° 79.782161° 95 7.948750° 79.782184° 96 7.955651° 79.782326° 97 7.955887° 79.782364° 98 7.956678° 79.782584° 99 7.957751° 79.782747° 100 7.958647° 79.782922° 101 7.958674° 79.782629° 102 7.960159° 79.782910° 103 7.960274° 79.782591° 104 7.960896° 79.782591° 105 7.961207° 79.782954° 106 7.961601° 79.783009° 107 7.962230° 79.783474° 108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.955784° 79.785996° 111 7.955784° 79.785996° 112 7.958784° 79.785996° 113 7.958784° 79.785996° 114 7.958949° 79.785997° 115 7.958798° 79.789997° 116 7.958798° 79.789997° 117 7.958812° 79.792528° 118 7.958899° 79.794425° 119 7.959815° 79.794452° 119 7.959815° 79.794550° 120 7.960396° 79.794550° 121 7.961087° 79.794550° 121 7.961087° 79.794550°	91	7.939465°	79.797710°
94 7.944663° 79.782161° 95 7.948750° 79.782184° 96 7.955651° 79.782326° 97 7.955887° 79.782364° 98 7.956678° 79.782584° 99 7.957751° 79.782747° 100 7.958647° 79.782922° 101 7.958674° 79.782922° 102 7.960159° 79.782910° 103 7.960274° 79.782910° 104 7.960896° 79.782591° 105 7.961207° 79.782954° 106 7.961207° 79.783009° 107 7.962230° 79.783474° 108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958949° 79.791244° 114 7.958812° 79.791244° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794425°	92	7.939496°	79.788583°
95 7.948750° 79.782184° 96 7.955651° 79.782326° 97 7.955887° 79.782364° 98 7.956678° 79.782584° 99 7.957751° 79.782747° 100 7.958647° 79.782922° 101 7.958674° 79.782629° 102 7.960159° 79.782910° 103 7.960274° 79.782910° 104 7.960896° 79.782591° 105 7.961207° 79.782954° 106 7.961207° 79.783009° 107 7.962230° 79.783474° 108 7.961230° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.785996° 111 7.959784° 79.788515° 112 7.958949° 79.788997° 113 7.958749° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° <td>93</td> <td>7.939496°</td> <td>79.782045°</td>	93	7.939496°	79.782045°
96 7.955651° 79.782326° 97 7.955887° 79.782364° 98 7.956678° 79.782584° 99 7.957751° 79.782747° 100 7.958647° 79.782922° 101 7.958674° 79.782629° 102 7.960159° 79.782910° 103 7.960274° 79.782694° 104 7.960896° 79.782591° 105 7.961207° 79.782954° 106 7.961207° 79.783009° 107 7.962230° 79.783474° 108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959784° 79.788515° 112 7.958949° 79.788997° 113 7.958798° 79.791244° 114 7.958812° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959039° </td <td>94</td> <td>7.944663°</td> <td>79.782161°</td>	94	7.944663°	79.782161°
97 7.955887° 79.782364° 98 7.956678° 79.782584° 99 7.957751° 79.782747° 100 7.958647° 79.782922° 101 7.958674° 79.782629° 102 7.960159° 79.782910° 103 7.960274° 79.782694° 104 7.960896° 79.782591° 105 7.961207° 79.782954° 106 7.961601° 79.783009° 107 7.962230° 79.784483° 108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958949° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.794520° 115 7.958749° 79.794550° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959815° 79.794422° 120 7.960396° 79.794550°	95	7.948750°	79.782184°
98 7.956678° 79.782584° 99 7.957751° 79.782747° 100 7.958647° 79.782922° 101 7.958674° 79.782629° 102 7.960159° 79.782910° 103 7.960274° 79.782694° 104 7.960896° 79.782591° 105 7.961207° 79.782954° 106 7.961601° 79.783009° 107 7.962230° 79.783474° 108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958949° 79.791244° 114 7.958798° 79.791244° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959815° 79.794422° 119 7.950396° 79.794520° 120 7.960396° 79.794755°	96	7.955651°	79.782326°
99 7.957751° 79.782747° 100 7.958647° 79.782922° 101 7.958674° 79.782629° 102 7.960159° 79.782910° 103 7.960274° 79.782694° 104 7.960896° 79.782591° 105 7.961207° 79.782954° 106 7.961207° 79.783009° 107 7.962230° 79.783474° 108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958949° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959815° 79.794472° 120 7.960396° 79.794550° 121 7.961087° 79.794755°	97	7.955887°	79.782364°
100 7.958647° 79.782922° 101 7.958674° 79.782629° 102 7.960159° 79.782910° 103 7.960274° 79.782694° 104 7.960896° 79.782591° 105 7.961207° 79.782954° 106 7.961601° 79.783009° 107 7.962230° 79.783474° 108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958949° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794472° 120 7.960396° 79.794550° 121 7.961087° 79.794755°	98	7.956678°	79.782584°
