

Colombo Commercial City Development Plan – 2019-2030



Aquarina~
The City in Water

Volume II



Ministry of Megapolis & Western Development
Urban Development Authority
Sri Lanka

Colombo Commercial City Development Plan 2019–2030

Volume II

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Colombo Commercial City Development Plan 2019–2030 is delivered through a series of publications; Volume I, II & III. Volume I contains the situational analysis and the explanations on the need of a plan. Volume II contains a detailed elaboration on the plan including vision, goals, objectives, strategies, strategic projects and implementation mechanism. Volume III is a separate document which contains both special and general Planning & Building Regulations applicable to *Colombo Commercial City* within the period of 2019–2030.

Colombo Commercial City Development Plan 2019–2030 was prepared by Western Province Division and Research & Development Division of Urban Development Authority with the consultation of relevant stakeholder agencies.

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Acknowledgement

Preparation of *Colombo Commercial City Development Plan (CCCDP)* is a collaborative work undertaken by the *Western Province and Research & Development Divisions* of *Urban Development Authority* in consultation with relevant stakeholder agencies. Throughout the process which continued for nearly one and half years, there were many who contributed to CCCDP in numerous ways.

Our sincere gratitude is extended to the **Minister of Megapolis & Western Development, *Honorable Patali Champika Ranawaka*** for his guidance and support in making this exercise a success. The counsels and support given by **Secretary to the Ministry of Megapolis & Western Development** and the fellow staff at Ministry are also highly valued at this point.

Our special thanks is extended to the Mayors, Chairmen, Council Members, Commissioners, Secretaries and staff of all 08 Local Authorities; *Colombo Municipal Council, Dehiwala Mt-lavinia Municipal Council, Boralesgamuwa Urban Council, Kolonnawa Urban Council, Peliyagoda Urban Council, Wattala-Mabola Urban Council, Wattala Pradeshiya Sabha and Kelaniya Pradeshiya Sabha* for their great cooperation and contribution towards CCCDP.

Special gratitude is extended to all relevant key stakeholder agencies of both state and private sector for sharing their comments, suggestions and ideas along with numerous valuable input data without which the CCCDP won't be a reality. The support and guidance given by the Department of Town & Country Planning of University of Moratuwa is remembered with utmost gratitude at this point. The comments, recommendations and suggestions given by general public; especially the Colombo Community in the means of participating in stakeholder meetings, focused group discussions, business forums, through the website and other social media are also highly appreciated.

Chairman of Urban Development Authority, *Dr. Jagath Munasinghe* is recalled with great appreciation for initiating the process of preparing CCCDP, guidance given throughout by introducing many new innovative planning techniques and applications and for continuous supervision and encouragement given throughout the process. Special thanks is also extended to **Director General of UDA, *Eng. S.S.P. Rathnayake***, **Additional Director General, Deputy Director Generals and Directors of all Divisions of UDA** for their encouragement, supervision and counsel given throughout. The continuous direct guidance and encouragement given by **Director (Development Planning & R&D), *Plnr. Janak Ranaweera*** is also remarked with great appreciation.

Special gratitude is extended to **Development Planning Division, Research & Development Division, GIS Division, Enforcement Division, Environmental & Landscape Division, Project Management Division and Urban Regeneration Project Office of UDA** for their cooperation. In addition, all staff of UDA is remembered with utmost gratitude for their support towards CCCDP in numerous ways.

Further, special thanks is extended to outside parties who worked with us to make CCCDP a reality such as ***Mr. Indula Jayasekara*** for 3D visualization of special project areas, ***Mooniak*** for designing all publish materials and ***Mr. Gihan Wijewardhana*** for designing of presentation panels and all who contributed towards CCCDP in numerous ways.

Honorable Minister's Forward



Having established under the provisions of the Urban Development Authority Law: Act No. 41 of 1978, the Urban Development Authority by now has completed 40 years of service contributing to the urban development in Sri Lanka. At this moment the UDA marks another milestone by completing a comprehensive Development Plan for another decade for Colombo Commercial City.

Colombo is the administrative, commercial and finance hub of Sri Lanka and it has also gained a considerable position in the international context as an emerging vibrant business hub in South Asian region. The role of Colombo is crucial, not only for the economy and for the administration of the whole country, but also in Sri Lanka's journey to become a developed nation. Thus, the Colombo Commercial City Development Plan 2019-2030 shall be viewed as a scenario that has both national and international significance.

Our effort is to support Colombo's role as an international business hub by shaping up its physical environment while ensuring a higher livability for its inhabitants and an efficient functioning of the state of the art infrastructure facilities. The Plan intends to address the prevailing issues of the city with strategic action projects while envisaging to harness the untapped potentials at the best.

My understanding is that the preparation of this Plan involved extensive consultation of professionals, expertise, stakeholders and the communities, while engaging modern methods, sound techniques and innovative approaches. In this regard, I appreciate the extraordinary efforts of the Chairman, Director General, Planning Team, all staff of Urban Development Authority and those who have contributed in numerous ways to successfully complete this work. I also appreciate the support and contribution of relevant local authorities, state and private sector agencies and general public by working equally on a same platform to make Colombo Commercial City Development Plan – 2019-2030 a success.

Hon. Patali Champika Ranawaka
Minister of Megapolis & Western Development

UDA Chairman's Forward



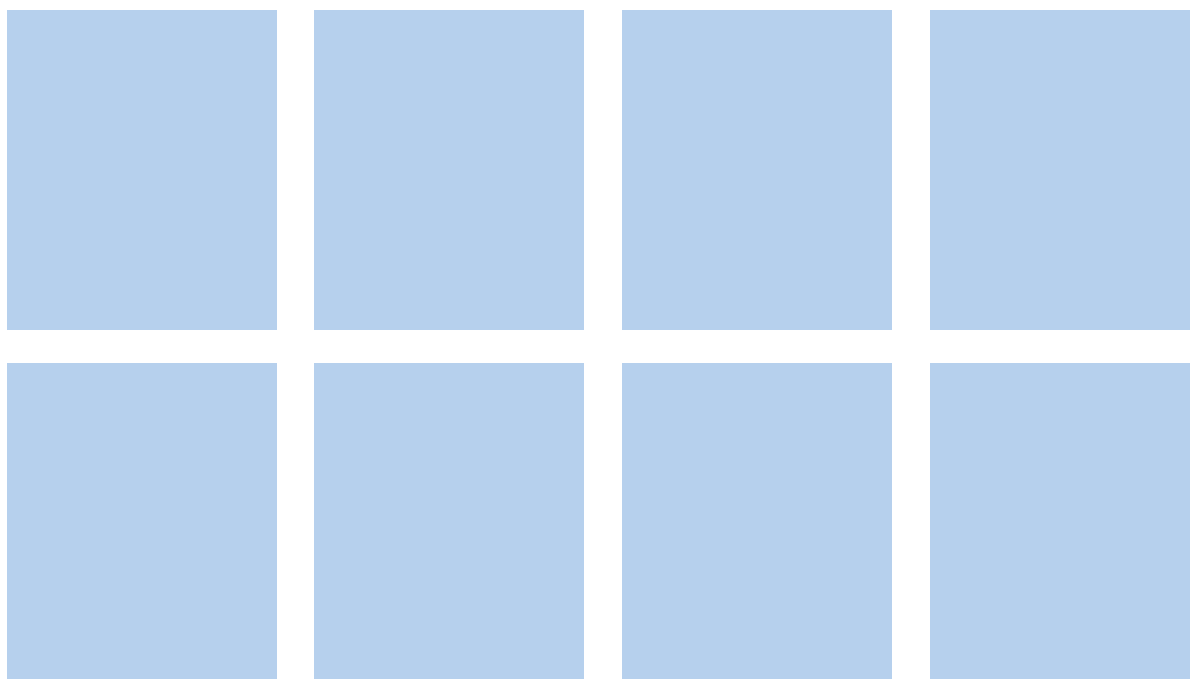
Today, the Urban Development Authority (UDA) is the apex planning and plan implementation body in Sri Lanka that is responsible for managing the state of the urban environments of the nation. The Authority was established in 1978 with the objective of introducing integrated planning and implementation, in order to promote and regulate developments for the common benefit of the urban areas. With the existence of Colombo as the commercial capital of Sri Lanka, it is high time that we view in retrospect to observe the achievements and successes as well as the drawbacks and failures it has gained. We can be happy of the developments which have been commenced up to now, but certainly we need to accept that we could achieve much more on this unique city area. This Colombo Commercial City Development Plan – 2019-2030 is a framework towards such noble objective of making Colombo and its surrounding areas a highly competitive, livable, sustainable and adorable city and that will become the most sought attraction in South Asia for business, investments, living, working and visits.

For the implementation of this Plan, we have not forgotten that our path is not as smooth as silk, but as rough as gravel, full of challenges, filled with uncertainties, and fouled by vicious intents. Yet the UDA today is equipped with necessary systems, tools and strategies to face such challenges, withstand those uncertainties, to make Colombo : the '*Aquarina – The City in Water*'.

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

Dr. Jagath Munasinghe
Chairman – Urban Development Authority

Message from Mayors and Chairmen of Local Authorities



We extend our gratitude towards Urban Development Authority for the initiative taken to prepare a common plan amalgamating our 08 Local Authority Areas into an integrated planning area as *Colombo Commercial City*. It is important to understand that the local authority boundaries drawn in legal documents are no longer reflected in real grounds, as all these areas function as a single entity accommodating the overspill of Colombo's urbanization. Hence, we believe, by adopting a single plan, we will be able to develop all 08 Local Authority Areas in an equal way following a shared vision.

We appreciate UDA's attempt to make *Colombo Commercial City Development Plan* a collaborative and participatory exercise by incorporating the recommendations, suggestions and criticisms given by us; the representatives of general public. Hence, we declare it as our plan and ensure our future collaboration and support in the implementation of *Colombo Commercial City Development Plan* within the next eleven years. Also, we request all citizens and stakeholders of *Colombo Commercial City* to act at individual and corporate levels to lead the city towards the shared vision as envisaged by the *Colombo Commercial City Development Plan – 2019-2030*

APPROVAL OF THE DEVELOPMENT PLAN FOR THE COLOMBO COMMERCIAL CITY AREA COMPRISING OF COLOMBO MUNICIPAL COUNCIL, DEHIWALA - MOUNT LAVINIA MUNICIPAL COUNCIL, KOLONNAWA URBAN COUNCIL, BORALESGAMUWA URBAN COUNCIL, PELIYAGODA URBAN COUNCIL, WATTALA - MABOLA URBAN COUNCIL, WATTALA PRADESHIYA SABHA AND KELANIYA PRADESHIYA SABHA AREAS

I, Patali Champika Ranawaka, Minister of Megapolis and Western Development do hereby approve the Development Plan for the Colombo Commercial City Area comprising of Colombo Municipal Council, Dehiwala - Mount Lavinia Municipal Council, Kolonnawa Urban Council, Boralesgamuwa Urban Council, Peliyagoda Urban Council, Wattala - Mabola Urban Council, Wattala Pradeshiya Sabha and Kelaniya Pradeshiya Sabha Areas having considered the recommendation made by the Board of Management of the Urban Development Authority on 28th June, 2019 by virtue of the powers vested in me under Section 8F of the Urban Development Authority (Amendment) Act, No. 4 of 1982.


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

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

Date: 28th June, 2019



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The Gazette of the Democratic Socialist Republic of Sri Lanka
EXTRAORDINARY

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No. 2129/94 - FRIDAY, JUNE 28, 2019

(Published by Authority)

PART I : SECTION (I) — GENERAL
Government Notifications

**NOTICE OF APPROVAL OF THE DEVELOPMENT PLAN FOR THE CAPITAL CITY COMPRISING
OF SRI JAYEWARDENEPURA KOTTE MUNICIPAL COUNCIL, KADUWELA MUNICIPAL COUNCIL,
MAHARAGAMA URBAN COUNCIL, KOTIKAWATTA - MULLERIYAWA PRADEHSHIYA SABHA AREAS**

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

PATALI CHAMPIKA RANAWAKA,
Minister of Megapolis and Western Development.

28th June 2019.

**Approval of the Development Plan for the Capital City comprising of Sri Jayawardenepura Kotte
Municipal Council, Kaduwela Municipal Council, Maharagama Urban Council, Kotikawatta - Mulleriyawa
Pradehshiya Sabha Areas**

Public are hereby informed that the Development Plan prepared under Section 8A of the Urban Development Authority (Amendment) Act, No. 4 of 1982, for the Capital City comprising of Sri Jayewardenepura Kotte Municipal Council, Kaduwela Municipal Council, Maharagama Urban Council, Kotikawatta - Mulleriyawa Pradehshiya Sabha Areas have



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PART I : SEC. (I) - GAZETTE EXTRAORDINARY OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA 28.06.2019

been approved on 28th June 2019, by Hon. Patali Champika Ranawaka, Minister of Megapolis and Western Development by virtue of powers vested on him under Section 8 “F” of the said Amendment Act.

DR. JAGATH MUNASINGHE,
Chairman,
Urban Development Authority.

28th June 2019.

07 - 4553/1

**APPROVAL OF THE DEVELOPMENT PLAN FOR THE COLOMBO COMMERCIAL CITY AREA
COMPRISING OF COLOMBO MUNICIPAL COUNCIL, DEHIWALA - MOUNT LAVINIA MUNICIPAL
COUNCIL, KOLONNAWA URBAN COUNCIL, BORALESGAMUWA URBAN COUNCIL, PELIYAGODA
URBAN COUNCIL, WATTALA - MABOLA URBAN COUNCIL, WATTALA PRADESHIYA SABHA
AND KELANIYA PRADESHIYA SABHA AREAS**

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

PATALI CHAMPIKA RANAWAKA,
Minister of Megapolis and Western Development.

28th June 2019.

**Approval of the Development Plan for the Colombo Commercial City Area comprising of Colombo
Municipal Council, Dehiwala - Mount Lavinia Municipal Council, Kolonnawa Urban Council,
Boralessgamuwa Urban Council, Peliyagoda Urban Council, Wattala - Mabola Urban Council, Wattala
Pradeshiya Sabha and Kelaniya Pradeshiya Sabha Areas**

Public are hereby informed that the Development Plan prepared under Section 8A of the Urban Development Authority (Amendment) Act, No. 4 of 1982, for the Colombo Commercial City Area comprising of Colombo Municipal Council, Dehiwala - Mount Lavinia Municipal Council, Kolonnawa Urban Council, Boralessgamuwa Urban Council, Peliyagoda Urban Council, Wattala - Mabola Urban Council, Wattala Pradeshiya Sabha and Kelaniya Pradeshiya Sabha Areas have been approved on 28th June 2019, by Hon. Patali Champika Ranawaka, Minister of Megapolis and Western Development by virtue of powers vested on him under Section 8 “F” of the said Amendment Act.

DR. JAGATH MUNASINGHE,
Chairman,
Urban Development Authority.

28th June 2019.

07 - 4553/2

Colombo Commercial City Development Plan 2019 – 2030

Urban Development Authority

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PART I : SEC. (I) - GAZETTE EXTRAORDINARY OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA 28.06.2019

NOTICE OF APPROVAL OF THE DEVELOPMENT PLAN FOR THE MORATWUA MUNICIPAL COUNCIL AREA

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

PATALI CHAMPIKA RANAWAKA,
Minister of Megapolis and Western Development.

28th June 2019.

Approval of the Development Plan for the Moratuwa Municipal Council Area

Public are hereby informed that the Development Plan prepared under Section 8A of the Urban Development Authority (Amendment) Act, No. 4 of 1982, for the Moratuwa Municipal Council Area has been approved on 28th June 2019, by Hon. Patali Champika Ranawaka, Minister of Megapolis and Western Development by virtue of powers vested on him under Section 8 “F” of the said Amendment Act.

DR. JAGATH MUNASINGHE,
Chairman,
Urban Development Authority.

28th June 2019.

07 - 4553/3

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

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

PATALI CHAMPIKA RANAWAKA,
Minister of Megapolis and Western Development.

28th June 2019.

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

Public are hereby informed that the Development Plan prepared under Section 8A of the Urban Development Authority (Amendment) Act, No. 4 of 1982, for the Kalutara Urban Development area comprising of Kalutara Urban Council

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PART I: SEC. (I) - GAZETTE EXTRAORDINARY OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA 28.06.2019

and Kalutara Pradeshiya Sabha Areas have been approved on 28th June 2019, by Hon. Patali Champika Ranawaka, Minister of Megapolis and Western Development by virtue of powers vested on him under Section 8 “F” of the said Amendment Act.

DR. JAGATH MUNASINGHE,
Chairman,
Urban Development Authority.

28th June 2019.

07 - 4553/4

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

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

PATALI CHAMPIKA RANAWAKA,
Minister of Megapolis and Western Development.

28th June 2019.

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

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

DR. JAGATH MUNASINGHE,
Chairman,
Urban Development Authority.

28th June 2019.

07 - 4553/5

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A Quick Recap on Volume I

Colombo Commercial City

Capturing the overspill of Colombo Urbanization, Urban Development Authority has prepared an integrated plan merging 08 Local Authority Areas; Colombo Municipal Council, Dehiwala Mt- Lavinia Municipal Council, Boralesgamuwa Urban Council, Kolonnawa Urban Council, Peliyagoda Urban Council, Wattala Urban Council, parts of Kelaniya Pradeshiya Sabha and Wattala Pradeshiya Sabha into a single planning area named '*Colombo Commercial City*'.

Planning Process

The preparation of '*Colombo Commercial City Development Plan – 2019-2030*' is a collaborative exercise undertaken by UDA with the consultation of relevant stakeholders and general public. The plan has been formulated in the 'Strategic Planning' approach.

Planning Context

Colombo Commercial City identified as a competitive ng International City in the South Asian context as;

- One of the busiest Maritime Hubs
- A blooming Business Hub
- A highly sought-after Tourism Nest

Colombo Commercial City is the Commercial Capital of Sri Lanka and therefore, is the focal point of the national economy.

The Need of a Plan

Out of the detail analysis, given in the preceding sections of this report, the *Colombo Commercial City* has been identified as place with a variety of potentials which can be used to address many of its prevailing issues.

the reasonably large extents of water fronts, has been perceived as its most significant potential, which can be harnessed to induce a positive transformation into the city.

Boundary of the Planning Area Colombo Commercial City









Colombo Commercial City Development Plan
2019 – 2030



Urban Development Authority
December 2018

Legend

Local Authorities within the Planing Boundary

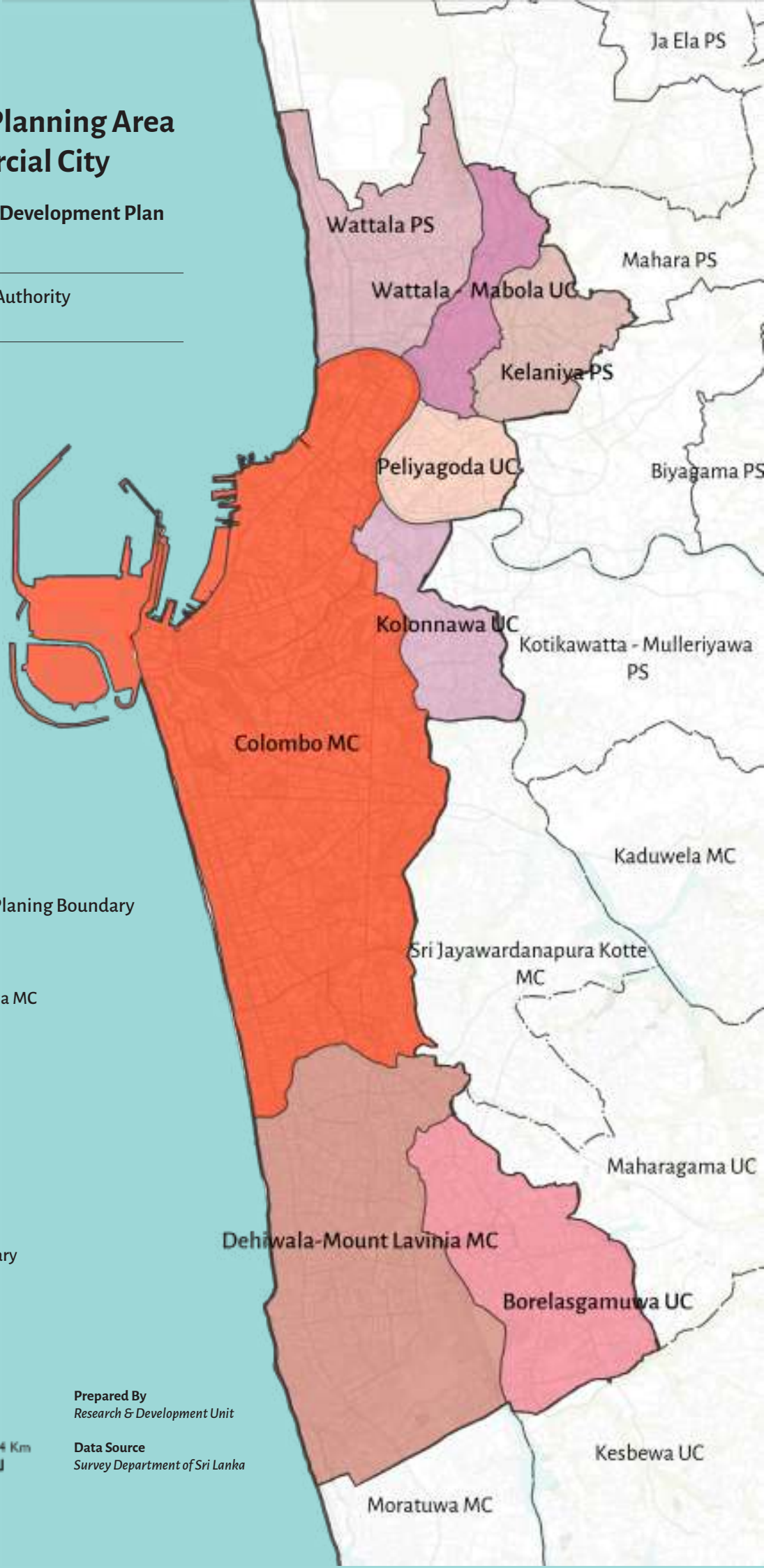
-  Colombo MC
-  Dehiwala Mount Lavinia MC
-  Kolonnawa UC
-  Borelasgamuwa UC
-  Peliyagoda UC
-  Wattala - Mabola UC
-  Wattala PS
-  Kelaniya PS
-  Local Authority Boundary



0 1 2 4 Km

Prepared By
Research & Development Unit

Data Source
Survey Department of Sri Lanka



Chapter 01
***The Planning
Framework***

Chapter 01
*The Planning
Framework*

1.1. Vision

Colombo Commercial City in 2030

Vision



Aquarina~
The City in Water

*Colombo to be experienced as the Smart, Vibrant and Tropical Water
Garden City of South Asia*

1.2. Vision Statement

The vision for the future of the Colombo Commercial City is the Aquarina: the City in Water' who will have its waterfronts transformed into city front-yards, Internationally, Colombo Commercial City will project its unique image as 'The City in Water', and will be an Investments Magnet in South Asia with enhanced living conditions and high quality business environment.

It is anticipated that Colombo will be experienced as a Smart City with upgraded services and utilities. The city infrastructure networks will effectively cover every corner of Colombo Commercial City upgrading the efficiency of the city functions, its economy and socio-cultural affairs. Further, the Colombo Commercial City will offer convenient modes of transport and enable fast mobility within the city.

Colombo will be a Vibrant City with overlapping activity spaces which reflect various dimensions of life of both residents and commuters those who belong to numerous cultures. It will be an inclusive home for all, irrespective of different social strata and will bear a unique image composed of rhythmic skyline and lifestyles.

Having its waterfronts transformed into city front yards and with conserved green pastures and shady boulevards within the city, Colombo will be branded as the 'Tropical Water Garden City of South Asia'.

1.3. Goals

The following three goals have been formulated towards accomplishment of the vision 'Aquinara – The City in Water'.

- G1** The most sought Water-front Business Environment Experience in the World
- G2** The revived internationally renowned Green Garden City of South Asia
- G3** The Smart, Smooth and Sensed Urban Space for all inhabitants

Each goal was evaluated with SWOT Analysis to derive specific objectives with the existing strengths and opportunities while overcoming weaknesses and threats in order to define a path towards the accomplishment of each goal.

1.4. Objectives

G1

The most sought Water-front Business Environment Experience in the World

Objective 01:

To open up 125 km length of various water and wetland fronts of *Colombo Commercial City* and its surroundings to the public by 2030.

Objective 02:

To open up 3000 ha of lands in waterfronts for business activities, residences and recreation purposes by 2030.

Objective 03:

To have a well connected water transportation system in *Colombo Commercial City* by 2030.

Objective 04:

To strengthen continuous network of water bodies and wetlands within *Colombo Commercial City* throughout, in the physical developments from 2019.

Objective 05:

To have a well-managed Flood Mitigation System in flood risk areas of *Colombo Commercial City* by 2030.

G2

The revived internationally renowned Green Garden City of South Asia

Objective 01:

To create a network of parks and green spaces of 520 ha linked with water and wetland networks in *Colombo Commercial City* by 2030.

Objective 02:

To ensure that every citizen of *Colombo Commercial City* has access to public open spaces within 500m walking distance by 2030.

Objective 03:

To have an average of 35% green cover and the enhanced green experience in *Colombo Commercial City* by 2030.

Objective 04:

To maintain 20% of the total area of *Colombo Commercial City* as special garden zones by 2030.

Objective 05:

To assure 'Green Developments' in *Colombo Commercial City* with energy conscious, conserving and environmental friendly designs and practices.



The Smart, Smooth and Sensed Urban Space for all inhabitants

Objective 01:

To have a legible, manageable and sustainable urban form for *Colombo Commercial City* by 2030.

Objective 02:

To have an integrated multimodal, reliable, affordable and comfortable Public Transport System by 2030.

Objective 03:

To have 04 Major TODs at strategic locations enabling easy mobility within *Colombo Commercial City* by 2030.

Objective 04:

To have optimum utility of the existing & proposed infrastructure systems by 2025.

Objective 05:

To assure improved quality of lives of all communities, and above minimum standards in physical quality of living environments of all citizens in *Colombo Commercial City* by 2030.

Objective 06:

To have an urban environment with state-of-the-art utilities and smart facilities enjoyable by all residents and commuters of *Colombo Commercial City* by 2030.

Chapter 01

*The SWOT Analysis
& Detailed Analysis
(A Summary)*

Chapter 02
***The SWOT
Analysis & Detail
Analysis
(A Summary)***

2.1. SWOT Analysis for Goal 01

The most sought Waterfront Business Environment Experience in the World

STRENGTHS

- 17% of total area of Colombo Commercial City being composed of natural elements; including 4.7km² of water bodies & 12.4km² of green areas
- Colombo having a variety of waterfronts including; 3km of seafront, 7km of Kelani River, 53km length of Canals & 0.78km² of Beira Lake
- The network of water bodies being well-interconnected and having well-maintained stream order
- Colombo having located in tropical wet zone and having an annual mean rainfall of 2500mm ensuring continuous availability of surface water levels
- One of the main historical purposes of canals constructed during Dutch & British periods had been water transportation backing the revived concept of using them as a means of modern water transportation
- Inter-linkages in the configurations of both water network and road network enabling the possibilities of connecting and exposing water bodies at highest integrated points or sections of road network
- Colombo's strategic location in International Sea Route magnetizing logistics related business opportunities
- Increasing demand for realty space in Colombo reflected by; land values varying in max. range of 10Mn to 18Mn per perch/ increasing high-rise developments with more than 10% of total buildings above 10 stories/ office rental varying from 250 LKR to 300 LKR per Sq.ft per month
- Present existence of considerable amount of office space; 2.5 Mn Sq.ft of Grade A multi-tenant leasable office space & 5 Mn Sq.ft of Grade B & self-owned office space by 2015
- Present existence of around 22 banks (including 11 foreign) indicating 19 banks per 1000 persons (as per the banking index) representing the city's prominence in both national and international financial affairs

OPPORTUNITIES

- Initiations and positive impacts of past and present planning interventions to clean and expose waterfronts such as Beira Lake Restoration Project, Canals Rehabilitation and Waterfront Development Projects under MCUDP and present Beira Lake Intervention Area Development Plan
- Ongoing and proposed mega scale waterfront developments such as Port City Project, Beira Lake Intervention Area Plan and Maritime City Development Project
- Recent international rankings of City of Colombo enhancing the city popularity & recognition in the international business context;
 - Colombo being ranked as '2nd most expensive city in South Asia' as per the Economics Intelligence Unit, 2017
 - Colombo being regarded as a 'Gamma + city' which links smaller economic regions into world economy
 - Colombo being ranked 'as the fifth place' in the list of 'five biggest improvers' as per the Global Livability Report – 2017 for successfully transformed its landscape over last 5 years
 - Colombo being ranked as No. 01 in the South Asian Region in Mercer's 2017 – Quality of Living Survey
 - Colombo being ranked 1st in the City Competitiveness Rankings among top cities of South Asia
- Port of Colombo being ranked among 'World's Best 25 harbors in accordance with Alphaliner rankings in 2017, enhancing port related business opportunities in Colombo
- Affordability of office spaces in Colombo being relatively higher than other competitive international cities as its average rental per 1 Sq.ft falling below USD 1.
- The current boost in tourism sector in Sri Lanka with 14% increase over past year, providing opportunities to enhance more business opportunities related to tourism in Colombo, which is already a highly sought tourism destination, where a tourist who spends an average of 10 days in the island spend at least 2 days

WEAKNESSES

- 90% of water bodies in Colombo being polluted *with 50% - very bad, 15% - bad, 15% - medium & 20% - good*
- An average rainfall with the intensity of 50mm to 100mm per day resulting flash flood that lasts for about 1 to 2 hours *and this flood risk being relatively higher in Kelani River banks and Canal areas*
- Approximately 90% of waterfronts in Colombo Commercial City being underutilized and more than half of waterfronts have been encroached by Underserved Settlements
- Occupation of highly valued lands in prime locations, especially in waterfronts by Underserved Settlements *downgrading land values up to 3Mn per perch, which could have been above 10Mn per perch if utilized for compatible economic activities (approximately 50% of CMC population is living in USS)*
- Some canals within Colombo Commercial City area not having required physical dimensions to support boat transportation *due to side encroachments and sedimentation*
- Existing zoning, planning & building regulations not including special enforcement mechanism to regulate waterfronts
- Severe traffic congestion on major arterials and nodes during peak hours resulting;
 - Average speed less than 10km/hour (which is significantly lower compared to other international cities)
 - Overall economic loss of LKR 40Bn accounting for 1.5% annual GDP loss within CMC area
 - Colombo having moderate level of air quality with average of 80 AQI of PM_{2.5} level
- Lack of infrastructure coverage in particular areas of Colombo Commercial City; *existing waste water management system serving only 25% of total population*

THREATS

- Possibility of waterfronts and wetlands being reclaimed and encroached to cater future development activities given that;
 - 39% of reduction in wetlands in Colombo Commercial City from 2010 to 2018 (1027ha of wetlands in 2010 has reduced to 628ha in 2018)
 - 51% area of Beira Lake has been reclaimed during last 100 years
 - 38% of overall reduction of both water bodies and wetlands
- The market challenges caused by global and regional competitive cities *such as Singapore, Mumbai, Bangalore, Dubai,*
- Availability of office spaces stock in Colombo being relatively lower than other competitive cities with similar affordability levels (average office rent for 1 sq.ft being below USD 1) *such as Chennai and Bangalore*
- The significance of Colombo Port having relatively reduced during past decades *due to boom of other competitive ports in the region such as Singapore Port.*

2.2. SWOT Analysis for Goal 02

The revived internationally renowned Green Garden City of South Asia

STRENGTHS

- Existing garden characters within Cinnamon Garden Area (Colombo 07) being the reminiscence of legacies of the City Plan by Sri Patrick Geddes with the vision; Colombo as the Garden City of East

—Boulevard grid patterned streets radiating from Viharamaha Devi Park as the center (Baudhaloka Mw & Hortan Place, D.S. Senanayake Mw and Wijerama Mw etc.)

—City elements with green pastures such as Viharamaha Devi Park, Town Hall Front yard, National Museum, Arcade Independence Square and Galle Face Green etc.

—Elegant garden houses with large plots of lands

- Colombo having located in tropical wet zone and having an annual mean rainfall of 2500mm *providing a favorable climate for a Green Garden City*

- Colombo having evolved amidst wetlands still hosting a considerable number of wetland and water features at many parts of the city

- 17% of total area of Colombo Commercial City being composed of natural elements; including 4.7km² of water bodies & 12.4km² of green areas

- Existence of ecologically diversified eco-systems such as Kelani River surroundings, Canal eco-systems, Attidiya Wetland & Bird Sanctuary, Kolonnawa Marsh, Bolgoda River environs and Marine environments etc.

- Present existence of approximately 132.18 Hectares of public open spaces within Colombo Commercial City

- Already established popular tourism destinations associated with special green features of the area; *Attidiya Wetland & Bird Sanctuary, Galle Face Green, Viharamaha Devi Park, Beira Lake and Bellanwila Wetland Park etc.*

OPPORTUNITIES

- The remaining Garden Character of Cinnamon Garden (Colombo 07) area having conserved throughout by past and present plans (City of Colombo Development Plan – 1999 and its amendment plan in 2008) as 'Special Primary Residential Zone' considering its importance as a special city heritage

- Colombo being ranked as No. 01 in the South Asian Region in Mercer's 2017 – Quality of Living Survey

- Ongoing and proposed mega scale public open recreational space development projects such as Beira Lake Intervention Area Plan, Maritime City Development Project, Borella Urban Park, Meethotamulla Urban Park and Attidiya Wetland Park and Bird Sanctuary Project etc.

WEAKNESSES

- Waterfronts and wetlands having reclaimed and encroached to cater future development activities given that;

– 39% of reduction in wetlands in Colombo Commercial City from 2010 to 2018 (1027ha of wetlands in 2010 has reduced to 628ha in 2018)

– 51% area of Beira Lake has been reclaimed during last 100 years

– 38% of overall reduction of both water bodies and wetlands

- Existing wetlands and other green areas being polluted or mistreated *by dumping solid waste and direct discharging of sewer and waste water*

- Colombo having moderate level of Air Quality *as it indicates an average of 80 AQI based on the concentration of PM2.5*

- Colombo having relatively high heat distribution *with areas in North Colombo such as Bloemendhal, Dematagoda, Kotahena & Peliyagoda and southern areas such as Ratmalana recording highest heat levels*

- The existing public open space stock of 132.18 ha in Colombo Commercial City not being adequate to accommodate the open space requirement of existing residential and commuter population *which is 258.46 ha as per the standard of 0.2 per 1000 population.*

THREATS

- Future possibility of the encroachment of existing wetlands of Colombo Metropolitan Region is estimated to be 90%

- Existence of Underserved Settlements and consequent environment, social and economic issues and challenges *downgrading the image of the city as an internationally renowned city*

- Negative environmental and social consequences of severe traffic congestion on major arterials and nodes during peak hours *(average speed less than 10 km/hour) downgrading the overall quality of the environment and city image*

2.3. SWOT Analysis for Goal 03

The Smart, Smooth and Sensed Urban Space for all inhabitants

STRENGTHS

- Colombo's strategic location in International Sea Route *enabling the City to be connected globally*
- 100% coverage of both pipe-borne water and electricity supply networks
- Existing land use pattern has been governed and regulated over decades by the previous and existing Planning & Building Regulations
- The present increasing trend of high-rise developments shaping up Colombo's Skyline
- The present mega-scale investment projects taking place within *Colombo Commercial City* such as Port City Project, Transport Development Projects, Road Development Projects, Urban Regeneration Project, Beira Lake Development Project, Maritime City Development Project, and other Mixed developments transforming Colombo's landscape into a one of an international city
- Colombo being the nuclear of the island's road and railway transportation, having the direct linkages with distanced regional areas

OPPORTUNITIES

- Colombo's strategic location in International Sea Route *magnetizing logistics related business opportunities*
- The current boost in tourism sector in Sri Lanka with 14% increase over past year, providing opportunities to enhance more business opportunities related to tourism in Colombo
- Increasing demand for realty space in Colombo *reflected by: land values varying in max. range of 10Mn to 18Mn per perch/ increasing high-rise developments with more than 10% of total buildings above 10 stories/ office rental varying from 250 LKR to 300 LKR per Sq.ft per month*
- Existing and proposed infrastructure development projects *such as; Light Rail Transit Development, Railway Electrification, Bus Priority Lane Project, Macro and Micro Drainage Network improvement by SLLRDC and CMC and Development of Multi-modal Transport Hub at Pettah etc.*
- The present mega-scale investment projects taking place within *Colombo Commercial City* such as Port City Project, Mixed developments
- Proposed waste-energy projects at Karadiyana (500MW) and Kerawalapitiya (500 Mw) and transportation of solid waste of Colombo and suburbs to Sanitary Land Filling Site at Aruwakkaru *providing solutions for solid-waste issue of Colombo*
- The present intervention by Urban Regeneration Project of UDA to provide decent housing for underserved settlement communities of Colombo *while releasing underutilized lands for investments*

WEAKNESSES

- Present configuration of bus and rail transportation system attracting unnecessary vehicle and population flows and through traffic into Colombo Central Business District Area *resulting in heavy traffic congestions*

- Different modes of transportation are not being well-interconnected and not having integrated operational system *that enables easy transfer between different modes*

- Severe traffic congestion on major arterials and nodes during peak hours resulting;

— Average speed less than 10km/hour (which is significantly lower compared to other international cities)

— Colombo having moderate level of air quality with average of 80 AQI of PM2.5 level

- Identified water transportation systems not functioning at present situation due to technical and implementation issues

- 50% of Colombo Municipal Council Population still living in underserved settlements with poor living conditions *such as; 41% of settlements having common toilets, 8% without toilets, 28% having serious issues regarding disposal of sewage and 50% not having connected to the city's sewer network*

- Encroachment of river, canal, railway and coast reservations and wetlands by underserved settlements and other development activities.

- Huge disparity between the land values of different point at same radius from Colombo CBD *due to existence of Underserved settlements and other economically incompatible activities.*

- Approximately 75% of existing population not being served by any of the existing waste water management systems; *Colombo, Ratmalana & Boralesgamuwa Waste Water Management Systems.*

- True potential of waterfronts and prominent economic activities such as tourism, port related logistics activities, real-estate market, IT and financial services and retail and commercial activities not being harnessed yet.

THREATS

- Existence of Underserved Settlements and consequent environment, social and economic issues and challenges *downgrading the image of the city as an internationally renowned city*

Chapter 03

The Plan

Chapter 03

The Plan

Concept Plan

3.1. Concept Plan

In order to lead the city towards being accomplished with its the vision 'Aquarina – The City in Water', a 'Concept Plan' has been formulated for the Colombo Commercial City. The main principle behind the Concept Plan is the harnessing of city's most significant potential; which is the existence of variety of waterfronts and green areas. Hence, the Concept Plan for Colombo Commercial City was developed based on Seven Aqua Regions which are associated with various waterfronts and green areas. The overall concept is that Colombo Commercial City will have six aqua regions encircling the special region named 'the Garden'.

All seven aqua regions have been delineated in a manner that they will include all waterbodies and green areas of Colombo Commercial City including the sea-front, Kelani River, Beira Lake, canal network, wetlands, sanctuaries, paddy lands, boulevards, parks and green neighborhoods with garden houses.

Aqua Region 01	Kelani River Based Special Regeneration Area
Aqua Region 02	The Marina Corridor
Aqua Region 03	Beira Lake and Port City Based Exclusive Development Area
Aqua Region 04	Canal Based Transformation Area
Aqua Region 05	Canal Based Development Area
Aqua Region 06	The GARDEN
Aqua Region 07	Bolgoda River Based Development Area

Table 3.1 : Seven Aqua Regions

Aqua Regions

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

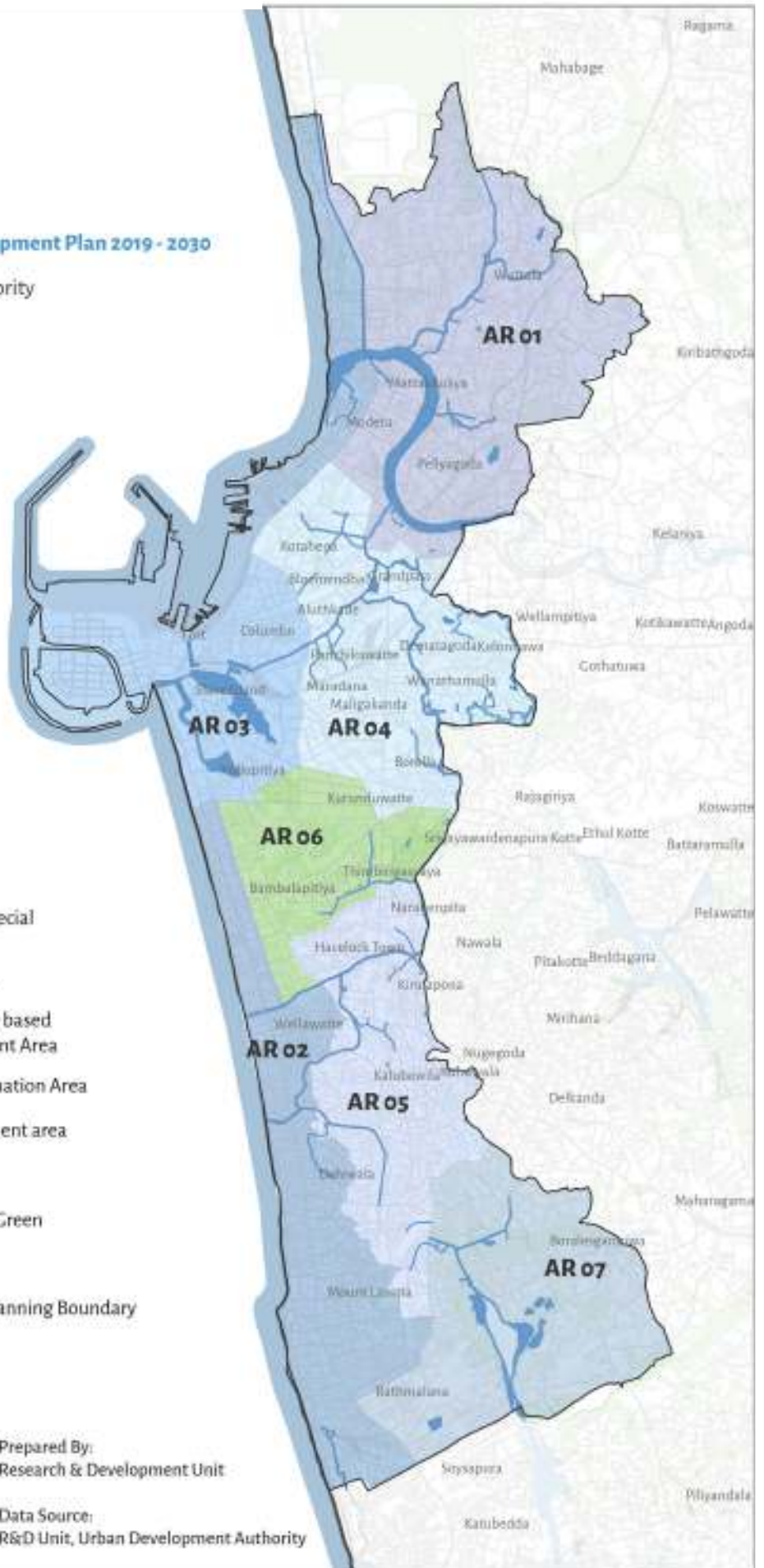
Legend

- AR 01 - Kelani River based Special Regeneration Area
- AR 02 - The Marina Corridor
- AR 03 - Beira Lake & Port City based Exclusive Development Area
- AR 04 - Canal Base Transformation Area
- AR 05 - Canal Base Development area
- AR 06 - The Garden
- AR 07 - Bolgoda River based Green Development Area
- Colombo Commercial City Planning Boundary



Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 3.1 : Concept Plan – The Seven Aqua Regions

Chapter 03
The Plan

Concept Plan

*Delineation of
the Boundaries of
Aqua Regions*

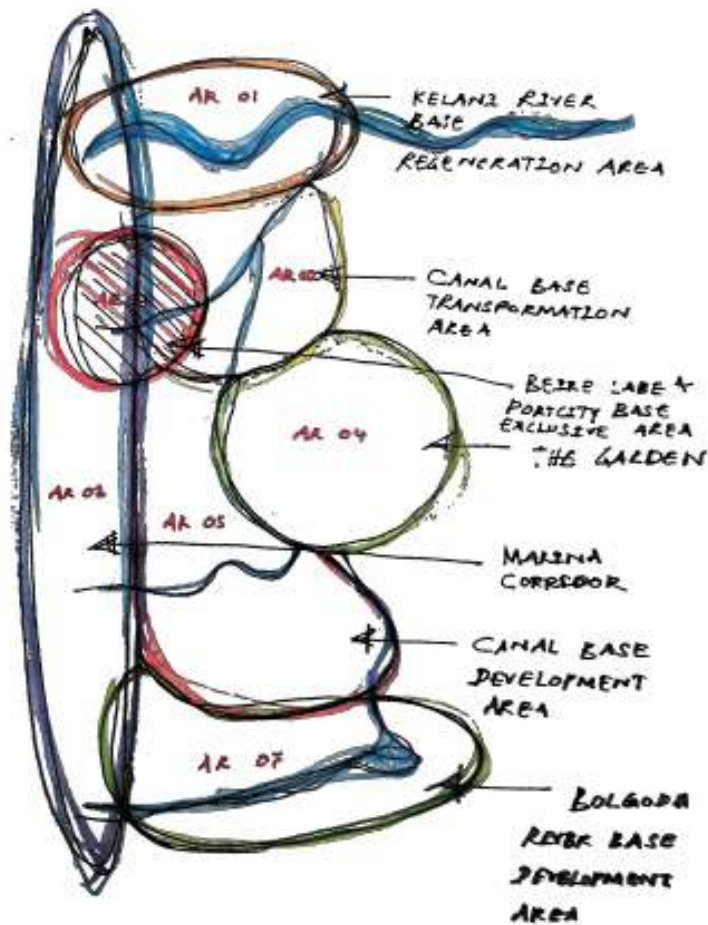


Figure 3.1 : Concept Plan – The Sketch

3.1.1. Delineation of the Boundaries of Aqua Regions

The delineation of seven aqua regions, determination of their hierarchical importance and special characters were based on following criteria.

