

DEVELOPMENT PLAN FOR GREATER GALLE AREA 2019 - 2030

Part I



**Urban Development Authority
District office - Galle**

Minister's forward

Local Authority Chairman's Foreword

Preface

Cities are changing; therefore, the emerging trends of development requires to find innovative solutions to meet the changes well. The Urban Development itself also means responsibility for future generations through innovations.

Galle as one of the rapidly growing cities in the region as well as in Sri Lanka, the spatial structure of the city also being subjected to changes over the time by expanding the growth towards outer city. This scenario has made significant changes in the city structure and the development. Therefore, in this context, Greater Galle Development Plan will be an instrument that offers visionary, intelligent solutions for the future-oriented development of Greater Galle to the questions arise today and that will arise in the future.

The plan was developed as a part of broad discussion process among policymakers, administrators, the scientific and business communities, residents and special interest groups. Since the aim of the development plan was to create a city for the people and where they want to live, not where they live because they have to.

Acknowledgement

It's a great privilege to express the feeling of our gratitude for the people who were backing the success in preparing the Greater Galle Development Plan 2019-2030.

First and foremost, we would like to thank the Mayor and the commissioner of Galle Municipal Council and chairmen and the secretaries of Bope-Poddala, Akmeemana and Habaraduwa Pradeshiya Sabhas along with the members of the staff for extending their extreme support to successfully complete the Greater Galle Development Plan 2030.

We also express our heartfelt and deep sense of gratitude to the Chairman, Director General, Deputy Director General (Planning), Development Planning Division and Research and Development Unit of the Urban Development Authority for the encouragement they have given and support given to prepare and finalized the Greater Galle Development Plan.

Last but not least, we would like to express our gratitude for each and every individual for being a part of this task on every instances directly and indirectly

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INTRODUCTION

- **Background of the Development Plan**
- **Planning Team**
- **Scope of Work**
- **The Planning Process**

1.INTRODUCTION

1.1. Background of the Development Plan

A Development Plan is a legitimate document, which set out how an area should look in the future by deciding the type and scale of development, which is prepared adhering physical, social, economic and environmental forces for a certain locality. The magnitude of each force and the reliance on one on the other will figure out what would be the most appropriate type of development need to be considered

Being the sanctioned organization in preparation of Development Plans under the statutory provisions given from the section 8a of Act No.4 of 1982 amendment of the Urban Development Authority Act No 41 of 1978, the Authority prepares Development plans for the areas, which are as urban development areas under the legal provisions on the same act.

Galle has been established as a municipality on 1st of January 1867. According to the gazette notification, No. 3571 issued by the Governor on 24th November 1866, under the Urban Council Ordinance of 1865. With the population growth and various other urban issues there is a necessity to have planned development. Therefore, the town has been declared as an urban development area under Section 3 of the UDA Law No 41of 1978 by Gazette Extra Ordinary Notification No. 38/16 of 01.06.1979 for the purpose of formalizing the urban diversity arise with the population growth in the town.

Accordingly, UDA has prepared a development plan for the declared Galle Municipal Council area for the period of 2008-2025, which was gazzetted in the year of 2009 and in practice currently.

Although Galle is a major urban center in the region, it holdups the development. Though there are many development potentials in the city, they have not been tapped in a planned manner to enhance the development. Therefore, considering the development trend and the potentials for development, the periphery of Galle MC Area was gazette as Greater Galle. It was declared as an Urban Development area under the Gazzette Notification No 1421/29 on 01st December in the year of 2005, by considering the recent developments combined with the long process of urban Growth over the years in the region.

Accordingly, preparation of Development Plan for Greater Galle was commenced in early 2017 and due to be planned for the period of 12 years after a comprehensive study of the context of the Greater Galle Region.

1.2 Planning Team

The planning team of Urban Development Authority conducted few stakeholder consultation sessions at several instances during the planning process. With the participation of the below institutions and by the time of Plan preparation their expertise was obtained for thematic plans when needed.

Main Stakeholders

1. Local Authorities - Galle Municipal Council, Bope Poddala, Akmeemana and Habaraduwa Pradeshiya Sabha)

List of Major Consultation Institutions

1. Divisional Secretariats (Galle Four Gravets, Akmeemana, Bope Poddala Habaraduwa)
2. National Water Supply and Drainage Board
3. Ceylon Electricity Board/Lanka Electricity Company PVT Limited
4. Provincial Road Development Authority
5. Road Development Authority
6. Central Environment Authority
7. Tourism Development Authority
8. Irrigation Department
9. Coast Conservation Department
10. Department of Agrarian Development
11. Galle heritage Foundation
12. Strategic City Development Project
13. Sri Lanka Ports Authority
14. Regional Road Passenger Transportation Authority
15. Wild life Conservation Department
16. National Physical Planning Department
17. Geological survey and Mines Bureau
18. Sri Lanka Police
19. Sri Lanka Telecom
20. National building Research Organization
21. Southern Provincial Chief Secretary

Stakeholder Groups

1. Trade Unions (fishery, vegetables)
2. Environment and Community Development Society
3. “Ukusu Esa” Media Unit – Karapitiya
4. Community leaders (Chief incumbent of Subdrarama MahaViharaya, Karapitiya)

The Planning team of the Urban Development Authority

The Planning team of the Urban Development Authority consisted of the following members.

Name	Designation
Mrs. C.W.N.De.S. Somanayake	Strategic Planner/Town Planner
Ms. K. D Malshani	Assistant Planning Officer
Ms. VishakaPriyadarshani	Planning Officer
Mrs. R. Vinodini De. Silva	Planning Officer
Mrs. H. T Damayanthi	Planning Officer
Mrs. S.G.D.P Hewavidana	Planning Officer

Preparation of Galle Fort Guide Plan

Mrs. L. R Hettiarachchi – Assistant Director(Planning)

Ms. M. V. S Ranjani – Planning Officer

Supervising Officers:

Mr. K.H.M.W.K Aberathna – Director Southern Province

Mrs. Thushari Dissanayaka- Deputy Director (Planning) District Office, Galle

UDA Supportive Divisions

1. Development Planning Division
2. Planning Team of Research and Development Division
 - i. Mr. Janak Ranaweera - Director
 - ii. Mr. Isuru Biyanwila- Planning Officer
 - iii. Mrs. G.H. Madhuka Thamarasi – Planning Assistant
 - iv. Mrs. D.A. Sukhitha M Ranasinghe – Planning Assistant
 - v. Mrs. Chulesha Geeganage - Assistant Planning Officer
 - vi. Mr. J. Nadeesha Karunasena- Assistant Planning Officer
3. Enforcement Division
4. GIS Division

1.3 Scope of Work

The Planning area of Greater Galle comprises of present Municipal Council area of Galle and Bope Poddala Pradeshiya Sabha area, parts of Habaraduwa and Akmeemana Pradeshiya Sabha Areas, covering an area of 7300 ha of land with a population of 190,486 by 2012.

Reviewing the existing situation of the entire city region was a requirement for the identification of the problems and strategic actions for the implementation of a comprehensive Regional level Strategic Development Plan.

The integrated planning aspects of social, Economic, Environmental and physical factors were expected to cover up through this planning attempt, which will thrive the future development of Greater Galle by 2030.

Although Greater Galle is the largest urban center of the Galle District and one of the major urban center in the Southern Region beside the many development potentials in the city they have not been exploited deliberately to enhance the development. Therefore, the main objective in formulation of this plan is to harness the hidden potentials and development trend lying in the area and to rationalize the land uses to sphere the development.

Further, the core of the Galle city is superior to the rest of the urban centers in the region due to its declaration as a World Heritage City under the World Heritage Convention by the UNESCO, the plan should have recognized its importance and to harness its potential as a tourist attractive center. Thereby enhance the livability and conserving the character of the “World Heritage City”. In addition, the famous and historic Rumssala area and other tourism potentials also been included to the Greater Galle planning area as a major development strategy.

Galle as multiple disaster prone area (Tsunami, Flash floods and Landslides) the plan forwards strategies including planning and building regulations for conserving the delicate natural environmental and intergrade them in to the spatial structure for a disaster resilient safeguard city.

However, the area confined to Planning boundary is limited to the UDA declared Greater Galle area comprising of 55 GN divisions out of the total from 4 Local Authorities, there are some areas beyond theses GN limits which are having much more potentials for future development is not included to the Development Plan. In addition, the strategic action projects proposed in this plan were not much detailed in designs and the method of investment for implementation. In addition, the plan does not lie for future possibility of massive developments for Galle Harbor & Port expansion & the impact of main shipping lines, where Galle is situated in close proximity (five nautical miles) to International Sea routes such as Europe, India, South Africa

1:4 The Planning Process

The preparation of the “Development Plan” for Greater Galle Area was undertaken in to three sequential stages, viz., Initiation, Framing, Plan Preparation and the fourth stage would be the implementation, which needs to be realized under a separate consultation. The three stages were comprised with ten steps of the process of Development Plan Preparation



Background Study

During this stage the data collection process has been done. Interviews, questionnaires, surveys, Drone survey, Google maps archives and field reconnaissance have been used as primary data collection methods. Secondary data collection was carried out by reviewing existing development plans and studying the evolution by reviewing historical records.

At this stage Local, Regional, National and International level importance and linkages of the Greater Galle area was figured out with the previous planning interventions in order to find the gaps of existing statutory provisions

Scoping

A comprehensive database was established prior to the preparation of featured maps for existing economic, social and environmental conditions of Greater Galle. Apart from the prepared maps, basic analyzing soft wares such as Ms Excel, Google Maps, SPSS and Drone based software etc. were used to for the basic analysis.

Problem and Potential Identification

Identification and framing of key potentials and constrains from the planning point of view was done first based on the context and collected data. Afterwards over viewing the stakeholder perceptions. Secondly, the problems and potentials were identified from the stakeholders' perceptions by holding several stakeholder consultation sessions at few occasions.

If the public and the governing bodies are directly involved in the decision making process, their concerns may have met early in the planning process and that may cause for easier changes, rather than late in the process as well as a maximum and a rich outcome can be expected. Therefore, at the initiation phase of the development plan and throughout the process, four stakeholder sessions were conducted on 13th and 22nd June 2017, 06th June 2017, 28th May 2018 at the Urban Development Authority office premises with the participation of Major consultation institutions, and other stakeholder groups along with the planning team of the Authority.

The final output of this stage was a list of problems and potentials, which was finalized by categorizing and prioritizing the results of stakeholder and planning concerns.

Vision and Goals Formulation

The Vision and the Goals in achieving the urban development activities from the Development Plan were formulated through 03 major approaches. Problems and the potentials approach is the first approach, which is derived from the basic analysis. Government policies, large-scale projects

describe Development Trend Approach and the analysis on stakeholder consultation session results were considered for Public Stakeholder View Approach.

Detail Analysis

Several analysis methods were followed based on Goals and Objectives to achieve the Vision at the analysis stage. Prominently the SWOT analysis, which elaborates the strengths, weaknesses, opportunities, and threats that the development meets, have been considered in this stage. Apart from that, the other analysis such as Sensitivity Analysis, connectivity analysis, Development pressure, spatial integration and suitability analysis were used to find the suitable lands for development, to identify the spaces to be conserved; areas for potential of future development of Greater Galle were found at this stage. Therefore, the activities at this stage enabled the identification of current development trends in the region and to locate the gaps prevailed in planning of such development trends

The Plan, Strategy Formulation

Based on the findings of the detailed analysis of Economic, Social, Physical & Environmental factors transforms in to urban development practical process to achieve the Vision. The strategies/ 06 thematic master plans to cover up the six major goals were designed afterwards with various components of the project work were identified with broader outcomes at the strategy formulation stage of the Greater Galle Development Plan.

Regulations

Establishment of Planning & Building Regulations in relation to above mentioned Plans were done at this stage. Zoning regulations with boundaries, planning and building regulations, General regulations, Special regulations for World Heritage City of Galle Fort and special regulations for Southern Expressway, Guide plan for Rumassala conservation zone and Galle Fort Conservation regulations were formulated as per the special areas of Greater Galle, which requires special concerns.

Consent

Forward/Present the Draft Development plan for public comments (Stakeholders awareness Workshop) & Local Authority consents due to be obtained. Final comments and views from UDA professionals are also to be initiated

Submission

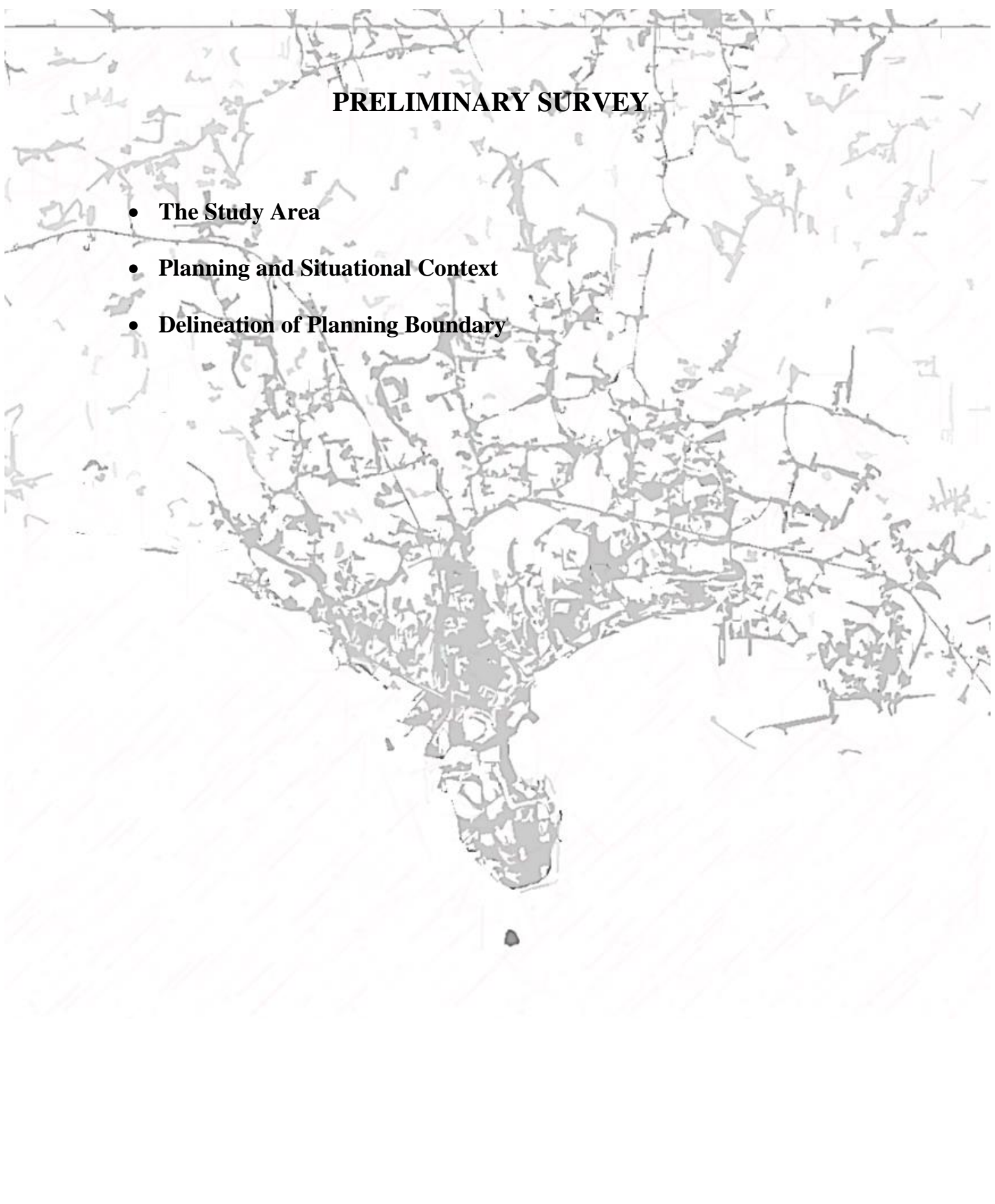
Final Draft Development Plan is to be submit to the Main Planning Committee/Development Planning Division through power point presentations, hard copies and soft copies of the draft development plan and Geo Database in order to have the approval of Main Planning Committee for further process

Approval, and Publishing

Several approvals are due on the final stage of the development plan. Such as Main Planning Committee Approval, Board of Management Approval and Minister's Approval prior to the Gazzeting process. After translating into three languages, the development plan becomes a statutory document and subjects to continuous monitoring and feedback on the performances of implementation phase.

PRELIMINARY SURVEY

- **The Study Area**
- **Planning and Situational Context**
- **Delineation of Planning Boundary**



2. PRELIMINARY SURVEY

2.1 The Study Area

The seaside town of **Galle** is 116 Km away from Colombo, down the south coast of Sri Lanka. This town is located in the wet zone receives rain from South-West Monsoon with an annual rainfall of 2377.9 mm. Annual average temperature is 26.7 °C and the humidity ranges from 80-88%. There are few isolated hills in the town accounts, few which are around 60 -160 ft. altitude. Generally, some area is low and many of them are marshes and water bodies.

One of the important proposals in this Development Plan is to expand the city limits due to many planning issues related to the establishment and expansion of city functions. Therefore, “Greater Galle” the area subjected to the preliminary survey included, Galle M.C, Bope-Poddala P.S and parts of Habaraduwa P.S and part of Akmeemana P.S areas. (Map no2:1)

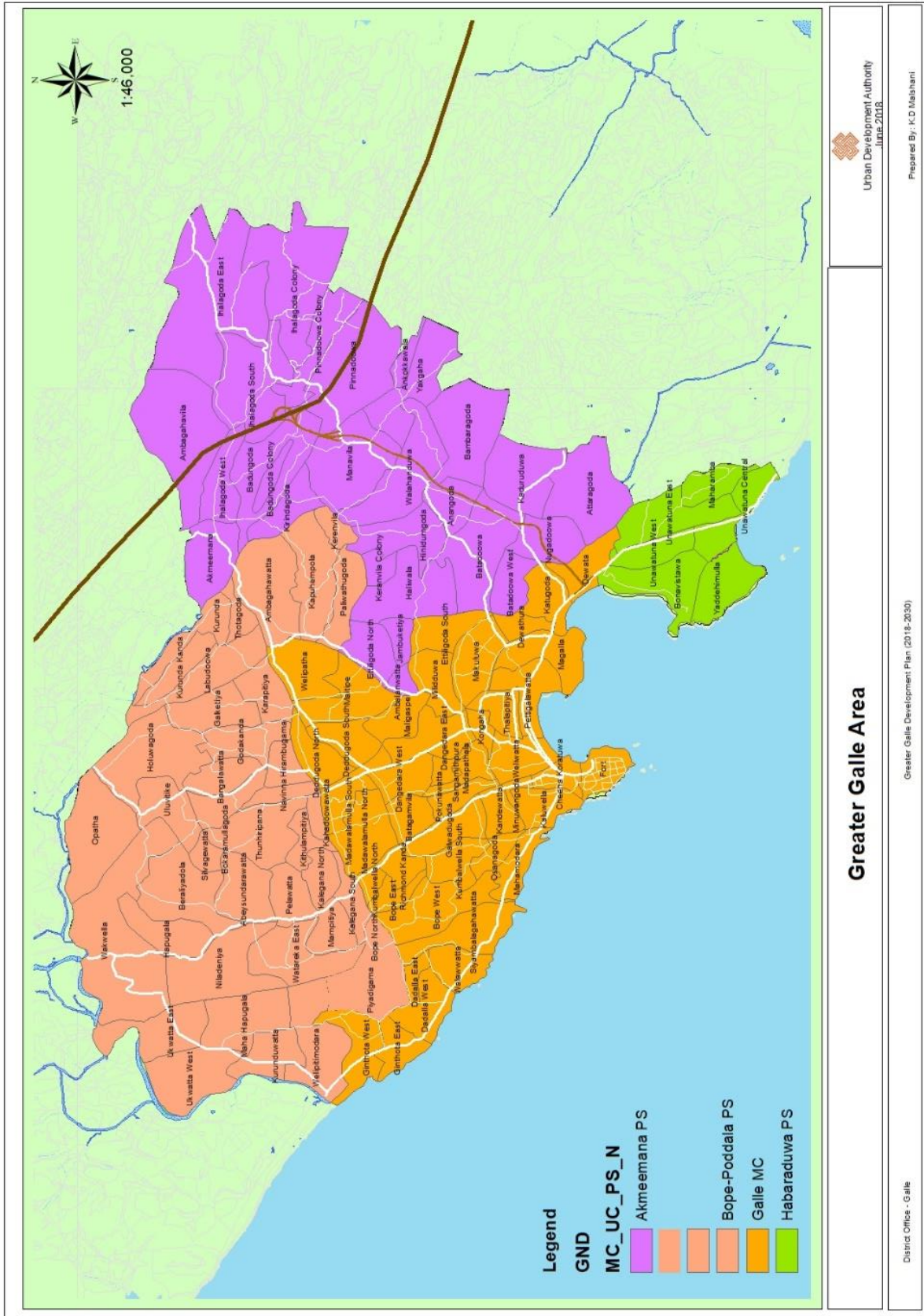
The Greater Galle area, initially identified for the preliminary investigation, the Corporate Area of the Greater Galle covers an area of 7302 Ha including 1852 Ha extended Galle Municipal council and includes 55 Grama Niladhari Divisions. The total population is around 190,486 and Average population growth rate is 0.7% based on census data 2012. The gross population density is 26.08 persons per hectare, which is comparable with the national figure.

Geographically, the entire area is within the wet zone of the country. Out of the total land area, built up area occupies a major share of the corporate area and that is around 38% and from the rest is covered with forest reserves, plantations agricultural uses and internal waterbodies, which implies that the area is rich in green and blue diversity

Galle, being the fourth largest municipality of Sri Lanka in terms of population size and as the administrative capital of the Southern Province, attracts a considerable number of commuters from all areas of the district every day. It performs the functions connected with regional administration such as Provincial Council, Karapitiya Teaching Hospital, Medical Faculty of Ruhuna University, Office of the Deputy Inspector General of Police, Commanding Headquarters of Southern Province, Gemunu Corps, Ceylon Electricity Board, Department of Education, Sri Lanka Telecom Ltd, Passenger Transport Authority, Urban Development Authority etc.

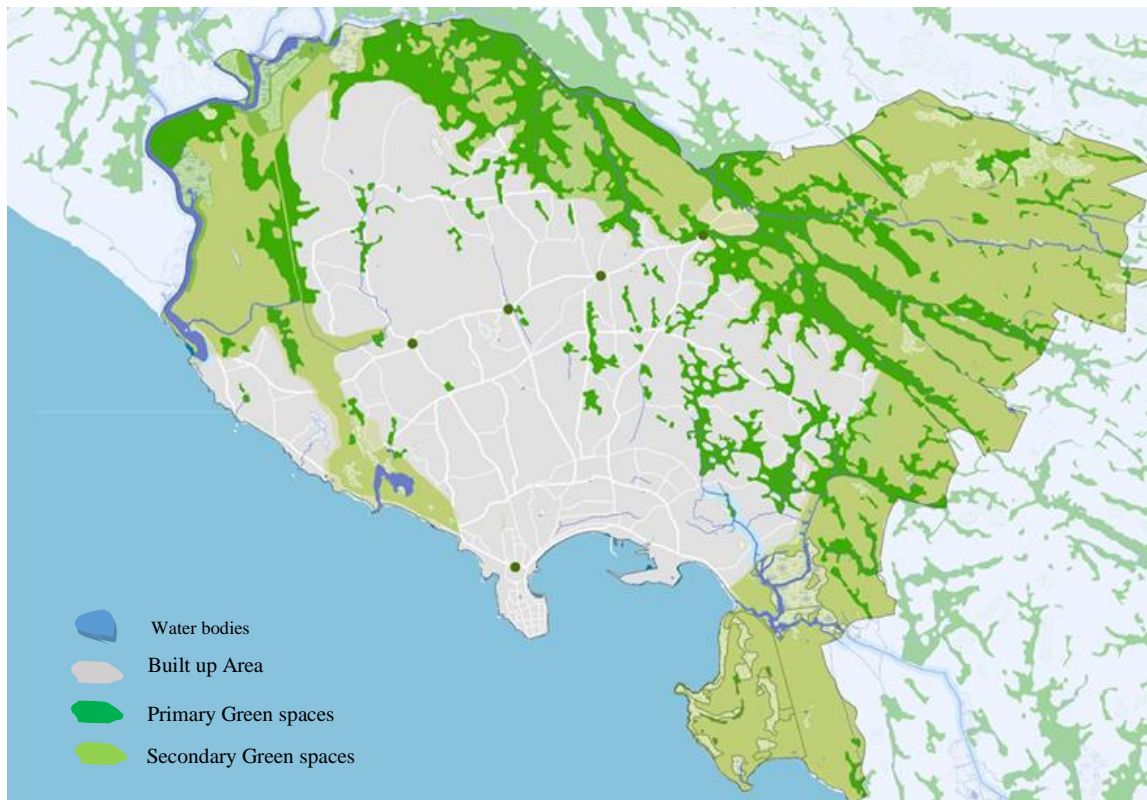
(Map: 2:2)

Map 2:1 Area encompasses of Greater Galle



Source: UDA Galle

Figure 2.1 Green & Blue Network of Greater Galle



Source: UDA Galle, 2017

The town plays a major role in the educational aspects. Technical College and 9 leading schools and three international schools are located within the town. Medical Faculty of the Ruhuna University adjoining the town limits. Engineering Faculty of Ruhuna University at Hapugala, Open University at Labuduwa, National Technical Diploma Institute performs as special function at national level as well as regional level.

Accordingly, there would be average of 125,000 commuters come to the town to get these services, by getting the access via Colombo Walkaway (A2) road and several A and B class main roads spread towards it's inter and intra regions. Apart from that, Greater Galle area possesses a strong network of secondary and tertiary roads maintained by PRDA and Local Authorities. However, with the emerging trends of development and expansion of settlements and urban activities of the area there is a need of improving road infrastructure including parking spaces, managing of flow of traffic etc. to meet the future demand and development trends.

Figure 2:1 Inter & Intra Connectivity of Galle



Source: UDA Galle, 2017

When it comes to the economic aspect of the City, tourism plays a major role. Galle attracts thousands of visitors every year both locally and internationally to see the Galle Fort's well-preserved historical character and the mix of Dutch and British architecture of the 18th and 19th centuries. Not only the Dutch Fort but also Rumassala Mountain range Unawatuna beach are some other places around the vicinity of Galle where tourist arrivals are attracted. Apart from that, Galle houses for a natural harbor, which is world famous for pleasure yacht facilities. Thought there are enough potentials to develop the city by having the optimum usage of these kind of opportunities and which have not been blend with an integrated manner yet.

Geologically, being a coastal town, Galle is well known for fishing and contributes a substantial share for the national fishery production. It is the second largest fish supplier out of 15 fishery districts of the country and that would be above 50,000 MT per year, which can be raised up by utilizing the resources optimally and can be incorporated innovatively with other sectors like tourism and infrastructure as well.

2.2 Planning and Situational Context

2.2.1 National and Regional Linkages

Galle is properly linked to Colombo – Hambantota Highway and Colombo – Matara Railway line. Highways connect this town to the capital of Sri Lanka from North and to Hambanatotata town from the east. This town is connected to the hinterlands of the area through Galle – Deniyaya and Secondary road network such as Galle - Baddegama and Galle –Wanduramba that leads to the accelerate the development of the town.

Figure: 2:2:1 National and Regional Linkages of Galle



Source: National Physical Planning Department

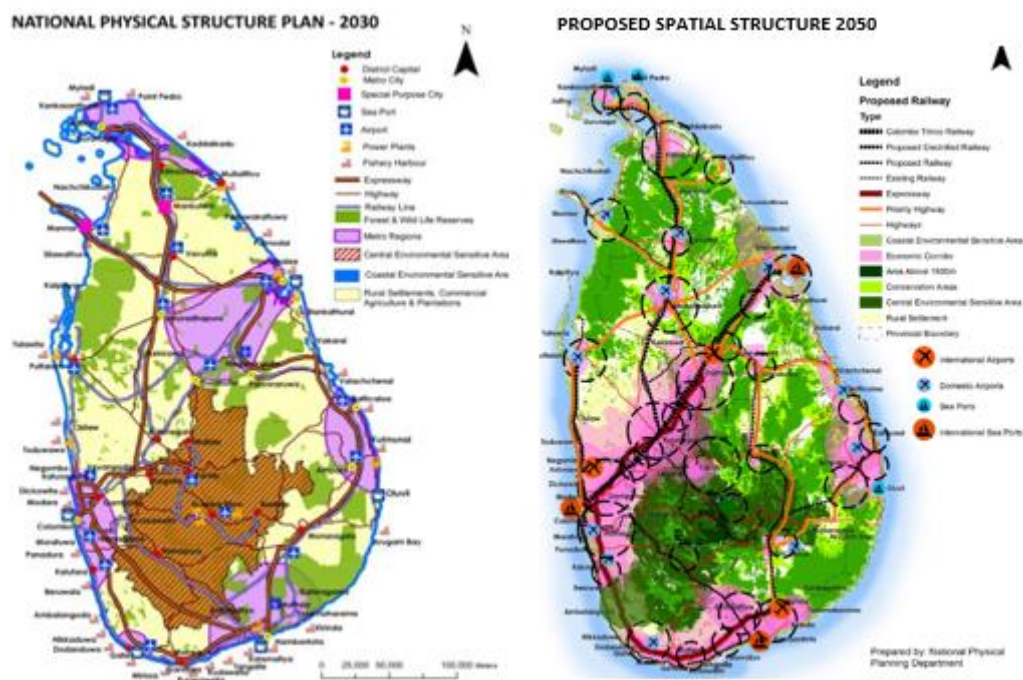
In addition to transport sector of highway and railway at regional level, functions are being performed through the marine transport from Galle harbor and the harbor is located closed to the international sea routes.

The location of Southern Express Way Interchange at Pinnaduwa and the trend in harbor development and tourism development centering the Galle Fort and the world heritage tourist center, enable the Galle town to play a wider role and function as an active urban center. The location of airport at Koggala, 8 km away from the town provides air transport linkages as well.

2:2:2 National Physical Planning Policy 2030

In 1997, the presidential task force on housing and urban development recommended that there should be a national spatial plan for Sri Lanka. Subsequently the national physical Planning Department was set up under the town and country Planning (Amendment) Act No 49 of 2000 to prepare and implement the National Physical Plan. Preparation National Physical Plan is a result of a collective expertise from a range of stakeholders, experts and government officials. This strategic document sets out the framework for the future development in Sri Lanka. Moreover, it reflects a vision for Sri Lanka in 2030 and the objectives that support the vision

Figure: 2:2:2 Proposed Spatial Structures of National Physical Planning Policy



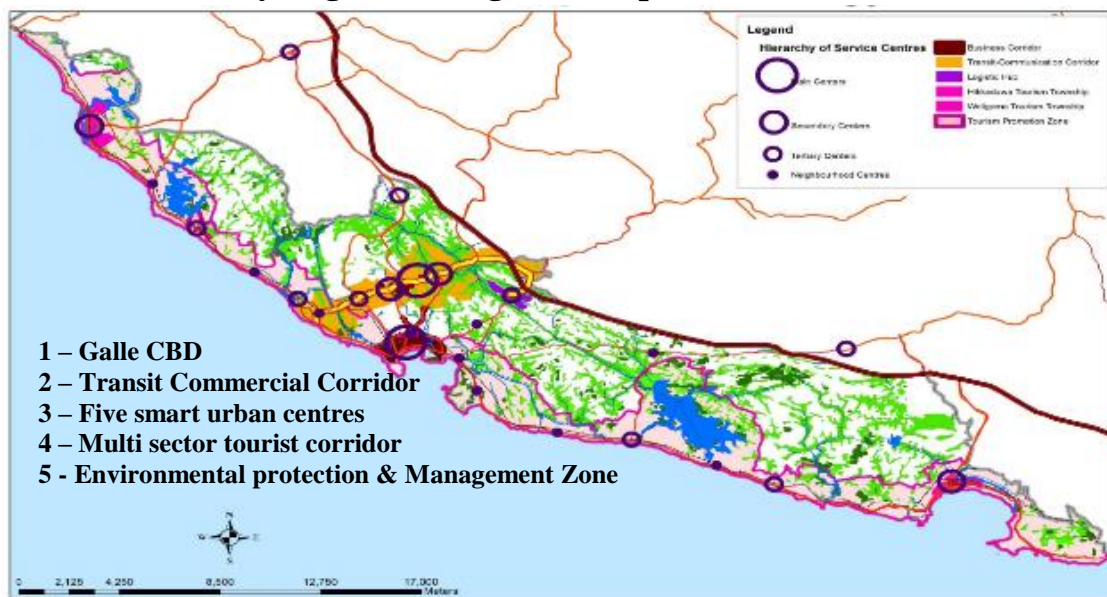
Source: National Physical Planning Department

By 2030 population of Sri Lanka is estimated to be 25 million and in accommodating such number there is a necessity to develop new cities by restricting the development in the protected area Network and the Central Fragile Area. The settlement plan, which has been proposed to facilitate the above estimated population, identifies Galle as a District Capital, which will accommodate 300,000 of population while the immediate surroundings will have around 600,000 out of 25 million. Since the plan envisions incorporating Sri Lanka with International space by providing transit facilities via sea and air cargo, there is an opportunity for Galle Port to be developed as a secondary or service Port. Further to that, the plan identifies potentials in Galle and adjacent townships in the region such as, Koggala, Hikkaduwa, Unawatuna, Weligama and Mirissa for Tourism Development. Some projects have been identified in the plan for the above purpose as follows,

- Development of ocean based tourism in Hikkaduwa, Galle, Unawatuna, Koggala
- Expansion of Galle Port as a regional sea port for tourism industry in the region
- Redevelopment of fishery harbours at Galle, Mirissa, Dodanduwa and Hikkaduwa to upgrade the livelihoods of the communities and the economy
- Undertaking of actions identified by the Coastal Management Plan to prevent sea erosion from Seenigama to Dodanduwa

2:2:3 Previous Planning Attempts

2:2:3:1 Galle city Region Strategic Development Plan 2030



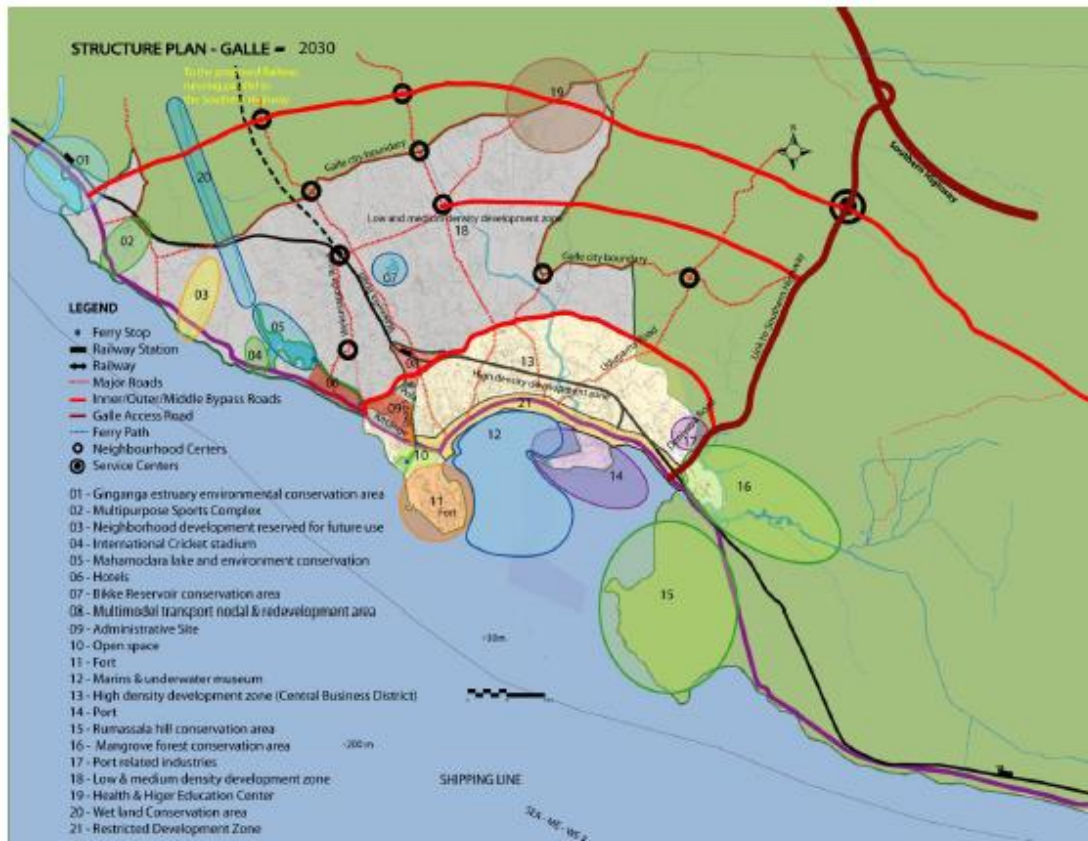
Source: *Strategic Cities Development Project*

The Plan has been prepared on the request of Urban Development Authority by Uni-Consultancy Services, University of Moratuwa.

The plan covers Galle city region (including the Municipal areas of Galle, Hikkaduwa and Weligama) while preparing Development Guide Plans for crucial development areas /zones identified by Strategic Cities Development Project (SCDP) aiming to achieve the key objective of “Relieving traffic congestion and upgrading down town services and livability to improve and sustain the world heritage city of Galle”

- Improve Infrastructure and other urban services in order to upgrade the livability and enhance the status of “World Heritage City” to international standards.
- Improve the efficiency of urban functions
- Conserve the delicate natural environments and integrate them in to the spatial structure of the city
- Organize the spatial structure of the town to guide and manage its future growth so as to reduce traffic congestion and disaster risk, and conserve its heritage and improve liveability

2:2:3:2 Galle Development Plan Prepared by ADV Consultants



Source: Galle Development Plan by ADV Consultants

ADV Consultants prepared a plan for the Galle City in the aftermath of the 2004 Tsunami disaster with a focus on agricultural and export oriented service development. However, most of the proposals in this plan are related to tourism development and it emphasizes on the potentials of the Galle region to be promoted as a major tourism corridor of Sri Lanka. Among the proposals towards achieving that is a back water leisure boat connection between Bentota and Galle, clearing up existing links between inland water bodies, relocation of the Galle Railway Station to Minuwangoda, conserving the existing railway station for a railway museum, development of the adjoining area of the railway station (highland area) with high density developments, development of the police barracks site for a city hotel and part of the China Garden facing Kepu Ela and Havelock Road for a landscaped area with restaurants and food outlets, conservation of natural and built heritage including the Galle Fort, development of the Galle Harbor as a Yachts Marina, relocation of the Galle Prison, and the development of shopping facilities in the Pettigalawatta area. This plan also emphasizes the potential of Galle to develop its economy as an education corridor and a transportation corridor. The importance of the conservation of water and other natural resources in the region and their use for sustainable development is also highlighted.

2:2:3:3 Galle Development Plan (2008-2025)

Development Plan for Galle Urban Development Area (Galle MC Area) 2008 – 2025 prepared by UDA was endorsed by the special gazette notification of 05.06.2009. It is the legal base for any development-planning task within the area of Galle Municipal Council. The zoning plan specifies the permissible land uses within the identified zones of development.

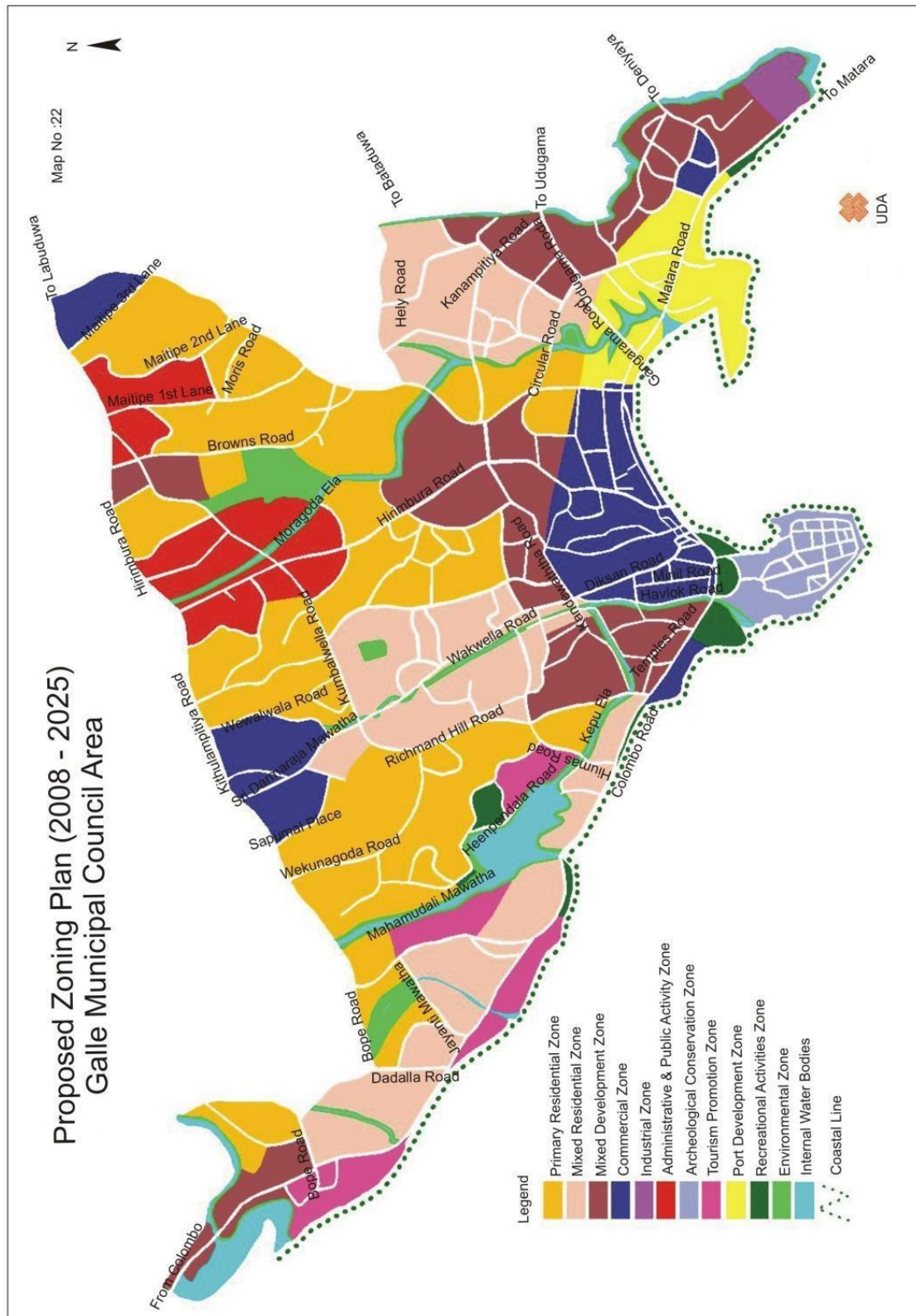
The objective of this plan was to strengthen the city economy through diversification of economic activities of the city while improving the efficiency of urban services, optimum utilization of land and other resources. Development of tourism sector as a regional center along with conservation of heritage, preserving of natural ecosystem in order to minimize the natural disasters, and ultimately to achieve the planned development through zoning with set of regulations

However, the regulations which were included in this plan was insufficient to address the location specific issues arises from historic process, unique characteristics and environment condition of the area, though the vulnerability to the disasters have been considered up to some extent from the plan.

By reviewing of the available plans that have been proposed and even implemented leads to understand that, the scope of those plans were not broader enough to address the issues emerging

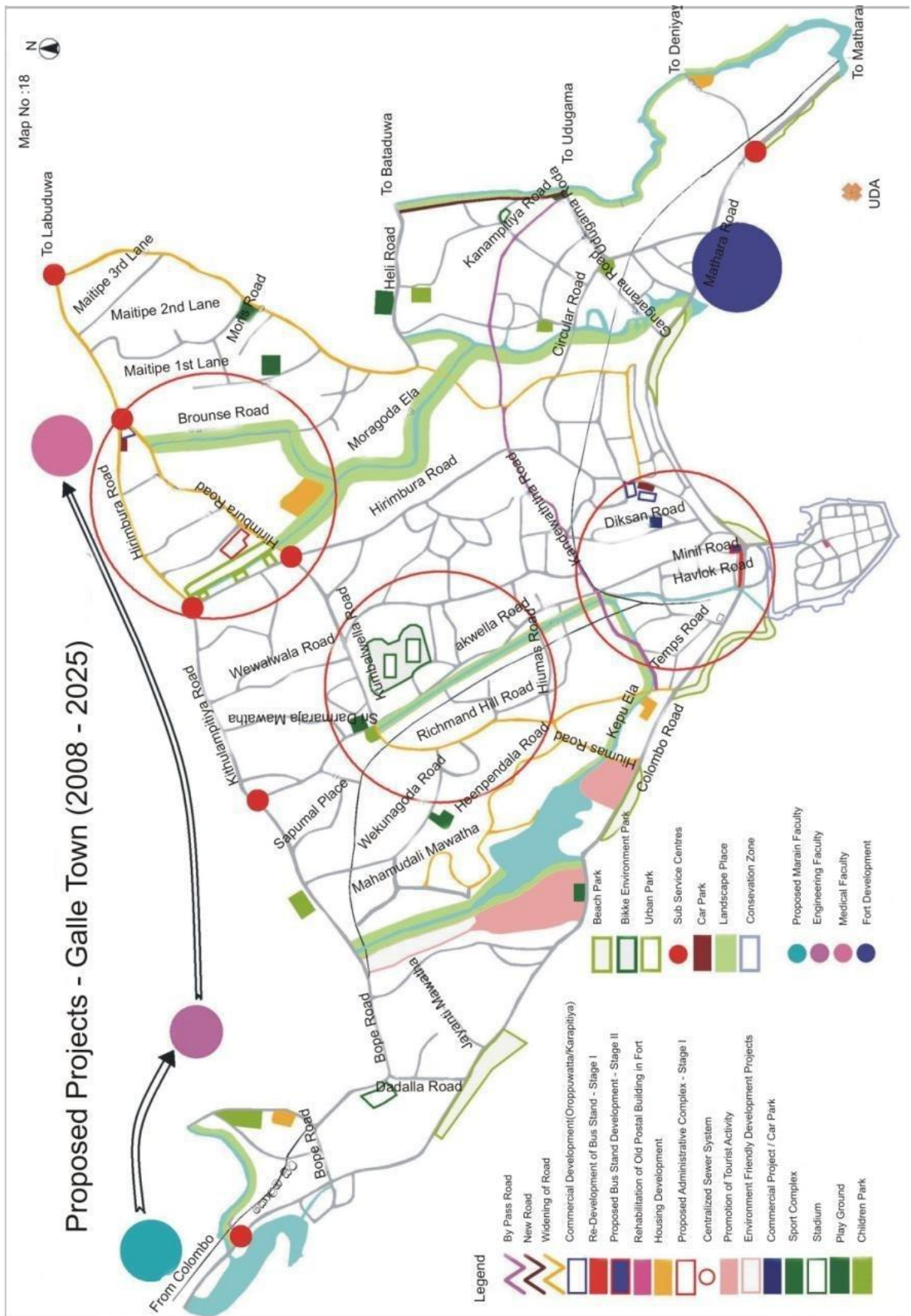
Form a broader context with the changing trends of development. Therefore, an integrated regional level planning intervention would be the solution. Apparently, most of the plans are outdated and they need to be replaced as per the financial and other resources availability and as well as the changing trends of the region such as Southern Expressway, New rail network etc.

Figure 2.2-3: Galle Development Plan (2008-2025) Prepared by UDA



Source: Galle UDA Plan (2008-2025)

Figure 2.2.4: Galle Development Plan (2008-2025)



Source: UDA Development Plan (2008-2025)

Delineation of Planning Boundary

Delineation of the planning region was based on the following:

Functional region

Area of allegiance for which the Galle City, the centers that the growth of urban activities such as medium level shopping goods, primary health and education services, local administration purposes and local transportation services have been attracted, during past twenty years is considered as the functional region. The limits in space of such functionalities are identified through the information obtained from public consultations and field observations.