101 7.958674° 79.782629° 102 7.960159° 79.782910° 103 7.960274° 79.782694° 104 7.960896° 79.782591° 105 7.961207° 79.782954° 106 7.961601° 79.783009° 107 7.962230° 79.783474° 108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958949° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794472° 120 7.960396° 79.794520° 121 7.961087° 79.794755°	99	7.957751°	79.782747°
102 7.960159° 79.782910° 103 7.960274° 79.782694° 104 7.960896° 79.782591° 105 7.961207° 79.782954° 106 7.961601° 79.783009° 107 7.962230° 79.783474° 108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958499° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959815° 79.794472° 120 7.960396° 79.794550° 121 7.961087° 79.794755°	100	7.958647°	79.782922°
103 7.960274° 79.782694° 104 7.960896° 79.782591° 105 7.961207° 79.782954° 106 7.961601° 79.783009° 107 7.962230° 79.783474° 108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958949° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794520° 120 7.960396° 79.794755°	101	7.958674°	79.782629°
104 7.960896° 79.782591° 105 7.961207° 79.782954° 106 7.961601° 79.783009° 107 7.962230° 79.783474° 108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958949° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794755° 121 7.961087° 79.794755°	102	7.960159°	79.782910°
105 7.961207° 79.782954° 106 7.961601° 79.783009° 107 7.962230° 79.783474° 108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958949° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794755° 121 7.961087° 79.794755°	103	7.960274°	79.782694°
106 7.961601° 79.783009° 107 7.962230° 79.783474° 108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958949° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794755° 121 7.961087° 79.794755°	104	7.960896°	79.782591°
107 7.962230° 79.783474° 108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958949° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794755° 121 7.961087° 79.794755°	105	7.961207°	79.782954°
108 7.961569° 79.784483° 109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958949° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794755° 121 7.961087° 79.794755°	106	7.961601°	79.783009°
109 7.960699° 79.785996° 110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958949° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794755° 121 7.961087° 79.794755°	107	7.962230°	79.783474°
110 7.959784° 79.787632° 111 7.959209° 79.788515° 112 7.958949° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794520° 121 7.961087° 79.794755°	108	7.961569°	79.784483°
111 7.959209° 79.788515° 112 7.958949° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794520° 121 7.961087° 79.794755°	109	7.960699°	79.785996°
112 7.958949° 79.789997° 113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794755° 121 7.961087° 79.794755°	110	7.959784°	79.787632°
113 7.958798° 79.791244° 114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794520° 121 7.961087° 79.794755°	111	7.959209°	79.788515°
114 7.958812° 79.792528° 115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794755° 121 7.961087° 79.794755°	112	7.958949°	79.789997°
115 7.958749° 79.793272° 116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794520° 121 7.961087° 79.794755°	113	7.958798°	79.791244°
116 7.958592° 79.794030° 117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794520° 121 7.961087° 79.794755°	114	7.958812°	79.792528°
117 7.958664° 79.794550° 118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794520° 121 7.961087° 79.794755°	115	7.958749°	79.793272°
118 7.959089° 79.794425° 119 7.959815° 79.794472° 120 7.960396° 79.794520° 121 7.961087° 79.794755°	116	7.958592°	79.794030°
119 7.959815° 79.794472° 120 7.960396° 79.794520° 121 7.961087° 79.794755°	117	7.958664°	79.794550°
120 7.960396° 79.794520° 121 7.961087° 79.794755°	118	7.959089°	79.794425°
121 7.961087° 79.794755°	119	7.959815°	79.794472°
	120	7.960396°	79.794520°
122 7.961511° 79.794390°	121	7.961087°	79.794755°
	122	7.961511°	79.794390°