1. Seasonal water availability of considered water bodies
2. The significance and the magnitude of expected impact on neighboring land uses due to scale of waterbodies in terms of extent and distribution
3. Location of waterbodies in relatively higher integrated and connected points terms of origin – destination matrices and road & other transport networks
4. Existing and proposed interventions to transform the considered waterfronts

3.1.2. Characteristics of Seven Aqua Regions

Aqua Region 01

Kelani River based Special Regeneration area

Two main water bodies fall within the boundary of the Aqua Region 01 including Kelani River; the main inland water body within the planning area and Mudun Ela; which runs from north to south via Wattala and connects with Kelani River at Peliyagoda. Approximately, 18km length of water network runs within the Aqua Region 01.

It is anticipated that this region will be a special regeneration area that will transform its physical environments from its current status to cater high dense developments and enhanced economic activities such as hotels, condominiums, shopping malls, private offices, recreational and entertainment activities parallel to mega scale waterfront developments in the valley of Kelani River.

Justification—The existence of a variety of waterbodies is considered as the biggest potential of the city and the core thrust area for the City Development Plan. To enhance this potential, Kelani River should shall receive its due prominence as it is the main and the largest inland water potential within the Colombo Commercial City. 15km length of waterfronts are available considering the either sides of approximately 7km long stretch of Kelani River falling within the planning area.

Even though, the origin of Colombo was based on Kelani River valley according to the history. Gradually the Fort, Pettah and Beira Lake area became the Central Business District in association with the the development of Colombo Port at its current location. With time, Kelani River Front turned into a backyard of the city with the utilization of its surrounding lands for port supportive uses such as the warehouses, polluting industries and the unauthorized settlements whose inhabitants were serving the functions of the port and the city.

In the context analysis, it was identified that there is a huge disparity between the existing land values of the North of Colombo including the Kelani River banks surrounding area with the land values of Central Business District and South of Colombo. The reason behind this significantly lower land values of Kelani River surrounding area can be explained with regard to its surrounding land uses which can be identified as incompatible and under-utilized that have not yet harnessed the real potential of the Kelani River waterfront.

Chapter 03

The Plan

Concept Plan

Characteristics of Seven Aqua Regions

In bank associated area gains further prominence as it is considered as the north gate of Colombo as identified by number of previous plans, that it is the main point which links Colombo with the East- West corridor proposed by National Physical Plan – 2050 and due to the physical integration of number of proposed transport links within this area.

In this context, this plan intends to view Kelani River and surrounding area as a focal point of Colombo Commercial City which will undergo a significant physical transformation to cater high-dense developments along with special regeneration interventions.



Figure 3.2 : Conceptual Images of Aqua Region 01 – Kelani River Based Special Regeneration Area

Aqua Region 02

The Marina Corridor

The Coastal belt which runs for more than 31 kilometers within the Colombo Commercial City, is the largest linear waterfront of the whole city. The corridor's special scenic beauty composed of sea-view and unique ambiance blended with sea-breeze makes it the most attractive sphere of entire Colombo Commercial City. Its attractiveness is proved with already established and ongoing developments such as the Port City Development, Maritime City Development, Star range International Hotels, Retail, Condominium and private office space developments.

In favor of the adopted concept plan developed based on the principle of enhancing variety of water experiences within the city, the corridor having the extent of 2268 ha including the coastal belt stretching from Wattala to Ratmalana along with coastal towns such as Hendala/ Hekitta at north, Kollupitiya, Bambalapitiya, Wellawatta, Dehiwala, Mt- Lavinia and Ratmalana is designated as 'the Marina Corridor' that will be developed harnessing the potential of the sea-front. It is envisaged that 'The Marina Corridor' will be a horizon of high-dense and high-end developments in the scope of tourism, retailing, private office, universities and condominiums blended

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The Plan

Concept Plan

Characteristics of Seven Aqua Regions

with vibrant entertainment and recreational activities of human scale. It is envisaged that 'the Marina Corridor' will act as the largest city front-yard and the interaction space of Colombo Commercial City Community.



Figure 3.3 : Conceptual Images of Aqua Region 02 – The Marina Corridor

Justification—Certain parts falling under 'The Marina Corridor' are already attractive investment areas that have significantly high land values. However, still there are some parts especially in northern stretch including Modara, Mattakkuliya, Hendala and Hekita and in southern stretch including some parts of Dehiwala, Mt-Lavinia and Ratmalana which can be considered under-utilized in terms of planning point of view. Hence, by including all above areas in the coastal line within a single aqua region named 'The Marina Corridor', it is expected to derive a similar levels of high-dense and high-end development throughout the corridor. Further, special consideration will be given to preserve the wind corridors and ensure visual and physical accessibility of sea-front to maximize its benefits and to ensure that they are reachable for a larger community.

Aqua Region 03

Beira Lake and Port City Based Exclusive Development Area

It is envisaged that Beira Lake Circle in alliance with the Port City, will be an Exclusive Development area catering both high-dense and high-end developments leading to be the Financial Core Centre of Colombo Commercial City. It will provide enhanced economic spaces to cater both local and foreign investments in the scope of financial institutions, branches of multi-national organizations, international hotel establishments, condominiums, shopping malls and office spaces etc. blended within an exclusive ambiance composed of Beira Lake waterfront, boulevards, pocket gardens, public squares, shopping streets and recreational spaces open for all groups of communities irrespective of the their affordability, affinity and elegance, similar to the present Galle Face green.

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Characteristics of Seven Aqua Regions

The Aqua Region 03 which will be in the extent of 1150 ha have 78 ha of Lake Area counting for total of 7 kilometers of waterfronts. It will be ensured that Beira Lake will be the special element of this Aqua Region by enabling both physical and visual accessibility to the Lake leading it to be the shared feature of this exclusive development zone.

Justification—Beira Lake surrounding area including Fort, Pettah, Gangarama and Maradana is an already established high-end and high-dense development area hosting many landmark high-rise buildings such as Lotus Tower, Altair Building, Hilton Residencies, Grand Hyatt Colombo, Colombo City Center, World Trade Center, Shangri-la Hotel, Empire North Tower and On Three 20 towers etc. With the up-coming Colombo Port City development and many other similar high-rise developments, this area will own unique skyline and a lifestyle of its own in near future. In order to capture and facilitate this on-going market trend and to enhance Colombo's role as an international business hub in South Asia, this particular aqua region based on Beira Lake is dedicated to proceed with its present trend of exclusive development in future. In doing that, special consideration will be given to regulate the trending high-dense developments to preserve above mentioned green spaces, wind corridors, visual prominence of landmark buildings, visual and physical accessibility of Beira Lake and anticipated exclusive ambiance within streets and public spaces within the region.



Figure 3.4: Conceptual Images of Aqua Region 03 – Beira Lake & Port City Based Exclusive Development Area

Aqua Region 04

Canal Based Transformation Area

Aqua Region 04 which is in the extent of 1463 hectares is formed based on a series of canals including St. Sebastian Canal, Dematagoda Canal and Kinda Canal which will stretch for approximate length of 14 kilometers. When consider the overall spatial setting of Colombo, the canal systems are associated with the most connected and well served area of the city, but currently disintegrated from the rest of the developed areas due to poor accessibility. It is envisaged that these canal fronts will act as investment space to cater retailing, shopping, dining, condominiums, private office and recreational and entertainment activities and will be vibrant interaction space full of people walking along canal fronts. The anticipated scale of development within this canal-based transformation area will be intermediate compared to the high-scale development expected in the Aqua Regions 01, 02 and 03. St. Sebastian Canal will be a major development corridor connecting Aqua Regions 01 and 02; Kelani River based Special Regeneration Area and the Marina Corridor which will be major development areas of future Colombo Commercial City.

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Seven Aqua Regions



Figure 3.5: Conceptual Images of Aqua Region 04 – Canal Based Transformation Area

Justification—The importance of having a Canal Based Transformation area including the above-mentioned canals identified considering the present underutilized status of surrounding lands which has resulted in by the relatively low land values. It is highlighted that most of these canal fronts are encroached by underserved settlements and leading to pollution of the water bodies and degradation of canal eco-systems. Hence, it is expected to expose and transform these canal fronts and surrounding areas to enhance their potentials and thereby to attract more developments into the area.

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Characteristics of Seven Aqua Regions

Aqua Region 05 Canal Based Development Area

1200 ha of area based on Wellawatta and Dehiwala Canals having a total length of 4.3 km is designated as the Aqua Region 05 as a Canal Based Development Area. This is an emerging development area, which is highly in demand, but similar to the region 04, but currently not exposed well enough to perform to the best of its capacity. It is expected that this region will have intermediate scale of developments such as commercial, residential and mixed development with upgraded investment space especially in canal front areas. These canal fronts will have retailing, shopping, recreational spaces and will act both as vibrant streets and public places and special green corridors amidst high dense developments.



Figure 3.6: Conceptual Images of Aqua Region 05 – Canal Based Development Area

Justification—Surrounding areas of Wellawatta and Dehiwala Canals are identified to be in a relatively less developed state and have comparatively higher land values than the canals of North Colombo. Thus, planning interventions are necessary to induce the above-mentioned developments into these areas and ensuring visual and physical accessibility to water fronts.

Aqua Region 06

The Garden

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Concept Plan

Characteristics of
Seven Aqua Regions

As it was mentioned in the overall development concept of the Colombo Commercial City, the central garden of the proposed 'Aquarina' will be the existing Colombo 07 area which has been declared as the Special Primary Residential Zone in the City of Colombo Development Plan (Amendment) – 2008. This area will extend into approx. 740 ha. Even though it doesn't have a water front located within, it has retained most of its garden spaces with larger extents of unbuilt and low densely built lands, open spaces such as the Viharamahadevi Park, independence square, several sports grounds, bolevards, etc, contributing to the character of a 'Garden City'. The area is expected to maintain the relatively low dense development both vertically and horizontally and an average green coverage of 50%.



Figure 3.7: A Conceptual Image of Aqua Region 06 – The Garden

Justification—The area comes under Aqua Region 06 is a special region, which is considered as a part of Colombo's heritage. The history of the area runs back to the periods of British ruling, when it was first occupied by elite residences of the city. During, 1920s the area was planned by Sir Patric Geddes, according to the norms of a Garden City where radial boulevards were linked with Viharamaha Devi Park which was considered as the central garden. The reminiscence of these classic radial boulevards still exists within this area, and it is considered important to preserve this historic character. Hence, the proposal is to preserve this already evident Garden Character by designating the whole area as 'The Garden' of the Aquarina.

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Characteristics of Seven Aqua Regions

Aqua Region 07 Bolgoda River Based Development Area

07th Aqua Region which is the Bolgoda River Based Development Area will be a special low-density area having a total extent of approx.1540 ha. The main water potential of this area is the Bolgoda Lake and associated canal network which runs for around 5.2 km length throughout the region. In addition, this area is featured with a special environmental asset which is the Attidiya Marsh and Sanctuary. It is envisaged that this area will be a special residential and recreational region having comparatively low vertical and horizontal development. However, more high-end investments such as nature bases tourism ventures, exclusive residential and commercial activities as well as secular middle income affordable housing are expected in the area considering the close proximity to the city center and the large scale investments currently being directed therein for the development of water supply, drainage and road infrastructure.

Justification—Bolgoda River Based Development Area is a special sensitive area featured with many important natural assets such as Bolgoda Lake, Bolgoda Canal Network, Attidiya Marsh & Sanctuary and mand wetlands and paddylands in Ratmalana, Attidiya and Boralesgamuwa Area. Hence, it is important to take necessary measures to protect these valuable natural assets and to enhance them to induce eco-friendly yet high-end investments to the area. In order to address the above need, the area is designated as a low dense green development area. Another reason for the demoted vertical developments is the prevailing height restrictions imposed by aviation regulations associated with the domestic airport at Ratmalana.



Figure 3.8: Conceptual Images of Aqua Region 07—Bolgoda River Based Development Area

3.1.3. Translation of the Conceptual Plan into an Implementable Strategic Plan

As per the Concept Plan, the anticipated vision for the Colombo Commercial City; Aquarina – The City in Water will be achieved on ground in terms of 07 Aqua Regions. Therefore, the transformation of the city into an Aquarina will follow the activation of each Aqua Region.

(a) Activation Plan

Four broader strategies are designed to activate each aqua region. These broader strategies are the direct interventions on ground, which will induce the city's transformation towards its future vision, and together they will be called as the Activation Plan. The Activation Plan consists of Water Esplanades Development Strategy, Spatial Development Strategy, Transport Development Strategy and City Economics Development Strategy.

(b) Facilitation Plan

The Facilitation Plan includes three broader strategies; Settlement Development Strategy, Utilities Management Strategy and Public Outdoor Recreational Space (PORS) Management Strategy. The three strategies of Facilitation Plan are designed to address the impacts of the Activation Plan. As a result of the ground interventions to activate the Aquarina, the population dynamics of city will vary largely, changing demand patterns for housing, utilities, public open spaces and other amenities. Hence, the three broader strategies under Facilitation Plan aim at capturing those dynamics and managing above aspects to cater the predicted demands.

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Concept Plan

Translation of the Conceptual
Plan into an Implementable
Strategic Plan

Colombo Commercial
City Development Plan
2019-2030

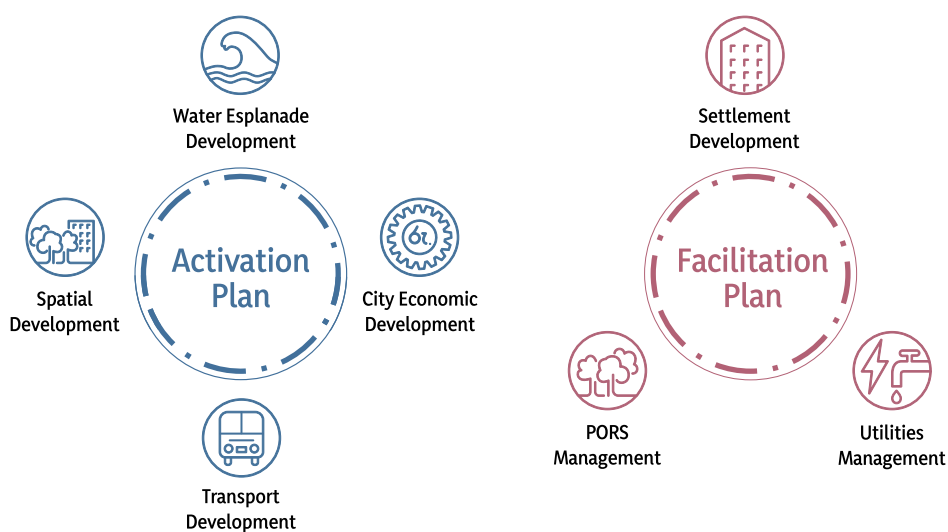


Figure 3.9: Broader Strategies to Activate 'Aquarina'

3.2. Colombo Commercial City Development Plan – 2019-2030

Composition of Colombo Commercial City Development Plan

The Overall *Colombo Commercial City Development Plan* is the combination of all interventions of seven strategies as mentioned below. 'The proposed seven strategies are aligned towards the vision 'Aquarina – The City in Water' and are based on core principles such as sustainable development and resilient and smart city concepts. All these strategies collectively contribute to achieve the 11th Sustainable Development Goal – 'Sustainable Cities & Communities'.

(a) Water Esplanades Development

Eight Water Esplanades will be developed in association with different types of water bodies to activate and transform Seven Aqua Regions to be attractive investment spaces within the *Colombo Commercial City*.

- **Marina Investment Esplanade**
 - *Recreational Stretch*
 - *Cultural Investment Stretch*
 - *Premium Investment Stretch*

- Kelani River Investment Esplanade
- Beira Lake Investment Circle
- Dematagoda, Kinda Canal & Kirulapana Canal Investment Esplanade
- Wellawatta & Dehiwala Canal Investment Esplanade
- St. Sebastian Canal Investment Esplanade
- Mudun Ela Investment Esplanade
- Bolgoda Lake Investment Esplanade

(b) Spatial Development

Colombo Commercial City will be developed based on three broader density zones; High, Moderate & Low, thirteen-character zones and 51 sub-density zones. Within these density zones, nodes will be emerged in a hierarchical order based on the connectivity of different modes of transport.

In addition, some areas will have special height regulations to preserve visual corridors and to adhere with the technical height regulation requirements of special elements such as Airport and Kolonnawa Oil Refinery.

(c) Transport Development

Colombo Commercial City will have hierarchical order of roads developed in three levels. Each road will have a defined character such as transit prominent, functional, water experiencing, intermediate and neighborhood. The rail transportation will be upgraded by electrification of identified railway links and introducing Light Rail Transit System. There will be two Multi-modal Transport Hubs and two Transit Oriented Development Nodes which provide easy transfer between different modes of transport and that links inter-city transport system with intra-city transport system.

(d) City Economic Development

Two zones within the identified National Logistics Corridor will be dedicated for logistics-based activities associated with Colombo Port. Colombo Central Business District will be further facilitated to support its role as the main financial district linked with up-coming Colombo Financial City (Port City). In addition, many property development projects will be carried out under *Colombo Commercial City Development Plan* to ensure adequate supply of realty space; commercial, residential, office and tourism to meet the induced growing demands. Tourism development will be carried out in concurrence with water esplanades development while incorporating ongoing and proposed mega-scale tourism attraction projects.

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The Plan

*Colombo Commercial
City Development Plan
2019–2030*

(e) Settlement Development

There will be 06 residential promotion zones; one of high density that accommodates high-rise apartments of low-income communities, three moderate density zones that accommodate large portion of middle-income housing and two low density zones that will host a large portion of garden houses. The remaining underserved settlements within *Colombo Commercial City* will be managed with both relocation and on-site re-design approaches depending on the ownership, physical status and social factors.

(f) Utilities Management

Water & electricity supply, storm water, waste water & solid-waste management and supply of social infrastructure and other public amenities will be carried out in order to meet the increased demands which will result due to induced development.

(g) Public Outdoor Recreational Space Management

Open spaces will be created in terms of parks of different themes such as water based, wetland based, attraction parks and linear parks while preserving natural open spaces. In addition, green and blue spaces will be linked with three types of boulevards; Ceremonial, Gateway and Transit.

Colombo Commercial City Development Plan 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Nodal Hierarchy

- Level 1
- Level 2
- Level 3
- Level 4
- MMTH
- Park & Ride
- TOD
- LRT
- Electrified Railway
- Water Transportation
- Elevated Highway
- Expressway
- Level 1 Road
- Level 2 Road
- Level 3 Road
- Lotus Tower Height Control Area

Character Zones

- Zone 1 - Exclusive Premium Mixed Development
- Zone 2 - Premium Mixed Development
- Zone 3 - High Density Green Mixed Development
- Zone 4 - High Density Compact Mixed Development
- Zone 5 - Compact Logistics Development
- Zone 6 - High Density Residential
- Zone 7 - Central Transit based Development
- Zone 8 - Moderate Density Residential - Wattala
- Zone 9 - Moderate Density Logistics Development
- Zone 10 - Moderate Density Residential - Kolonnawa
- Zone 11 - Moderate Density Residential - Ratmalana
- Zone 12 - Low Density Green Residential
- Zone 13 - Low Density Garden

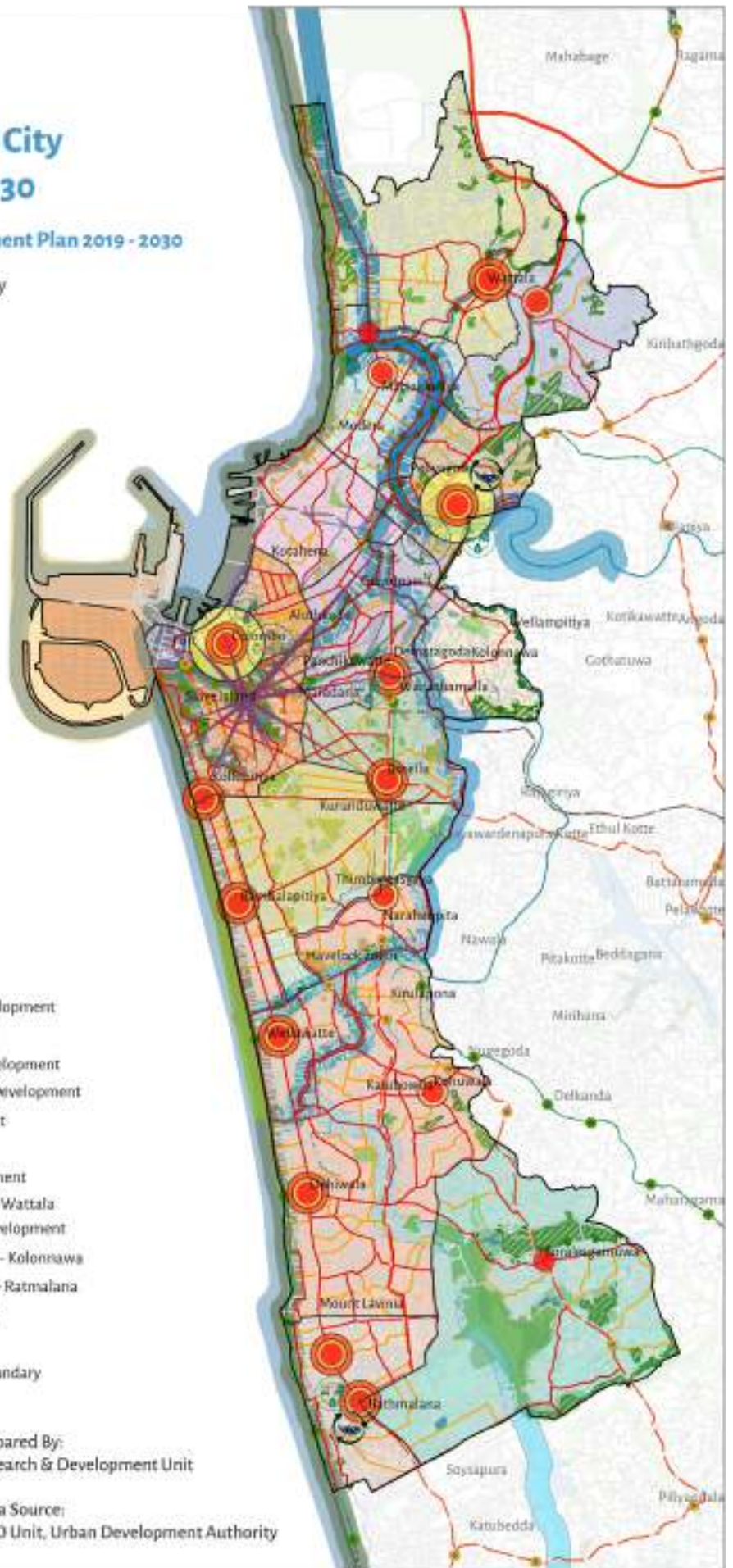
Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 3.2: Overall Spatial Plan – Colombo Commercial City Development Plan - 2030



Chapter 04

*Water Esplanades
Development
Strategy*

Chapter 04
***Water Esplanades
Development
Strategy***



‘Transforming Waterfronts into City Front-yards’

08 Water Esplanades to activate Aquarina

Water Esplanades Development Strategy

Introduction

Water Esplanade Development Strategy is the main strategy proposed to activate the Seven Aqua Regions identified in the Concept Plan of the ‘*Aquarina – The City in Water*’. It is also the main strategy which ensures that Colombo Commercial City will be a sustainable and resilient city in future.

Objective

The main objective of this strategy is to expose the waterfronts of Colombo Commercial City to the public domain and make the present backyards into front yards and promote them for spaces for investments, places for public recreation and elements of the experienced elements of the city environment.

Urban waterfront revitalization has been steadily extending in many cities worldwide. Nowadays, waterfront redevelopment is a global trend and a large number of schemes are being implemented in large metropolises, medium-sized cities, and even small towns all over the world. Due to their advantageous location at the interface between built environment and water, near the city centers, waterfronts provide highly exploitable urban spaces for new uses such as the office, leisure and residential projects.

Approach

The Water Esplanade Development Strategy is proposed to be implemented in the real grounds in terms of three approaches such as;

- **Regulatory approach**
(including policies and regulations imposed by relevant state agencies)
- **Direct interventions of state agencies**
- **Collaborative approach**
(including direct private investment & public-private partnerships)

Contribution towards the Vision & Goals of CCCDP – 2019-2030

The proposed Water Esplanade Development Strategy contributes to achieve the goal – *The most sought Water-front Business Environment Experience in the World* and its subsequent objectives as mentioned below.

Objective 01 – To open up 125km length of various water and wetland fronts

Objective 02 – To open up 3000 ha of lands in waterfronts for developments

Objective 03 – To have a well connecting water transportation system

Objective 04 – To strengthen continuous network of water bodies and wetlands

Objective 05 – To have a well-managed Flood Mitigation System in flood risk areas

Scope

The planning framework of the Water Esplanade Development Strategy includes:

- A geographic scope including water fronts of all natural and man-made surface water bodies of all types within Colombo Commercial City
- All strategic interventions and projects having direct impact on activating identified seven aqua regions (However the prioritization order and timeframes of identified strategic interventions and projects are elaborated under the Implementation Strategy of CCCDP – 2019-2030.)

Chapter 04

Water Esplanades Development Strategy

Water Esplanades Development Strategy

4.1. Water Esplanades **(Major water features based intervention areas)**

Definition

Water Esplanades—The term ‘*Water Esplanades*’ refers to a defined area of intervention; a corridor which is based on a one or more water features.

4.1.1. Eight Water Esplanades

Water esplanades will be developed at three levels based on the scale of available water features and the scale of envisaged development. The water esplanades developed at three levels are as follows.

1. Major Water Esplanades (Eminent Water Esplanades)
 - I. Marina Investment Esplanade
 - II. Kelani River Investment Esplanade
 - III. Beira Lake Investment Circle
2. Secondary Water Esplanades (Classic Water Esplanades)
 - IV. St. Sebastian Canal Investment Esplanade
 - V. Dematagoda, Kinda Canal & Kirulapana Canal Investment Esplanade
 - VI. Wellawatta & Dehiwala Canal Investment Esplanade
3. Tertiary Water Esplanades (Trivial Water Esplanades)
 - VII. Mudun Ela Investment Esplanade
 - VIII. Bolgoda Lake Investment Area










Water Esplanades

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

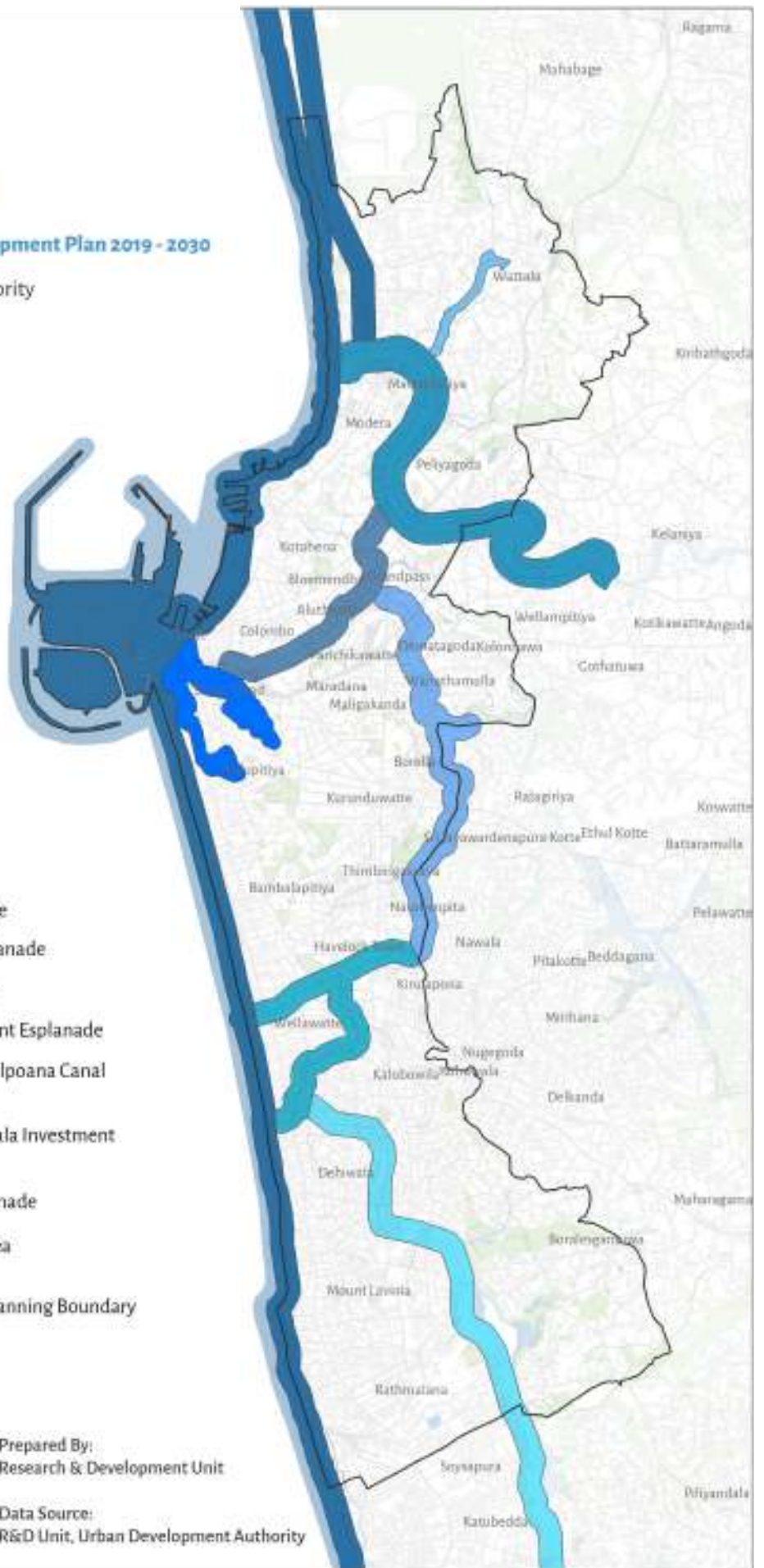
-  Marina Investment Esplanade
-  Kelani River Investment Esplanade
-  Beira Lake Investment Circle
-  St. Sebastian Canal Investment Esplanade
-  Dematagoda, Kinda and Kirulpoana Canal Investment Esplanade
-  Wellawatta & Dehiwala Canals Investment Esplanade
-  Mudun Ela Investment Esplanade
-  Bolgoda Lake Investment Area
-  Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 4.1: Eight Water Esplanades

4.1.2. Envisaged Characters of each Water Esplanade

Category	Water Esplanade	Character	Justification
Major (Eminent)	Marina Investment Esplanade	Recreational, cultural & beach tourism and premium investment corridor	Marina Investment Esplanade will be the main strategic intervention to activate the Aqua Region 02; The Marina Corridor
	(1) Marina Investment Esplanade – Recreational Stretch (Coastal Stretch extending from Kelani River Mouth to Wattala including Hamilton Canal Environs)	Water based recreational and tourism area	This area has the potential of two main water features; Sea and Hamilton Canal. As the right bank of Kelani River mouth falls within this stretch, this area provides three different water experiences and has the potential for water-based recreational and tourism activities.
	(2) Marina Investment Esplanade – Cultural Stretch (Coastal stretch extending from Pettah Bazaar to Kelani River Mouth)	A special zone consisting of conserved various archeologically important features such as Pettah Bazaar, Kovils, Dutch Buildings and Churches	Nearly half length of this stretch is bounded by the Port wall which disturbs the view of Sea and Port. Even though, there are archeologically important buildings and sites located within this stretch, they are mostly hidden among the warehouses and industries. Pettah Bazaar has a unique character with its day-to-day functioning pattern which needs to be conserved along with its many archeologically important buildings. Given, the existence of historical Kovils and churches, importance of Pettah Bazaar which is a living heritage and the potential sea and port view, this stretch can be exposed for more investments in terms of cultural, recreational and heritage tourism and commercial developments.
	(3) Marina Investment Esplanade - Premium Investment Stretch (Coastal stretch extending southwards from Port City to Ratmalana)	Premium investment area attracting high end commercial, luxury residential and tourism developments. The city front-yard providing beach-side recreational and premium retailing experience.	This stretch has the potential to be the city front-yard considering the long beach stretch. North section from Fort to Wellawatta are already occupied by high-end investments such as luxury hotels, residential apartments, shopping malls etc. However, the southern section is not yet optimized and there are many ways the potential of sea-front can be harnessed exposing it for more recreational and tourism activities and for many high-end investments.

Category	Water Esplanade	Character	Justification
	Kelani River Investment Esplanade	A special regeneration zone that will be transformed into a river-front recreational, tourism and investment space.	The purpose of this water esplanade is to activate the Aqua Region 01; Kelani River Based Special Regeneration Area. Kelani River has been neglected for a long time and its true potential as the largest riverfront of the area has not been harnessed yet. The development of Colombo has occurred being concentrated to Colombo Fort, even though its origin was based on Kelani River valley. Hence, it is expected to give Kelani River its due value while optimizing its true potential.
	Beira Lake Investment Circle	The exclusive premium investment space of Colombo Commercial City	With the interventions made during last decade to clean and expose Beira Lake, now it has become the most valued and highly sought investment space of Colombo Commercial City. Hence, the purpose of Beira Lake Investment Circle is to further enhance potential of Beira Lake Waterfront and strengthen the role of Colombo CBD as the Financial Center of the country while exposing more high quality investment space.
Secondary (Classic)	St. Sebastian Canal Investment Esplanade	A Canal-front investment corridor consisting of casual retailing, recreational, tourism, office and high-rise residential space connecting Pettah & Peliyagoda, the Uptown & Downtown of Colombo.	St. Sebastian is a landmark city feature that had been there since Dutch Period. However, at present it has become a backyard and underutilized with many incompatible uses. Since, the canal links Pettah and Peliyagoda, which are very strategic locations in terms of connectivity, it has the potential to act as a major link with high development potential.
	Deamatagoda, Kinda Canal & Kirulapana Canal Investment Esplanade	A Canal-front investment corridor consisting of casual retailing, recreational, tourism, office and high-rise residential space.	The purpose of this water esplanade is to activate the Aqua Region 04; Canal based Transformation Area. Currently, more than 90% of these canals are polluted, hidden and acts as backyards of the city leading to many issues. And the surrounding area has many incompatible uses which do not harness the true potential of close proximity to Colombo CBD and existence of canal-fronts.

Category	Water Esplanade	Character	Justification
	Wellawatta & Dehiwala Canal Investment Esplanade	A Canal-front investment corridor consisting of casual and high-end retailing, recreational, tourism, office and high-rise residential space.	The purpose of this water esplanade is to activate the Aqua Region 05; Canal Based Development Area. This region is already a trending premium development area. However, the canal-fronts still remain underutilized and act as backyards. If these are exposed and linked with valued lands, it will further enhance the land values and attract more investments to the area.
Tertiary (Trivial)	Mudun Ela Investment Esplanade	A Canal-front exposed for recreational purposes, casual retailing and high-quality residential space	Falling within the Aqua Region 01; this water esplanade will be a local attraction corridor which acts as a public open recreational space for the neighboring residential areas. Also, its canal-front will be opened up for casual retailing and high-quality residential space such as garden housing.
	Bolgoda Lake Investment Area	A special recreational tourism and high-quality residential area	Bolgoda Lake is one of the largest water potentials of <i>Colombo Commercial City</i> . Having located considerable distanced from Colombo CBD, this area is less congested and peaceful and has a high demand and reputation for high-quality residential neighborhoods and garden houses. The purpose of this water esplanade is to expose hidden waterfronts and further enhance the value of the area.

Table 4.1: Eight Water Esplanades – Characters & Justifications

Chapter 04

Water Esplanades Development Strategy

*Strategic Interventions
to activate Water
Esplanade*

Cleaning & improving of the existing water network



Chapter 04**Water Esplanades
Development Strategy****Strategic Interventions
to activate Water
Esplanade***Cleaning & improving of the
existing water network*

The continuity of waterbodies is important for the management of the ecological balance and the floods. Even though, the stream order is maintained there are some missing links within the existing canal network as mentioned in the Figure 4.1 and Table 4.2 due to encroachments. Hence, it is proposed to remove the unauthorized developments on canal reservations and dredge the silted and reclaimed portions of canals to ensure the maintenance of required widths.

No.	Natural Width (m)	Existing Width (m)	Encroached Length (m)
01	15	5-10	400
02	25	15	80
03	15	14	200
04	24	2-10	220
05	26	11	70
06	26	10	250
07	33	8	18
08	17	8	220

Table 4.2: Identified Encroachments in Existing the Canal Network
(Encroached lengths and widths)

Derived Projects – Water Esplanade Development Strategy – Action Projects Type 01 – (W-1)

Project Code	Project Name
W-1	Cleaning & connecting of missing links of the existing water network
W-1-1	Cleaning of all water bodies of Colombo Commercial City
W-1-2	Improvement of existing canal network of Colombo Commercial City by reclaiming encroached parts

Table 4.3: Derived Projects – Water Esplanade Development Strategy – Action Project – (W-1)

4.2.2. Maintaining the reservations of all water bodies of Colombo Commercial City

Maintenance of reservations of all water bodies including Kelani River, Beira Lake, coast and all canals is considered as mandatory in order to achieve the anticipated vision; Aquarina – The City in Water.

In the existing situation, the regulatory guidelines for maintenance of canal reservations, introduced by the Sri Lanka Land Reclamation & Development Corporation are enacted by the Gazette Notification No. 1662/17 dated 14th July 2010. As per the Gazette Notification, the specified reservations based on canal surface widths are as follows.

Surface Width of the Canal (m)	Reservation to be kept from the edge of the Canal Bank	
	For open canals (m)	For canals with covered surfaces (m)
1.0 to 1.2	1.0	0.3
1.3 to 3.0	2.0	1.0
3.1 to 4.5	2.75	1.0
4.6 to 6.0	3.5	1.5
6.1 to 9.0	4.5	1.5
Above 9.0	6.5	2.0

Table 4.4: Specified Canal Reservations applicable for all canals in Colombo Commercial City

The declared reservation of Kelani River is 18 meters (60 ft) from river banks as per the Irrigation Ordinance (1924) and Irrigation Act (1951) and Flood Protection Ordinance (1971). The reservation of Beira Lake is 6.5 meter from the Lake Banks as declared by the Sri Lanka Land Reclamation & Development Corporation.

As per the Act No. 57 of 1987, the Coastal Zone is declared as ‘the area lying within a limit of 300 meter landward of the mean high-water level and a limit of 2 kilometers seaward of the mean low water level. In the case of rivers, streams, lagoons or any other body of water connected to the sea either permanently or periodically the landward boundary extends to a limit of 2kilometers measured perpendicular to the straight base line drawn between the natural entrance points.’ The developments proposed within this zone should obtain the development clearances and permits from the Coast Conservation Department.

Chapter 04
Water Esplanades
Development Strategy

**Strategic Interventions
to activate Water
Esplanade**

*Exposing the existing water
network by introducing
water drives, linear parks and
gateway boulevards*

4.2.3. Exposing the existing water network by introducing water drives, linear parks and gateway boulevards

The exposure of water bodies is a mandatory pre-requisite to induce waterfront developments. Hence, three major interventions will be carried out to expose and connect the waterbodies with major roads, nodes and other public spaces.

(a) Water Drives along the Coast, Rivers and Canals (Project Code - WT-1)

There will be three types of Water Drives such as eminent, classic and trivial depending on the type of water esplanade they fall into. A Water Drive refers to a road which runs parallel to a water body such as sea-front, rivers, canals or lakes.



Figure 4.2: A Conceptual Image of Proposed Water Drives

- **The Eminent Water Drives**

The eminent water drives are proposed at either side of Kelani River, Marine Drive and at the Beira Lake surroundings.

- **The Classic Water Drives**

The water drives proposed along canals will belong to classic water esplanades thus will be known as Classic Water Drives. The Lake Drive which currently runs along Kirulapana Canal will be continued southwards up to Wellawatta and Dehiwala Canals and northwards upto Wattala via Kinda, Dematagoda and Kolonnawa Canals. Another Classic Water Drive is proposed along the St. Sebastian Canal and this will be a major link which connects Pettah and Peliyagoda, the Uptown and Downtown of Colombo.

• The Trivial Water Drives

The road proposed along Mudun Ela at Wattala will be a trivial water drive as per the category of water esplanade it belongs to.

All water drives are fallen under the Level 01 Road category as per the proposed road hierarchy. The road widths will depend on the type of waterbody and the configuration of the road in relation to the waterbody. The total length of water drives within *Colombo Commercial City* will be 86 km. All water drive projects will be aligned under Water Esplanade Development & Transport Development Strategies – Combined Action Projects with the project code (WT-1).