Geographic region

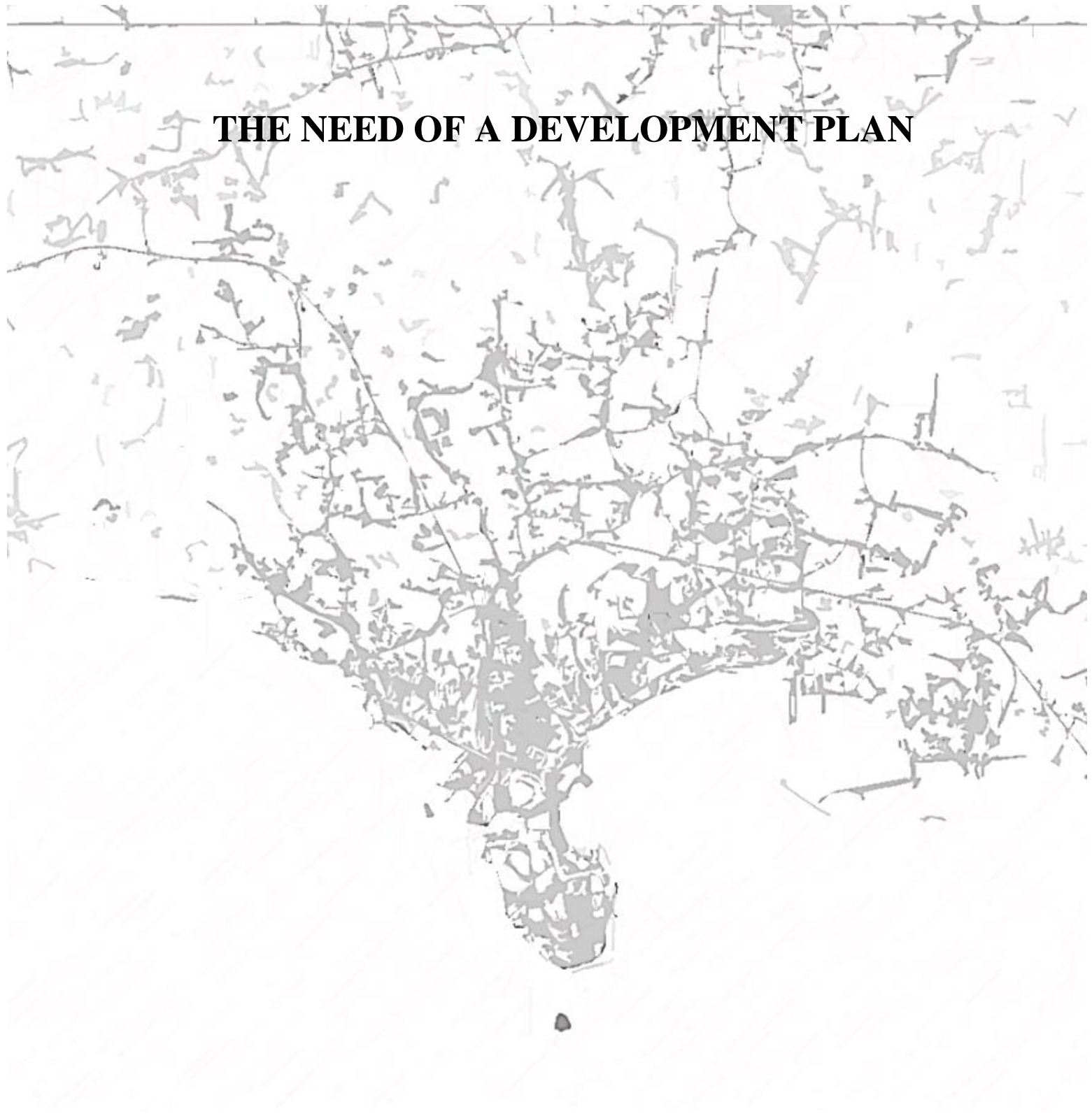
Geographic region was defined by the areas concentrated with built up zones (Human settlements) neighboring topographic features, distribution of vegetation patterns and hydrological catchments, as identified from cartographic information, and the dividing physical “edges” such as the Southern Expressway, enabled the definition of the geographic region.

Administrative region

Boundaries of the Divisional Secretarial divisions of the identified functional and geographic regions are considered to define the administrative region and as per the Gazette Notification No 1421/29 on 01st December in 2005 the area has been declared as an urban development area. Therefore, the declared total area collectively comprises of 55 GN divisions from the Galle MC, Bope Poddala, Akmeemana and Habaraduwa PSs

The functional region and the geographic region overlaps to the administrative region. Therefore, for the convenience of handling socio-demographic, economic information and defining project areas, administrative region was considered as the study area and the planning boundary

THE NEED OF A DEVELOPMENT PLAN



3. THE NEED OF A DEVELOPMENT PLAN

Few reasons were coming in to discussion in raising the need of a development plan for Greater Galle area and those are as follows,

- **Existing plan only for Galle MC area**

Though the existing plan limits to the territory of Galle Municipal council area there is a trend of shifting urban activities from the city center towards in the periphery. This had led the city towards mainly to the urban sprawl and apparently a threat to the sensitive environment. From the economic point of view, continuity of this scenario has a created a bit hesitation to the investors who are willing to invest in Galle. (Refer Figure 2.2-3 & 2.2.4)

- **Change of Development Trends**

Galle Port

The port was in use in pre-Christian times, but gained in importance after the 12th century. By the 14th century, it was arguably the most important port in the country, and it retained this domination until 1873 when an artificial harbor was built in Colombo

Figure 3:1 Galle Harbour during 1800s and Today



Source: Lankapura.com

Out of total tourist arrivals 1.1 – 1.4% of tourist are using via Galle Port for their arrival while Colombo port is used only 0.3% of tourist arrivals at Colombo Port. (The International Airport has the rest) It is an internationally identified port to be established as a Cruise Turnaround Port for the Indian Ocean and Asian market. Besides Galle port is the only port in Sri Lanka, port that provides facilities for pleasure yacht.

After the construction of new Port in Hambantota Galle Port changed its functions as a “Maritime harbor” Further, The International Yacht Society has recognized the Galle Port as one of the world's best attraction. The increase in arrival of these yachts has revived the tourism industry of the country in general and Galle in particular.

- **Existence of Southern Expressway**

Southern Expressway is the first link of the expressway network planned in Sri Lanka. It travels from Kottawa to Matara and it was initially opened to public from Kottawa - Pinnaduwa on November 2011

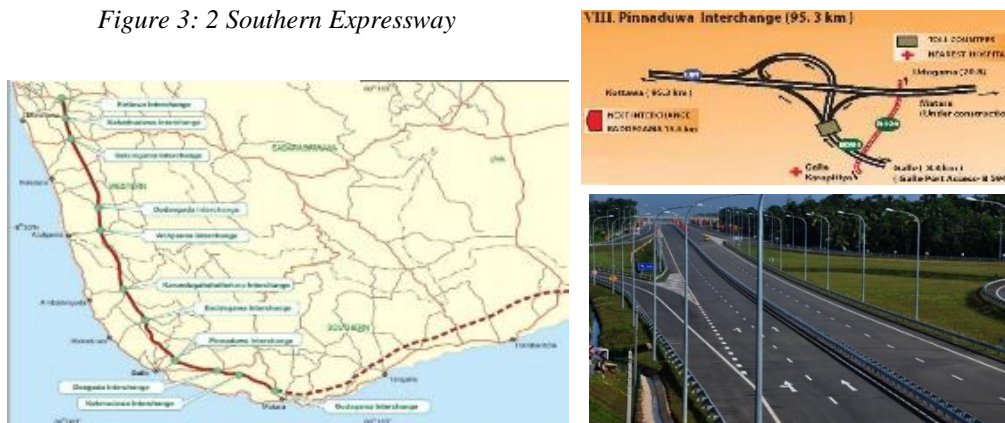
The projects had a significant impact, contributing to expansion of economic opportunities and improvement of socioeconomic conditions of the people in the southern region and impact on Galle is prominent. Moreover, out of nine, two interchanges of southern expressway namely Baddegama and Pinnaduwa are located at the close proximity to northern part of Galle from which access to Galle is provided.

Today, Southern Expressway has become a great potential for Galle’s development since it had led to a remarkable change in the physical setting of Galle and the vicinity. The interchanges of the expressway have been developed as economic centers and they are facilitating the hinterlands. Several existing secondary roads have been improved as feeder roads to the expressway and further the increasing residential demand and the value of land and property in the region due to Southern Expressway is noteworthy.

Being a major tourism destination of the Region, attraction for Galle city and the surroundings gets from both local and foreign tourists is prominent. When the Southern Expressway came in to the picture, tourist attraction has been increased significantly due to the ease of access from the Capital, approximately within 1 hour to Galle.

Since the Southern Expressway caters Galle region as a thriving factor by creating more potentials that can be utilized for development, there is a need of an inclusive planning intervention for the region to harness the opportunities in an optimum way

Figure 3: 2 Southern Expressway

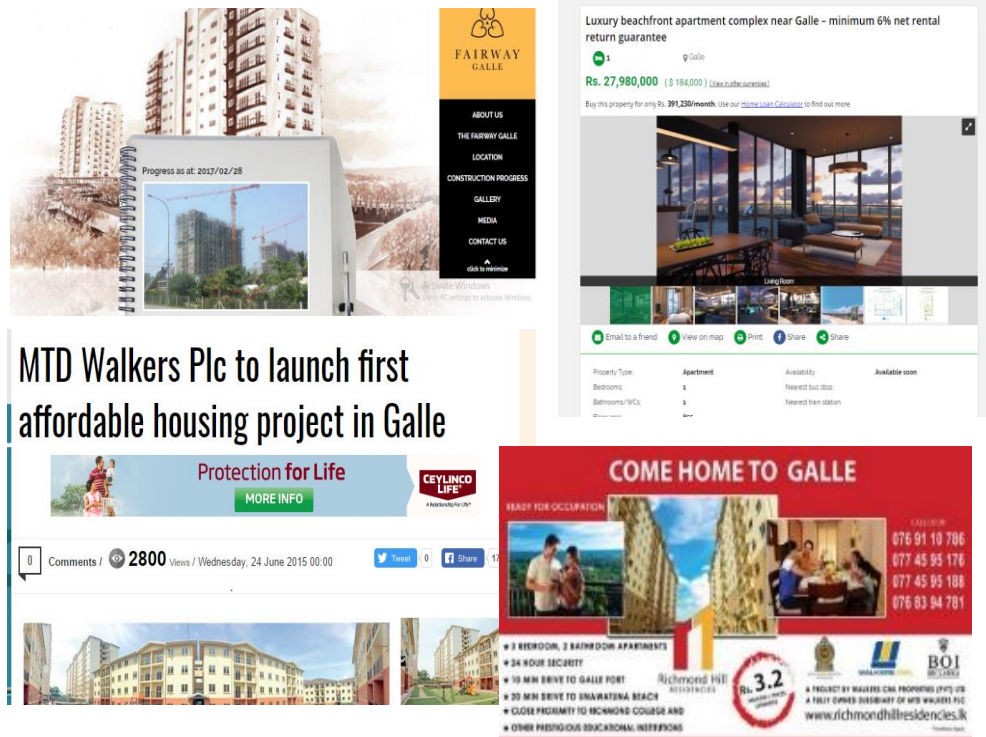


Source: RDA Expressway Maintenance & Management Unit

- **Emerging demand for High-rises (Apartments)**

A number of upcoming housing apartments are being constructed rapidly in the recent past within the Greater Galle Area. It means the city has triggered a healthy demand for residential space in the Greater Galle real estate market.

Figure 3:3 Trend of Apartment Housing



Source: Paper advertisements

- **Depleting Historic /Archeological monuments**

Galle Fort

Galle Fort which has been declared as one of the World Heritage sites located in the town centre add special characteristic to the town, in respect of archaeological aspects. The entire area consists of 38 ha in extent, the existing Main Fort includes archeologically, and architecturally important buildings reflect the architecture of the Portuguese, Dutch and British periods. Huge buildings with tall walls, arches, large verandas and gates consisting large arches built using granite for the entry and exit too are found within the Fort. Gravity flowing sewerage system, tunnels and planned road network are reflecting the developed architecture and town planning existed at that time.

Galle fort has been declared as a World Heritage site and the year of inscription on the World Heritage List was 1988 by the UNESCO’s World Heritage Center in the name of “Old Town of Galle and its Fortifications”

This area is declared as a special regulatory zone with Extra Ordinary Gazette Notification No. 987/12 of 7th August 1997 in terms of Section 23 of the UDA Law Number 41 of 1978 in order to preserve the characters of historical heritage.

Presently, historical characters of these buildings are threatened by unauthorized constructions and conversion of uses, since the city center is becoming congested by accommodating almost all kinds of city functions without having space for further expansion.

Therefore, a comprehensive planning attempt is needed to sustain the development simultaneously by preserving the historic character of the city

Figure: 3:4 View from the sky of Galle Fort



Source: Google Images

Figure 3:5 Galle fort surrounding



Source: Field Survey

Apart from the Galle Fort, there are several other places and monuments that can be identified in and around Galle are listed below.

- Atapattu Walawwa
- Cathedral of the Mother of Rosary
- Prison Complex at Kaluwella
- Vegetable & fruit market of Dutch period
- Galwadugoda PuranaVihara
- Magistrate Court and Office building in Lenbah Street in Fort
- Methodist Church, Richmond Hill
- Sri SumanaramaViharaya
- Sunandarama PuranaViharaya, Karapitiya
- Thuwakkugalawatta PuranaViharaya

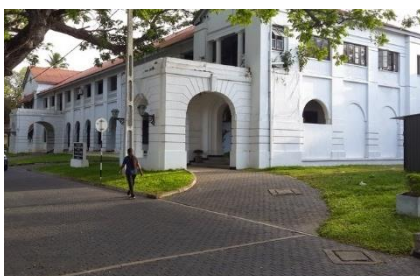
However, these places and buildings consists with archeological and historical importance, the attention required from the relevant authorities are neglected. These places should be open up for the public, foreign and local commuters and need to be conserved for the future as well.

Figure 3:6



Cathedral of the Mother of Rosary

Figure 3:9



Court Complex

Figure 3:11



Atapattu Walawwa

Figure 3:7



Dutch Reform Church

Figure 3:10



Municipal Fruit Market

Figure 3:12



Lighthouse and the surroundings at Galle Fort

Figure 3:8



Light House

- **Existing City Centre being located in a relatively high risk area**

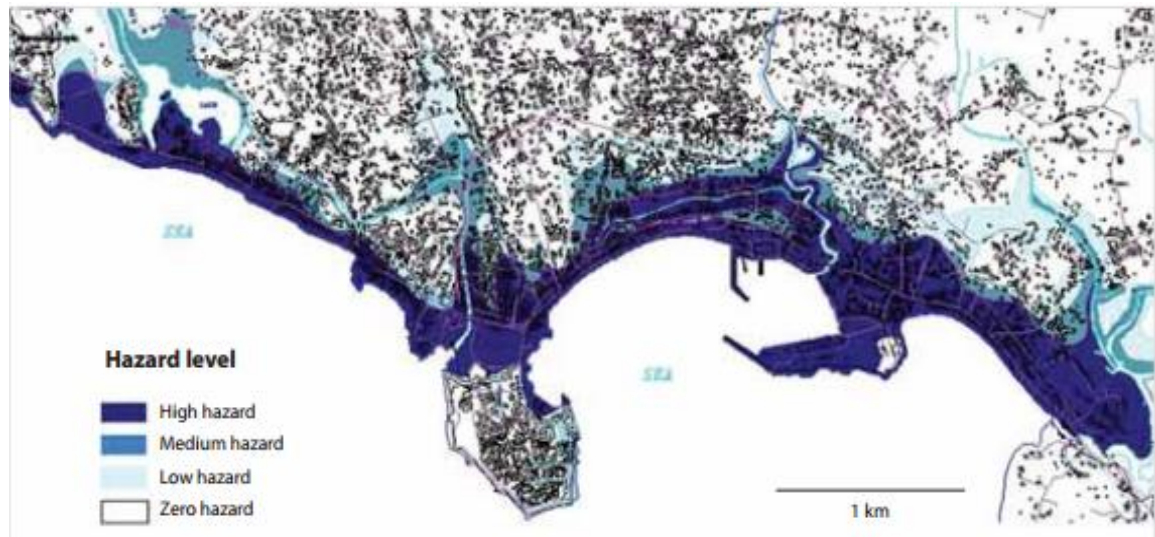
From all the natural disasters that has been occurred so far, the devastation happened due to Tsunami is exceptional. Being located in the coastal belt Galle was severely hit by Tsunami in 2004. Extensive damage was caused to the whole network of infrastructure, including transport system, power, water and telecommunications along the coastal belt of the city.

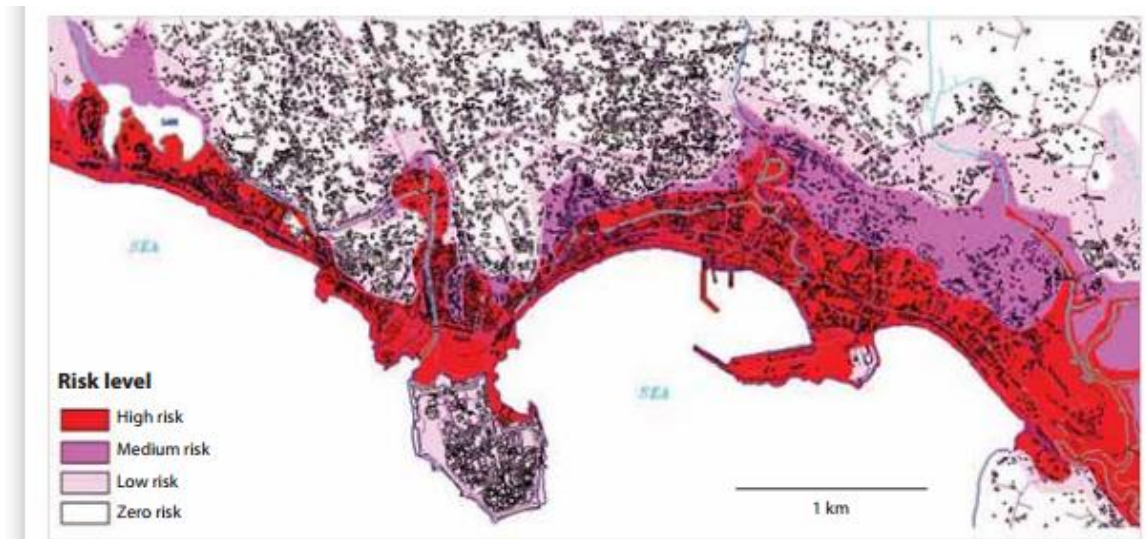
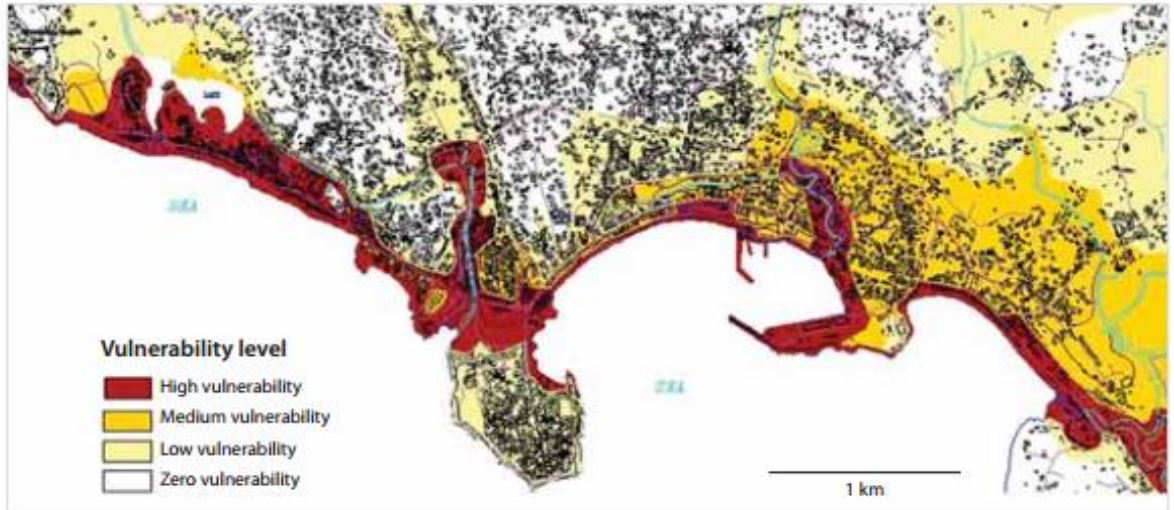
Apart from Tsunami annual flooding occurs within the city limits due to combination of factors such as poor drainage network and inadequate maintenance and increased intensity of rainfall. Therefore relatively high runoff coefficient along the coastal belt can be identified as a leading factor to the occurrence of flash floods.

Following maps shows how the city's magnitude for disaster risk and vulnerability is prone for disasters

All of these conditions show that there is a need for a development plan to cover the area of impact of the ongoing developments, assuring the continuation of the desired character of the region, and the utility of land and other resources in a more sustainable manner

Figure 3:13 Risk Assessment & Management Tsunami hazard case study of the fort city of Galle





Source: U.N.D.P

DEVELOPMENT PLAN FOR GREATER GALLE AREA 2019 - 2030

Part II



**Urban Development Authority
District office - Galle**

Minister's Approval

I,, Minister of Megapolis and Western Development do hereby approve the Development Plan for the Urban Development Area of Galle Municipal Council having considered the recommendation made by the Board of Management of the Urban Development Authority on by virtue of the powers vested in me under Section 8F of the Urban Development Authority (Amendment) Act No. 4 of 1982.

.....
Minister of Megapolis and Western Development

At "Suhurupaya"

Battaramulla.

..... 2018

Gazette Notification

Section 8A of Part II A of Urban Development Authority Amendment Act No. 4 of 1982.

Planning Procedure

Preparation of Development Plans

8A (1) with a view to promoting and regulating the integrated Planning & Physical Development of lands & buildings in a development area or Part thereof, the authority shall, having regards to the amenities and services to be provided to the community, prepare a Development Plan for such development area or part thereof.

THE PLANNING FRAMEWORK

- **The Vision**
- **Vision Statement**
- **The Goals**
- **Objectives**

04. THE PLANNING FRAMEWORK

4.1 The Vision

“The Modern Medieval”

4.2 Vision Statement

Resilient and safeguarding, Regional Facilitator of Economy and Sustainable Development in the Ambience of Medieval Galle

Resilient and safeguarding

As existing city centre being located in a relatively high-risk area, there is high disaster vulnerability (Flash Floods, Tsunami)

The term “resilience denotes” the ability of a system, community or society exposed to hazards to resist, absorb, accommodates and to recover from the effects of a hazard in a timely and efficient manner including through the preservation and restoration of its essential basic structures and function” (United Nations International strategy for disaster reduction. (2009)

Resilience also focuses on investment increasing the overall ability to support a vibrant, healthy society and economy under a wide range of circumstances in a city area.

Regional facilitator of Economy & sustainable Development

In regional context, Galle as a first order city of the region and district capital of the Galle district plays a major role, which is the most connected city within the region. Therefore, in evitable dominated the other centres in the region in forms of urban agglomeration. The convergence of the road network, Southern Expressway, Highways Sea port, Railway and other infrastructure have been promoting a high connectivity and that in turn might have increased the attraction of business will lead to boost the economy apart from that Galle contributes multiple economic sectors (Fisheries, Tourism and agriculture) which provide income generating opportunities through diversification economic activities. Hence, create sustainable development through optimal land utilization.

Medieval Galle

Galle is marked as the captured city where the Portuguese in 1505, Dutch in 1640 and British in 1796 empowered their Authority. As a result, the city area of Galle evolved with the development of the fortress and the city developments have been concentrated for a long time, with their architectural characters. Hence, the city is famous internationally because of the well-preserved historical character and the mix of Dutch and British architecture of the 18th and 19th centuries. However, archaeological

and historical characters in monuments especially the Dutch Fort diminishing presently due to some reasons.

4.3 The Goals

The anticipated image of the Future Greater Galle will be made possible with the realization of the following six major goals identified from

1. Reinstatement of the glory of the “**Medieval Legacy**”
2. Create a “**Wealthy City**” to maximize the advantages of linked up various economic sectors of the Greater Galle Area
3. Create a “**Comfortable Living**” environment for the citizens of the Greater Galle area
4. Create a “**Green, Clean, Safe environment**”
5. Facilitate the commuters of Greater Galle area by promoting a “**Winged Mobility**”
6. Ensure Greater Galle Community to be “**Happy Citizens**” with a convenient city environment

4.4 Objectives

Goal 01 – Medieval Legacy

1. Reinstatement of the glory of the historic and Archaeological characters of the identified colonial monuments of Galle Fort and other monuments of the surrounding by 2030.

Goal 02 - Wealthy City

1. To achieve the Economic Sustainability of the area through facilitating fishery production to be increased from 13% up to 25% and creating market opportunities for the production of identified Agriculture zone (extent 362 Ha) by 2030
2. Facilitate the contribution of Tourism industry for the city economy from 55% up to 75% by 2030
3. Facilitate Hapugala area to grow as a knowledge hub by 2030

Goal 03 - Comfortable Living

1. Facilitate Karapitiya area to promote as a health based hub by 2030
2. Promote residential promotion zones at Hapugala, Uluwitike and Aththiligoda areas and other identified better locations as per the suitability of lands by 2030
3. Promote Urban Functions of the city by facilitating complementary services at identified locations by 2030

Goal 04 – Green Clean Safe

1. Make the city resilient to disasters like flash floods while conserving and managing the identified delicate natural environment which comprises of 3850.21 ha of Green cover and 1.3ha of water bodies by 2030
2. To conserve the existing 65% of green cover of Rumassala area to protect the uniqueness of Natural environment of the declared conservation area by 2030

Goal 05 – Winged Mobility

1. Facilitate the six lane growth corridor from Ginthota to Walahanduwa to support the development trend towards the peripheral area by 2030
2. To Create a well-connected and improved road network within the Greater Galle to enhance the inter and intra linkages through three wave roads by 2030
3. Facilitate Ginthota and Walahanduwa to be established as commuting hubs by 2030 while promoting Mahamodara and Dewata INSEE cement land for over flow bus parking in the short run.
4. Create a pedestrian friendly urban environment in Havelock Road, Wackwella Road etc. within the town by mitigating the congestion by 2030

Goal 06 – Happy Citizens

1. Create an inclusive urban character for the public by promoting and upgrading more social and recreational spaces of the city by 2030
2. To create pedestrian friendly sidewalks and tree lines at identified locations in the town centre and along the wave roads where safety and comfortability on the roads are ensured by 2030

SWOT & DETAIL ANALYSIS

- **SWOT Analysis**
- **Detail Analysis**

05 SWOT AND DETAIL ANALYSIS

5.1 SWOT Analysis

With the aim of going forward with the best-fit scenario for planning of Greater Galle area, it is necessary to identify the core elements of development in relating to the planning objectives. This depends very much upon the strengths, weaknesses, opportunities and threats comes up within the area itself in achieving the above formulated goals which is supposed to achieve the vision

Goal 01 - Facilitate the commuters of Greater Galle area by promoting a “**Winged Mobility**”

Strengths	Weaknesses
<p>S1 –Excellent inter Connectivity within the region (A2 Road Colombo – Wellawaya, Southern Expressway, Railway line, Location close to busiest shipping routes)</p> <p>S2 - Existence of sea port</p>	<p>W1 – Traffic congestion in key locations at peak times</p> <p>W2- Lack of proper public parking spaces</p> <p>W3 - Reduced amount of walkability in Town Centers</p> <p>W4 - Poorly designed road junctions (e.g. Navy Complex entry)</p> <p>W5 - Inadequate and narrow roads and streets</p>
Opportunities	Threats
<p>O1 -Close Proximity to Southern Expressway interchanges</p> <p>O2-Being located in the close proximity of Koggala Domestic Airport</p>	<p>T1 – Political Instability</p>

Strengths

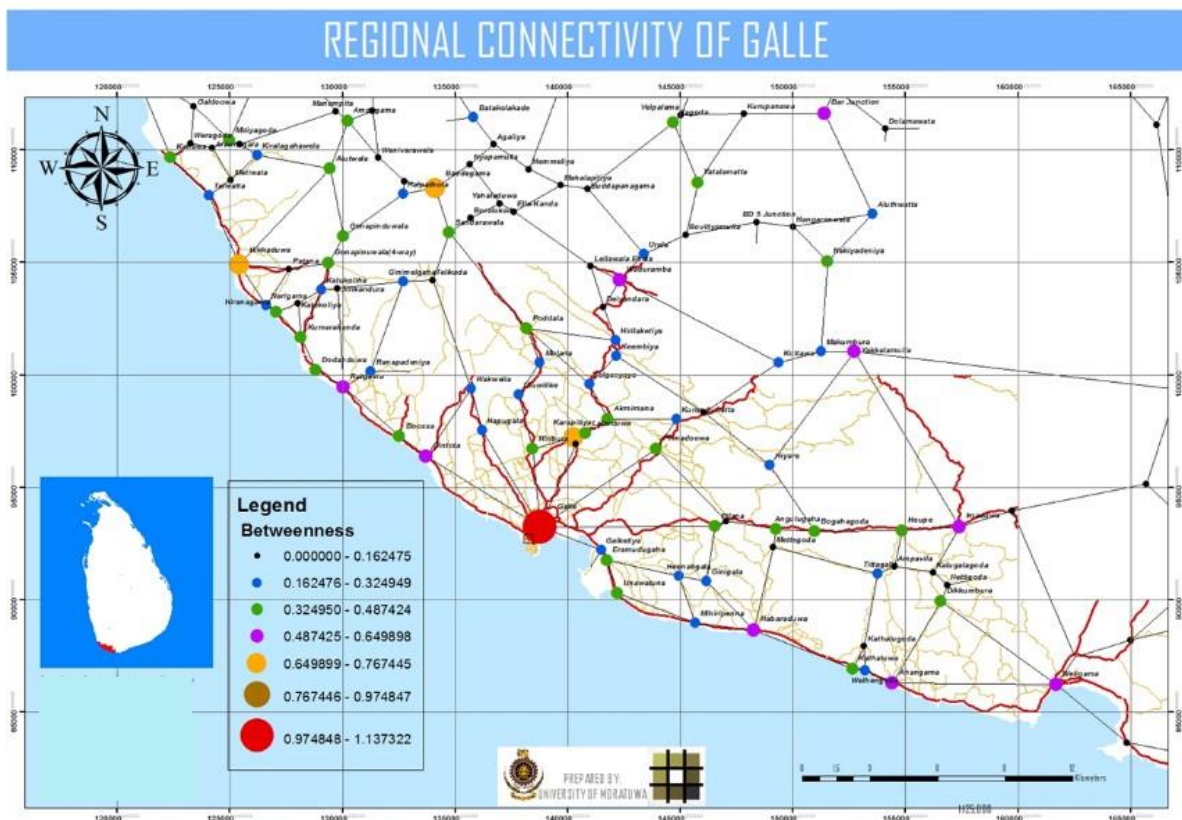
S1 –Excellent inter Connectivity within the region

Galle is connected to the hinterlands of Galle District through Galle – Deniyaya A17 road and Secondary road network such as Galle - Baddegama and Galle –Wanduramba that leads to the accelerated development of the town.

Existence of the Southern Express way interchange at Pinnaduwa, trend in harbor development, tourism development centering Galle Fort and the world heritage tourism center, enables Galle town to play a wider role and function as an active urban center

According to the connectivity analysis, Galle has the highest level of connectivity within the region. Therefore, inevitably dominated the other centers in the region in terms of urban agglomerations. This can be understood as a historic process of mutual reinforcement between the development of roads and the location of activities. The convergence of the road network has been promoting a high connectivity and that in turn might have increased the attraction of businesses and vice-versa.

Map 5.1-1: Regional Connectivity of Galle



Source: Department of Town & Country Planning, University of Moratuwa, 2014

S-2 Existence of Sea Port

Galle Harbour was a major harbour in the country, which was in use even during the pre-Christian times, and gained importance after the 12th century. By the 14th century, Galle Harbour was the most important harbour in Sri Lanka, and retained its importance until 1873 when an artificial harbour was built in Colombo.

After the construction of Galle Fort in the 17th century, Galle Port was a major port in the Indian Ocean more than 200 years, which was an important anchorage for boats and ships traveling between Europe and Asia. When the British colonial government constructed breakwaters in Colombo Harbour in the late 19th century, much international marine traffic shifted to Colombo from Galle. Thereafter, Galle Port became a secondary port of the country, though it still handles some ships and boats

However, under the new expansion of the harbor, it is proposed to be widened up to accommodate two ships at once. Presently 99% of raw materials of cement (clinker) and flour are being imported from countries such as Malaysia, India and Indonesia are unloaded there. Further transportation of goods to Army and navy along with export of fish product too are being handled simultaneously. Therefore, with these expansions and potentials to cruise service will have an impact to the economy and as well as the Cruise Service

Figure 5.1-1:: Galle Port



Source: Google Images



Figure 5.1-3 : Ships docked in Galle



Figure 5.1-2 : A cargo ship anchored in Galle



Source: Field Survey

Weaknesses

W1 – Traffic congestion in key locations at peak times

The highest daily traffic flow can be observed within the Galle city. However, the congestion can be observed in certain locations such as Colombo Road starting from Megalle up to Mahamodara, Wackwella road up to Julgaha junction of the Galle city, but this prevails only during peak flow hours.

Map 5.1-2: Traffic Congestion in Galle



Source: Department of Town & Country Planning, University of Moratuwa, 2014

W2 – Lack of Proper Parking Spaces in the town

In the Galle city and in the peripheral areas, parking spaces for motor vehicles have already become an issue. There are designated parking facilities, but they do not meet the demand caused by the increased number of vehicles attracted to those locations. In addition to motor cars, a large number of school vans and buses are parked along major roads especially along the Wackwella road and in open spaces, which are meant for public activities. Therefore, unorganized roadside parking disturbs both the pedestrians and the smooth flow of vehicular traffic in the city.

Figure 5.1-4: Irregular parking at road sides (Wackwella Road and Gamini Mawatha)

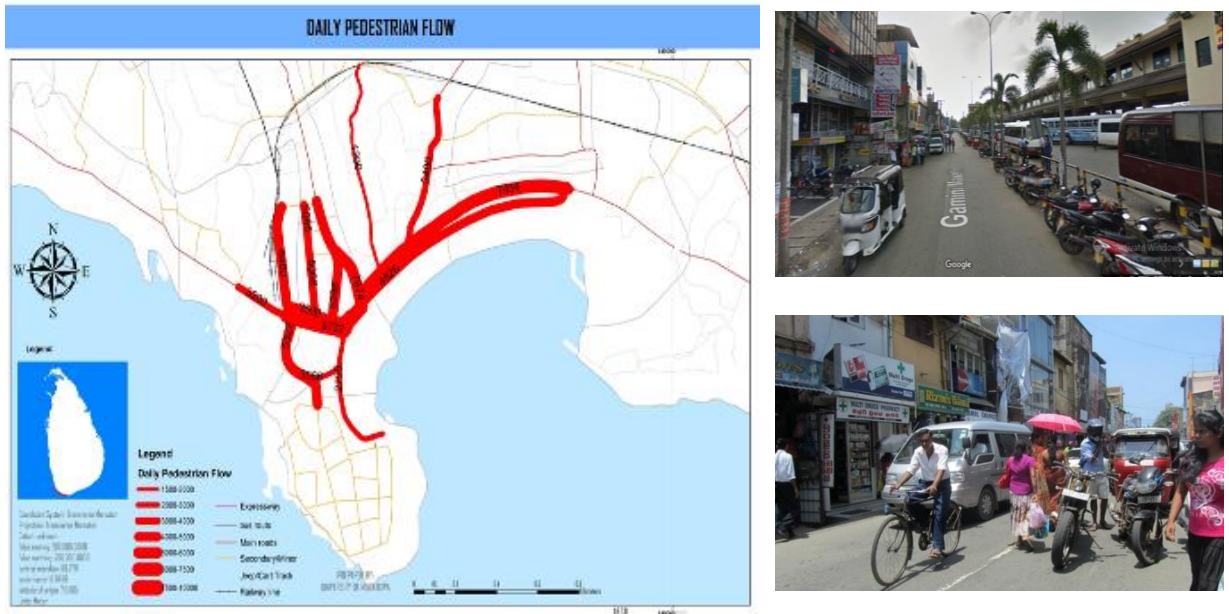


Source: Google Street view images

W3 - Inadequate facility for walkability in Town Centre

Traffic congestion and interruption to consumers are created due to the construction of storied buildings without parking facilities as a consequence of relaxing building limits in the main street by the Galle Municipal Council. Therefore, the Pedestrians find it difficult to walk towards town center

Figure 5.1-5: Daily Passenger Flow in Galle City



Source: Transport survey carried out by Dep of T&CP, University of Moratuwa

W4 & W5 - Poorly designed road junctions and Inadequate and narrow roads and streets

The safety of pedestrians is another issue in almost all locations. Since the road space is not wide enough, pedestrian walkways are not provided in most roads within Galle city limits

Figure 5.1-6: Main Street



Figure 5.1-7: Navy Complex Entry Junction



Source: Google Street View Images

Opportunities

O1 - Existence of Southern Expressway interchanges

With the introduction of the Southern Expressway, the level of connectivity is likely to change and the interior locations may become more connected than the conventional town centers at the coast and thus, will lead to a new set of towns emerging as it is evident today.

Figure 5.1-8: Pinnaduwa Interchange of Southern Expressway

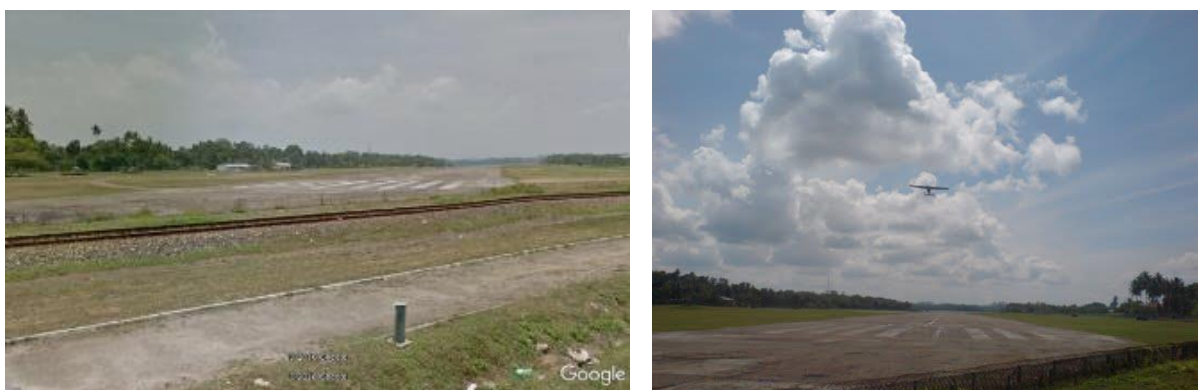


Source: Google Maps

O2 – Being located in the close proximity of Koggala Domestic Airport

Koggala Domestic Airport is at 8km distance from Galle Town, which is now being functions as Sri Lanka Air force base. The current runway handles domestic aircrafts. It is expected to upgrade the airport to international airport as an alternative to the Bandaranayke International Airport. Therefore, it will become a potential for an integrated and well-connected transportation network over the region

Figure 5.1-9: Domestic Airport Koggala



Source: Google Street view maps

Goal 02 – Create a “Green, Clean, Safe environment”

Strengths	Weaknesses
<p>S1 –Presence of 1136.13 ha of paddy land, 135 Ha of marshes, 200 Ha of scrubs, parks, beach area and sensitive places approximately 3631 Ha. (Eg:Mahamodara, Gin ganga, Rumassala)</p> <p>S2 – Presence of 1.11 Ha of natural water bodies and 0.2 Ha of man made water bodies.</p> <p>S3 – Identified 10 Tsunami safe locations by Disaster Management Center.</p>	<p>W1 –No proper drainage and sewer system.</p> <p>W2- Improper disposal of solid waste</p> <p>W3- Unauthorized low land filling</p> <p>W4 –Degradation of Beaches and water bodies</p>
Opportunities	Threats
<p>O1 –Presence of developable locations for eco-tourism Eg: Mahamodara lake, kepu ela and Moda ela</p>	<p>T1 – Vulnerability to disasters such as Flash floods & Tsunami</p>

Strengths

S1 –Presence of 1136.13 ha of paddy land, 135 Ha of marshes, 200 Ha of scrubs, parks, beach area and sensitive places approximately 3631 Ha

The area is rich in bio-diversity—terrestrial and marine flora and fauna. Rumassala is one of the Biodiversity hotspot, which is located close proximity to the Galle city center. Galle’s distinctive topography includes a strong network of water bodies and a coastline (beaches, lagoons and wetlands) Apart from that Galle has a strong green visual character due to all the mature trees, especially coconut palms

S2 - Presence of 1.11 Ha of natural water bodies and 0.2 Ha of man made water bodies

The terrain in the Galle City area largely consists of gently undulating plains and low-lying flatlands with a high density of drainage paths formulating a geography consisting of a mix of land and water. The city has many canals and the 12-hectare (30-acre) Mahamodara Lake is situated in the downstream part of Kepu Ela

To the Northwest of the Galle City, Gin Ganga (Gin River), one of the country's main rivers, flows out to the sea at Gintota. It is the main source of water supply to the town. On the Eastern side, Moragoda Ela, a major stream, runs across the town and discharges at Magalle

Figure 5.1-10: Green & Blue Network of Greater Galle Area



Source: UDA District Office- Galle, 2017

S3 – Identified 10 disaster safe locations by Disaster Management Center

Since Galle became a victim under the natural hazards happened in past decades such as Tsunami and also flashfloods, initiatives for disaster management was came in to discussion frequently. Therefore the Disaster Management Center has been identified 10 Tsunami safe locations at the points of high elevations of the city as measures for disaster preparedness, such as Mahinda College, Sanghamitta College, Sri Wijayarama temple etc.

Therefore this could be a potential factor in formulating a proper Disaster Management Plan for the area in achieving the Goal of sustainable environment.

Figure 5.1-11: Identified Disaster safe locations by Disaster Management Center



Source: UDA District Office – Galle, 2017

Weaknesses

W1 & W2 –No proper drainage and sewer system and Improper disposal of solid waste

The critical locations of certain urbanized and rapidly urbanizing parts mostly in Galle city within low-lying, downstream catchment areas has led to flood risks, with regular inundation even at a light rainfall.

The encroachments and unauthorized constructions obstructing natural flow paths and illegal disposal of solid waste and sewerage into streams and drainage canals have caused water quality degradation and siltation in the downstream areas, affecting waterfront aesthetics, water usage and canal conveyance capacities, subsequently resulting in bank overtopping and inundation of surrounding environs

“Water quality of Moragoda Ela, Kepu Ela and Mahamodara Lake is lower than the demanded quality of water that issued for domestic purposes, bathing and recreational activities.”

(Source: -Three Surface Water Bodies in Galle Municipal Council Area)

The diverse hydrologic systems, climatic conditions and geo-morphological conditions of the area impact to the sensitive environmental setup that requires proper considerations to ensure a feasible and sustainable township development strategy for the Galle City area

Figure 5.1-12: Kepu Ela , Mahamodara Lake & Old Dutch Canal



Source: Field Survey

Weaknesses

W3- Unauthorized low land filling

Haphazard land fillings occupying much needed flood storage capacity in both mid-upstream and downstream areas and removal of protective land cover have led to an another reason for increasing the flood risk

W4 –Degradation of Beaches and water bodies

The areas that are located at lower elevations with sensitive water bodies and marshes are at a higher level of risk of being converted into high-density urban activities, but accompanied by problems such as flash floods and high costs for the provision of environmental infrastructure.

Figure 5.1-13: Unawatuna Beach



Source: Galle City Region Strategic Development Plan -2030

Opportunities

O1 –Presence of Developable locations for eco-tourism Eg: Mahamodara Lake, Kepu Ela and Moda Ela

An improved environment can indirectly promote tourism and economic development contributing to the image of a positive and nature-oriented city featuring a green townscape. In doing that the diverse network of water bodies lies down the area is very much accountable.

Therefore, the water bodes like Mahamodara; Kepu Ela and Moda Ela that runs through the city can be further developed as Eco tourism points while conserving the delicate natural environment by maintaining the balance between natural and build environment of the area

Figure 5.1-14: Ginganga



Figure 5.1-15: Mahamodara Lake



Source: Field Survey

Threats

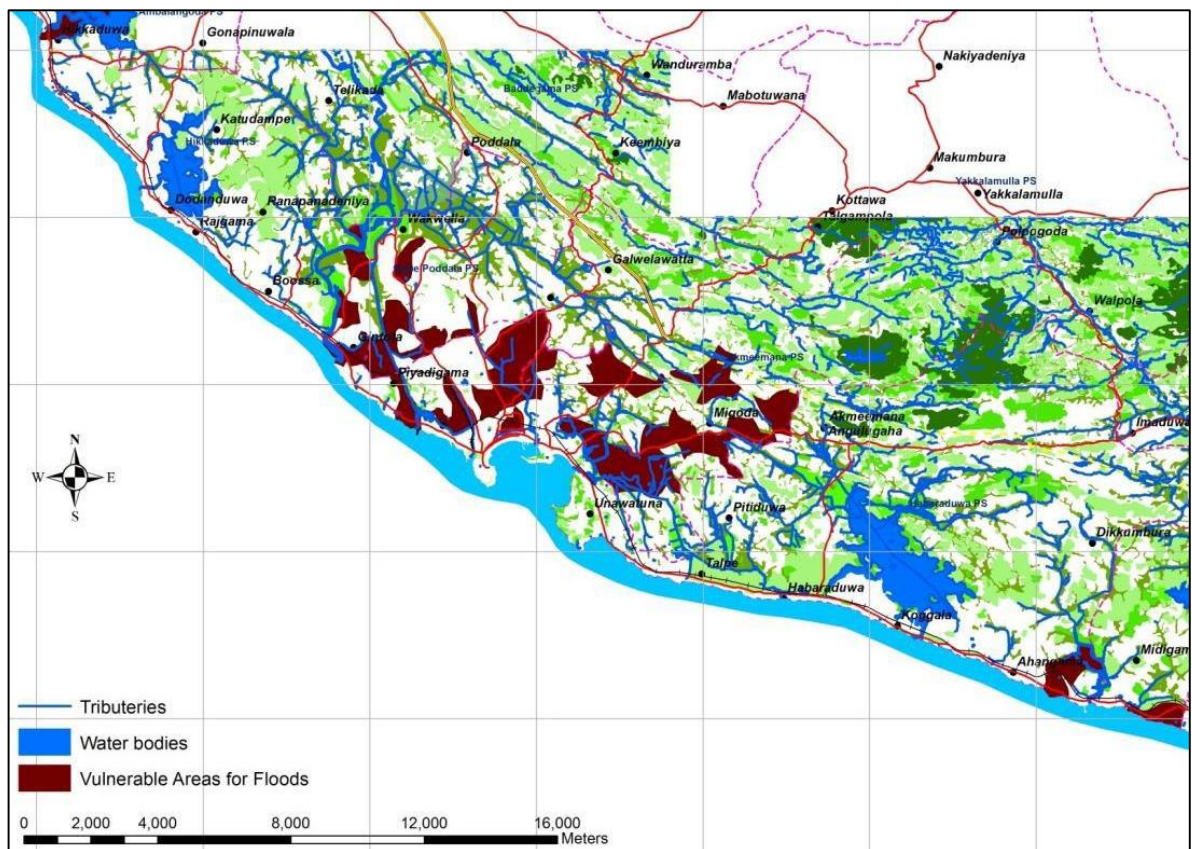
T1 - Vulnerability to disasters such as Flash floods & Tsunami

Being located in the coastal belt Galle was severely hit by Tsunami in 2004. Extensive damage was caused to the whole network of infrastructure, including transport system, power, water and telecommunications along the coastal belt of the city.

Apart from Tsunami annual flooding occurs within the city limits due to combination of factors such as poor drainage network and inadequate maintenance and increased intensity of rainfall. Therefore relatively high runoff coefficient along the coastal belt can be identified as a leading factor to the occurrence of flash floods

Constructions on reservations, direct discharge of toilet and liquid waste, both from commercial and residential uses, and disposal of solid waste are the main causes of disturbances to the water bodies. Kapu Ela, Mahamodara Lake, the old Dutch canal in Galle, and the Yan Odaya Canal, Udupila Canal and Paman Ekala Canal in Weligama are already polluted by such activities. They produce unpleasant sights and bad odors to their surrounding areas.

Map 5.1-4: Vulnerable Areas for Floods



Source: Department of Town & Country Planning, University of Moratuwa, 2014

Goal 03 – Create a “Comfortable Living” environment for the citizens of the Greater Galle area

Strengths	Weaknesses
<p>S1 – Availability of diverse retail and services Collection</p> <p>S2 – 100 % coverage of Pipe borne water supply (GMC Area)</p> <p>S3 – 100% Electricity Coverage</p>	<p>W1 -Traffic congestion in key locations at peak times</p> <p>W2 – Frequent flash flood in most of the urban locations.</p> <p>W3 –Scattered distribution of Administrative institutions</p>
Opportunities	Threats
<p>O1 - Potential of Urban agglomeration</p> <p>O2 -Close Proximity to Southern Expressway interchanges</p> <p>O3 - Change of development trends</p>	<p>T1 – Vulnerability to disasters such as Tsunami</p> <p>T2 – Salt-water intrusion due to sea level rise up.</p> <p>T3 –Impact of the rapid development of Matara, the 2nd order city in the region</p>

Strengths

S1 – Availability of diverse retail and services Collection

The town plays a major role in the service and retail aspects as well. When it comes to education and Health, Technical College and 09 leading schools and few international schools are located within the town. Medical and Engineering Faculties of University of Ruhuna are located within the city limits. Open University at Labuduwa, Higher National Diploma Institute performs special function at national level as well as regional level.