122	7.0616000	70.7042400
123	7.961609°	79.794248°
124	7.961780°	79.793660°
125	7.961886°	79.793397°
126	7.962106°	79.793059°
127	7.962228°	79.792707°
128	7.962323°	79.792470°
129	7.963176°	79.791661°
130	7.963380°	79.791637°
131	7.964139°	79.791874°
132	7.964619°	79.791665°
133	7.964837°	79.791549°
134	7.965668°	79.791481°
135	7.967094°	79.791340°
136	7.968605°	79.791069°
137	7.969716°	79.791160°
138	7.970585°	79.791104°
139	7.971270°	79.791511°
140	7.972122°	79.792025°
141	7.972337°	79.794047°
142	7.972506°	79.796066°
143	7.972789°	79.798158°
144	7.972967°	79.799488°
145	7.973044°	79.800324°
146	7.973362°	79.802234°
147	7.973722°	79.804310°
148	7.973881°	79.805595°
149	7.973858°	79.807883°
150	7.973857°	79.809740°

Beach Based Tourism Development Zone (Zone 07)

No	Х	Υ
1	8.381122°	79.779627°
2	8.367724°	79.785075°
3	8.330851°	79.772444°
4	8.302420°	79.758949°
5	8.302165°	79.766858°
6	8.293011°	79.758007°
7	8.283245°	79.754842°
8	8.277360°	79.757929°
9	8.263614°	79.750969°
10	8.267870°	79.758974°
11	8.272702°	79.761574°
12	8.268070°	79.763474°
13	8.262624°	79.760492°
14	8.249813°	79.752264°
15	8.250368°	79.739730°
16	8.234222°	79.735704°
17	8.225843°	79.727846°
18	8.226579°	79.727049°
19	8.251417°	79.739127°
20	8.280910°	79.745510°
21	8.324149°	79.762548°
22	8.349774°	79.772430°
23	8.381122°	79.779627°
24	8.367724°	79.785075°
25	8.330851°	79.772444°
26	8.302420°	79.758949°
27	8.302165°	79.766858°
28	8.381122°	79.779627°
29	8.367724°	79.785075°
30	8.330851°	79.772444°

Island Based Tourism Development Zone (Zone 08)

No	Х	Y
1	8.532291°	79.785619°
2	8.502648°	79.777544°
3	8.467421°	79.787824°
4	8.469553°	79.791910°
5	8.502498°	79.783621°
6	8.434500°	79.807506°
7	8.418057°	79.808053°

Eco Tourism Development Zone (Zone 09)

No	x	Υ
1	8.278639°	79.768338°
2	8.278007°	79.760008°
3	8.274388°	79.764570°
4	8.274730°	79.777313°
5	8.268022°	79.784022°
6	8.262142°	79.780157°
7	8.267850°	79.775055°
8	8.212205°	79.703162°
9	8.200356°	79.704512°
10	8.192459°	79.707653°
11	8.190351°	79.716046°
12	8.179224°	79.716025°
13	8.178022°	79.712180°
14	8.165296°	79.715165°
15	8.164515°	79.719463°
16	8.154853°	79.716156°
17	8.154251°	79.722075°
18	8.146515°	79.718515°
19	8.146733°	79.712864°
20	8.134834°	79.713531°
21	8.120982°	79.711721°
22	8.113650°	79.703331°
23	8.109897°	79.705328°
24	8.108909°	79.704356°
25	8.095815°	79.707932°
26	8.091388°	79.714412°
27	8.084915°	79.711362°
28	8.081066°	79.712587°
29	8.066641°	79.711702°
30	8.066056°	79.709604°
31	8.059987°	79.710424°
32	8.059430°	79.708431°
33	8.042823°	79.713240°
34	8.030794°	79.718391°
35	8.029849°	79.716077°
36	8.057556°	79.706324
37	8.090712°	79.707329°
38	8.168501°	79.703224°