Chapter 04

Water Esplanades Development Strategy

Strategic Interventions to activate Water Esplanade

Exposing the existing water network by introducing water drives, linear parks and gateway boulevards

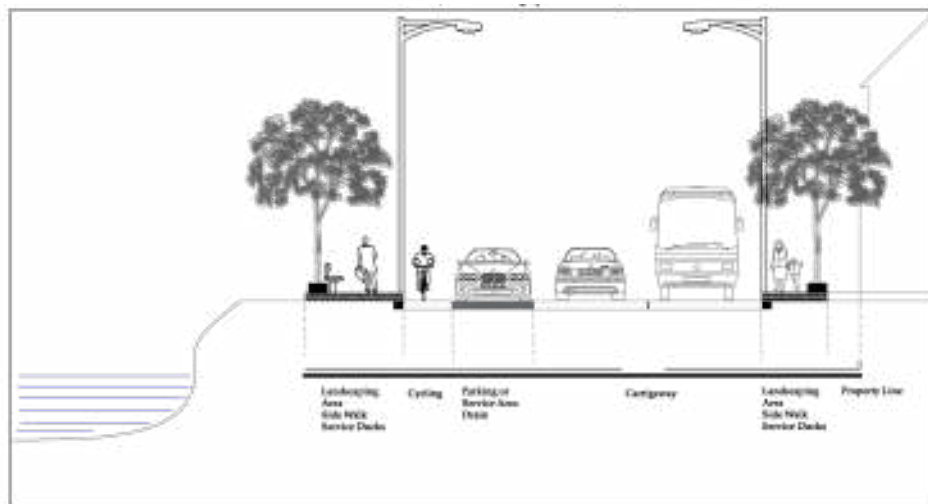


Figure 4.3: A cross-section of a Water Drive
(Eminent Water Drive / Level 01 – General Water Drive)

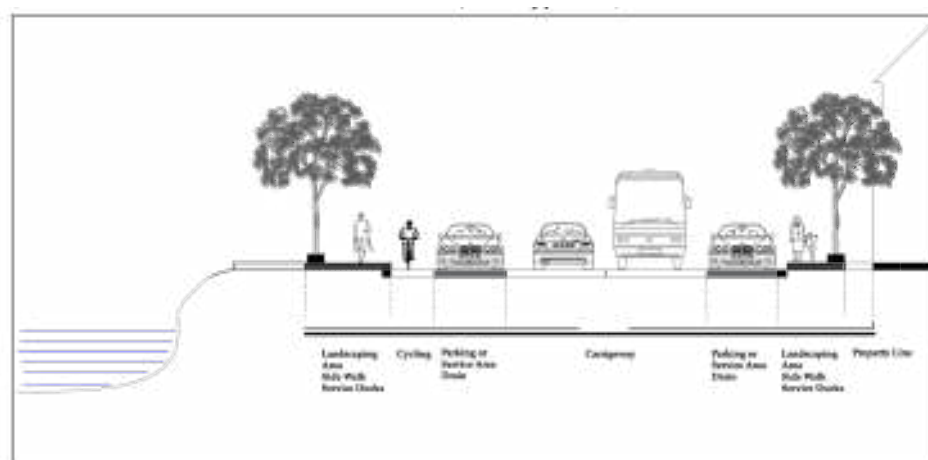


Figure 4.4: A cross-section of a Water Drive
(Classic Water Drive / Level 01 Functional Water Drive)

Colombo Commercial City Development Plan 2019 – 2030

Urban Development Authority

Type of Water Drive	Name of Water Drive	Locations / Routes	Length of Water Drive	Width of Water Drive (Carriage Way)	Type of Road as per the Road Hierarchy	Project Code
Eminent Water Drives	Kelani River Right Bank Water Drive	Right Bank of Kelani River	8.4 km	7 m	01 - b	WT-2-1
	Kelani River Left Bank Water Drive	Left Bank of Kelani River	4.8 km	7 m	01 - a	WT-1-1
	Hamilton Canal Drive	Along Hamilton Canal from Mattakkuliya to Wattala	4.4 km	7 m	01 - b	WT-2-2
	Sea Street	Pettah to Crow Island	4.7 km	7 m	01 - b	WT-2-3
	Marine Drive	Colombo Plan Road - Along Sea-front from Fort to Ratmalana	15.5 km	14 m	01 - b	WT-2-4
	Beira Lake Drive	Along the Perimeter of the Beira Lake	8.9 km	14 m	01 - a	WT-1-2
Classic Water Drives	St. Sebastian Canal Drive	Along the St. Sebastian Canal from Pettah to Peliyagoda	4.4 km	7 m	01 - b	WT-2-5
	Extended Lake Drive	Connecting Wellawatta and Wattala via Narahenpita, Kolonnawa and Peliyagoda along Wellawatta Canal, Kirulapana Canal, Kinda Canal, Heen Ela, and Kittampahuwa Canal (Kolonnawa Canal)	22.0 km	7 m	01 - a	WT-1-3
	Dematagoda Canal Drive	Along Dematagoda Canal	3.6 km	7 m	01 - a	WT-1-4
	Dehiwala Canal Drive	Along Dehiwala Canal	3.8 km	7 m	01 - a	WT-1-5
Trivial Water Drives	Bolgoda Canal Drive	From Dehiwala to Attidiya along Bolgoda Canal	3.0 km	7 m	01 - a	WT-1-6
	Mudun Ela Water Drive	Along Mulun Ela in Wattala	2.5 km	7 m	01 - a	WT-1-7

Table 4.5: The list of proposed Water Drives

Proposed Water Drives - 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

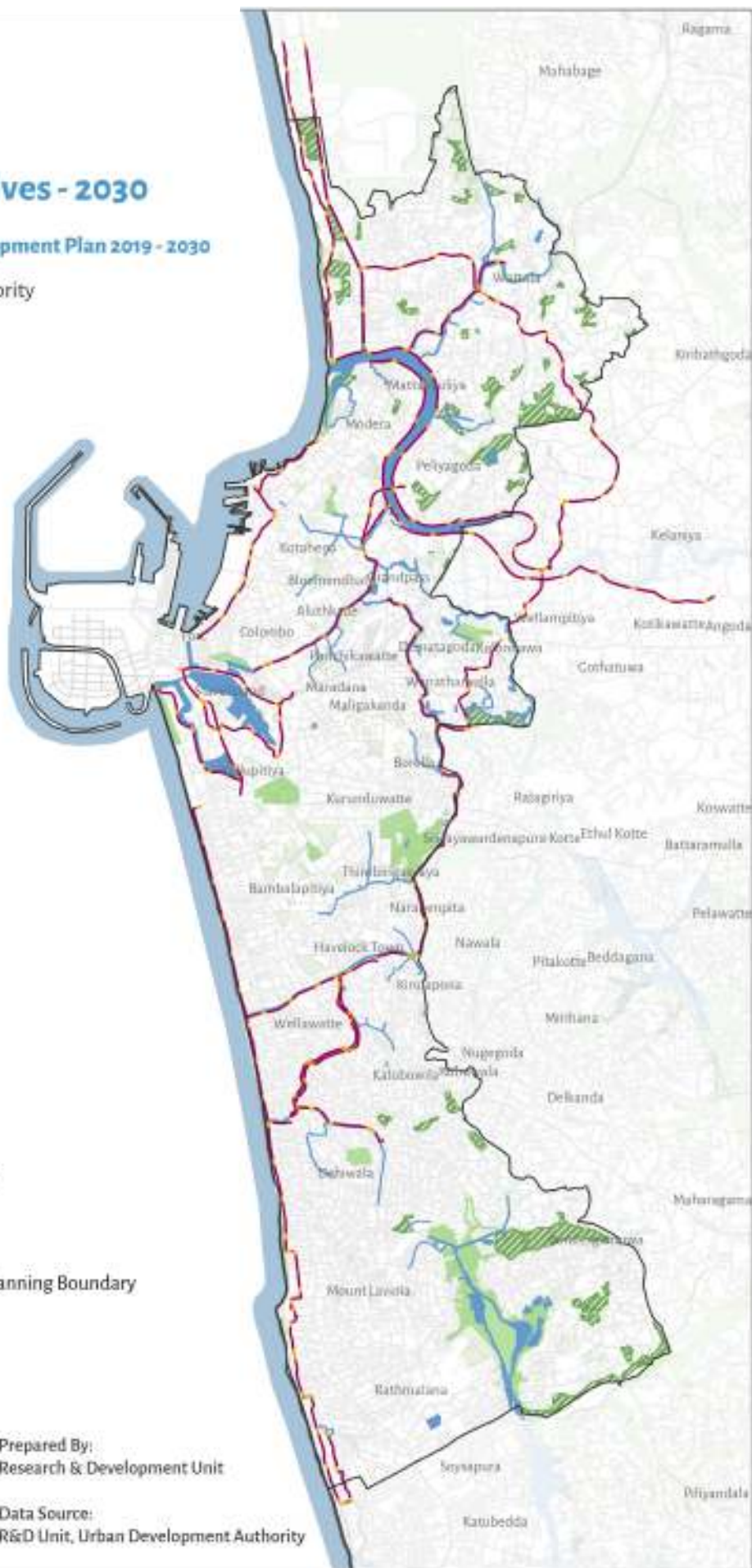
-  Water Drives
-  Natural Open Space
-  Public & Private Open Space
-  Water Resources
-  Colombo Commercial City Planning Boundary



0 1 2 3 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 4.2: Proposed Water Drives - 2030

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(b) Linear Parks (Project Code - WO-1)

Another major intervention to expose waterbodies is the development of linear parks parallel to rivers, canals and at the perimeter of lake. The purpose of linear parks is to provide more public access to waterfronts, avoid possible encroachments of river and canal reservations and to transform the waterfronts into front-yards of the city. On the other hand, linear parks will contribute to increase the total public open recreational space within the city. Approximately, 57.7 km length of linear parks are proposed along various waterfronts of different categories as mentioned in Map 4.3 (Page 50)



Figure 4.5 : Conceptual Images of Proposed Linear Parks

The derived projects under this strategic action will be implemented parallel to the strategies identified under Public Outdoor Recreational Space Management Strategy. Hence, the project codes of linear park construction projects will be aligned under Water Esplanade Development & PORS Management Strategies – Combined Action Projects Type 01 with the project code WO-1.

Water Esplanade	Name of the Linear Park	Respective Water Body/ wetland	Length of Linear Park	Project Code
Eminent – Marina Investment Esplanade	Preethipura Linear Park parallel to sea-front	Sea-front	4.5 km	WO-1-1
	Ratmalana Canal Linear Park	Sea-front & Ratmalana Canal	1.0 km	WO-1-2
Eminent – Kelani River Investment Esplanade	Kelani River Left & Right Bank Linear Parks	Kelani River	20.0 km	WO-1-3

Water Esplanade	Name of the Linear Park	Respective Water Body/ wetland	Length of Linear Park	Project Code
Eminent – Beira Lake Investment Circle	Linear Parks along the perimeter of Beira Lake	Beira Lake	10.2 km	WO-1-4
Classic – St. Sebastian Canal Investment Esplanade	St. Sebastian Canal Linear Park	St. Sebastian Canal	4.4 km	WO-1-5
Classic – Dematagoda, Kinda Canal & Kirulapana Canal Investment Esplanade	Kittampahuwa Canal Linear Park	Kittampahuwa (Kolonnawa) Canal	5.3 km	WO-1-6
	Kirulapana Canal Linear Park	Kirulapana Canal (Wellawatta Canal)	2.5 km	WO-1-7
Trivial – Mudun Ela Investment Esplanade	Hunupitiya – Wattala Kalu Ela Linear Park	Kalu Ela	3.3 km	WO-1-8
	Mudun Ela Linear Park	Mudun Ela	2.1 km	WO-1-9
Trivial – Bolgoda Lake Investment Esplanade	Boralesgamuwa Linear Park	Boralesgamuwa Paddy Lands	4.4 km	WO-1-10

Table 4.6: The list of proposed Linear Parks

(c) Gateway Boulevards (Project Code - WO-2)

Promotion of Gateway Boulevards is another strategic intervention to expose water bodies and to provide direct access between main roads and water bodies. Gateway Boulevard is a road having trees at either side that connects a waterfront with a main road, node or a public place. The purpose of Gateway Boulevards is to maintain the continuity of walkways or drives towards waterfronts. In the meantime, Gateway Boulevards also contribute to the city green coverage, improve walkability of streets, enhance the livability standards and city image and contribute to improve air quality. Construction and promotion of Gateway Boulevards will be undertaken under Water Esplanade Development & PORS Management Strategies – Combined Action Projects Type - 02 with the base project code WO-2 as shown in Map 4.4 (Page 51).

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Proposed Linear Parks - 2030

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Urban Development Authority
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Legend

- Linear Park
- Natural Open Space
- Public & Private Open Space
- Water Resources
- Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Gateway Boulevard	Water Body/ Location	Length	Project Code
Kollupitiya Station Road	Seafront	0.14 km	WO-2-1
Bambalapitiya Station road	Seafront	0.23 km	WO-2-2
5th Lane, Bambalapitiya	Seafront	0.76 km	WO-2-3
Lester James Peries Mawatha	Seafront	0.75 km	WO-2-4
Vajira Road	Seafront	0.69 km	WO-2-5
St. Peter's Lane	Seafront	0.34 km	WO-2-6
Wellawatta Station Road	Seafront	0.37 km	WO-2-7
Wasala Road	Seafront	0.42 km	WO-2-8
Dehiwala Station Road	Seafront	0.41 km	WO-2-9
Hotel Road – Mount Lavinia	Seafront	1.16 km	WO-2-10
Mount Lavinia Station Road	Seafront	0.82	WO-2-11
Ratmalana Station Road	Seafront	1.33 km	WO-2-12
Sea Road – Crow Island	Seafront	2.20 km	WO-2-13
Justice Akbar Mawatha	Beira Lake	0.77 km	WO-2-14
Mattakkuliya Church Road	Kelani River	1.36 km	WO-2-15
Madampitiya Road	Kelani River	1.44 km	WO-2-16
Fransewatta Lane	Kelani River	0.52 km	WO-2-17
Pamankada Road	Dehiwala Canal	1.44 km	WO-2-18
Stratford Avenue	Dehiwala Canal	0.58 km	WO-2-19
Cajaba Road	Heen Ela	0.66 km	WO-2-20
Preethipura Road	Seafront & Hamilton canal	4.45 km	WO-2-21
Hekitta Road	Hamilton Canal	1.53 km	WO-2-22
Gongale Goda Banda Raja Mawatha	Kelani River	1.16 km	WO-2-23
Meegahawatta Road	Peliyagoda Water Fountain	0.55 km	WO-2-24
Dutugemunu Mawatha	Peliyagoda Water Fountain	0.87 km	WO-2-25
Parakrama Lane	Peliyagoda Water Fountain	0.18 km	WO-2-26
4th Cross Lane	Peliyagoda Water Fountain	0.35 km	WO-2-27
Ananda Rajakaruna Mawatha	Demtagoda Canal	0.72 km	WO-2-28

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Gateway Boulevard	Water Body/ Location	Length	Project Code
Sri Nigrodharama Road	Demtagoda Canal	0.67 km	WO-2-29
Vijaya Road	Kolonnawa Marsh, Kittampahuwa Canal	1.30 km	WO-2-30

NOTE – WO-2 refers to Water Esplanade Development & PORS Management Strategies – Combined Action Projects Type - 02

Table 4.7: The list of proposed Gateway Boulevards

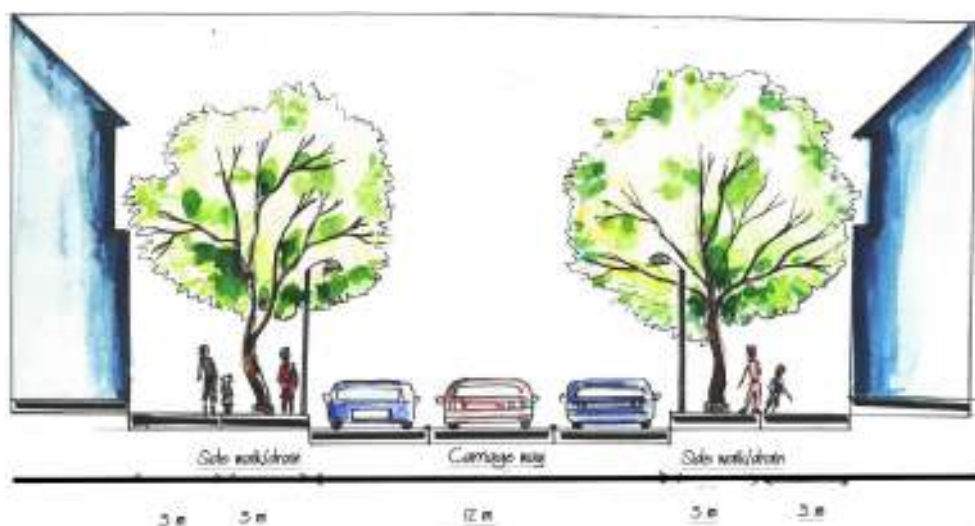


Figure 4.6: A Cross-section of Proposed Gateway Boulevard connecting Kollupitiya Station and Galle Road



Figure 4.7: Conceptual Images of Proposed Gateway Boulevards

Proposed Gateway Boulevards 2030

Colombo Commercial City Development Plan 2019 - 2030




Urban Development Authority
December 2018

Legend

 Gateway Boulevard

 Natural Open Space

 Public & Private Open Space

 Water Resources

 Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 4.4 : Proposed Gateway Boulevards - 2030

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*Incorporating storm water
management projects
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4.2.4. Incorporating storm water management projects conducted by relevant stakeholder agencies & Proposed Recommendations by CCCDP (Project Code - W-2)

In the situational analysis, it was identified that flash floods is one of the burning issues of Colombo Commercial City with a high significance where an average rainfall with the intensity of 50mm to 100mm per day results in flash flood that lasts for about 1 to 2 hours. As identified by the Risk Analysis conducted by relevant stakeholder agencies, the flood risk is relatively higher in Kelani River banks and canal surrounding areas. The floods in Colombo Commercial City occur mainly due to two reasons; overflow of Kelani River and flash floods due to deficiencies of existing storm water drainage network.

When leading the city towards its future vision 'Aquarina – The City in Water', it is important to make certain that Colombo Commercial City is free of flood risks. Hence, necessary flood mitigation methods shall be adopted and a sound storm water management strategy shall be implemented parallel to the proposed waterfront developments. Hence, the compatible flood mitigation and storm water management projects proposed by relevant stakeholder agencies are incorporated in to the Colombo Commercial City Development Plan – 2019-2030 under the project code W-2.

(a) Incorporating ongoing & proposed interventions for Macro Drainage Network by SLLRDC (Project Code - W-2-1)

The projects proposed by Sri Lanka Land Reclamation & Development Corporation (SLLRDC) as indicated in Table 4.8 and Figure 4.8 (Page 56) are incorporated into the *Colombo Commercial City Development Plan – 2019-2030* under the project code W-2-1.

No.	SLLRDC Sub-project No.	Sub-project
Completed		
1	W/01	Dehiwala Canal
2	W/02	Main Drain, Aluth Mw Culvert, Mutwal Outfall
3	W/03/A	St. Sebastian South Canal
4		Dredging of Thalangama Tank
5	W/07/A	Wellawatte Canal
Ongoing		
6	W/05	Improvements to Madiwela East Diversion Scheme – Stage I

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Incorporating storm water management projects conducted by relevant stakeholder agencies

No.	SLLRDC Sub-project No.	Sub-project
7	W/11	Improvements to Madiwela East Diversion Scheme – Stage II
8	W/19	Improvements to Madiwela East Diversion Scheme – Stage III
9	W/09	St. Sebastian North Canal
10	W/12	St. Sebastian North Lock Gates & Pumping Station
Procurement Stage		
11	W/14	New Mutwal Tunnel & Torrington Tunnel
12	W/16/B	Kolonnawa Canal Diversion Scheme – Stage II
13	W/13	St. Sebastian South Pumping Station
14	W/24	Ambathale Pumping Station
Finalizing / Detailed Design Stage		
15	W/16/A	Kolonnawa Canal Diversion Scheme – Stage I
16	W/16/C	Kolonnawa Canal Diversion Scheme – Stage III
17	W/16/D	Kolonnawa Canal Diversion Scheme – Stage IV
18	W/18	Real Time Control System
19	W/20	Flushing Gates

Table 4.8: Proposed Interventions for Macro Drainage Network of Colombo by SLLRDC

(b) Incorporating proposed interventions for storm water drainage network by CMC (Project Code - W-2-2)

Following proposals of *Colombo Municipal Council* proposed with the intention of mitigating flash flood risk within City of Colombo are incorporated into the *Colombo Commercial City Development Plan – 2019-2030* under the Project Code W-2-2.

1. Prevention of flooding at Garden No. 175 and No. 211 Nagalagam Street and Garden No. 75 Ferguson Road
2. Prevention of flooding along K. Cyril C. Perera Mw from George R. De Silva Mw up to Arthur De Silva Mw. Junction
3. Prevention of flooding at Kimbula Ela Housing Scheme
4. Prevention of flooding at Sangaraja Mawatha, Prince of Wales Avenue; opposite to Diesel and Motor Engineering (PLC)
5. Prevention of flooding at Green Lane, George R de Silva Mawatha and Rathnam Play Ground Area
6. Prevention of flooding at Saunders Place
7. Prevention of flooding at Maligawatta Housing Scheme
8. Prevention of flooding at Norris Canal

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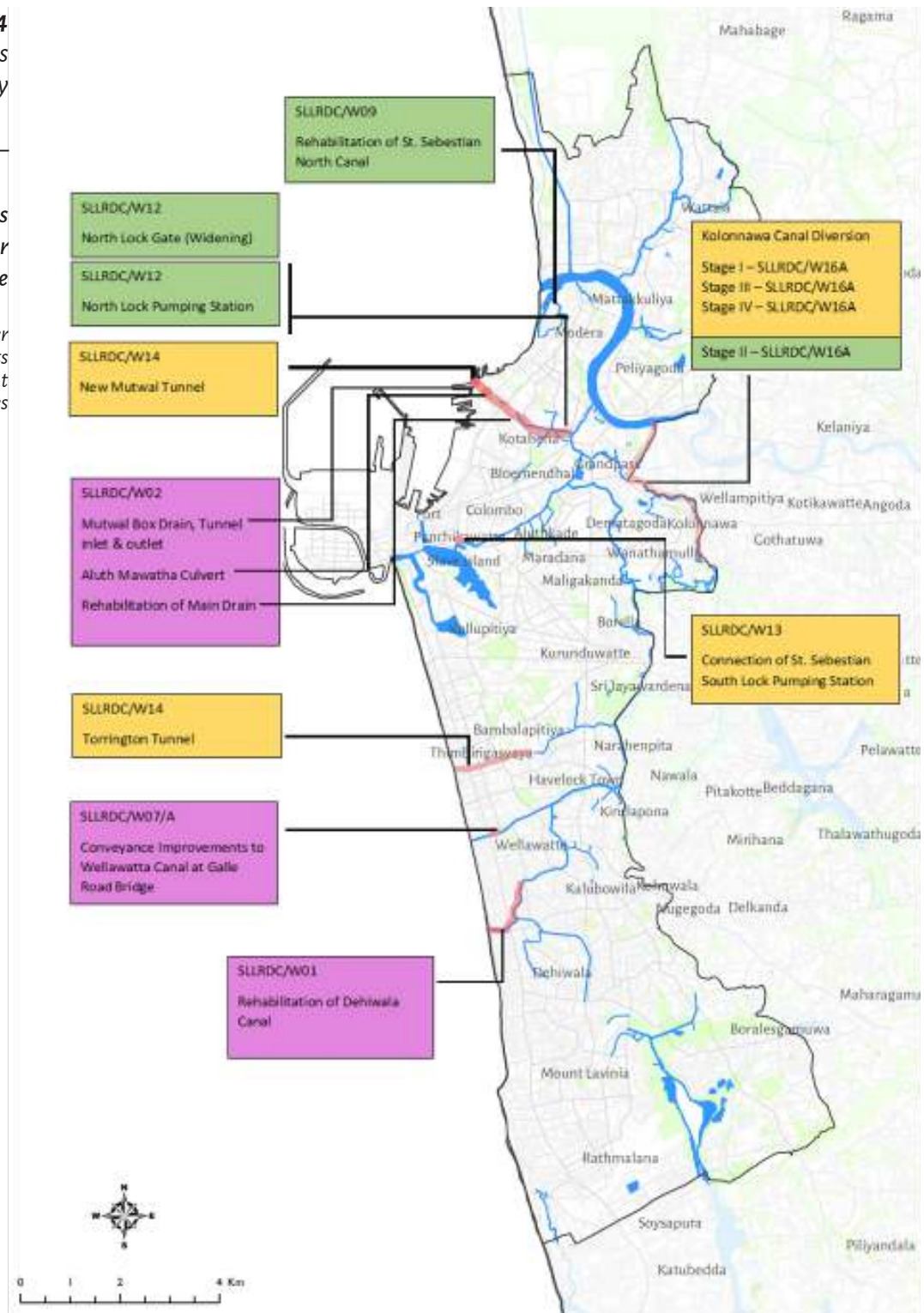


Figure 4.8: Proposed Interventions for Macro Drainage Network of Colombo by SLLRDC

9. Storm Water improvements of Siridhamma Mawatha and surrounding area
10. Prevention of flooding at High level road, Kirullapone Junction and Robert Gunewardhana Mawatha
11. Prevention of flooding at Poorvarama Road and Kandewaththa Road
12. Prevention of flooding at Park Road
13. Periperal drains around Thummulla Junction
14. Balance part of Marine Drive development from Dehiwala Bridge up to Bambalapitiya Station Road

(c) Incorporating Lower Kelani Flood Mitigation Proposals of Climate Resilience Project (CRIP) (Project Code - W-2-3)

Even though Kelani River is proposed to be promoted as a major water esplanade that attracts investments to the area, there is a considerable flood risk due to the overflow of river during high rainfall events. If these flood risks are not controlled, the anticipated development at the Kelani river Investment Esplanade would not be achieved. Hence, mitigation of floods at Kelani River surroundings is considered as a mandatory requirement.

The Lower Kelani Flood Mitigation Proposals by CRIP, proposes to construct bunds at the left and right banks of Kelani River. It is proposed to incorporate these proposals into the Colombo Commercial City Development Plan – 2019-2030 under the project code W-2-3, given the condition that these are well aligned and integrated with the proposals of CCCDP. However, when river bunds are constructed they shall be incorporated with access roads on top of them, which otherwise, will block the river front from public access.

(d) Recommended Measures for Storm Water Management

In addition to the above mentioned projects proposed by various relevant stakeholder agencies, following sustainable measures are recommended to be adopted in future proposed developments by CCCDP – 2019-2030 to manage the storm water in an efficient and eco-friendly manner.

- **Installation of Rainwater Harvesting Systems**

Rainwater harvesting is a technology which collects and store storm water for human use. This is an important measure which helps reducing the storm water volume discharged into the drainage thus ensures easy management of storm water collected at city level. The adoption of Rainwater harvesting systems is encouraged within CCCDP – 2019-2030 through the planning and building guidelines proposed for future developments. These regulations are elaborated in the Volume III of CCCDP- 2019-2030.

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management projects
conducted by relevant
stakeholder agencies*

*Maintaining adequate surface
water level of all inland water
bodies of Colombo Commercial
City*

*Conducting Catalyst Projects
to induce developments in the
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- **Installation of Water Retention Ponds at suitable locations**

It is recommended to construct water retention ponds at suitable locations within Colombo Commercial City in consultation with Sri Lanka Land Reclamation and Development Corporation to collect and store excess storm water of the city. This measure will also increase the accessibility to water surfaces within the city thus will further strengthen the future vision of the city 'Aquarina – The City in Water'.

4.2.5. Maintaining adequate surface water level of all inland water bodies of Colombo Commercial City (Project Code - W-3)

In order to achieve the city vision 'Aquarina – The City in Water', it is important to ensure that all water bodies have sufficient surface water level during all seasons without being dried. In order to fulfill this requirement, it is proposed to draw required engineering solutions in consultation with relevant stakeholder agencies and incorporate them in to the *Colombo Commercial City Development Plan – 2019-2030* under the project code W-3.

4.2.6. Conducting Catalyst Projects to induce developments in the proposed Water Esplanades (Project Code - W-4)

Various catalyst projects will be conducted at each water esplanade to induce envisaged developments and the expected physical and social transformation. These catalyst projects will fall under different categories such as road improvements, linear parks, visibility enhancements, landscaping, walkability improvements, public and open space development and property developments etc.

All identified Catalyst Projects of each Water Esplanade will be aligned under Water Esplanade Development Strategy – Action Projects Type - 02 with the project code W-4.

Major Level (Eminent) Water Esplanades

a) Catalyst Projects at Marina Investment Esplanade (Project Code: W-4-1)

• Recreational Stretch (Project Code: W-4-1-1)



Figure 4.9: Proposed Catalyst Projects at the Recreational Stretch of Marina Investment Esplanade

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No.	Project Name	Project Code
01	Incorporating the proposals of Tourism & Livelihood Development Plan: Hamilton Canal and Its Environs (2011) by the Ministry of Economic Development.	W-4-1-1-1
01-a	Promoting a tourism fishery village at Dikkovita	W-4-1-1-1-a
01-b	Developing a linear park along the beach from Kerawalapitiya to Kelani River Mouth at Mattakkuliya	W-4-1-1-1-b
01-c	Promoting Preethipiura Beach for Recreational Activities	W-4-1-1-1-c *Following Reference: Table 11.4
01-d	Hamilton Canal Entrance Development Project	W-4-1-1-1-d
02	Promoting water recreational and pleasure activities at Kelani River Mouth, Sea-front and Hamilton Canal Entrance Area	W-4-1-1-2

Table 4.9: Proposed Catalyst Projects at the
Recreational Stretch of Marina Investment Esplanade

• **Cultural Stretch (Project Code: W-4-1-2)**



Figure 4.10: Proposed Catalyst Projects at the Cultural Stretch of Marina Investment Esplanade

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No.	Project Name	Project Code
01	Enhancing the view of Colombo Port and Seafront along the edge of Colombo Port at Sea Street for an approximate length of 2.6 km.	W-4-1-2-1
02	Implementing a special Guide Plan for the Pettah Bazaar Area in order to conserve the archeologically important buildings and the special character associated with its daily functioning pattern.	W-4-1-2-2
03	Upgrading fishery community settlements along the coast with the application of 'Slum Architecture' design approach. (Approx. 1 ha area of intervention)	W-4-1-2-3
04	Incorporating the Crow Island Beach Park Project conducted by Metro Colombo Urban development Project in collaboration with Colombo Municipal Council.	W-4-1-2-4 *(Following Reference: Table 11.4)
05	Construction of a continuous walkable path (approx. 4.7 km) connecting Crow Island and Pettah Bazaar.	W-4-1-2-5
06	Incorporating ongoing Modara Kovil Sacred Area Development Project proposed by Urban Development Authority.	W-4-1-2-6
07	Promoting Sea Street as an Eminent Water Drive which extends for an approx. length of 4.7 km.	WT-2-3 *Previous Reference: Table 4.5

Table 4.10: Proposed Catalyst Projects at the Cultural Stretch of Marina Investment Esplanade

• **Premium Investment Stretch (Project Code: W-4-1-3)**



Figure 4.11 : Proposed Catalyst Projects at the Premium Investments Stretch of Marina Investment Esplanade

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No.	Project Name	Project Code
01	Promoting Colombo Plan Road (Marine Drive) as a Functional Street	W-4-1-3-1
01-a	Extension of Colombo Plan Road up to Dehiwala Railway Station (approx. 1.2 km of new road link)	WT-2-4 *(Previous reference – WT projects – Table: 4.5)
01-b	Construction of a physical barrier at the either side of southern railway line to ensure safety of public	W-4-1-3-1-b
01-c	Incorporating the proposal by Colombo Port City Project to connect Colombo Plan Road and Port City with an underground road link	W-4-1-3-1-c
02	Incorporating Maritime City Development Project proposed by Ministry of Megapolis & Western Development which includes; Beach nourishment from Galle Face Green to Dehiwala & Construction of Multistoried Mixed Development Buildings at each Railway Station at Southern Railway Line	W-4-1-3-2
03	Promoting the beach strip from Dehiwala Railway Station to Mount-lavinia including the section of underserved settlements (fishery industry based community settlement) for fisheries based tourism activities with application of the design concept of 'slum architecture'	W-4-1-3-3
04	Ensuring the continuity of beach allowing public access across the Mount Lavinia Beach Hotel. (Connecting the either sides of Beach discontinued by the Mount Lavinia Beach Hotel)	W-4-1-3-4
05	Upgrading the lives and settlements of Fishery Based Communities living in underserved settlements at the beach strip from Mount-lavinia to Ratmalana (Application of the design approach 'Slum Architecture and interlinking with tourism activities)	W-4-1-3-5

Table 4.11 : Proposed Catalyst Projects at the Premium Investments Stretch of Marina Investment Esplanade

**(b) Catalyst Projects at Kelani River Investment Esplanade
(Project Code: W-4-2)**



Figure 4.12: Proposed Catalyst Projects at the Kelani River Investment Esplanade

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No.	Project Name	Project Code
01	Construction of two roads at left & right banks of Kelani River (road type 01 – a & 01 – b consequently) and promoting them as Eminent Water Drives	Left Bank Road - WT-1-1 Right Bank Road - WT-2-1 *(Previous reference – WT projects – Table: 4.5)
02	Develop two linear parks at left & right banks of Kelani River from Mattakkuliya to Peliyagoda	WO-1-3 *(Previous reference – WO projects – Table: 4.6)
03	Colombo North Gate Development Project	W-4-2-1
04	Incorporating the proposals of Tourism & Livelihood Development Plan: Hamilton Canal and its Environs (2011) proposed by the Ministry of Economic Development	W-4-2-2
05	Peliyagoda Multi Modal Transport Hub Development	T-4-1-2-1 *(Following reference – Table: 6.7)
06	Promoting Water Transportation links along Kelani River as Tourism Recreational Activities (Cruise Service) and Passenger Transportation	W-4-2-3

Table 4.12: Proposed Catalyst Projects at the Kelani River Investment Esplanade

**(c) Catalyst Projects at Beira Lake Investment Circle
(Project Code: W-4-3)**

No.	Project Name	Project Code
01	Incorporating Beira Lake Intervention Area Development Plan proposed & implemented by Urban Development Authority	W-4-3-1
02	Continuation of the Linear Park encircling entire Beira Lake Area	W-4-3-2

Table 4.13: Proposed Catalyst Projects at the Beira Lake Investment Circle

**(d) Catalyst Projects at St. Sebastian Canal Investment Esplanade
(Project Code: W-4-4)**

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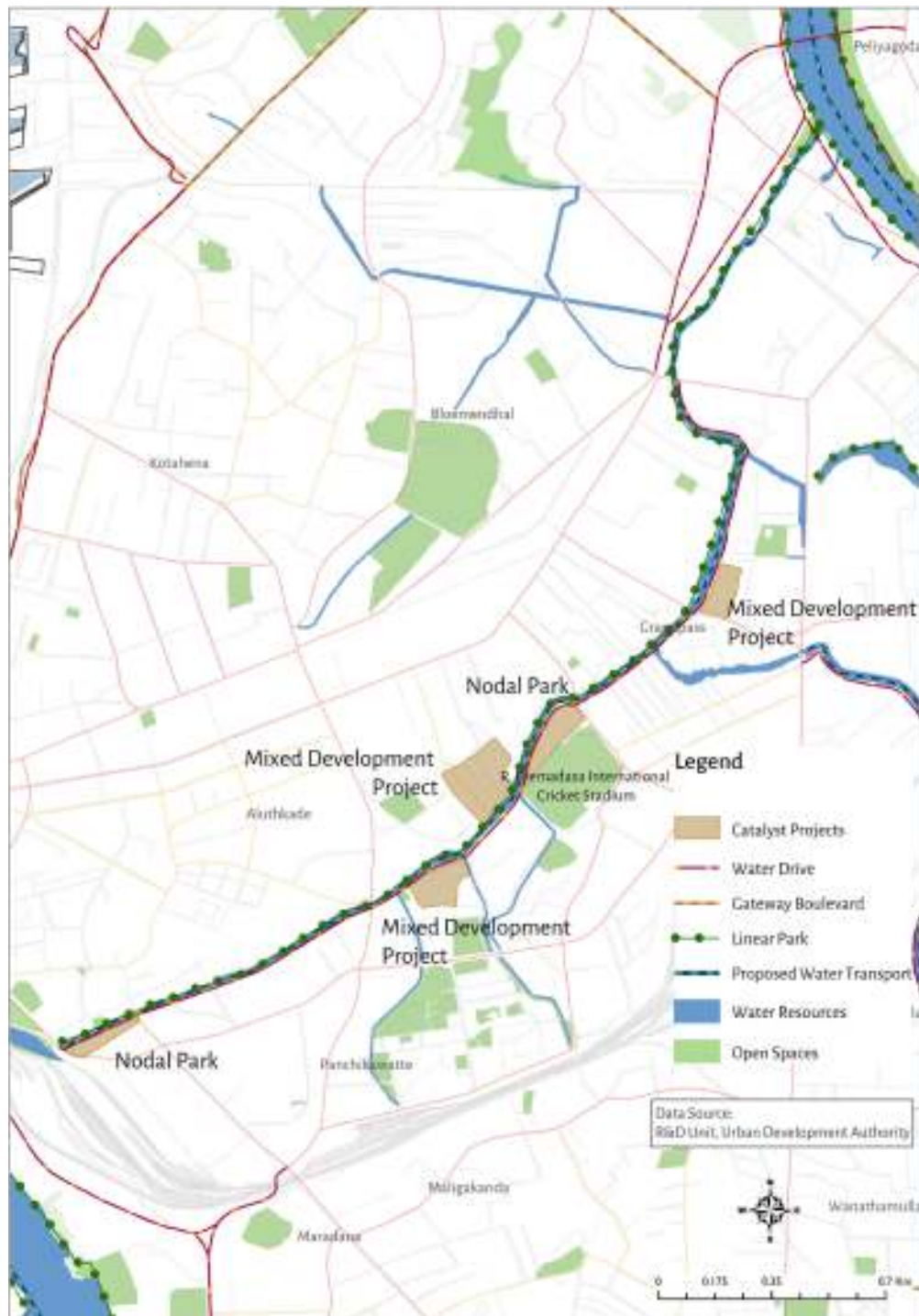


Figure 4.13: Proposed Catalyst Projects at the St. Sebastian Canal Investment Esplanade

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Esplanade**

*Conducting Catalyst Projects
to induce developments in the
proposed Water Esplanades*

No.	Project Name	Project Code
01	Development of a Linear Park along the left bank of St. Sebastian Canal from Pettah to Peliyagoda (approx. length of 3.6 km)	WO-1-5 *(Previous reference – WO projects – Table: 4.6)
02	Construction of a Level 01-b road along St. Sebastian Road and promote it as a Classic Water Drive	WT-2-5 *(Previous reference – WT projects – Table: 4.5)
03	Development of two Nodal Parks at St. Sebastian Canal Investment Esplanade	W-4-4-1 *(Following reference – Table: 11.4)
03-a	Development of Nodal Park in between Sanchiarachchi Garden Road and St. Sebastian Canal (approx. area of 0.7 ha)	W-4-4-1-a *(Following reference – Table: 11.4)
03-b	Development of Nodal Park next to Kettaramaya Maha Viharaya Temple (approx. area of 1.35 ha)	W-4-4-1-b *(Following reference – Table: 11.4)
04	Implementing a special Guide Plan for Judiciary Square	W-4-4-2 *(Following reference – Table: 6.6)
05	Clearing of existing Underserved Settlements in the Reservation and surroundings of St. Sebastian Canal and open up them for Mixed Developments	W-4-4-3
06	Upgrading the surroundings of R. Premadasa International Cricket Stadium	W-4-4-4
07	Promotion of a Cruise Service linking Beira Lake and Kelani River	W-4-4-5
08	Reconstruction of cross bridges along the St. Sebastian Canal as to facilitate boat and cruise transportation	W-4-4-6

Table 4.14: Proposed Catalyst Projects at the St. Sebastian Canal Investment Esplanade

(e) Catalyst Projects at Dematagoda, Kinda Canal & Kirulapana Canal Investment Esplanade (Project Code: W-4-5)

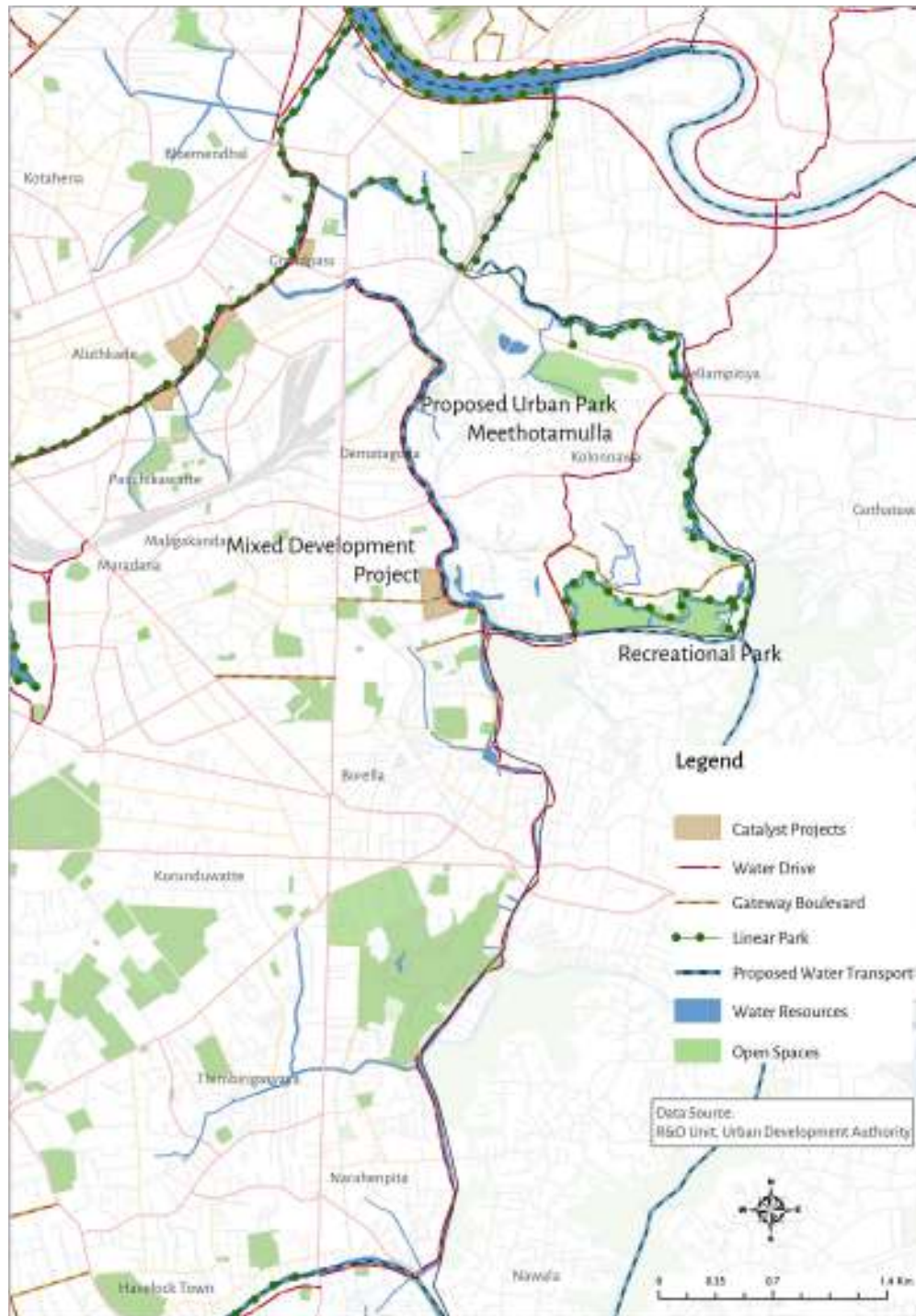


Figure 4.14: Proposed Catalyst Projects at the Dematagoda, Kinda Canal & Kirulapana Canal Investment Esplanade

Chapter 04
Water Esplanades
Development Strategy

**Strategic Interventions
to activate Water
Esplanade**

*Conducting Catalyst Projects
to induce developments in the
proposed Water Esplanades*

Chapter 04
Water Esplanades
Development Strategy

**Strategic Interventions
to activate Water
Esplanade**

*Conducting Catalyst Projects
to induce developments in the
proposed Water Esplanades*

No.	Project Name	Project Code
01	Extension of Lake Drive (Level 01 – a road type) along Kinda, Heen Ela, and Kittampahuwa Canal (Kolonnawa Canal)	WT-1-3 *(Previous reference – WT Projects – Table: 4.5)
02	Construction of Level 01 – a type road along Dematagoda Canal and promoting it as a Classic Water Drive	WT-1-4 *(Previous reference – WT Projects – Table: 4.5)
03	Development of an Urban Park at the existing Meethotamulla Waste Dumping Site (approx. extent of 7.1 ha)	W-4-5-1 *(Following reference – Table: 11.4)
04	Development of a Recreational Park at Kolonnawa Marsh (approx. extent of 18.5 ha)	W-4-5-2 *(Following reference – Table: 11.4)
05	Constructing a Linear Park along Kittampahuwa Canal to connect Kolonnawa Marsh Recreational Park and Meethotamulla Urban Park (approx. length of 3.2 km)	WO-1-6 *(Previous reference – WO projects – Table: 4.6)
06	Conducting a Mixed Development Project at Sri Nigrodharama Mawatha Slums Area (approx. extent of 3 ha)	W-4-5-3
07	Promotion of Gate way boulevard at Ananda Rajakaruna Mawatha & Sri Nigrodharama Mawatha connecting Hospital Square and Dematagoda Canal	WO-2-28 & WO-2-29 *(Previous reference – Table 4.7)
08	Promotion of Gate way boulevard at Vijaya Road along the Kolonnawa Marsh connecting Extended Lake Drive and Kittampahuwa Linear Park	WO-2-30 *(Previous reference: Table 4.7)

Table 4.15: Proposed Catalyst Projects at the Dematagoda, Kinda Canal & Kirulapana Canal Investment Esplanade

(f) Catalyst Projects at Wellawatta & Dehiwala Canal Investment Esplanade (Project Code: W-4-6)



Figure 4.15: Proposed Catalyst Projects at the Wellawatta & Dehiwala Canal Investment Esplanade

Chapter 04
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Development Strategy

**Strategic Interventions
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proposed Water Esplanades*

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**Strategic Interventions
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*Conducting Catalyst Projects
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proposed Water Esplanades*

No.	Project Name	Project Code
01	Construction of Level 01 –a road along Wellwatta Canal and promote it as a Classic Water Drive	WT-1-3 *(Previous reference – WT Projects – Table: 4.5 & 4.15)
02	Connecting missing links of the existing road along the either side of Dehiwala Canal (approx. length of missing links is 1.3 km and average width is 12 m)	WT-1-5 *(Previous reference – WT Projects – Table: 4.5)
03	Development of a Linear Park along Wellawatta Canal (approx. length of 3 km)	WO-1-7 **(Previous reference – WO Projects – Table: 4.6)
04	Development of an Open Public Space adjacent to Open University of Sri Lanka at Nawala managed by the University. (approx. length of 1 km)	W-4-6-1 *(Following reference – Table: 11.4)
05	Incorporating the existing proposal to initiate water transportation from Wellawatta to Battaramulla via Wellawatta, Kirulapana & Kinda Canals.	W-4-6-2
06	Promotion of a Mixed-Use Development along with the proposed Water Transportation Hub at Wellawatta adjoining Wellawatta Canal and Marine Drive	W-4-6-3

Table 4.16: Proposed Catalyst Projects at the Wellawatta & Dehiwala Canal Investment Esplanade

**(g) Catalyst Projects at Mudun Ela Investment Esplanade
(Project Code: W-4-7)**

No.	Project Name	Project Code
01	Construction of Level 01 – a road along Mudun Ela and promoting it as a Classic Water Drive (approx. length of 2.2 km)	WT-1-7 *(Previous reference – WT Projects – Table: 4.5)
02	Construction of two Linear Paths at the either sides of Mudun Ela by continuing the existing walking path. (approx. length of 3.3 km)	WO-1-8 *(Previous reference – WO Projects – Table: 4.6)
03	Construction of three pedestrian bridges to link either sides of Mudun Ela	W-4-7-1

Table 4.17: Proposed Catalyst Projects at the Mudun Ela Investment Esplanade

**(h) Catalyst Projects at Bolgoda Lake Investment Esplanade
(Project Code: W-4-8)**

No.	Project Name	Project Code
01	Constructing a Linear Park connecting Weras Ganga Recreational Park and Borelesgamuwa Lake Recreational Area (approx. length of 1.6 km)	WO-1-10 *(Previous Reference: Table 4.6)
02	Promoting a Wetland Recreational Area at the Attidiya Bird Sanctuary area and Nedimala Canal Area	W-4-8-1 *(Following reference – Table 6.13 & 11.4)

Table 4.18: Proposed Catalyst Projects at the Bolgoda Lake Investment Esplanade

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Water Esplanades
Development Strategy

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to activate Water
Esplanade**

*Conducting Catalyst Projects
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proposed Water Esplanades*