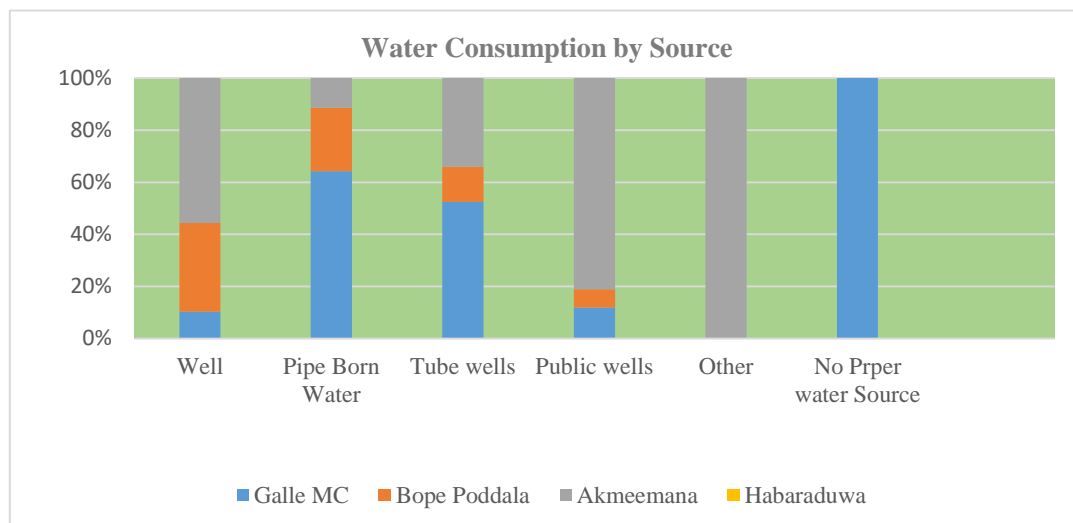
Karapitiya Teaching Hospital provides its health service not only to people of the region but also to the people living outside. In addition, maternity hospital at Mahamodara, and many of the private hospitals and indigenous medical institutions provide health services to the people in the district

Commercial sector of the city serves the whole region in many ways. Such as retail wholesale trade and services such as banking insurance etc. not only within the city limits but at the peripheral areas such as Ginthota, Katugoda, Karapitiya, Sarenthukade, Thanipolgaha, Hirimbura, Karapitiya

S2 – 100 % coverage of Pipe borne water supply (GMC Area)

Ginganga is the main source of water supply to the town, apart from the Hiyare water tank. According to the information available at NWSDB, existing capacity is sufficient to fulfill the 100% requirement of the Galle MC Area only throughout the whole day and need further improvements for the other areas for frequent water supply due to the inadequate capacity of Ginganga Pumping station.

Figure 5.1-16 Water Consumption by Source in Greater Galle Area



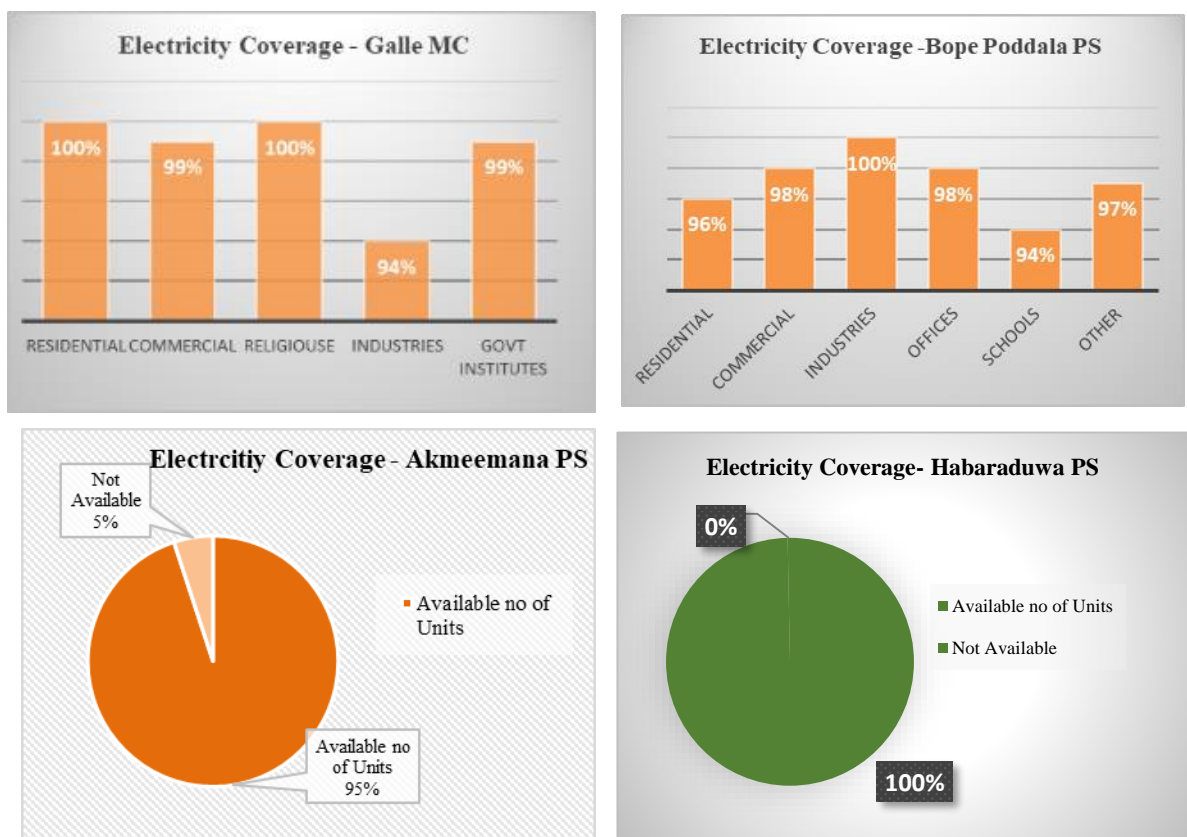
Source; Resource Profiles (Galle 4 Gravets, Bope Poddala, Akmeemana and Habaraduwa DS Divisions)

S3 – 100% Electricity Coverage

The Galle MC area is completely serviced by electricity supply utilizing 17 power stations, 97 sub stations and transformers maintained by the Ceylon Electricity Board. Supply maintenance and other processes related to the electricity supply within Galle Municipal Council Area is under the purview of Lanka Electricity Company (PVT) Limited (LECO) while the other areas of Greater Galle are through Ceylon Electricity Board.

Except 03 local authorities’ area, MC area almost covered by 100% which is a great potential for residential development.

Figure 5.1-17 Electricity Converge in Greater Galle Area



Total No of Units	Available no of Units	Not Available
12711	12069	642

Total No of Units	Available no of Units	Not Available
1629	1624	5

Source; Resource Profile (Galle 4 Gravets, Bope Poddala, Akmeemana and Habaraduwa DS Divisions)

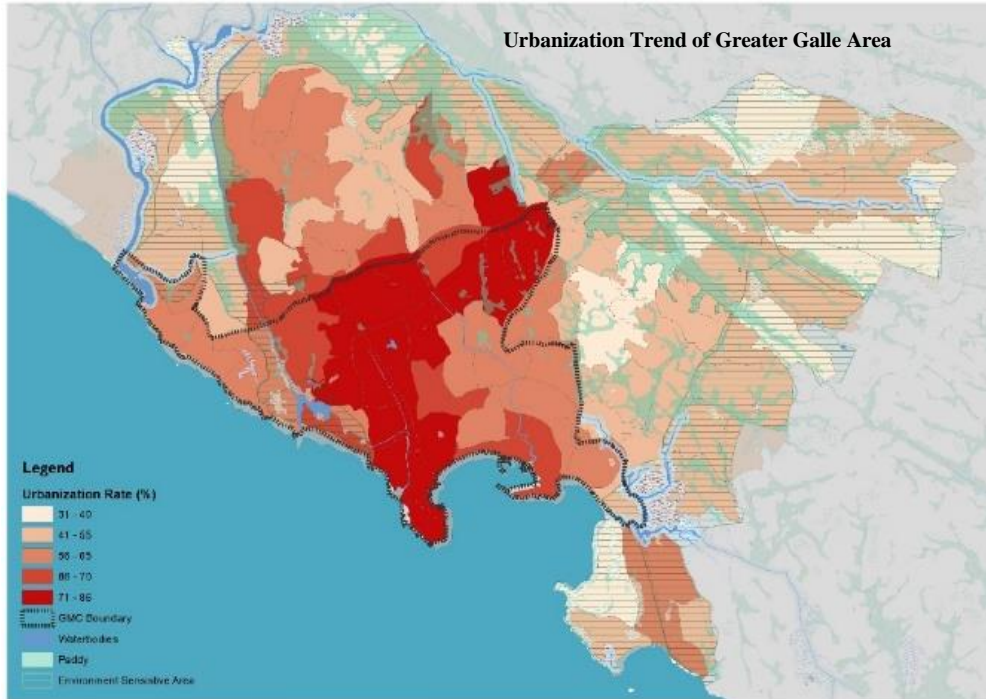
Therefore, a comfortable living environment can be ensured with this kind of agglomeration of services that are essential.

Opportunities

O1 - Potential of Urban agglomeration

The area covering Galle city, Hirimbura, Karapitiya have the potential to be developed into a contiguous urban entity. Ginthota town center also have relatively higher potential to be developed according to the analysis done on urban Agglomeration potential and the urbanization trend as shown below

Figure 5.1-18: Urbanization Trend of Greater Galle



Source: Strategic Cities Development Project Galle Region

Figure 5.1-19: Level of Urbanization potential of Greater Galle



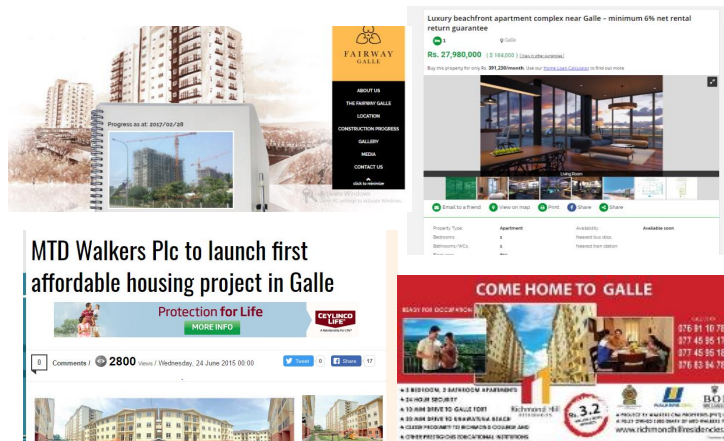
Source: : UDA District office Galle

O3 - Change of Development Trends

Emerging demand for high-rises (Apartments)

After the construction of Southern expressway, it can be witnessed that a number of upcoming housing apartments are being constructed rapidly in the recent past within the Greater Galle Area. It reveals the city has triggered a higher demand for residential space in the Greater Galle real estate market due to the changes of the spatial structure of the region.

Figure 5.1-20: Trend of Apartment Housing



Source: Paper advertisements

Threats

T2 – Salt-water intrusion due to sea level rise up.

Coastal lands of the area are particularly vulnerable to sea level rise and it is an obvious climate-related impact in the coastal areas in Galle. Densely settled and highly used low-lying coastal plains, islands and deltas are especially vulnerable to coastal erosion and land loss including seawater intrusion to freshwater sources.

The below table shows the total area of water bodies affected due to sea level rise up which leads to salt water intrusion to the freshwater sources in Sri Lanka and Galle is in the top order of the list

Figure 5.1-21: Water bodies affected due to sea level rise up

District	Total Area of Water Bodies affected due to sea level rise Ha
Colombo	758
Mullaitivu	824
Matara	893
Kalutara	1,539
Ampara	1,587
Trincomalee	2,063
Batticaloa	2,195
Gampaha	3,179
Hambantota	3,380
Galle	4,846
Mannar	7,776
Jaffna	9,457
Puttalam	10,221
Total	48,718

Source: Hazard profile for Sri Lanka published by Disaster Management Center 2012

Goal 04 - Create a “Wealthy City” to maximize the advantages of linked up various economic sectors of the Greater Galle Area

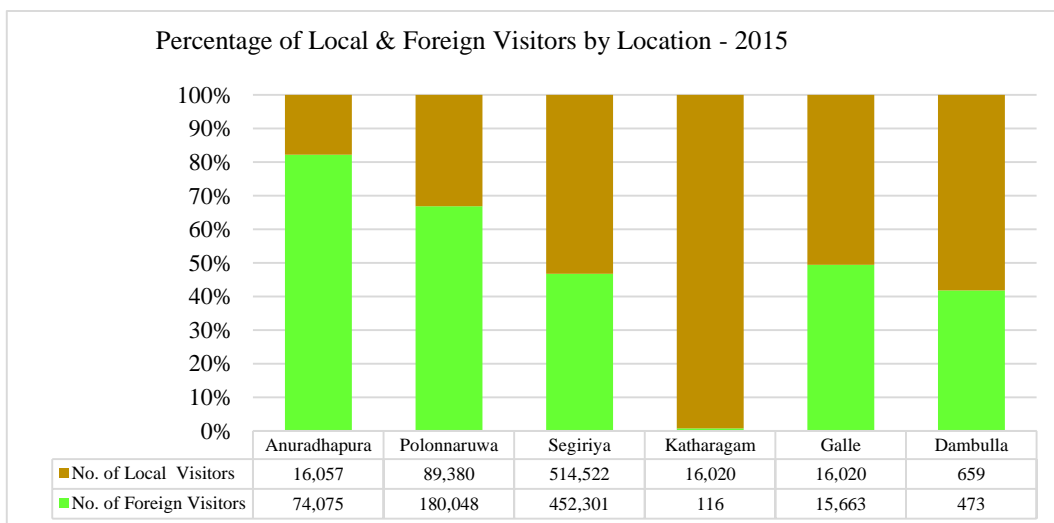
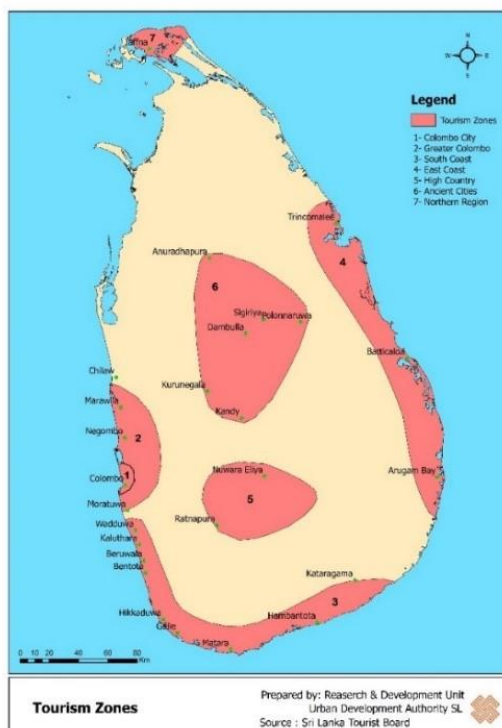
Strengths	Weaknesses
<p>S1 – Major Tourism destination</p> <p>S2 - Availability of diverse retail and services Collection</p> <p>S3 –Resource Availability for economic diversification</p> <p>S4 - Historic Importance</p> <p>S5 -Excellent Connectivity</p>	<p>W1- Underutilized lands at city’s vital locations (commercial hub)</p> <p>W2 - Ad-hoc physical development at the coastal belt</p> <p>W3- Presence of abandoned paddy lands</p>
Opportunities	Threats
<p>O1 – Potential of Urban agglomeration</p> <p>O2 –Being located in the close proximity of Koggala Export Processing Zone</p> <p>O3 -Close Proximity to Southern Expressway interchanges</p>	<p>T1 – Vulnerability to disasters such as Tsunami & Flash floods</p> <p>T2 –Loosing Business opportunities due to traffic by pass in the area via southern expressway</p> <p>T3 –Impact of the rapid development of Matara and Hambantota</p>

Strengths

S1 – Major Tourism destination

Galle, surrounding region rich with natural resources and cultural heritage, which it has become, both local and internationally known tourist Destination. Dutch Fort, the World Heritage site has enormous opportunities for tourism. The areas associate with the Marine Drive, Mahamodara and Katugoda coastal area, Beekke water reservoir, Mahamodara Lake too have special potential for tourism. However, optimum use of these areas have not been made for the industry yet.

Figure 5.1-22: Tourism Zones in Sri Lanka



Source: Sri Lanka Tourist Board

S3 –Resource Availability for economic diversification

Locally, Fisheries and Tourism are the other main sectors that provide revenue-generating opportunities within the city.

Fisheries industry of the country contributes 1.3% to the total Gross Domestic Production. **Tangalle and Galle** from 15 fisheries districts together contributes 27% to the total marine fish production of the country.

Apart from that, agriculture sector holds a vital amount of a share for the city economy including paddy and especially minor export crops.

Figure 5.1-23: Annual Fisheries Production by Fishery districts

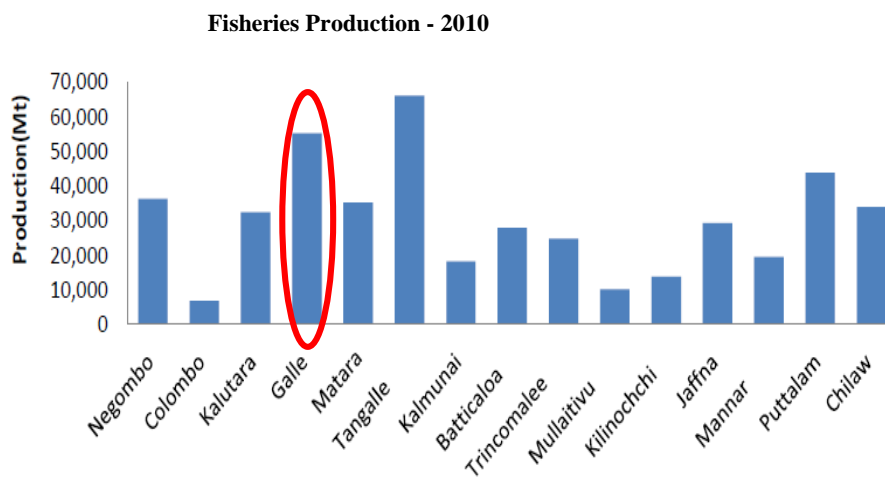
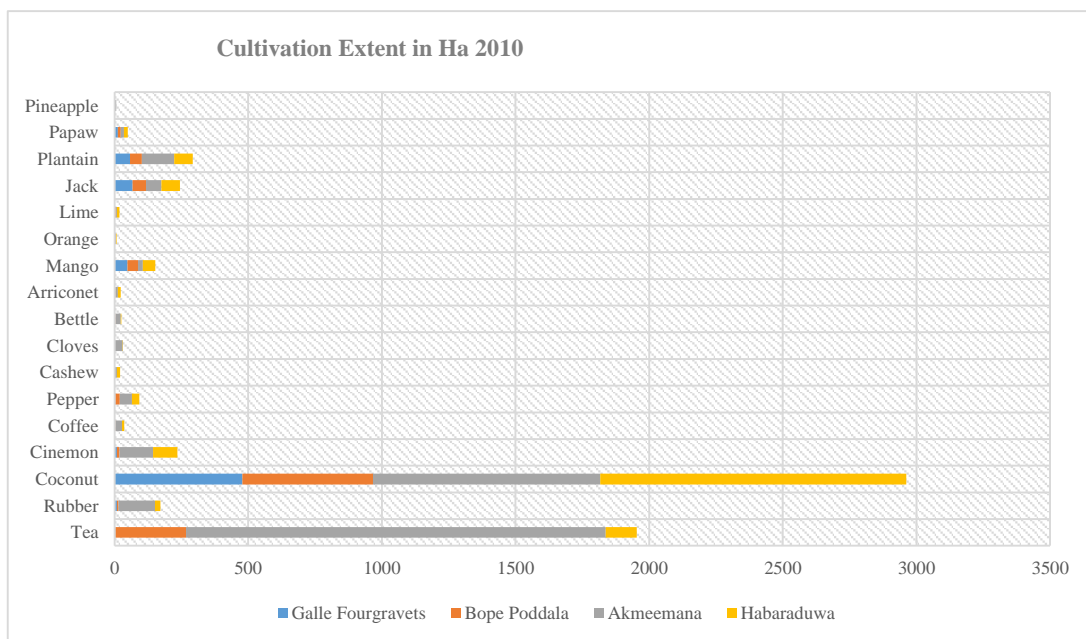


Figure 5.1-24: Cultivation Extents



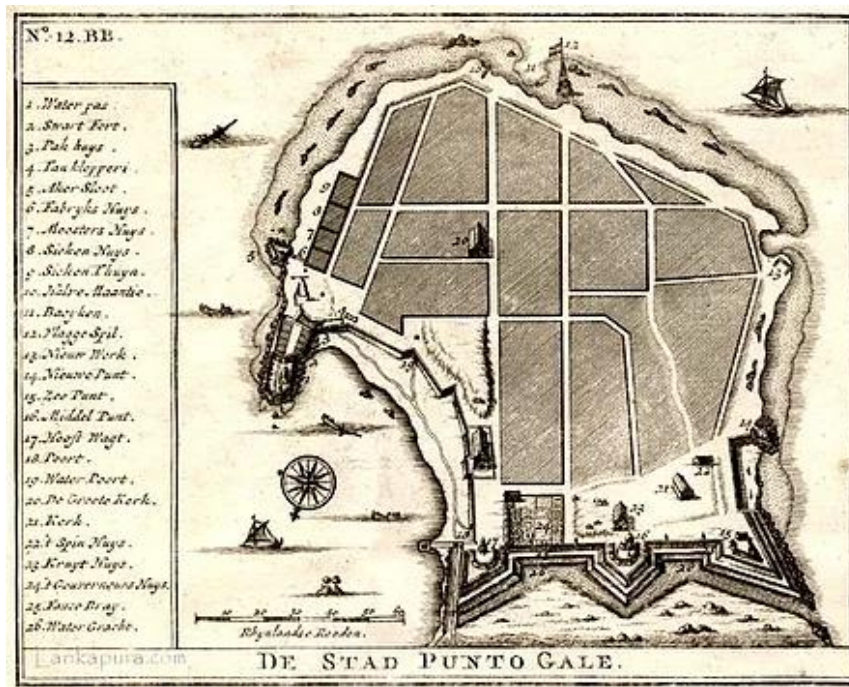
Source: Resource Profile (Galle 4 Gravets, Bope Poddala, Akmeemana and Habaraduwa DS Divisions)

S4 - Historic Importance

Galle's early history traces in Ptolemy's world map of 125 – 150 AD and the city's evolution is highly associated with the development of the fortress. The street network lays across the core of the city witnesses its origin of Dutch era in the 17th century.

Well-preserved historical character and the mix of Dutch and British architecture of the 18th and 19th centuries can be witnessed at Galle Fort, which was declared as a **World Heritage Site** in 1988 By UNESCO.

Figure 5.1-25: Map of Galle Fort in 1726



Source: Lankapura.com

Figure 5.1-26: Galle Fort



Source: Field Survey

W1- Underutilized lands at city’s vital locations (commercial hub)

Underutilization of lands in the commercial areas of Oroppuwatta, Pettigalawatta, and NHDA land, (adjacent to Vidyaloka School) Public Fair and China Garden where land plots not used in an effective manner is problem to the city economy and the city attractiveness.

Figure 5.1-27: Under Utilized lands at city center

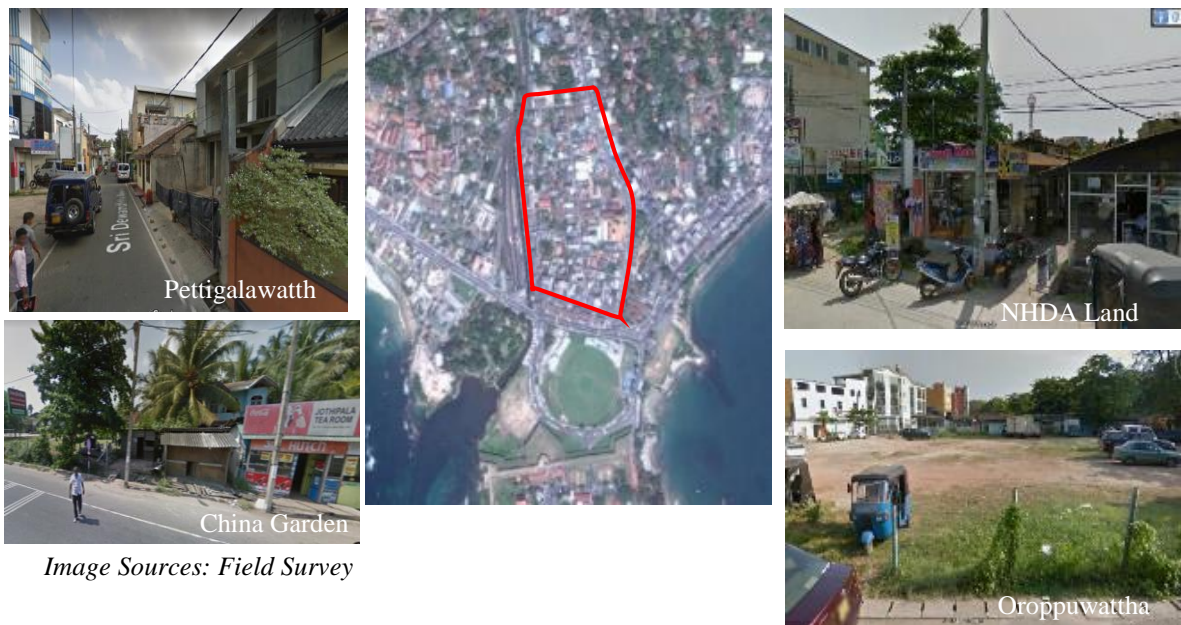


Image Sources: Field Survey

W2 - Ad-hoc physical development at the coastal belt

Since there is no regulatory mechanism, diverse types of buildings and structures are mushrooming to provide different services, disturbing the beachfront and the character of the respective locations.

Figure 5.1-28: Ad-hoc physical development at coastal belt



Image Sources: Google Earth

Opportunities

O2 –Being located in the close proximity of Koggala Export Processing Zone

Koggala Export Processing Zone is about 8km away from Galle Town. Many enterprises are located in the zone including Manufacturing of garments, rubber products, and even boat building and aircraft repairing etc.

The EPZ has emerged as a major economic centre of southern region and the economy of the country. In addition, it has been declared as a bonded area for hub operations benefiting from access to the Southern Expressway and the Hambantota Port which is located around 115km away from the Koggala EPZ which could attract more investments for Koggala EPZ

Figure 5.1-29: Koggala Export Processing Zone



Source: Field Survey



Source: www.researchgate.com

Goal 05 - Ensure Greater Galle Community to be “Happy Citizens” with a convenient city environment

Strengths	Weaknesses
<p>S1- Presence of Major Tourism destinations in the area S2 – Existence of public park in the city center S3 - Galle has an extensive coast/ waterfront.</p>	<p>W1 – Lack of public & open spaces (squares etc.) W2 - Reduced amount of walkability in Town Centers W3 – Unsafe or degraded buildings and sites along the Coastal belt and the Town area W4 – Degradation of Beach areas and the water bodies</p>
Opportunities	Threats
<p>O1 - Change of development trends</p>	<p>T1 – Vulnerability to disasters such as Flash floods & Tsunami</p>

Strengths

S2 – Existence of Public Park in the city center

Dharmapala Park that offers a bit of peace and tranquillity from the rushed Galle city was destroyed in 2004 Tsunami but now it has been recovered.

The park provides recreational facilities for the community and it is the only public open space that is meant for recreation and relaxation.

Figure 5.1-30 : Dharmapala Park, Galle



Source: Field Survey

S3 - Galle has an extensive coast/ waterfront

Being a coastal town, Galle itself possess an adorable coastline which is very remarkable and can be utilized effectively to the city beautifications, tourism and economic developments of the area

Figure 5.1-31 : Water front of Galle city



Source: Google Earth

W3 - Unsafe or degraded buildings and sites along the Coastal belt and Town area

There are number of dilapidated buildings and under-utilized lands within the city's vital locations where the economic value can be optimized.

Figure 5.1-32 : Unsafe or degraded buildings and sites along the Coastal belt and Town area



Degraded buildings at Pettigalawatta



Under Utilized land at Oropuwattha



Under Utilized buildings at Oropuwattha



Dilapidated building at Sea Street

Source: Field Survey & Google street view images

Goal 06 – Reinstate the glory of the “Medieval Legacy”

Strengths	Weaknesses
<p>S1 – Galle fort being a world heritage site declared by UNESCO</p> <p>S2 - Proposed Galle Fort Management plan</p> <p>S3 – Presence of archeological and historical monuments in the area (Refer page no 51)</p> <p>S4 - Major Tourism destination (refer Page No 49)</p>	<p>W1 – Demolishing and Depleting characters of archeological and historical monuments</p> <p>W2 - Unauthorized Constructions</p> <p>W2- Lack of proper conservation plan (Rumassala, Fort)</p>
Opportunities	Threats
<p>O1 – On going Development plans</p> <p>O2 – Galle Fort Guide Plan</p> <p>O3 – Proposed Galle Fort Rampart development project</p> <p>O4 – Proposed Rumassala Special Area Conservation Guide Plan</p>	<p>T1 – Political Influence</p>

S1 – Galle fort being a world heritage site declared by UNESCO

Galle fort has been declared as a World Heritage site and the year of inscription on the World Heritage List was 1988 by the UNESCO’s World Heritage Center in the name of “Old Town of Galle and its Fortifications”

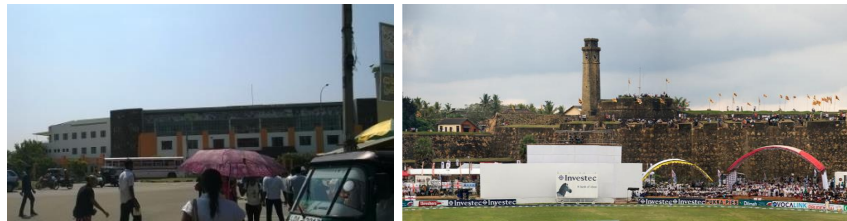
Weaknesses

W1 – Demolishing and Depleting characters of archeological and historical monuments

The World Heritage city of Galle, specially the Dutch Fort has been threatening by the upcoming developments. According to the UNESCO’s reports following matters were highlighted regarding above threat as follows

1. Weakness in the management of the Galle Heritage Foundation in its role as the managing authority for the property
2. Potential impact of a proposed port construction on the integrity of the property
3. Intrusive and illegal constructions within the city affecting the integrity of the property.

Figure 5.1-33: Galle Fort surrounding developments



Source: Field Survey

W2 - Unauthorized Constructions a Galle Fort

Most of the buildings, which are in the old city area, consists of colonial corridors, including masonry arches. Old buildings along the streets were constructed as two storied buildings with simple gable roofs. However, the colonial architectural character has now been destroyed in many buildings due to urbanization and renovation of buildings. Violations of Galle Fort Special Guidelines represents this scenario is obvious.

Figure 5.1-34: Unauthorized constructions at Galle Fort



Source: Field Survey

Opportunities

O1 – Ongoing Development plans

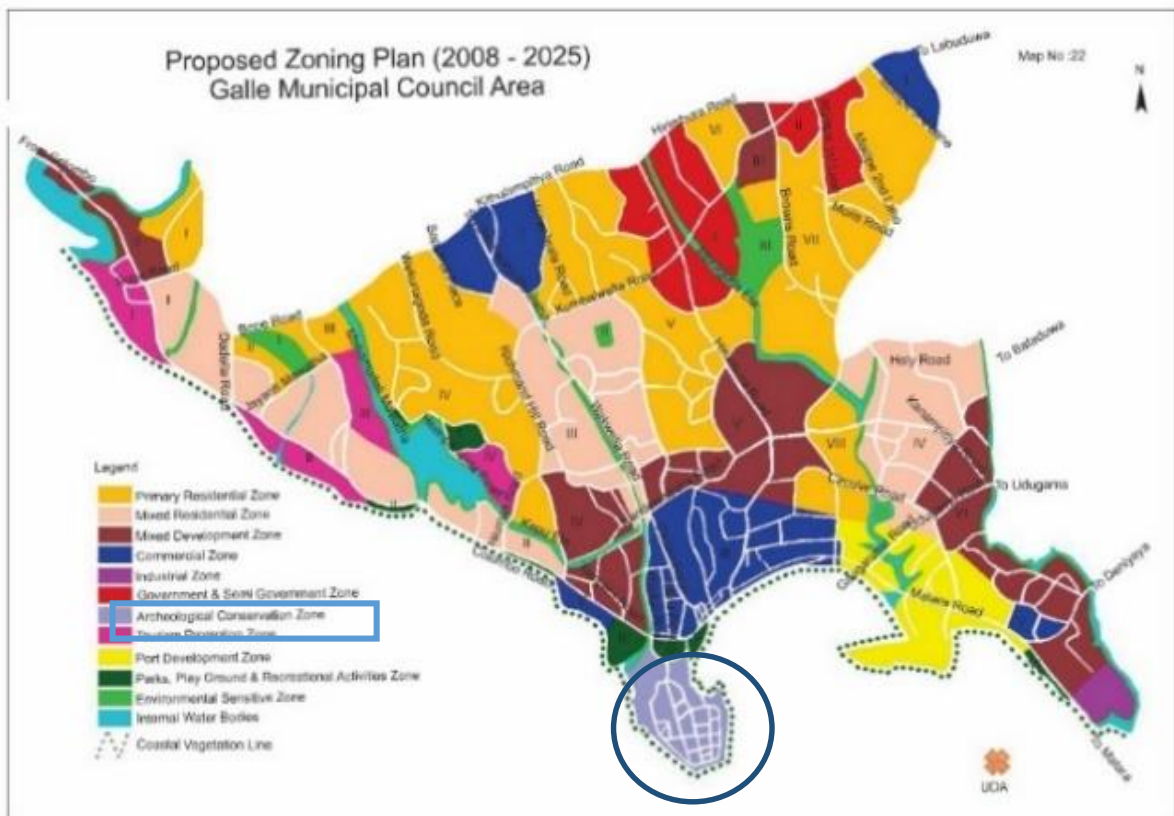
Gazetted Galle Municipal Council Area plan and other attempted existing development plans for Galle identified the Galle's inherent characters and its significance is a potential to future.

O2 – Galle Fort Guide Plan

Currently practicing Development Plan for Galle Municipal Council (2008-2025) categorizes Galle Fort as an Archeological Conservation zone and provides a set of special regulations in order to conserve the historical and archeological character of Galle Fort.

Apart from that, the area, which is encompassed to the buffer zone of Galle Fort, has been declared as a special regulatory zone with Extra Ordinary Gazette Notification No. 987/12 of 7th August 1997 in terms of Section 23 of the UDA Law Number 41 of 1978 in order to preserve the characters of historical heritage.

Figure 5.1-35: Development plan for Galle MC Area 2008-2025



Source: Galle Development Plan (2008-2025)

O4 – Proposed Rumassala Special Area Conservation Guide Plan

Rumassala is an isolated mountain protruding into the sea at the eastern end of Galle Harbor. According to folklore, the hilly outcrop is an extract of the Himalayan Mountains and is associated with Ramayanaya, the Hindu scripture. The vegetation in the mountain has a very rich biodiversity with both endemic and exotic herbs, which are not common in other parts of the country. There are also accounts on the differences of gravitational forces of the earth at this location, which need to be verified with reliable sources. However, Rumassala is an attraction to many, including wildlife lovers, sightseers and students

Galle as the one of most tourist attractive cities in Sri Lanka, yet another place to be toured regarding Galle tourism sites is Rumassala. It has a historical value with the legendary chronicle 'Ramayana' proclaims that 'Rumassala' is a chunk of Himalayan Mountains in India. Rumassala hill gives a beautiful view of the southern coast of Galle. Colonials used Rumassala as a watering point to fill their crafts with fresh water.

The value of this beautiful place has been threaten with the urbanization character in the area. Therefore, the Rumassala needs to be conserved with its bio diversity and historical value for the future, guiding the development within the declared area in an environmentally sound direction

Figure 5.1-36: Sea View from Rumassala



Source: Google Images & Field Survey

Figure 5.1 -37: Japanese Peace Pagoda



5.2 Detail Analysis

5.2.1 The Urban Form

Galle city has been dominating the pattern of built-up areas in the region throughout its evolution, being the most prominent in the order of concentrations. The built-up areas have been evolving along the Colombo–Matara main road (A2), resulting in a corridor of mixed land uses. This pattern in development enables one to conceptualize the urban form of the region as a mix of Mono-centric and Linear agglomerations. The recent emergence of Karapitiya and other small towns in the periphery of Galle has been changing this form to some extent. Built-up areas are extending from the Galle city center towards the interior in a radial pattern, along the Galle-Kalegana, Galle-Kahaduwwaththa and Galle-Labuduwa roads.

Figure 5.2-1: The Urban Form of Galle

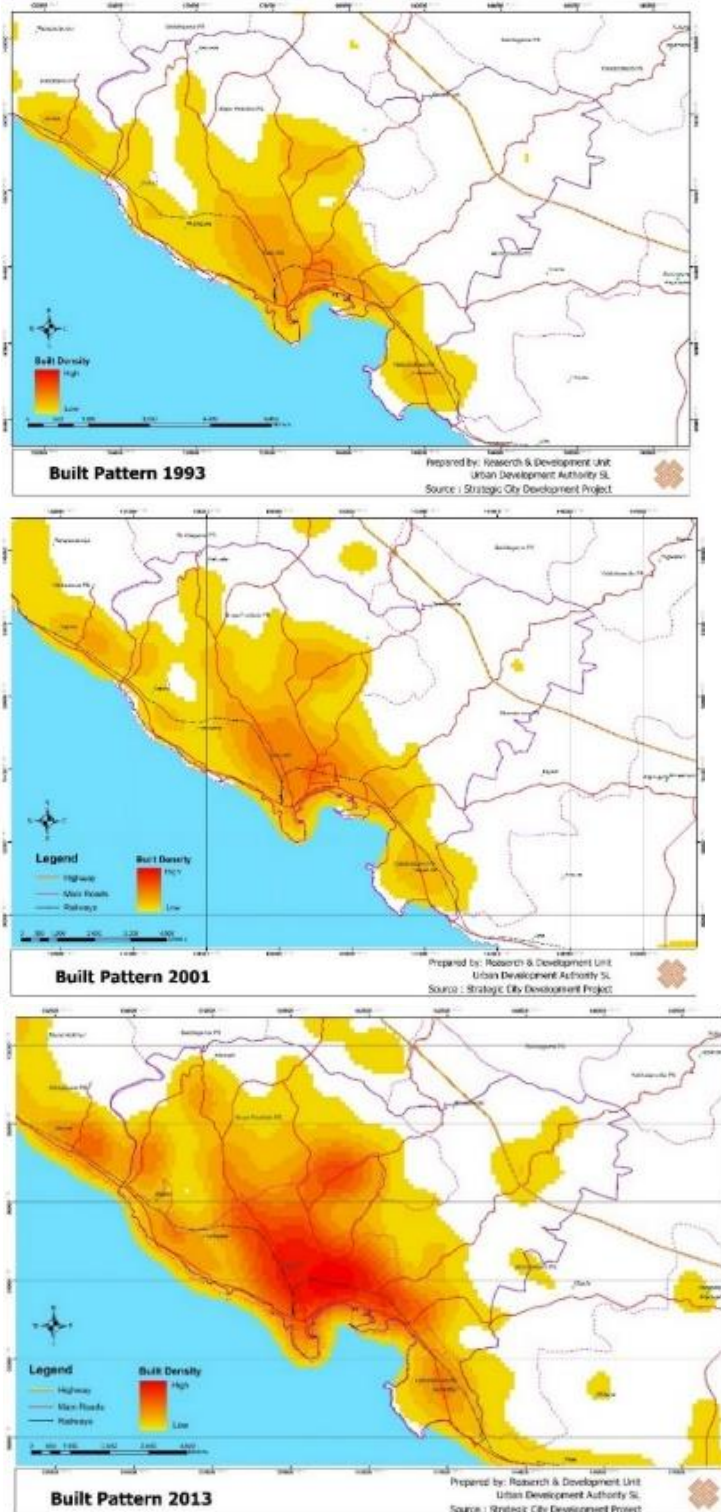


Source: UDA District Office-Galle, 2017

Literally, this type of urban form has merits such as convenient access from all locations, relatively more economical provision of infrastructure, higher serviceability of activities, more opportunities for social interaction, and higher probability of preserving the surrounding environments than the other forms. However, a few demerits too can be noted, as they are now experienced in Galle.

Following maps, which shows the transformation of built pattern over the time, also proves the said scenario of spatial development, which is currently being happening. In a preliminary analysis, it could be noted that the changes of built up area had been moving towards the interior.

Figure 5.2-2: Built Pattern over the years in Galle



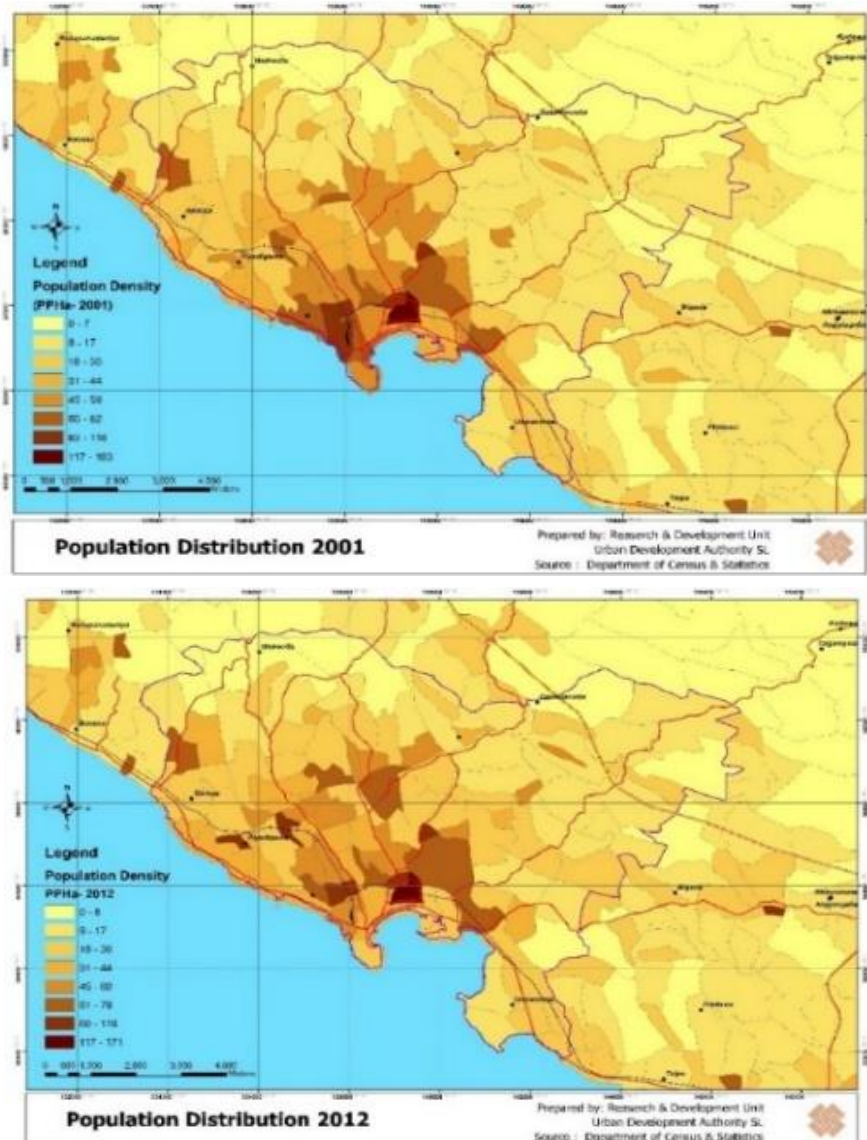
In the year of 1993, most of the built up areas were concentrated within the core area of Galle City and its immediate surroundings, along the Galle-Matara

However, towards year 2001, their growth took a different direction and gradually headed towards the interior, rather than along the Colombo-Matara main road

When it comes to the situation of 2013, it can be witnessed that the growth pattern and the density of built form further can be observed in the interior and emergence of Karapitiya as a satellite urban center parallel to the core, is eye catching.

Source: Strategic Cities Development Project, 2016

Figure 5.2-3: Population distribution over the years in Galle



Source: Strategic Cities Development Project, 2016

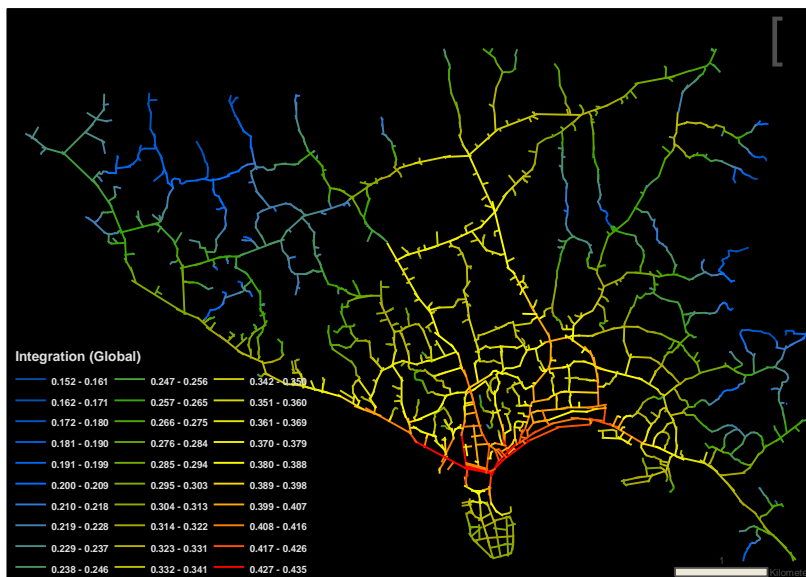
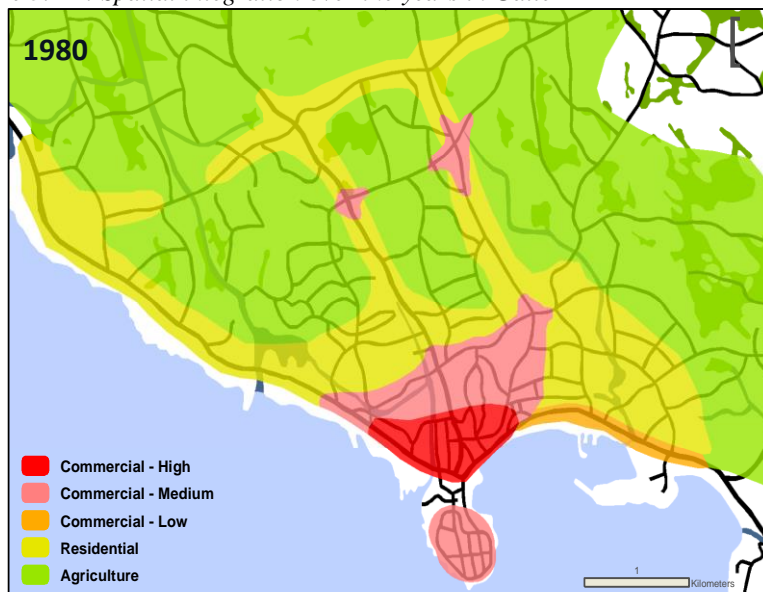
The population growth pattern is another indicator of the changes in the order of human settlements discussed above. Accordingly, a comparative analysis of the Population statistics of the years 2001 to 2012 confirms the shift of residential populations from the GN divisions in the city area to newly developed peripheries such as Kahaduwwaththa, Karapitiya, Labuduwa, Beligaha, Thanipolgaha etc

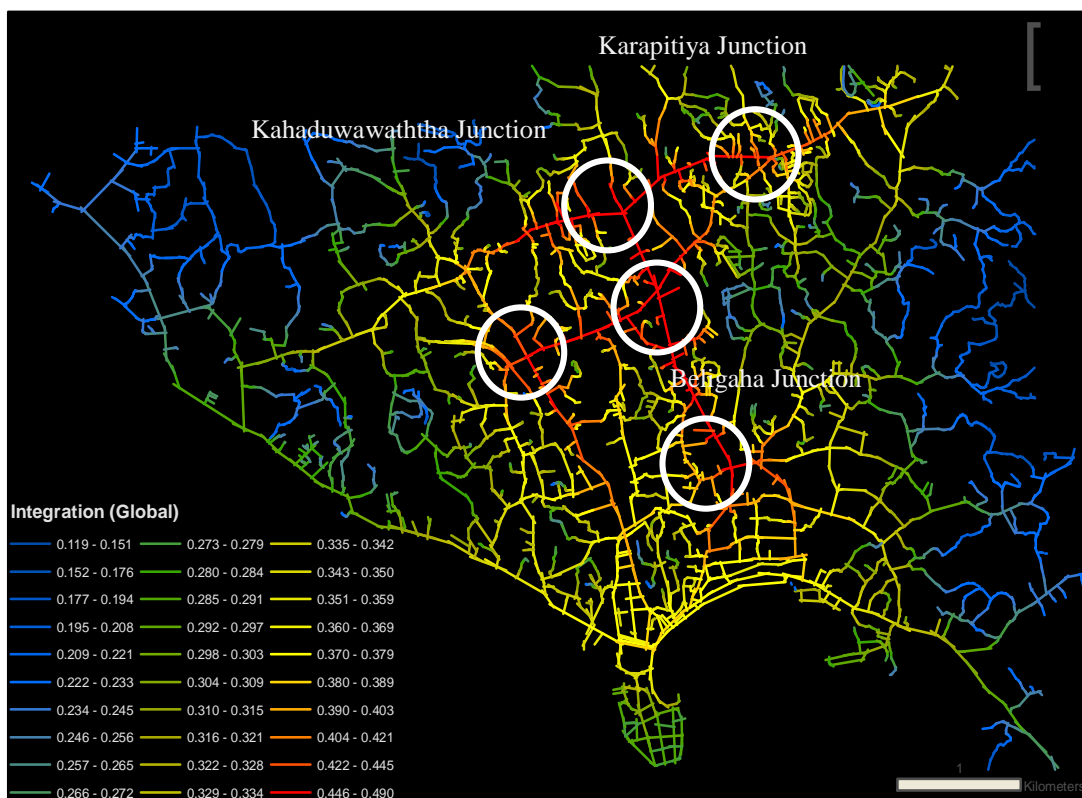
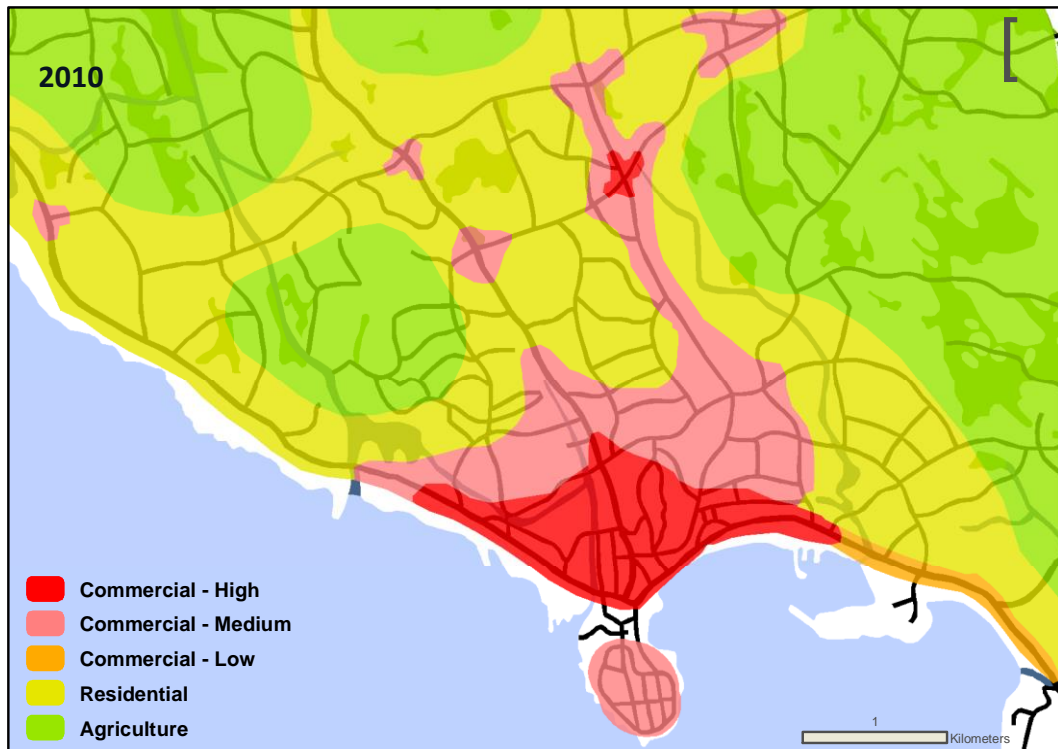
In 1980s, the spaces within the Galle city core area had the highest integration among all spaces within the immediate catchment of Galle. This might be the reason for the concentration of activities and people within and around the city limits.