39	8.211932°	79.693763°
40	8.220701°	79.701432°
41	8.217702°	79.706339°
42	8.144222°	79.733231°
43	8.181643°	79.740692°
44	8.182095°	79.747364°
45	8.166121°	79.746439°
46	8.153654°	79.739866°
47	8.145618°	79.737861°
48	8.042454°	79.743519°
49	8.041842°	79.738635°
50	8.030007°	79.740305°
51	8.014694°	79.735809°
52	7.980533°	79.755540°
53	7.972191°	79.792009°
54	7.974091°	79.810789°
55	7.962429°	79.810018°
56	7.951141°	79.805956°
57	7.940691°	79.808228°
58	7.910407°	79.812552°
59	7.895404°	79.806610°
60	7.872824°	79.801180°
61	7.848363°	79.794842°
62	7.794679°	79.791062°
63	7.794313°	79.792944°
64	7.823169°	79.797041°
65	7.858330°	79.808049°
66	7.894698°	79.809425°
67	7.929438°	79.822700°
68	7.978740°	79.821239°
69	7.978120°	79.793760°
70	7.990648°	79.750713°
71	8.042423°	79.743175°

Annexyre 30: Zoning Table

Use		Zone 1- Special Commercial Zone	Zone 2-Mixed Development Zone I	Zone 3- Agricultural Zone	Zone 4- Mixed Residential Zone	Zone 5- Mixed Development Zone II	Zone 6- Salt and Aquatic Production Zone	Zone 7- Beach Based Tourism Development Zone	Zone 8- Island Based Tourism Development Zone	Zone 9- Eco Tourism Development Zone
	Residential Homes	√	√	√	√	√	√	√	√	√
tial	Flats	√	√	√	√	√	√	√	√	
Residential	Apartments	√	√	√	√	√	√	√	√	
Res	Hostels		√	√	√	√	√			
	Housing Complex		√	√	√	√	√	√	√	
	Government Hospitals	V	√							
	Rural Hospitals		√							
	Private Hospitals	$\sqrt{}$	√							
Health	Medical Advisory Service Centers				Maxi mum (25 sq.m	√	√			
	Chemical Laboratories		√	√	√	√	√			
	Pharmacies	√	√	√	√	√	√			
	Ayurveda Centers		√		√					
	Spa		√		√	√		√	√	

	Use		Zone 2-Mixed Development Zone I	Zone 3- Agricultural Zone	Zone 4- Mixed Residential Zone	Zone 5- Mixed Development Zone II	Zone 6- Salt and Aquatic Production Zone	Zone 7- Beach Based Tourism Development Zone	Zone 8- Island Based Tourism Development Zone	Zone 9- Eco Tourism Development Zone
	Government & Semi government schools		√			√				
	Semi Government Schools		√			√				
	International Schools		√			√				
uo	Government/ Private Universities		V			√				
Education	Technical & vocational training institutions		√			√				
"	Vocational training centers		√			√				
	Pre Schools	√	√	√	√	√	√	√	√	
	Institutions for tertiary education courses		V			√				
	Institutions for tertiary education courses		√			√				
	Government Offices	√	√		√	√				
S	Government office complex	√	√			√				
tion	Professional Offices	√	√		√	√				
Institutions	Bank, Financial offices	√	√		√	√				
ے	ATM Centers	√	√		√	√	√	√	√	
	Agro Research Institutions and Training Institutes			√	√					

	Use		Zone 2-Mixed Development Zone I	Zone 3- Agricultural Zone	Zone 4- Mixed Residential Zone	Zone 5- Mixed Development Zone II	Zone 6- Salt and Aquatic Production Zone	Zone 7- Beach Based Tourism Development Zone	Zone 8- Island Based Tourism Development Zone	Zone 9- Eco Tourism Development Zone
	sports centers are indoor Theaters		√	√		√				
e e	Outdoor theaters		√	√				√		
Scoial Service	Community centers / cultural centers	√		√				V	√	
Scoia	Library	√	√	√	√	√	√	√	√	
	Day Care Centers		√	√	√	√	√	√	√	
	Elders' home		√	√	√	√	√	√	√	
	Haircuts / Beauty salons	√	√	√	√	√				
	Cinemas		√		√	√				
	Body fitness centers		√	√	√	√		√	√	√
	Information Centers		√							
Commercial	Grocery stores	√	√	√ Maxi mum (25 sq.m	√ Maxi mum (25 sq.m	V	Maxi mum (25 sq.m	V	√	
	Wholesale stores	√ (Fish- eries related)	√		mum	√	mum			
	Sector stores	√	√		(25	√	(25			
	Fish sales outlets	√	√	√	sq.m	√	sq.m	√	√	
	Meat sales outlets (processed meat only)	√	√	V	√	√	√	√	√	
	Building materials shops i. Sand, mate, cement, wire, tube, materia.		V		V	V	V	V	V	
	ii. Other Building Materials		V		V	√	√	√	√	
	Liquor Shops	√	√		√	√	√			