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proposed Water Esplanades

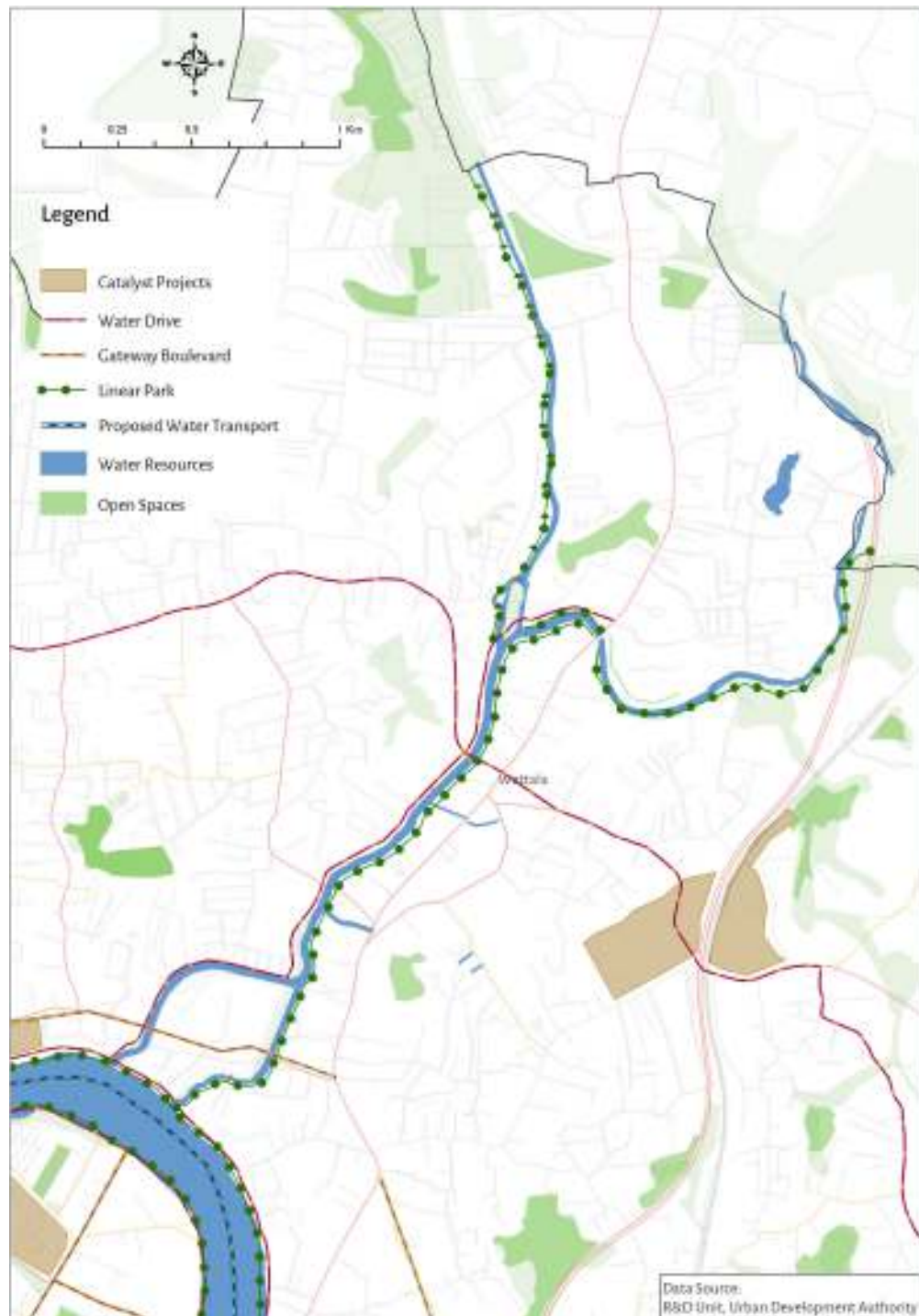


Figure 4.16: Proposed Catalyst Projects at the Mudun Ela Investment Esplanade

Chapter 04

Water Esplanades Development Strategy

Strategic Interventions to activate Water Esplanade

Conducting Catalyst Projects to induce developments in the proposed Water Esplanades

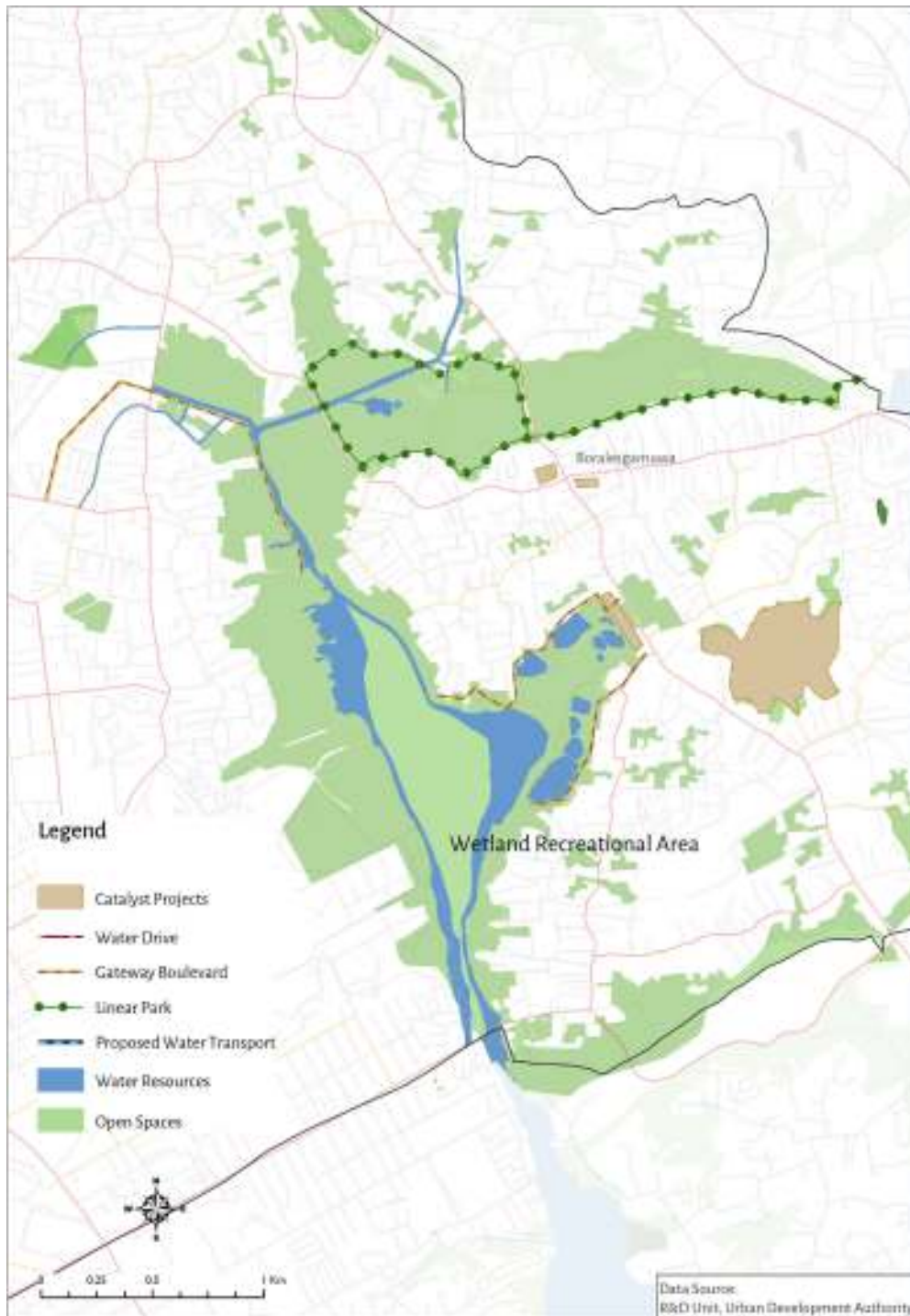


Figure 4.17: Proposed Catalyst Projects at the Bolgoda Lake Investment Esplanade

Water Esplanade Development Plan 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

- Proposed Projects
- Water Drives
- Linear Park
- Gateway Boulevard
- Proposed Water Transport

Water Esplanades

- Marina Invt. Esplanade
- Kelani River Invt. Esplanade
- Beira Lake Invt. Circle
- St. Sebastian Canal Invt. Esplanade
- Dematagoda, Kinda and Kirulpoona Canal Invt. Esplanade
- Wellawatta & Dehiwala Canal Invt. Esplanade
- Mudun Ela Invt. Esplanade
- Bolgoda Lake Invt. Area

Aqua Regions

- Bolgoda River based Green Development Area
- Canal Base Transformation area
- Canal Base Development area
- Kelani River based Special Regeneration Area
- Beira Lake & Port City based Exclusive Development Area
- The Marina Corridor
- The Garden

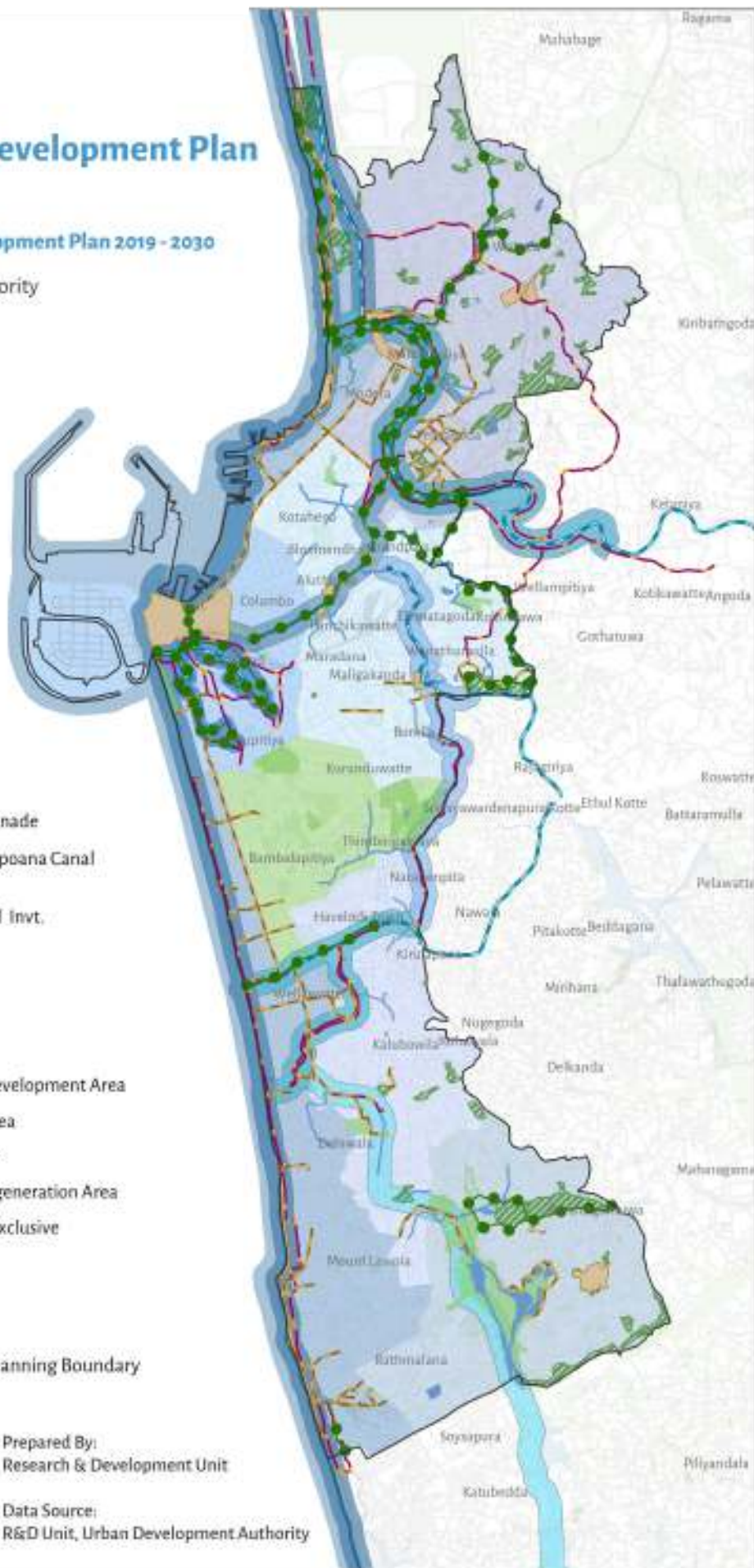
Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



4.3. Future Possible Impacts of Water Esplanade Development Strategies

Chapter 04 Water Esplanades Development Strategy

4.3.1. Enhanced Exposure of Lands due to Waterfront Developments

As a result of the above strategic interventions, it is estimated that around 123.57 kilometers of various waterfronts will be exposed which will include 86 kilometers of water drives, 57 kilometers of linear parks and 23.15 kilometers of Gateway Boulevards. Around 51 kilometers of waterfronts will be exposed linked with Public Open Spaces such as linear parks, pocket parks and other wetland and waterfront parks. Altogether, the total extent of waterfront-based lands that will be exposed due to above strategic actions will be approx. 3330 hectares. Currently, only around 7% of total lands (approx. 470 ha) of Colombo Commercial City are exposed with waterfront developments. However, estimations revealed that this 7% will be increased up to 47% resulting a 40% of total land area having new exposure with proposed waterfront developments.

Future Possible Impacts of Water Esplanade Development Strategies

*Enhanced Exposure of
Lands due to Waterfront
Developments*

*Increased Land Values due to
Waterfront Developments*

As per the estimates, it was further revealed that approximately 750 hectares of lands located in 50 meter buffer zone of exposed waterfronts will have direct impacts while around 2600 ha of lands located in 250 m buffer will have neighbouring impacts (Map 4.6 – Page 78 and Map 4.7 – Page 79)

4.3.2. Increased Land Values due to Waterfront Developments

The future possible increase in land values due to waterfront developments and enhanced exposure of lands was estimated based on previous studies on the subject matter. (eg: 'Price Variation in Waterfront Properties Over the Economic Cycle', Randy E. Dumm & William T. Hold, 2014), Accordingly, the approximate increases in land values that can be expected as a result of waterfront developments related to different types of water bodies are as follows.

- Riverfronts – 62%
- Canal fronts – 61%
- Lake fronts – 15%
- Ponds – 3.1%
- Sea front – 21% to 28%

Parallel to this, the future land values of Colombo Commercial City are forecasted and compared with the existing land values. (Map 4.8 – Page 80 and Map 4.9 – Page 81)

Urban Development Authority
December 2018



Map 4.6: Existing lands exposed to waterfronts - 2018

Expected Land Exposure for Water Fronts - 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

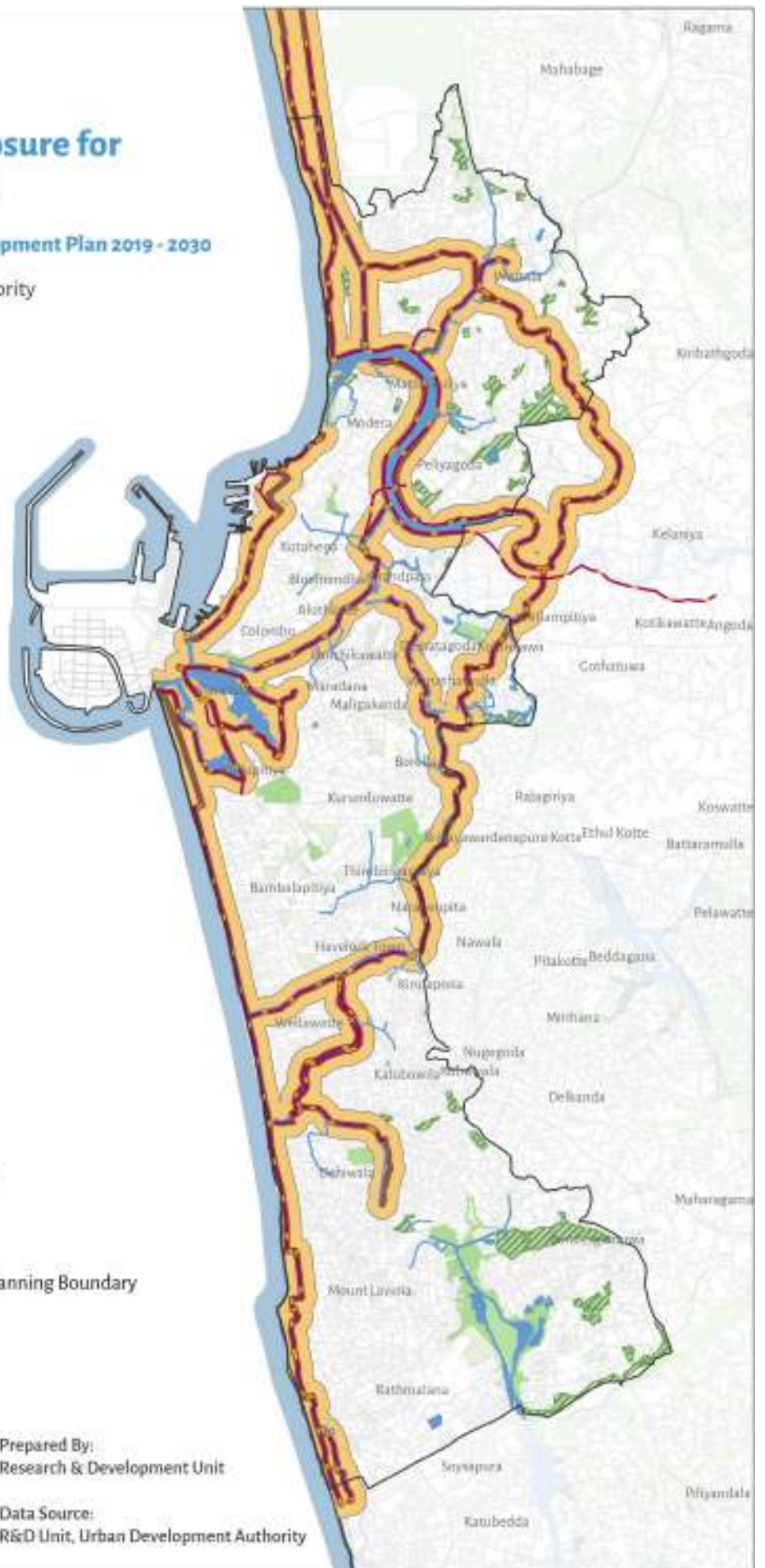
- Water Drives
- 50m Area
- 250m Area
- Natural Open Space
- Public & Private Open Space
- Water Resources
- Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 4.7: Future Lands that will be exposed to Water fronts - 2030

Expected Land Value Distribution 2030

(Intervention of Water Esplanade Development)

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Land Value (LKR)



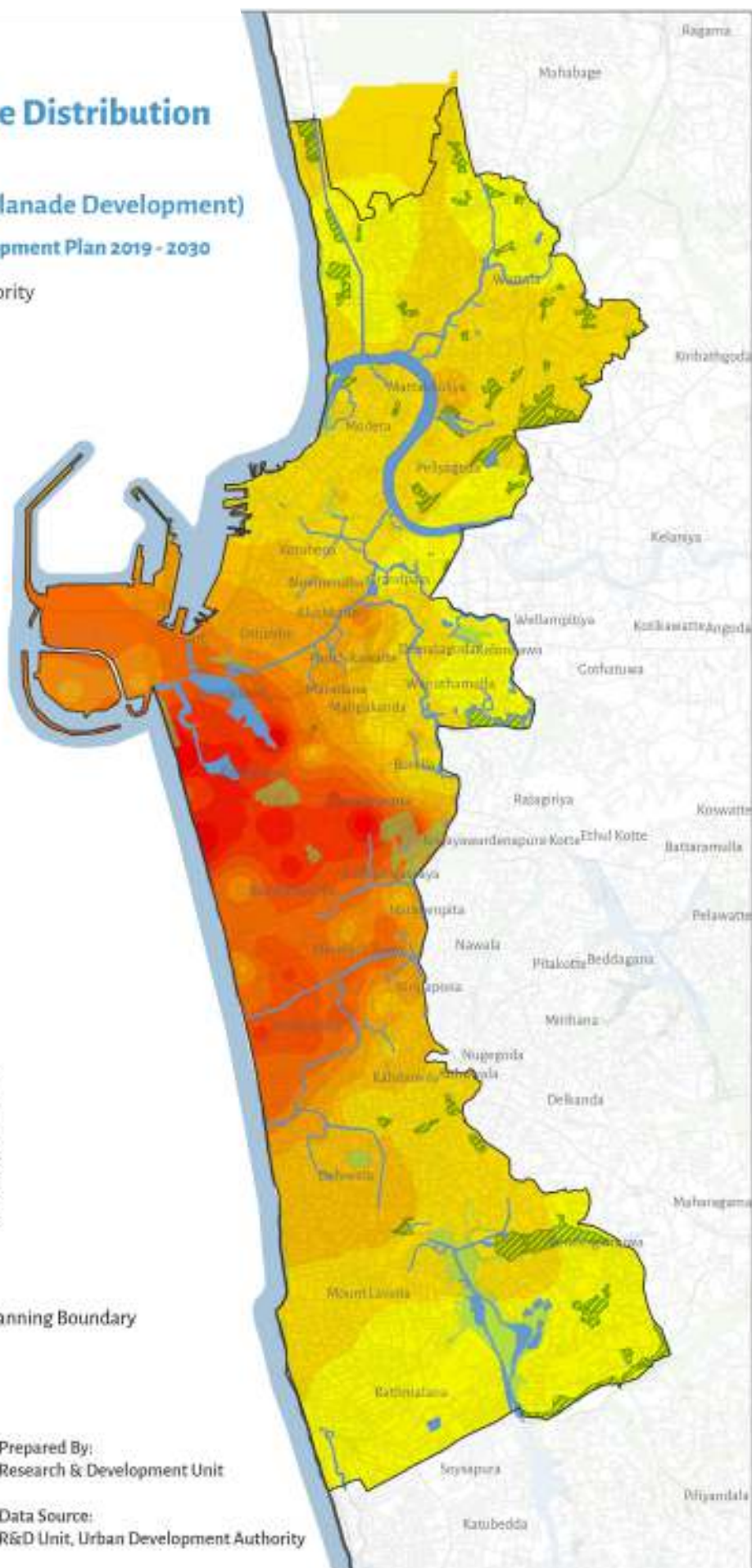
Colombo Commercial City Planning Boundary



0 1 2 3 4 Km

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Data Source:
R&D Unit, Urban Development Authority



Map 4.9: Land Value Distribution of Colombo Commercial City - 2030

Chapter 04

Water Esplanades Development Strategy

Future Possible Impacts of Water Esplanade Development Strategies

Ease of Traffic Congestion and Attraction of Developments due to changes of Integration Pattern

NOTE – The change of land values due to the impacts of exposing water fronts for development have been forecasted using simple extrapolating method based on expected percentage land value changes. However, the change of land value with time and due to other factors such as physical variations including road widths, road frontage, plot sizes and etc. and other socio economic factors such as land use, development trends, cultural and heritage values and etc. have not been considered in forecasting of future land values.

4.3.3. Ease of Traffic Congestion and Attraction of Developments due to changes of Integration Pattern

One of the major intentions of introducing water drives is to expose abandoned waterfronts for developments. Hence, the impact of the proposed water front road developments has been evaluated with the prominent simulation technique: Space Syntax Analysis (Hillier 1990) by comparing the change in the levels of attraction (in terms of 'global integration values') before and after introducing water drives to the existing road network.

As per the analysis, it was identified that the integration levels would relatively increase in areas such as Peliyagoda, Mattakkuliya, Kolonnawa and Attidiya due to the impact of newly introduced water drives (Map 4.10 – Page 82 and Map 4.11 – Page 83). Hence, these areas, which can be presently observed as not reached harnessed their development potentials from planning and land use point of view, would get the opportunity to attract more developments to the area with enhanced attraction levels. On the other hand, the proposed Extended Lake Drive indicates a relatively lower integration value, meaning less attraction for developments in that area. This situation will make the proposed Extended Lake Drive an ideal bypass for peaks of vehicular traffic being an alternative to divert excessive traffic in the Baseline Road and other major arterials.

NOTE—Space Syntax Analysis is a technique that can be used for morphological analysis of buildings, architectural plans, urban areas, and urban plans. The aim behind the technique is to describe different aspects of the relationships between the morphological structure of man-made environments and social structures or events.

The central concept of space syntax is 'integration'. It is supposed that the distribution of integration across an urban area correlates with the movement pattern in that area. Urban areas can be distinguished by, and compared in terms of, different levels of integration. Integration is used as a measure of quality for urban areas. The technique allows one to express integration in numeric values.

Integration measures how many turns have to be made from a street segment to reach all other street segments in the network, using shortest paths. If the number of turns required for reaching all segments in the graph is analyzed, the analysis is said to measure integration at radius 'n'. The first intersecting segment requires only one turn, the second two turns and so on. The street segments that require the fewest turns to reach all other streets are called 'most integrated' and are usually represented with hotter colors, such as red or yellow. Integration can also be analyzed in local scale instead of the scale of the whole network. In the case of radius 4, for instance, only four turns are counted departing from each street segment.

Theoretically, the integration measure shows the cognitive complexity of reaching a street, and is often argued to 'predict' the pedestrian use of a street: the easier it is to reach a street, the more popular it should be. While there is some evidence of this being true, the method is biased towards long, straight streets that intersect with lots of other streets. Such streets, as Baseline Road in Colombo, come out as especially strongly integrated. However, a slightly curvy street of the same length would typically be segmented into individual straight segments, not counted as a single line, which makes curvy streets appear less integrated in the analysis.

Chapter 04

Water Esplanades Development Strategy

Future Possible Impacts of Water Esplanade Development Strategies

Ease of Traffic Congestion and Attraction of Developments due to changes of Integration Pattern

Existing Integration 2018

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Integration

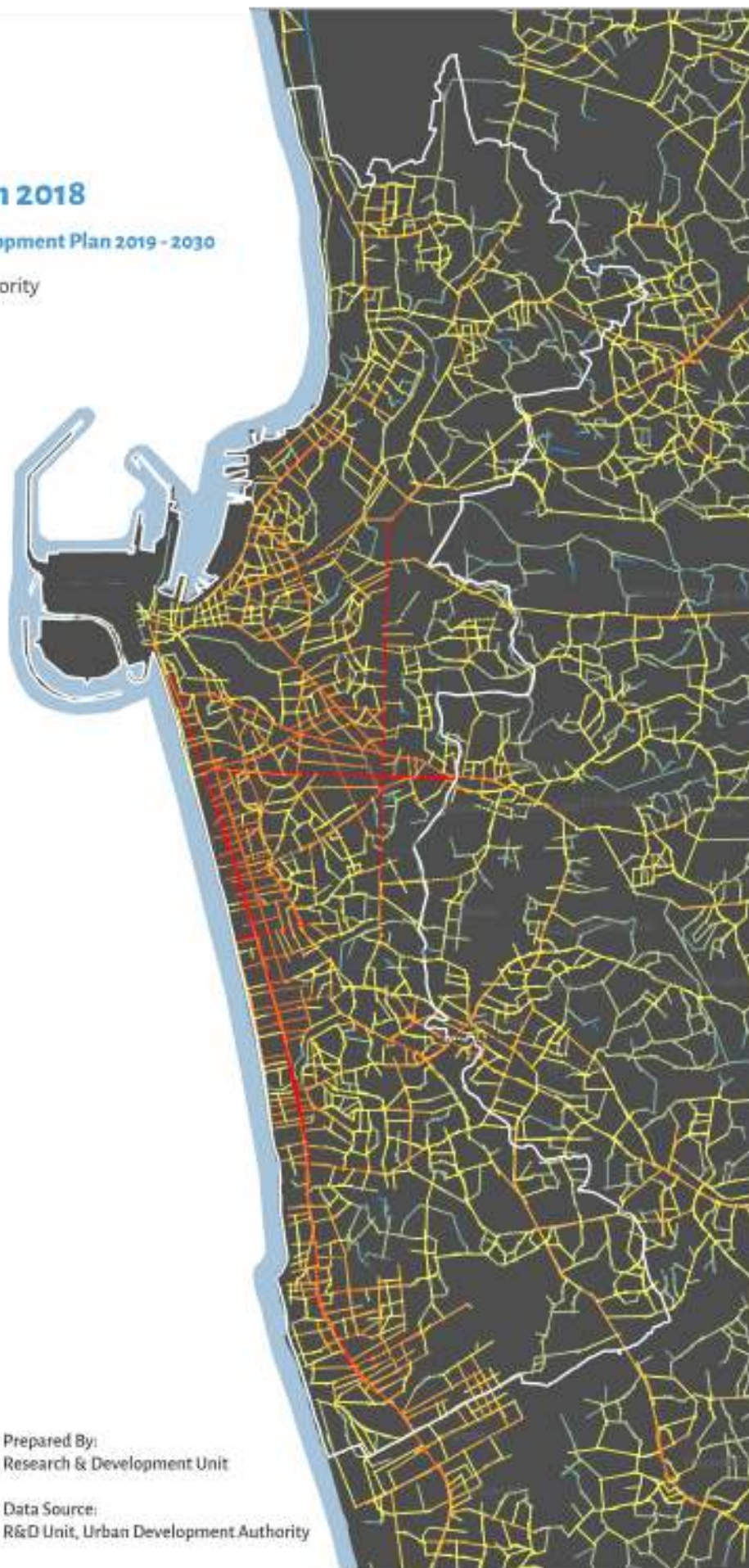
- < -0.72 Std. Dev.
- -0.72 - -0.39 Std. Dev.
- -0.39 - -0.056 Std. Dev.
- -0.056 - 0.28 Std. Dev.
- 0.28 - 0.61 Std. Dev.
- 0.61 - 0.93 Std. Dev.
- 0.93 - 1.3 Std. Dev.



0 1 2 4 Km

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Data Source:
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Expected Integration 2030

(Intervention of Water Drives)

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Integration

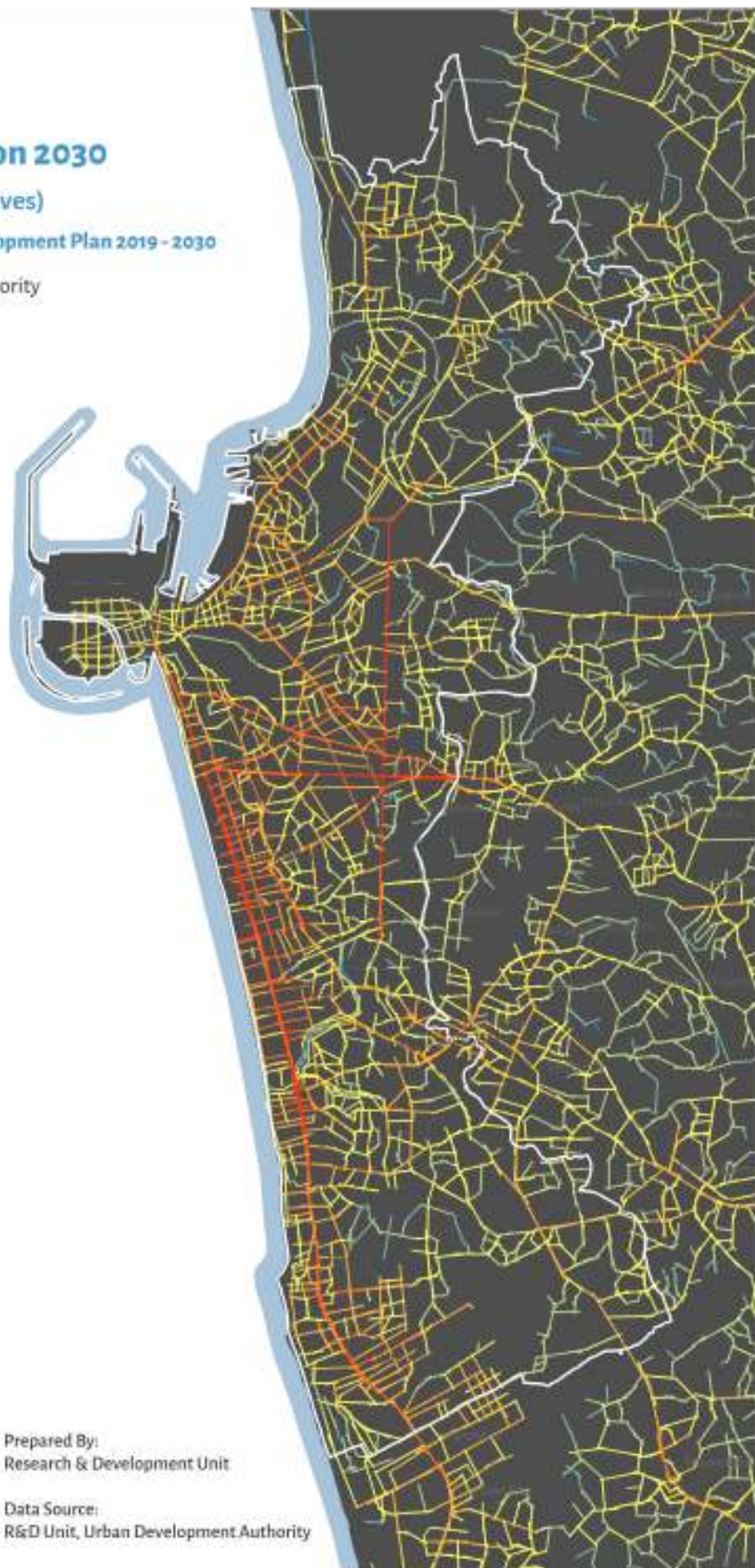
- < -0.72 Std. Dev.
- -0.72 - -0.39 Std. Dev.
- -0.39 - -0.056 Std. Dev.
- -0.056 - 0.28 Std. Dev.
- 0.28 - 0.61 Std. Dev.
- 0.61 - 0.93 Std. Dev.
- 0.93 - 1.3 Std. Dev.



0 1 2 4 Km

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Data Source:
R&D Unit, Urban Development Authority



Map 4.11 : Integration Levels of Roads after introducing Water Drives



Chapter 05
***Spatial
Development
Strategy***



Creating a Unique City Image composed of Rhythmic Skyline & Lifestyle

03 Density Zones with 13 Characters

Spatial Development Strategy

Introduction

The spatial development strategy lays the foundation of the form of a city. Determination of the most appropriate spatial structure and providing a guide towards the necessary strategic actions are the key functions of a Spatial Development Strategy.

Objective

The main objective of the Spatial Development Strategy of CCCDP – 2019-2030 is to determine the most appropriate spatial structure for the Colombo Commercial City in terms of densities, prominent uses and the spatial characteristics which would contribute to enhance its role as a competing international business hub while minimizing negative environmental and social impacts. In other words the maintenance of a good city form and a unique city image is expected out of the following Spatial Development Strategy.

Approach

The most appropriate city spatial structure for Colombo Commercial City is identified based on a scientific analysis of the existing development trends, market forces, significance and impacts of prevailing issues and the development potentials.

Contribution towards the Vision & Goals of CCCDP – 2019-2030

Spatial Development Strategy directly contributes to achieve Goal 02 and 03 of CCCDP 2019-2030, 'the revived internationally renowned *Green Garden City of South Asia*' and 'the *Smart, Smooth & Sensed Urban Space* for all inhabitants' and their consequent objectives as mentioned below.

The strategy directly addresses the following two objectives.

- To have a legible, manageable and sustainable urban form for *Colombo Commercial City* by 2030.
- To have an average 35% green cover and the enhanced green experience in *Colombo Commercial City* by 2030
- To maintain 20% of the total area as special garden zones by 2030

Scope

The planning framework of the Spatial Development Strategy includes:

- The pattern of physical developments in the Colombo Commercial City defined in terms of density, prominent uses and the character
- Definitions of proposed broader density zones and character zones
- Special height controlled zones

Chapter 05 Spatial Development Strategy

Spatial Development Strategy

Chapter 05
Spatial Development
Strategy

**Proposed Broader
Density Zones of
Colombo
Commercial City**

*Three Broader
Density Zones*

5.1. Proposed Broader Density Zones of Colombo Commercial City

Colombo Commercial City will have three main development intensity zones, namely the high density, the moderate density and the low density, as presented in the Map 5.1.

5.1.1. Three Broader Density Zones

The expected development densities of three broader density zones and the areas falling within each zone are as follows.

Broader density zone	Expected development density	Areas falling within each zone
High Density Zone	Vertical Density – More than 15% of total buildings falling in the height categories of intermediate or high rise buildings	Colombo CBD, Kollupitiya, Bambalapitiya, Wellawatta, Dehiwala, Mt-lavinia, Kirulapana, Kalubowila, Borella, Maradana, Dematagoda, Maradana, Kotahena, Maligawatta, Bloemendhal & Mattakkuliya
Moderate Density Zone	Vertical Density – 5% to 15% of total buildings falling within the height categories of intermediate or high rise buildings Horizontal Density – Average 65% of plot coverage	Wattala, Kolonnawa, Peliyagoda, Kelaniya and Ratmalana
Low Density Zone	Vertical Density – More than 95% of total buildings falling within the category of low rise buildings Horizontal Density – Average 50% of plot coverage	Kurunduwatta & Thimbirigasyaya (Colombo 07 area) and Boralessgamuwa

NOTE – Low-rise - Up to 03 floors, Intermediate-rise - 04 to 08 floors, Middle-rise - 09 to 12 floors & High-rise - over 13 floors

Table 5.1: The development densities of broader density zones and areas falling within them

Density Distribution 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Density Classification

- High Density
- Medium Density
- Low Density

Zonal Boundary

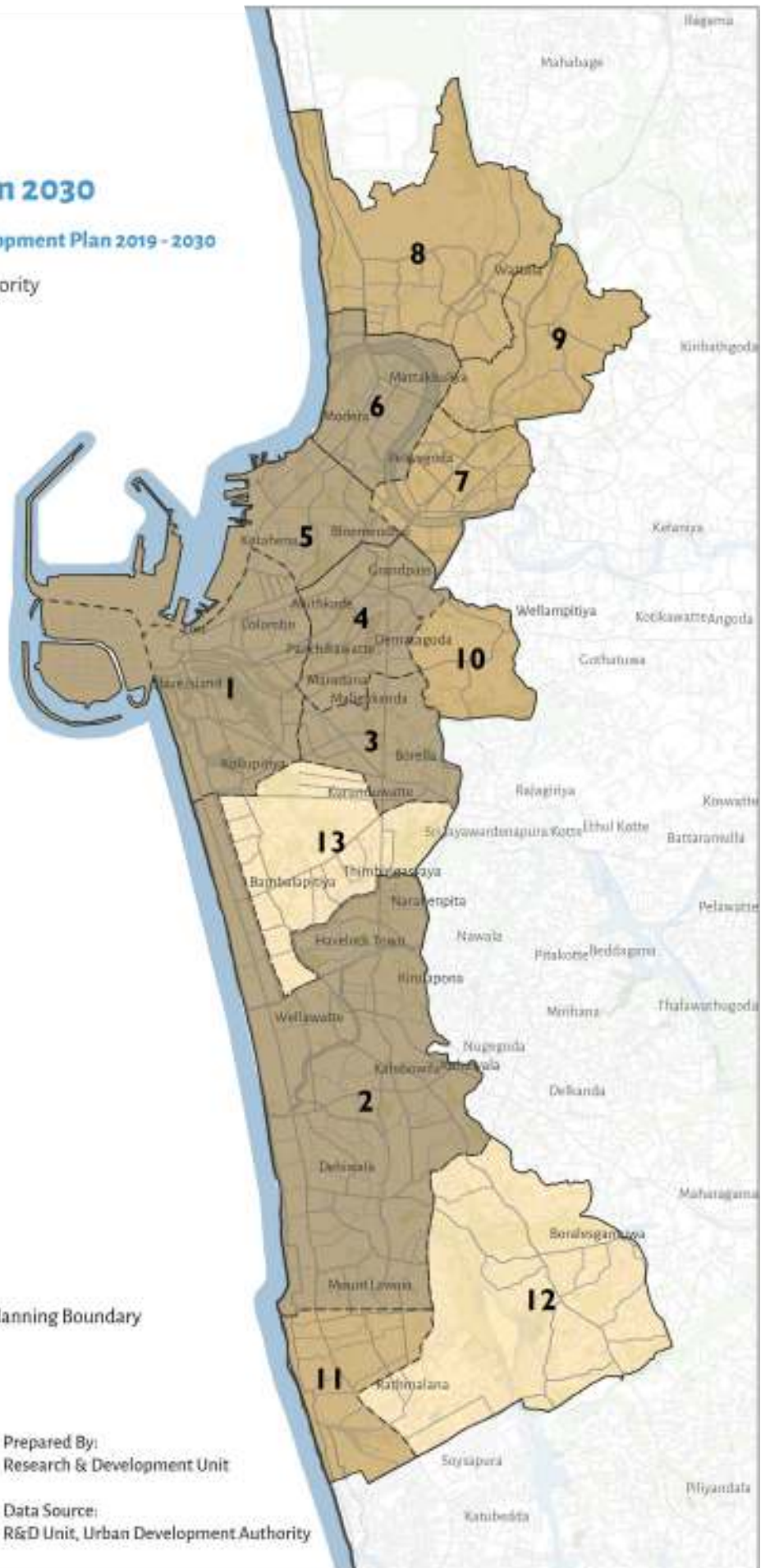
Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 5.1 : Proposed Three Broader Density Zones of Colombo Commercial City - 2030

Chapter 05
Spatial Development
Strategy

Proposed Broader
Density Zones of
Colombo
Commercial City

Demarcation of Broader
Density Zones – Justification

5.1.2. Demarcation of Broader Density Zones – Justification

The above mentioned three broader density zones; high, moderate and low were defined based on following criteria.

- ***Carrying Capacities - (Supply capacity of the Urban Infrastructure, Bearing Capacity of the Environmental systems, Space Demand for human activities)***

The reason for inclusion of this criteria was to assure optimum density levels within the areas proportionate to their carrying capacities in terms of available and the currently augmenting supply capacities of infrastructure such as the water supply, surface drainage, sewerage disposal, road network, etc: bearing capacity of environmental systems such as the ground assimilation, storm water drainage, etc; and space capacities to meet average space demands for various urban activities. One of the main issues identified during the context analysis was the increasing trend of high-dense developments taking place in areas which do not have adequate infrastructure facilities to meet the growing demands. Hence, it was attempted to address this issue by identifying the areas which have relatively higher infrastructure capacities towards which the high- dense developments can be promoted. Also, based on environmental sensitivity analysis, it was ensured that high-dense developments would not be promoted within the areas with high environmental sensitivity.

- ***Population & Urbanization Trends***

Existing population growth trends are good indicators to identify on going development trends. Hence, these trends were analyzed to identify the areas towards which the development is trending as a result of market forces, state interventions and other environmental, social and economic factors. The results of the analysis were used to guide the future development densities in an economically viable and an environmentally sustainable manner.

- ***Land Use & Existing Floor Area Ratios (FAR)***

Existing land use pattern and the utilization of the currently allowed FAR were also considered as main criteria to determine the proposed broader density zones. The areas in which the high-density developments and related uses are already evident or rapidly trending as per the existing land use pattern were given priority in promoting high dense developments. In addition, the areas which have not achieved permissible FARs due to other development constraints such as Infrastructure deficiencies or lack of investment attraction were also identified to be promoted with appropriate densities in the developments.

• **Ongoing and Proposed Projects**

The ongoing and proposed projects were considered as another major criteria when determining the areas to be promoted with different developments densities. Any area that was supposed to be served with on-going or proposed infrastructure developments were considered priority areas that could be promoted for high-dense developments without encountering problems due to deficiencies in infrastructure such as pipe-borne water supply, electricity supply, waste water management, solid-waste management etc. Also, the inclusion of this criteria enabled to identify the areas which are of sub-optimal utility in terms of capacities of infrastructure, thus which can be immediately promoted for higher densities.

The composite map derived as a result of the weighted overlaying of all of the above input maps was considered as the base to demarcate the boundaries of three broader density zones as shown in Map 5.1. Demarcation of broader density is further elaborated in the Annexure 5.1.

5.2. Proposed Character Zones of Colombo Commercial City

Colombo Commercial City will have thirteen Character Zones within identified three broader density zones as described below. The reason for demarcation of different character zones within the identified broader density zones, is to maintain the vibrance of the city environment enabling a variety of experiences in different areas without resulting in homogeneous developments throughout.

5.2.1. Thirteen Character Zones

Colombo Commercial City will have thirteen-character zones; six of them falling within high density zone, five in moderate density zone and two in low density zones. When considering the six character zones falling within high density zone, each zone will have a unique characters that differs the zone from the others even though they all may indicate a similar density. The character is defined in terms of the prominent use and sensible characteristics such as exclusiveness, compactness and eco-friendliness, etc. The character zones falling under three broader density zones are indicated in the Table 5.2 and shown in Map 5.2.

Chapter 05 *Spatial Development Strategy*

Proposed Broader Density Zones of Colombo Commercial City

Demarcation of Broader Density Zones – Justification

Proposed Character Zones of Colombo Commercial City

Thirteen Character Zones

Chapter 05*Spatial Development
Strategy**Proposed Character
Zones of Colombo
Commercial City**Thirteen Character Zones*

Broader Density Zones	Character Zones
High Density Zone	Exclusive Premium Mixed Development
	Premium Mixed Development
	High Density Green Mixed Development
	High Density Compact Mixed Development
	Compact Logistics Development
	High Density Residential
Moderate Density	Central Transit Based Development
	Moderate Density Residential Zone 01 - Wattala
	Moderate Density Logistics Development
	Moderate Density Residential Zone 02 - Kolonnawa
	Moderate Density Residential Zone 03 - Ratmalana
Low Density	Low Density Green Residential
	Low Density Garden

Table 5.2: *Character Zones within Broader Densification Zones*

The envisaged characters of each zone and the local areas falling within them are as indicated in the Table 5.3.