But thirty years later, in 2010, the integration levels have changed and locations in the peripheral areas gained higher values of integration which could compete with those of Galle city center. In the later situation, the introduction of new institutional activities and the development of new road networks to facilitate them might have increased the spatial integration of locations such as Beligaha junction, Kahaduwaatha junction and Karapitiya junction.

This must have caused a high demand for the areas and thus resulted in a concentration of urban activities in those towns, although they are located away from the core areas of the Galle city. With the road development projects proposed at present, it is likely that Karapitiya and the surrounding areas will gain higher potentials to be developed into more vibrant urban centers as a result of the relatively higher levels of spatial integration accumulated into them.

Figure 5.2-4: Spatial integration over the years in Galle





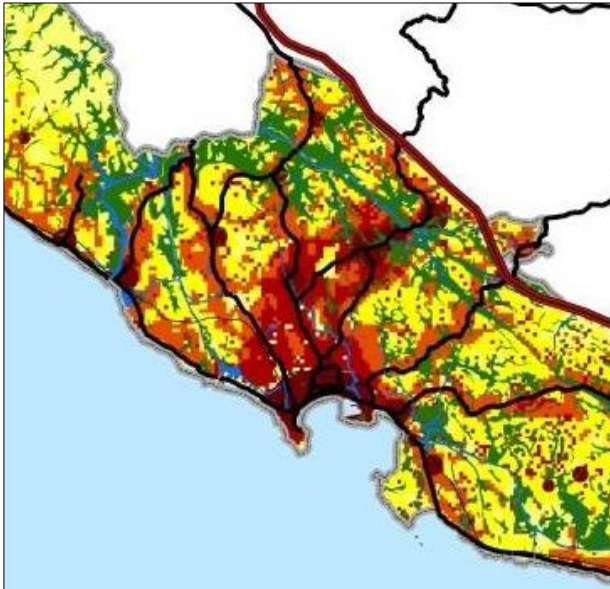
Source: Strategic Cities Development Project, 2016

5.2.2 Alternative Development Scenarios Considered

Three possible alternatives have been considered in order to identify the best-fit scenario for Greater Galle for future development falling consistent with the Vision formulated through this plan. These prospects have been worked out by considering the highest probability for development, based upon current urban development trends within the study area discussed above, as well as the anticipated impacts of ongoing infrastructure development projects

Business as Usual

Figure 5.2-5: business as usual scenario



Source: Strategic Cities Development Project, 2016

It is likely that with the current investments in urban infrastructure, the ongoing trends of development within the region will continue in the form of an “urban sprawl” even though some regulatory mechanisms are in place. This scenario of continuation with status-core may lead to both positive and negative impacts both on the region and on its own development.

Among positive impacts, distribution of diversified economic activities in most of the peripheral locations away from conventional urban centers such as Thanipolgaha, Karapitiya are prominent. The decline of conventional trade and commerce-based businesses in Galle will reduce the pressure on these urban centers and those, in turn, will reduce traffic flows and congestion within urban centers. The areas adjacent to the beach and natural watercourses are most likely to be utilized for tourism related activities, depending on the demand emerging from the development of the sector.

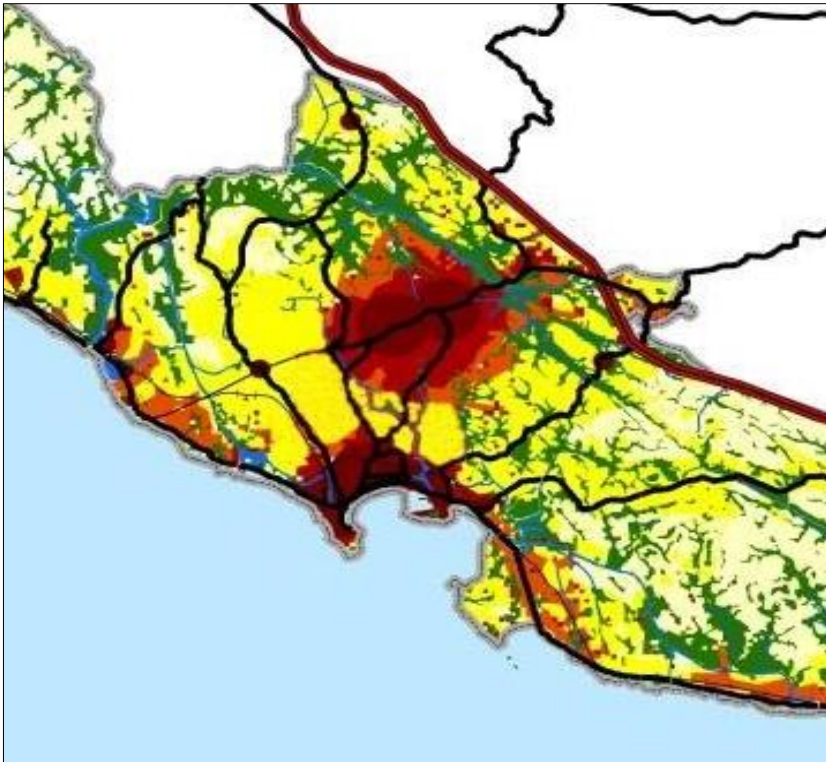
The negative impacts of this scenario include the likely damage to the environmentally sensitive areas, because of the scattered pattern of growth of residential uses into interior locations. They may also face the risk of floods and landslides. The coastal areas will attract both local and foreign tourism promotion activities, but if the pressure increases their delicate environments will be posed with a threat of developments exceeding the carrying capacities, and that will affect their long-term sustainability. The values of many interior resource locations will not be used at an optimum level due to low accessibility and non-availability of needy infrastructure. Further, due to the slow growth of the conventional urban centers, most of the urban facilities and buildings are likely to be run down without adequate attention. That will lead to underutilization of lands and other resources within those urban centers.

Karapitiya as a Satellite Township

The ongoing commercial developments towards Karapitiya Town may continue along with the other nodes at the Thanipolgaha, Kalegana, Kahaduwawatta, Julgaha, and Beligaha Junctions. The areas in between the main roads are likely to provide space to accommodate the increasing mix-residential developments. If adequate infrastructure developments are introduced and investments are promoted at Karapitiya, this process will lead to the development of a satellite township that will relieve the development pressure imposed on Galle city and the other areas.

In that scenario, the ongoing scattered developments will be largely detained by this satellite development at Karapitiya and its surroundings. This scenario is supportive of achieving the vision and the goals formulated in this plan for the future development of the region. In order to promote the expected order of development, a few strategic developments will have to be introduced into those locations, including some vital infrastructure facilities. It will also reduce the spread of urban activities from the center into distant areas and, therefore, will have less impact on the surrounding environment of the Galle city. However, since the location is surrounded by hilly plantation lands and low-lying agricultural lands, which are more sensitive to the area, the establishment and the expansion of this urban satellite will face challenges of needed developable and less environmentally sensitive lands around the Karapitiya area.

Figure 5.2-6: Karapitiya as a Satellite Township



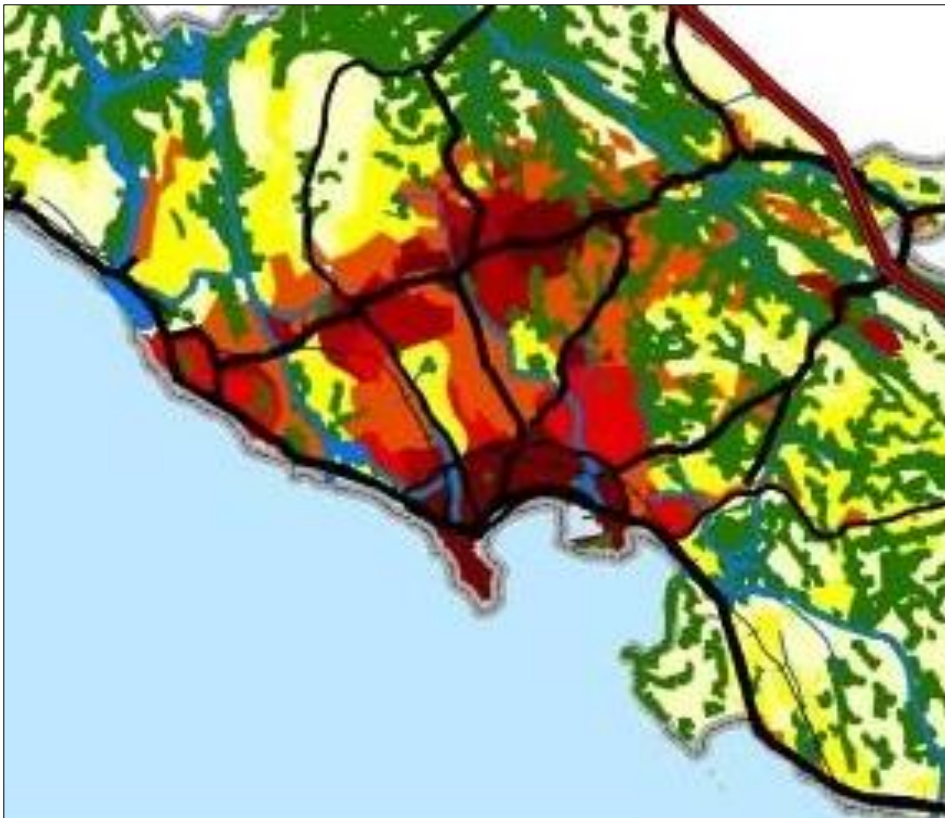
Source: Strategic Cities Development Project, 2016

Corridor Dominated Development

The current pattern of the growth of urban activities can be contained into a network of urban corridors developed along the main arteries radiating from and circumventing the core area of Galle city. For the promotion of this scenario, it is necessary to connect a few missing links in the peripheral road network, in addition to a set of stringent planning regulations. Incentives to promote development into areas adjacent to main roads are also a necessity. If the infrastructure developments are limited to the areas adjacent to main roads and the town centers in Galle and they will accommodate the expected moderate level growth in the future.

This scenario preserves the environmentally sensitive areas in the region and will extend the built environment along main arteries filling in vacant areas taking the advantage of accessibility. Yet, there has to be some strong and innovative interventions to redevelop and intensify existing developments. These will also need to reform the conventional attitudes and the living styles of the residents, for them to adjust to more urbanized situations.

Figure 5.2-7: Karapitiya as a Satellite Township



Source: Strategic Cities Development Project, 2016

5.2.3 Evaluation of the Scenarios

An evaluation of the three alternative scenarios was carried out based on the six major goals mentioned below:

1. The capacity of each of these three scenarios to preserve the historic character of the town centre with no substantial contradictions (Medieval Legacy)
2. The level of accessibility that each of these scenarios will provide for major commercial, service and administrative functions of the region (Wealthy City)
3. The ability of expediting each of those alternative scenarios to accommodate anticipated growth of residents and urban activities, and urban services (Comfortable Living)
4. The positive and negative impacts that each scenario will create upon the sustainability of hydro systems vegetation pattern and the agricultural land uses of the region. (Green, Clean, Safe environment)
5. The pros and cons involved in the development of physical infrastructure and major improvements to the existing and proposed transportation networks and facilities, for the promotion of each of those scenarios (Winged Mobility)
6. The level of possibility that each of these scenarios can facilitate in providing public convenience, harmonizing the newly built structures of the built environment (Happy Citizens)

This was regarded as the most important measures for the achievement of the overall vision and the goals formulated for the region. The following matrix indicates the composite of the evaluative responses obtained from brain storming session on the levels of appropriateness of the alternative scenarios considered, as against the six goals.

Scenario Comparison Matrix						
Development Scenario	Medieval Legacy	Wealthy City	Comfortable Living	Green, Clean, Safe environment	Winged Mobility	Happy Citizens
Business as Usual	-2	+3	+2	-2	+2	-1
Karapitiya as a Satellite Township	-1	+1	+1	-1	+1	+1
Corridor dominated development	+1	+2	+3	+1	+3	+2

The evaluation of scenarios was done based on a brain storming session. When the three alternative scenarios are evaluated against the six goals, the outcome reveals that the strength of scenario 3, that is, the internal and external corridor based development, has greater potential to accommodate increasing activities and population, while addressing environmental sensitivity and functional efficiency.



THE PLAN

Concept Plan

Proposed Land Use Plan

06. THE PLAN

6.1 Concept Plan

In order to re orient the spatial development pattern in 2030 of Greater Galle, the concept for the development Plan was based on the Vision.

Built up areas and ongoing development trends are extending from the Galle city center towards the interior in a radial pattern along the main arteries to peripheral areas, due to the Development pressure exists at the core area of Galle.

As per the space syntax analysis in 1980's the spaces within the core city shows the highest integration among all spaces within the immediate catchment of Galle. In 1990's, a slight movement of integration towards periphery from the immediate catchment can be observed. 20 years later in 2010, there is a significant change in development pattern from core area to periphery. When it comes to 2017, the pattern has become the current trend of development of the area, which shows a movement towards the North of Galle, creating growth centers like Gintota, Kalegana, Kahaduawatta, Karapitiya, Labuduwa and Walahanduwa. Therefore, the plan promotes those centers, which creates a growth corridor beyond the city limits to be function as smart growth centers along with the Main city.

The impact of the future development on environment system was analyzed using sensitivity analysis and it is supposed to create a Green & Blue Network by Re-establishing the linkage between diverse Eco-systems of Greater Galle Area

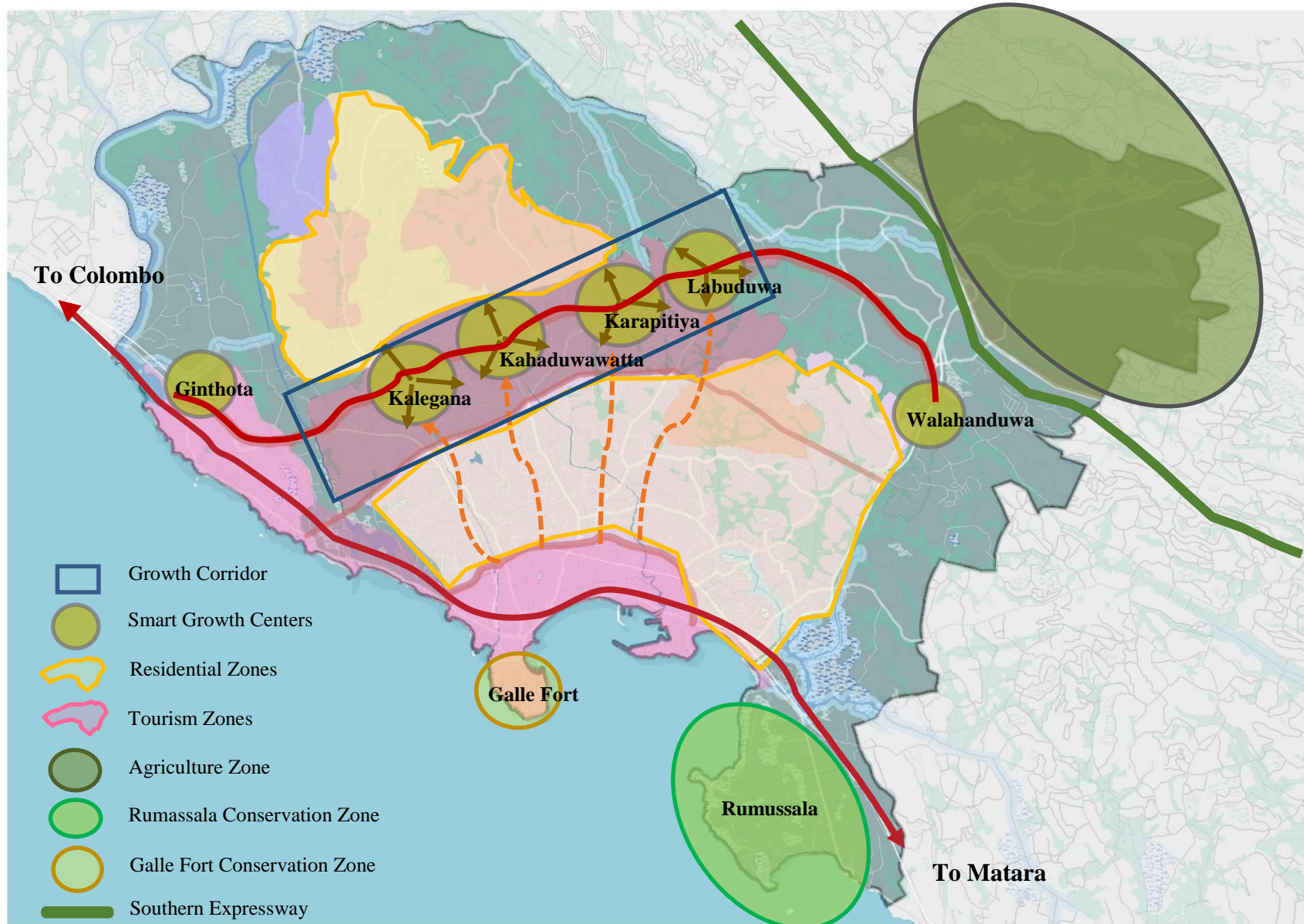
Especially areas like Rumassala, which offers the best coastal views along the Southern coast and enriched with strong network of flora and fauna, is supposed to be conserved through a separate guide plan for the area in order to control the development and promote tourism in an effective manner while protecting the eco system.

Analysis on the Land suitability was the tool that has been used to find the suitable locations to promote and guide the residential development, and the plan proposes the best locations where the safety, comfortability, and accessibility is assured. In order to strengthen the economy of the city, the plan interlinks the major economic activities such as agriculture, fisheries, commercial and tourism by facilitating them to utilize effectively.

Hence, the concept has been built to strike a balance between the historical distinctiveness of the city, while facilitating for present urban needs. The living heritage of the city, The Dutch Fort is proposed to conserve using a special Guide plan as a tool of implementation.

The functional integrity will be made taking in to consideration the appropriate locations for such facilities to form the city structure with specialized activity centers. Therefore, by viewing of this broad spectrum of development potentials of Greater Galle, the concept of the development plan was framed accordingly.

Figure 6.1-1: The Concept Plan



UDA District Office –Galle Source: UDA district office Galle,2017

6.2. Proposed Land Use Plan

The future land use pattern is defined based on the analysis of existing land use pattern and future requirement of lands for various development activities proposed within the area.

Since the Greater Galle area has its specific eco systems, which are enriched with paddy lands, marshy lands, water bodies and other natural eco systems need to be conserved and has given a recognition to develop harnessing its potential lying on high bio diversity for the future in achieving sustainable development. Further to that, the ongoing development trend of growth centers and the road network also identified to enhance the potential of future development in the proposed land use plan.

The core of Galle City is superior to the rest of the urban centers in the region, due to its declaration as a world heritage city under the world heritage convention by UNESCO, hence, the Fort as a specialized zone considered as a conservation zone in the proposed plan. Further, the location of Galle Port, which was the Main Sea port during the period of Portuguese and Dutch before constructing the Colombo port by Colonial Administration by the British also considered as a specialized area for Port related activities.

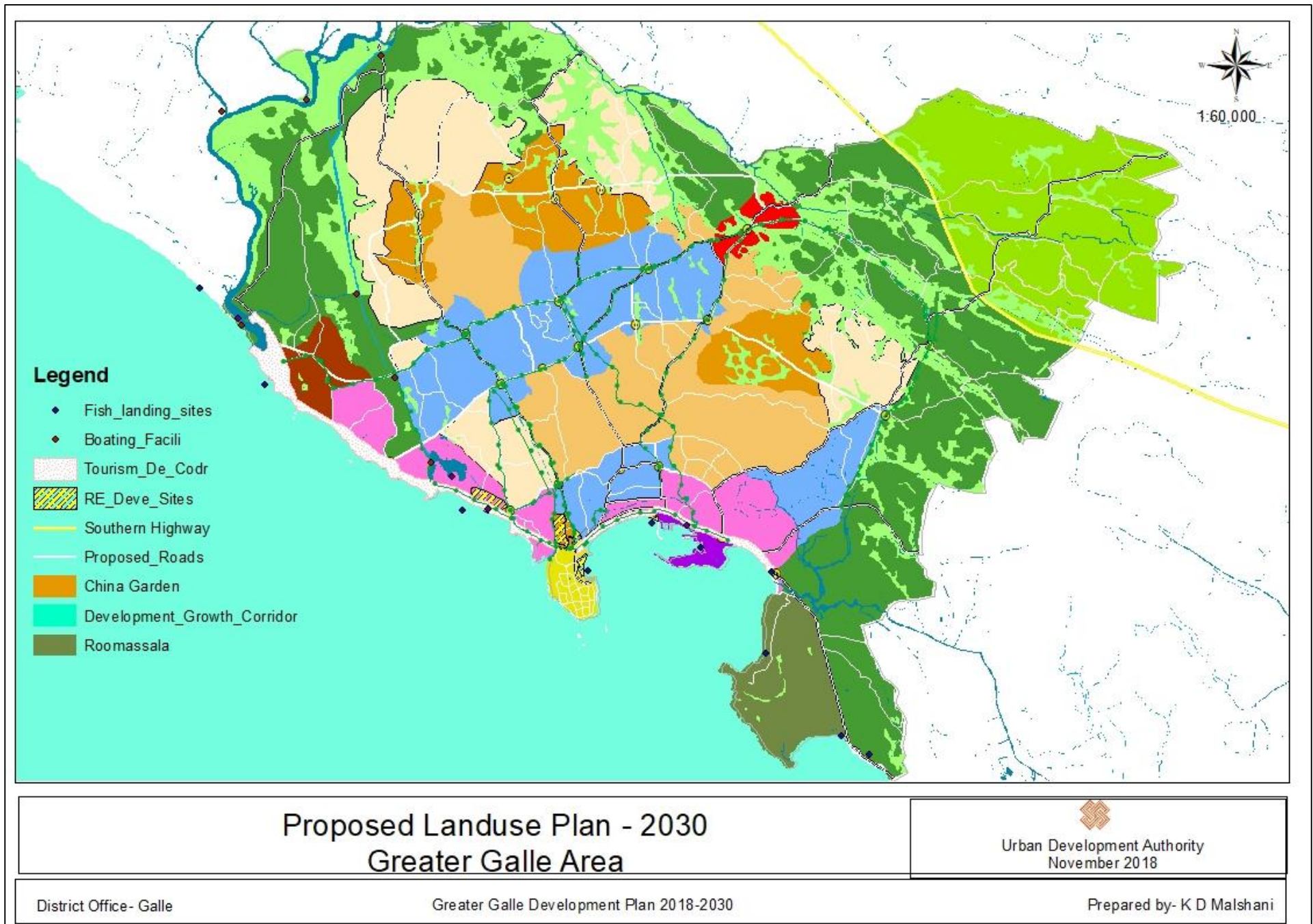
China Garden which is located in the town center now being mostly converted from residential to commercial activities are diminishing their archeological and historical characters rapidly. In order to bring back the historic colonial character to the surroundings of China garden essential strategic projects are proposed. The projects aim to revitalize residential activities with improved physical conditions. In addition to that, it is proposed to promote 03 zones as residential promotion zones based on the land suitability for residential development and attract 38% of population from the total population, which is expected to increase by 2030. Further, those zones are to be linked to the Development Growth Corridor and to the neighborhood level mini nodes.

Karapitiya is proposed to be developed as a health services based commercial node, Administrative zone at Labuduwa by promoting local and regional level administrative activities and buildings, Kalegana and Kahaduawaththa as special commercial nodes accommodating city residents (Residential services node) and Ginthota and Walahanduwa are supposed to develop as transitional nodes.

To achieve the economic well-being of the area, in cooperating a tourism corridor along the Galle road from Ginthota to Dewata junction by promoting, improving and conserving natural resources like, Gin Ganga, Mahamodara Lake, Sea beach and places with historical values in the area.

The proposed land use plan also considers cultivated lands as agriculture improvement areas within the Agriculture zone.

Map 6.2-1: The Proposed Landuse Plan





SOCIAL AND PHYSICAL INFRASTRUCTURE DEVELOPMENT STRATEGIES

- **Service Plan – “Comfortable Living”**
 - **Settlement Development Plan**
 - **Urban Services Improvement Plan**
- **Transportation- “Winged Mobility”**
- **Water Supply**
- **Electricity and Data Lines**
- **Drainage and Sewer Lines**
- **Waste Management**
- **Special Concerns**
- **Expressways / Interchanges**

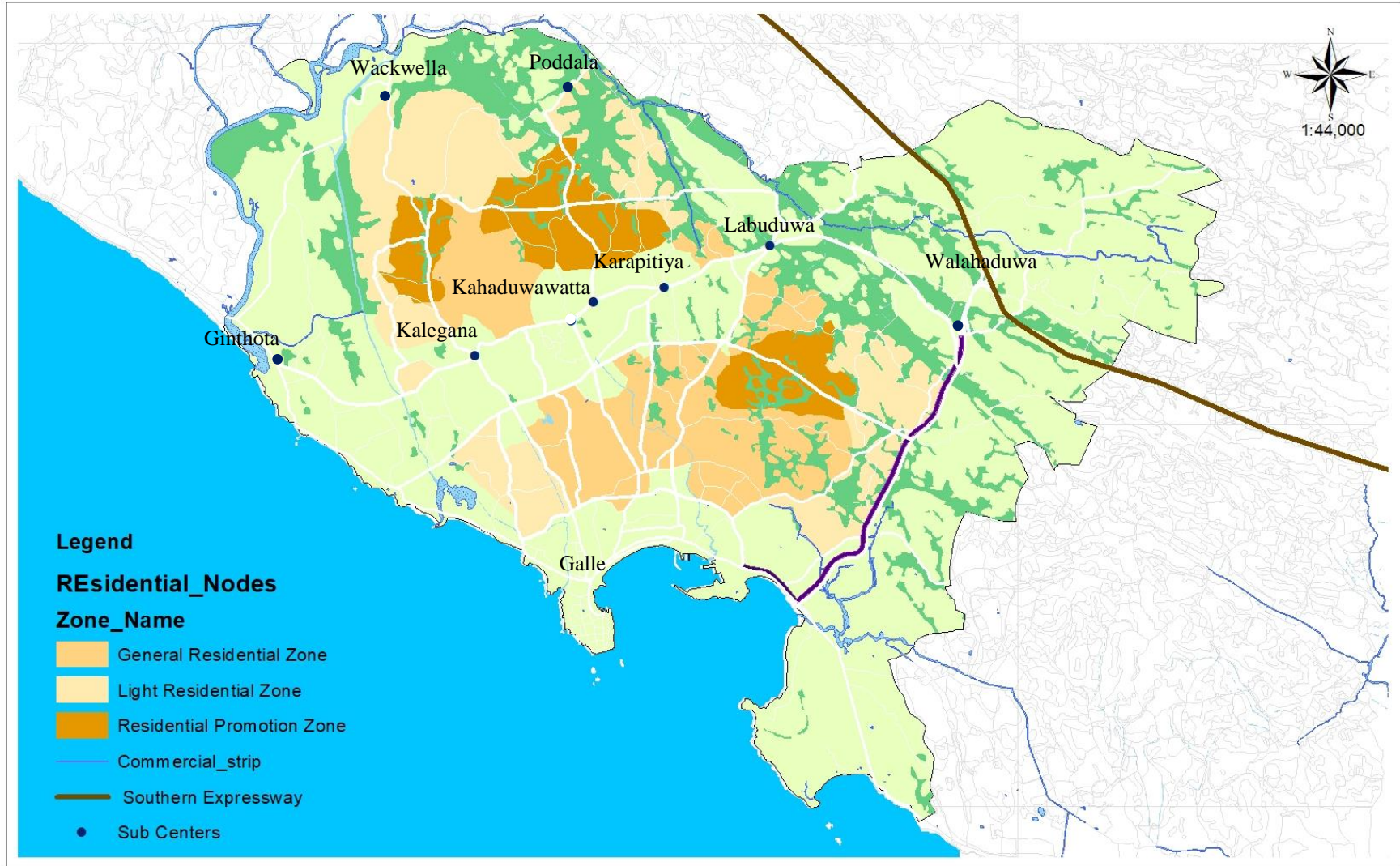
6.3 Social and Physical Infrastructure Development Strategies

6.3.1 Service Plan – “Comfortable Living”

In the composite urban form, Galle city would be the centre for Tourism and Recreational activities. Administrative activities where usually took place in Galle City shall also remain thus the lands, where they are located, will be demanded by economically competitive uses. All new administrative and institutional activities are proposed to be located in the proposed Administrative services node at Labuduwa, which is located at the proposed growth corridor. Therefore, the establishment of these activities will promote the demand for both residential and commercial developments in the immediate vicinity along the corridor. In order to accommodate such growth of residents and urban activities, the area need to be facilitated with reasonably scaled investments on infrastructure and settlement development. The Goal “Comfortable Living” describes the above scenario through two major thematic Plans as follows.

1. Settlement Development Plan
2. Urban Services Improvement Plan

Map 6.3-1: Comfortable Living



Comfortable Living - Greater Galle Area


 Urban Development Authority
 June 2018

District Office - Galle

Greater Galle Development Plan (2018-2030)

Prepared By: K.D Malshani

Source: UDA district office Galle, 2018

6.3.1.1 Settlement Development Plan

The settlement development plan describes the appropriate spatial strategy in accommodating the future population, which is expected by 2030 within Greater Galle Area and the population projections for the area are as follows.

Table 6.3-1: Population Predictions for Greater Galle

Population of GGA in 2001	177,504
Population of GGA in 2011	190,486
Population of GGA in 2017 (forecasted)	199,034
Natural Average Population Growth Rate (NAPGR) of GGA	0.7%
Maximum NAPGR of GGA	
Average of NAPGR above 1% GN divisions	2.55%
National NAPGR	0.75%

Source: Resource Profiles (Galle 4 Gravets, Akmeemana, Bope Poddala and Habaraduwa DS Divisions)

Based on the above data it was found that there are some GN Divisions with a growth rate of more than 1% and among those there are several GN divisions that records even more higher growth rates than the others such as Akmeemana DSD and Ihalagoda South GND which is having 6.8% of a population growth rate

Therefore, population prediction was initially done based on 02 scenarios as follows,

Table 6.3-2: Population Predictions based on scenarios

Scenario	NAPGR	Population in 2030	Additional Population
Scenario 01 - Based on NAPGR of each GND	Average - 0.7%	218, 830	-
Scenario 02 – Based on Average of NAPGR above 1% (Applying average NAPGR of rapidly populating areas for the total population of GGA)	2.55%	297,373	91,225

Scenario 03

Apart from the above two scenarios, the 3rd scenario was formulated in order to obtain more accuracy on the population predictions due to the diverse nature of population growth rates in the area. Accordingly, by assuming the accelerated population growth experienced in rapidly populating areas will be continued in identified residential zones and other zones will be populated based on natural growth.

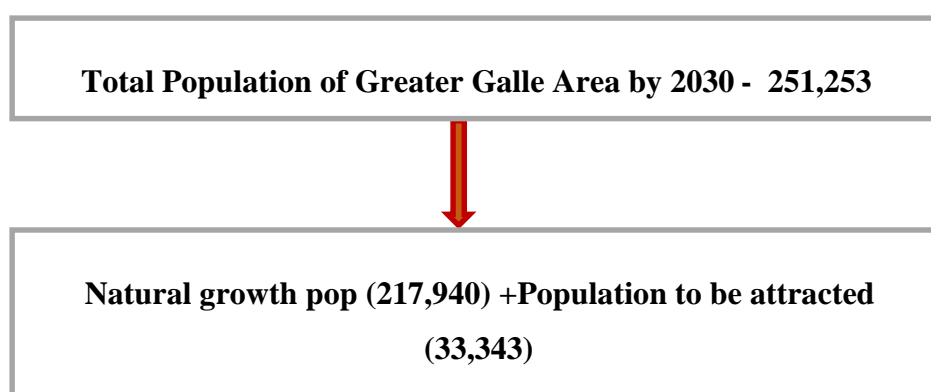
Therefore, the Assumed Average Population Growth Rate was considered as 2.55% for the further calculations.

Table 6.3-3: Population Predictions

Description	Growth Rate	Population
Total Pop in 2011	-	69,534
Population Forecast for 2030	0.7% (Natural GR)	79,536
Population Forecast for 2030	2.55% (Assumed GR)	112,879

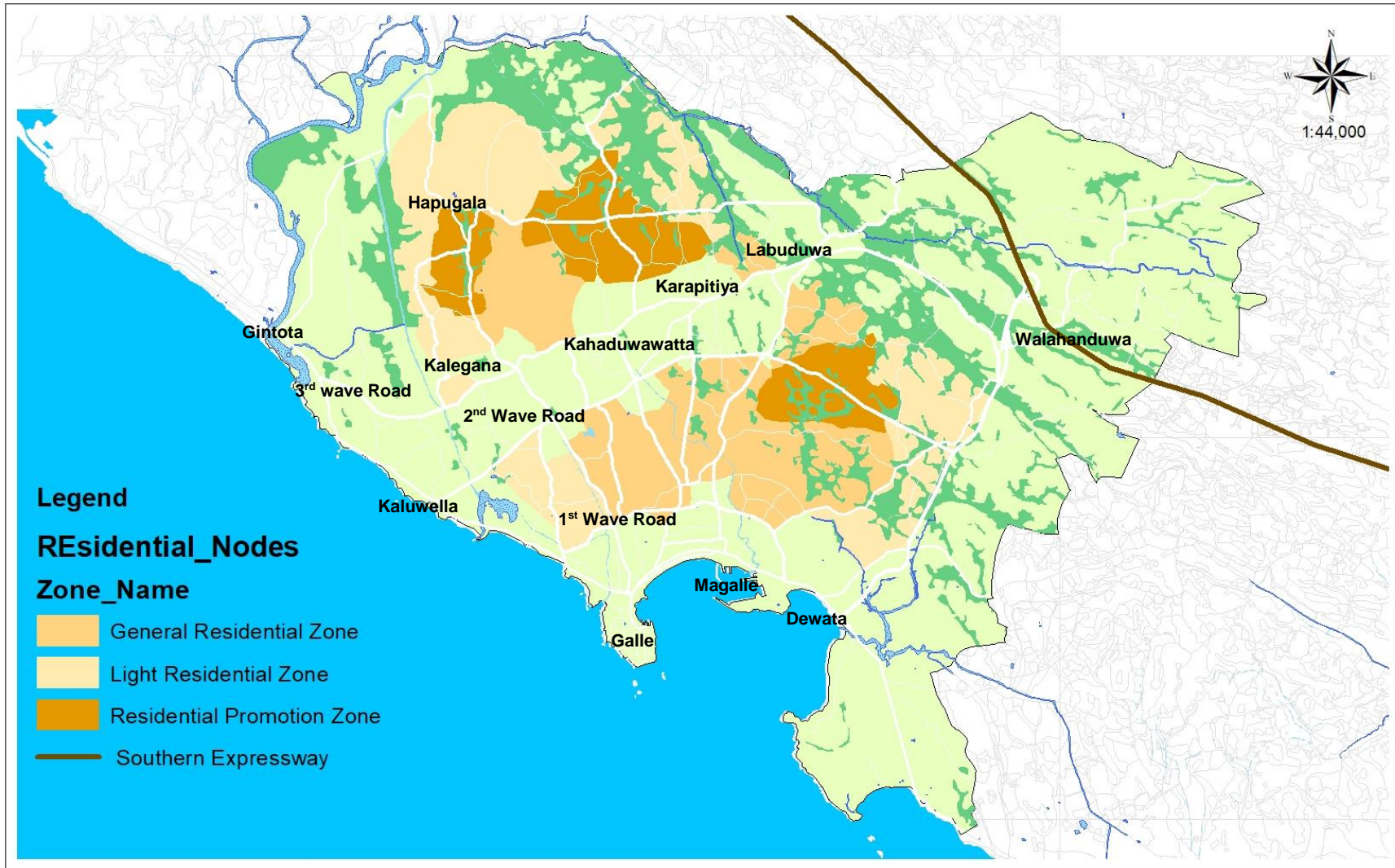
Additional Population expected apart from natural growth – 33,343

Therefore, the scenario 03 represents a comparatively more reasonable additional population expected within another 12-year time.



As per the analysis done on the population predictions 3 types of residential zones are going to be proposed where the areas that are appropriate for residential development for the future population by considering the aspects like accessibility, safety, comfortability, natural disasters etc. Which was obtained as a result from the land suitability analysis.

Map 6.3-2: Settlement Development Plan



Settlement Development Plan (2030) Greater Galle Area		 Urban Development Authority June 2018
District Office - Galle	Greater Galle Development Plan (2018-2030)	Prepared By: K.D Malshani

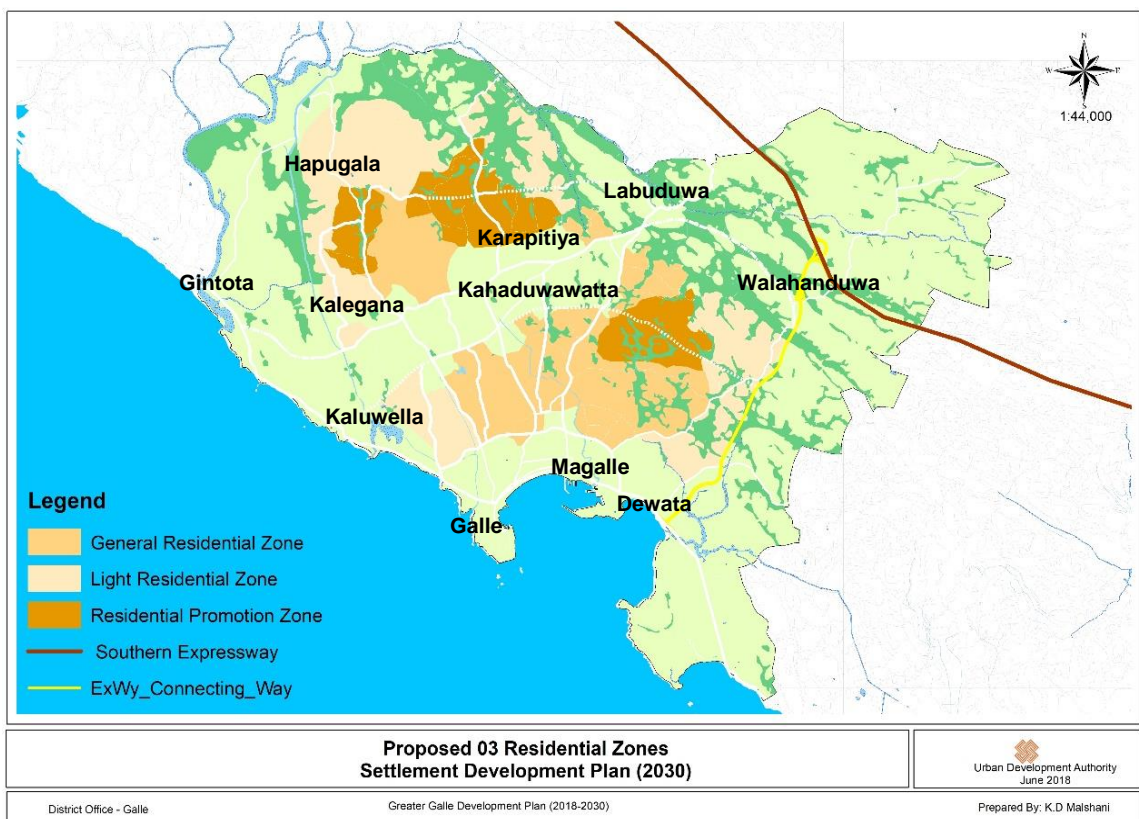
Source: UDA district office Galle, 2018

Strategic Action (1) - Promote 03 categories of Residential Zones based on land suitability for Residential Development

According to the suitability analysis for the lands for residential development, three categories of lands were identified considering the above factors of lands in the area are as follows.

1. Residential Promotion Zone
2. General Residential Zone
3. Light Residential Zone

Map 6.3-3: Three residential zones



Source: UDA District office Galle, 2018

The Percentage of total population to be settled in the above 03 residential zones by 2030 are 45% of the total population in 2030. This value was determined considering the existing population and the land extent of proposed residential zones.