	Use	Zone 1- Special Commercial Zone	Zone 2-Mixed Development Zone I	Zone 3- Agricultural Zone	Zone 4- Mixed Residential Zone	Zone 5- Mixed Development Zone II	Zone 6- Salt and Aquatic Production Zone	Zone 7- Beach Based Tourism Development Zone	Zone 8- Island Based Tourism Development Zone	Zone 9- Eco Tourism Development Zone
	Storage / warehousing	√(Fish eries rela ted sto res)	√		√	√	V	√	√	
	Bakery	√	√	√	√	√	√	√	√	
	Filling stations	√	√		√	√				
	Gas & Electric Power (filling stations for vehicles)		√		√	√				
	Auto Parts Storefronts i. Body Parts		√			√				
	ii. Other parts	√	√			√				
	Wooden shops		√			√				
	Tourist Hotels	√	√	√	√	√	√	√	√	
ctivities	Courtrooms	√	√		√	√	√	√	√	
m acti	Holiday Resorts		√	√	√	√	√	√	√	
Tourism a	Reception Hall		√	√	√	√	√	√	√	
	lodges		√		√	√		√	√	
	Eco-friendly restaurants	√	√		√	√		√		√
	Tourist centers	√	√		√	√		√		√
	Vehicle Sales Stations		√			√				
les	Vehicle Repair Point (Garage)	√	√		√	√				
Vehicles	Service Centers		√		√	√				
	Vehicle wash places		√		√	√				
	Public parking	√	√		√	√				

	Use		Zone 2-Mixed Development Zone I	Zone 3- Agricultural Zone	Zone 4- Mixed Residential Zone	Zone 5- Mixed Development Zone II	Zone 6- Salt and Aquatic Production Zone	Zone 7- Beach Based Tourism Development Zone	Zone 8- Island Based Tourism Development Zone	Zone 9- Eco Tourism Development Zone
Industries	Handicraft products / Indoor equipment (non- polluting)		√	√	√		√	√	√	
snpul	Building materials production companies (brickwork)		V		√		√	√	√	
Ħ	Children's parks	√	√	√	√	√	√	√	√	√
tertainme Activities	Parks	√	√	√	√	√	√	√	√	√
Entertainment Activities	Open areas	√	√	√	√	√	√	√	√	√
ᇤ	Landscape areas	√	√	√	√			√	√	√
	Shrimp Crab Cultivation			√			√			√
	Salt Industry			√	√	√				√
	Wind Generation Centers									
tal	Fishery Activities	√	√	√	√		√			√
ronmental	Environmental Monitoring Centers	√	√		√			√	√	√
Environ	Natural parks	√	√		√			√	√	√
	Walking lanes	√	√		√			√	√	√
	Environmentally friendly campsites				√			√	√	√
	Observation Stairs	√	√					√	√	√

Annexure 31: Zoning Factor Calculation

Factors used to calculate zone factor,

- i. Currently developable space in zones
- ii. Future developable space in zones

Zoning Factor = Proposed land use 2030/ Developable lands

i. Currently developable lands in zones (Present Land use)