Character Zone	Envisaged Characteristics	Local Areas falling within the Zones
High Density Zones		
Exclusive Premium Mixed Development	<p>Maintenance of average 65% plot coverage</p> <p>Preserved land marks, more public open spaces, busy boulevard streets and well-maintained facades</p> <p>Exclusive category activities and land uses</p> <p>Attractive high-end investment area including international chained star hotels, multi-national companies, super luxury condominiums, head-offices of financial institutions, IT related organizations etc.</p> <p>Beira Lake surroundings and sea-front as the main tourist attraction point</p>	Colombo Fort, Pettah, Slave Island, Wekanda, Jinthupitiya, Part of Kollupitiya, Part of Panchikawatta, Gangaramaya
Premium Mixed Development	<p>Maintenance of average 70% plot coverage</p> <p>High-end activities such as star hotels, branded shopping outlets and luxury apartments.</p> <p>Well-maintained facades, boulevard streets and landscaped streets</p>	Part of Kollupitiya, Bambalapitiya, Wellawatta, Dehiwala, Mt-lavinia, Kirulapana, Kalubowila, Kawdana, Karagampitiya, Nedimala, Kohuwala, Pamankada
High Density Green Mixed Development	<p>Maintenance of average 75% plot coverage</p> <p>Well-maintained facades</p> <p>Boulevard streets</p> <p>High-end investments attractive area with prominent uses such as Luxury condominiums, star hotels, shopping complexes.</p> <p>Approximately 35% of green/ non-paved area of total zone</p>	Borella Junction, Mount Mary, Cota Road

Chapter 05

Spatial Development Strategy

Proposed Character Zones of Colombo Commercial City

Thirteen Character Zones

Chapter 05**Spatial Development
Strategy****Proposed Character
Zones of Colombo
Commercial City**

Thirteen Character Zones

Character Zone	Envisaged Characteristics	Local Areas falling within the Zones
High Density Compact Mixed Development	<p>Maintenance of average 75% plot coverage.</p> <p>Compact retail and wholesale market area.</p> <p>Private office complexes</p>	Dematagoda, Maradana, Maligawatta, Part of Panchikawatta, Orugodawatta, Grandpass South, Kiriwaththuduwa
Compact Logistics Development	<p>Maintenance of average 70% plot coverage.</p> <p>Prominent uses - Port related industrial activities, logistics-based activities and warehouses etc.</p>	Port Area, Sea Avenue, Kotahena, Bloemandhal, Mahawatta, Aluthmawatha
High Density Residential	<p>Maintenance of average plot coverage of 70%</p> <p>Predominant residential area having high-rise apartment complexes built for low-income families of City of Colombo</p>	Mattakkuliya, Modara, Madampitiya
Moderate Density Zones		
Central Transit Based Development	<p>Maintenance of average plot coverage of 70%</p> <p>Central Transit Based activities linked with proposed Multi-modal Transport Hub at Peliyagoda (The Main Regional Transport Hub of Colombo)</p> <p>Water recreational areas and public gathering places linked with Kelani River Water Front</p>	Part of Peliyagoda & Sedawatta

Character Zone	Envisaged Characteristics	Local Areas falling within the Zones
Moderate Density Residential Zone 01 - Wattala	<p>Maintenance of 65% average plot coverage</p> <p>Predominant use – Residential including garden houses, high-rise apartments and condominiums</p> <p>Tourism and recreational activities along coastal stretch</p> <p>High retailing area along major roads.</p>	Hekitta, Kerawalapitiya, Dikovita and Part of Mabola
Moderate Density Logistics Development	<p>Maintenance of 65% average plot coverage</p> <p>Prominent uses - Port related industrial activities, logistics-based activities and warehouses etc.</p>	Part of Peliyagoda, Wanawasala, Dippitigoda and Hunupitiya
Moderate Density Residential Zone 02 - Kolonnawa	<p>Maintenance of 65% average plot coverage</p> <p>Predominant use – Residential including garden houses, high-rise apartments and condominiums</p>	Kolonnawa and Wellampitiya
Moderate Density Residential Zone 03 - Ratmalana	<p>Maintenance of 65% average plot coverage</p> <p>Predominant use – Residential including garden houses, high-rise apartments and condominiums</p>	Parts of Ratmalana and Mt-lavinia, Kaldemulla

Chapter 05 Spatial Development Strategy

Proposed Character Zones of Colombo Commercial City

Thirteen Character Zones

Chapter 05**Spatial Development
Strategy****Proposed Character
Zones of Colombo
Commercial City**

Thirteen Character Zones

Character Zone	Envisaged Characteristics	Local Areas falling within the Zones
Low Density Zones		
Low Density Green Residential	<p>Maintenance of 50% average plot coverage considering the total area</p> <p>More public open spaces linked with green pastures and waterfronts</p> <p>Relatively less congested area</p> <p>Prominent use – residential (garden houses and low-rise houses)</p>	Part of Ratmalana, Belekade Junction, Bakery Junction and Boralessgamuwa
Low Density Garden	<p>Maintenance of 50% average plot coverage at each and every plot</p> <p>Boulevard streets and more public open recreational spaces</p> <p>Predominant use – residential (garden houses and low-rise houses)</p> <p>High-end investments area prominent for branded retailing, tourism, private office and leisure & entertainment activities</p>	Colombo 07 including Cinnamon Garden, Thimbirigasyaya

Table 5.3: The envisaged characteristics of thirteen character zones and areas falling within them

Character Zones 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Character

- Zone 1 - Exclusive Premium Mixed Development
- Zone 2 - Premium Mixed Development
- Zone 3 - High Density Green Mixed Development
- Zone 4 - High Density Compact Mixed Development
- Zone 5 - Compact Logistics Development
- Zone 6 - High Density Residential
- Zone 7 - Central Transit based Development
- Zone 8 - Moderate Density Residential - Wattala
- Zone 9 - Moderate Density Logistics Development
- Zone 10 - Moderate Density Residential - Kolonnawa
- Zone 11 - Moderate Density Residential - Ratmalana
- Zone 12 - Low Density Green Residential
- Zone 13 - Low Density Garden
- Zonal Boundary
- Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 5.2: Proposed Thirteen Character Zones of Colombo Commercial City - 2030

5.2.2. Demarcation of Zone Boundaries based on Characters – Justification

As explained above, there can be local areas with different characters within an identified broader density zone. It was determined to identify these possible heterogeneous characteristics of different local areas and demarcate different character zones in order to ensure that a variety of experiences will be maintained in future Colombo. The demarcation of character zones was also based on Weighted Overlay Analysis where below mentioned criteria were considered. The existing characters and trends as well as the anticipated characters which need be there to be aligned with the proposed city vision were both considered as major criteria in demarcating the character zone boundaries.

- ***Space Analysis of Activities identified by the Market Based Analysis. (Changes of Retail, Office and Residential Spaces)***

Existing market trends is one of the key indications of the emerging special characters of local areas (different parts of Colombo Commercial City). Based on market trends, the areas which have high demand for certain activities can be identified and the same can be used to determine the most appropriate characters for each local area. Accordingly, the market studies which have been conducted by relevant agencies of both public and private sectors were used to identify the spatial distribution of different market demands in terms of Retail, Institutions, Private Offices, Tourism and Residential etc. The most appropriate prominent uses and characters of each zone were determined considering the trending activities driven by market forces.

- ***Suitability Analysis***

Prominent use is one of the influential factors of the zone character thus, determination of most appropriate prominent use needed be done based on scientific analysis. Suitability analysis was conducted to evaluate the suitability of different local areas of Colombo Commercial City for potential uses considering different factors.

- ***Existing Characters which have been derived based on Zoning Classifications***

Existing characters of local areas are mostly derived based on the existing zoning classifications. Hence, existing zoning classification was considered as a base to demarcate proposed character zones. One of the major implications of this criteria is the demarcation of present Special Primary Residential Zone as Garden Zone with the intention of conserving its special garden and residential character.

• **Concept of the Plan – Future Development Direction**

The other major criteria considered was the proposed city vision and the concept plan designed to achieve it. The idea behind is the demarcation of the character zones as it contributes to lead the city towards its anticipated future vision. Therefore, the character zones were demarcated as they are aligned with the previously determined characters of seven aqua regions and 08 water esplanades.

5.3. Proposed Hierarchical Nodes of Colombo Commercial City

16 nodes in 4 main priority levels are proposed within the Colombo Commercial City. These nodes are expected to emerge in a hierarchy within the identified character zones and will act as catalysts for development and they are enabled to cater relatively higher magnitude of developments within the zones by means of higher supply intensities of infrastructure and other urban services.

5.3.1. Proposed hierarchical order of nodes

Hierarchical Level	Node	The proposed type of development and anticipated character
Level 01	Pettah	<p>Based on Multi-modal Transport Hub Development</p> <p>Acting as the main center of intra-city transport network of Colombo Commercial City</p> <p>Catering mega scale commercial development</p>
	Peliyagoda	<p>Based on Multi-modal Transport Hub Development (Regional Transport Hub)</p> <p>Acting as one of the main centers of inter-city transport network of the western region and island</p> <p>Catering mega scale commercial development</p> <p>Hosting one of the major Park & Ride Facilities</p>

Chapter 05 Spatial Development Strategy

Proposed Character Zones of Colombo Commercial City

*Demarcation of Zoning
Boundaries based on
Characters – Justification*

Proposed Hierarchical Nodes of Colombo Commercial City

*Proposed hierarchical order
of nodes*

Chapter 05*Spatial Development
Strategy**Proposed Hierarchical
Nodes of Colombo
Commercial City**Proposed hierarchical order
of nodes*

Hierarchical Level	Node	The proposed type of development and anticipated character
Level 02	Dematagoda	Based on Transport Oriented Development (TOD) Acting as the main hub to collect and re-distribute east traffic to Colombo Catering mega scale mixed development
	Ratmalana	Based on Transport Oriented Development (TOD) Acting as the main hub to collect and re-distribute south traffic to Colombo Catering mixed-developments in the immediate surroundings and residential developments in the neighboring area Hosting one of the Park and Ride Facilities
	Kollupitiya Bambalapitiya Wellawatta Dehiwala Mount Lavinia	Major nodes (town centers) in the coastal belt of Colombo Commercial City Based on Transport Oriented Developments of local scale associated with Railway Stations and Mini-bus Stands Catering large scale mixed development
	Borella	A Major node (One of the major town centers with more commercialized and transport Oriented developments) Based on Transport Oriented Development of local scale associated with Railway Station and Mini-bus Stand Catering large scale mixed development
	Wattala	Major node catering mixed-developments in the immediate surroundings and residential developments in the neighboring area.

Chapter 05

Spatial Development Strategy

Proposed Hierarchical Nodes of Colombo Commercial City

Proposed hierarchical order of nodes

Hierarchical Level	Node	The proposed type of development and anticipated character
Level 03	Narahenpita	Major node catering mixed-developments in the immediate surroundings and residential developments in the neighboring area.
	Kohuwala	Major node catering mixed-developments in the immediate surroundings and residential developments in the neighboring area.
	Hunupitiya	Local scale Transport Oriented Development associated with different modes such as, LRT, Electrified Rail Network, Expressway. Local scale node catering neighboring residential developments
Level 04	Boralesgamuwa	Local scale node catering neighboring residential developments Green themed nodal development to suit with designated special green character of the area
	Hekitta	Local scale node catering neighboring residential developments

Table 5.4: The proposed Hierarchical Nodes of Colombo Commercial City - 2030

The strategic projects to activate above identified hierarchical nodes will be elaborated under the Transport Development Strategy of CCCDP – 2019-2030.

Nodal Hierarchy 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Nodal Hierarchy

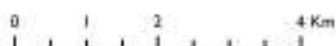


Density Classification



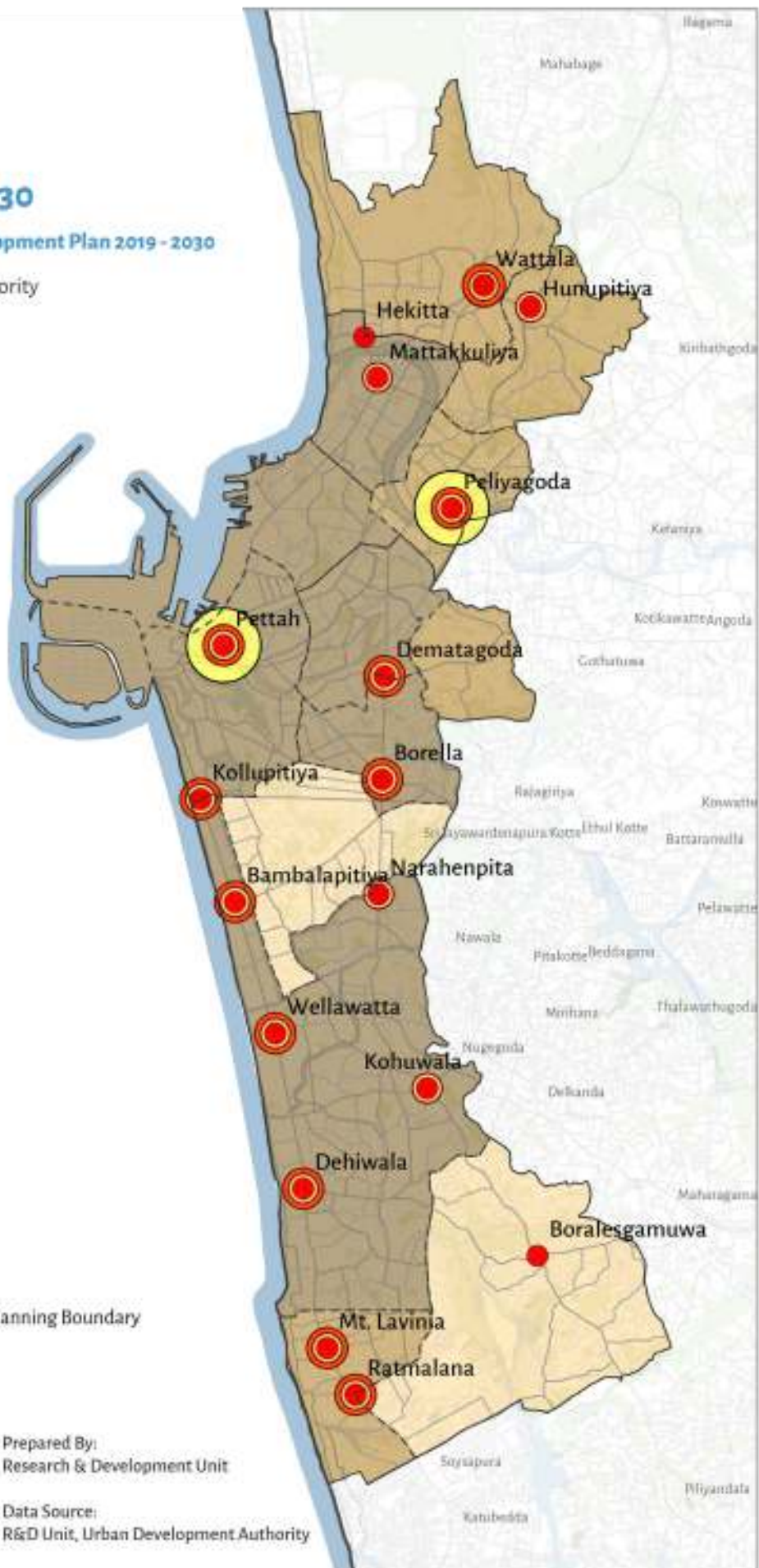
Zonal Boundary

Colombo Commercial City Planning Boundary



Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



5.3.2. Determination of the hierarchical order of nodes – Justification

The proposed nodal hierarchy was determined considering the relative importance of nodes in terms of the overall ‘connectivity’, ‘centrality’ and the ‘betweenness’ and their potential contribution to achieve the envisaged densities and characters as explained in the previous sections. The relative importance of nodes in terms of connectivity was identified based on the connectivity analysis which was conducted including the following criteria.

- I. Connectivity in terms of roads
- II. Connectivity in terms of Railway
- III. Connectivity with Expressway Network
- IV. Possible future connectivity with proposed Water Drives
- V. Possible future connectivity with proposed Water Transportation Routes
- VI. Possible future connectivity with proposed Light Rail Transit Network
- VII. Possible future connectivity with proposed Electrified Railway Network

In addition to the above mentioned criteria on connectivity, the following two factors were also considered when determining the hierarchical order of nodes and assigning the priority levels.

- Ongoing and proposed development projects undertaken within Colombo Commercial City by both government and private parties
- The significance of each node in achieving the proposed concept of aqua regions and ultimate city vision; ‘Aquarina – the City in Water’.

Chapter 05 Spatial Development Strategy

Proposed Hierarchical Nodes of Colombo Commercial City

*Determination of the
hierarchical order of
nodes – Justification*

5.4. Proposed Hierarchical Road Network of Colombo Commercial City

Hierarchically arranged road network consisting of three levels; Level 01, Level 02 and Level 03 is proposed for *Colombo Commercial City* for the following purposes.

- To connect above explained hierarchical nodes while maintaining their relative prominence based on priority levels
- To induce the anticipated developments in each character zone (Since roads are a mandatory infrastructure to induce developments, more Level 01 roads are proposed in high density zones to facilitate more developments)
- To manage traffic in Colombo Commercial City (Will be elaborated under the *Transport Development Strategy of CCCDP – 2019-2030*)

As explained in the above second factor, the widened and improved roads induce more developments to the area. On the other hand, a place with relatively high road density has the capacity to cater more developments in terms of handling traffic and generating more convenient spaces with good accessibility. Hence, there is a significant impact of the proposed road structure to the city's spatial development.

Considering the impacts of proposed road network and its direct and neighboring impact of development, it was identified that the road based development corridors can be emerged as mentioned in Figure 5.1:

Chapter 05 Spatial Development Strategy

Proposed Hierarchical Road Network of Colombo Commercial City

Proposed Sub-density Zones of Colombo Commercial City



Figure 5.1 : Road Based Development Corridors

5.5. Proposed Sub-density Zones of Colombo Commercial City

51 sub-density zones are proposed within *Colombo Commercial City* for regulating the developments at a detailed scale. The advantage of having detailed sub-density zones rather than broader density zones is that it enables imposing of unique sets of regulations for each zone to manage developments based on;

- Special characters of each zone
- Carrying capacities in terms of roads and other infrastructure
- Impacts of water esplanade developments, nodal developments and other ongoing and proposed projects

The derivation of sub-density zone boundaries was based on following key layers.

1. **Three Broader Density Zones**
2. **Thirteen Character Zones**
3. **Proposed Hierarchical Nodes**
4. **Development corridors based on hierarchically arranged road network**

In addition to the above, existing special characters, environmental concerns and impacts of water esplanade developments and other ongoing and proposed projects were also considered in demarcating sub-density zone boundaries.

The sub-density zones derived based on above criteria are indicated in the Map: 5.4.

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Proposed Sub-density Zones of Colombo Commercial City



Figure 5.2: Three Broader Densification Zones



Figure 5.3: Thirteen Character Zones



Figure 5.4: Proposed Hierarchical Nodes



Figure 5.5: Road Based Development Corridors

The zoning regulations applied for each sub-density zone is elaborated in the Volume III of *Colombo Commercial City Development Plan – 2019-2030*

Sub Densification Zones 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Character

- Zone 1 - Exclusive Premium Mixed Development
- Zone 2 - Premium Mixed Development
- Zone 3 - High Density Green Mixed Development
- Zone 4 - High Density Compact Mixed Development
- Zone 5 - Compact Logistics Development
- Zone 6 - High Density Residential
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- Zone 9 - Moderate Density Logistics Development
- Zone 10 - Moderate Density Residential - Kolonnawa
- Zone 11 - Moderate Density Residential - Ratmalana
- Zone 12 - Low Density Green Residential
- Zone 13 - Low Density Garden

Sub Zonal Boundary

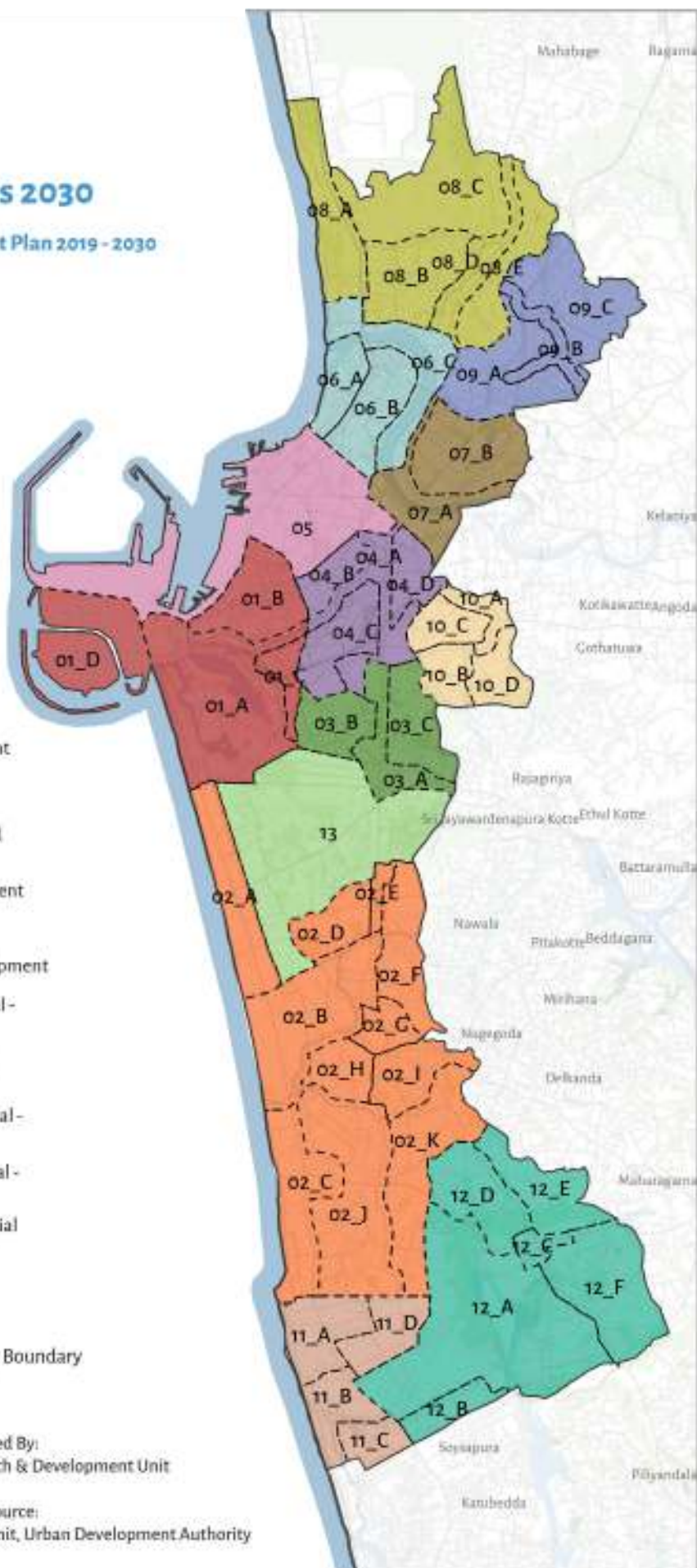
Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



5.6. Preservation of City Landmarks

Landmarks are essential features of a city as they have a strong influence in making a city more legible and imageable while preserving its identity and enhancing visual quality. Landmarks are point references and their key physical characteristic is singularity which can be derived by maintaining back-ground contrast. Thus, when using landmarks to enhance visual quality of an environment, it is important to manage both the characteristics of the landmark itself and the surrounding elements. At the same time there is a huge impact made by a certain landmark to its surrounding environment as it adds value and character to the surrounding lands in the vicinity.

“The Lotus Tower” is considered as a major Land mark of City of Colombo. The tower is 350 m tall and claims to be the tallest self-supported structure in South Asia. Considering, its monumental significance, it is proposed to preserve its visual prominence by ensuring its visibility through selected visual corridors. The identification of visual corridors and maximum allowable heights was conducted based on GIS Based Visibility Analysis considering following criteria.

- 2/3 of Lotus Tower is visible in the range of 0.5km to 2.0km
- 1/3 of Lotus Tower is visible in the range of 2.0km to 5.0km
- Lotus Tower is visible from main public gathering places and corridors

Accordingly, the identified visual corridors and their maximum allowable heights are mentioned in the Figure 5.7. The regulatory guidelines applicable for each visual corridor are elaborated in Volume III in terms of boundaries of proposed visual corridors and the maximum building heights allowable from Mean Sea Level throughout the corridors.

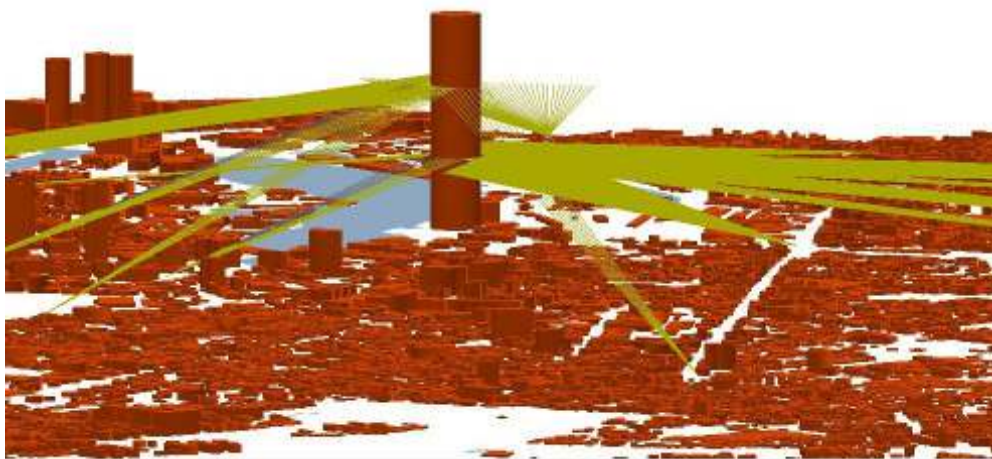


Figure 5.6: 3D Model of Visual Corridors of Lotus Tower - Colombo

- c. Height Controlling in close proximity to Electricity Overhead Lines – As per the Gazette Notification No. 1975/44 dated 13th July 2016
- d. Height Controlling in the surrounding area of Colombo Airport – Ratmalana – The height controlling within the 6km radius buffer zone of Ratmalana Airport is site specific depending on site's topography. Thus, all developments taking place within 6km radius buffer zone of Ratmalana Airport should have the height clearances from the Civil Aviation Authority prior to the developments.
- e. Height controlling within identified visual corridors of Lotus Tower – Colombo (as explained in the section 5.6)
- f. Height controlling within the 'Garden Zone'



Figure 5.8: Special Height Control Zones within Colombo Commercial City

Chapter 05
*Spatial Development
Strategy*

**Overall Densification
Pattern of Colombo
Commercial City – 2030**

*Envisaged overall built-form
of Colombo Commercial City
– 2030*

5.8. Overall Densification Pattern of Colombo Commercial City – 2030

The overall densification pattern of *Colombo Commercial City* will be governed based on zoning regulations applied for identified 51 sub-density zones based on their respective character zone and broader density zone and special regulations applied for above mentioned 05 special height control zones. Accordingly, the future envisaged overall built-form and skyline variations are illustrated as follows.

5.8.1. Envisaged overall built-form of Colombo Commercial City - 2030



Figure 5.9: 3D – visualization of overall built-form of Colombo Commercial City



Figure 5.10: 3D – visualization of built-form in north of Colombo Commercial City

Chapter 05 Spatial Development Strategy

Overall Densification Pattern of Colombo Commercial City – 2030

Envisaged overall built-form
of Colombo Commercial City
- 2030

Envisaged Sky-line Variation
in Colombo Commercial City
- 2030

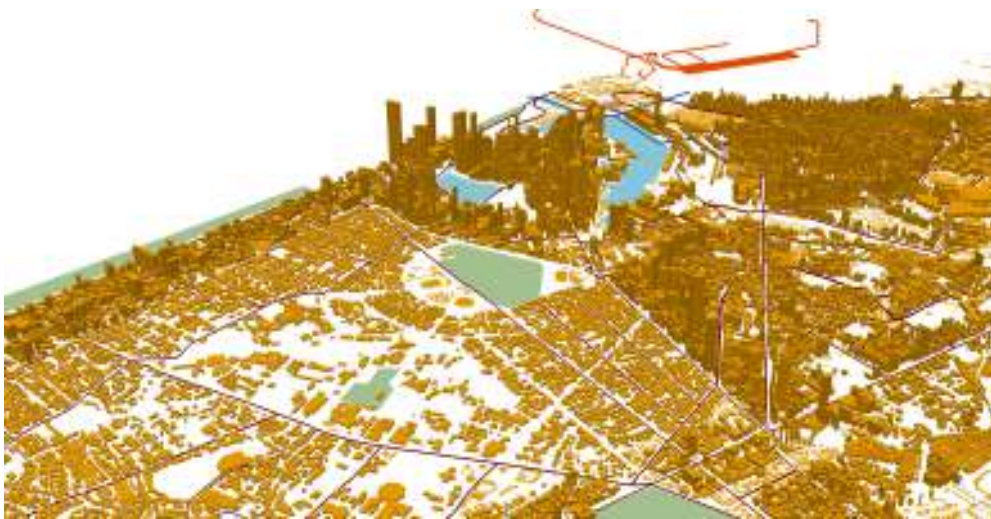


Figure 5.11 : 3D – visualization of built-form in proposed Garden and Exclusive Premium Zones



Figure 5.12 : 3D – visualization of built-form – View from the ocean

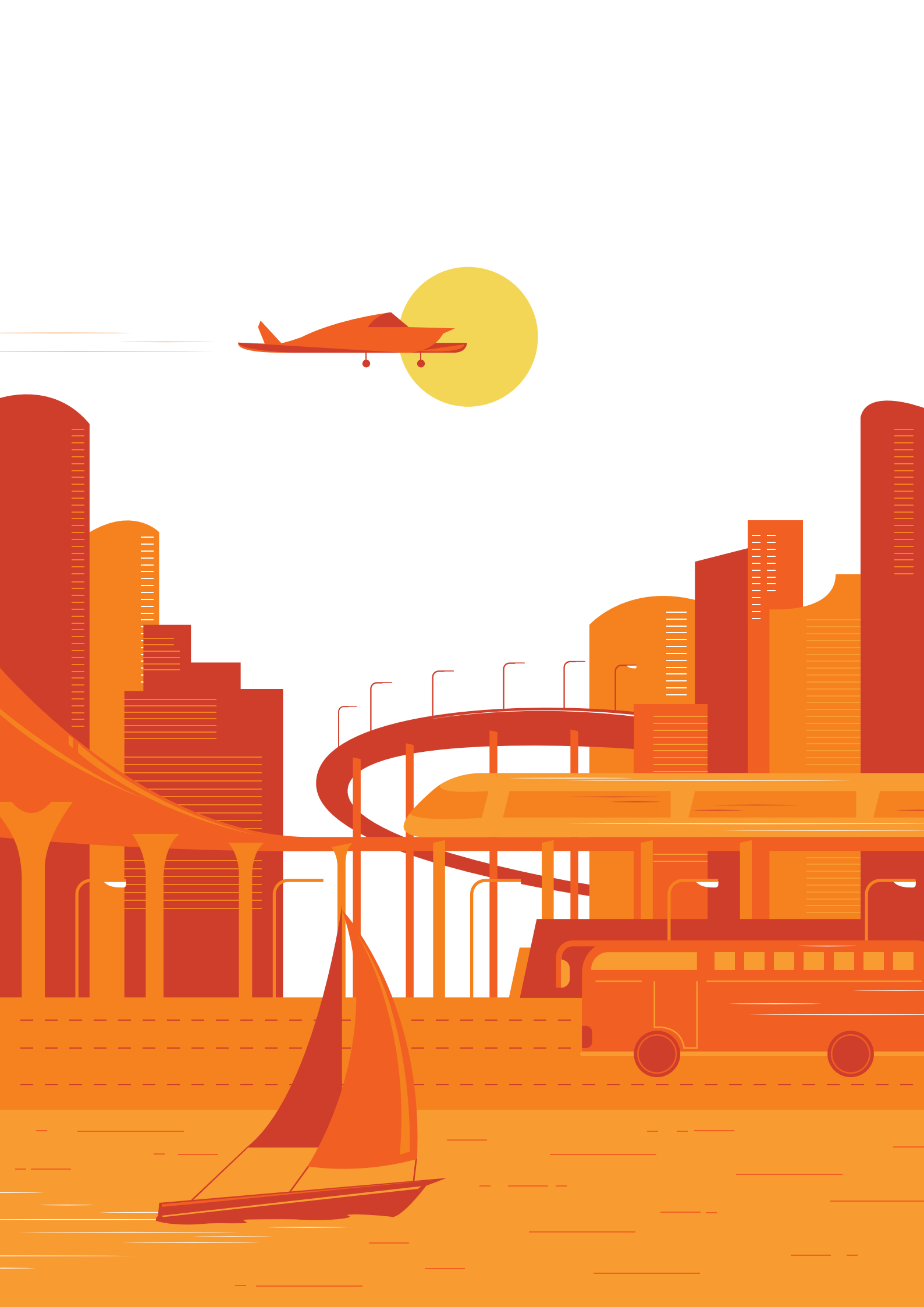
5.8.2. Envisaged Sky-line Variation in Colombo Commercial City - 2030



Figure 5.13 : Variation of Skyline from Mattakkuliya to Wellawatta



Figure 5.14 : The overall skyline variation throughout a cross section of Colombo Commercial City
(From Wattala to Ratmalana)



Chapter 06

*Transport Development
Strategy*

Chapter 06
***Transport
Development
Strategy***



Enabling Convenient & Fast Mobility

04 Major TODs, New Modes of Public Transport & 03 Hierarchical Levels of Roads

Transportation Development Strategy

Introduction

A city's life is enabled with the functional systems infused into its spatial structure. A key component of the functionality of a built environment is the transportation system that serves the land uses contained within the fabric.

Objective

The objective of the Transportation Development Strategy is to create a functionally effective transportation system that facilitates efficient mobility within the city. The effectiveness of any transportation network is attributed to its spatial configuration which is a function of several criteria such as spatial distribution of the networks of different modes of transportation and their points of coincidence resulting in transport hubs. Hence, determination of the appropriate network arrangements and strategic locations for transport hubs in accordance with the proposed spatial structure, as to match with the proposed densities, characters and proposed development activities is the main objective of the Transport Development Strategy of CCCDP – 2019-2030.

Approach

Following the planning norm 'higher the accessibility, greater the potential for development', the road network of Colombo Commercial City is proposed as to induce the anticipated developments in the identified density zones. The routes of other transport modes such as bus, railway, proposed light rail transit and water transport are determined as to facilitate each zone as per the proposed densities and to connect hierarchical nodes as per their priority levels. Transport Development Strategy is implemented in real grounds through two main approaches;

- Regulatory approach (rules, and guidelines)
- Projects implemented by the of state agencies

Contribution towards the Vision & Goals of CCCDP – 2019-2030

The proposed Transportation Development Strategy contributes to achieve the third goal of CCCDP – 2019-2030 which is ‘The Smart, Smooth and Sensed Urban Space for all inhabitants’ and its subsequent objectives mentioned below.

- To have an integrated multimodal, reliable, affordable and comfortable Public Transport System by 2030
- To have 04 Major TODs at strategic locations enabling easy mobility within *Colombo Commercial City* by 2030

The Transport Development Strategy also contributes to have a well-connected water transportation system in *Colombo Commercial City* by 2030 which is the third objective under Goal 01 – ‘The most sought Waterfront Business Environment Experience’.

Scope

The planning framework of the Transport Development Strategy includes:

- Interventions to manage intra-city traffic movements
- Interventions to create an effective and convenient transportation system
- Strategic interventions and projects proposed by UDA and other stakeholder agencies to improve different transport modes and transport hubs of *Colombo Commercial City*
- Recommendations for hierarchically arranged road network including definitions of characters and functions of different road categories

However, the specific traces for transportation routes and the detailed feasibility studies are not presented at this stage.

Chapter 06

Transport Development Strategy

Transport Development Strategy

6.1. Proposed Improvements to Road Transportation System in Colombo Commercial City (Project Code - T-1)

Introducing a hierarchically arranged road network is one of the key components of proposed Transport Development Strategy of Colombo Commercial City. A hierarchically arranged road network can be used as a tool in planning to maintain appropriate links between different land uses and the road system as well as to maintain appropriate linkage of roadways in the road system. Also it plays a major role in achieving the anticipated development of a city.

The key objective of a development of road hierarchy is to ensure the orderly grouping of roadways in a framework around which state and local governments can plan and implement various construction, maintenance, and management schemes and projects. It also assists local and state agencies with the adoption of appropriate standards for roadway construction.

Accordingly, a road hierarchy consisting of three major levels has been proposed for *Colombo Commercial City*. The determination of road hierarchy was based on the following criteria.

- Existing capacities of roads (Level of Service)
- The overall concept plan and the vision
- Expected Densities and characters of each broader Density zones and character zones

6.1.1. Proposed Road Hierarchy

According to the proposed road hierarchy, there will be three major categories of roads namely Level 01, Level 02 and Level 03 roads. The sub categories of three levels are determined based on different characters and functions of roads. The Proposed Road Network of *Colombo Commercial City* is given in the Figure 6.1 and Map 6.1. The characteristics definitions of each road type are elaborated in the Table 6.1.

Chapter 06

Transport Development Strategy

Proposed Improvements to Road Transportation System in Colombo Commercial City

Proposed Road Hierarchy

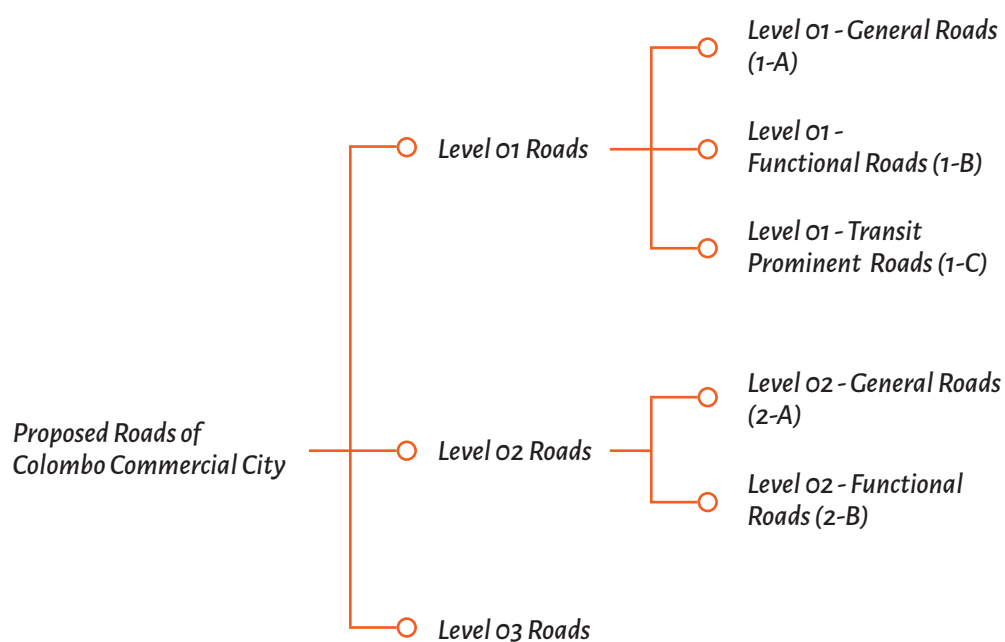


Figure 6.1 : The Proposed Road Hierarchy in Colombo Commercial City

Road Category Code	Road Category Name	Defined Function/ Character
Level 01 Roads		
01 - a	Level 01 – General Roads	<p>Should have minimum carriage width 15m (four lanes)</p> <p>Water Drives falling under this road category may have minimum carriage width of 7m (two lanes)</p> <p>Roads that cater both vehicular and pedestrian traffic equally</p> <p>Composed of mixed characters of both Functional Roads and Transit Prominent Roads</p>

Chapter 06**Transport Development
Strategy****Proposed Improvements
to Road Transportation
System in Colombo
Commercial City****Proposed Road Hierarchy**

Road Category Code	Road Category Name	Defined Function/ Character
01 - b	Level 01 – Functional Roads	<p>A street which acts as a place in its own right: a location where activities occur on or adjacent to the street.</p> <p>Should have minimum carriage width of 15m (four lanes)</p> <p>Water Drives falling under this category may have minimum carriage width of 7m (two lanes)</p> <p>Pedestrian prominent streets</p> <p>Roads which act as functional streets daily, during certain hours of day, special days of week, seasonally or on special days</p> <p>More pedestrian friendly and convenient road designs</p> <p>Well-maintained streetscapes with attractive street furniture, façade designs and tree lines</p> <p>Promoting small scale retail and shopping activities along the roads</p>
01 - c	Level 01 – Transit Prominent Roads	<p>A street that mainly acts as a conduit for through movement and which forms an integral part of the whole urban street network</p> <p>Should have minimum carriage width of 15m (four lanes)</p> <p>The major arterial roads that are mainly reserved for the purpose of easing city traffic</p> <p>Adoption of Road designs that discourage on-street parking & frequent pedestrian crossings</p> <p>Use of overhead/ underground bridges for pedestrian crossings and laying of on-street zebra crossings at considerable distances</p> <p>Discouraging small scale retail activities and on-street shopping</p>

Chapter 06*Transport Development Strategy**Proposed Improvements to Road Transportation System in Colombo Commercial City**Proposed Road Hierarchy*

Road Category Code	Road Category Name	Defined Function/ Character
Level 02 Roads		
02 - a	Level 02 – General Roads	<p>Should have minimum carriage width of 7m (two lanes)</p> <p>Roads that cater both vehicular and pedestrian traffic equally</p> <p>Composed of mixed characters of both Functional Roads and Transit Prominent Roads</p>
02 - b	Level 02 – Functional Roads	<p>Should have minimum carriage width of 7m (two lanes)</p> <p>Pedestrian prominent streets</p> <p>Roads which act as functional streets daily, during certain hours of day, special days of week, seasonally or on special days</p> <p>More pedestrian friendly and convenient road designs</p> <p>Well-maintained streetscapes with attractive street furniture, façade designs and tree lines</p> <p>Promoting small scale retail and shopping activities along the roads</p>
Level 03 Roads		
03	Level 03 Roads	<p>All Local Authority roads and Private Roads are considered under this category</p> <p>All Local Authority roads under this category should have minimum road width of 7m</p> <p>All Private Roads under this category should have minimum road width of 03 meters</p>

Table 6.1 : Characters and functions of proposed hierarchical road categories of Colombo Commercial City

Chapter 06
Transport Development
Strategy

*Proposed Improvements
to Road Transportation
System in Colombo
Commercial City*

*Cross sections of
proposed roads*

6.1.2. Cross sections of proposed roads

(a) Level 01 Roads

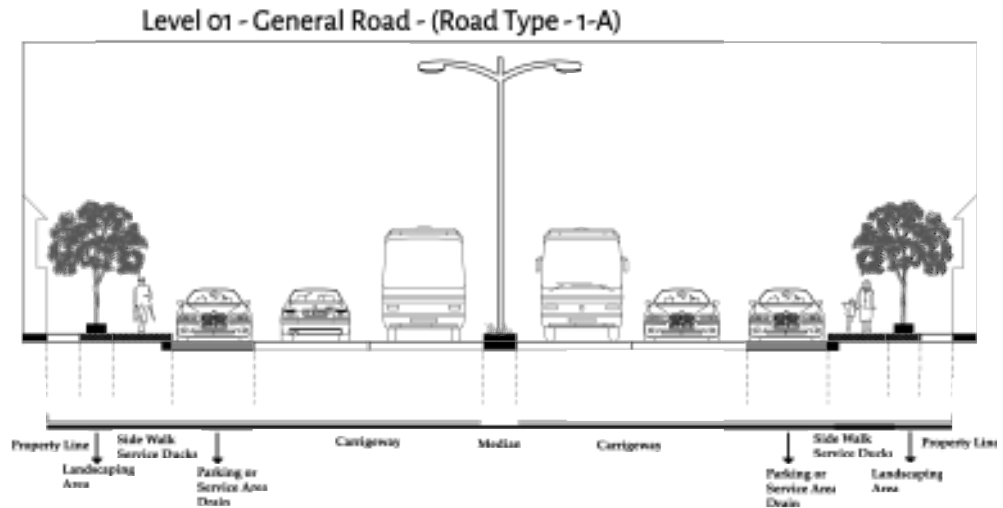


Figure 6.2: Cross section of a Level 01 – General Road - (Road Type - 1-A)

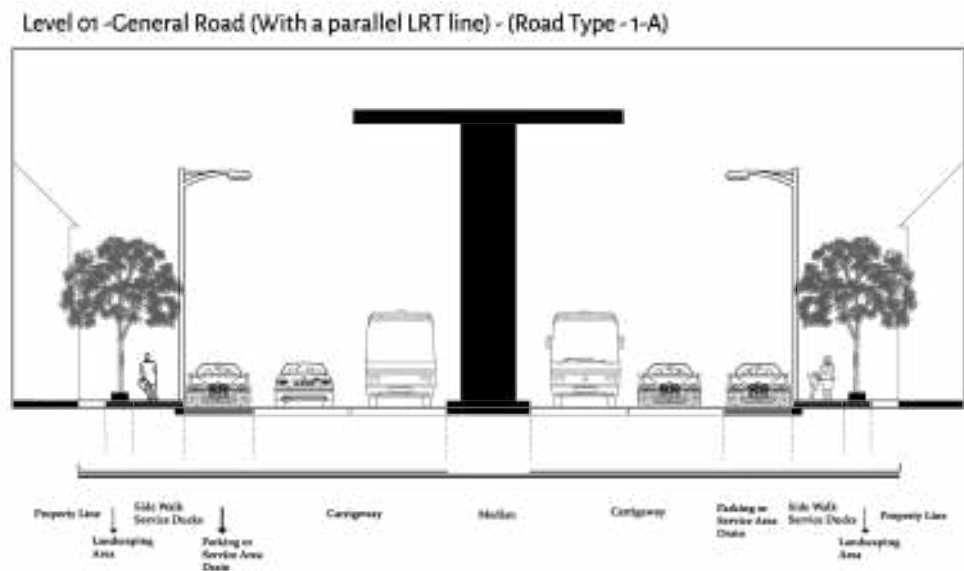


Figure 6.3: Cross section of a Level 01 – General Road
(With a parallel LRT line) – (Road Type - 1-A)

NOTE: The recommended typical cross sections of different road types are given above.