Further the suitability of land, expected character and the distribution of the population for each zone category would be as follows

Table 6.3-4: Population to be accommodated in residential zones

Residential Zone Category	Suitability Category	Developable Extent (km ²)	Population Distribution Percentage	Proposed Population Distribution	Proposed Population Density(PPkm ²)
Residential Promotion Zone	High (5)	4.27	38.5%	43,345	10,151
General Residential Zone	Moderate –(3)	7.68	35.5%	40,526	5,277
Light Residential Zone	Low (1)	8.08	26%	29,006	3,590
Total Population to be accommodated in 2030				112,877	

Strategic Action (2) - Promote 03 zones as Residential Promotion Zones (RPZ) and attract 38% of the proposed population from the total which are going to be accommodated in all residential zones into them by 2030

The areas where highest suitability was found was identified to be promoted as residential promotion zones in the future spatial distribution of population in the area. Accordingly, 3 Nos of promotion zones for residential development would be there in the settlement distribution plan

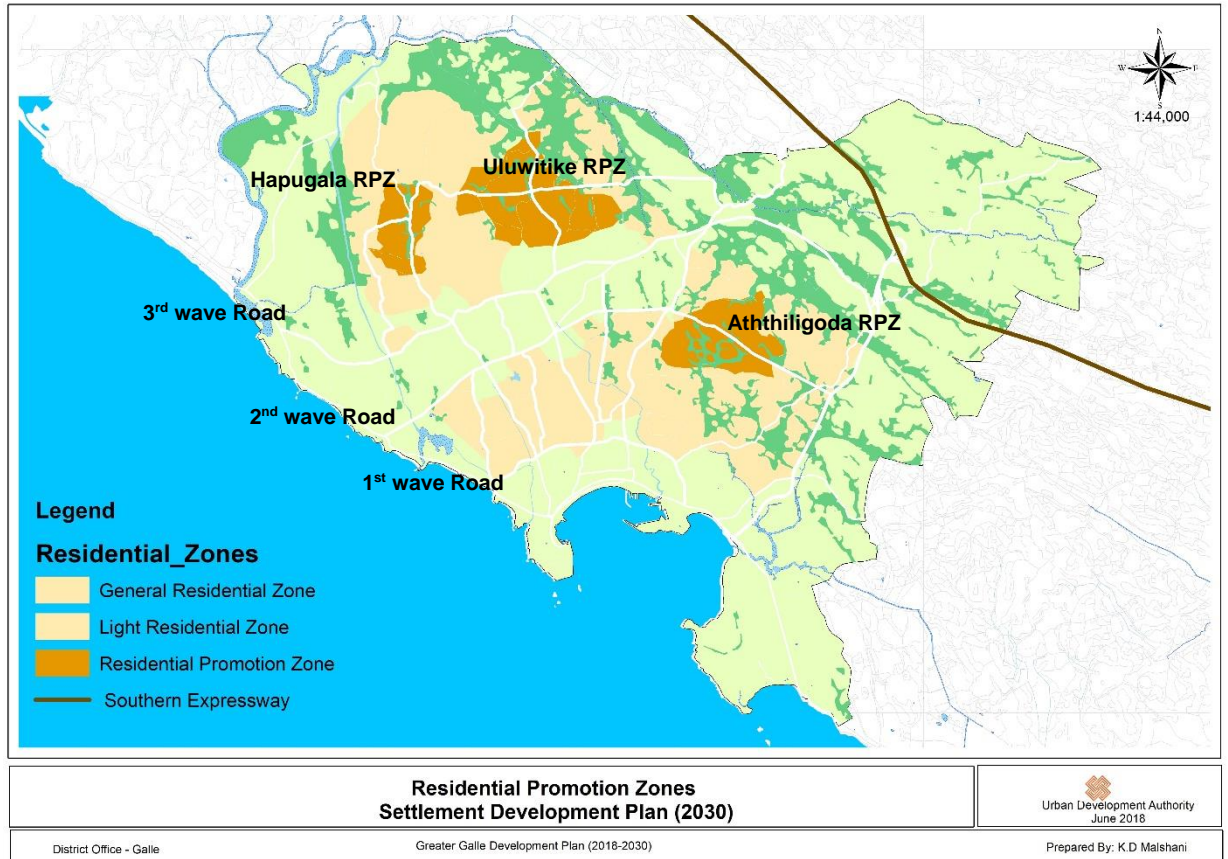
1. Hapugala Residential Promotion Zone
2. Uluwitike Residential Promotion Zone
3. Aththiligoda Residential Promotion Zone

Table 6.3-5: Population to be accommodated in residential promotion zones

Zone No.	Zone Name	Developable Extent (km ²)	Proposed Population
RPZ 01	Hapugala Residential Promotion Zone	0.83	8,085
RPZ 02	Uluwitike Residential Promotion Zone	2.15	20,943
RPZ 03	Aththiligoda Residential Promotion Zone	1.30	12,663

The Expected population to be accommodated in each Residential Promotion Zone proportionately to the availability of developable lands in each zone are as follows

Map 6.3-4: Residential promotion zones



Source: UDA district office Galle, 2018

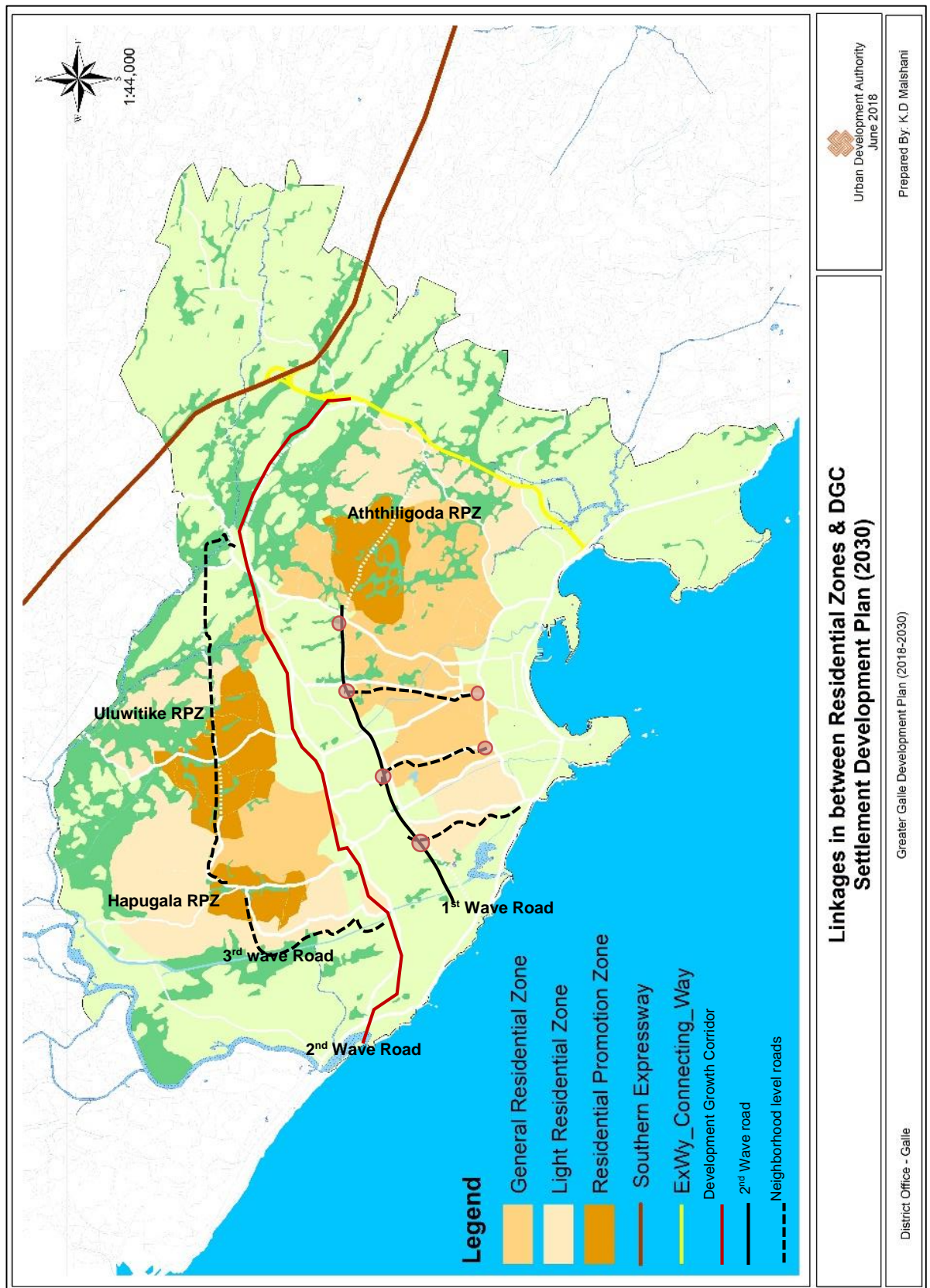
Strategic Action (3) – Create linkages in between Residential Promotion zones (RPZ) and Development Growth Corridor (DGC)

Strategic Action (4) – Create linkages in between Residential Zones as it creates Neighborhood level mini nodes

Proposed accessibility improvements between each Residential Promotion Zones are as follows

1. Two direct linkages in between Hapugala RPZ & Development Growth Corridor
2. Two direct linkages between Uluwitike RPZ & Development Growth Corridor
3. A linkage in between Aththiligoda RPZ and Development Growth Corridor via Labuduwa Road

Map 6.3-5: Proposed linkages in between Residential Zones



Source: UDA District office Galle, 2018

6.3.1.2 Urban Services Improvement Plan

This includes how those residential areas are going to be facilitated by the required urban services, such as transportation, water supply, electricity, waste disposal, network of drainage and sewer lines especially along the proposed growth corridor and the residential zones as well

Strategic Action (4) – Promoting a 1300 m Length of stretch along left hand side of the Southern Expressway Access Road for high-end commercial activities with a service lane

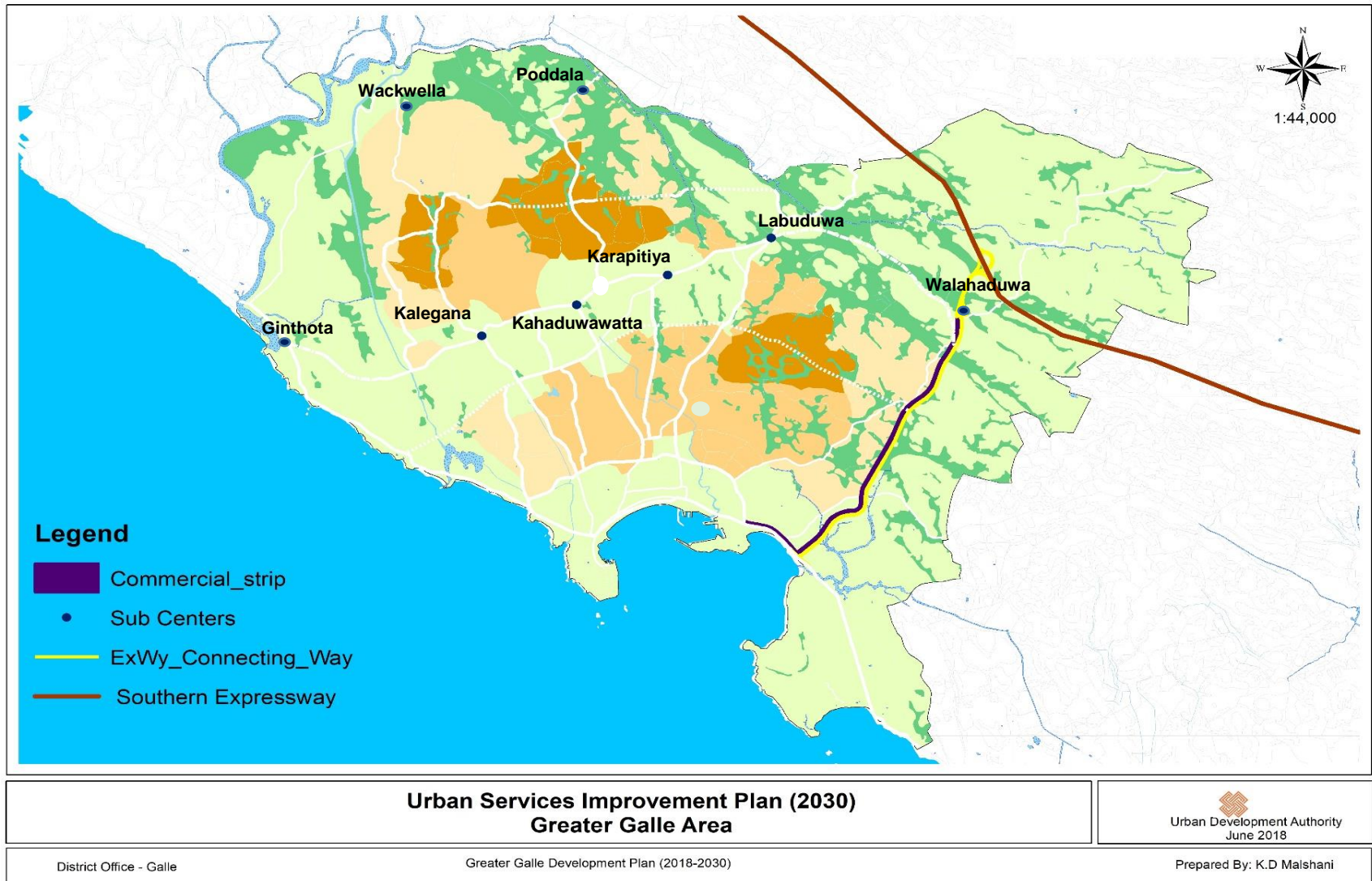
Proposed to allocate a land of 3 acres to develop a high-end shopping mall in order to trigger the high-end commercial strip

Figure 6.3-1 Proposed commercial strip and Shopping mall



Source: Google earth and Google images

Map 6.3-6: Urban Services Improvement Plan



Source: UDA District Office Galle

Strategic Action (5) – Redevelopment of growth centres to facilitate required urban services

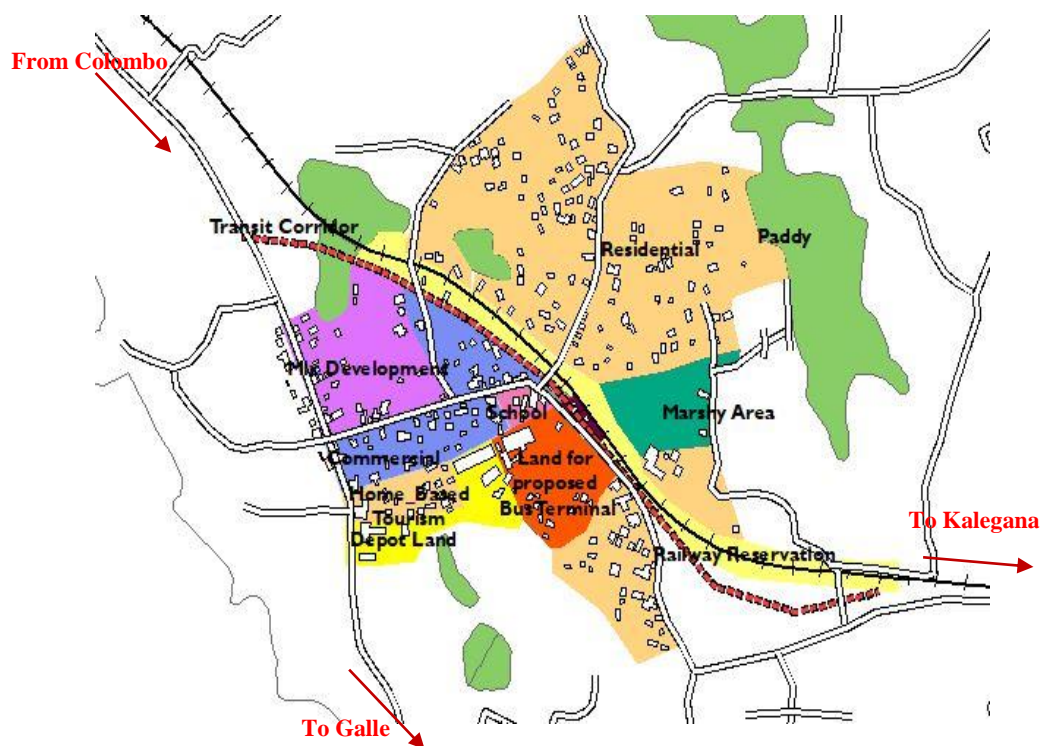
In addition to six nodes of proposed growth corridor, Gintota, Kalegana, Kahaduwwattha, Karapitiya, Labuduwa and Walahanduwa other two sub centres are proposed to be developed in Greater Galle Development Plan as follows,

- Wackwella Sub Centre development
- Poddala Sub centre development

Gintota Sub Center Development

Promote to be developed as two transitional nodes to facilitate the accessibility to the Greater Galle area.

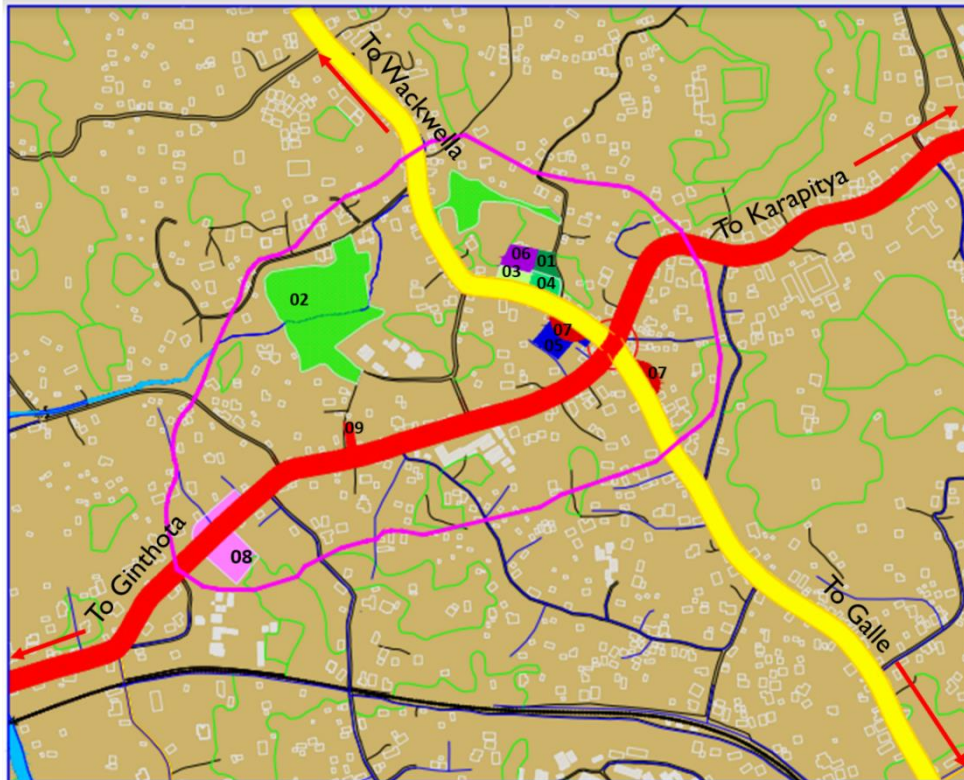
Figure :6.3-2 Proposed Ginthota Sub Centre Development



Kalegana Sub Center Development

Promoted to be developed for commercial development to facilitate with required Urban services

Figure :6.3-3 Kalegana Sub Center Development



The Development includes following components

1. Redevelopment of library
2. Proposed Open Space
3. Proposed Children Park
4. Proposed Parking Area
5. Proposed Shopping Complex
6. Proposed Auditorium
7. Proposed Bus shelters
8. Proposed Weekly Fair
9. Proposed Health Center

Figure 6.3-4 Existing Situation & Proposed Development



Kahaduwattha Sub Center Development

Proposed to be developed as mixed development growth center

Figure 6.3-5 Kahaduwattha Sub Center Development



Figure 6.3-6 Existing Situation & Proposed Development



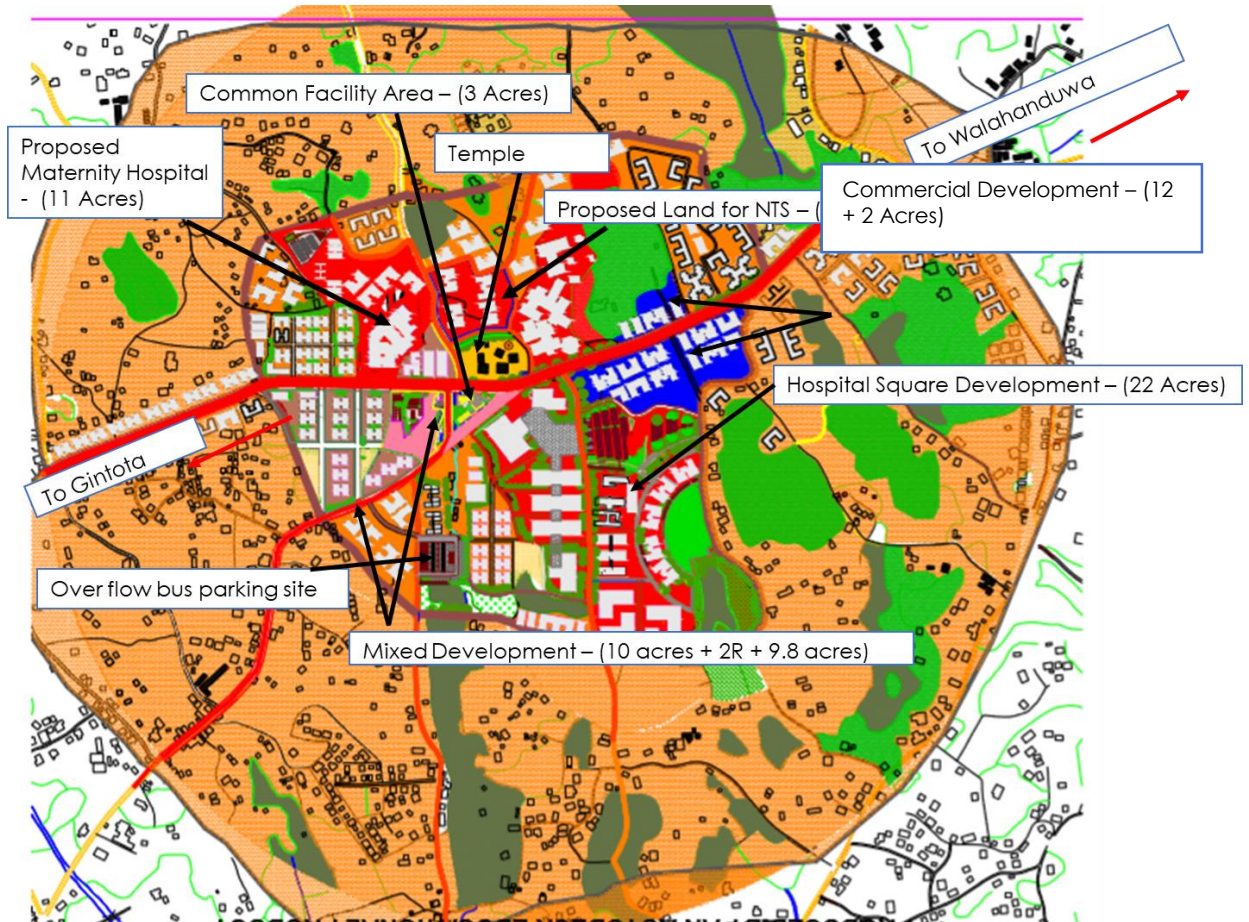
Proposed Development



Karapitiya Sub Center Development

Promoting to developed as health based commercial node. As fast growing and high demand development node Karapitiya proposed to be regulated by specific guide plan to facilitate commuters.

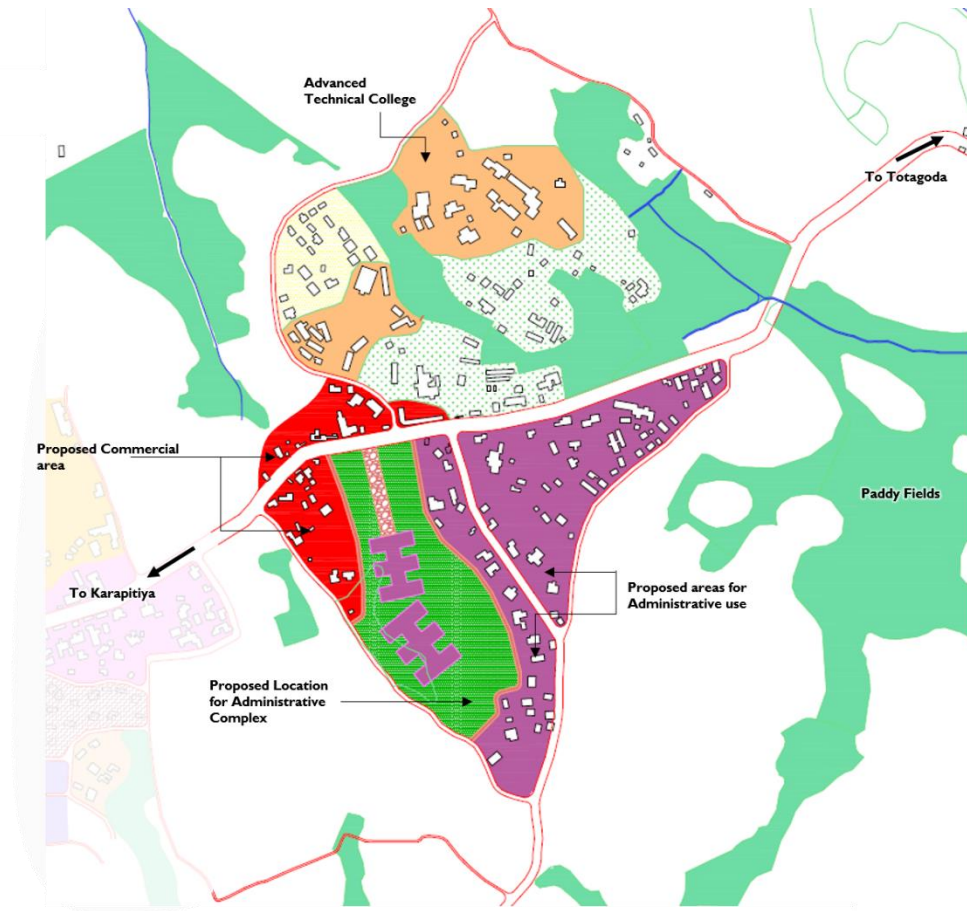
Figure 6.3- 7 Karapitiya Sub Center Development



Labuduwa Sub Center Development

Proposed to promote as an administrative node.

Figure 6.3- 8 Labuduwa Sub Center Development



Wackwella Sub Center Development

Proposed to be facilitated by the required Urban services, such as transportation, Open spaces other recreational activities as follows

1. Proposed Riverside Park Project
 2. Proposed Bus Shelter
 3. Proposed Commercial Development
 4. Proposed Parking Area and Children Park
- Proposed Alternative Road
— Proposed Road Widening

Figure 6.3- 9 Wakwella Sub Center Development

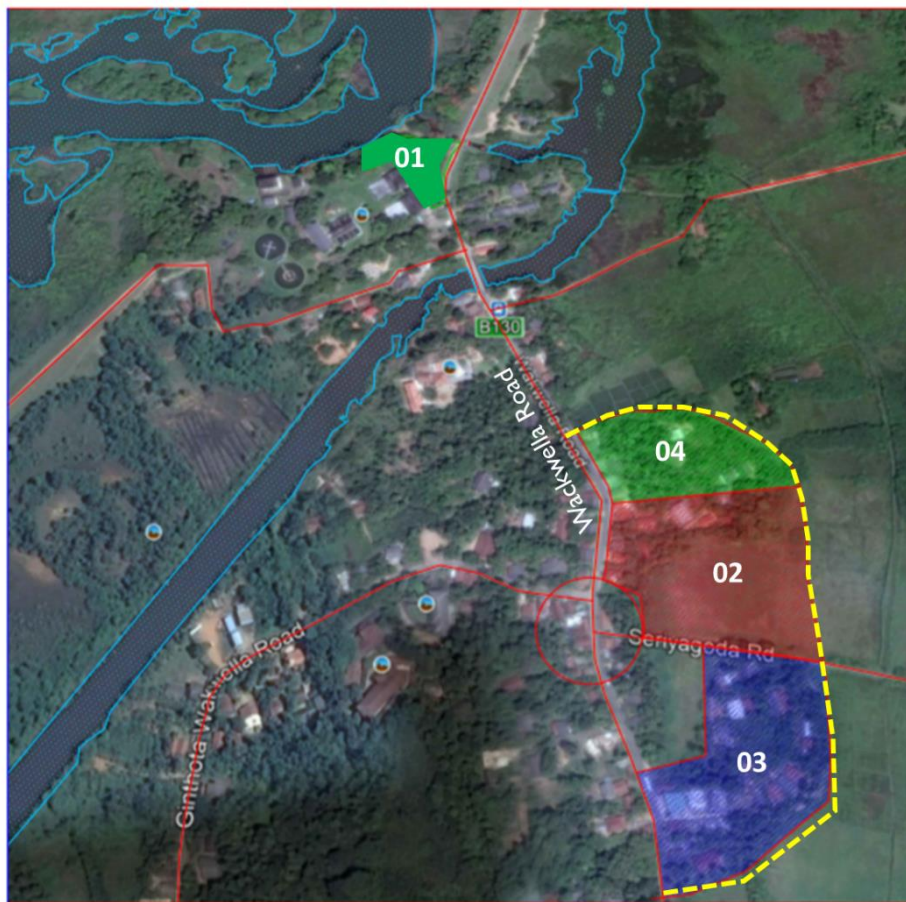


Figure 6.3-10 Existing Situation & Proposed Development



Poddala Sub Center Development

Poddala Sub center is proposed to be promoted as a commercial sub centre with following project components

1. Proposed Improvement for Existing Play ground
 2. Proposed Weekly Fair
 3. Proposed Parking Area
 4. Proposed Children Park
 5. Redevelopment of Commercial Area
- Proposed by pass road
— Southern Expressway

Figure 6.3- 11 Poddala Sub Center Development

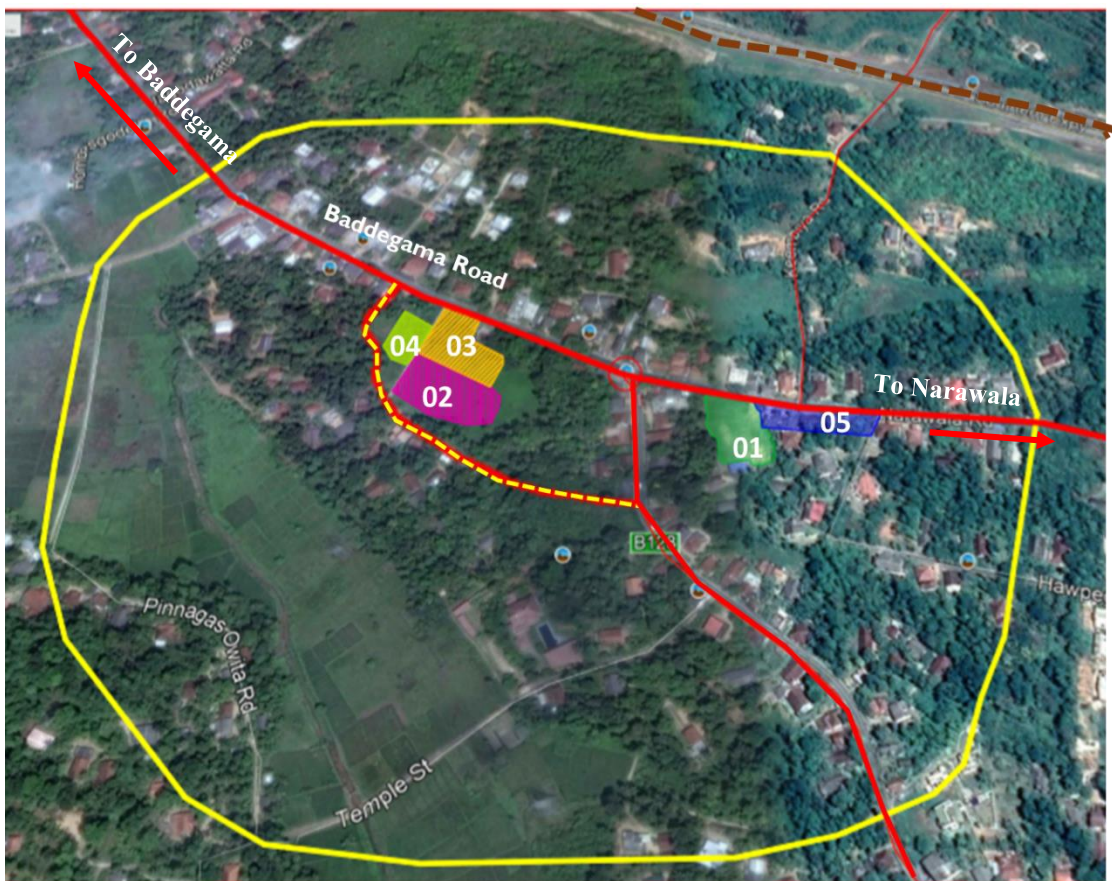


Figure 6.3-12 Existing Situation & Proposed Development



6.3.2 Transportation- “Winged Mobility”

Road and transportation development plan for the Greater Galle area has been formulated under the Goal “Winged Mobility”. The plan has more focused on the road development in order to enhance the connectivity of the periphery areas and with the objective of reducing the congestion, which is more oriented within the main arteries of the Galle city limits. Addition to that, creating new road links in facilitating the areas, which are proposed to be developed with various project components, is also concerned.

Accordingly, the road development plan has identified three major road linkages to develop as three wave roads improving the connectivity over the Greater Galle area.

1. **The First wave road** - Creating 18m wide (two lane) road from Kaluwella junction to Sambodhiya junction (Magalle) to develop as a solution for the traffic congestion over the Galle road (A2 road).
2. **The Second ^{Wave} road** - Creating 18m wide (two lane) connector road from Galle road to Highway access road
3. **The Third wave road** - Constructing of 30m wide (four-lane) road connecting Ginthota and Walahanduwa via Kalegana, Kahaduawatta, Karapitiya, & Labuduwa smart centres has identified as the third wave road

Apart from the above wave roads, several road improvements and new roads have been proposed as follows and to be detailed further afterwards.

1. Widening of 110m of Dahanayake Mawatha starting from Galle Road and 200m of Kandewatta Road into 18m wide (two lane) road
2. Linking Crips Road and Kongaha Junction by constructing 18m wide (two lane) road
3. Widening of Kongaha Road of 550 m up to Bandaranayake Mawatha and 1500m of Circular Road into 18m wide (two lane) road.

In addition, the plan proposed permanent two transitional nodes at Ginthota and Walahanduwa. Walahanduwa would further proposed to extent to Thalpe. These nodes are proposed to facilitate growth corridor from Ginthota to Walahanduwa. Also two temporary transit nodes proposed by this plan at existing Mahamodara Maternity Hospital site and INSEE Cement factory site adjacent to Southern Expressway access road until proposed growth corridor to be developed.

Map 6.3-7: Winged Mobility



**Winged Mobility
Greater Galle Area (2030)**


 Urban Development Authority
 June 2018

District Office - Galle

Greater Galle Development Plan (2018-2030)

Prepared By: K.D Malshani

Source: UDA district office Galle, 2018

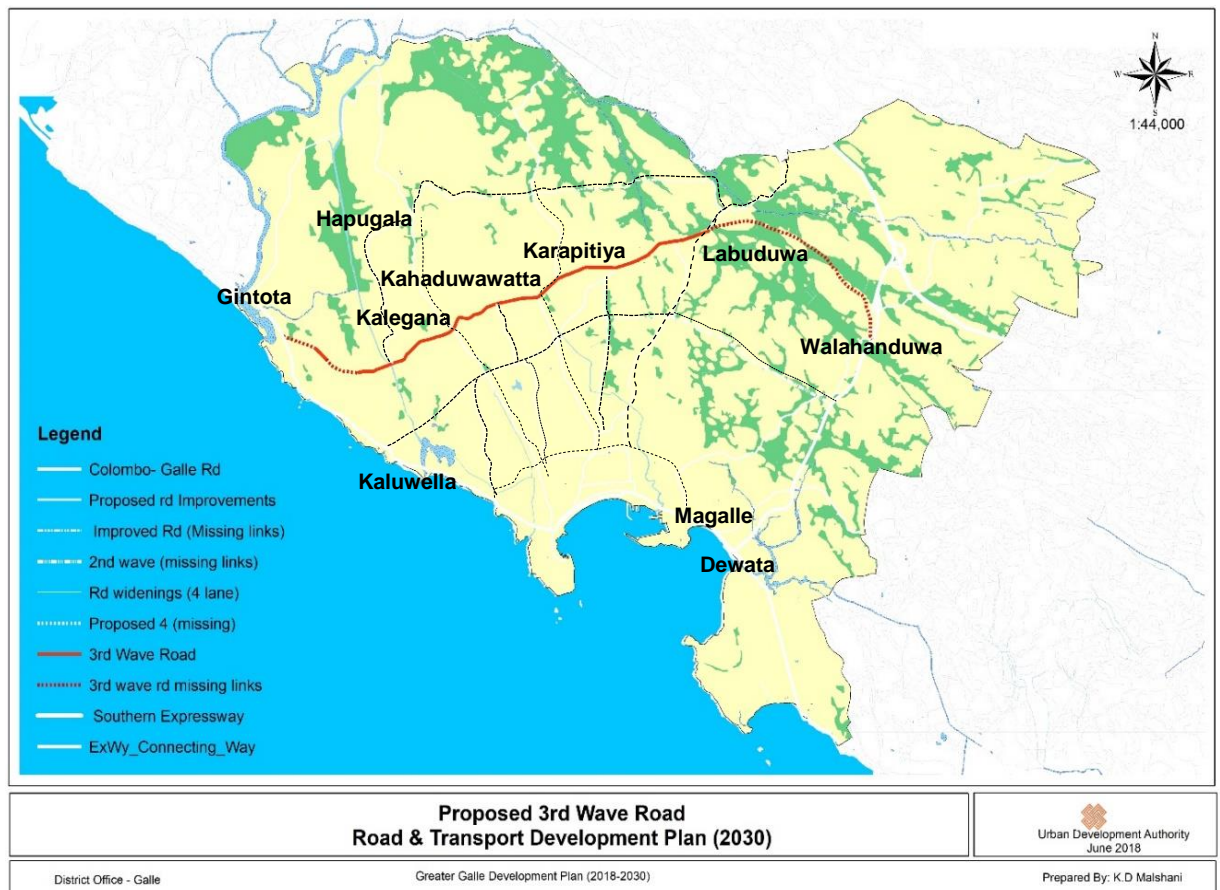
Strategic Action (01) – Constructing a 30m wide (four-lane) road connecting Ginthota and Walahanduwa (3rd Wave Road)

Location: Ginthota and Walahanduwa via proposed Smart City Centers; Kalegana, Kahaduwwatta, Karapitiya, and Labuduwa.

Project components:

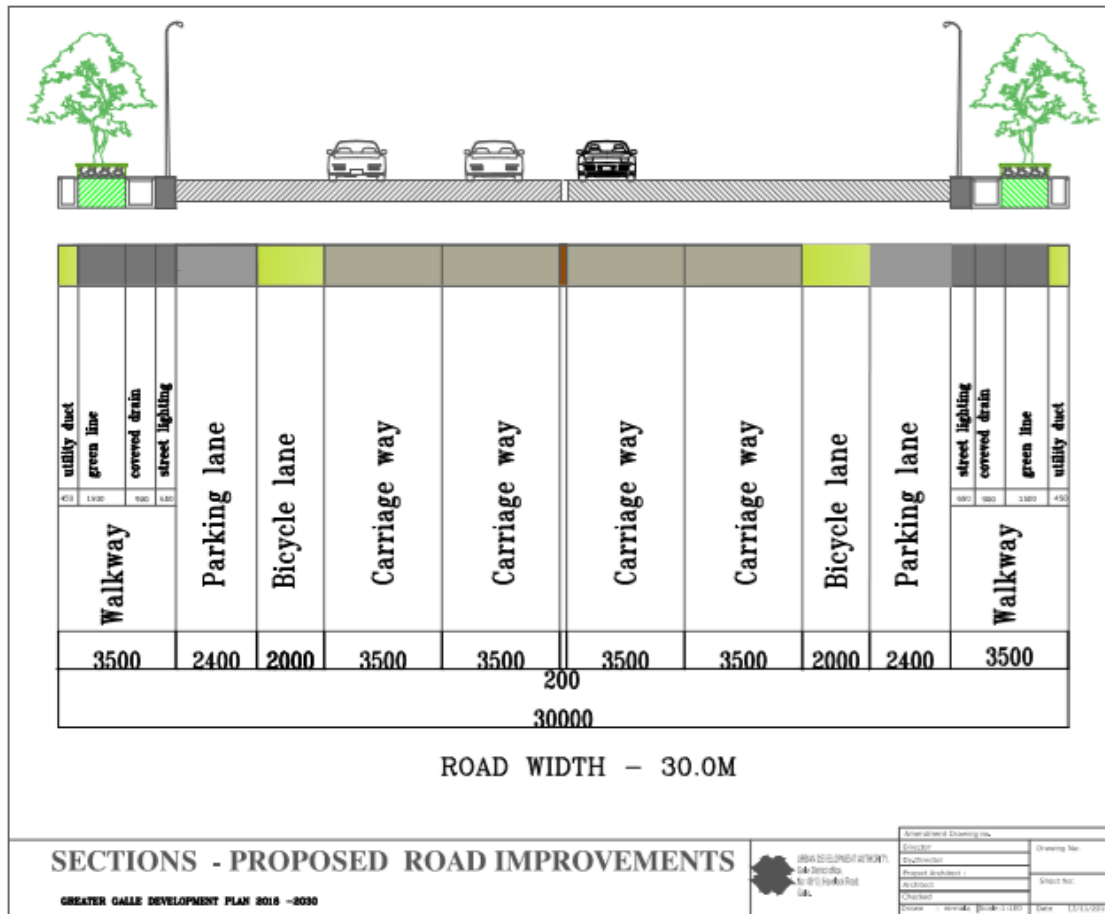
- Widening of Kalegana road into a 30m wide (four-lane) road from Piyadigama to Labuduwa
- Constructing road linkages for the above road from Ginthota to Piyadigama and from Labuduwa to Walahanduwa

Map 6.3-8: Proposed 3rd Wave road



Source: UDA District Office Galle, 2018

Figure 6.3-2: section of proposed 4 lane road



Source: UDA District Office Galle

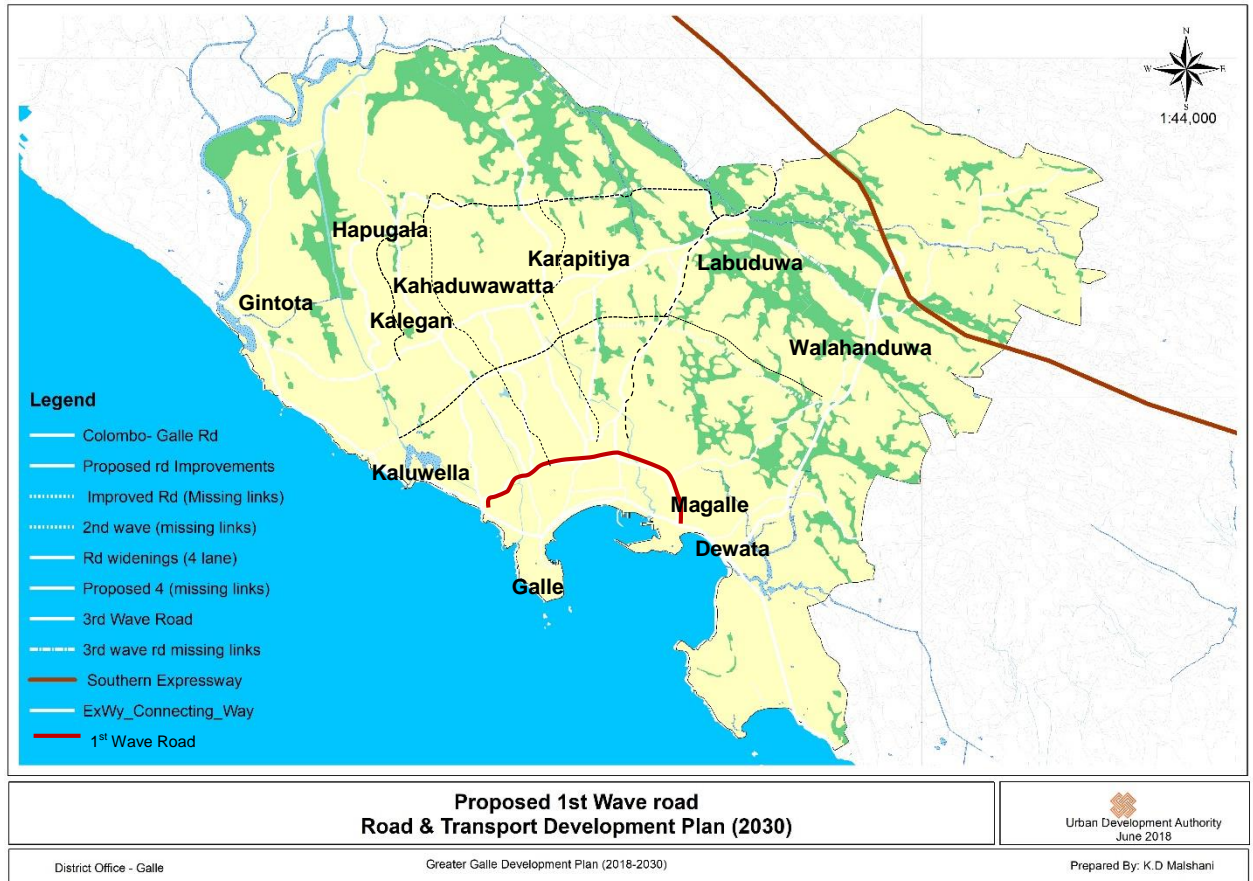
Strategic Action (02) – Creating a four lane traffic by-pass road (1st Wave Road)

Location: from Kaluwella Junction to Sambodhi Junction (Magalle)

Project components:

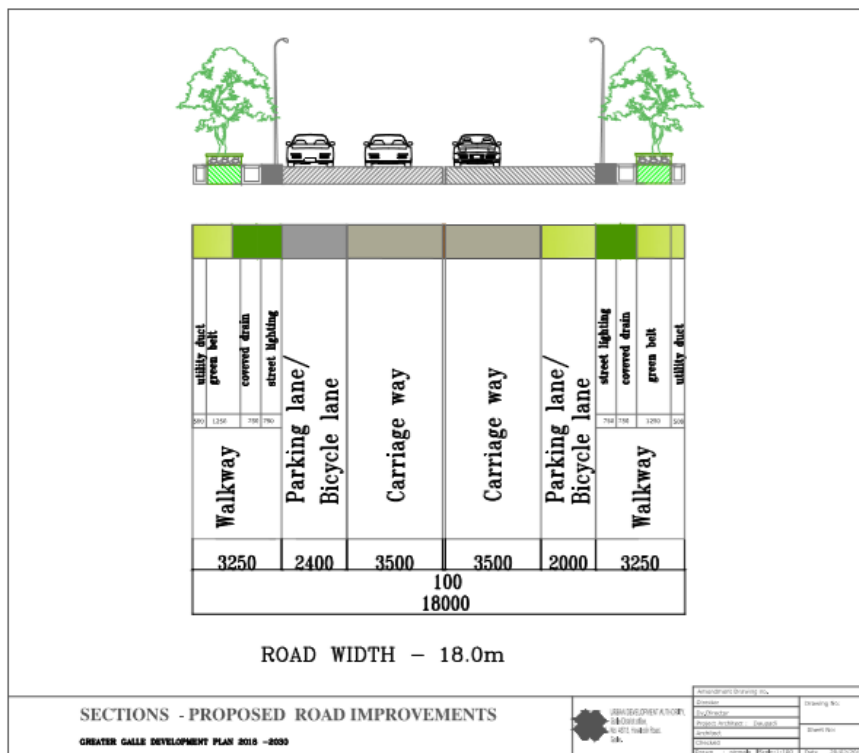
1. Widening of 110m of Dahanayake Mawatha starting from Galle Road and 200m of Kandewatta Road into 18m wide (two lane) road
2. Linking Crips Road and Kongaha Junction by constructing 18m wide (two lane) road
3. Widening of Kongaha Road of 550 m up to Bandaranayake Mawatha and 1500m of Circular Road into 18m wide (two lane) road.