Zone No.	Commer- cial Space 2017(sq.m)	Tourism Space 2017 (sq.m)	Institutional Space 2017 (sq.m)	Industrial Space 2017 (sq.m)	Religious Space 2017 (sq.m)	Vacant Lands 2017 (sq.m)	Resi- dential Space 2017 (sq.m)	Total Land Extent 2017 (sq.m)	Plot cov- er- age	Develop- able Space 2017 (sq.m)
1	100550.0072	22740.42546	153393.684	9807.382838	32472.41816	420741.7729	561575	1301280.691	0.8	1041024.552
2	3627.48316	97907.69992	143007.6288	2162.734586	5218.564199	521603.335	328650	1102177.446	0.8	881741.9566
3	224282.3619	47712.62746	1392616.971	177265.8734	28439.16873	972857.8399	2036400	4879574.842	0.6	2927744.905
4	115772.2256	137196.6477	153724.8154	22705.23849	160814.6016	1150916.929	1253900	2995030.458	0.6	1797018.275
5	122530.878	0	1162936.813	2259.779665	6044.223034	10646.9842	932600	2237018.678	0.8	1789614.942
6	55108.89313	0	379288.0415	344497.1175	35293.26168	331834.2058	873400	2019421.52	0.7	1413595.064
7	0	0	0	0	0	0	71950	71950	0.4	28780
8	0	0	0	0	0	443785.0306	78000	521785.0306	0.4	208714.0122
9	77270.15174	145956.5054	482591.6801	48135.00364	498894.1488	596025.3428	304900	2153772.833	0.4	861509.133
Total	699142.0008	451513.9059	3867559.633	606833.1301	767176.3861	4448411.44	6441375	17282011.5		10949742.84

ii. Future developable lands within zones (Proposed land use)

Proposed land uses calculate using following factors,

- a. Calculating required land area for resident population for 2030
- b. Calculating required land area for migrant population into Kalpitiya PS area for 2030
- c. 2030 Calculating required land area for resident population for 2030

			Residential land	Residential land
Zone No	Population 2017	Population 2030	area for 2017	area for 2030
			(Sq.m)	(Sq.m)
1	11232	13125	561575	656257.5
2	6573	12254	328650	612697.5
3	40728	50196	2036400	2509800
4	25078	32653	1253900	1632650
5	18652	24333	932600	1216650
6	17468	20498	873400	1024900
7	1439	3333	71950	166650
8	1560	3454	78000	172700
9	6098	6855	304900	342750
Total	128828	166701	6441375	8335055

b. Calculating required land area for migrant population into Kalpitiya PS area for 2030

	Commercial	Land area	Land	Land area	Land area
Zone	land area for	for tourist	area for	for industrial	for religious
no	2030 (sq.m.)	activities 2030	institutions	activities 2030	activities
	2030 (Sq.III.)	(sq.m)	2030 (sq.m)	(sq.m.)	2030 (sq.m)
1	191045.0137	40932.76582	291447.9996	16672.55082	42214.01816
2	6166.721372	146861.5499	243112.969	3027.82842	5218.564199
3	22428.23619	38170.10197	139261.6971	106359.5241	28439.16873
4	115772.2256	178355.642	76862.40772	13623.14309	160814.6016
5	159290.1414	0	1255971.758	451.955933	3022.113034
6	55659.98206	0	227572.8249	172248.5587	35293.26168
7	10050.20	1000	0	0	0
8	10090.22	40000	0	0	0
9	3863.507587	160552.156	96518.33602	14440.50109	249447.1488

Proposed land use 2030, Developed lands 2017 and Zoning factor

Zone no	Proposed land use (Developable land area) 2030 (sq.m.)	Developed lands 2017 (sq.m.)	Zone Factor
1	1460153.848	1041024.552	1.402612306
2	1172515.133	881741.9566	1.329771283
3	3047634.404	2927744.905	1.040949435
4	2181026.144	1797018.275	1.213691689
5	2397788.168	1789614.942	1.339834683
6	1515674.627	1413595.064	1.072212734
7	15390	28780	0.534746352
8	57270	208714.0122	0.27439461
9	829721.6494	861509.133	0.963102558

Zone	Factor	Factor range	
High intensity growth	2.0	1.5 – 2.0	
Medium intensity growth	1.5	1.0 – 1.5	
Growth with normal intensity	1.0	0.5 – 1.0	
Low intensity growth	0.5	0.1 – 0.5	
Growth without intensity	0	0.0 - 0.1	