Chapter 06

Transport Development Strategy

Proposed Improvements to Road Transportation System in Colombo Commercial City

Cross sections of proposed roads

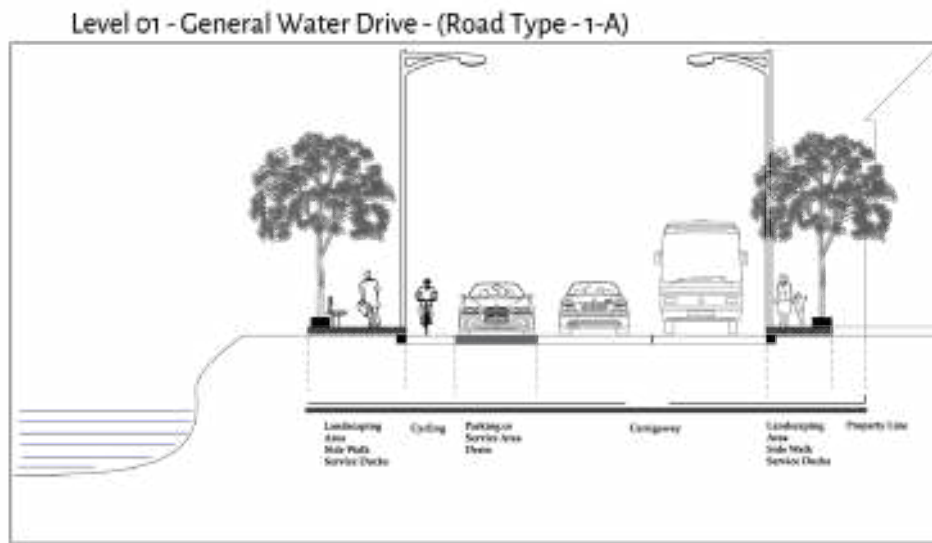


Figure 6.4: Cross section of a Level 01 - General Water Drive - (Road Type - 1-A)

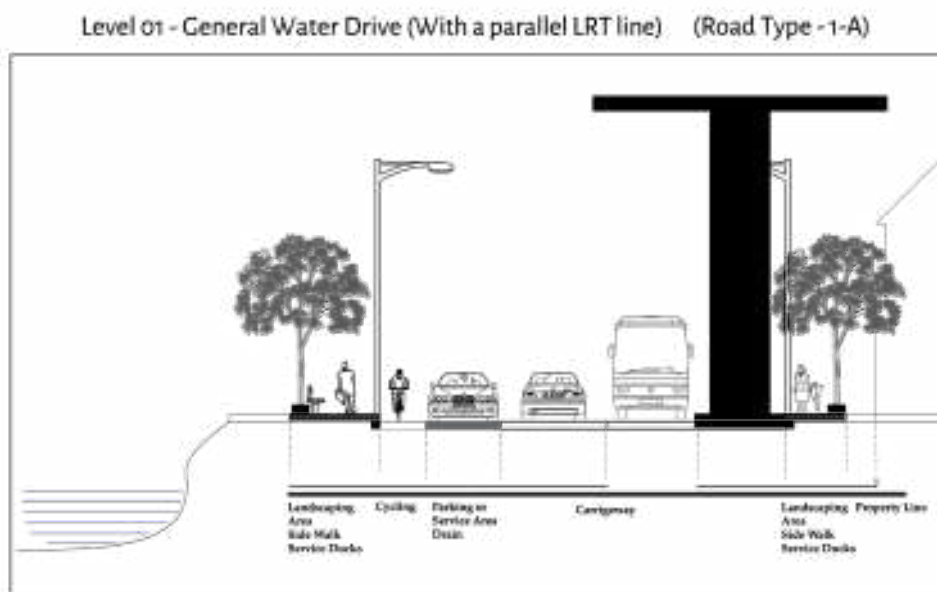


Figure 6.5: Cross section of a Level 01 - General Water Drive (With a parallel LRT line) - (Road Type - 1-A)

NOTE: The recommended typical cross sections of different road types are given above.

Chapter 06
Transport Development
Strategy

**Proposed Improvements
to Road Transportation
System in Colombo
Commercial City**

Cross sections of
proposed roads

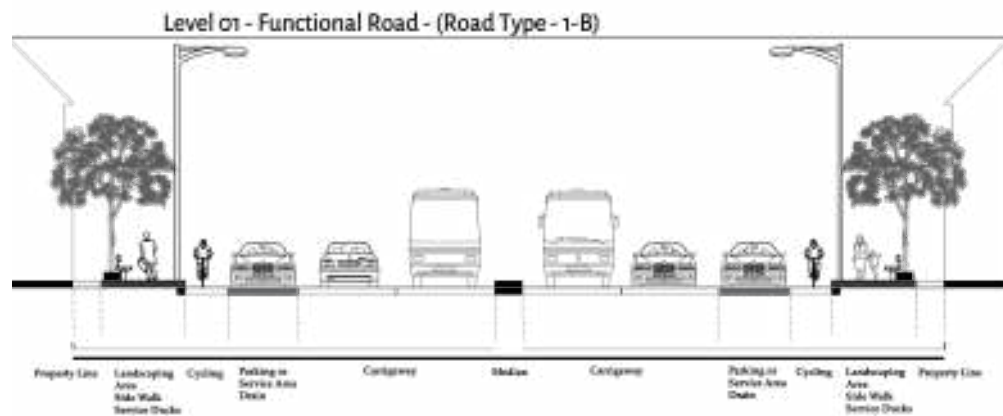


Figure 6.6: Cross section of a Level 01 – Functional Road - (Road Type - 1-B)

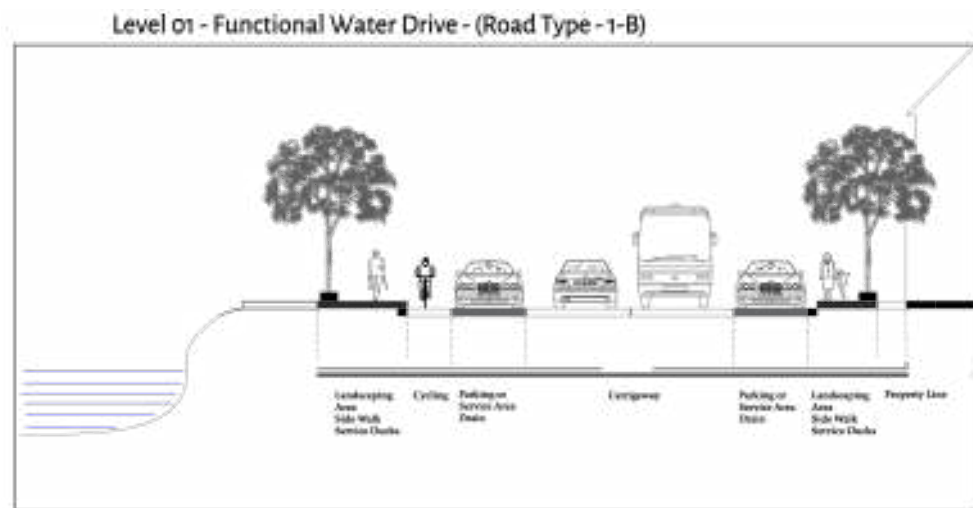


Figure 6.7: Cross section of a Level 01 – Functional Water Drive - (Road Type - 1-B)

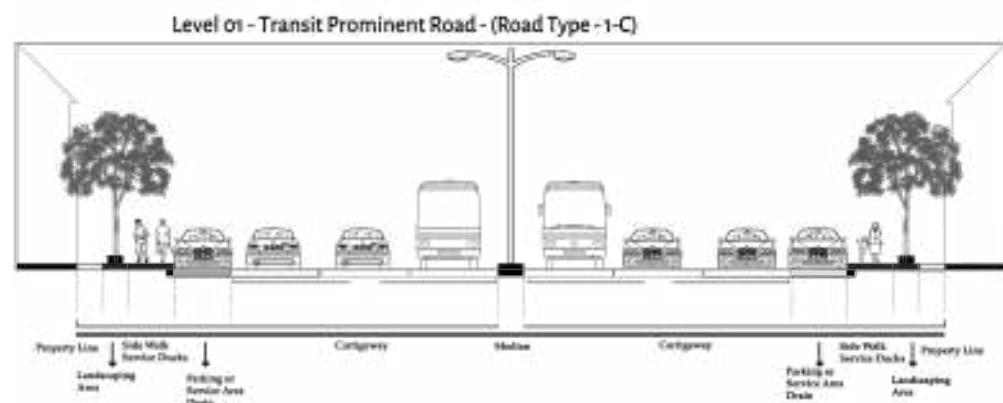


Figure 6.8: Cross section of a Level 01 – Transit Prominent Road - (Road Type - 1-C)

NOTE: The recommended typical cross sections of different road types are given above.

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Proposed Improvements to Road Transportation System in Colombo Commercial City

Cross sections of proposed roads

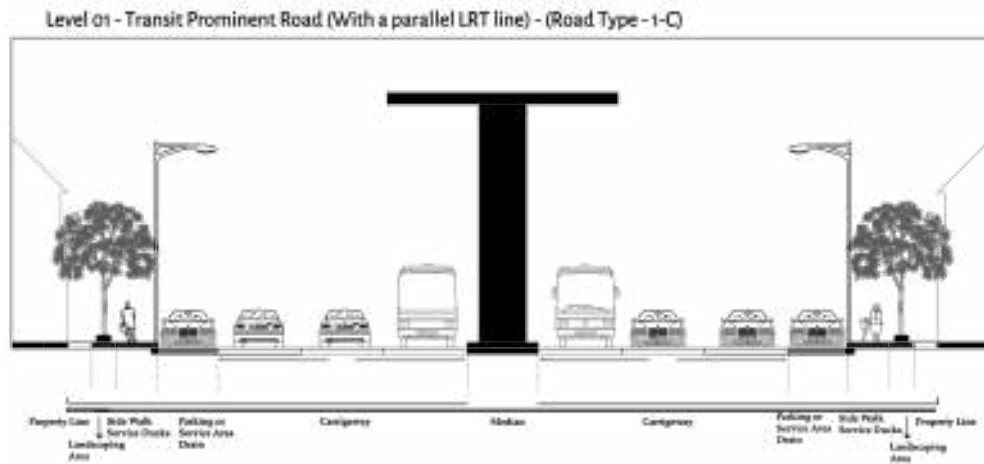


Figure 6.9: Cross section of a Level 01 – Transit Prominent Road (With a parallel LRT line) - (Road Type - 1-C)

(b) Level 02 Roads

Level 02 - General Road - (Road Type - 2-B)

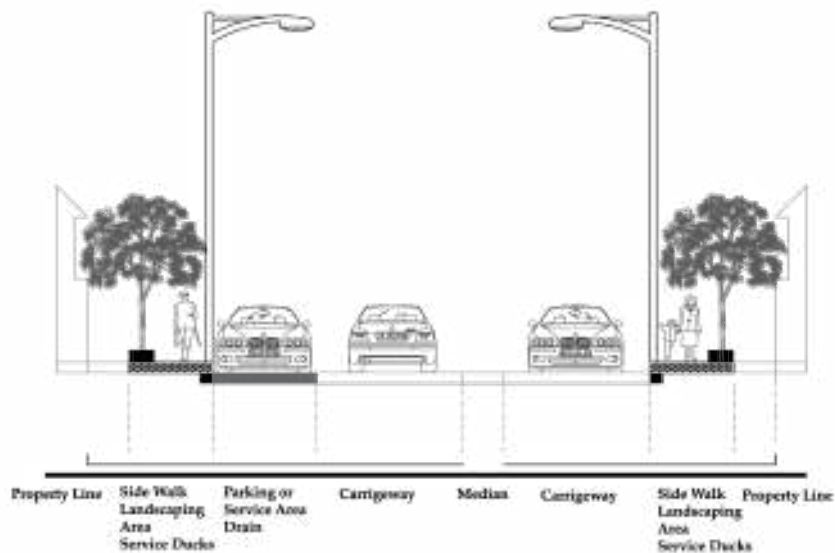


Figure 6.10: Cross section of a Level 02 – General Road - (Road Type – 2-B)

NOTE: The recommended typical cross sections of different road types are given above.

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Cross sections of
proposed roads

Level 02 - Functional Road - (Road Type - 2-B)

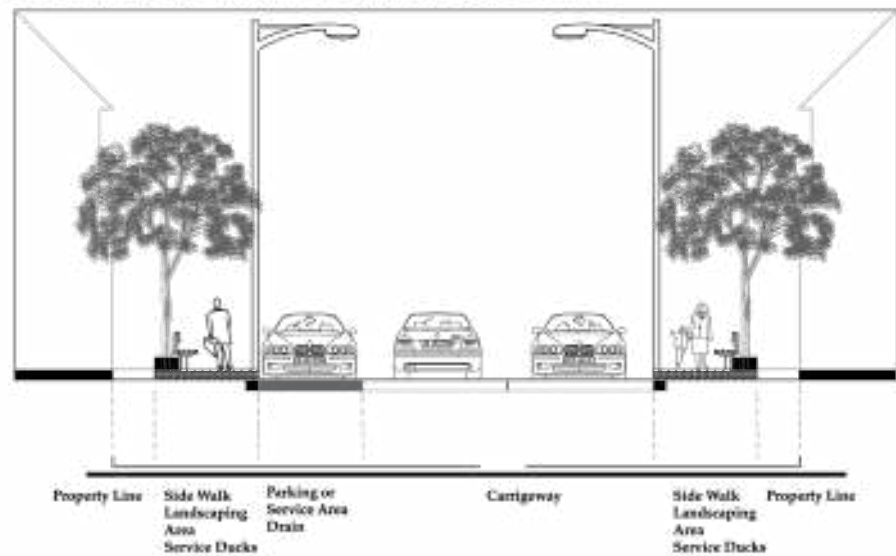


Figure 6.11 : Cross section of a Level 02 – Functional Road - (Road Type – 2-B)

(c) Level 03 Roads

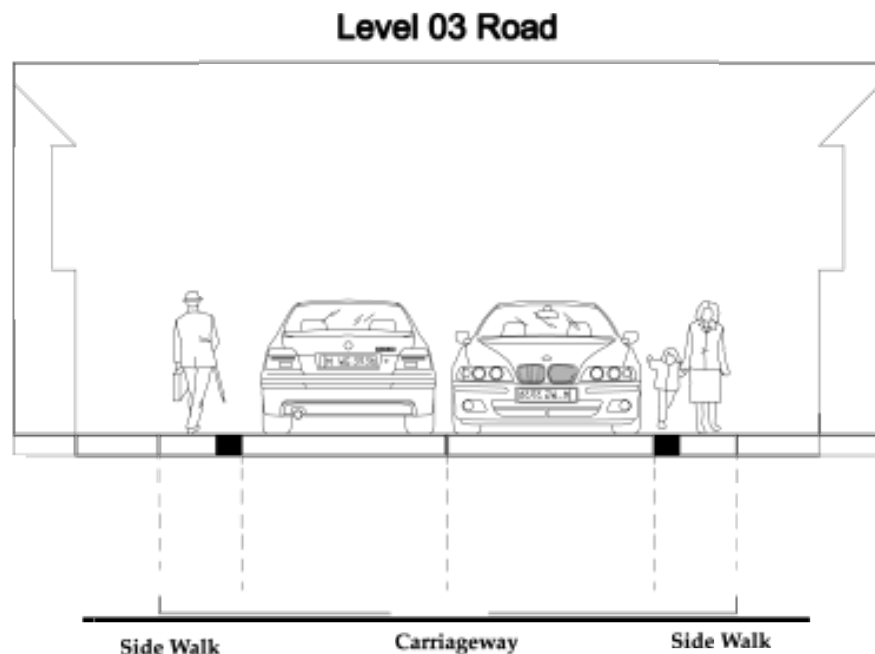


Figure 6.12 : Cross section of a Level 03 Road

NOTE: The recommended typical cross sections of different road types are given above.

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Commercial City****Level 01 Roads –
New Road Links and Proposed
Widening of Existing Roads****6.1.3. Level 01 Roads – New Road Links and Proposed
Widening of Existing Roads (Project Code – T-1-1)**

All road construction and improvement projects identified in *Colombo Commercial City Development Plan – 2019-2030* will be aligned under Transport Development Strategy – Action Projects Type - 01 with the project code T-1.

The proposed new road constructions and road widening projects falling under the category of Level 01 Roads are aligned under the project code T-1-1. New Road Construction Projects falling under Level 01 roads are aligned under Project Code T-1-1-1 while the road widening projects of same road category are aligned under Project Code – T-1-1-2. The proposed Level 01 Roads are indicated in the Map 6.2 and the list of Level 01 Roads is given in the Annexure: 6.1.

**(a) New road constructions under Level 01 Roads
(Project Code – T-1-1-1)**

Though the plan has identified the level 01 roads as depicted in Map 6.2, there are some missing links within the identified Level 01 Road Network, which need to be connected with new links in order to have a complete network of Level 01 roads. The list of new road links coming under Level 01 road category are given in the Annexure 6.2. The new road links coming under the Level 01 Road Category are indicated in the Figure 6.13.

**(b) Road widening projects under proposed Level 01 Roads
(Project Code – T-1-1-2)**

In the existing situation, some of the roads coming under the identified Level 01 Road Network, do not have the minimum road width specified for Level 01 Roads where the carriageway width is required to be minimum of 15m (four lanes). Hence, those roads which are falling under the Level 01 Road category are proposed to be widened up under the project code T-1-1-2. The list of roads which are proposed to be widened up under the project code T-1-1-2 are given in the Annexure 6.3

Urban Development Authority
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Proposed Improvements to Road Transportation System in Colombo Commercial City

Level 01 Roads –
New Road Links and Proposed
Widening of Existing Roads

Level 02 Roads –
New Road Links and Proposed
Widening of Existing Roads



Figure 6.13: Proposed new road links under Level 01 Roads
(Project Code – T-1-1-1)

6.1.4. Level 02 Roads – New Road Links and Proposed Widening of Existing Roads (Project Code – T-1-2)

Identified road improvements including both new road constructions and road widening projects falling under Level 02 Road category are aligned under the project code T-1-2. The list of proposed Level 02 roads within *Colombo Commercial City* is given in the Annexure 6.4 and these roads are shown in the Map 6.3. The list of new road links and the road sections which are proposed to be widened under Level 02 Road Category are given in the Annexure 6.5 and 6.6 respectively. The new road links and road widenings coming under Level 02 Road Category are aligned under Project Code – T-1-2-1 and T-1-2-2 respectively.

Road Network - Level 2

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Level 2 Road



Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 6.3 : Proposed Level 02 Roads in Colombo Commercial City

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System in Colombo
Commercial City*

*Proposed Elevated Highways
in Colombo Commercial City*

6.1.5. Proposed Elevated Highways in Colombo Commercial City (Project Code – T-1-3)

Two Elevated Highways have been proposed by the Ministry of Highways, Road Development and Petroleum Resources Development as follows.

- a. Port Access Elevated Highway – Project Code – T-1-3-1
- b. New Kelani Bridge – Athurugiriya Elevated Highway – Project Code – T-1-3-2

These two Elevated Highway Development Projects will be incorporated into the CCCDP – 2019-2030 under the project code T-1-3. Proposed Elevated Highways are shown in the Figure 6.14.



Figure 6.14: Proposed Elevated Highway Projects in Colombo Commercial City - 2030

6.2. Proposed Improvements to Rail Transportation System in Colombo Commercial City (Project Code - T-2)

Railway transportation is the mass transportation system currently operating in Sri Lanka. Parallel to the increasing population and urbanization, the travel demand in *Colombo Commercial City* has increased during past years and will continue to upsurge in the future years to come. Population growth, formalized housing, high density housing along the major roads and employment creation will generate more trips and have a potential to create congestion in the horizons. However, in response to the rapidly increasing passenger demand, the state has taken further steps to improve the mass (rail) transportation system with new technological advancements. Many of the rail improvement projects, which are in line with the future vision and anticipated developments of *Colombo Commercial City* are incorporated into the CCCDP – 2019-2030 as elaborated below. The all proposed mass transport (rail) projects are aligned under the Transport Development Strategy – Action Project Type – 02 with the project code T-2.

6.2.1. Improvements to Railway Network within Colombo Commercial City (Project Code – T-2-1)

Colombo Fort Railway Station is the main railway station of Sri Lanka where all railway lines spreading throughout the island coincide. According to the existing configuration of railway network, passengers travelling across *Colombo Commercial City*, need to transit via either Colombo Fort or Maradana Stations. This results in an unnecessary flow of passengers to Colombo Fort creating huge congestion and waste of time and resources of all passengers. Considering, these weaknesses in existing configuration of railway network of *Colombo Commercial City*, few of following changes have been proposed. The improvements to the existing railway network of *Colombo Commercial City* are aligned under the project code T-2-1. These projects are listed in the Table 6.2 and shown in the Figure 6.15.

No.	Project Name	Project Code
01	Construction of a Railway Station with mega service capacity at Peliyagoda interlinked with proposed regional bus terminal	T-2-1-1 *Following Reference: Table 6.7
02	Shifting of Dematagoda Railway Station towards west to serve both Main line and Kelani Valley line	T-2-1-2

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Transport Development Strategy

Proposed Improvements to Rail Transportation System in Colombo Commercial City

Improvements to Railway Network within Colombo Commercial City

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Proposed Improvements to Rail Transportation System in Colombo Commercial City

Improvements to Railway Network within Colombo Commercial City

No.	Project Name	Project Code
03	Rerouting of Kelani Valley line as to go parallel to Baseline via Borella Junction	T-2-1-3
04	Construction of a new Railway Station at Borella Junction	T-2-1-4
05	Capacity improvement of Ratmalana Railway Station as a part of proposed Ratmalana TOD development	T-2-1-5 *Following Reference: Table 6.9

Table 6.2: Proposed improvements to existing Railway Network (Project Code – T-2-1)

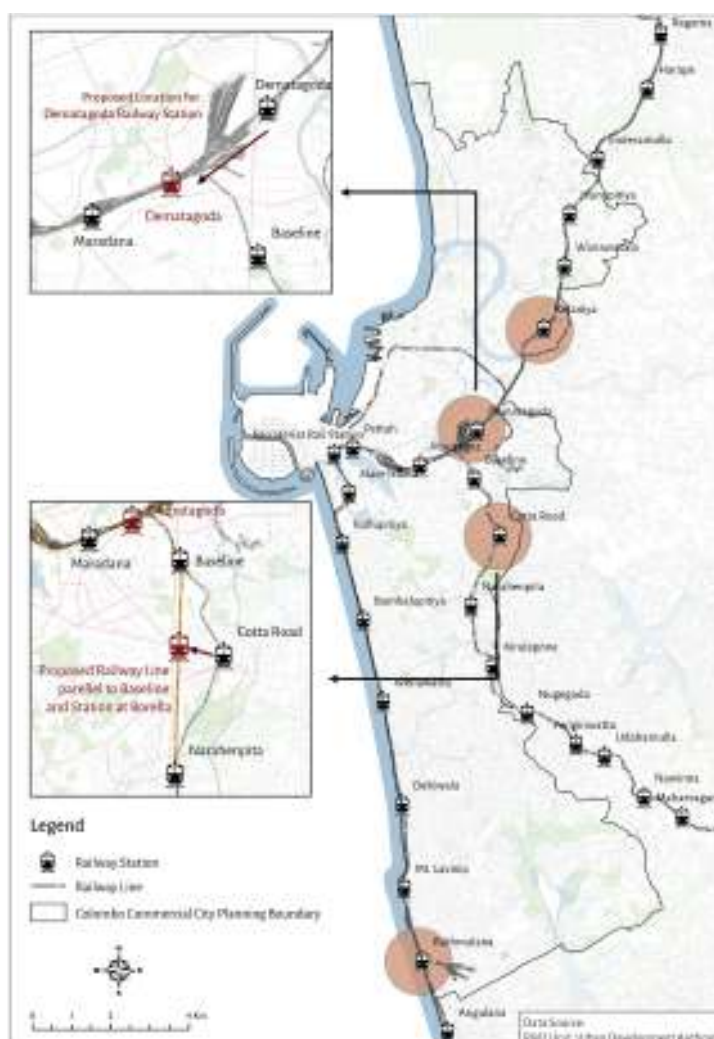


Figure 6.15: Proposed alterations to existing railway routes and stations (Project Codes – T-2-1-2/ T-2-1-3/ T-2-1-4)

6.2.2. Electrified Railway Proposals (Project Code - T-2-2)

The proposals of Railway Electrification and Modernization Project (REMP), undertaken by the Western Region Megapolis Planning Project under the Ministry of Megapolis & Western Development are incorporated into the *Colombo Commercial City Development Plan* under the project code – T-2-2. The proposed Railway Electrification routes are listed in the Table 6.3 and shown in Figure 6.16.

As per the proposals, initially Panadura-Colombo-Veyangoda railway section is proposed to be upgraded and modernized to run electric trains. The aims of this project are to save time of people, money and fuel while avoiding the financial loss to individual and an economic loss to country by saving each minute wasted on the road or rail. Furthermore, with modern, fast suburban rail services, passengers carried and the service frequency can be increased and more fuel and man-hours can be saved. Accordingly, the following lines have been proposed to be electrified by 2025.

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Proposed Improvements to Rail Transportation System in Colombo Commercial City

Electrified Railway Proposals



Figure 6.16: Proposed railway electrification and modernization projects (Project Code – T-2-2)

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Strategy****Proposed Improvements
to Rail Transportation
System in Colombo
Commercial City****Electrified Railway Proposals****Proposed Light Rail
Transit (LRT) Projects**

No.	Project Name	Project Code
01	Electrification and modernization of Coastal line (Pettah to Panadura)	T-2-2-1
02	Electrification and modernization of Main Line (Pettah to Veyangoda)	T-2-2-2
03	Construction of Dompe Line (Newly introducing an electrified rail facility)	T-2-2-3
04	Kelani valley line development	T-2-2-4

Table 6.3: Proposed railway electrification and modernization projects (Project Code – T-2-2)**6.2.3. Proposed Light Rail Transit (LRT) Projects
(Project Code – T-2-3)**

One of the key public transport improvements identified in the CoMTrans Urban Transport Master Plan is the introduction of a LRT system as a new mode of public transport in the Colombo CBD and the outer region. The proposed LRT system consists of 07 major lines (07 packages) as indicated in the Figure 6.17.

The works of first line (Yellow Line) which connects Malambe and Kollupitiya via Rajagiriya, Kota Road, Borella, Town Hall, Fort and Galle Face has already been started with the endowments of Japan International Cooperating Agency (JICA). The rest of the lines are proposed to be constructed with the endowments of KORIAN Consultancy and the feasibility studies are currently being conducted. The recommendation of CCCDP – 2019-2030 is that the Package 02 (Green Line) which is Proposed from Kelaniya to Moratuwa Via Dematagoda, Kirulapone, Piliyandala, Moratuwa need to be altered from the point of Kirulapone to Moratuwa along the proposed baseline extension and via Ratmalana, considering the anticipated future densification pattern.

All projects proposed related to LRT Network of Colombo will be incorporated into the *Colombo Commercial City Development Plan – 2019-2030* under the project code T-2-3 given the condition that the recommendations of CCCDP – 2019-2030 are well accommodated. The Table 6.4 indicates the project codes designated for already identified proposals of LRT Network. However, these project codes may vary depending on the future amendments of the proposals of LRT Network.

No.	Project Name	Proposed Route	Project Code in CCCDP – 2030
01	JICA Line		T-2-3-1
02	Package 01 (Red Line)	Kirulapone to Ragama Via Kollupitya, Pettah, Peliyagoda, Kiribathgoda , Kadawatha	T-2-3-2
03	Package 02 (Green Line) – Proposed by Western Region Megapolis Planning Project	Kelaniya to Moratuwa Via Dematagoda, Kirulapone, Piliyandala, Moratuwa	T-2-3-3
	Package 02 (Green Line) – Route recommended by CCCDP – 2019-203	Kelaniya to Moratuwa Via Dematagoda, Kirulapone, Kalubowila, Ratmalana & Moratuwa	T-2-3-3
04	Package 03 (Blue Line)	Hunupitiya to Kottawa Via Angoda, Koswatta, Thalawathugoda	T-2-3-4

Table 6.4 : Proposed projects under Colombo LRT Network (Project Code – T-2-3)

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Transport Development Strategy

Proposed Improvements to Rail Transportation System in Colombo Commercial City

Proposed Light Rail Transit (LRT) Projects

6.3. Proposed Improvements to Bus Transportation System in Colombo Commercial City (Project Code - T-3)

As it was identified in the context analysis, around 7,400 intra-provincial buses and 3,300 inter-provincial buses depart and arrive at Pettah. It has been estimated that number of passengers departing from Pettah bus terminal is around 38,000 per day for inter-city bus services while 14,000 passengers per day for intra-city bus services. It is important to note that all these passengers and both inter and intra provincial buses circulate through *Colombo Commercial City*. Thus, the bus transportation within *Colombo Commercial City* is a major aspect of its overall transport system. All projects proposed under improvements to Bus Transportation System in *Colombo Commercial City* are aligned under Transport Development Strategy – Action Project Type – 03 with the project code T-3.

6.3.1. Proposed Bus Priority Lane System in Colombo Commercial City (Project Code – T-3-1)

The major arterials of *Colombo Commercial City* become severely congested during peak hours as high vehicle volumes exceed the existing road capacities. The major reason for the exceeding capacities is the drastic increase in number of private vehicles which are used by approximately 38% of passengers. However, approximately 62% of passengers who use public transport, especially bus transport also suffer severely due to traffic congestion, even though the share of buses in vehicle share is only 6% of total vehicles. Hence, it is important to provide due priority to bus transportation in the overall city transport system.

In order to fulfill the above identified need and to speed up vehicle traffic while maintaining ordered flows, CCCDP – 2019-2030 proposes to have a dedicated Bus Priority Lane on major transport corridors which have a higher bus passenger demand. All projects streamlining under Bus Priority Lane System are proposed to be aligned under the project code T-3-1.

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Proposed Improvements to Bus Transportation System in Colombo Commercial City

Proposed Bus Priority Lane System in Colombo Commercial City

6.4. Proposed Nodal Developments (Project Code – T-4)

A selected set of priority nodes identified under the proposed hierarchy of nodes as a part of the Spatial Development Strategy of CCCDP – 2019-2030 are proposed to be developed with strategic interventions especially in the scope of transport development. These nodal developments will be aligned under the Transport Development Strategy – Action Project Type – 04 with the project code T-4. The set of nodes (as shown in the Table 6.5) which need immediate interventions were selected mainly based on their priority level, special role in the overall transport network and existing situation including present land use and functioning pattern.

No.	Name of the Nodal Development	Priority level based on proposed nodal hierarchy	Type of Transport Development Intervention
01	Pettah	Level 01	Regional level Multi Modal Transport Hub (MMTH)
02	Peliyagoda	Level 01	National/ Regional level Multi Modal Transport Hub (MMTH)
03	Dematagoda	Level 02	Transit Oriented Development (TOD) Node
04	Ratmalana	Level 02	Transit Oriented Development (TOD) Node
05	Wellawatta	Level 02	Regular Nodal Development
06	Dehiwala	Level 02	Regular Nodal Development
07	Kollupitiya	Level 02	Regular Nodal Development
07	Hunupitiya	Level 03	Regular Nodal Development
08	Boralesgamuwa	Level 04	Regular Nodal Development

Table 6.5: Selected priority nodes to be developed combined with transport-based developments

6.4.1. Proposed Level 01 Nodal Developments (Project Code – T-4-1)

As per the CCCDP – 2030, Pettah and Peliyagoda are proposed to be developed as the two first priority nodes of *Colombo Commercial City*. It is envisioned that Pettah and Peliyagoda will function as Downtown and Uptown of Colombo with the proposed planning interventions. All types of nodal developments nodal developments proposed under CCCDP – 2019-2030 will be aligned under Transport Development Strategy – Action Project Type – 04 with the project code T-4.

As per the CCCDP – 2019-2030, two major scale Multi Modal Transport Hub Developments will be carried out at Pettah and Peliyagoda, which are proposed to be developed as Level 01 nodes of *Colombo Commercial City*. It is envisioned that Pettah and Peliyagoda will function as Downtown and Uptown of Colombo with the proposed planning interventions. The Level 01 nodal developments proposed under CCCDP – 2019-2030 are be aligned under the project code T-4-1.

(a) Pettah Nodal Development (Project Code – T-4-1-1)

Pettah Nodal Development consists of several planning interventions in the Pettah area including Pettah Multimodal Transport Development Hub (MMTH) which is proposed by Ministry of Megapolis and Western Development. Pettah MMTH Project combines the Railway improvement, LRT development, and Road & Bus Transportation developments. The proposed MMTH development at Pettah consists of a parallel regeneration program where it intends to shift some of the incompatible activities to the outer region of Colombo CBD while releasing key sites for MMTH and other economically beneficial developments. However, it is proposed to change its present role of Pettah as a national transport hub to avoid the unnecessary traffic flows it attracts to the city. It is proposed to promote proposed Peliyagoda MMTH as the national and regional level transport hub and utilize Pettah MMTH as the center of intra-city transport network.

The sub-projects of Pettah Nodal Development project including Pettah MMTH Development will be aligned in CCCDP – 2019-2030 under the project code T-4-1-1. The relevant sub-projects of Pettah Nodal Development are listed in the Table 6.6 and shown in the Figure 6.18.

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Proposed Nodal Developments

Proposed Level 01 Nodal Developments

Chapter 06**Transport Development
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Developments****Proposed Level 01 Nodal
Developments**

No.	Project Name	Project Code
01	Pettah Multi Modal Transport Hub Development	T-4-1-1-1
02	Incorporating Charmer's Granary Mixed Development Project Proposed by Urban Development Authority	T-4-1-1-2
03	Waterfront Mixed Development Project at Galle Face Front	T-4-1-1-3
04	Mixed Development Project at Gunesinghapura, Pettah	T-4-1-1-4
05	Open Space Development at Bestian Mawatha (At the existing Manning Market Premise & Private Bus Stand)	T-4-1-1-5
06	Conducting a Cultural & Recreational Zone Development at Maradana linking Trace Expert City land, Maradana Railway Station, Elphinstone Theatre, Tower Hall, Kularatne Mawatha and T.B. Jaya Mawatha	T-4-1-1-6
07	Construction of Rooftop Public Deck on top of the Trace Expert City Building Complex (Sight Seen deck, Open restaurants)	T-4-1-1-7
08	Implementing a Special Guide Plan for Panchikawatta Triangle Area	T-4-1-1-8
09	Implementing a special Guide Plan for the Pettah Bazaar Area in order to conserve the archeologically important buildings and the special character associated with its daily functioning pattern.	W-4-1-2-2 *(Previous Reference: Table 4.10)
10	Incorporating Beira Lake Intervention Area Development Plan proposed & implemented by Urban Development Authority	W-4-3-1 *(Previous Reference: Table No. 4.13)
11	Conducting Colonial Heritage Conservation Project at Colombo Fort, Pettah & Maradana	E-3-1-1 *(Following Reference: Table 7.18)

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Proposed Level 01 Nodal Developments

No.	Project Name	Project Code
12	Implementing a special Guide Plan for Judiciary Square (Hultsdorf Area)	W-4-4-2 *Previous Reference: Table 4.14
13	Clearing of existing Underserved Settlements in the Reservation and surroundings of St. Sebastian Canal and open up them for Mixed Developments	W-4-4-3 *Previous Reference: Table 4.14
14	Development of Nodal Park in between Sanchiarachchi Garden Road and St. Sebastian Canal (approx. area of 0.7 ha)	W-4-4-1-a *Previous Reference: Table 4.14

Table 6.6: Proposed Projects under Pettah Nodal Development (Project Code – T-4-1-1)



Figure 6.18: Proposed Pettah Nodal Development (Project Code – T-4-1-1)

Chapter 06**Transport Development
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Developments****(b) Peliyagoda Nodal Development (Project Code – T-4-1-2)**

Peliyagoda Nodal Development is one of the major interventions to regenerate Kelani River surroundings and to activate Kelani River Water Esplanade. As explained in the previous section, Peliyagoda is proposed to be one of the Level 01 nodes of *Colombo Commercial City* and the Uptown of Colombo. Therefore, Peliyagoda Nodal Development can be identified as one of the most important projects of CCCDP – 2019-2030.

As per the connectivity analysis, it was identified that Peliyagoda is the most connected node within *Colombo Commercial City* in terms of all means of transportation networks. Therefore, it has the potential to act as a national and regional level transport hub which can be harnessed to transform the area and also to divert the unnecessary traffic flows entering City of Colombo. All projects proposed under Peliyagoda Nodal Development will be aligned under the project code T-4-1-2. These projects are indicated in the Table 6.7 and are shown in Figure 6.19.

No.	Project Name	Project Code
01	Peliyagoda Multi Modal Transport Hub Development	T-4-1-2-1 *(Previous reference - Table 4.12)
01-a	Development of Peliyagoda Regional Bus Terminal	T-4-1-2-1-a
01-b	Construction of a Railway Station with mega service capacity at Peliyagoda interlinked with proposed Regional Bus Terminal	T-2-1-1 *Previous Reference: Railway Improvement Projects, Table 6.2
02	Development of an Urban Square along the Right Bank of Kelani River (Peliyagoda Stretch)	T-4-1-2-2
02-a	Construction of a Public Square/ Art Installation/ Picnic Area	T-4-1-2-2-a
02-b	Development of an Open Market Space	T-4-1-2-2-b
02-c	Development of an Open Air Theater & a Public Gathering Arena	T-4-1-2-2-c

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Proposed Level 01 Nodal Developments

No.	Project Name	Project Code
02-d	Construction of a Cruise/ Boat anchoring area and a deck facilitating Water Transportation	T-4-1-2-2-d
03	Construction of three pedestrian bridges across the Kelani river connecting urban square and Kelani River left bank developments	T-4-1-2-3
04	Construction of a water retention Pond	T-4-1-2-4
05	Mixed Development at (Sedawatta) Kelani River left bank area	T-4-1-2-5

Table 6.7: Proposed Projects under Peliyagoda Nodal Development (Project Code: T-4-1-2)



Figure 6.19: Proposed Peliyagoda Nodal Development (Project Code: T-4-1-2)

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Proposed Level 02 Nodal
Developments

6.4.2. Proposed Level 02 Nodal Developments (Project Code – T-4-2)

The development of Level 02 Nodes will be conducted in two levels such as Transit Oriented Development Nodes and Regular Nodal Developments. Dematagoda and Ratmalana nodes will be developed as TODs with the intention of improving their capacities to serve as regional transport hubs diverting traffic flows to *Colombo Commercial City* from east and south directions respectively.

a) Proposed Transit Oriented Development at Dematagoda (Project Code – T-4-2-1)

Dematagoda acts as a highly functional transport hub even at present due to its strategic location where the main line intercepts with the Baseline Road; the proposed spine of the road network in Colombo. Currently, Dematagoda is the railway station where a large number of passengers from north direction use as an intermediate transit point when entering and departing Colombo City limits and also the adjoining Kotte Capital City.

Understanding its locational prominence, Dematagoda is proposed to be developed in the theme of Transit Oriented Development enabling to enhance its present role and to act as the East Gate of *Colombo Commercial City* which provides transit in between inter and intra city transport modes.

The projects coming under Proposed Transport Oriented Development at Dematagoda are aligned under the project code T-4-2-1. These projects are listed in the Table 6.8 and shown in the Figure 6.20.

No.	Project Name	Project Code
01	Shifting of Dematagoda Railway Station towards west to serve both Main line and Kelani Valley line	T-2-1-2 *Previous Reference: Railway Improvement Projects, Table 6.2
02	Construction of LRT station close to the Dematagoda Railway station at proposed location	T-4-2-1-1
03	Promote mixed development at existing Dematagoda Railway station area	T-4-2-1-2

Table 6.8: Proposed Projects under Transit Oriented Development at Dematagoda
(Project Code: T-4-2-1)

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Proposed Nodal Developments

Proposed Level 02 Nodal Developments



Figure 6.20: Proposed TOD at Dematagoda (Project Code: T-4-2-1)

(b) Proposed Transit Oriented Development at Ratmalana (Project Code – T-4-2-2)

Even though, the railway station of Ratmalana acts as a main transit point, there is no any convenient physical link in between the railway station and bus transportation system. Hence, it is proposed to promote Transit Oriented Development at Ratmalana interlinking different modes of transport enabling easy transfer between modes. It is anticipated that with the proposed interventions, Ratmalana will act as the South Gate of *Colombo Commercial City* providing an option of mode and route transfer for south traffic of the city.

All projects proposed under Transit Oriented Development at Ratmalana are aligned under project code T-4-2-2. The projects falling under TOD Node at Ratmalana are listed in the Table 6.9 and shown in Figure 6.21.

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Developments****Proposed Level 02 Nodal
Developments**

No.	Project Name	Project Code
01	Capacity improvement of Ratmalana Railway Station as a part of proposed Ratmalana TOD development	T-2-1-5 *Previous Reference: Railway Improvement Projects, Table 6.2
02	Promoting mixed developments with public open space at railway lands (existing CGR Quarters land), Ratmalana	T-4-2-2-1
02-a	Promoting a Park, Public Square, Playground and an Exhibition Space at the proposed Public Open Space at CGR Land	T-4-2-2-1-a
02-b	Construction of an artificial water fountain at the proposed Public Open Space at CGR Land	T-4-2-2-1-b
02-c	Promoting middle income housing in the proposed mixed development area at CGR Land	T-4-2-2-1-c
06	Promoting a beach park at Ratmalana Beach close to the Railway Station	T-4-2-2-5
07	Constructing a Linear Park/ Bicycle path connecting Railway, LRT station, Mixed Development & Beach Park	T-4-2-2-6
08	Conducting Ratmalana - Belekade Pola Development Project	T-4-2-2-7

Table 6.9: Proposed Projects under Transit Oriented Development at Ratmalana
(Project Code: T-4-2-2)

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Proposed Level 02 Nodal Developments

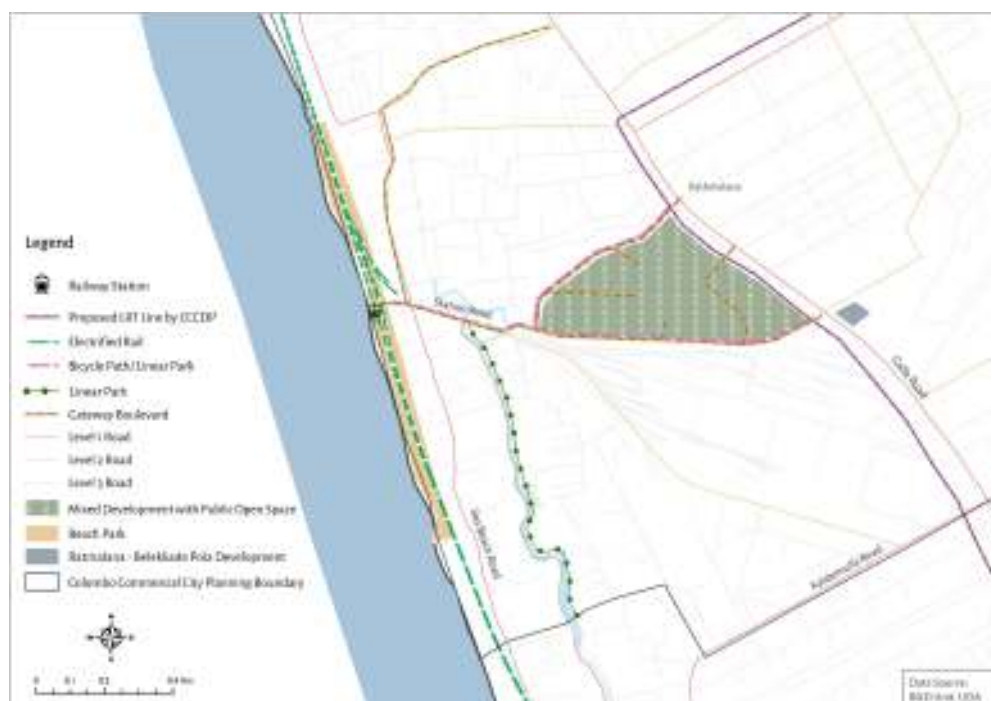


Figure 6.21 : Proposed TOD at Ratmalana (Project Code: T-4-2-2)

(c) Proposed Nodal Development at Wellawatta (Project Code – T-4-2-3)

The proposed projects coming under Wellawatta Nodal Development are aligned under the project code T-4-2-3 and are indicated in the Table 6.10 and Figure 6.22.