Map 6.3-9: Proposed 1st wave road



Source: UDA District office Galle

Figure 6.3-3: section of proposed 2 lane 18m wide road



Source: UDA District Office Galle

Strategic Action (03) – Widening of Wackwella Road into a four-lane road from Minuwangoda Junction to Hapugala

Length: 4.4km

Strategic Action (04) – Widening of Baddegama Road into a four lane Road from Kongaha Junction to Kahaduwwatta (2.5km) and from Hiribura to Uluwitike Junction

Strategic Action (05) – Widening of Labuduwa Road


Widening of H.K. Edmond Mawatha into a four lane road from Milidduwa Junction to Labuduwa Road Length: 3km

Creating a four lane road link from Bandaranayake Mw Junction at 1st Wave Road to Milidduwa Junction

Road Length: 600m

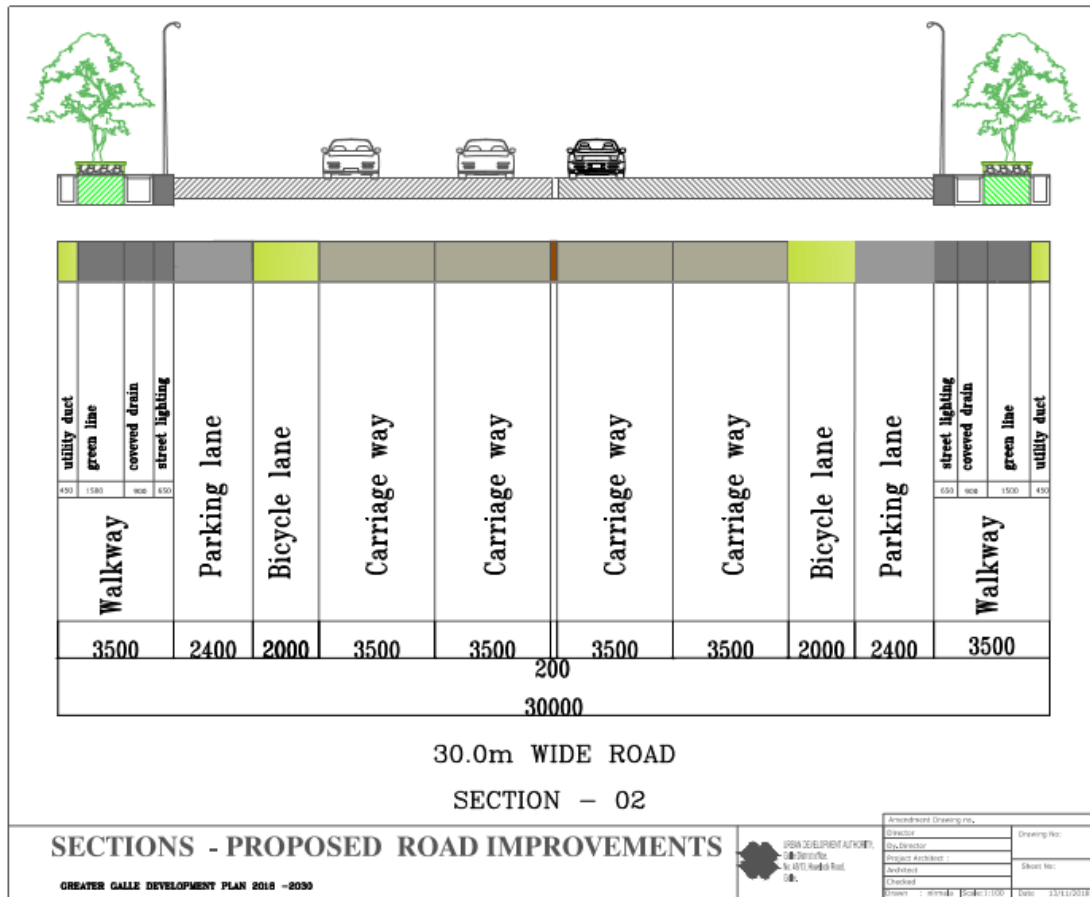
Map 6.3-10: Proposed road widening



Proposed 1st Wave Road Road & Transport Development Plan (2030)		 Urban Development Authority June 2018
District Office - Galle	Greater Galle Development Plan (2018-2030)	Prepared By: K.D Malshani

Source: UDA District Office Galle

Figure 6.3-4: section of proposed 4 lane road



Source: UDA District office Galle

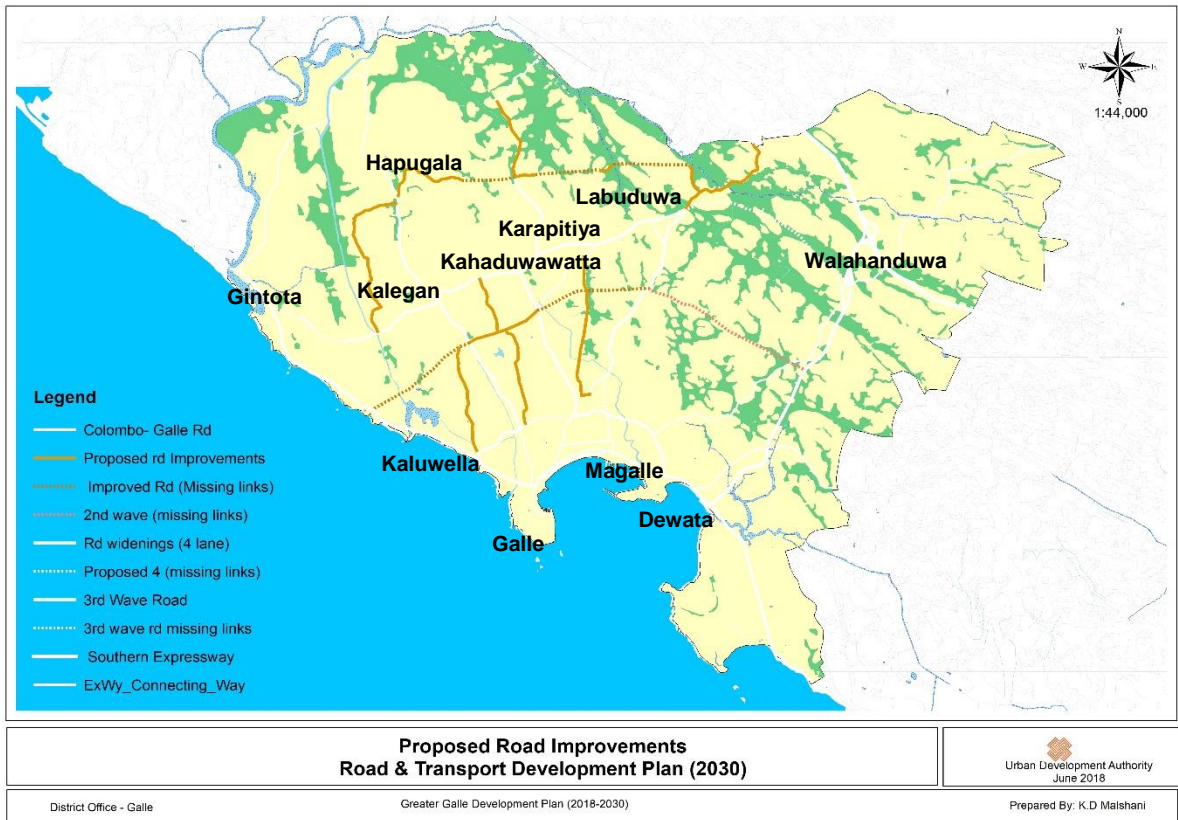
Strategic Action (06) – Constructing a 18m wide (two lane) road connecting Nagahawatta Junction and Anangoda Junction (2.8km)

Strategic Action (07) – Extending and improving Watareka Road into 18m wide (two lane) road connecting Hapugala and 3rd Wave Road

Strategic Action (08) – Improving Batuwanthudawa Road from Hapugala Junction to Pilana Kade Junction (700m) and existing road from Pilana Kade Junction to Thunhiripana Junction (1km) into a 18m wide (two lane) road

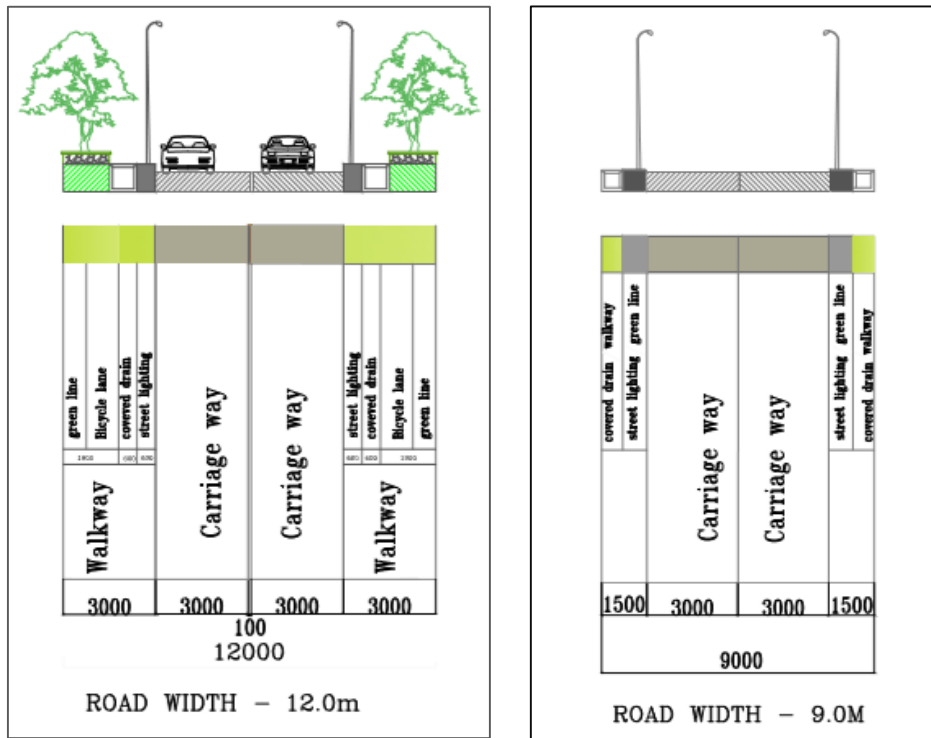
Creating a new 18m wide (two lane) road link of 850m length from Thunhiripana Junction to Baddegama Road

Map 6.3-11: Proposed road linkages



Source: UDA District office Galle

Figure 6.3-5: road sections of proposed 2 lane road



Source: UDA District office Galle

Strategic Action (9) – Improving Wewalwala Road

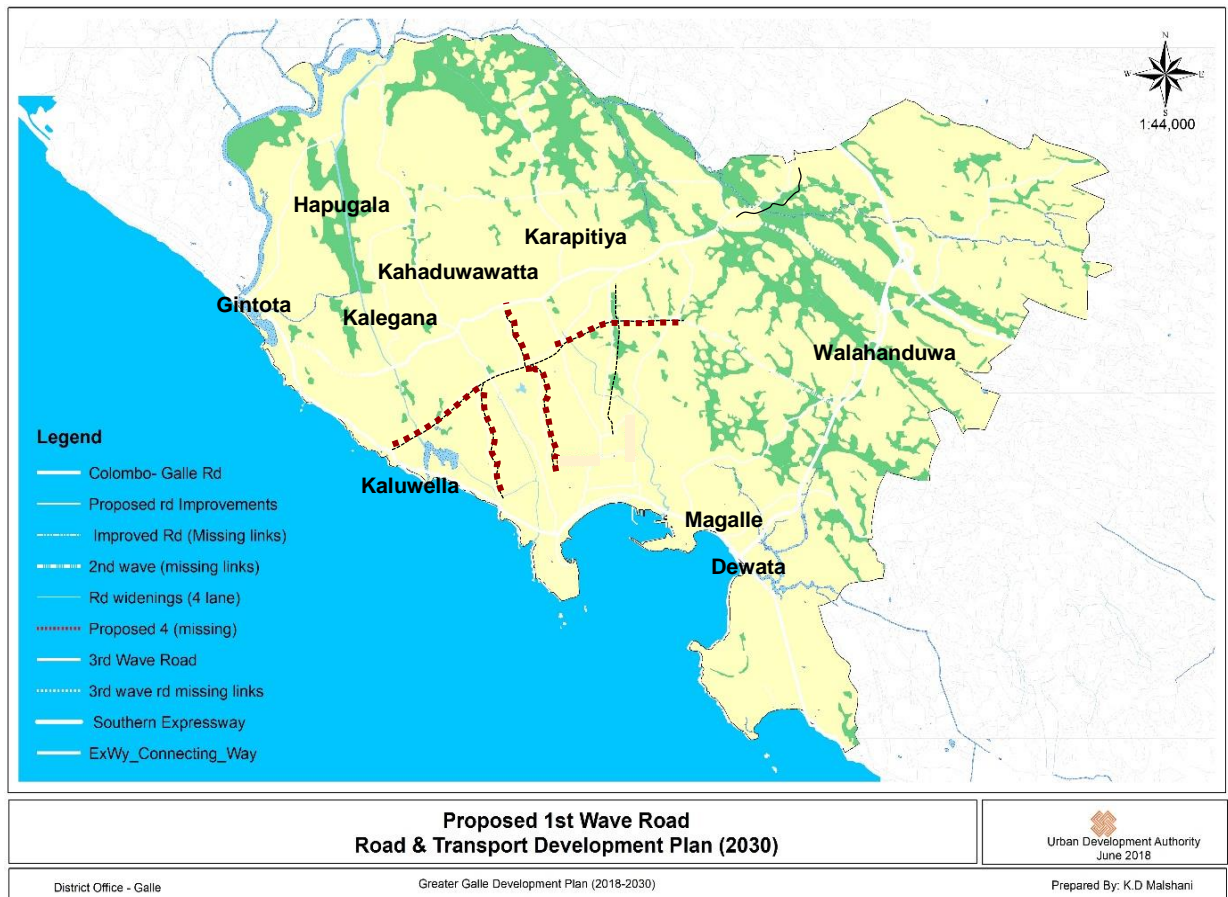
Strategic Action (10) – Creating a two lane connector road from Galle road to Highway access road (2nd Wave Road)

Constructing a new road connecting Mahamudali Mawatha and Sri Hemananda Mawatha

Creating a link from Beligaha Junction to Nagahawatta Junction

Strategic Action (11) Improving S.H. Dahanayaka Mawatha and Woodward Mawatha

Map 6.3-12: Proposed new roads and linkages



Source: UDA District office Galle

SA (12) – Promoting two Transitional Nodes at Ginthota and Walahanduwa

Two transitional nodes are to be promoted at the two ends of the development growth corridor to facilitate the fast movement of vehicles and the commuters who are using the corridor to access the Greater Galle area. The two nodes are as follows,

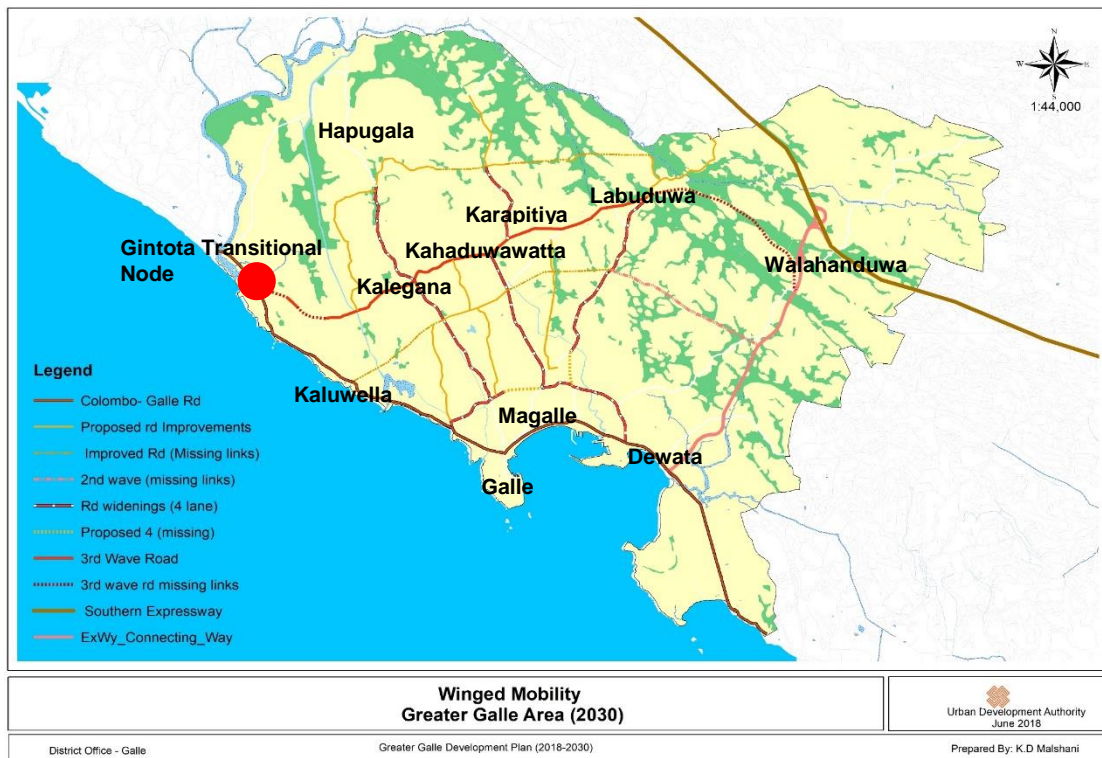
1. Ginthota Transitional Node
2. Walahanduwa Transitional Node

Bus Rapid transit (BRT) system is to be promoted to facilitate the public transportation along the development corridor by facilitating the above two transitional Nodes at the both ends of the proposed 3rd wave road.

Ginthota Transitional Node

- Constructing a Mini Bus Terminal with commercial space at existing Ginthota Bus Depot Land
- Shifting Piyadigama Railway Station in close proximity to proposed Ginthota Mini Bus Terminal
- Creating a linkage between Mini Bus Terminal and the Railway station
- Creating a linkage between Mini Bus Terminal and the Galle – Colombo Main Road

Map 6.3-13: Proposed transitional node at Ginthota



Source: UDA District office Galle, 2018

Figure 6.3-6: Existing Condition and proposed development at Ginthota



Source Google Earth

Walahanduwa Transitional Node

Construct a Mini Bus Terminal with commercial space

Estimated Land Extent: 2.5ha

Location: A land adjacent to Udugama Road and Southern Expressway Access Road

Map 6.3-14: Proposed transitional node at Walahanduwa



Source: UDA District office Galle

Figure 6.3-7: Location of proposed bus terminal at Ginthota



Source: Google Earth

6.3.3 Water Supply

As Per the standards of NWSDB, 172 liters per day would be the average water consumption per person. Accordingly the approximate total demand of Greater Galle area for water would be 164,000 m³/day for the increasing population and for the residential, commercial, industrial and other uses.

Gin Ganga as the main source of water supply to the Galle city area. The water from Gin Ganga is purified for distribution at the water purification plant at Wackwella. In the Greater Galle area. Pipe water supply is available only within the municipal council area, which is mentioned by the NWSDB utilizing the Ginganga intake. Wackwella water pumping station releases 30,000 cubic meters of water per day to the Beekke reservoir and 28,000 cubic meters of water released for GMC Area for daily consumption which is compatible with the current demand. Hence, the Galle town is covered by 100% of pipe born water supply.

Apart from that, Hapugala Pumping Station releases 24,000 cubic meters of water for Akmeemana, Habaraduwa and Bope Poddala PS areas which includes to the Greater Galle Area. This amount is not sufficient to cater the demand of those areas. Also insufficient capacity of 50 years old existing pipelines and (which do not withstand the water pressure) lack of 24 hours water supply, especially for the areas outside from Galle Municipal council area due to inadequate capacity of Gin Ganga pumping station and to cater the demand of increasing population and proposed development activities of the town are the problems in Greater Galle area. Therefore, it is proposed to expand up to 64,000 cubic meters of water supply in the future

In addition, the ground water in many parts of the city contains excessive dissolved iron and fluoride. So that the quality does not comply with minimum standards. The main drawback of these are limiting the proposed developments and expansions of facilities because of non-availability of reliable water resource.

However, these projects the conceptual stage under NWSDB to improve the water supply network, which has not been declared or expanded for the last 25 years. In addition, some of the underground pipe infrastructure dates back to British Colonial times, with its cast iron pipes, thus possibility over 100 years old. Thus, NWSDB has a major project on- going in Galle upgrading the underground pipe infrastructure, which is supposed to facilitate the future water supply to the area.

Water demand in Greater Galle area is 195890 cubic meter for 2030 Therefore, water requirement for proposed projects will be covered and recommendations for the project proposals would be obtained through preliminary Planning Clearances prior to the implementation of the project.

7.3.4 Electricity and Data Lines

The Galle MC Area is completely covered by electricity supply without any disturbances to the system. Therefore, at present there is no shortage of providing power to the city. All roads in the area are provided with the supply of electricity. Supply maintenance and other processes related to the electricity supply within Galle Municipal Council Area is under the purview of Lanka Electricity Company (PVT) Limited (LECO) while the other areas of Greater Galle are through Ceylon Electricity Board.

As per the stakeholder meetings, it was said that there are no complications in providing the electricity supply for existing and as well as the future demand which will generate with the proposed developments.

Therefore, calculated electricity demand for 2030 is 609 Gwh (Greater Galle area)

The electrical and traditional wired telephone system carried on coated wires and concrete poles in and around the town creating visual chaos and unattractive contribution to the townscape streetscape, within the key streetscapes particularly the Fort. These should be placed underground in excavated or micro – tunneled service ducts.

6.3.5 Drainage and Sewer Lines

Drainage Network

Gin Ganga, Moragoda Ela and Moda Ela are the major waterways of Greater Galle and its storm water drainage system includes 68 km long roadside drainage system either sides of main roads, secondary roads and the primary roads.

Although the existing storm water drainage system is running through the city, there are number of problems related to surface drainage system. Out of the total length of roads only about 75% served by side drains, which are not properly link to the natural drainage system. So that it badly influences to the system.

Since the town locates in a flat terrain, the entire storm water drainage system locates below the mean sea level and the flow of the catchment area is extremely slow. This situation creates flooding, especially during rainy seasons. Further, the smooth flow of the canal is hindered by few bottlenecks formed at few locations and the narrowing due to encroachments in low-lying areas, polluted and misused for waste disposal and sewer connections.

The plan proposes an improved canal environment through the maintenance of reservations, which will be dedicated for recreational activities, jogging tracks, boat riding facilities and public parks. In addition to that, the protection of canal banks with gabion walls, installation of pumping stations for speedy outflow at peak flows are also proposed and those are to be detailed under the Environment Sustainable Strategy of the Development Plan later on

Sewerage System

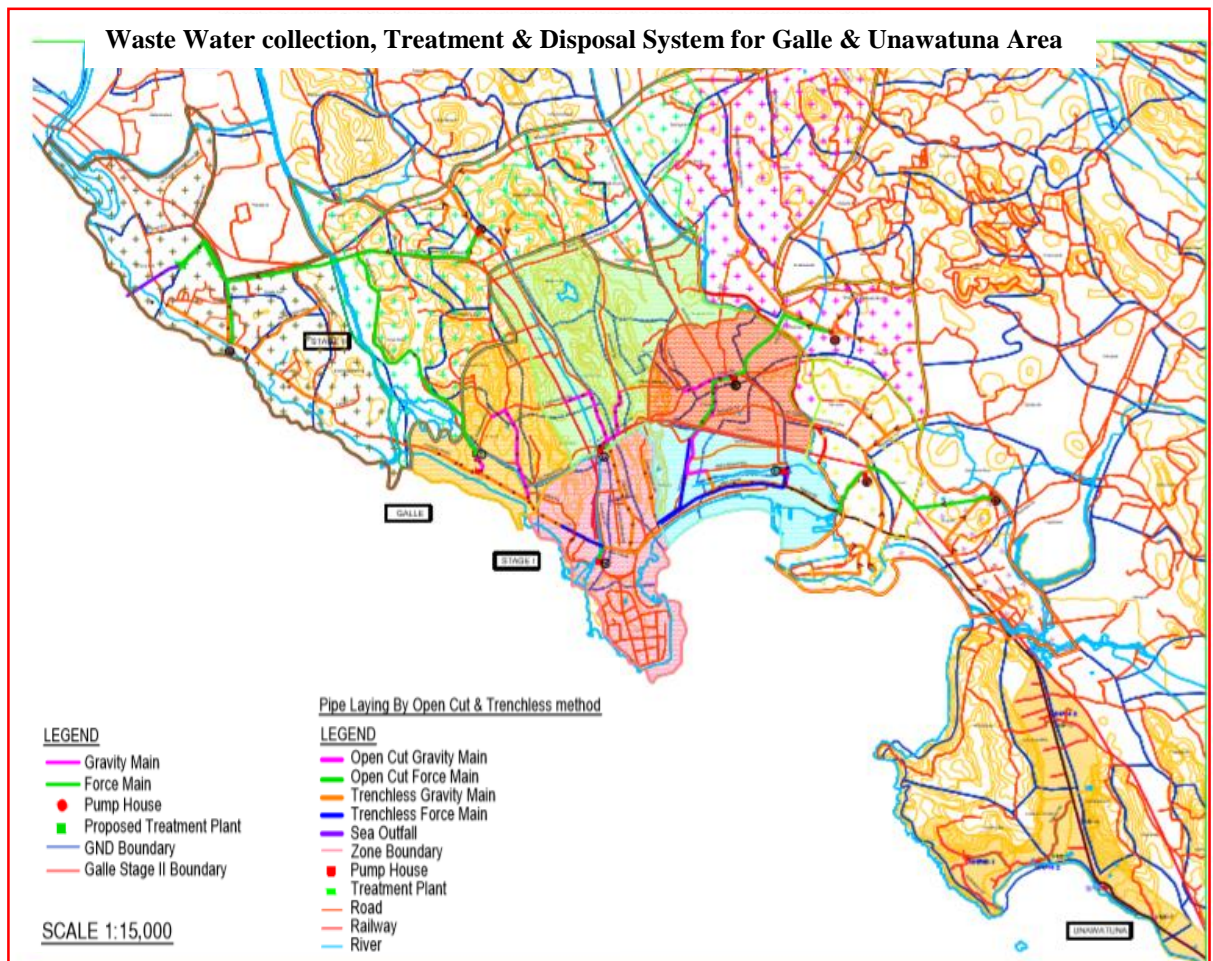
There is no central sewerage system for the town at all. The residents are using individual septic tanks where they have created many health problems as the area is a low lying and the water table is high. Therefore, it is appropriate to have a central sewerage system for the town and commence implementing on priority basis by considering the building density, physical existence of low-lying areas and future development activities and requirements.

The Government of Sri Lanka has been aware of this problem and has been planning get construct sanitary sewer system across the city of Galle. The National Water Supply and drainage board trying to implement a project for that covering Galle MC as first stage and other surrounding at continues phases. (SHIFT Project)

This will consist of a traditional gravity and pump sewer system with gravity pump /pump tank mains and gravity feeder pipe system that will service all premises within Galle with pumping stations then pumping to a waste water treatment plant with sea outfall to be located at Ginthota.

The project will result in all the streets within Galle being ripped up for the laying of pipes, either along the streets or for local connections to premises from the feeder pipes. This has significant implications for any public space project that are constructed in streets around Galle. Either these projects have to be designed to be robust to withstand this form of construction, so that a surface can be removed and then can be replaced without affecting the project or the project needs to include the pre- laying of pipes for later connection to the system, adding costs.

Map 6.3-15: Proposed Waste Water collection, Treatment & Disposal System for Galle & Unawatuna Area



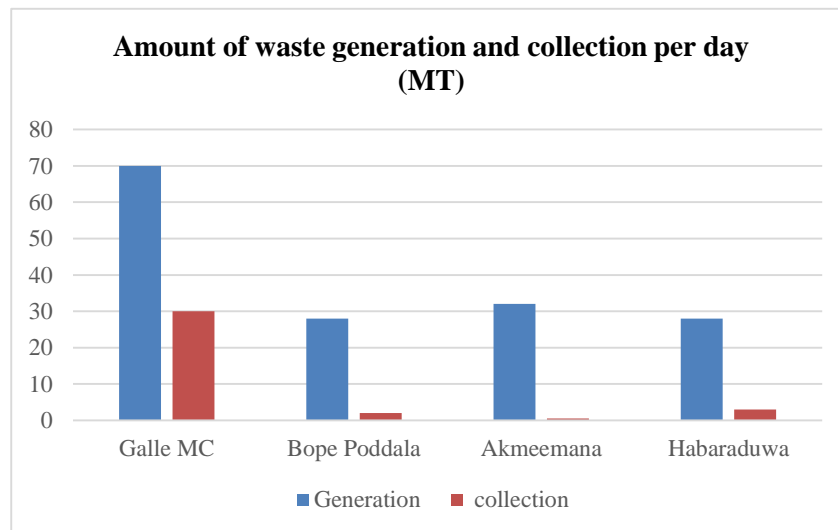
Source: SHIFT Project

6.3.6 Waste Management

Solid waste management is a significant issue in Galle. Due to the rapid urbanization over the years, the waste output has been increased. Although there had been projects and proposals to the system of solid waste collection and disposal over the years, operation of solid waste management to environmentally acceptable standards are still a problem.

Solid waste generates through major 2 sectors viz.(i) Municipal solid waste (MSW) (households, commercial establishments including markets, shops, restaurants and hotels, institutions excluding hospitals and medical centers etc.) and (ii) Industrial and hazardous waste (Factories, hospitals and medical centers etc.). The details contained in this section mainly refer to the former category

Figure 6.3-6: Daily waste generation in Greater Galle Area



Source: NSWMC Unpublished data 2013

Several local Authorities already undertake composting of biodegradable waste. Among them, the whole area encompasses to Greater Galle, Galle MC, Bope Poddala PS composting facility directed to Monroviawatta compost plant at Rathgama considered as a successful implementation. While Akmeemana PS do not practice a proper method for solid waste Management yet.

Proposed Sanitary Landfill at Rathgama (Monroviawatta)

The Central Environmental Authority has proposed a sanitary landfill as a long-term solution to increasing waste in the region. The land identified for the proposed landfill (to be operated from 2018) is located in Monroviawatta in the Rajgama Pradeshiya Sabha area. At present, part of the land accommodates a compost plant, which was constructed with the financial and technical support of the Pilisaru Project of the Central Environmental Authority and operations are in progress by the Rajgama Pradeshiya Sabha. This project expects to cater seven local authorities: Galle MC,

Ambalabgoda UC, Hikkaduwa UC, Ambalangoda PS, Bope-Poddala PS, Balapitiya PS and Rajgama PS. The technical designs are being finalized for the project. This site would be handling about 40% of the waste produced by Galle District's total population (1,042,281) and about 74% of the waste currently collected (114 tons/day). These 7 Local Authorities have higher population densities than the rest of the areas. Population in the district grows at an average of 1.0% every year.

Lack of sanitary landfill sites are the main issue faced by the Galle MC and other Local Authorities in the District. The existing practice is the dumping of waste in privately owned lands. These sites are mostly in low-lying areas where the owners expect those to reclaim to utilize for various urban uses. The Local Authority has no alteration other than dumping waste in to these low-lying lands although it is environmentally unsound. However, dumping waste in to low lying areas for reclamation pollutes ground water and disturbs the entire eco system in the area, in addition to other environmental hazards.

The average solid waste generation in Galle MC is 50 tons per day. The disposal is carried out with the participation of the Municipal council, private sector, non-government organizations and the community. Galle Municipal council also disposed solid waste close to the area of Heen Pendala at Mahamodara within the town. Disposal of such waste cause many environmental and social problems

Other than these LA's of Greater Galle, Habaraduwa PS has been identified a land for open dumps and composting plant at Katukurunda (Approximately 2 acres of land). The existing dump site used is abandoned limestone pit which is not environmentally sound. In addition to that there are three sites proposed for bio gas generation site at Ahangama, Habaraduwa Pola and Habaraduwa crematorium

The problems related to waste management in Local Authorities addition to vacant lands do not have the sufficient facilities for the collection transportation and technical knowledge to carry out the method of waste disposal. Separation of solid waste has not been done at the original source there by the disposal of solid waste has now become a problem to the Local Authorities. Therefore, the development plan intends to minimize environmental, economical social and health problems, which have been created from the irregular disposal of waste.

Depending on the future population growth, the future solid waste generation will increase and its composition will change due to changes in the economic structure of the society. It is anticipated that the amount of solid waste generation will increased by 2% per annum. At the current Municipal Solid waste collection rate, there is an excess of about 30MT per day that goes mostly in to open dumps. The collection, which is an average approximately 20%, will increase in the future and needs options for final disposal.

6.3.7. Special Concerns

Sea Port

Galle's location in context of the international shipping lanes, so close to the coast and the ships pass within sight of the shore. This strategic point in the Indian Ocean could make Galle a central place in terms of shipping, cruising and services. Thus there is greater potential in developing services in Galle.

It is also recognized that Galle Port and the concept for a Hub Port for the Indian Ocean cruise industry is supported because of all the tourism attractions in and around Galle, as well as it being easily accessible from the main International Airport via the southern Motorway. Hence the major development is the transformation of the Port in to a major cruising Hub Port, possibly the cruise capital of the Indian Ocean. Given that cruise ship servicing has the potential to be a large economic contributor to Galle's economy.

6.3.8 Expressways / Interchanges

Southern Expressway is the one of the main potential recently added to the transportation system of the region, which passes through Pinnaduwa interchange at the greater Galle area. The new system intends to attract more locals and tourists through different modes of transportation and to integrate the land uses along with the inland local communities with the developments take place in the main City. They will increase the accessibility and mobility of the users of the area, while changing the existing land use patterns in a favourable direction. Therefore, as a strategic direction it is favourable to make use of the advantage of the connections provided by Southern Expressway.



ECONOMIC DEVELOPMENT STRATEGIES

- **Tourism Management Plan**
- **Fishery Activity Improvement Plan**
- **Agriculture Activity Improvement Plan**
- **Knowledge based Industry Development Plan**
- **Underutilized State Property Development Plan**

6.4 Economic Development Strategies

Wealthy City

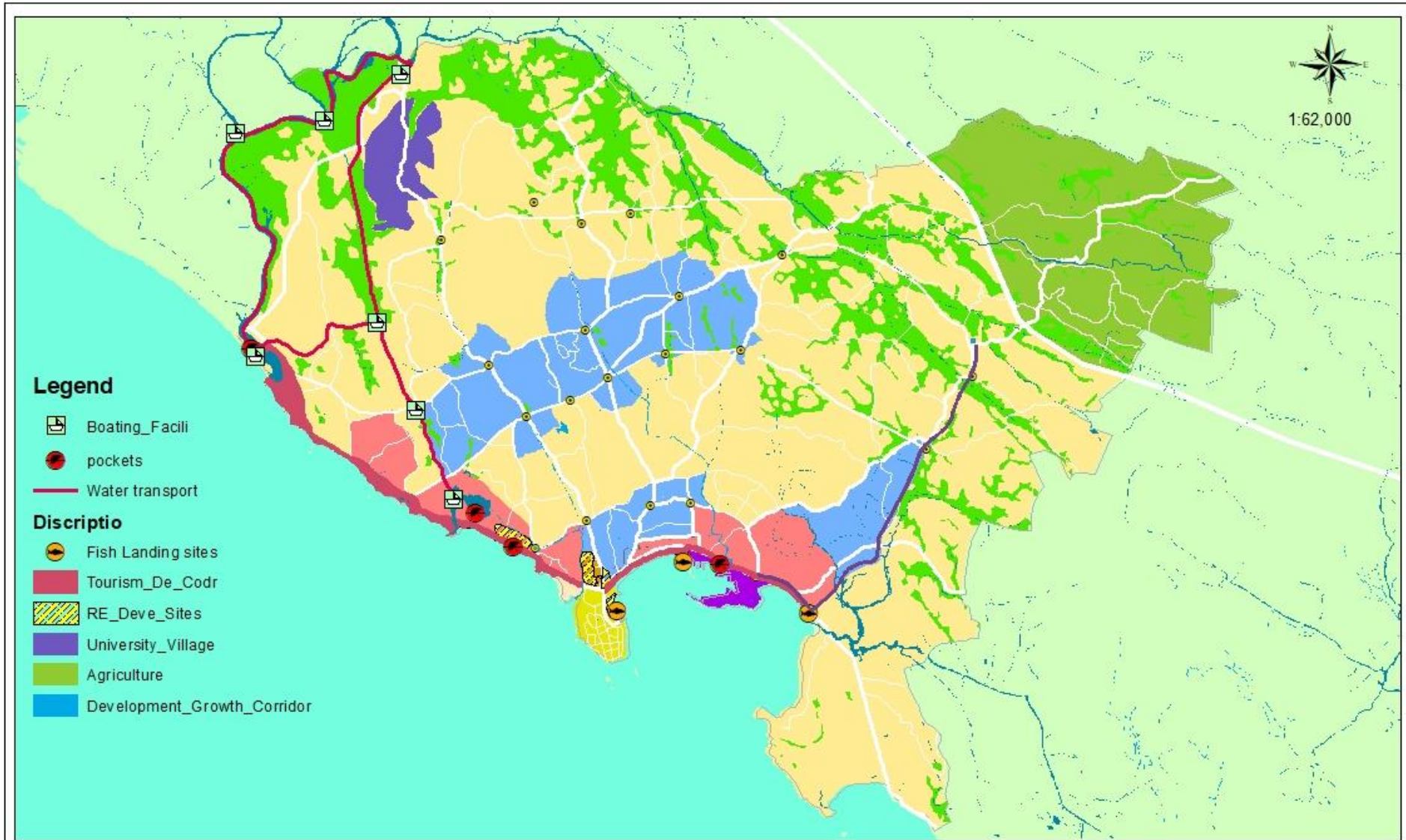
A city's built environment and the residents of the area reflects the wealth of that particular city. In a situation where state sector capacity is limited, there is a necessity to attract private sector investments for urban development and employment generation. That type of investments can be endorsed only by ensuring an investor friendly environment in various aspects which is expected to achieve by the development plan.

Galle city has the required infrastructure, such as a seaport, highways and other physical infrastructure to be in a dominant position. By considering global trends, where creative economies are becoming more competitive than traditional industries and optimizing the potential of resources inherent to the region, creative tourism, knowledge based industries and transport-based services are proposed in the economic development plan.

Therefore, within the scope of spatial planning following economic development plan is proposed with five sub plans in order to achieve the goal “wealthy city” as follows,

1. Tourism Management Plan
2. Fishery Activity Improvement Plan
3. Agriculture Activity Improvement Plan
4. Knowledge based Industry Development Plan
5. State Property Development Plan

Map 6.4-1: Wealthy City



**Wealthy City
Greater Galle Area**


Urban Development Authority
November 2018

6.4.1 Tourism Management Plan

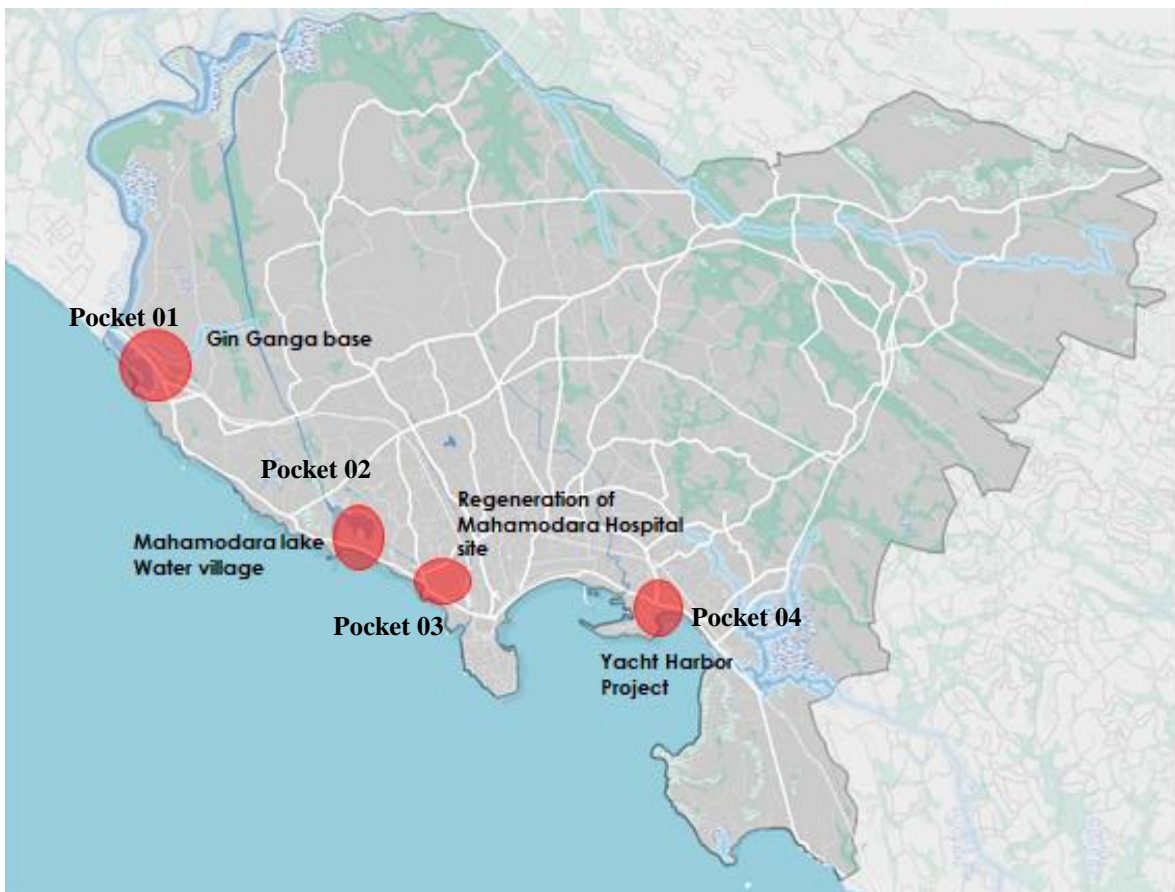
Tourism plays a major role in the economy of Galle. The Dutch Fort, World Heritage site has an enormous opportunity for tourism. The areas associate with the Marine Drive, Mahamodara and Katugoda coastal area, Beekke water reservoir, Mahamodara lake too have a greater potential for tourism development. Since, optimum use of these areas are not been made so far for tourism industry, it is supposed boost up the economy through a comprehensive planning attempt.

Strategic Action (01) – Create a Tourism Corridor

Adjacent to the tourism activities in the area the coastal line is proposed to develop as a tourism corridor enhancing more economic opportunities. Coastline started form Gintota to Dewata has been identified to develop as this tourism corridor.

Location: Galle Road from Ginthota to Dewata Junction

Map 6.4-2: Locations of proposed Tourism pockets



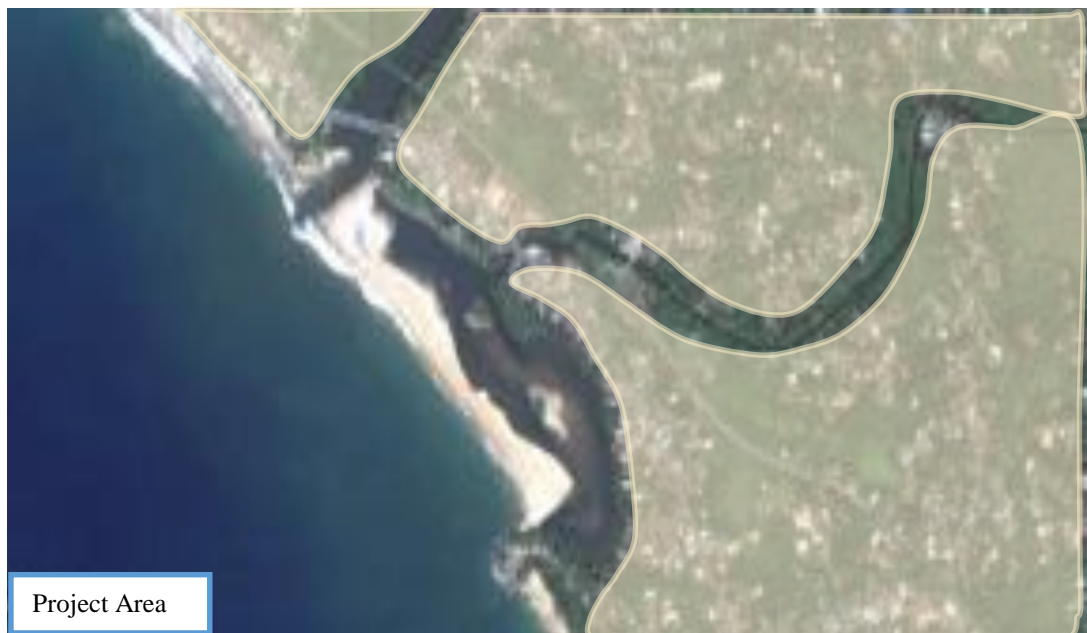
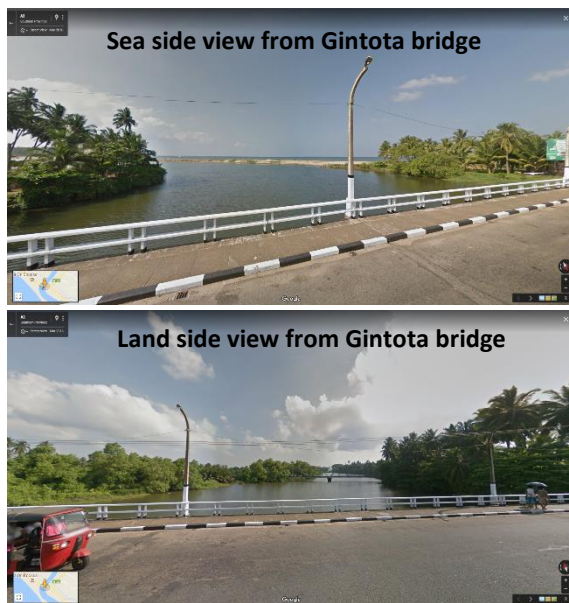
Source: UDA District Office, 2017

Pocket 01 – Aqua based activity point at Gin Ganga base

Proposed Activities/ Uses

- Cruise/ Boats
- Water jets – Sea
- Open Restaurants
- A jetty for cruise/ boats

Figure 6.4-1: Proposed Tourism Development- Pocket 01



Source: Google Images & Google Earth

Pocket 02 – Mahamodara Lake Water village

Proposed Activities/ Uses

- Aquatic Playgrounds
- Water base leisure activities
- Restaurants
- Cruise/ Boats



Figure 6.4-2: Proposed Tourism Development-Pocket 02



Source: Google Earth & Google Images

Pocket 03 – Regeneration of Mahamodara Hospital site and Existing NTS site for High end Tourism Activities

Mahamodara hospital have already proposed to shift Karapitiya. Therefore, the existing site would be vacant. Making the maximum benefit upon the vacant land considering the surrounding development trends this land is supposed to develop with a hotel development. As this land been located close to the beachfront, this investment would gain more financial benefits.

This would connect with the Ocean Pathway Project Development, creating more open public spaces in the beachfront.

Figure 6.4-2: Proposed Tourism Development- Pocket 03



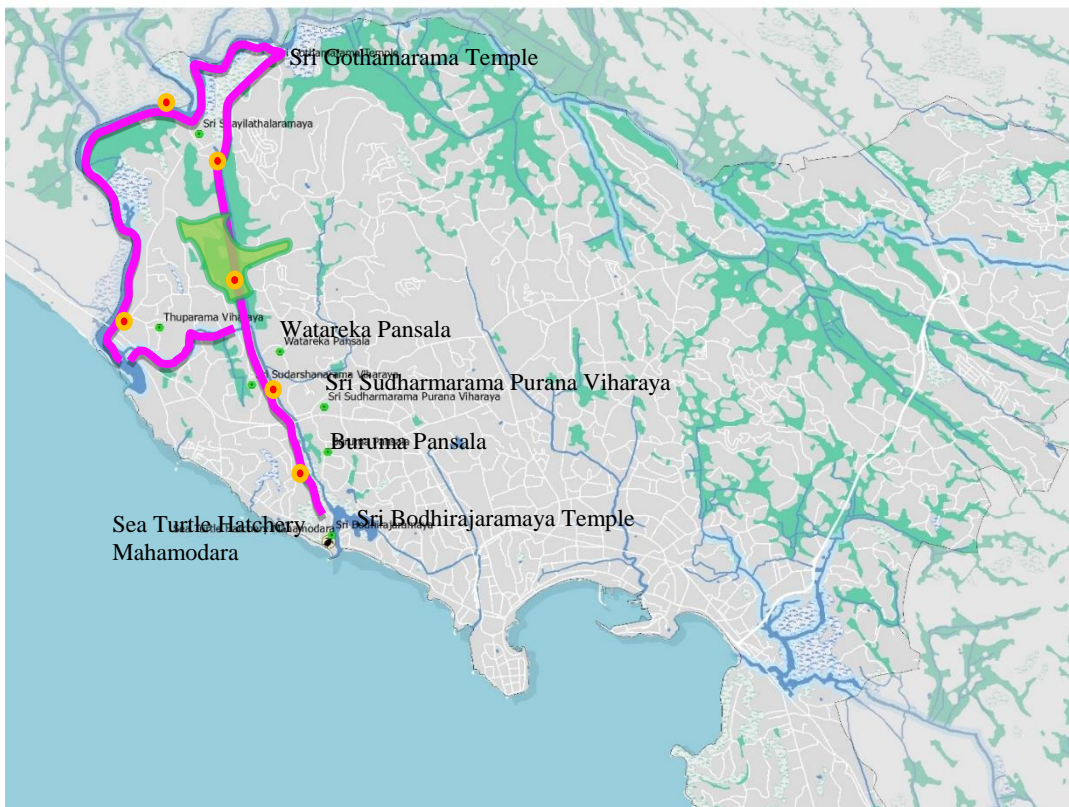
Source: UDA District office Galle, Google Earth & Google Images

Strategic Action (02) – Promoting a Boat / Cruise Service facilities along Mahamodara Lake, Kepu Ela and Gin River by providing boat landing facilities and access points at identified locations

The project would include declaring 82Ha extent area on either side of Kepu Ela for Tourism related activities such as Cabanas, Restaurants etc.

The objective of this project is to have the optimum utilization of natural resources which are unique to the area. Therefore, parallel to the beachfront development, inland water bodies are proposed to link with tourism activities.

Map 6.4-3: proposed tourism activities along Mahamodara lake, Kepu ela and Ginganga



Source: UDA District Office Galle

6.4.2 Fishery Activity Improvement Plan

Since Galle being a coastal town, marine fishery is considered as one of the major economic activities. Although the daily contribution of fish production varies from 5,000 kg to 10,000 kg to the Gross National Production. There is no proper mechanism for improved market opportunities and related products, which will eventually generate income and as well as employment opportunities.

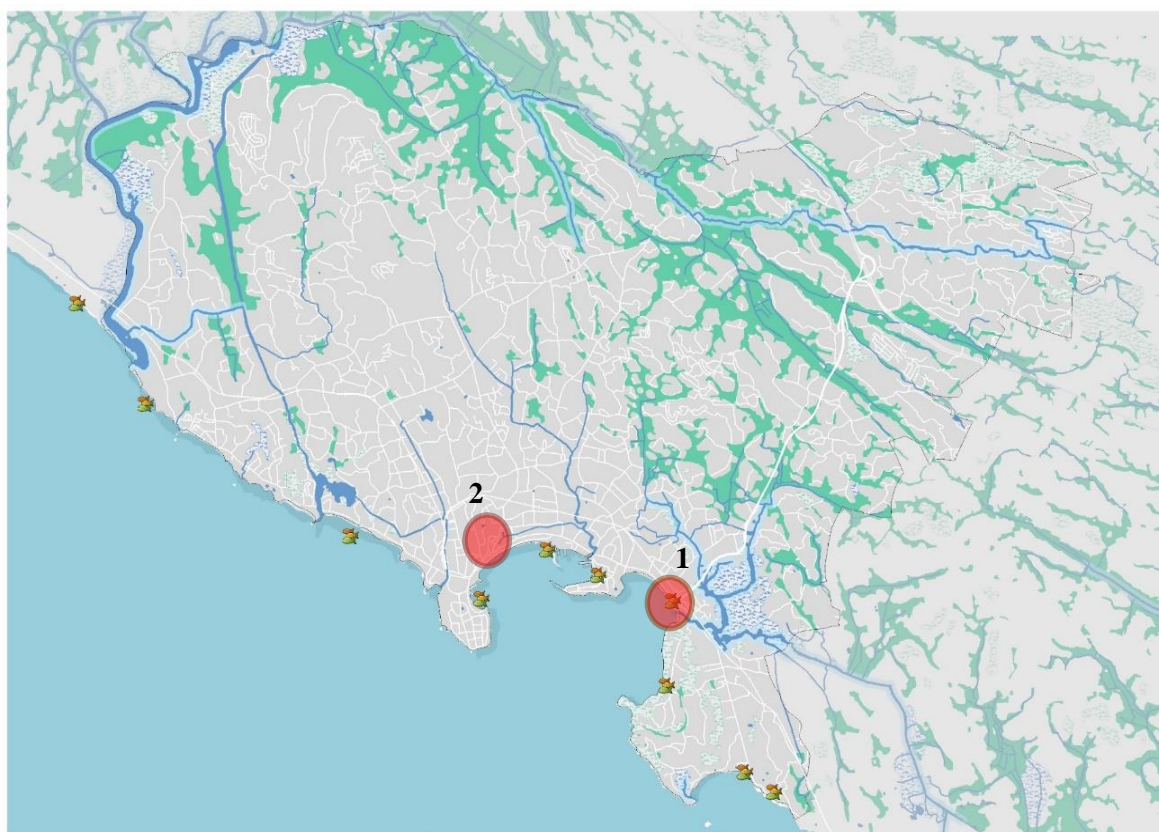
Strategic Action (01) – Facilitate and improve 02 No. of identified fish landing sites along the coast and link them up with tourism activities

Locations:

Site 01: Dewata

Site 02: Rathgama wella

Map 6.4-4: proposed fish landing sites



Source: UDA District office Galle

Site 01: Dewata

The site is located in Dewata in front of the highway entrance and has identified to develop under this project

Figure 6.4-3: Proposed fish landing site development at Dewata

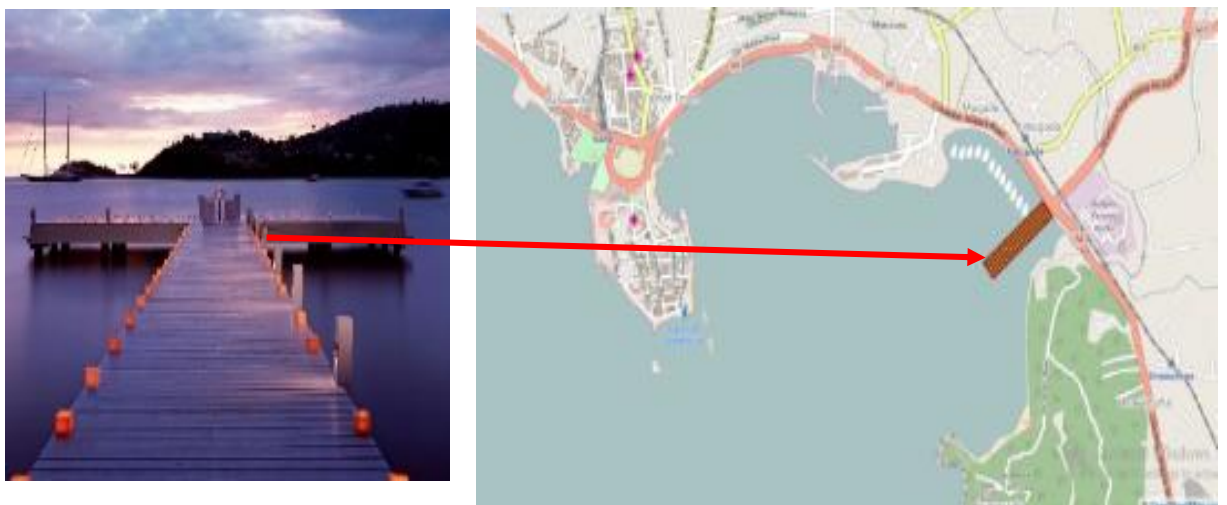


Source: Google Earth

- Open Deck towards the sea & enhance the sea view
- Re - organize buildings to enhance the Sea view

The location of this fish landing site has good views towards Galle fort and to the historic Rumassala Mountain range. Therefore, by having the advantage of the unique views of this location it is proposed to develop with timber deck development.