No.	Project Name	Project Code
01	Promoting a Water Transportation Hub by constructing of a boat/cruise anchoring area to facilitate water transportation initiation link from Wellawatta to Battaramulla	T-4-2-3-1
02	Construction of a linear park along the Wellawatta Canal	T-4-2-3-2
03	Promoting a Gateway Boulevard along Wellawatta Station Road to connect Wellawatta Junction at Galle Road and Marine Drive	WO-2-7 *Previous Reference: Table 4.7 (Gateway Boulevards)

Chapter 06

Transport Development Strategy

Proposed Nodal Developments

Proposed Level 02 Nodal Developments

No.	Project Name	Project Code
04	Exposing Cooray Park for public access and linking it with Canal Front through 1st Lane, 3rd Lane and Rohini road	T-4-2-3-4
05	Redevelopment of Wellawatta Railway Station	T-4-2-3-5
06	Promoting mixed developments at Wellawatta Public Car Park Land	T-4-2-3-6

Table 6.10: Projects coming under proposed Nodal Development at Wellawatta (Project Code: T-4-2-3)



Figure 6.22: Proposed Nodal Development at Wellawatta (Project Code: T-4-2-3)

(d) Proposed Nodal Development at Dehiwala (Project Code – T-4-2-4)

The proposed projects coming under Dehiwala Nodal Development are aligned under the project code T-4-2-4. The list of projects are indicated in the Table 6.11 and Figure 6.23.

Chapter 06

Transport Development Strategy

Proposed Nodal Developments

Proposed Level 02 Nodal Developments

No.	Project Name	Project Code
01	Redevelopment of Dehiwala Railway Station	T-4-2-4-1
02	Mixed Development Project at UDA Market Land	T-4-2-4-2
03	Mixed Development project Dehiwala Mt-lavinia MC Market Land	T-4-2-4-3
04	Constructing a Cycling path connecting Dehiwala Zoological Garden and proposed Dehiwala Canal Linear path	T-4-2-4-4
05	Promoting Gateway Boulevard Roads at Station Road and Ediriweera Mawatha	WO-2-28 & WO-2-29 *Previous Reference: Table 4.7 (Gateway Boulevards)

Table 6.11 : Projects coming under proposed Nodal Development at Dehiwala
(Project Code: T-4-2-4)



Figure 6.23 : Proposed Nodal Development at Dehiwala (Project Code: T-4-2-4)

Chapter 06
Transport Development
Strategy

Proposed Nodal
Developments

Proposed Level 02 Nodal
Developments

Proposed Level 03 & 04
Priority Nodal Developments

(e) Proposed Nodal Development at Kollupitiya
(Project Code – T-4-2-5)

The proposed projects coming under Kollupitiya Nodal Development will be carried out under proposed Kollupitiya Junction Guide Plan under the project code T-4-2-5.

6.4.3. Proposed Level 03 & 04 Priority Nodal
Developments (Project Code – T-4-3)

The development of Level 03 & 04 Priority Nodes will be conducted as Regular Nodal Developments. Hunupitiya will be developed as a Level 03 Node considering its transport linkages with bus, rail and proposed light rail transit connections and Boralesgamuwa will be developed as a Level 04 Node to cater its neighboring low-density residential development.

(a) Proposed Nodal Development at Hunupitiya
(Project Code – T-4-3-1)

The proposed projects coming under Hunupitiya Nodal Development are aligned under the project code T-4-3-1. These projects are indicated in the Table 6.12 and Figure 6.24.

No.	Project Name	Project Code
01	Redevelopment of Hunupitiya Railway Station	T-4-3-1-1
02	Development of LRT Station	T-4-3-1-2
03	Recommending Promotion of Mixed Development at the land currently utilized by Ceylon Fertilizers Company Limited	T-4-3-1-3
04	Recommending Promotion of Commercial Developments combined with the proposed Railway Station Development	T-4-3-1-4
05	Recommending a new Expressway Entrance/ Exit Point at Hunupitiya	T-4-3-1-5

Table 6.12: Projects coming under proposed Nodal Development at Hunupitiya
(Project Code: T-4-3-1)

Chapter 06

Transport Development Strategy

Proposed Nodal Developments

Proposed Level 03 & 04
Priority Nodal Developments

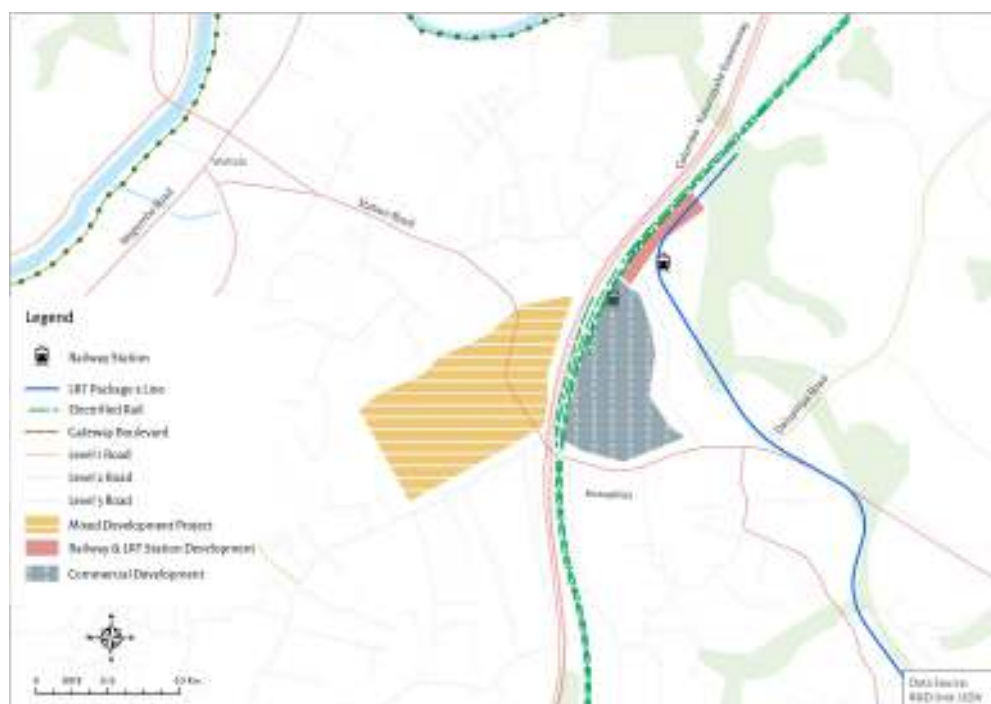


Figure 6.24: Proposed Nodal Development at Hunupitiya (Project Code: T-4-3-1)

(b) Proposed Nodal Development at Boralessgamuwa (Project Code – T-4-3-2)

The proposed projects coming under Boralessgamuwa Nodal Development are aligned under the project code T-4-3-2. These projects are indicated in the Table 6.13 and Figure 6.25.

No.	Project Name	Project Code
01	Promoting an Agricultural Tourism Model Village at Katuwawala	T-4-3-2-1
02	Development of a Wetland Park at Attidiya Bird Sanctuary	W-4-8-1 *Previous Reference: Table 4.18
03	Promoting Mixed Developments at UDA owned land located adjacent to Colombo – Horana Road opposite to Pirivena Road	T-4-3-2-3
04	Promoting Commercial and Mixed Developments at the existing Boralessgamuwa Police Station Land	T-4-3-2-4

Chapter 06
*Transport Development
Strategy*

**Proposed Nodal
Developments**

*Proposed Level 03 & 04
Priority Nodal Developments*

No.	Project Name	Project Code
05	Constructing a Walking Path along the wetland stretching from Colombo – Horana Road towards Borareshamuwa Lake	T-4-3-2-5
06	Conducting a special Landscaping Project at Boralessgamuwa Town Center	T-4-3-2-6

Table 6.13: Projects coming under proposed Nodal Development at Boralessgamuwa (Project Code: T-4-3-2)



Figure 6.25: Proposed Nodal Development at Boralessgamuwa (Project Code: T-4-3-2)

Transport Plan 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend



MMTH



Park & Ride



TOD



LRT Station



Railway Station



LRT



Electrified Railway



Water Transportation



Elevated Highway



Expressway



Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 6.4 : Transport Development Strategy Composite Map - 2030

Chapter 06**Transport Development
Strategy****Future Possible****Impacts of Transport
Development Strategies****Ease of Traffic Congestion and
Attraction of Developments
due to changes of Integration
Pattern**

6.5. Future Possible Impacts of Transport Development Strategies

6.5.1. Ease of Traffic Congestion and Attraction of Developments due to changes of Integration Pattern

As per the theoretical explanations, roads with higher integration values attract more developments to the road-based corridors. As explained in the section 4.3.3 under Water Esplanades Development Strategy of CCCDP – 2019-2030, it was identified that the integration levels would relatively increase in areas such as Peliyagoda, Mattakkuliya, Kolonnawa and Attidiya due to the impact of newly introduced water drives.

This section of the report evaluates further changes of integration values after introducing new road links and road widenings proposed under the Road Transportation Improvement Strategic Actions which have been elaborated under the Section 6.1 of this chapter. The change of integration values was evaluated using the Space Syntax Analysis. The integration values of road sections as per the existing road network and after introducing all new roads and road widenings as per the proposed road network are presented in the Map 6.5 & 6.6 respectively. One of the major criteria considered in promoting Level 01 and 02 roads was to induce more developments into areas which are currently at a relatively underutilized state as per the planning point of view. As explained in the section 4.2.3 - (a) under Water Esplanades Development Strategy of CCCDP – 2019-2030, the main objective of introducing water drives as Level 01 roads was to expose abandoned waterfronts for developments.

When analyzing the change of integration values after introducing all new roads and road widenings including water drives, it could observe that the high integration values of road sections located within Colombo Core area have been relatively decreased releasing their existing pressure both in terms of traffic and development attraction. Consequently, this pressure has been equally distributed to peripheral areas including Peliyagoda, Mattakkuliya, Kolonnawa, Kalubowila and Ratmalana areas as new roads introduced in these areas indicate a moderate level of integration level which can be considered as a significant level of increase in integration values of the road sections in these areas. For example, the integration levels of Baseline Road and Galle Road have been slightly decreased in locations such as Kollupitiya, Bambalapitiya and Borella where as new extension of Baseline Road stretching from Kirulapona to Ratmalana and new roads introduced in Peliyagoda, including level 01 water drives at either side of Kelani River indicate moderate level of integration values compared to the values of whole network. Another important observation is that the Extended Lake Drive indicates a relatively lower integration value, meaning less attraction for developments. This situation will make Extended Lake Drive an ideal traffic bypass road being an alternative to divert excessive traffic in Baseline Road and other major arterials.

Existing Integration 2018

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Integration

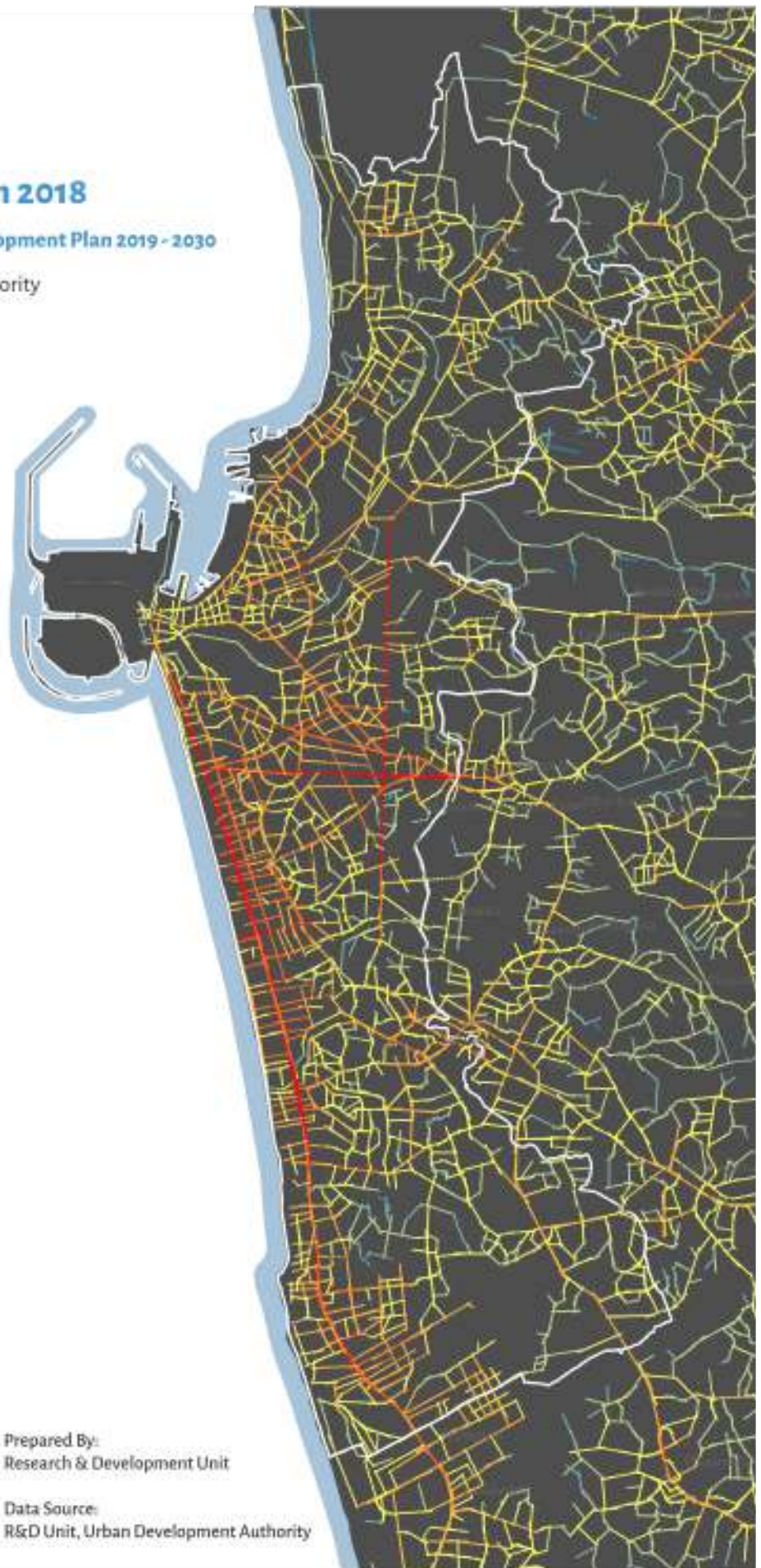
- < -0.72 Std. Dev.
- $-0.72 - -0.39$ Std. Dev.
- $-0.39 - -0.056$ Std. Dev.
- $-0.056 - 0.28$ Std. Dev.
- $0.28 - 0.61$ Std. Dev.
- $0.61 - 0.93$ Std. Dev.
- $0.93 - 1.3$ Std. Dev.



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 6.5 : Integration Levels of Existing Road Network - 2018

Expected Integration 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Integration

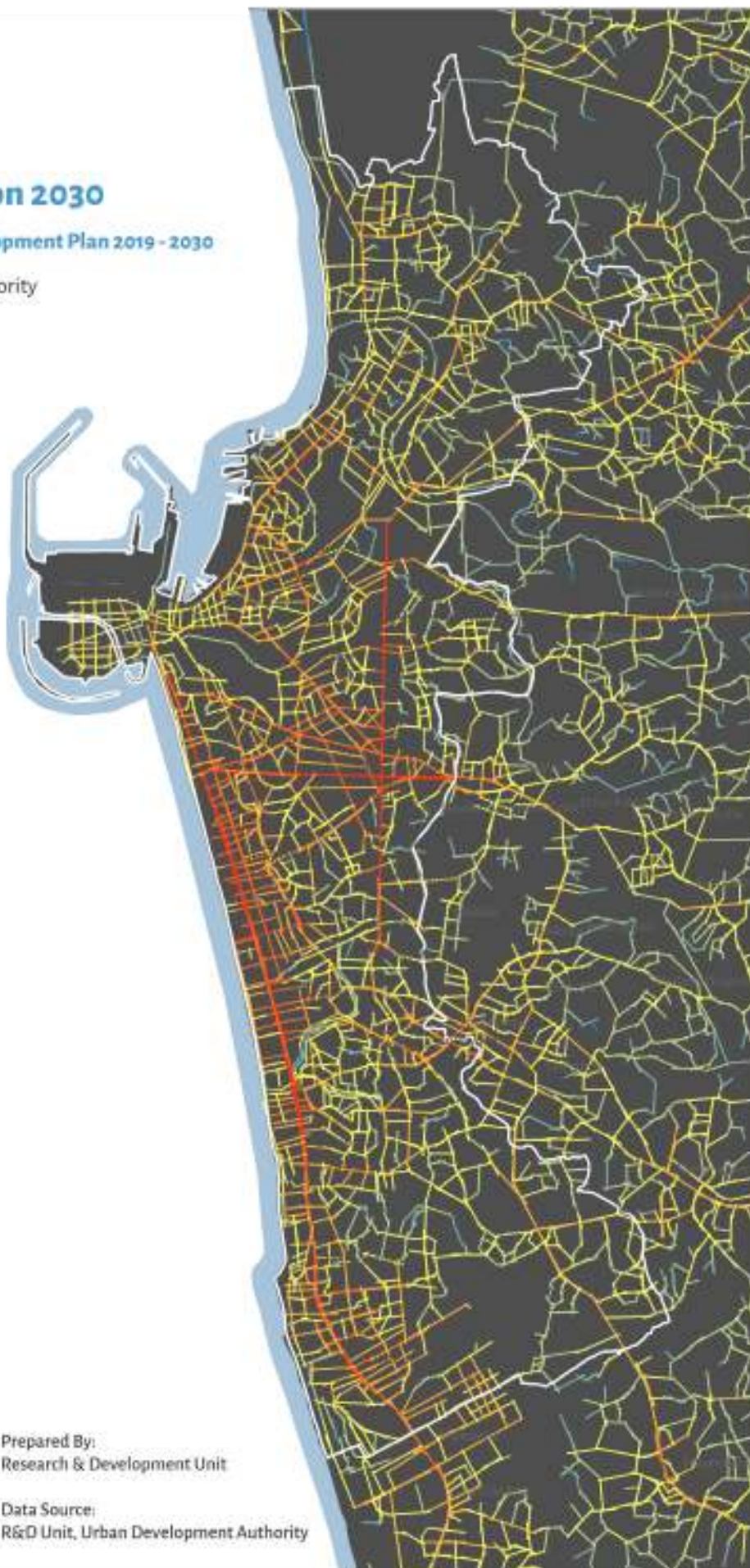
- < -0.72 Std. Dev.
- -0.72 ~ -0.39 Std. Dev.
- -0.39 ~ -0.056 Std. Dev.
- -0.056 ~ 0.28 Std. Dev.
- 0.28 ~ 0.61 Std. Dev.
- 0.61 ~ 0.93 Std. Dev.
- 0.93 ~ 1.3 Std. Dev.



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



6.5.2. Ease of traffic congestion due to impacts of proposed hierarchically arranged road network

The traffic impact of proposed Road Network was analyzed using traffic simulation software, STRADA Modelling. One of the major expectations of the strategic interventions proposed to the existing transport system of *Colombo Commercial City* is to ease the traffic congestion within the city. It was identified in the context analysis that the severe traffic congestion on major arterials and nodes during peak hours result;

- Average speed less than 10km/hour (which is significantly lower compared to other international cities)
- Colombo having moderate level of air quality with average of 80 AQI of PM_{2.5} level
- Overall economic loss of LKR 40 Billion accounting for 1.5% annual GDP loss within CMC area

Therefore, the changes in traffic pattern of *Colombo Commercial City* due to newly introduced road links and road widening were analyzed using following traffic parameters.

a) The changes in Volume Capacity Ratios and Traffic Volumes (in PCUs)

Volume Capacity Ratio is the ratio in between total no. of vehicles passing a certain point on road in one hour to the maximum no. of vehicles that can pass the same point at a reasonable traffic condition. The Volume Capacity Ratios and Traffic Volumes of existing road network that can be expected in the Do-nothing scenario are shown in the Figure 6.26 whereas the scenario which represents the traffic impacts of road development interventions made by CCCDP – 2019-2030 are shown in the Figure 6.27.

It was identified that the predicted Volume Capacity Ratios (VCR) and traffic volumes (in terms of Passenger Car Units (PCU)) of proposed road network will be relatively decreased compared to the Volume Capacity Ratios that can be resulted in the Do-nothing scenario. It can be observed that VCRs will be significantly decreased at Baseline Road, Kandy Road, certain parts of Galle Road, Peliyagoda, Colombo Fort, Pettah, Maradana, Dematagoda, Kirulapona & Nugegoda at High level Road and many parts of Colombo CBD area. Hence, these indicators suggest that it can be expected that the traffic congestion of *Colombo Commercial City* during peak hours will be reduced with the future hierarchically arranged road network proposed by CCCDP – 2019-2030.

Chapter 06 Transport Development Strategy

Future Possible Impacts of Transport Development Strategies

*Ease of traffic congestion
due to impacts of proposed
hierarchically arranged road
network*

Chapter 06 Transport Development Strategy

Future Possible Impacts of Transport Development Strategies

*Ease of traffic congestion
due to impacts of proposed
hierarchically arranged road
network*

Volume Capacity Ratio and Traffic Volume 2035

Doing Nothing

Colombo Commercial City Development Plan
2019 - 2030

Legend

VC Ratio

- 0.0 - 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 -

PCU per Day

- 0 - 15000
- 15000 - 30000
- 30000 - 45000
- 45000 - 60000
- 60000 - 75000
- 75000 - 90000
- 90000 - 105000
- 105000 - 120000
- 120000 - 135000
- 135000 - 150000
- 150000 - 300000

Figure 6.26 : Expected Volume Capacity Ratios and Traffic Volumes
(in terms of PCU) in the Do-nothing Scenario - 2035

b) Increased Public Transport Passenger Volumes

Introducing new modes of public transport and improvements to public transport such as Light Rail Transit, Electrified Railway and Bus Priority Lane Systems are some of the major transportation interventions of CCCDP – 2019-2030. Therefore, the impacts of these interventions were analyzed considering the changes of Public

Chapter 06

Transport Development Strategy

Future Possible Impacts of Transport Development Strategies

Ease of traffic congestion due to impacts of proposed hierarchically arranged road network

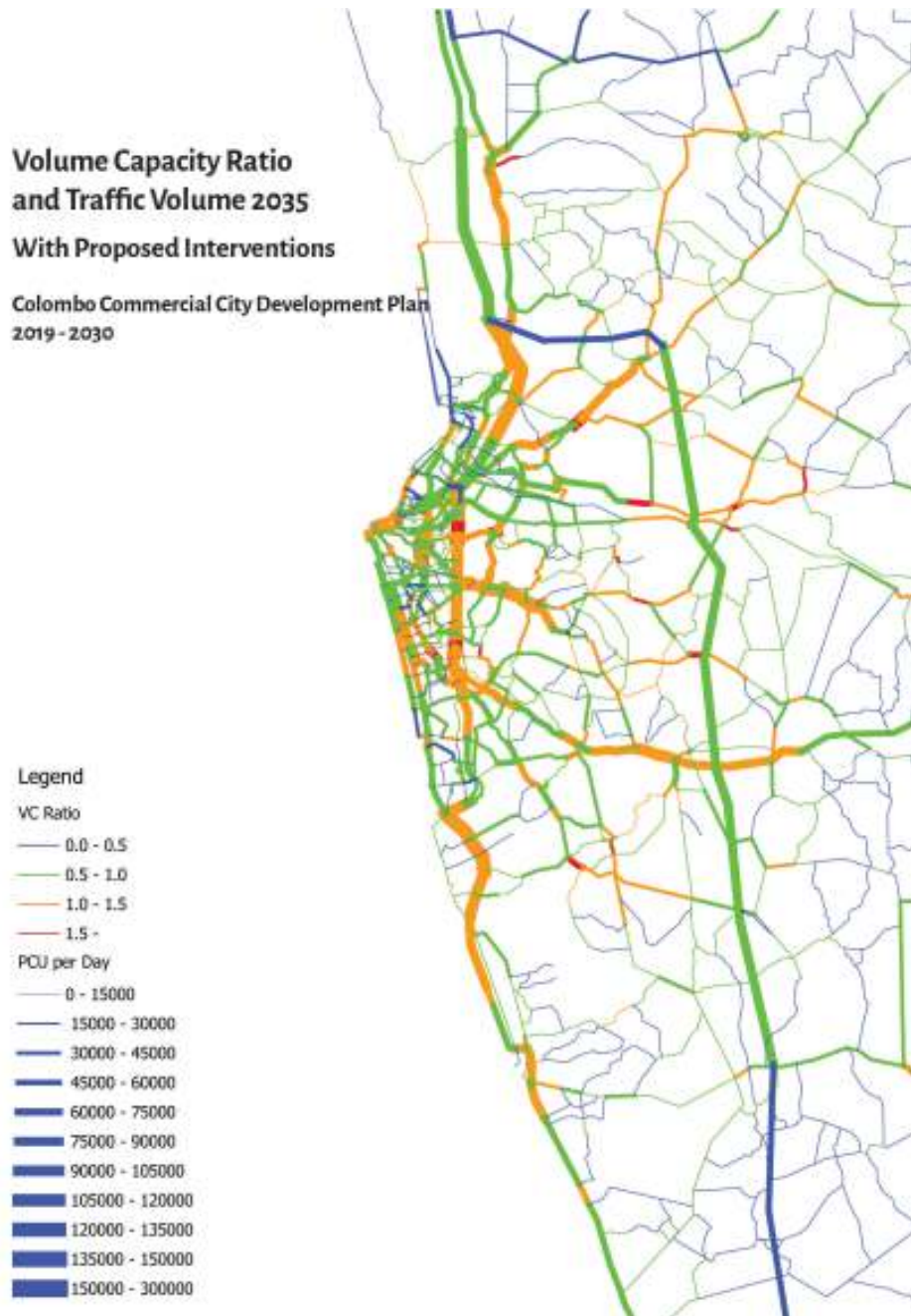


Figure 6.27: Expected Volume Capacity Ratios and Traffic Volumes (in terms of PCU) after the Improvements to the Road Network - 2035

Transport Passenger Volumes as indicated in the Figure 6.28 (representing the Do-nothing scenario) and Figure 6.29 (representing the scenario which includes the public transportation improvements carried out by CCCDP – 2019-2030).

Chapter 06**Transport Development
Strategy****Future Possible
Impacts of Transport
Development Strategies**

*Ease of traffic congestion
due to impacts of proposed
hierarchically arranged road
network*

**Public Transport Passenger Volume
2035 (1000 pax/ day)****Doing Nothing**

Colombo Commercial City Development Plan
2019 - 2030

**Legend**

— Rail
— Bus



Figure 6.28: Expected Public Transport Passenger Volumes in the Do-nothing Scenario - 2035

It can be observed that the Public Transport Passenger Volumes which are completely handled by bus and rail transportation at the existing situation, will be distributed to other new modes of transport such as Light Rail Transit. This will lessen the current pressure on rail and bus transportation in a considerable level. At the same time, with the proposed railway electrification, the handling capacities of rail transportation will also be increased reducing its current over exceeded passenger volumes.

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Transport Development Strategy

Future Possible Impacts of Transport Development Strategies

Ease of traffic congestion due to impacts of proposed hierarchically arranged road network

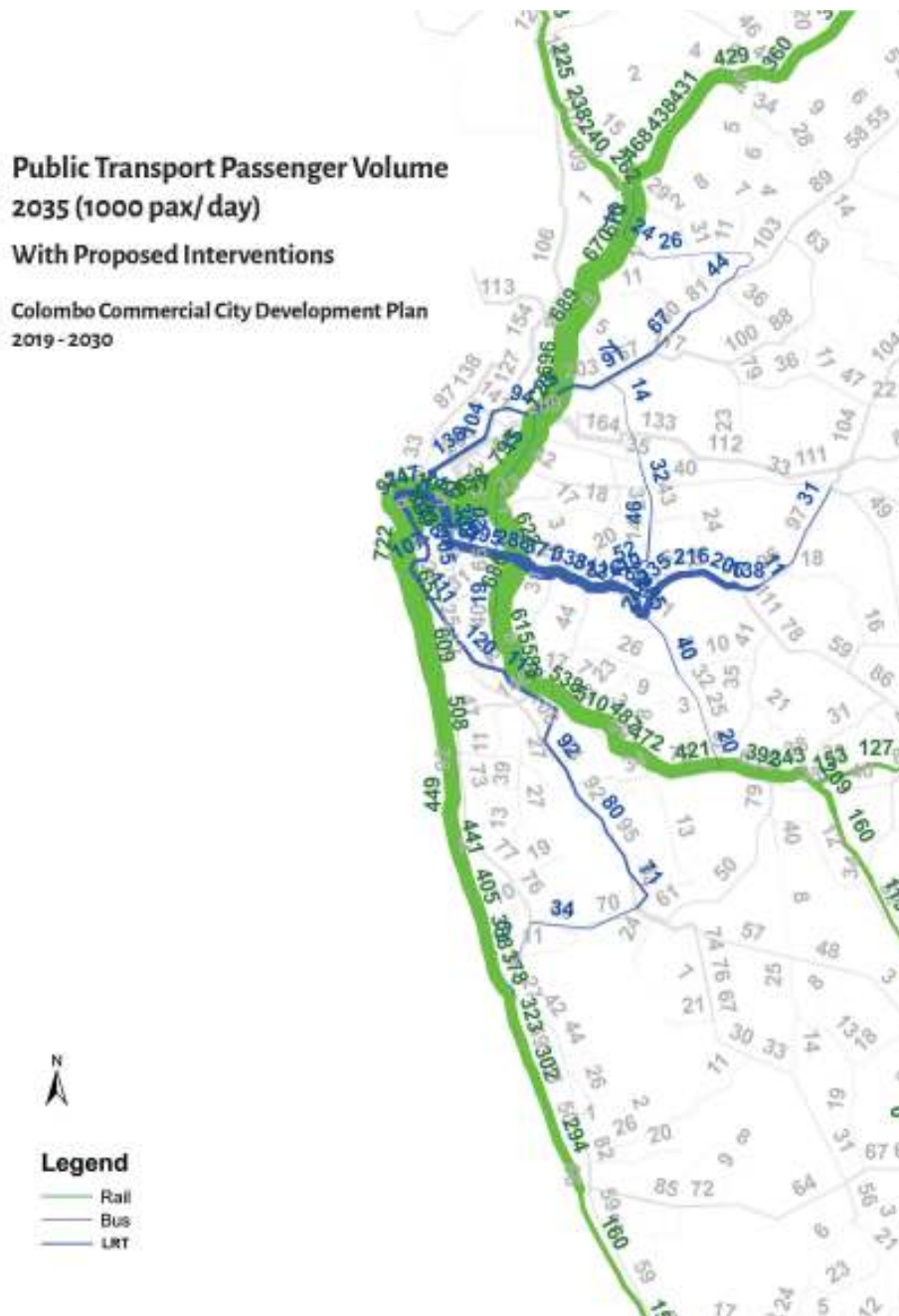


Figure 6.29: Expected Public Transport Passenger Volumes after introducing new public transport modes such as LRT and Electrified Railway - 2035

Chapter 06**Transport Development
Strategy****Future Possible****Impacts of Transport
Development Strategies**

*Increased on land
values within Colombo
Commercial City due to
transport development
strategies (Transit Oriented
Developments)*

6.5.3. Increased on land values within Colombo Commercial City due to transport development strategies (Transit Oriented Developments)

There are significant impacts of transport development strategies such as proposed road developments and Transit Oriented Developments especially on city land values.

a) Impacts of Transit Oriented Developments (TODs)

The impacts of Transit Oriented Developments were analyzed based on the theoretical explanations given in the ‘Transit-Oriented Development in the United States: Experiences, Challenges, and Prospects, The National Academies Press, 2004’ regarding the direct and neighboring impacts of TODs. As per these theoretical explanations, the major benefits of TODs are increase in land values, rents and real-estate performance, increase of affordable housing opportunities and revitalization of neighborhoods.

It was identified that the direct impact areas of Pettah MMTH, Peliyagoda MMTH, Dematagoda TOD and Ratmalana TOD are 1.186 km², 1.182 km², 1.492 km² and 1.462 km² respectively within the buffers of 750 m radius. The overall neighboring impact area of all four TODs within the buffers of 2 km radius is approximately 19.2 km². The areas that would have both direct and neighboring impacts of TODs account for approximately 24% of total land of *Colombo Commercial City*. The TOD impact areas are shown in the Figure 6.30.

a) Expected changes in land values

As explained in the Section 4.3.2 under the Water Esplanade Development Strategy, it was estimated that the high land values which are largely concentrated in Colombo Central Business District, will be dispersed into peripheral areas as a result of exposing many of the hidden city backyards into front yards with the proposed waterfront developments. The further changes in land values that can be expected as a result of Transport Oriented Developments was evaluated and it was identified that the land values of Colombo CBD area will be further increased while the land values of peripheral areas such as Wattala, Peliyagoda, Kolonnawa, Ratmalana and Boralesgamuwa will also be increased drastically. The existing land values and estimated land values that will be resulted after both waterfront development interventions and transport-oriented development interventions are shown in the Map 6.73 and 6.8 respectively.

Chapter 06

Transport Development Strategy

Future Possible Impacts of Transport Development Strategies

Increased on land values within Colombo Commercial City due to transport development strategies (Transit Oriented Developments)

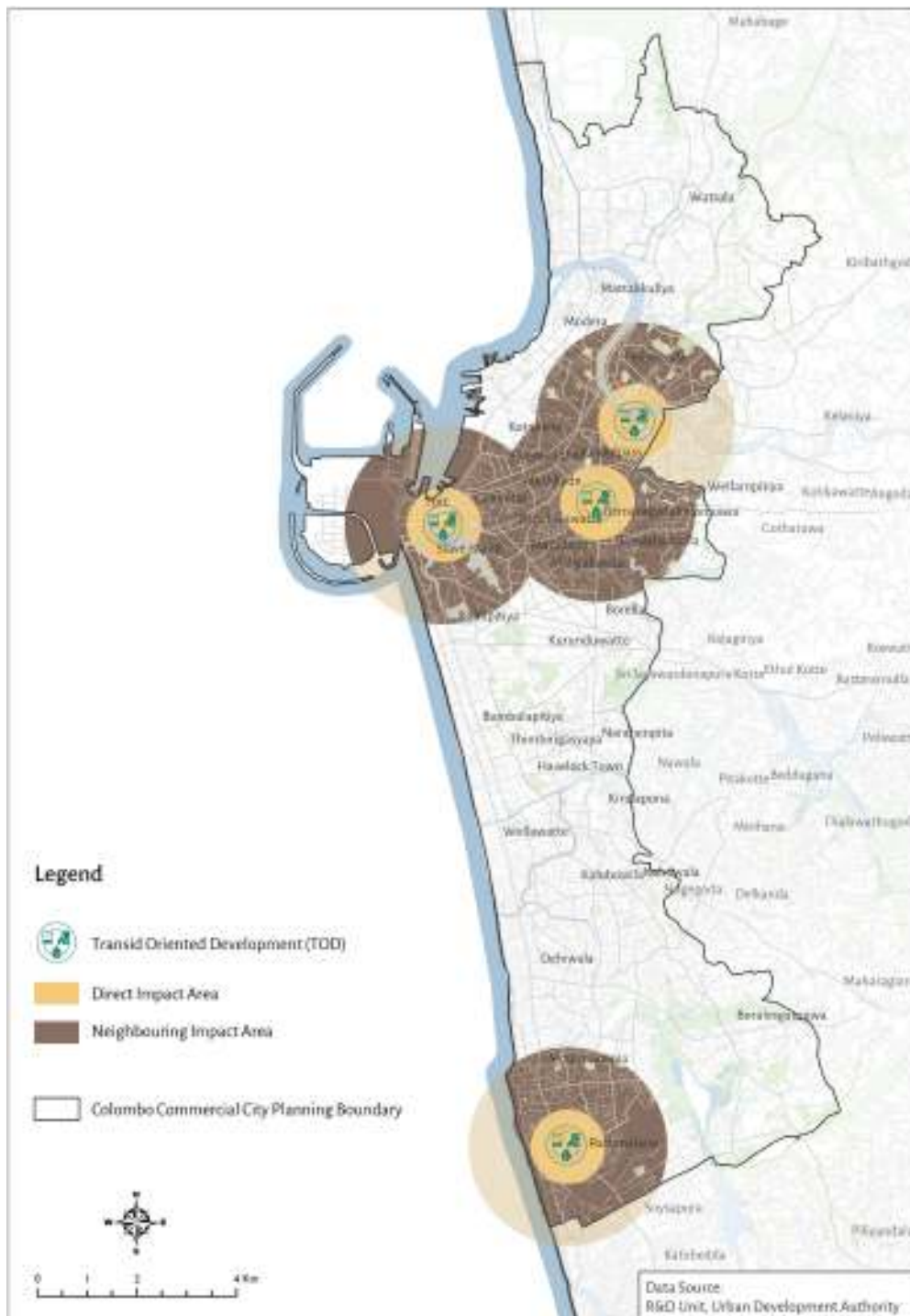


Figure 6.30: Impact Areas of Proposed TODs in Colombo Commercial City

Expected Land Value Distribution 2030

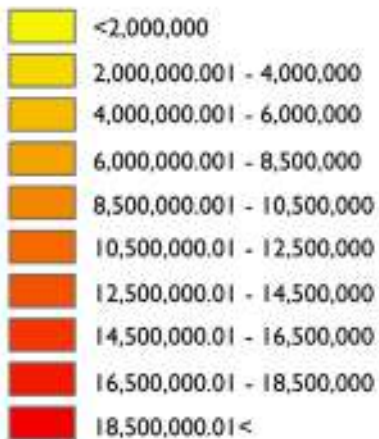
Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Land Value (LKR)



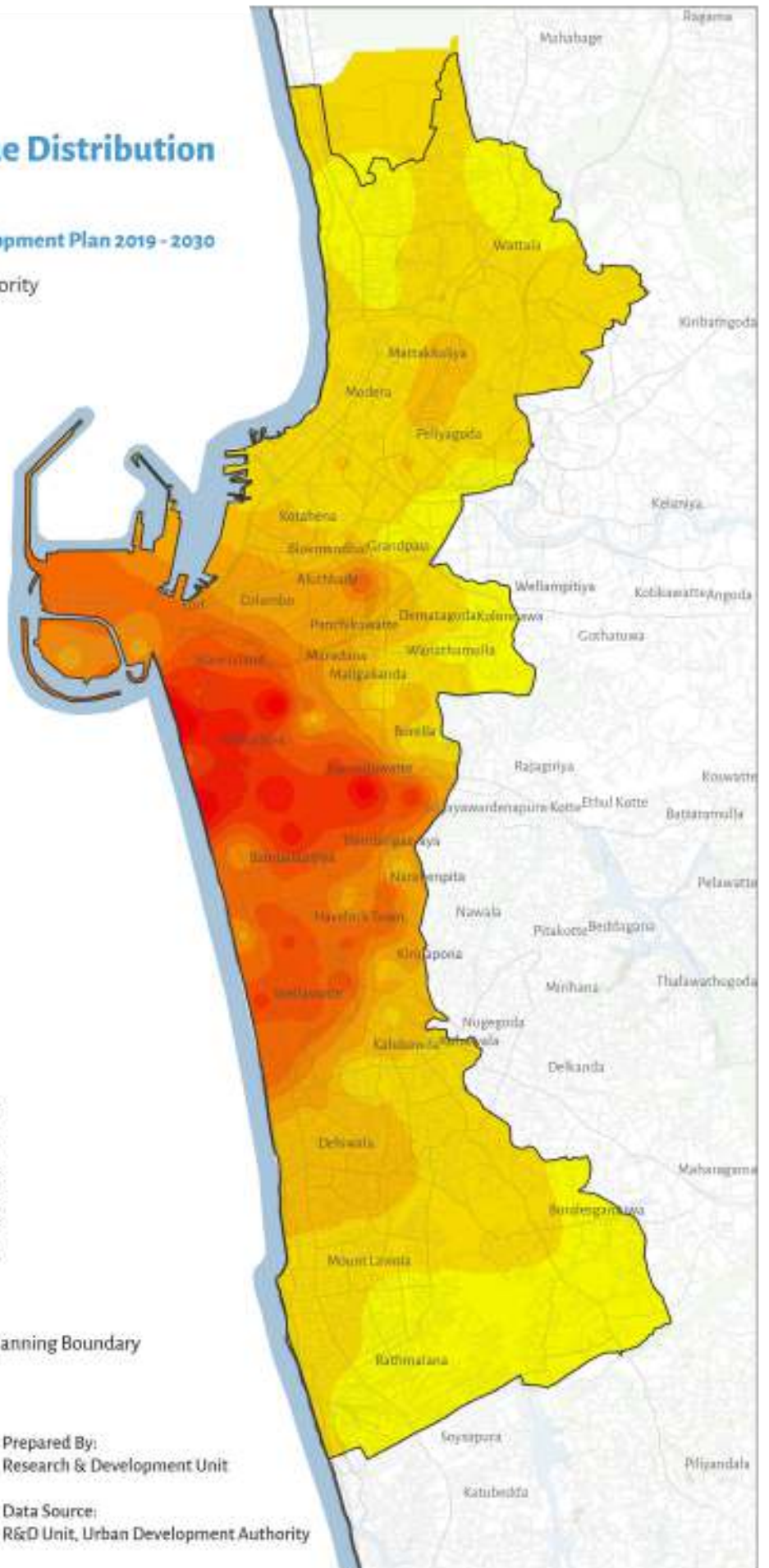
Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 6.8: Land Value Distribution of Colombo Commercial City - 2030



Chapter 07

*City Economic
Development Strategy*

Chapter 07
***City Economic
Development
Strategy***



Leading to be an Investments Magnet in South Asia

Enhanced Economic Space of High Quality for Retail, Tourism, Logistics & Real-estate Markets

City Economic Development Strategy

Introduction

City Economic Development Strategy is a mandatory component of any City Development Plan as it provides a guide how the city economic activities should be aligned with its overall spatial development contributing to achieve the anticipated city vision. The envisaged physical development of the city cannot be achieved without public and private sector investments.

Objective

The objective of City Economic Development Strategy of CCCDP – 2019-2030 is to ensure that city would have the right market exposures and would attract required investments to drive the city towards its planned transformations and achieve anticipated spatial form and city vision. The overall intention of all interventions that will be made under the City Economic Development Strategy is to supply realty space of high quality to the market in order to cater the increasing real estate demand created by various growing economic sectors of the city.

Exposing the city property market to cater booming economic sectors of Colombo Commercial City such as retail, private office in the fields of IT, Financial and Services fields, real estate, high-rise condominiums, logistics related industries and tourism etc. while enhancing its role as an international business hub is one of the specific objectives of the City Economic Development Strategy.

Approach

City Economic Development Strategy is proposed combined with other strategies of CCCDP – 2019-2030 such as water esplanades, nodal, transport, settlement and infrastructure developments and public outdoor recreational space management in order to derive the catalyst projects to boost the city economy. City Economic Development Strategy is proposed to be implemented in the real grounds in terms of three approaches such as;

- **Regulatory approach**
(including policies and regulations imposed by relevant state agencies)
- **Direct interventions of state agencies**
- **Collaborative approach**
(including direct private investment & public-private partnerships)

Contribution towards the Vision & Goals of CCCDP – 2019-2030

City Economic Development Strategy directly contributes to achieve Goal 01 – ‘The most sought Water-front Business Environment Experience in the World’ and its subsequent objective

- To open up 3000 ha of lands in waterfronts for business activities, residences and recreation purposes by 2030

Scope

The City Economic Development Strategy of CCCDP – 2030 has its focus on three major sectors such as;

- Port related logistics activity development
- Property development
- Tourism development

The planning framework of the Economic Development Strategy includes:

- Strategic interventions and projects proposed by UDA and other stakeholder agencies to promote and develop port related logistics activities
- Strategic interventions to guide property developments
- Identification of different types of tourism zones and strategic interventions to promote them

Chapter 07

City Economic Development Strategy

City Economics Development Strategy

7.1. Port related Logistics Activity Development (Project Code – E-1)

Port is one of the most important elements of *Colombo Commercial City* based on which the city developed and gained its importance as a booming business hub both internationally and nationally. Colombo Port's strategic location in the international sea route is its most important potential that has enabled it to become one of the busiest maritime hubs of South Asia and to be ranked among the 'world's best 25 harbors in accordance with the Alphaliner rankings in 2017'. Port of Colombo handled over 6 million TEUs in the year of 2017, with its increased capacities due to the construction of Colombo International Container Terminal in 2015. As per the Economics Statistics of 2017, the performance enhancement of Colombo Port is as follows.