- Open Deck towards the sea to enhance the sea view



Source: Google images and open street maps

- Re organize buildings to enhance the Sea view

Figure 6.4-4: Locations of Proposed re organizing of buildings along the coastal line



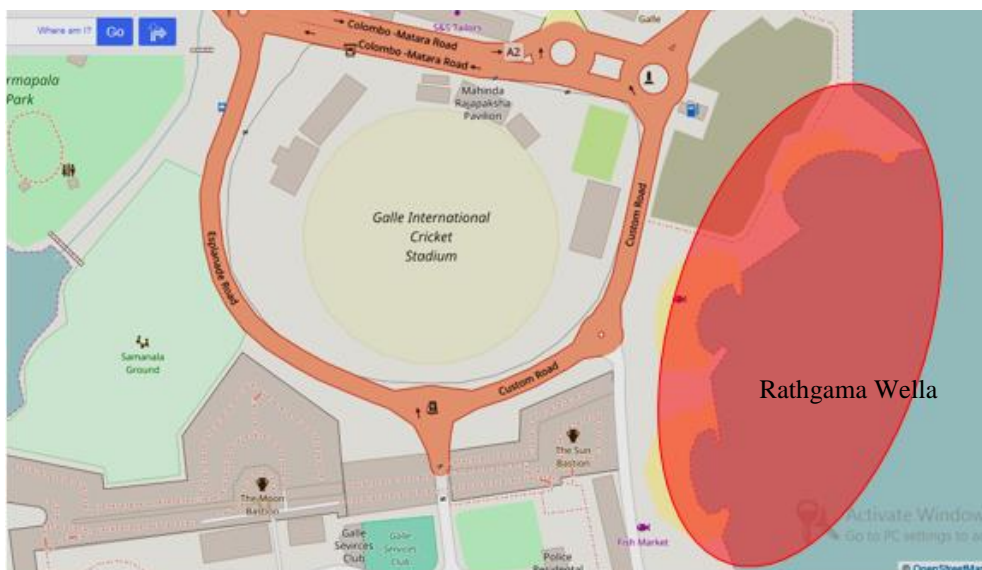
Source: Google Earth

The built pattern along the coastline starting from Dewata to Sambodhiya junction area has block the sea view from road. Hence the plan identifies this context to be reorganized to enhance the sea view towards road since the City of Galle is having an extensive Sea front which is very unique and identical

Site 02 – Rathgamwella

Rathgamwella area currently also being function as a fish landing site and a market place. Being close to the city center, International cricket stadium and Galle fort this fishing land site can be more developed linking up the tourism chain as well.

Figure 6.4-5: location of proposed fish landing site development at Rathgamwella



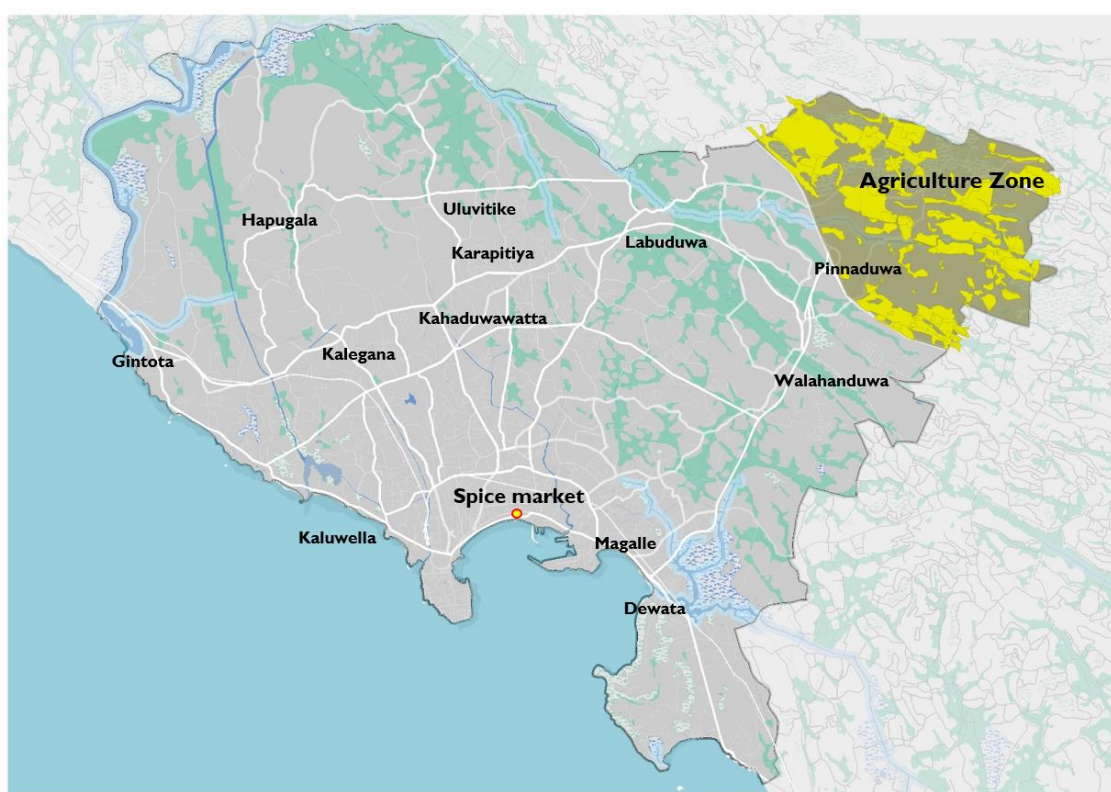
Source: Open street map images

6.4.3 Agriculture Activity Improvement Plan

Though most important economic activities of the district are the economic crops such as tea, rubber and cinnamon, the finished products are processed outside the region. Hence, such activities do not contribute directly much to the economy of the city. Therefore, it is supposed to incorporate Agriculture as a sector, where the potential is there but not been tapped well to the Economic development of Greater Galle

Strategic Action (01) – Manage 350 ha of cultivated lands as Agriculture Improvement Areas within Agriculture Zone

Map 6.4-5: proposed Agriculture zone and the spice market



Source: UDA District office Galle

Under the Agriculture Activity Improvement Plan, 350 ha has been identified as cultivated land and that would be managed within this plan. This will be integrated with the strategies of fishery activity improvement plan by creating a market place for these products at the Existing Municipal Fish market premises.

Through this strategy it is expected to integrate Agriculture and fishing activities to promote beach tourism to strengthen an integrated economy of Greater Galle area.

Figure 6.4-6: Proposed Development of spice market



Proposed location- Existing Municipal Fish Market

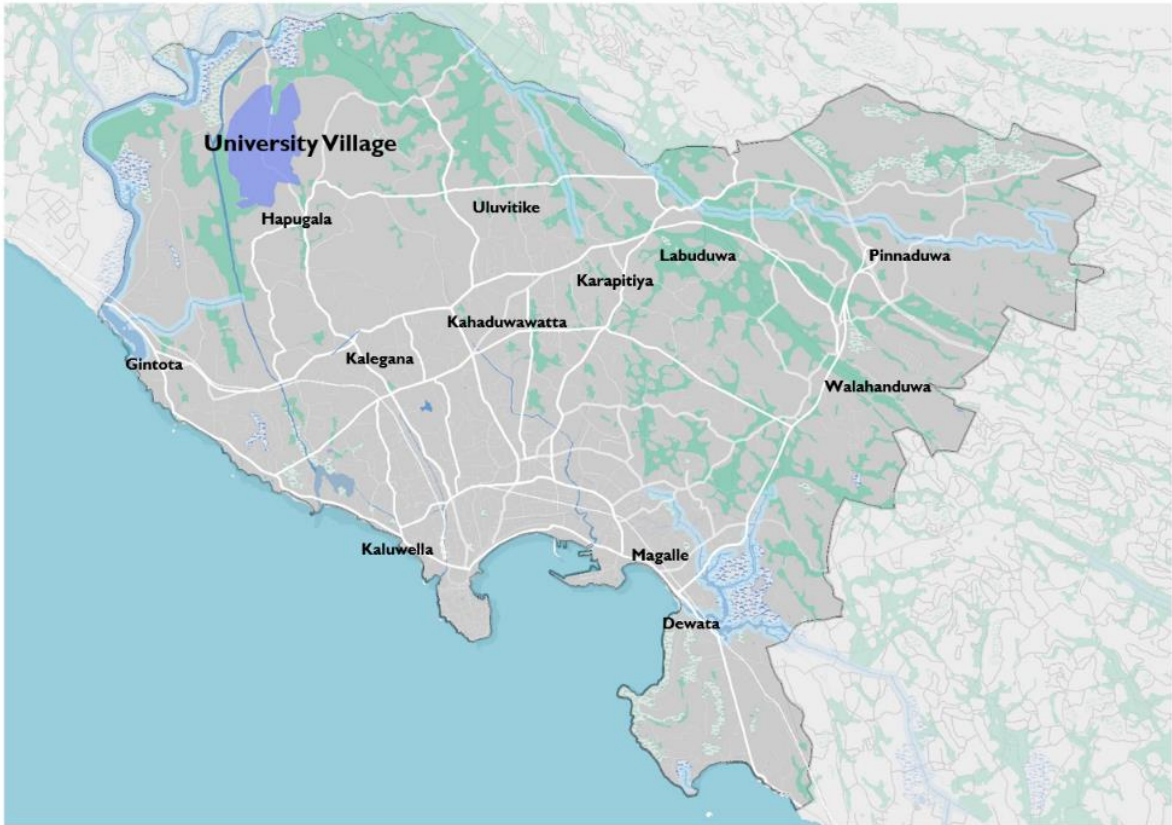


Source: Google Earth & Google images

6.4.4 Knowledge based Industry Development Plan

Identifying the existing potentials within the area under the knowledge based industry development plan Hapugala, existing engineering Faculty-University of Ruhuna has been identified to promote as a university village.

Map 6.4-6: proposed University Village at Hapugala



Source: UDA District Office Galle

Strategic Action (01) – Promote a University Village at Hapugala

Existing engineering faculty of University of Ruhuna has been identified to promote as a university village and the potential of high literacy rate and the higher education attainment of the area can be utilized effectively in order to achieve the economic development goal by using the knowledge as a future investment

Table 6.4-1: Percentage of occupation level in the area

Occupation	GMC	GGA
Professionals & Associates	43.31	32.81
Clerks and Clerical Support Workers	5.51	5.22
Services and Sales Workers	10.82	8.88
Skilled Agricultural/ Forestry and Fishery Workers	2.66	2.89
Craft and Related Trade Workers	14.33	19.02
Plant and Machine Operators and Assemblers	7.10	8.67
Elementary Occupations	9.64	14.55
Armed Forces Occupations and Workers		
Not Classified by Occupations	3.08	4.23
Not stated	3.53	3.73

Source: Resource profile data 2016 (Galle 4 Gravets, Akmeemana, Bope Poddala and Habaraduwa DS Divisions)

Table 6.4-2: Percentage of education attainment in the area

Index	GG Area (%)	National (%)
population having Degree or above education qualification	4%	2.5%
English Speaking Ability	33%	20%
English Writing Ability	42%	26%
Computer Literacy	28%	20%
Literacy Rate	96.2% (Galle Dis)	95.7%

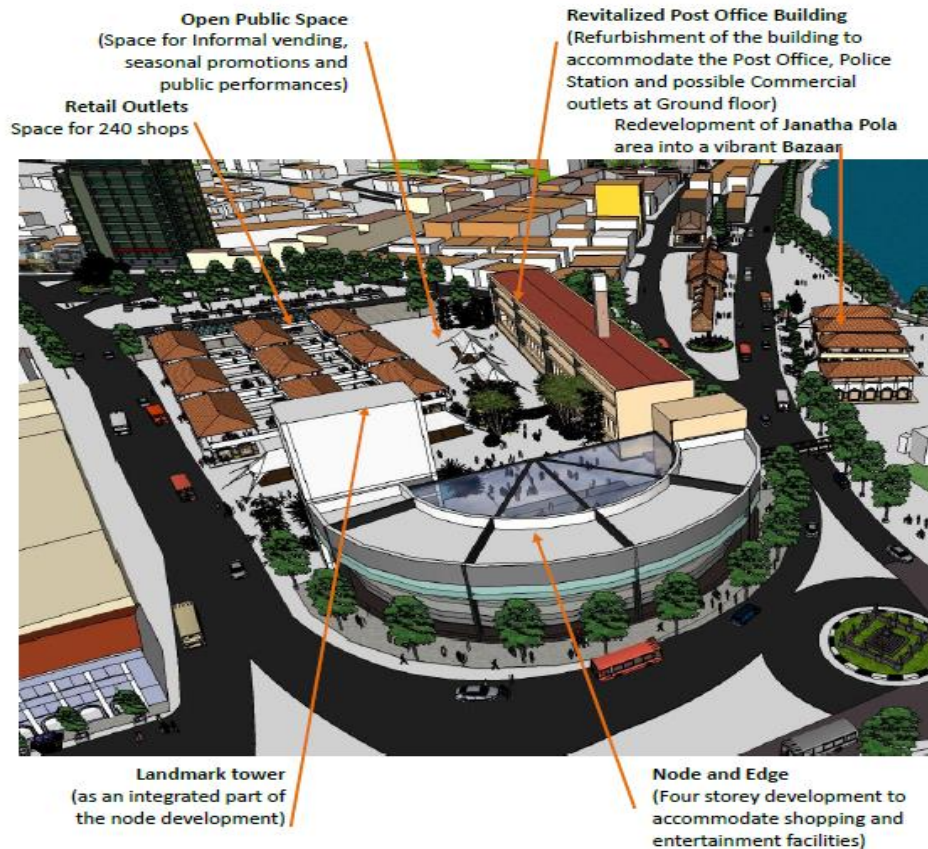
Source: Resource profile data 2016 (Galle 4 Gravets, Akmeemana, Bope Poddala and Habaraduwa DS Divisions)

6.4.5 Underutilized State Property Development Plan

Many government lands in the town are has been underutilized making insignificance characters in the town center. To avoid this issue the plan has identified those lands to develop with more activities to create more inclusive space. This would further generate income for the community by providing space for commercial activities

Strategic Action (1) – Regeneration of Police barracks site and Land between Main Street and Sea Street

Figure 6.4-7: location of proposed Regeneration to the Police Barrack site



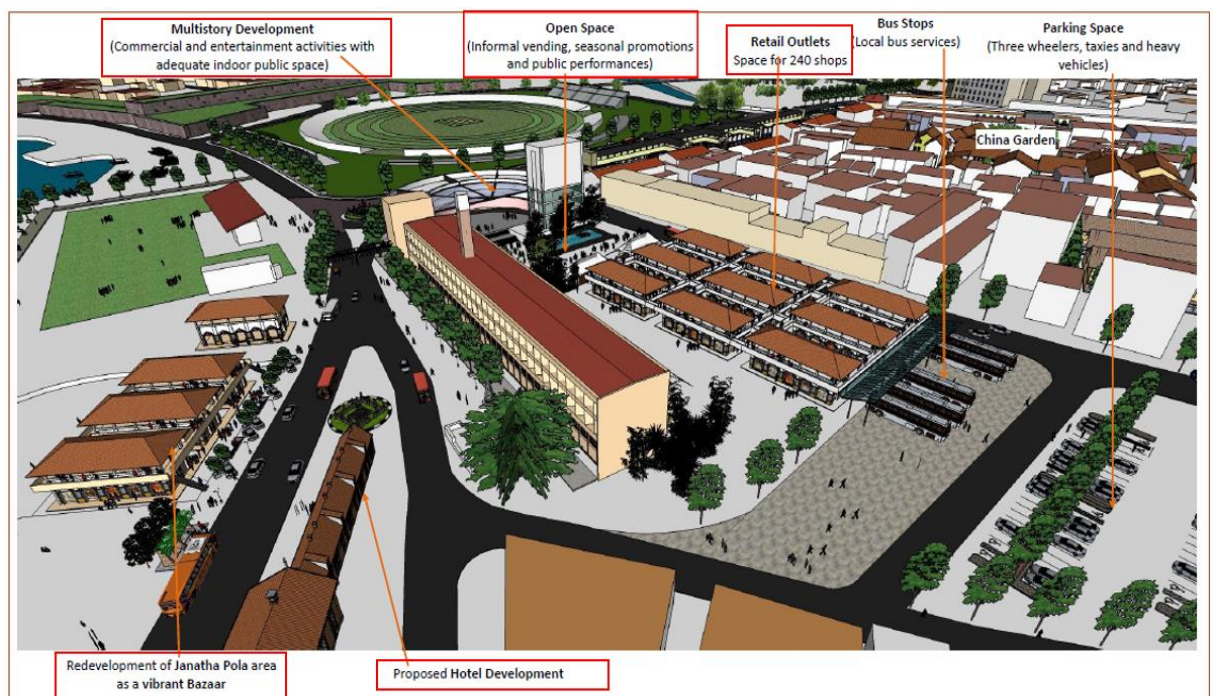
Source: Strategic Cities Development Project, open street maps

Land between Main Street and Sea Street

Project components:

- Multi storied Development-Commercial and entertainment activities with adequate indoor
- Open Spaces- Informal vending, seasonal promotions and public performances
- Retail outlets-space for 240 shops
- Bus Stops-Local bus service
- Parking Spaces-Three wheelers, Taxis and heavy vehicles
- Proposed hotel development

Figure 6.4-8: location of proposed Regeneration to the land between main street and sea street



Source: Strategic cities development Project, Google earth

Strategic Action (02) Oropuwatta Square Design Project

Figure 6.4-9: location of proposed Oropuwatta square design project



Source: Strategic Cities Development Project, Google earth

The historic vegetable market is located in this area and it is to be proposed to conserve to regain the historic character and to adapt a suitable reuse of Historic Vegetable Market. The project consists of

- Agro products stalls
- Food courts
- Sales outlets for household items



ENVIRONMENT SUSTAINABLE STRATEGIES

- **Natural Environment Management Plan**
- **Disaster Management Plan**
- **Public Open Spaces**
- **Agriculture**

6.5 Environment Sustainable Strategies

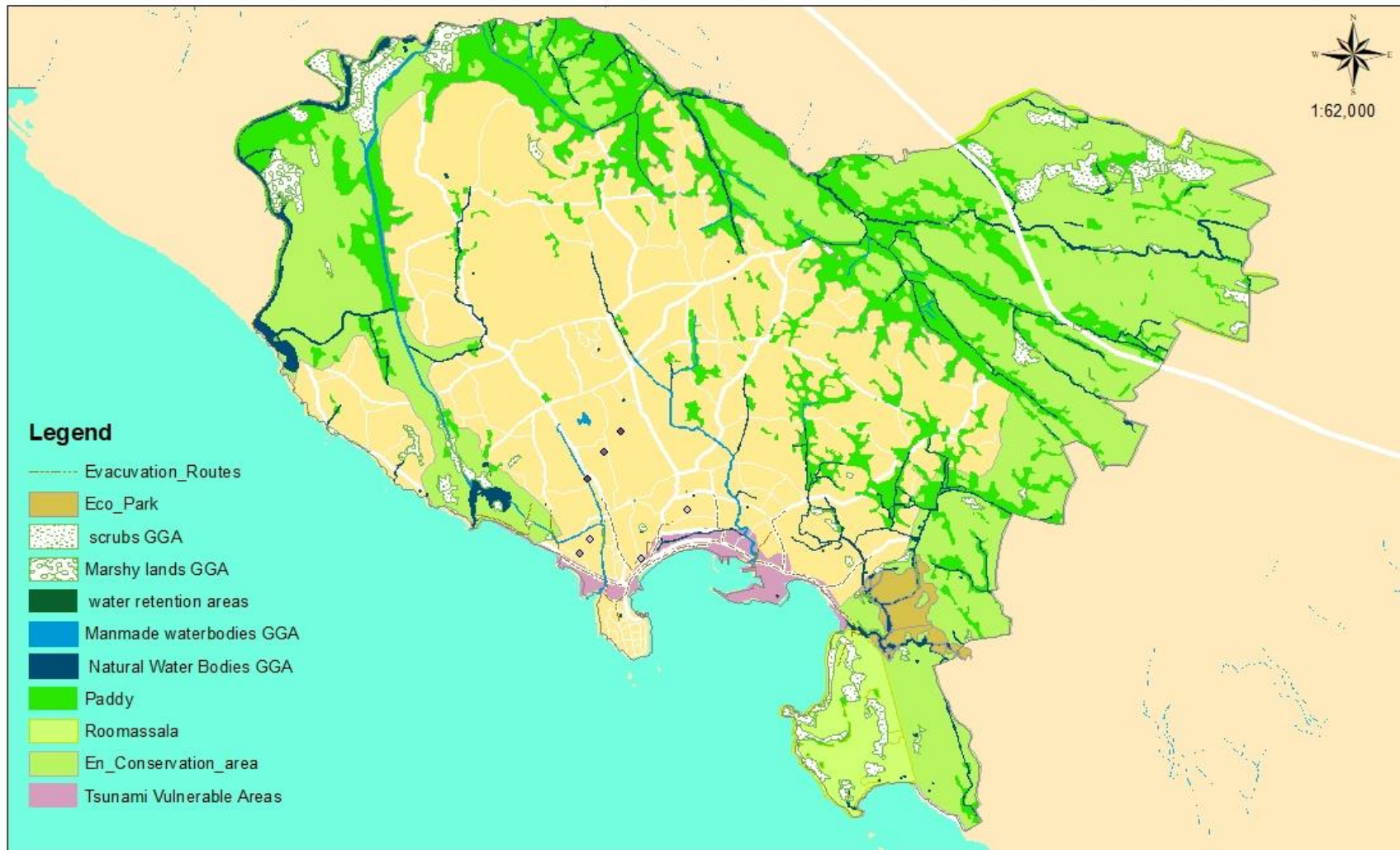
Green Clean and Safe

Green Clean and Safe is one of major goals, which has identified under the vision formulation and it is mainly focused on preserving natural environment and disaster resilience in Greater Galle area.

This has identified with two management plans including number of action projects as follows

1. Natural Environment Management Plan
2. Disaster Management Plan

Map 6.5-1: Green Clean Safe



<p>Green Clean Safe Greater Galle Area</p>	 Urban Development Authority November 2018
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6.5.1 Natural Environment Management Plan

Galle became a victim under the natural hazards happened in past decades. Lack of natural conservation and management plan over the area was a major reason behind the above destruction. Therefore the identified conservation area which is shown in the above composite map would function in multi aspects and further lead for a safer distribution pattern of settlement in the area.

Mostly due to its natural and cultural heritage, Galle has become a tourist destination. Therefore, environmental management is a keystone of the development plan and sets out the environmental management strategy to overcome natural and man-made problems. That action will have an encouraging impact on tourism development as green and blue can make the ideal landscape for tourism. At the same time, strategic management of tourism resulting in environmental degradation should be addressed.

Therefore the plan has strategic approaches to develop an environment conservation fringe, conservation of existing green and blue spaces and also creating a buffer zone.

Strategic Action (01) – Environmental conservation fringe - Conserve existing green spaces

3850.21 ha of lands identified in the city structure as conservation fringe by watershed analysis, will act as the primary green spine. This has integrated with waterbodies and green spaces.

Figure 6.5-1: Environment Conservation Fringe



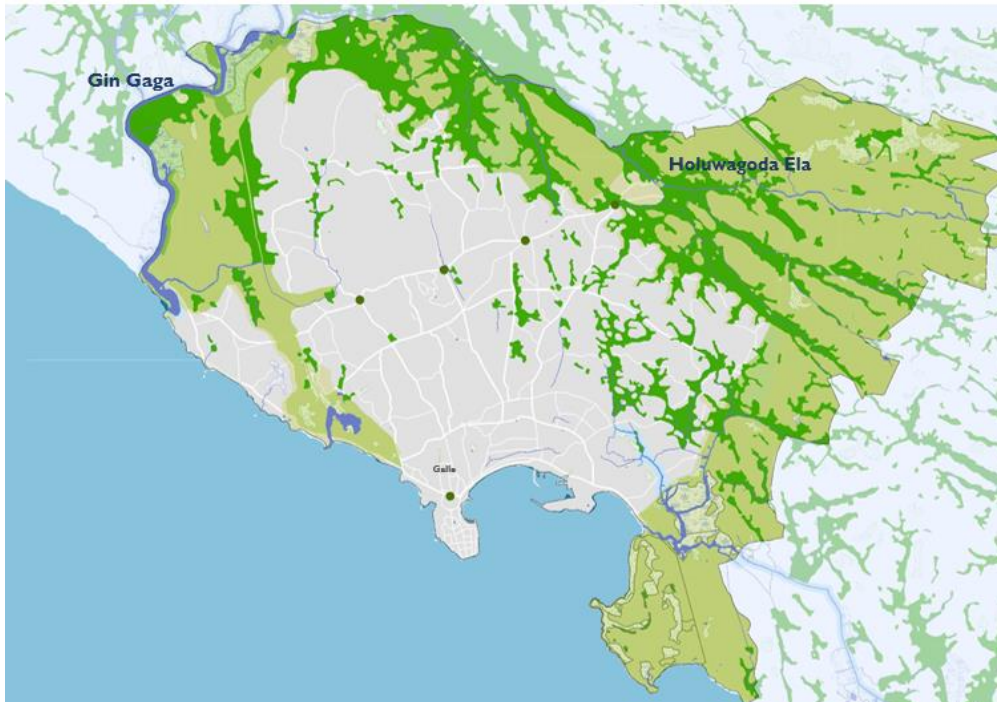
Source: UDA District office Galle

Estimated area with Project components:

- Conserving Paddy lands- 1136.13 ha
 - Recultivating abandoned paddy lands- 0.01ha
 - Preserving Marshes 135ha, Scrub lands- 200ha (located at Mahamodara lake, Gin Ganga Surrounding and Rumassala area)
 - Conserving Secondary Green spaces - 3631ha (including abandon Paddy, Parks, beach areas, sensitive Places. Eg; Roomassala)
-
- **Conserving Primary Green spaces – Paddy Lands**

Conserving 1136. 13 ha of Paddy lands in Greater Galle Area and recultivating 0.01ha of abandoned paddy land has been identified under this urban Agriculture program.

Figure 6.5-2: Distribution of Paddy lands in Greater Galle area



Source: UDA District office Galle

Most of the paddy lands in wetzone area has been abandoned due to natural and man made reasons.lack of government interventions an due to illegal activities of people have led them to practise misuse land use patterns in last few decades.Paddy lands act a major role in environment conservation context by being the water retention areas. So this conservation practise would beneficial in many aspects of making green clean and safe environment.

- **Preserving 135ha Marshes, 200ha Scrub lands located at Mahamodara lake, Gin Ganga Surrounding and Rumassala area**

Environmentally sensitive areas need to be preserved from unstructured settlement distributions and development activities. Therefore identification of preserving lands would be useful in future planning scenarios. The above mentioned sensitive areas located close to the town center need to be preserved from the urban sprawling and tourism related activities.

- **Conserving Secondary Green spaces**

3631ha of secondary green spaces including abandoned Paddy, Parks, beach areas, sensitive places. Eg; Roomassala

Identification of environmentally important greenery spaces and conservation of them would help to achieve the green environment within the area.

Strategic Action (02) – Conserve existing blue spaces

Location: Mahamodara lake, Gin ganga, Beeke reservoir, Kepu ela, Moragoda ela and Moda ela

Project components:

- Conserving of 136.16 Ha. of Natural Water Bodies and 84.47 Ha. Manmade Water Bodies

Strategic Action (03) – Introduce green promotion zone (Buffer)

The existing green cover and water ways surrounding Greater Galle area identified to be conserved as a buffer to protect the entire area. For water ways and canals specific reservations are provided as shown in table.

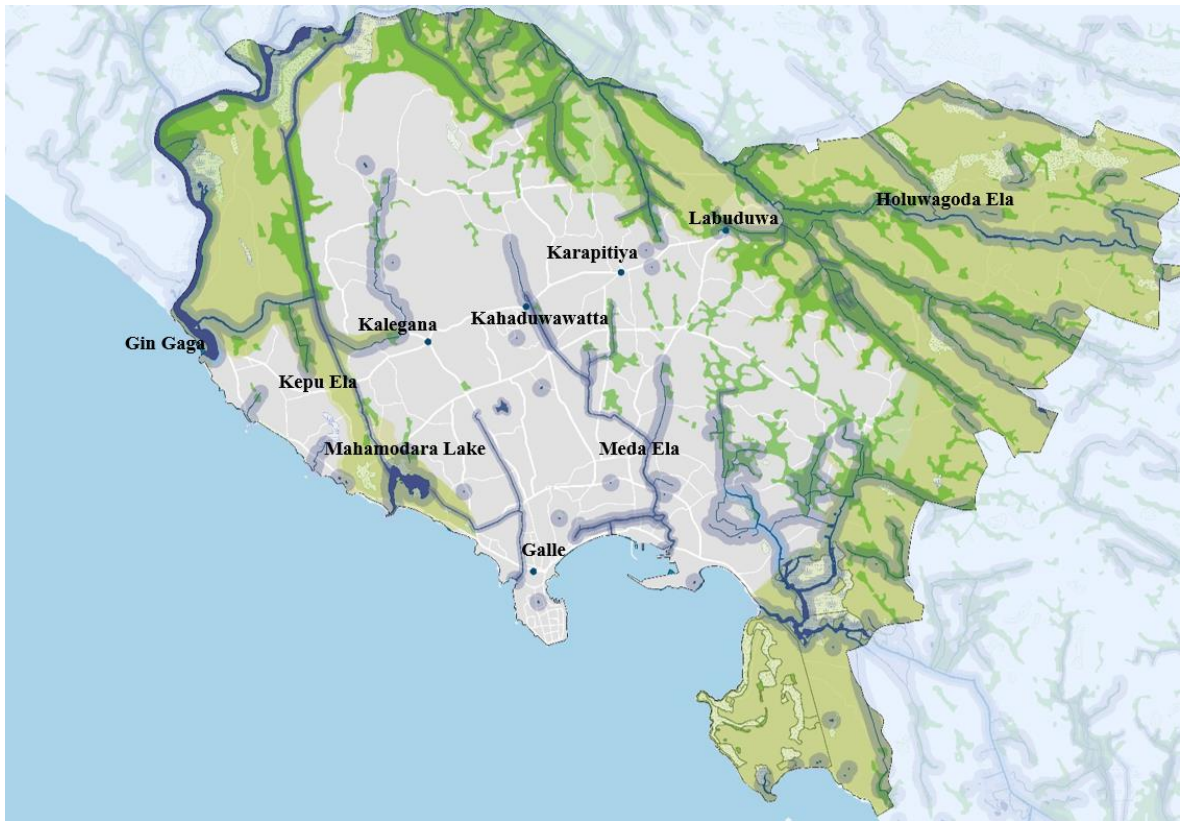
Table 6.5-1: provided reservations of water ways in the area

Surface width of the canal (M)	Reservation from the Canal Land	
	For open canals (M)	For surface covered Canal (M)
1.0 -1.2	1.0	0.3
1.3 -3.0	2.0	1.0
3.1 – 4.5	2.75	1.0
4.6 -6.0	3.5	1.5
6.1 -9.0	4.5	1.5
More than 9.0	6.5	2.0

Source: Gazette No 1662/17- 14th July 2010

Gin ganga been a water supply source to the GMC area, stream reservation is important to prevent water pollution and flood effect to the area. Discouragement of settlement along the river bank area would be environmentally favourable to protect water source and this would further help to protect the sensitive areas, and also as a flood preventive measure.

Figure 6.5-3: Distribution of waterbodies in Greater Galle area



Strategic Action (04) – Preparation of a Guide Plan for Rumassala

Rumassala has identified as a important eco system to conserve and promote as recreational area, is a one key stratergy. Rumassala been located close to the coastal line in Habaraduwa consisting 225 Ha of land. It consists with Yaddehimulla GN Division, Bounavista GN Division and Unawatuna GN Division of Habaraduwa DSD in Galle. The Rumassala forest has a vast collection of bio diversity with attractive mountain range. The ocean is quite rich with coral reefs and sea bio diversity. Tourists can snorkel, dive and explore the underwater bio diversity.

Goals of Rumassala conservation plan.

- To conserve functional value of Rumassala ensuring historical value and bio diversity
- To guide development activities within the declared area in an environmentally sound direction

SA (05) - Conserving of forest Reserves in the area

Kurundakanda forest reserve (Forest Conservation Department)

Palagalakanda Forest reserve (Forest Conservation Department)

SA (06) – Conserving of identified environment conservation sites

Beekke Reservoir – Natural Resovior has potential to future water supply or as a catchment to the greater Galle area

Water spring and Spout (Peella) at Batuwantudawa at Bope –Poddala PS.

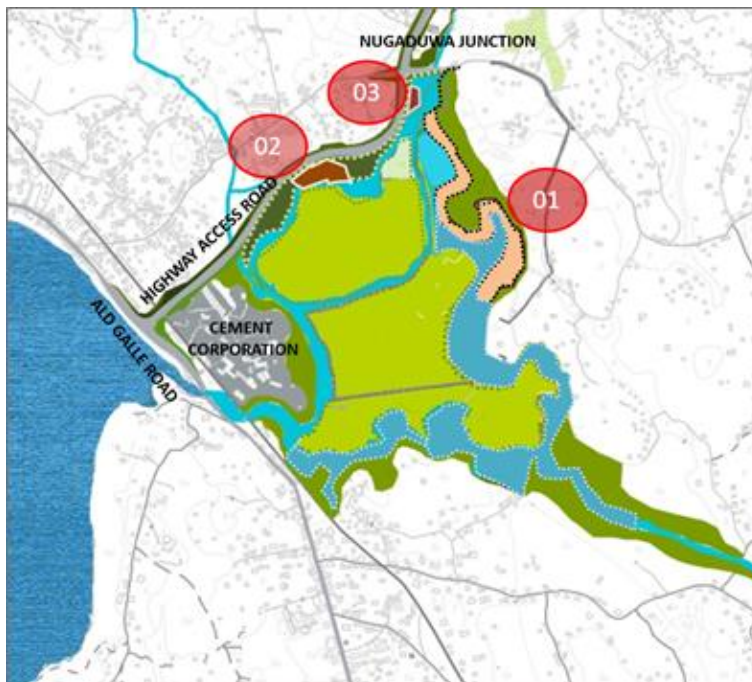
Holuwagoda wetland at Bope –Poddala PS.

3. Promoting Eco tourism in potential locations within Environment Conservation zone

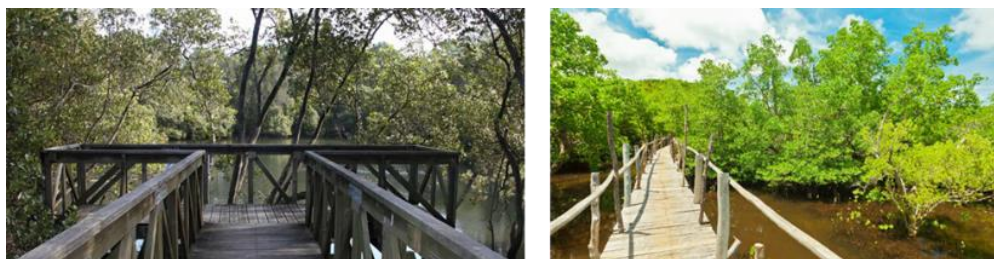
With preserved environmental character, greenery areas are to be develop with eco tourism activity connect to the Major tourism chain in Galle area.

Accordingly the wetland area around the INSEE cement factory at (Pinnaduwa) Dewata has been identified to develop with eco tourism activities.

Figure 6.5-4 : Location Map – Eco –Park at Pinnaduwa



Source : UDA District Office – Galle



Source : Google Images

6.5.2 Disaster Management Plan

Need of a disaster management plan was highly emphasized after the tsunami in 2004. Flood and landslides occurred in past years also highlight the importance of disaster management plan. Galle been a beachfront city, preparation of tsunami mitigation action is an important task.

In spite of Tsunami, Galle town center and the immediate neighborhood often affected with flash flood during past few years. Lack of maintenance of floodwalls and filling of low land areas has caused for this issue. Apart from that, drainages in the area have been filled with mud and silt leads to the issue of flash floods in the area.

Therefore, the plan gives a comprehensive framework for effective disaster Management, majorly flash floods and Tsunami with active community participation and more other components like, regular warnings, evacuation routes etc.

6.5.2.1 Tsunami

SA (1) – Design Guidelines for Tsunami Resilient Infrastructure

- a) Strengthening existing structures
- b) New construction

proposed construction in the tsunami hazard area need to be evaluated with design guide lines including on location, layout, orientation, structural configuration, geo-technical considerations and other considerations relating to good design practice .Existing structures also need to be strengthen to minimize the impact of tsunami disaster

SA (2) – Preparation of Tsunami Evacuation Plans with the participation of community

- Preparation map for Evacuation Routes and Places (should be well sign posted)
- Identified location as safe areas (Sangamitta College, Mahinda College, All Saints College, Vidyaloka College, Sacred Heart Convent, Olcott Maha Vidyalaya, A.R.M. Thassam College, Paramananda Viharaya and Siymbalawatta Sri Vijitharamaya) and routes for those areas need to be well displayed.
- Preparation of Tsunami Evacuation Plans with the participation of community
- Public consultation is a important task need to be fulfill in plan preparation. participating community for preparing tsunami evacuation plan is proposed to be done under this strategy.

Map 6.5-2: Identified Disaster Evacuation Routes, Safety locations



Source: Disaster Management Centre, Galle district office

6.5.2.2 Urban Flood Problem

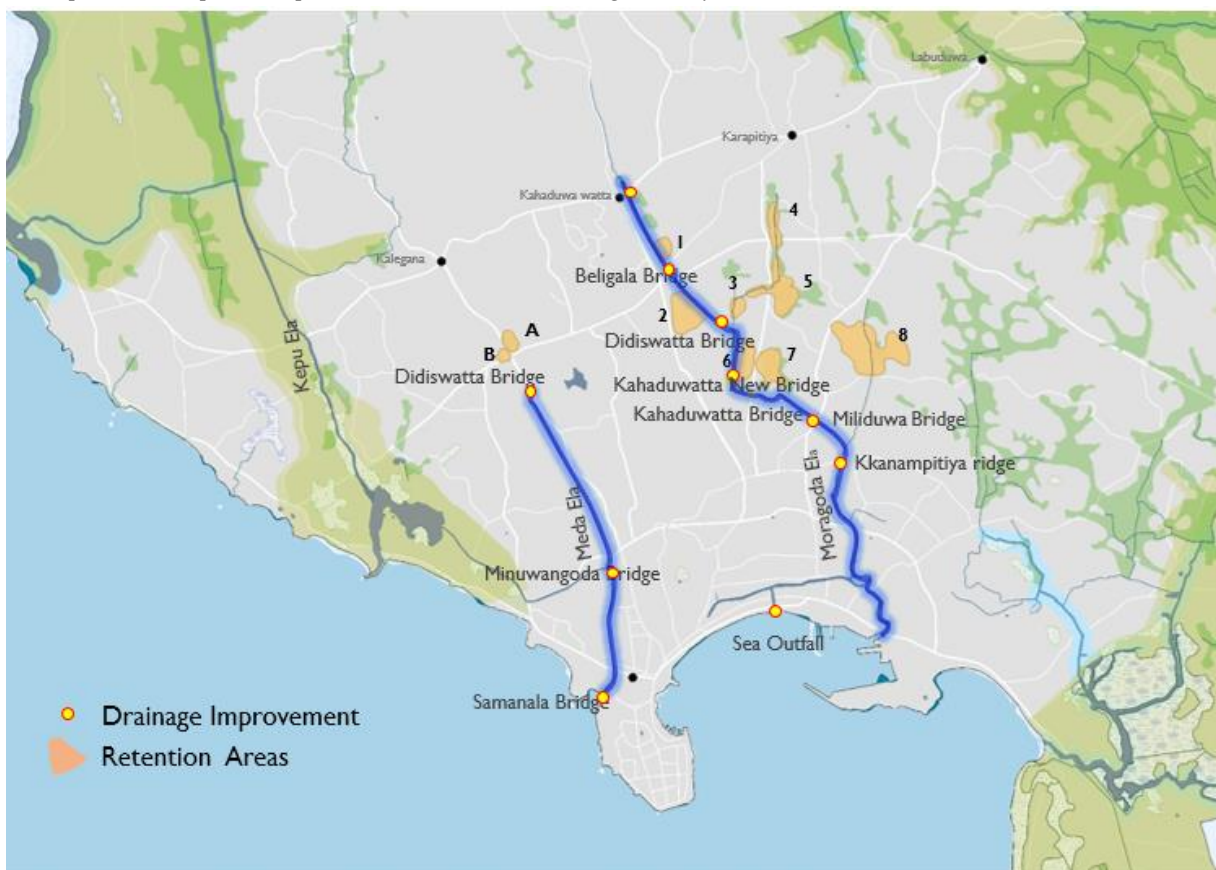
SA (1) – Improvement of storm water management system

Location: Moragoda Ela and Moda Ela Retention Areas

Project components:

1. Inspection and maintenance of structures, embankment and flood walls
2. Channel improvement
Drainage Improvement of Moragoda Ela
3. Drainage Clearance
All manmade and natural water bodies
4. Conserving Retention Areas
Moragoda Ela & Moda Ela Retention Areas

Map 6.5-3: Proposed improvements storm water management system



Source: UDA District office Galle

Table 6.5-2: Retention areas of Greater Galle

Retention Area No	Name of Retention	Name of the Area	Extent (Ha)
1	Moragoda Ela Basin	Beligaha	1.0372
2		Donald Jance	4.2458
3		Hiribura	1.0413
4		Bomb castle 01	2.883
5		Bombe castle 02	7.5712
6		Dangedara 01	2.6975
7		Dangedara 2	4.8189
8		Heen Ela	5.8426
A	Moda Ela /Kepu Ela Basin	Julgaha	0.1687
B		Kepu ela julgaha	0.6412
		Total	30.9474
			76.44 Acre

Source: UDA District office Galle

6.5.3 Public Open Spaces

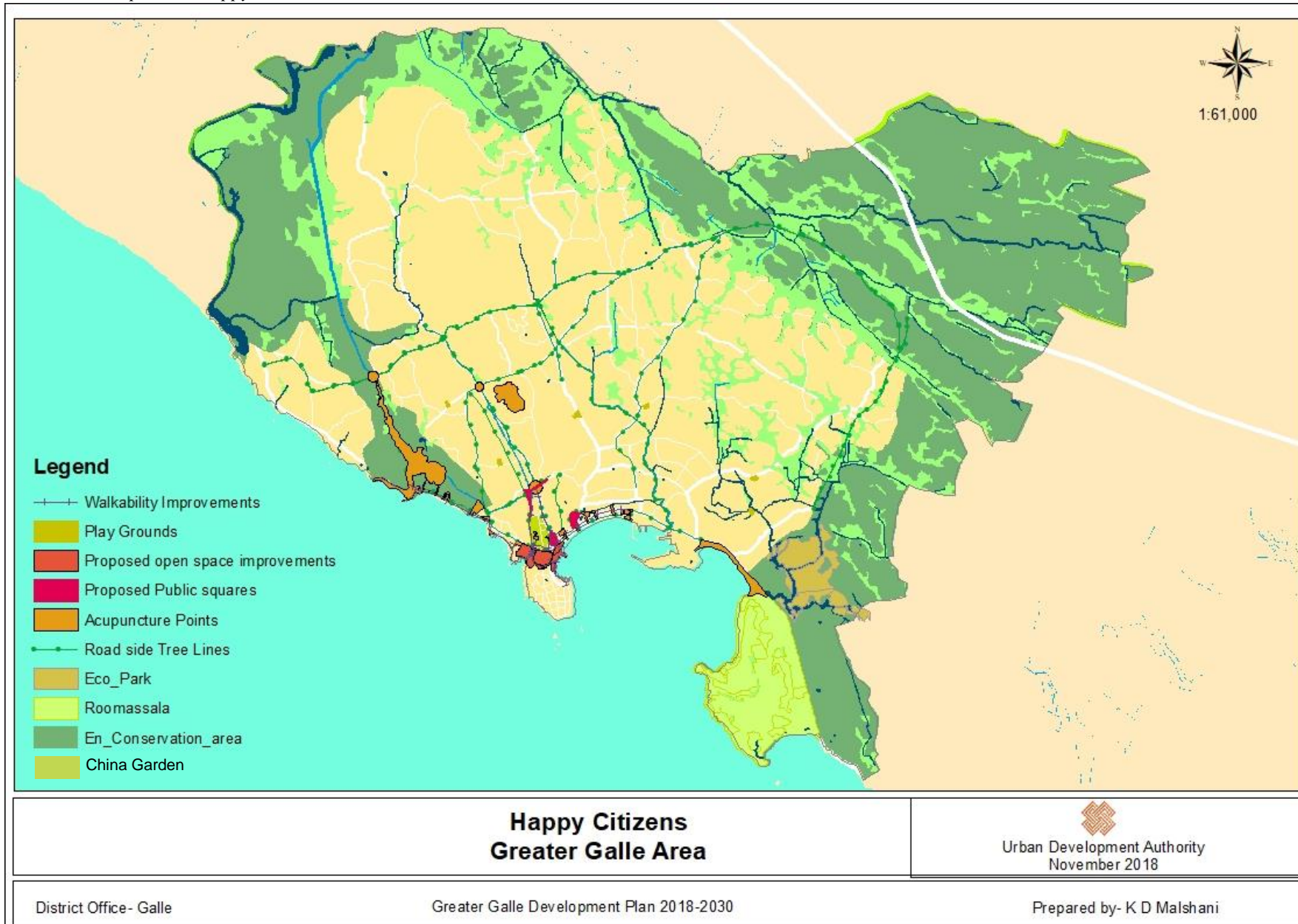
Happy Citizens

Public spaces are economically and socially important tools used in urban planning interventions. They act as important roles in the urban spaces. Within the past decade, improvement of walkability and public spaces have become more popular within city centers creating more economical and social spaces in urban character

Galle city having a water front character and iconic features bound with tourism, public space and walkability improvement would be beneficial in many aspects. Therefore, the Development Plan for Greater Galle includes a separate Goal called “Happy Citizens” to cover up the above aspect which comprises of 02 separate plans namely,

1. Walkability Improvement Plan
2. Public Open Recreation Space Management PI

Map 6.5-4: Happy Citizens



1. Walkability Improvement Plan

Walkability Improvement Plan includes strategic action projects, which provide opportunities for the best utility of the lands within the city and to form a vivid city center with variety of activities. Further proposals for facilitating Segregated pedestrian and vehicle flows in order to overcome the present issues related to organic, but hectic arrangement in the area aims to create a built environment for a more organized, vibrant and strong city center.

Strategic Action (01): Creating an Ocean Pathway (approximately of 6m width) starting from Light House Hotel Premise to Dewata Junction

Location: Light House Hotel Premise to Dewata Junction

Width: 6m

Galle coast line starting from Light House hotel premises and end in Dewata junction has identified to develop as an ocean path way. It includes the following components.

Project components:

- Pedestrian and cycling path
- Decks on beach
- Destination feature (café) with shade at the end of breakwater
- Iconic Water Statue
- Resurfacing breakwater
- Park facilities with power and lighting outlets for concerts and nigh functions
- Tree line

Area of Project components:

Approximately,

- 5,130 sq.m shared space.
- 18,100 sq. m, square surface.
- 18,940 sq. m, sidewalk.
- 39,620 sq. m possible CCD land acquisition.
- 3,400 sq. m Pathway/sidewalk extension Naval Base – Galle Port

This project would need to acquire 36,620 sqm of land from Coast Conservation Department while 3,400 sq.m from Naval base -Galle port for Pathway/sidewalk extension.

Figure 6.5-5 : Details of Proposed Development



Source: Strategic Cities Development Project

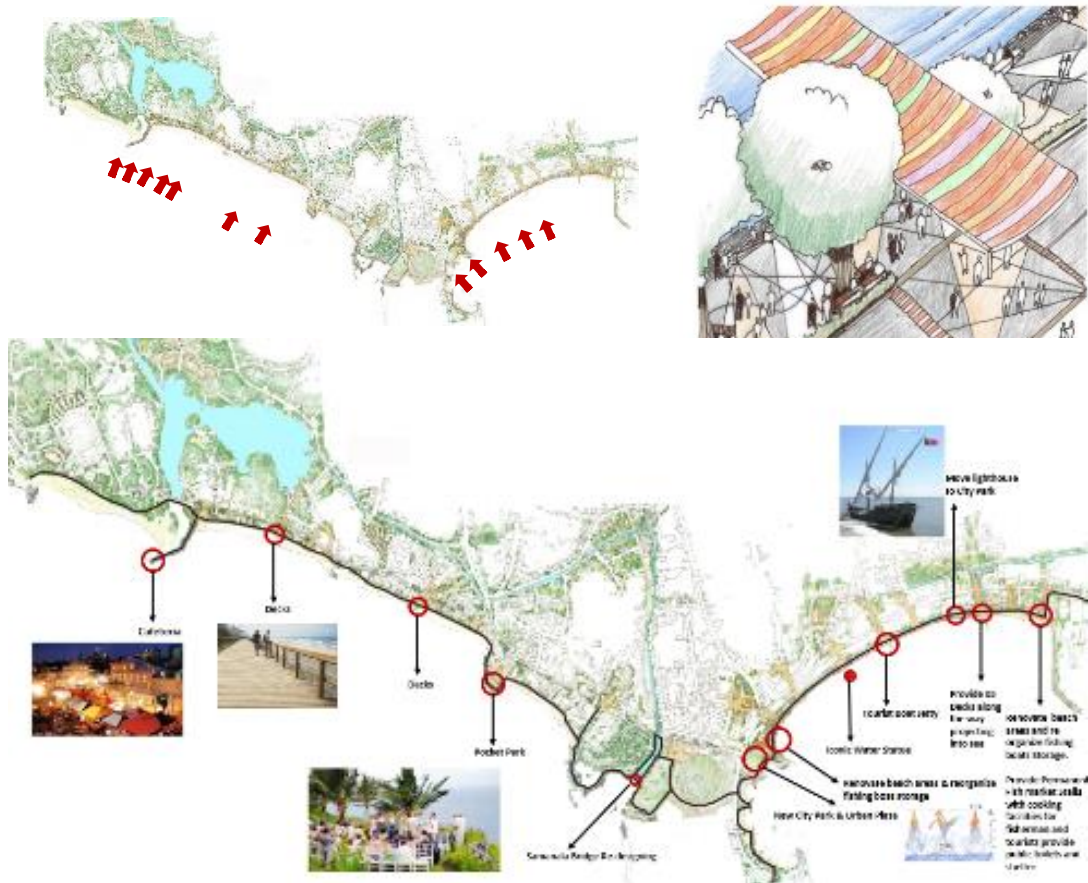
Strategic Action (02) – Improving and designing existing access ways connecting Sea Street and Main Street in Ocean pathway as Acupuncture Points

This includes typical treatment of connection and landscape proposals from ocean pathway to city across sea street at multiple locations. The project comprises of,

1. Retain existing high quality mature trees, provide seating, way finding, information signage and lighting
2. Provide ocean path and composite timber ocean deck to extend connection seawards.
3. Take ocean path diversion down to water's edge.
4. Take up levels with planting edge against the existing curb and provide all access ramps at entry points. Planting also will control crossing places to raised pedestrian crossing.
5. Connect cross the sea street with a raised pedestrian crossing
6. Provide multi coloured canopy from city side across road and over ocean deck for shade and as marker for crossing and entry points to city and ocean path.

Making more pedestrian Friendly Streets by providing shading and pedestrian safety are other outcomes expected from this project

Figure 6.5-6 : Details of Proposed Development, Acupuncture points



Source: Strategic Cities Development Project

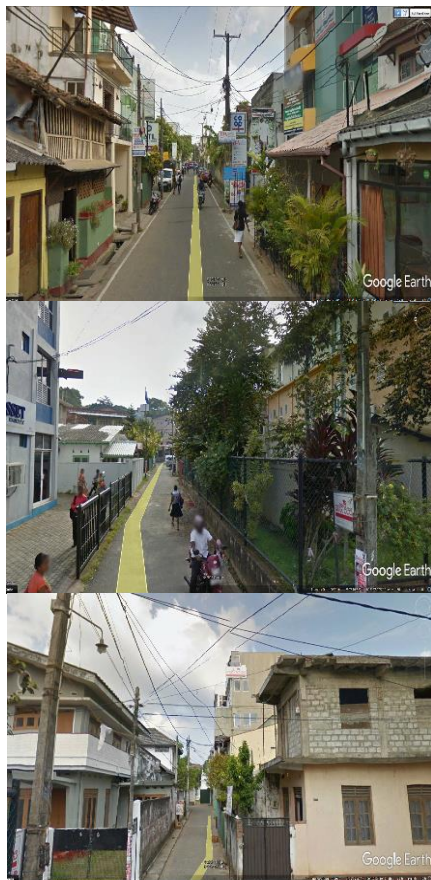
Strategic Action (03) – Improving and designing alley ways & pocket parks located inside China Garden site & the façade development

China garden located in the heart of the city center has attract lesser significance within the past decades. Unorganized built structures and lack of visual attraction has caused for it to be away from the livability in the city. Historical value and the strategic location of china garden need to be more valued within the Galle context. Improvement of alleyways within the china garden would enhance the walkability in the area while exposing its character to the city center. Pocket parks would able to create more inclusive space within the area.

Figure 6.5-7 : Proposed Development at China Garden



Existing



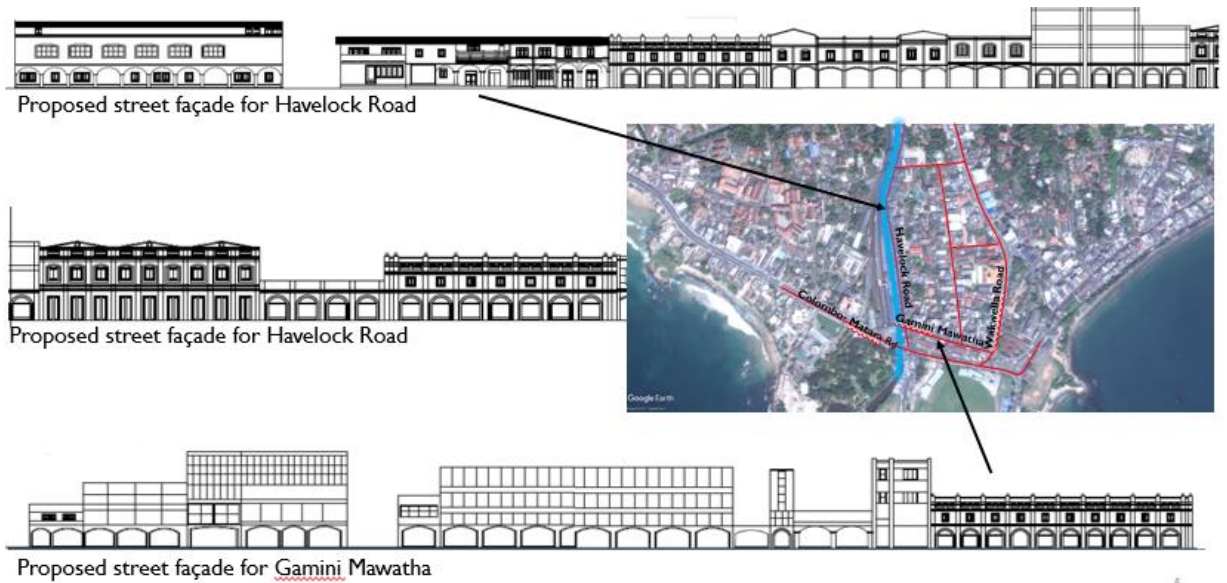
Proposed



Source: Google Earth, Google images

Facade Development

Figure 6.5-8 : Proposed facade Development in the city



Source: UDA District office Galle

Facade development will help to regain the visual attractiveness toward china garden. This project would eliminate its impacts towards the tourism development within this area. Creating pedestrian Friendly Street would be another outcome of this project.

Figure 6.5-9 : Proposed facade Developments details

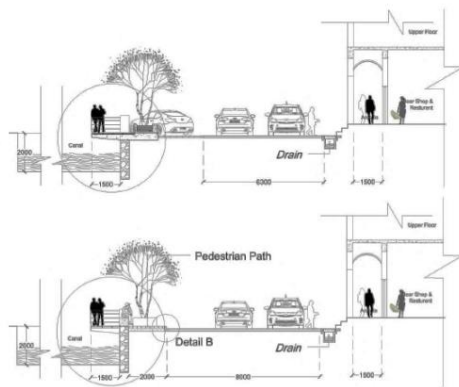
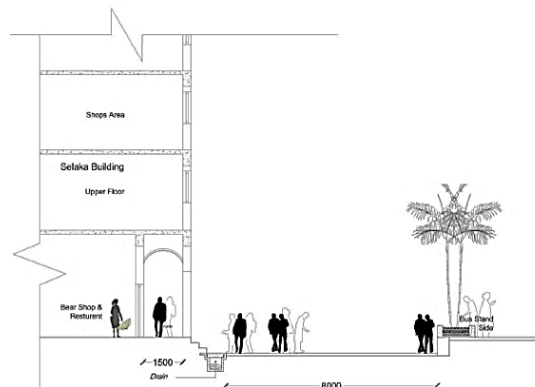


Figure 11 a: Proposed walkway at canal bank at Havelock Road



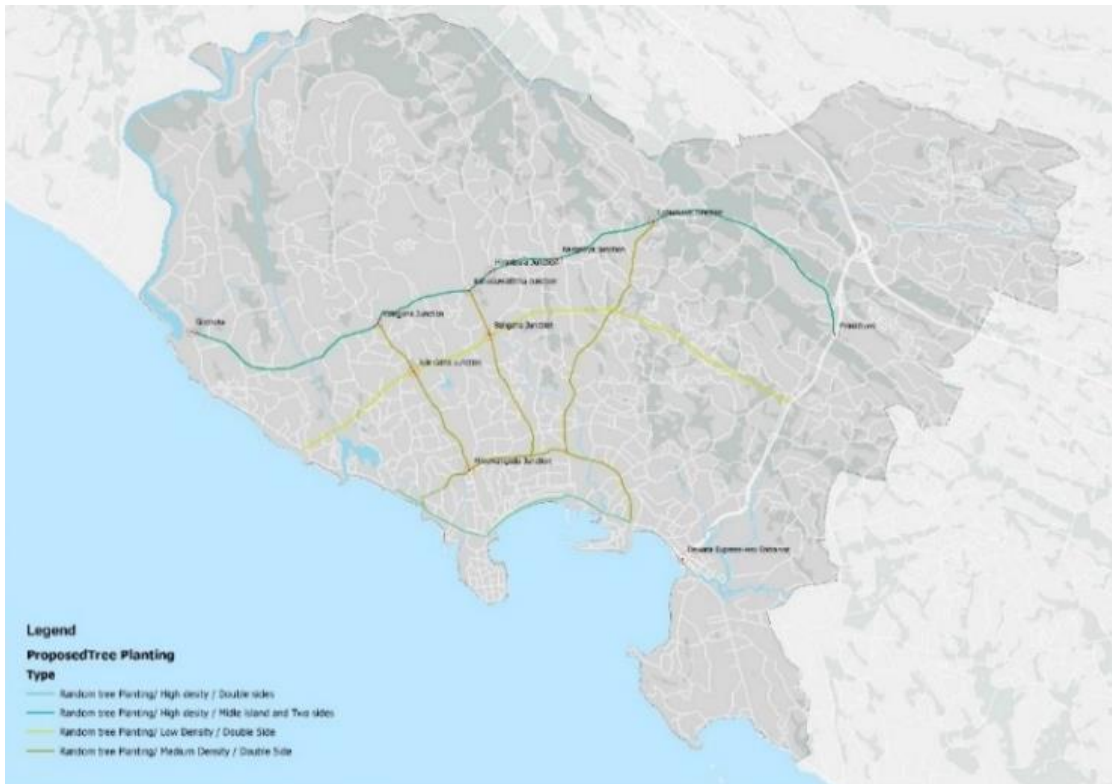
Source: UDA District office Galle

Strategic Action (04) – Create tree lines along with sidewalks improvement along identified roads within city limit, main arterial roads and along proposed 3rd wave road (Development Growth Corridor)

Table 6.5-3: List of roads proposed for Tree Planting

Description	Type
Ginthota-Labuduwa Rd	Random tree Planting/ High density / Middle island and Two sides
Kaluwella-Kandewaththa-Kon tree Road- Circular Road	Random tree Planting/ Medium Density / Double Side
Minuwangoda-Kalegana road	Random tree Planting/ Medium Density / Double Side
Baddegama Road	Random tree Planting/ Medium Density / Double Side
Ambalanwatta Road	Random tree Planting/ Medium Density / Double Side
Sri Hemananda Mawatha	Random tree Planting/ Low Density / Double Side
Newly Proposed Road(Beligaha-Highway Entrance Road)	Random tree Planting/ Low Density / Double Side
Newly Proposed Road	Random tree Planting/ Low Density / Double Side
Ambalanwatta Road	Random tree Planting/ Medium Density / Double Side
Labuduwa-Pinnaduwa Road (Newly Proposed)	Random tree Planting/ High density / Middle island and Two sides
Ginthota-Labuduwa Road	Random tree Planting/ High density / Middle island and Two sides
Ginthota-Kalegana Road	Random tree Planting/ High density / Middle island and Two sides
Galle Rd (Mahamodara Hospital-Udugama Road junction)	Random tree Planting/ High density / Double sides

Map 6.5-5: Proposed roads for tree planting



Source: UDA District Office Galle

Development growth corridor from Gintota to Walahanduwa via Kalegana, Kahaduawatta, Karapitiya and Labuduwa smart centers is proposed to improve with tree lines making more pedestrian friendly street scape.

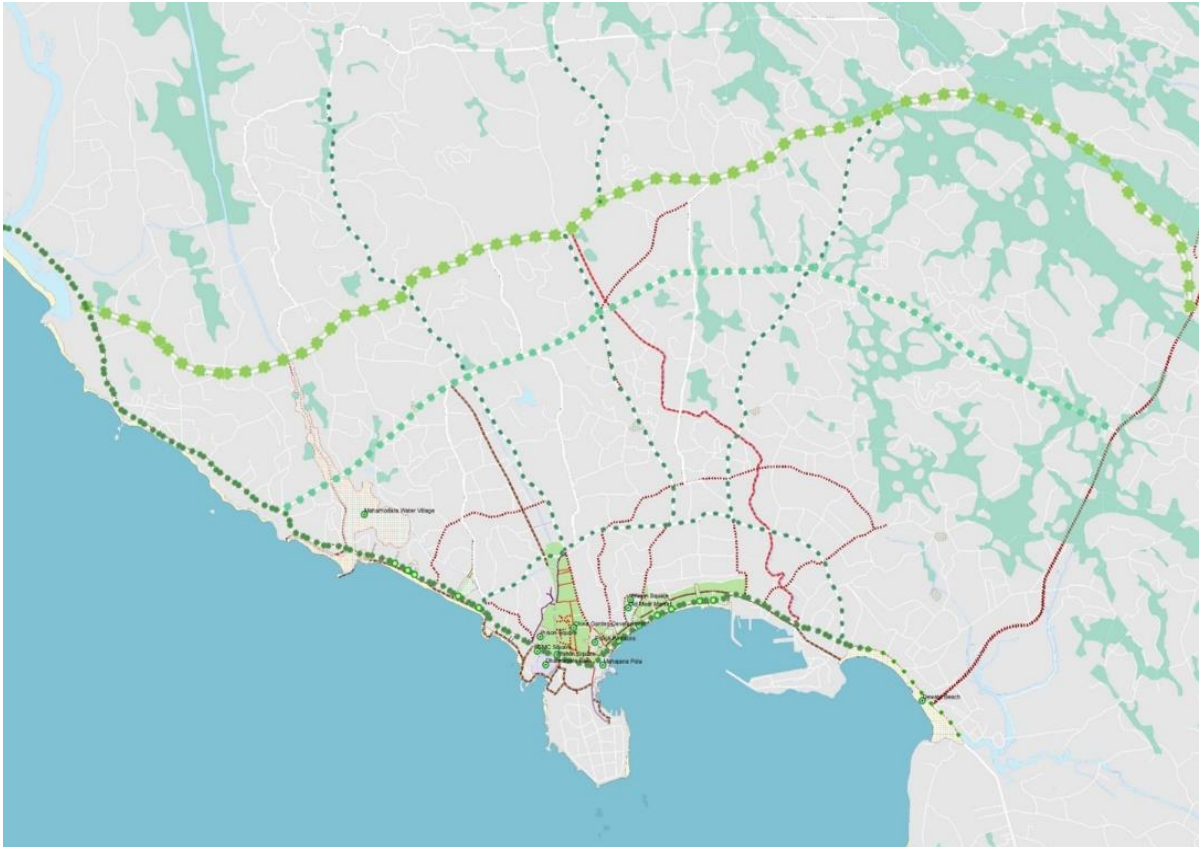
2. Public Open Recreation Space Management Plan

The plan intends to provide public convenience, harmonize the newly built structures of the built environment with the natural and heritage settings, while providing improved access and directing the sub-optimally used prime lands to obtain better use

Accordingly, the greater Galle area provides open spaces of pocket parks (less than 0.2 ha) mini parks (0.5 -2.5 acres) local parks (1.0 – 7.5 acres) community parks (3.0 to 6.0 ha-7.5 -15 acres) & linear open spaces. Which reaches our future requirement of public open spaces for 2030 According to the PORS (Public Outdoor Recreational Space plan) Standards (1.4 ha. of open space for 1000 people)

- Projected population for 2030 – 251,283
- Projected open space requirement – 351.4 Ha
- Available open spaces – 3.7108 Ha (MC area)
- Available Open spaces – 280Ha (Outer MC)
- Requirement for 2030 – 67.69 Ha

Map 6.5-6: Public Open Recreation Space Management Plan



Source: UDA District office Galle

Strategic Action (01) – Design Public squares in potential locations within Galle City Centre

Following potential locations in the city were identified to be developed as public squares in order to fulfill the requirement of public spaces in the city

1. Town Hall Square Design Project
2. Station Forecourt Design Project
3. Mahajana Pola Public Square Project
4. Prison Square Design Project

Figure 6.5-10 : Proposed public squares in potential locations



Source: Strategic Cities Development project

1. Town Hall Square Design Project

Project Extent: 8920 sq. m

The proposed development includes improvement of,

- Square surface -5350 sqm in extent
- Sidewalk surface -2000 sqm in extent
- Road surface -1490 sqm
- Public facilities - 80 sqm

Figure 6.5-11 : location Proposed Town hall square design project



Source: Google earth

2. Station Forecourt Design Project

Extent of the area to be developed - 3460 sqm,

Proposed development includes

- Square surface - 970 sq. m
- Sidewalks - 1230 sq. m
- Road surface - 1140 sq. m
- Footbridge - 120 sq. m

Figure 6.5-12 : Proposed station for court design project



Source: Google earth

3. Mahajana Pola Public Square Project

Existing Mahajana pola -public building which has underutilized has identified to develop as a new commercial space. This would further connect with the ocean pathway track and to the A 2 main road while increasing its relative importance and visual quality.

Figure 6.5-13 : proposed Mahajana Pola Public Square project



Source: Google Earth, Strategic Cities Development Project

4. Prison Square Design Project

The existing Prison situated in the core of the town center has under-utilized been isolated within the development trends in the area. So under this project prison is proposed to develop as craft design and innovation center along with the usage of public for a square.

Figure 6.5-14 : proposed prison Square project



Source: Google Earth, Google Images

Strategic Action (02) – Re-designing existing Dharmapala Park located at Galle City Centre

Urban parks have become a recent trend within the urban context making more inclusive spaces for community. Therefore, Dharmapala Park has been identified to develop been parallel to that trend. Park components are as follows.

Table 6.5-4: Componenets of Darmaapla park development

Component	Area
Path walk area	2175 sqm
New Buildings	1200 sqm
Playground area	600 sqm
Sidewalk area	1115 sqm
Footbridge	200 sqm

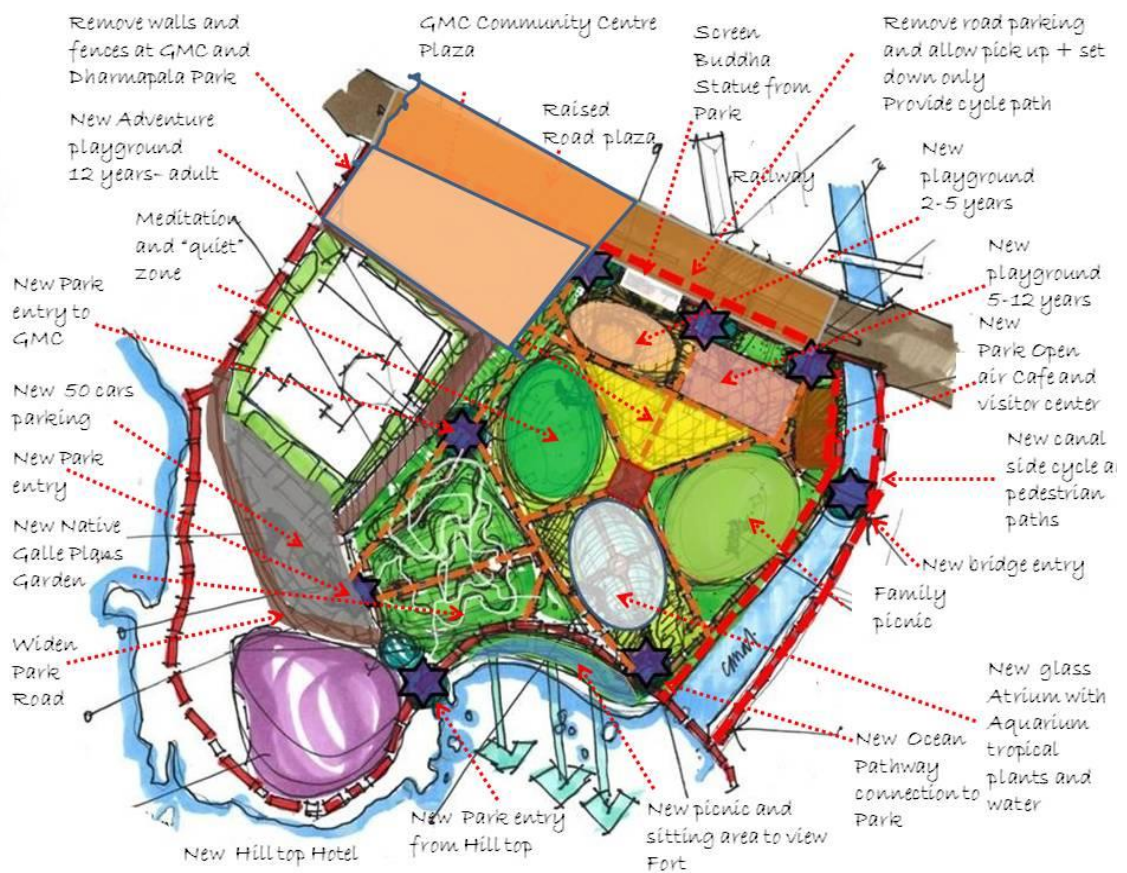
Figure 6.5-15 : Location of Darmapala Park



Source: Google Earth



Figure 6.5-16 :Proposed Darmapala Park redevelopment project



Source: Strategic Cities Development Project

6.5.4 Agriculture

The greater Galle area identify the Agriculture zone approximately 350 ha of cultivated lands in addition to paddy lands in surrounding Greater Galle area. Cultivated crops of Tea, Rubber, Cinnamon and its byproducts supposed to be integrated as commercial crops in economic development plan.

Accordingly, the existing Municipal Fish market is proposed to be improved to new diverse Fish market integrated with spices market as a strategy by combining two strategies of environment and economy.

In addition, the plan identifies paddy lands as single zone to protect paddy lands with no development area while abandoned paddy lands proposed to developed.

CULTURE AND HERITAGE MANAGEMENT STRATEGY

- **Heritage & Archaeological Conservation Areas**

6.6 Culture and Heritage Management Strategy

6.6.1 Heritage & Archeological Conservation Areas

In the history of Galle, the Fort cannot be neglected at all. The town takes a special place being accommodating Galle Fort, which has been declared as the World Heritage by UNESCO. Hence, the core of Galle city is grander to the rest of the urban centers. According to historical documents, Galle is recognized as the location where Portuguese made their first landing to Ceylon in 1505, it was the Portuguese who established the Fortress, and the trade area associated with it.

In 1640, the Dutch who came to the island captured the Galle Fort and the Fortifications were further expanded until the early 18th century, consisting of public administration buildings, warehouses, business houses and residential quarters. The British conquered the country in 1796 and Galle Fort was taken over by the British.

Galle fort has become one of the most valued Dutch heritages in Asia today, which attracts thousands of visitors every year both locally and internationally because of the well-preserved historical character and the mix of Dutch and British architecture of the 18th and 19th centuries.

This Heritage site is managed by Archeology Department, Galle Heritage Foundation (GHF), International Council on Monuments and Sites (ICOMAS) and Galle Fort Management Committee. The special Planning Committee held by Urban Development Authority to regulate the planning & building applications in this sites.

However, today The World Heritage site has been confronting by the developments. It has been threatened by UNESCO, on the List of World Heritage in Danger. According to the UNESCO's reports following matters were highlighted regarding above threat as follows

1. Weakness in the management of the Galle Heritage Foundation in its role as the managing authority for the property
2. Potential impact of a proposed port construction on the integrity of the property
3. Intrusive and illegal constructions inside the Galle Fort and within the Galle cricket ground impacting on the integrity of the property

Therefore, The Greater Galle Development Plan proposes two strategic action plans to address the above as follows.

1. Galle Fort Management Plan
2. Archeological Buildings and Monuments Conservation Plan

The first Plan solely concentrates the Galle Fort and the other plan covers the conservation of Archeological Monuments and buildings of Galle Fort and the Surrounding areas, which are included in Greater Galle Planning Area. Those are due to be prepared as a well comprehensive separate guide plans and to be implemented accordingly



IMPLEMENTATION STRATEGY

- **Strategic Action projects**
- **Institutional Setting**

6.7 Implementation Strategy

6.7.1 Strategic Action Projects

In order to achieve the overall objectives of the plan, following strategic action projects have been considered. These projects are suggested in addition to the projects that are already in progress. Some of the projects in the following description are proposed by the relevant agencies such as Strategic Cities Development Project and the plan recognizes those as strategically important for the accomplishment of the development envisioned in this Plan.

Accordingly following list of projects were identified and listed according to the priority of the projects which are to be implemented by the development plan.

Project No.	Priority no.	Project	Expected Outcome	Remarks/Status
01	01	Construction of Proposed 3 rd wave road	Mobility Improvement	To be implement by RDA
02	01	Widening of following roads 1. Wackwella Road 2. Baddegama road 3. Amabalanwatta Road	Mobility Improvement	To be implement by RDA Already Proposed by RDA
03	02	Promoting two transitional Nodes at Ginthota and Walahanduwa	Mobility Improvement to facilitating the Growth corridor	To be done by UDA
04	03	Improvement of storm water management system	infrastructure Improvement, environment quality and as a flood mitigation measure	Proposed by the SCDP Currently implementing
05	04	Promoting of Residential zones at identified locations	Promoting habitable locations in the area for a better settlement distribution	Proposed by UDA To be facilitate with required infrastructure
06	04	Create road linkages in between residential zones and to the Development Growth corridor 1. Two direct linkages in between Hapugala Residential Promotion Zone & Development Growth Corridor 2. Two direct linkages between Uluwitike & DGC	Improving mobility and connectivity	To be implemented by Local Authorities

		3. A linkage in between Aththiligoda RPZ and DGC via Labuduwa Road		
07	05	<p>Create a tourism corridor from Ginthota to Dewata Junction</p> <ol style="list-style-type: none"> 1. Regeneration of Mahamodara hospital site and existing NTS site for high end tourism activities 2. Creating an Ocean Pathway starting from Light house hotel premises to Dewata junction 3. Improving and designing of existing access ways connecting sea street and Main street in Ocean pathway as acupuncture points 	Tourism Development, City Beautification	To be implemented by UDA, Galle MC, Strategic Cities Development Project
08	05	Promoting boat/cruises facilities along Mahamodara Lake, Kepu Ela, and Gin River by providing boat landing facilities and access points at identified locations	Tourism Development, City Beautification	To be implemented by UDA Galle MC
09	06	<p>Conserving existing Green Spaces and Blue spaces</p> <ol style="list-style-type: none"> 1. Proposed Eco Park Project at Pinnaduwa 	Tourism Development, City Beautification, Environment conservation	To be implemented by UDA and Akmeemana PS
10	07	Designing of Public Squares in potential locations within the city Center	Tourism Development, City Beautification, Creating of Public spaces for city dwellers and commuters	To be implemented by UDA and Galle Municipal Council
11	07	Regeneration of Police Barrack site and land between Main street and sea street	Income generation through Underutilized property development. Tourism Development	To be Implemented by UDA
12	08	Oroppuwatta Square Design Project	Income generation through Underutilized property development	To be Implemented by UDA

13	09	Create tree lines along with sidewalks improvement along with identified roads within city limit, main arterial roads and along with proposed 3 rd wave road	City Beautification and walkability Improvement	To be Implemented by UDA
14	10	Improving and designing alleyways located inside China Garden site and façade Development	Tourism Development, City Beautification and walkability Improvement	To be Implemented by UDA, SCDP and Galle MC
15	11	Promoting 1300m long commercial stretch along the southern Expressway interchange starting from Dewata junction	Urban Services Improvement	To be Implemented by UDA
16	12	Creating of four lane traffic by pass road (1 st wave road) from Kaluwella junction to Sambodhi Junction	Mobility Improvement	To be Implemented by Galle MC
17	13	Constructing of two lane road connecting Nagahawatta junction and Anangoda junction	Mobility Improvement	To be implemented by local authorities
18	14	Sub Center Developments 1. Kalegana 2. Kahduwawatta 3. Poddala 4. Wackwella	Urban Services Improvement	To be implemented by local authorities and UDA
19	15	Promote a University village at Hapugala	Education based economic Development	To be implemented by UDA and relevant ministries
20	16	Olanda Ela rehabilitation project at Rumassala	Tourism Development, Environment Improvement	Irrigation Department, UDA
21	16	Development of two car parks at Rumassala	Tourism Development, Mobility Improvement	UDA, Habaraduwa PS
22	17	Yoga meditation Center, Camping site development	Tourism Development	To be implemented by UDA, Habaraduwa PS
23	17	Planet Observation Center at Rumassala	Tourism Development	UDA, Habaraduwa PS
24	18	Walkability improvement and Rock climbing at Rumassala	Tourism Development	To be implemented by UDA, Habaraduwa PS
25	19	Extending and improving of Watareka road in to two lane road connecting Hapugala and 3 rd wave road	Mobility Improvement	To be implemented by Bope Poddala PS

26	19	Improving Batuwanthudawa road from Hapugala junction to Pilana Kade junction and existing road from Pilana Kade junction to Thunhiripana junction in to two lane road	Mobility Improvement	To be implemented by Bope Poddala PS
27	20	Creating a two lane connector road from Galle Road to Highway Access road (2nd Wave Road)	Mobility Improvement	To be implemented by Galle MC
28	21	Improving S H Dahanayaka Mawatha and Woodward Mawatha	Mobility Improvement	To be implemented by Local Authorities
29	22	Improving of Wewelwala Road	Mobility Improvement	To be implemented by Local Authorities

Some of the above projects are to be implemented by the UDA itself and there are some components which are to be promoted/ regulated through Planning/Zoning regulation, while some are to be implemented along with the line institutions such as Local Authorities, Strategic Cities Development Project, Central Environment Authority, Irrigation Department etc.

Among the above list of project following selected Projects are to be funded by the UDA

1. Promoting two transitional nodes at Ginthota and Walahanduwa

Rational of the Project

Galle City been developed under pressure due to over exploitation. The trend of development towards peripheral areas from the city. Hence the grater Galle area development plan proposed to develop a growth corridor from Ginthota to Walahanduwa in order to enhance the connectivity of the periphery areas and with the objective of reducing the congestion arise in the city centre. In addition, the plan proposed permanent two transitional nodes at Ginthota and Walahanduwa. These nodes are proposed to facilitate the fast movement of vehicles and the commuters who are using the corridor to access the greater Galle area Bus Rapid Transit (BRT) system is to be promoted to facilitate the public transportation along the development corridor by facilitating the two transitional nodes at the both ends of the proposed 3rd wave road.

Project Components;

Ginthota Transitional Node

1. Construction a Mini Bus terminal with commercial space at existing Ginthota Bus Depot.
2. Shifting Piyadigama railway station in close proximity to proposed Ginthota mini Bus terminal
3. Creating a linkage between minibus terminal and the railway station
4. Creating a linkage between mini bus terminal and the Galle – Colombo main road

Walahanduwa Transitional Node

1. Construct a min bus terminal with commercial space.

A land identified adjacent to Udugama road and Southern expressway Access road at Walahanduwa – 2.5 ha

Project Objectives

- To facilitate the fast movement of vehicles and commuters to access the Greater Galle area.
- Promote the use of the growth corridor.
- Reduce traffic congestion in Galle road and the City
- Expand the mobility system in the town centre
- Increase commercial spaces and parking facilities

Expected project outputs

1. Efficient transport system in the Greater Galle area.
2. Enhance connectivity of the region
3. Improve commercial spaces and parking spaces.

2. Create a Tourism Corridor from Ginthota to Dewata Junction

Rational of Project

Galle City being main tourist attraction City, the Greater Galle Development Plan identified to develop the untapped tourist potential areas for recreational activities, Open spaces with improving landscaping under the Economic development strategy the plan is proposed to achieve the goal “Wealthy City” through tourism management plan. Therefore, the coastal line is proposed to develop as a tourism corridor enhancing more economic opportunities, starting from Ginthota to Dewata Junction.

Proposed activities identified in 04 specific locations;

Ginganga, Mahamodara Lake, Mahamodara Hospital site and Galle Fort

- Aqua based activity at Ginganga basin, include;
 - Boats/ Cruise
 - Water Jets,
 - Open Restaurants and a Jetty for cruise boats etc.
- Mahamodara Lake water base activities
 - Water base Leisure activities
 - Cruise/ Boats
 - Aquatic Playground
 - Restaurant
- Regeneration of Mahamodara Hospital site and existing NTS site for high end Tourism activities

Mahamodara Hospital have already shift to Karapitiya. The existing site proposed to develop with a Hotel development with considering locational advantage and the surrounding land use trend. This would connect with the Ocean Pathway project development, creating more open public space in the Beach front.
- Yacht Harbour Project

The International Yacht Society has recognized the Galle Port as one of the world’s best attraction, that provides facilities for pleasure Yacht. Hence, this potential is identified by the development plan to receive the tourism industry and enhance the city economy.

Project Objectives

1. To enhance the tourist arrivals and tourism industry
2. Increase the City economy
3. Utilize the untapped tourist potential sites
4. Increase recreational facilities and open spaces.

Project Benefits

1. Increase the Economy
2. utilize the untapped tourist attraction places.

Develop the recreational facilities.

- 3. Create Tree lines along with Side Walks improvement along with identified roads within City limit, main arterial roads and along proposed 3rd wave road. (Development growth corridor)**

Rational of Project

One of the main goal in Greater Galle Development plan includes “Happy citizens” aim to public space walkability improvement and city beautification would be beneficial in many aspects. Which covers two plans called, walkability improvement plan and public open recreation space management plan.

Walkability improvement plan includes strategic action create tree lines along with Sidewalks improvement along identified roads within city limit main arterial roads and along proposed 3rd wave road (Development growth Corridor). Development growth Corridor from Ginthota to Walahanduwa via Kalegana, Kahaduwwattha, Karapitya and Labuduwa, six smart centres proposed to be improved with tree lines making ---- pedestrian friendly street scape.

Project Objectives;

1. Walkability improvement
2. Improve City beautification
3. Improve recreation facilities

List of roads proposed for tree planting (*Refer Table no.6.5-3*)

4. Proposed Eco park project to Southern Expressway Access road Pinnaduwa – Galle

Rational of Project:

Galle is prominent tourism city in Southern Province due to its heritage and location of natural scenic & historic values such as Galle Fort, Rumassala Mountain etc. Also, Galle Town has to be developed as a metro city plan of NPPD to serve 3.0Mn population in 2030 as per the Southern regional strategic. The City owned more potentials which can utilize for the improvement of tourism industry. However, those potentials still untapped and it missed the opportunities which can utilize for the economic development of the area.

The majority of tourist attraction places function for a natural place. The government and private intervention for improve the tourist potential sites are coming as present trend.

Therefore, the Greater Galle Development plan identify to develop the untapped tourist potential areas as a tourist sites with improving landscaping and other recreational facilities. The proposed site is at Pinnaduwa adjacent to Southern Express Way access road (Southern side) identified for development and to acquire /vest the lands for recreational project activities which will be developed as a nature park. While protecting the natural habitat and the surrounding environment with recreational activities.

Project Components (Activities)

- Walkway
- Water base activities
- Open Art Gallery
- Nature Trails
- Restaurant / Facility centre
- Environmental & Landscaping Development

Project Objectives:

The main objectives of this strategic action projects are;

1. Utilize the untapped tourist attraction place.
2. Conserve the natural habitat & avoid environmental degradation
3. Increase the income of the city
4. Galle Town has to be upgraded as natural level service centre to cater the requirement of local & foreign tourists.
5. Control the unauthorized constructions & land filling.

Expected Benefits

- Developed the recreational facilities and provide leisure area & open area to the public (as a natural Park)
- Construction of walkway parallel to the SEW
- Utilize the untapped tourist potential site to economic upgrade of the City
- Integrate recreational activity with natural environment while conserving sensitive natural vegetation and environment. (Mangrove)

Financing Plan

Components/ Activity	Cost (Rs.Mn)
Land Acquisition	127.16
project activities	-

Project Operation & maintenance cost	
Total	286.0

5. Regeneration of Police Barrack Site Under Galle town centre development programme

Rational of Project

The present Police Barrack site is situated at the Galle town center. Which has higher potential for commercial development and greater economic value under the Greater Galle Area Development plan, UDA has taken an action to prepare a development proposal as the present Police Barrack site is underutilized and existing building are highly dilapidated which need to be utilized in economic manner in an optimum use. There are 08 housing units with 02 storied building one unit consist with 4 houses & altogether 32 houses. The site extent approximately 4.2 Acres.

Hence, the UDA has been identified & proposed this site to Hotel development & commercial Development.

Project Objectives

1. Utilized the high economic value site in an optimum use
2. Increase commercial space for the town centre.
3. Increase the parking spaces.
4. Integrate the commercial space and tourism activities
5. Enhance city beautification

Expected project output;

4. Promote tourism industry, through space allocation for resident local & foreigners
5. Provide commercial spaces, open spaces and parking facilities.
6. Improve the city attraction

Financing Plan

Activity	Cost (Rs.Mn)
Site Management	
Construction Cost	
Total	284.0

6. Proposed Oropuwattha Square design project – Under Galle Town centre Development programme

Rational of Project

The Municipal Council area of Galle, there is high market potential site. The historic vegetable market is located in this area, and it is to be proposed to conserve to regain the historic character and to adapt a suitable reuse of historic vegetable market (Dutch Archeological character). The existing historic vegetable market building is highly dilapidated and underutilized. In addition, the Colonial heritage & archeological characters of the buildings need to be conserved. This rational would make use for economic and tourism developments. Therefore, the greater Galle area development plan identified this potential site to conservation redevelopment under the economic development strategy and underutilized state property development plan. Hence, project proposal to conservation and suitable range of vegetable market and related activities. The land belongs to Galle Municipal Council, an extent of approximately 01 acres.

Project Objectives;

1. The underutilized site in optimum use.
2. Conserve the historic and archaeological characters of the building.
3. Provide commercial spaces & open space to the community
4. Provide parking spaces to the town
5. Increase the city economy
6. Control the unauthorized constructions.

Expected project outputs

1. Optimum use of underutilized land and conservation of historic archaeological characters.
2. Commercial space for sellers. Specially for Tsunami relocation traders at Kakiribokkawattha land (Temporary in Kakiribokkawattha National Housing Development Authority Land)
3. Income to the City /Galle Municipal Council
4. Parking spaces to the city
5. Improve City beautification

Financing Plan (Tentative cost estimation)

Activity	Cost (Rs.mn)
Conservation of existing building	285.0
Construction	300.0
Total	585.0

7. Yoga Meditation Centre- Camping Site Development - Rumassala

Rumassala one nature conservation area has identified to be concern as nature conservation area and recreational activity area by Greater Galle Development plan. Nearly 1000-1500 people daily visit Rumassala to see natural environment and scenic beauty. Lack of having proper spaces for common facilities and such activities the optimum utilization of tourism is not taken place. The Yoga meditation Centre, camping site for School Children and climbing rocks to various activities of Rumassala area. Public opportunity to tourist to engage activities

The location of the Yoga meditation centre and Camping site is nearly to the Kulunu Kanda Temple. Construction of Eco-friendly structure landscaping area walkability and facilities are source of activities to be done.

Objectives

The main objective of the project is to develop the area which keeping as the conservation area with the natural environment with social advancement & landscaping development.

Benefits

1. Develop the environment friendly activities of the public since School level
2. Promote the tourist attraction
3. Increase the income of the Habaraduwa P.S.
4. Protect the reservation lands

Financing Plan – Estimated Cost 20 Million

8. Olanda Ela re-habitation project at Rumassala

Unawatuna is a world famous tourism area and Dutch Olanda Ela is already polluted. Because of Collecting Garbage, Waste water and sewer lines. Therefore, Irrigation Department proposed to do integrated rehabilitation project and UDA have to do design plans with landscaping plan and walkability improvements

Objectives

To Develop the area with Sea view, natural environmental with social advancement, recreational activities & Landscaping developments while keeping as the open area.

1. Promote the tourism attraction
2. Increase the leisure activities
3. Develop the physical health of the public

Benefits

1. Improve social advancement of the project
2. Increase tourism attraction
3. Increase the income of the Habaraduwa P.S

Estimate Cost – 265 Million

9. Car Parks Development at Rummassala

Unawatuna is a congested tourism centre nearly to Galle Town. Nearly 1500 tourist and local people also using Unawatuna for bathing & sun bathing. Unavailability of a sewer system, parking and common facilities affected to both public life and tourism as well. The parking development with landscaping development will provide better opportunity to Unawatuna users.

Objectives

To develop the area while keeping the open area as it is with sea view and the natural environment with social advancement, recreational activities 7 Landscaping development to minimize the effect of on street parking upon road safety and congestion.

- To reduce dependence on the car, particularly in Wella Dewala area.
- Promote the local and foreign tourist attraction.
- Increase the income of the Habaraduwa P.S.
- Increase the leisure activities providing infrastructure facilities

Estimate

1 st Site -	35 Million
2 nd Site -	20 Million

Out Put

- Improve the Car parking for the public
- Conserve the existing open space
- Increase tourism attraction
- Increase the income of the Habaraduwa P.S.

10. Walkability improvement and Rock climbing at Rumassala

Rational of the Project

Urban Development Authority has identified certain development to be done in Unawatuna area due to unavailability of recreational activities in the town to facilitate the tourist and Unawatuna users and protect government lands.

Objectives

- To develop recreational and leisure activity
- to promote tourist attraction

Benefits

- Improve social advancement
- Enhance the existing natural environment
- Use the existing government reservation land for leisure activities
- Increase tourism attraction
- Increase the income of the Habraduwa P.S.

Estimate Cost – 30 Million

11. Designing of Public squares in potential locations within the city centre

Greater Galle area development plan identified project proposals to public squares in potential locations within Galle City centre to achieve the one of the 6 main goals called green clean and safe. Under the public open recreation space management plan. As a strategy 04 projects proposals identified to these potential locations.

- Town Hall squares design project
- Station forecourt design project
- Mahajana Pola public square project
- Prison square design project

Project Objectives

- Optimum use of underutilized potential sites in City centre
- Increase open spaces to the public
- Improve recreation facilities

Project components:

Town Hall Square design project
8920 sq.m estimated to be improved
Square surface – Approx. 5350 sq.m

side walk surface – 2000 sq.m

Road surface – 1490 sq.m

Public facility – 80 sq.m

Project Benefits

1. Improve the city economy
2. Enhance the city beautification
3. Develop the tourist attraction
4. Integrate the open space and commercial space.

6.7.2 Institutional Setting

Development Plan Name: Greater Galle

Plan	Sub Plans and Action Projects	Relevant Institutions (Refer Annexure 01)	Responsibilities of the Institute for implementing the project
“Service Plan” (under Social and Physical Infrastructure Development Strategies)	Sub Plan - Settlement Development Plan	1. National Housing Development Authority	1. Conducting Feasibility Analysis
	Action Project 01 – Promote 03 categories of Residential Zones for residential development	2. Urban Development Authority	2. Providing Preliminary Planning Clearance
	Action Project 02 - Create Linkages in between Residential Zones and Development Growth Corridor (DGC)	1. Road Development Authority 2. Bope-Poddala P.S. 3. Akmeemana P.S.	1. Conducting Feasibility Analysis 2. - do - 3. - do -
Transport Plan	Sub Plan – Transport Plan	1. Road Development Authority	Conducting Feasibility Analysis
	Action Project 01 – Constructing a six lane road connecting Ginthota & Walahanduwa (3 rd Wave Road)	2. Galle Municipal Council	
	Action Project 02 – Creating a four lane traffic by-pass road (1 st Wave Road)	1. Road Development Authority 2. Galle Municipal Council	Conducting Feasibility Analysis Maintenance
	Action Project 03 – Two lane connector creating a road from Galle Road to Highway Access Road (2 nd Wave Road)	1. Road Development Authority 2. Galle Municipal Council	Conducting Feasibility Analysis Maintenance

Plan	Sub Plans and Action Projects	Relevant Institutions (Refer Annexure 01)	Responsibilities of the Institute for implementing the project
Water Supply Plan	Sub Plan – Action Plan 01 – Upgrading the Underground Pipe Infrastructure	National Water Supply & Drainage Board (NWS&DB)	Conducting Feasibility Analysis
	Sub Plan – Action Project 02 – Expand the pumping capacity of Water Supply	National Water Supply & Drainage Board (NWS&DB)	Conducting Feasibility Analysis
Drainage and Sewerage Lines Plan	Sub Plan – Sewer Management Project Action Project 01 - (SHIFT Project)	National Water Supply & Drainage Board (NWS&DB)	- Conducting Feasibility Analysis - Identify a suitable land
Economic Plan	Sub Plan – Tourism Management Plan Action Project 01 – Mahamodara Lake Water Village	Galle Municipal Council	Supervision & Maintenance
	Action Project 02 – Regeneration of Mahamodara Hospital Site and NTS Site for High end Tourism Activities	Irrigation Department Urban Development Authority - Tourist Board	Conducting Feasibility Analysis Designing & Approval Conducting Feasibility Analysis

Plan	Sub Plans and Action Projects	Relevant Institutions	Responsibilities of the Institute for implementing the project
Industrial Plan	Sub Plan – Fishery Activity Improvement Plan Action Project 01 – Facilitate 02 No. of identified fish landing sites along the Coast & link them up with tourism activities	1. Fisheries Corporation 2. Coast Conservation Department 3. UDA	- Conducting Feasibility Analysis - - do - - Designing
Conservation Plan	Sub Plan – Rumassala Guide Plan Action Project 01 – Conservation Plan	1. Wild Life Conservation Department 2. Urban Development Authority 3. Habaraduwa P.S	Conservation & Management Enforcement of Guidelines Management & Implementation
	Sub Plan – Action Project 02 – Conserve Forest Resources & other proposed conservation sites	1. Forest Department 2. Bope – Poddala P.S.	1. Conservation & Management 2. Management & Implementation
Landscape Management Plan	Sub Plan – Natural Environmental Management Plan Action Project 01 – Introduce Green Promotional Zone	1. Agrarian Department 2. Bope – Poddala P.S., 3. Akmeemana P.S. 4. Galle Municipal Council	Enforcement & Management
	Sub Plan – Eco Park Action Project 02 – Promoting Eco Tourism activity at Pinnaduwa	1. Urban Development Authority 2. Akmeemana P.S.	Designing & Implementing Management

Plan	Sub Plans and Action Projects	Relevant Institutions	Responsibilities of the Institute for implementing the project
Disaster Risk Management Plan	Sub Plan – Action Project 01 – Improving of Storm Water Management System	1. Irrigation Department 2. Strategic Cities Development Project (SCDP)	Supervision and Consultation Designing and Implementing
	Sub Plan – Action Project 02 – Preparation of Tsunami Evacuation Plan with the participation of community	1. Disaster Management Centre 2. District Secretariat Office, Galle	1. Designing & Implementing 2. Implementing
PORS Plan	Sub Plan – Walkability Improvement Plan Action Project 02 – Creating an Ocean pathway	1. Coast Conservation Department 2. Strategic Cities Deve. Project 3. Urban Development Authority 4. Galle Municipal Council	Conducting Feasibility Analysis Designing & Implementing Designing & Enforcement Mechanism Management
	Sub Plan – Action Project 02 - Prison Square Design Project	1. SCDP 2. UDA 3. Galle MC	Designing and Implementing Designing & Consultation Management

Plan	Sub Plans and Action Projects	Relevant Institutions (Refer Annexure 01)	Responsibilities of the Institute for implementing the project
Agriculture Plan	Sub Plan – Fishery Activity Improvement Plan Action Project 01 – Spice Market at Jakotuwa (Link Project)	1. Department of Minor Export Crops (Agriculture Department) Galle MC	Conducting Feasibility Analysis Designing Management
	Sub Plan – Action Project 02 – Improvement of Agriculture Zone	Agriculture Department	Designing Management & Implementing
Archaeological Conservation Plan	Sub Plan – Action Project 01 - Galle Fort Guide Line	1. Archaeological Department 2. Galle Heritage Foundation 3. UDA	Enforcement & Consultation Preparation of Guide Lines & Regulations
	Action Project 02 - Conservation Management Plan	Archaeological Department	Management, Consultation & Implementation