Indicator	2014	2015	2016
No. of vessels arrived	3,742	4,197	4,405
Total cargo handled (MT '000)	74,794	73,718	81,879

Table 7.1 : Performance Indicators of Port of Colombo (2014–2016)

Source : Economics Statistics of 2017, Department of Census & Statistics Sri Lanka

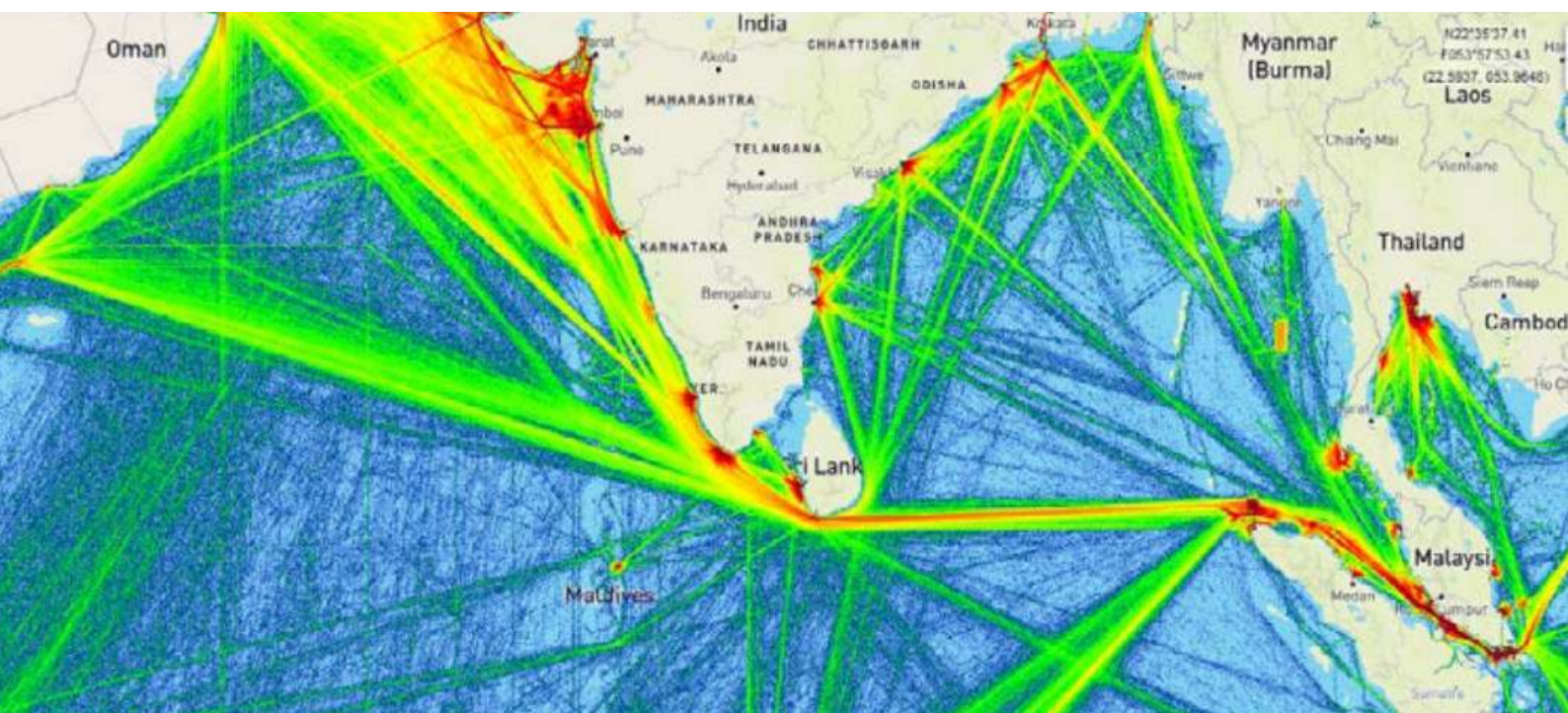


Figure 7.1 : Marine Traffic Density Map, 2017

Source : National Export Strategy of Sri Lanka: Logistics Strategy 2018–2022/
Marine Traffic Density Maps; www.marinetraffic.com

With the growing performance of Colombo Port, occurs the need of physical expansion of port and related infrastructure and enhancement of port and logistics related services systems. It is one of the key objectives of the City Economic Development Strategy of CCCDP – 2019-2030, to address this need with the provision of adequate ground facilities to accommodate the port related logistics activities, fulfilling space requirements and incorporating port and logistics related projects proposed by relevant stakeholders.

All projects proposed by CCCDP – 2019-2030 and other relevant stakeholder agencies in the scope of Port related Logistics Development are aligned under City Economics Development Strategic Action Type 01 with the project code E-1.

Chapter 07 *City Economic Development Strategy*

Port related Logistics Activity Development

*Incorporating Colombo Port
Expansion Project proposed by
Sri Lanka Ports Authority*

7.1.1. Incorporating Colombo Port Expansion Project proposed by Sri Lanka Ports Authority (Project Code – E-1-1)

All proposals coming under the ongoing Colombo Port Expansion Project conducted by Sri Lanka Ports Authority are incorporated into the *Colombo Commercial City Development Plan* under project code E-1-1.

The Colombo Port Expansion Project has been proposed with the objective of catering increasing demand of services in the international shipping industry. As per the master plan of Colombo Port Expansion Project, it is proposed to develop a new harbor having 3 terminals each having 1,200m length and facilities to accommodate 3 berths alongside. The Port of Colombo which had a capacity about 4.5 million TEUs is proposed to be increased with another 7.2 million TEUs capacity per annum in two separate phases under this development.

Harbor infrastructure works which consisted of a Main Breakwater of 5.14km length, Secondary Breakwater of 1.65km length, Access Channel of 9km length and basic infrastructures were completed as the first phase of the project in 2012. Construction of South Container Terminal (SCT) which is now known as Colombo International Container Terminal (CICT) which consists of a 1200m long quay wall, 18m depth basin and a yard capacity of 2.4 million TEUs was completed and commenced operation in 2013.

As per the master plan of Colombo Port Expansion Project, the East Container Terminal (ECT) consists of 1200m long Quay wall alongside of water depth of 18m and a yard capacity of 2.4 million TEUs per annum. However, as the first phase of ECT development, construction of 440m quay wall alongside water depth of 18m has been successfully completed in 2015. Therefore, the remaining works of ECT Development and all projects proposed under the master plan of Colombo Port Expansion Project

Chapter 07
City Economic
Development Strategy

**Port related Logistics
Activity Development**

*Incorporating Colombo Port
Expansion Project proposed by
Sri Lanka Ports Authority*

are incorporated into the CCCDP – 2019-2030 given its importance in achieving the Goal, Colombo as the most sought Waterfront Business Environment Experience in the World. The main projects proposed under the master plan of Colombo Port Expansion Project are indicated in the Table 7.2 and Figure 7.2.

No.	Project Name	Proposed year of completion	Remarks	Project Code
01	Harbor Infrastructure Works	2012	Completed	-
02	South Container Terminal/ Colombo International Container Terminal (CICT)	2013	Completed	-
03	East Container Terminal (ECT)	2020	Partly completed/ Ongoing	E-1-1-1
04	Jaya Container Terminal III & IV Extension	2018		E-1-1-2
05	West Container Terminal (WCT)	2023	-	E-1-1-3
06	WCT Extension	2028	-	E-1-1-4
07	Colombo Port Expansion Project – Phase II	2026	-	E-1-1-5
08	ECT – SAGT (South Asia Gateway Terminal) Back to Back Terminal	2033	-	E-1-1-6
09	North Port Breakwater	2030	-	E-1-1-7
10	North Port Terminals	2040	-	E-1-1-8

Table 7.2: Proposals under Master Plan of Colombo Port Expansion Project

Source : Sri Lanka Ports Authority, 2018



Figure 7.2: Proposals under Master Plan of Colombo Port Expansion Project

Source: Sri Lanka Ports Authority, 2018

7.1.2. Promoting logistics zones and corridors

Sri Lanka has a unique selling proposition to develop as a world-class logistics hub and enter the global supply chain industry, which is rapidly digitalizing and creating a new generation of consumers. According to the Government, logistics services contribute 2.5% of gross domestic product, which represents around US\$ 2 billion. (National Export Strategy of Sri Lanka: Logistics Strategy 2018 – 2022)

Logistics refers to a series of services and activities – such as transportation, warehousing and brokerage– that help to move goods and establish supply chains across and within borders. In Sri Lanka there is a wide range of facilities and services involving logistics: shipping, freight forwarding and logistics operations, ports and inland container depots/ dry ports, bonded zones and warehousing, domestic transportation, free zones and commercial hub activities.

- **Logistics Strategy of Sri Lanka – 2018 - 2022**

The Logistics Strategy under National Export Strategy of Sri Lanka (2018 – 2022) adopts the vision ‘Sri Lanka: the Indian Ocean maritime, logistics and distribution hub providing all services and facilities for integrated connectivity’. One of the strategic objectives following the above vision is to ensure adequate facilities and availability of a qualified labor force. Provision of adequate facilities refers to creating conditions such as land and logistics zones for the private sector to lead

Chapter 07 City Economic Development Strategy

Port related Logistics Activity Development

Promoting logistics zones and
corridors

development of cold storage solutions and multi-user facilities across the country and attracting skilled labor. This is one of the aspects which requires integrated logistics development and urban planning interventions as provision of suitable lands for the purpose of logistics development comes under the purview of city planning.

• **Incorporating Logistics Corridor Development proposed by Western Region Megapolis Planning Project – 2030 (Project Code – E-1-2)**

In conformity to the policy guideline on provision of adequate facilities as given by the Logistics Strategy of Sri Lanka (2018 – 2022), *Western Region Megapolis Planning Project – 2030* aims to establish a logistics corridor connecting Port of Colombo and Bandaranaike International Airport at Katunayake as shown in Figure 7.3. It is planned to connect the city through expressways and a railway network for freight handling and transportation and to include distribution centres, warehousing, cold storages, dry ports, cargo distribution and trans-shipment facilities.

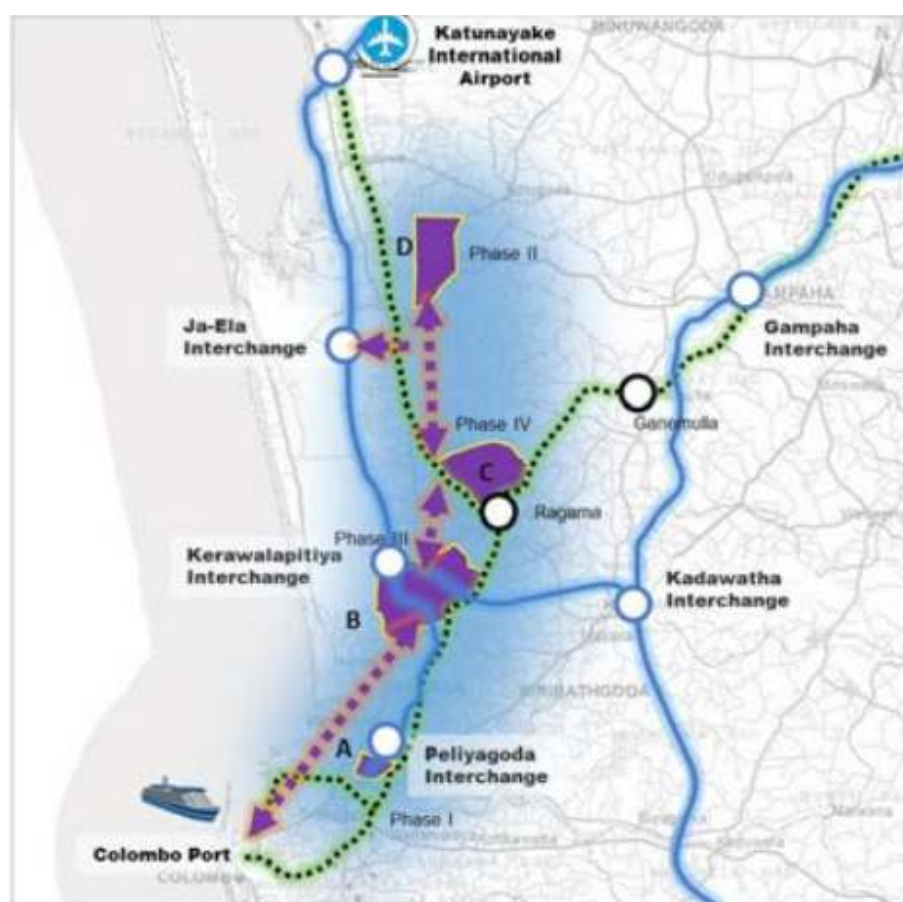


Figure 7.3 : Concept Plan of Logistics Corridor proposed by Western Region Megapolis Master Plan Project - 2030 | **Source :** Ministry of Megapolis & Western Development, 2018

All projects which have been proposed under the Logistics Corridor Development by Western Region Megapolis Master Plan Project and which are falling within the boundary limits of *Colombo Commercial City* are incorporated into the CCCDP – 2019-2030 under the project code – E-1-2 given the condition that they shall be in conformity with the overall concept and proposals of CCCDP – 2019-2030.

• **Promoting two dedicated zones for Logistics Activity Development within Colombo Commercial City**

Around 80% of the logistics companies are located within Western Province, and among them the majority are located in close proximity to Colombo Port; areas such as Bloemendhal, Kotahena, Modara, Mattakkuliya, Dematagoda and Peliyagoda and in the corridors connecting Port of Colombo and BIA at Katunayake and Port with nearest Export Processing Zones at Katunayake & Biyagama; areas such as Wattala, Ja-ela, Kolonnawa, Kotikawatta and Kelaniya. It is important to note that all these areas are located in the proposed Logistics Corridor by the Western Region Megapolis Master Plan – 2030.

No.	Name of the Zone	Areas falling within the zone	Envisaged Character
05	Compact Logistics Development Zone	Port Area, Sea Avenue, Kotahena, Bloemendhal, Mahawatta, Aluthmawatha	Port related industrial activities, logistics-based activities, warehouses etc. as prominent uses Relatively high built-up density with 70% of average plot coverage
09	Moderate Density Logistics Development Zone	Part of Peliyagoda, Wanawasala, Dippitigoda and Hunupitiya	Port related industrial activities, logistics-based activities, warehouses etc. as prominent uses Relatively moderate built-up density with 65% of average plot coverage

NOTE – Previous Reference – Table 5.3 The heterogeneous characteristics of 13 character zones of Colombo

Table 7.3: Proposed two dedicated zones for Logistics Activity Development

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Promoting logistics zones and
corridors

In order to strengthen the proposed Logistics Corridor and to accommodate the trending space demand for logistics related activities in the immediate surroundings of Port of Colombo and the above mentioned corridors, it has been proposed to allocate two special zones out of 13 character zones of *Colombo Commercial City – 2030* for Logistics Activity Development as mentioned in the Table 7.3 and shown in the Figure 7.4.

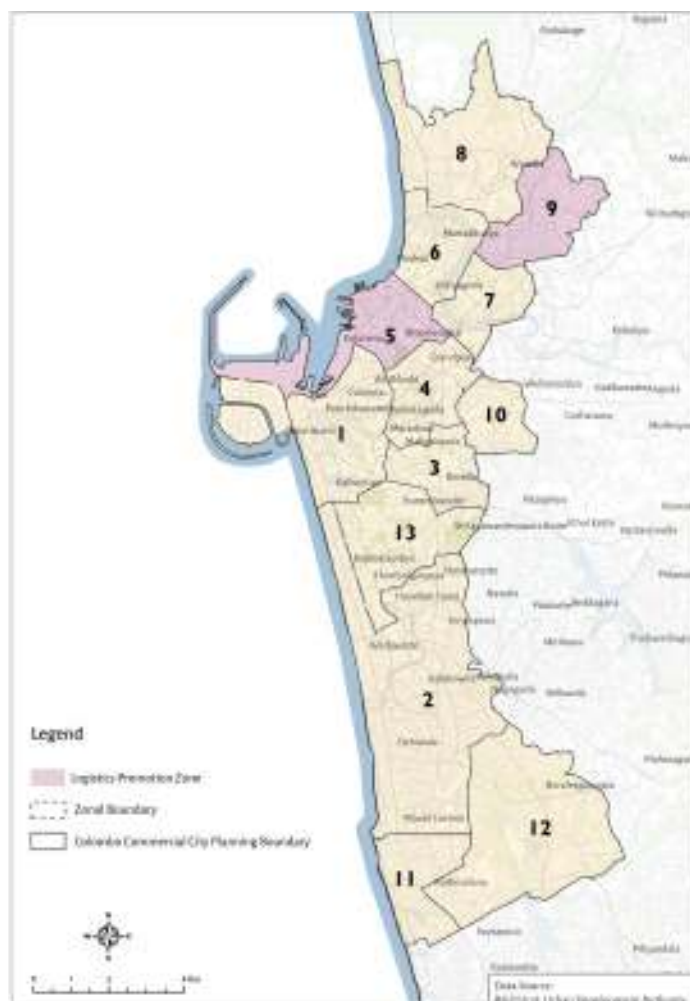


Figure 7.4: Proposed two dedicated zones for Logistics Activity Development in Colombo Commercial City

It is envisaged that these zones will provide the advantages of agglomeration of economies and will effectively facilitate all logistics related activities such as warehouses, logistics centers, customs inspection sites, cold storage facilities, export oriented industries and intermediate product processing industries etc.

The special regulations and development guidelines pertaining to above two Logistics related development zones will be elaborated in Volume III of CCCDP – 2019-2030 under the zoning regulations.

7.1.3. Special Transport Development Interventions to facilitate Freight Transportation

In order to attract logistics operators and maximize the potential of air and sea links to entice more goods to flow through Sri Lanka, rail, air and sea connectivity around the country must be improved enabling expansion of logistics services. (National Export Strategy of Sri Lanka: Logistics Strategy 2018 – 2022) In order to address this requirement, two special road and rail transport developments proposed by Ministry of Highways, Road Development and Petroleum Resources Development and Sri Lanka Railways have been incorporated into CCCDP – 2019-2030 under the project code – E-1-3.

(a) Incorporating proposed Port Access Elevated Highway Project (Project Code – T-1-3-1)

In order to enhance the accessibility to Port and to provide a dedicated access way for freight transportation while keeping the freight traffic away from regular city traffic, an Elevated Highway has been proposed connecting Ingurukade Junction and Colombo Port City and proposed Multi Modal Transport Hub at Pettah via Port of Colombo. The need of a separate Port Access Road has been initially identified and recommended by the CoMTrans Urban Transport Master Plan.



Figure 7.5 : Proposed trace of Port Access Elevated Highway

Source : Ministry of Highways, Road Development and Petroleum Resources Development - 2018

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Development Interventions
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Transportation

Port Access Elevated Highway Project conducted by the Ministry of Highways, Road Development and Petroleum Resources Development is incorporated into the CCCDP – 2019-2030 under the Project Code – T-1-3-1 as mentioned in the Section 6.1.5 under the Transport Development Strategy of CCCDP – 2019-2030. The proposed trace of Port Access Elevated Highway is shown in the Figure 7.5.

(b) Incorporating New Electrified Railway Line (Dompe Line) Project (Project Code – T-2-2-3)

The need of a special Railway Line to support Freight Transportation has been highlighted in the CoMTrans Urban Transport Master Plan. It has been stated that a Railway Line connecting Kelaniya Railway Station and Kosgama via Sapugaskanda, Biyagama and Dompe would enable the private sector stakeholders in the logistics related industry to transport bulk products including oil and containers. It has been emphasized that the promotion of this proposed railway line for freight transportation would alleviate traffic congestion in northern part of Colombo where many trucks carry cargo on the roads. Since the trace of the proposed railway line intersect Biyagama Export Processing Zone and other major industrial areas, it would definitely be an effective freight transport mode in future.



Figure 7.6: Proposed trace of New Electrified Railway Line (Dompe Line)

Source: CoMTrans Urban Transport Plan - 2014

Hence, considering the importance of this new railway link, Construction of New Electrified Railway Line (Dompe Line) Project has been incorporated into CCCDP – 2019-2030 under the project code – T-2-2-3 as mentioned in the Table 6.3 under the Transport Development Strategy. The trace of proposed Dompe Line is given in the Figure 7.6.

7.1.4. Incorporating Bloemendhal Logistics Park Project (Project Code – E-1-4)

Bloemendhal Logistics Park Project has been proposed by the Ministry of Megapolis & Western Development in collaboration with the Sri Lanka Ports Authority, Sri Lanka Customs, Sri Lanka Railways and Urban Development Authority. The project includes clearing of solid waste dumping yard at Bloemendhal and development of a Logistics Centre, Customs Scanning Facility and an Urban Recreational Park in the Bloemendhal Area. The proposed layout plan of Phase I of proposed Bloemendhal Logistics Park is given in the Figure 7.7.

One of the main objectives of this development is to clear existing four warehouses with conventional cargo at Bandaranaike Quay at Colombo Port to provide space for its intended development into a fully-fledged ‘Passenger Ship Terminal’. It is expected to relocate the functions of these warehouses to the proposed Logistics Centre at Bloemendhal. The overall expectation of this development is to regularize and speed up the logistics handling process and to increase the efficiency of cargo handling in Colombo Port ensuring higher contribution to the national income. The positioning of logistics centre and customs scanning facility in close proximity to the Port of Colombo will reduce the cost of cargo handling and boost up the import/export industry through fast track operations.

Considering the importance of Bloemendhal Logistics Park Project as elaborated above, it has been proposed to incorporate its project components falling within the limits of proposed Compact Logistics Zone of CCCDP – 2019-2030 under the project code – E-1-4 given the condition that they are aligned with the overall concept and objectives of CCCDP.

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*Incorporating Bloemendhal
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*Incorporating Bloemendhal
Logistics Park Project*



Figure 7.7: Proposed Layout Plan of the Phase I of Bloemendhal Logistics Park

Source: Ministry of Megapolis & Western Development, 2018

Project Components of Phase I of Proposed Bloemendhal Logistics Park

1. Proposed Logistics Center (SLPA/ UDA)
2. Proposed Logistics Center (SLPA/ UDA)
3. Custom Scanning Facility/ Green Park
4. Custom Scanning Facility/ Green Park
5. Reserved Area for Railway Development
6. SLPA Stage II Development
7. SLPA Land for Future Accommodation
8. Kimbula Ela Wetland Park
9. SLPA Stage III Development
10. Proposed Housing Complex/ Logistics
11. Proposed Housing Complex/ UDA
12. SLPA Land for Future Accommodation

7.1.5. Promoting Port related Recreational and Pleasure Activities (Project Code – E-1-5)

The spatial and functional separation of commercial ports and urban activities has become a controversial issue in many of the world's major ports. Hoyle (2000) has suggested that ports typically evolve through a five stage cycle: (i) primitive city port, (ii) expanding city port, (iii) modern industrial city port, (iv) retreat of the city from the waterfront, and (v) redevelopment of the waterfront. Around the world, many commercial ports are either in or moving towards the fifth stage in Hoyle's port evolution model. In many countries, public ports have gained increased autonomy through various commercialization and privatization reforms. As a result, many of these ports are seeking additional, alternative sources of revenues, which may be provided by waterfront redevelopment projects. (Michael C. Ircha, 2002)

In the present context, Port of Colombo operates as a modern industrial port and functions separated from the city both spatially and functionally. The Port of Colombo is both visually and physically barricaded due to security reasons, thus is spatially separated from the city fabric. Even though, it is accessible for public for educational and occasional visits with special permission, most of the time it acts as an industrial monster with whom the city has no relationship in its daily functions. However, it can be identified that the Port of Colombo has the potential to promote a part of it for pleasure and recreational activities combined with waterfront development, aqua-based recreational activities, cruising and boat rides etc. especially parallel to ongoing Colombo Port Expansion Project. Hence, the project; Promotion of port related pleasure and recreational activities linked with Port of Colombo is proposed as a strategic project by CCCDP – 2019-2030 under the project – E-1-5.

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Incorporating Bloemendhal
Logistics Park Project

7.2. Property Development (Project Code – E-2)

The main objective of intervening in the property market of *Colombo Commercial City* is to steer up the property market and induce modern developments especially in present underutilized areas which indicate relatively low land values due to deteriorating built environments, non-exposure and incompatible uses. On the other hand it is expected to ensure adequate supply of high quality investment space for trending economic sectors such as real estate, tourism, retail, private office and condominiums etc.

Two main strategic interventions made for property development of *Colombo Commercial City* include direct engagements in property development through catalyst projects, state housing projects and special property development projects and exposing of realty properties (land and built spaces) for development through releasing of lands from their existing incompatible uses. All property development projects proposed under CCCDP – 2019-2030 are aligned under the City Economics Development Strategic Action Type 02 with the Project Code – E-2.

7.2.1. Direct Engagements in Property Developments (Project Code – E-2-1)

(a) Catalyst Projects proposed by CCCDP – 2019-2030 under Water Esplanade and Nodal Developments (Project Code – E-2-1-1)

The catalyst projects proposed for Water Esplanade Developments and Nodal Developments under Water Esplanades Development Strategy and Transport Development Strategy respectively are some of the direct engagements in property development made by CCCDP – 2019-2030.

Property Development Catalyst Projects proposed under Water Esplanade Developments

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No.	Project Name	Project Code	Previous Reference
01	Hamilton Canal Entrance Development Project	W-4-1-1-1-d	Table 4.9: Proposed Catalyst Projects at the Recreational Stretch of Marina Investment Esplanade
02	Incorporating the Construction of Multistoried Mixed Development Buildings at each Railway Station at Southern Railway Line proposed under Maritime City Development Project proposed by Ministry of Megapolis & Western	W-4-1-3-2	Table 4.11: Proposed Catalyst Projects at the Premium Investments Stretch of Marina Investment Esplanade
03	Incorporating the property development projects of Colombo North Gate Development Project proposed by Urban Development Authority	W-4-2-1	Table 4.12: Proposed Catalyst Projects at the Kelani River Investment Esplanade
04	Incorporating property development projects proposed under Beira Lake Intervention Area Development Plan - ... proposed & implemented by Urban Development Authority	W-4-3-1	Table 4.13: Proposed Catalyst Projects at the Beira Lake Investment Circle
05	Clearing of existing Underserved Settlements in the Reservation and surroundings of St. Sebastian Canal and open up them for Mixed Developments	W-4-4-3	Table 4.14: Proposed Catalyst Projects at the St. Sebastian Canal Investment Esplanade

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No.	Project Name	Project Code	Previous Reference
06	Conducting a Mixed Development Project at Sri Nigrodharama Mawatha Slums Area (approx. extent of 3 ha)	W-4-5-3	Table 4.15: Proposed Catalyst Projects at the Dematagoda, Kinda Canal & Kirulapana Canal Investment Esplanade

Table 7.4: Property Development Catalyst Projects proposed under Water Esplanade Developments

Property Development Catalyst Projects proposed under Nodal Developments

No.	Project Name	Project Code	Previous Reference
01	Charmer's Granary Mixed Development Project Proposed by Urban Development Authority	T-4-1-1-2	Table 6.6: Proposed Projects under Pettah Nodal Development
02	Waterfront Mixed Development Project at Galle Face Front	T-4-1-1-3	
03	Mixed Development Project at Gunesinghapura, Pettah	T-4-1-1-4	
04	Construction of Rooftop Public Deck on top of the Trace Expert City Building Complex (Sight Seen deck, Open restaurants)	T-4-1-1-7	
05	Development of an Urban Square along the Right Bank of Kelani River (Peliyagoda Stretch)	T-4-1-2-2	Table 6.7: Proposed Projects under Peliyagoda Nodal Development
06	Mixed Development at (Sedawatta) Kelani River left bank area	T-4-1-2-5	

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No.	Project Name	Project Code	Previous Reference
07	Promote mixed development at existing Dematagoda Railway station area	T-4-2-1-2	Table 6.8: Proposed Projects under Transit Oriented Development at Dematagoda
08	Promoting mixed developments with public open space at railway lands (existing CGR Quarters land), Ratmalana	T-4-2-2-1	Table 6.9: Proposed Projects under Transit Oriented Development at Ratmalana
09	Conducting Ratmalana - Belekade Pola Development Project	T-4-2-2-7	
10	Promoting mixed developments at Wellawatta Public Car Park Land	T-4-2-3-6	Table 6.10: Projects coming under proposed Nodal Development at Wellawatta
11	Mixed Development Project at UDA Market Land	T-4-2-4-2	Table 6.11: Projects coming under proposed Nodal Development at Dehiwala
12	Mixed Development project at Dehiwala Mt-lavinia MC Market Land	T-4-2-4-3	
13	Promoting Mixed Developments at UDA owned land located adjacent to Colombo – Horana Road opposite to Pirivena Road	T-4-3-2-3	Table 6.13: Projects coming under proposed Nodal Development at Boralessgamuwa
14	Promoting Commercial and Mixed Developments at the existing Boralessgamuwa Police Station Land	T-4-3-2-4	

Table 7.5: Property Development Catalyst Projects proposed under Nodal Developments

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(b) Property Developments conducted under Urban Regeneration Project of UDA (Project Code – E-2-1-2)

Property development in the scope of housing is carried out under the Urban Regeneration Project (URP) of UDA. The housing projects carried out under URP fall within two main categories such as low-income housing and middle-income housing. All housing developments proposed by URP of UDA in the boundary limits of *Colombo Commercial City* are incorporated into **CCCDP – 2019-2030** under the project code – E-2-1-2. Low-income housing development projects and middle-income housing development projects proposed under URP of UDA are indicated in the Table 7.6 & Figure 7.8 and Table 7.7 & Figure 7.9 respectively.

• **Low-income housing development projects**

No.	Project Name	Remarks
01	Mihindusenpura Housing Project	Completed – Relocation is on the process
02	Puradora Sevana Housing Project	-do-
03	Lakmuthu Sewana Housing Project	-do-
04	Sirisanda Sewana Housing Project	-do-
05	Sirisara Uyana Housing Project	-do-
06	Methsara Uyana Housing Project	-do-
07	Randiya Uyana Housing Project	-do-
08	Sirimuthu Uyana Housing Project	-do-
09	Laksanda Sewana Housing Project	-do-
10	Muwadora Uyana Housing Project	-do-
11	Lakhiru Sewana Housing Project	-do-
12	Siyasetha Uyana Housing Project	-do-
13	Jayamaga Sewana Housing Project	-do-
14	Methsanda Sewana Housing Project	-do-
15	Laksetha Sewana Housing Project	-do-
16	Siyapath Sewana Housing Project	-do-

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No.	Project Name	Remarks
17	Aluth Mawatha 1 Housing Project	Projects under construction – Phase I
18	Aluth Mawatha 11 Housing Project	-do-
19	Mattakkuliya 1 Housing Project	-do-
20	Mattakkuliya 11 Housing Project	-do-
21	Kalinga Mawatha Housing Project	-do-
22	Kolambage Mawatha Housing Project	-do-
23	Lakshiru Sewana 11 Housing Project	-do-
24	Kolonnawa Housing Project	-do-
25	Torington Mawatha Housing Project	-do-
26	Kimbula Ela Housing Project	-do-
27	601 Watta Housing Project	-do-

Table 7.6 : Proposed Low-income Housing Projects under Urban Regeneration Project of UDA

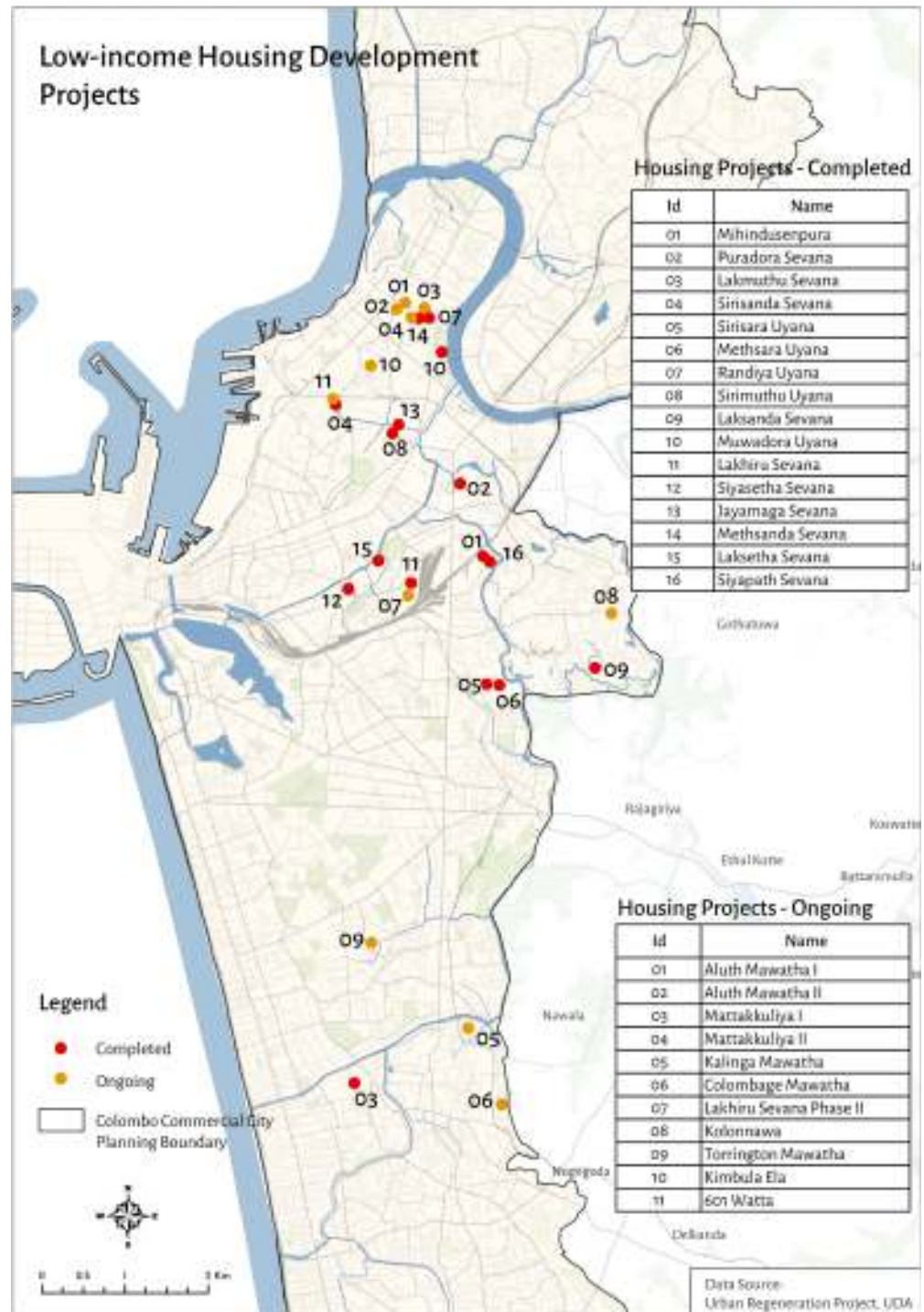
Source : Urban Regeneration Project - UDA, 2018

• Middle-income housing development projects

No.	Project Name
01	Elliot Place Housing Project, Elliot Place, Borella
02	Oval Ground Project, Borella
03	Proposed Housing Project, Rathmalana Irrigation Land
04	Proposed Housing Project, Peliyagoda
05	Proposed Housing Project, Orugodawatta

Table 7.7 : Proposed Middle-income Housing Projects under Urban Regeneration Project of UDA

Source : Urban Regeneration Project - UDA, 2018

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Figure 7.9: Proposed Middle-income Housing Projects under Urban Regeneration Project of UDA

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(c) Special Property Development Projects conducted by UDA in collaboration with relevant stakeholders (Project Code – E-2-1-3)

No.	Project Name	Project Code
01	Borella Cemetery Park Development Project	O-1-6-3 *(Following Reference: Table 11.4)
02	Colombo Hospital Square Development Project	E-2-1-3-1
03	Mixed Development Project at Borella Postal Office Premises	E-2-1-3-2
04	Elumaduwa and Masmaduwa (Baseline Station) Development Project	E-2-1-3-3
05	Existing Kyman Gate and Old Town Hall Regeneration Project	E-2-1-3-4
06	Manning Market Relocation Project	E-2-1-3-5
07	Kirimandala Mawatha Mixed Development Projects	E-2-1-3-6

Table 7.8: Proposed Property Development Projects undertaken by UDA

Source: Western Province Division - UDA, 2018

7.2.2. Releasing of Realty Space (lands & built space) for Property Developments (Project Code – E-2-2)

It was identified in the context analysis as elaborated in Volume I of CCCDP – 2019-2030 that there is an increasing demand in real estate market within *Colombo Commercial City*. This real estate market demand is resulted due to growing economic sectors such as retail, tourism, private office and condominium housing. Even though, there is a market driven demand for real estate in *Colombo Commercial City*, it can be identified that the supply of realty space is quite limited due to several factors.

There are many potential lands which are currently at an underutilized state compared to their land values and are not being exposed in the realty market. One of such reasons is the occupation of such potential lands by underserved settlements, government establishments, warehouses and industries which can be considered as inappropriate or less optimum uses in terms of planning point of view. Another reason is the abandoning or underutilization of some buildings due to their deteriorated state even though they are located at prime locations. Most of the old buildings which also possess historical or archeological value fall under this category, and there are many examples how these building are currently being underutilized irrespective of their prime values. On the other hand, there are many valuable lands having higher potentials for investments, but not being exposed in the realty market as they are being owned by state agencies and that there is no interest or proper mechanism to expose them in the market.

Hence, considering the above factors, following strategic interventions are proposed under the project code – E-2-2 by *Colombo Commercial City Development Plan – 2019-2030* to release more potential lands for developments.

(a) Releasing lands occupied by Underserved Settlements through Urban Regeneration Project (URP) of UDA (Project Code – E-2-2-1)

Urban Regeneration Project (URP) of UDA was commenced in year 2010 to fulfill the mission of identifying households living in underserved settlements within City of Colombo and relocating them to newly constructed housing units in high-rise apartment buildings. The objectives of URP are to provide better housing for underserved settlement communities while providing enhanced opportunities to upgrade their lifestyles and to release prime lands which are currently being utilized by underserved settlements for investments and potential developments.

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It is expected to release approximately 390 Acres of lands within Colombo Commercial City by relocating underserved settlement communities to newly constructed housing units in high-rise apartment buildings. It is important to note that 48% of total liberating lands are located in the immediate or neighboring surroundings of waterfronts of *Colombo Commercial City*. This strategy can be considered as one of the most contributing interventions to achieve the anticipated goal; The most sought Waterfront Business Environment Experience in the World.

Hence, the Urban Regeneration Project components; relocation of underserved settlements and releasing of lands for investments are incorporated into the *Colombo Commercial City Development Plan* under the Project Code – E-2-2-1.

(b) Releasing of lands by relocating Government Establishments to Kotte Capital City (Project Code – E-2-2-2)

Sri Jayawardhanapura Kotte – Sri Lanka's New Administrative Capital City Project was initiated by the Special Gazette Notification No. 335/5 of 1985 and one of the policy decisions followed that was the locating of administrative establishments within the declared administrative city boundary. Accordingly, many administrative establishments have already been located within Kotte Administrative City. The continuity of this initiative was ensured by the recent intervention of *Western Region Megapolis Planning Project – 2030* through which it has been identified to shift 214 number of Government and Semi-government Institutions to Kotte Administrative Capital City. This proposal has also been incorporated into the *Kotte Capital City Development Plan (2019 – 2030)* as one of its main strategies.

It is estimated that approximately 160 Acres of lands within *Colombo Commercial City* will be released for investments through this intervention.

The releasing of properties for investments by relocating Government Establishments to Kotte Capital City as proposed by *Western Region Megapolis Planning Project – 2030* and *Kotte Capital City Development Plan (2019 – 2030)* are incorporated into the *CCCDP – 2019-2030* under the Project Code – E-2-2-2.

(c) Releasing of Urban Development Authority Owned Properties for Developments (Project Code – E-2-2-3)

UDA owned properties located within *Colombo Commercial City* have been identified to release in the property market for developments under the Project Code – E-2-2-3. The objective of this strategic action is to ensure the adequate supply of realty space to meet with the increasing demand.

7.2.3. Management of Historical Buildings through conservation to safeguard historical value while enhancing economic value (Project Code – E-2-3)

There is a significant number of historically renowned buildings and sites located within *Colombo Commercial City*, which are the reminiscence of the historical events took place mainly in last five centuries including the Colonial Periods. There are 62 number of Historical Buildings located within *Colombo Commercial City*, which have been declared as Listed Buildings under the legal provisions of Antiquities Ordinance No. 9 of 1940.

In the present context, some of these buildings are well conserved and optimally used for economic activities. Yet, there is a significant number of buildings which are in a dilapidated status thus need immediate conservation interventions to avoid them becoming totally disappeared over the time. In addition, most of these listed buildings are located in prime locations with high land values, thus they have the potential to be exposed in the property market and attract more investments.

In order to ensure conservation and optimum utilization of historical buildings to safeguard historical value and enhance economic value, it has been proposed to manage all 64 listed historical buildings and monuments (as given in Annexure 7.1) located within *Colombo Commercial City* by adopting following Conservation Tools. The objective of adopting these conservation tools is to conserve the identified historical buildings while enhancing their economic, environmental and social values with both direct and indirect means.

- **Reuse:**

This methodology is oriented to reuse the inherited buildings with modern or same use by keeping its original structure and finishing as well. It has been academically justified that the adoptive reuse of historical (buildings) is a better way forward to the sustainable development. Since it helps to preserve the physical context while transmitting the feelings of the heritage values of a site, the methodology is considered as most influential in heritage conservation.

- **Redesign**

This methodology is oriented to reuse the inherited buildings with modern use by keeping only its original structure while designing its interior with modern architectural and engineering concerns. This methodology of heritage conservation influence to attract more economic value.

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- **Redevelop**

This methodology of heritage conservation is oriented to rebuild or recreate the inherited which are in a dilapidated state or not in existence at all. The concept of redevelopment can be used with buildings, monuments, sculpture, etc. This would lead to recreate the historical values within new context.

- **Marketing and promotion (Living with Heritage Concept)**

It is essential to have a proper marketing strategy to promote the concept of 'Living with Heritage'. According to the existing trend of Sri Lanka, most developers act with the belief that only modern architectural and engineering designs attracts the more economic benefits. But it has been justified by the heritage valuers that the inherited monuments have innumerable value besides its economic values. Therefore, embarking the concept among the relevant stakeholders by having proper marketing methodology, would enable people to realize the magnitude of the idea behind.

All the conservation, rehabilitation, management and marketing interventions that will be carried out with regard to 64 number of listed historical buildings and monuments and any other identified historically renowned building within *Colombo Commercial City* will be aligned under the Project Code – E-2-3 within CCCDP – (2019 – 2030). It is recommended to carry out these interventions in accordance with the Antiquities Ordinance No. 9 of 1940 and in consultation with the relevant stakeholder agencies such as Department of Archaeology.

7.3. Tourism Development (Project Code – E-3)

Sri Lanka's tourism industry today stands at different points within the continuum from exploration to development, depending on the destination. The Vision of Sri Lanka Tourism Strategic Plan (2017 – 2020) is 'To be recognized as the world's finest island for memorable, authentic and diverse experiences'. The Tourism Strategic Plan (2017 – 2020) identifies Colombo as one of Major Tourism Hubs located in the Main Touring Circuit connecting other major destinations of the country including, Cultural Triangle (Anuradhapura & Polonnaruwa), Kandy, Hill Country (Nuwara Eliya & Bandarawela) and Southwest Coast. The Jones Lang LaSalle Report – 2016 states that, a tourist who spends an average of 10 days in Sri Lanka stays at least 2 days in Colombo and spends around USD 100 per day.

Tourism sector is one of the major economic sectors of Colombo, and it has many potentials to be enhanced by promoting various categories of tourism such as;

- Sun & Beach Tourism
- Cultural & Heritage Tourism
- Fashion Tourism
- Water-based Tourism
- Cruise Tourism
- Nature-based Tourism
- Nightlife Tourism
- Culinary Tourism
- MICE (Meetings, Incentives, Conferences & Events) Tourism

Different Tourism Zones have been identified as indicated in the Table 7.9 and Map 7.1 based on existing locational and resources potentials of each area to promote above mentioned various categories of tourism. The demarcation of Tourism Zones within *Colombo Commercial City* and identification of catalysts projects to activate these zones were carried out in accordance with the recommendations given in Sri Lanka Tourism Strategic Plan (2017 – 2020) for Tourism Development in Colombo.

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Tourism Development

No.	Name of the Tourism Zone	Areas falling within the Zone	Major Tourism Categories to be promoted
01	Beach Tourism Zone	31km long coastal stretch extending from Wattala to Ratmalana	Sun & Beach Tourism Cruise Tourism Fashion Tourism Nightlife Tourism Culinary Tourism
02	Aqua Tourism Zone 01 – River Experience	Surroundings of Kelani River stretching 7km length from Mattakkuliya to Kelaniya	Water-based Tourism Cruise Tourism
03	Aqua Tourism Zone 02 – Canal Experience	Either sides of Hamilton Canal, St. Sebastian Canal, Wellawatta Canal, Dehiwala Canal, Kirulapona Canal, Kinda Canal & Kittampahuwa Canal	Water-based Tourism Fashion Tourism Nightlife Tourism Culinary Tourism
04	Wetland Tourism Zone	Surroundings of Bolgoda Tributaries, canals and Attidiya Marsh & Sanctuary in Boralesgamuwa, Ratmalana & Attidiya	Nature-based Tourism Water-based Tourism Nightlife Tourism Culinary Tourism
05	Colombo Tourism Zenith	Colombo Central Business District Zone including Pettah, Beira Lake Surroundings, Colombo Port City, Kollupitiya, Bambalapitiya, Colombo 07, Borella, Narahenpita & Kirulapona	Fashion Tourism Nightlife Tourism Culinary Tourism MICE Tourism Water-based Tourism
06	Colonial Heritage Zone	Colombo Fort, Pettah, Sea Street, Colombo Port, Colombo 07 & Maradana	Cultural & Heritage Tourism Fashion Tourism Nightlife Tourism Culinary Tourism

Table 7.9: Proposed Tourism Zones of Colombo Commercial City - 2030

Tourism Promotion Zones

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

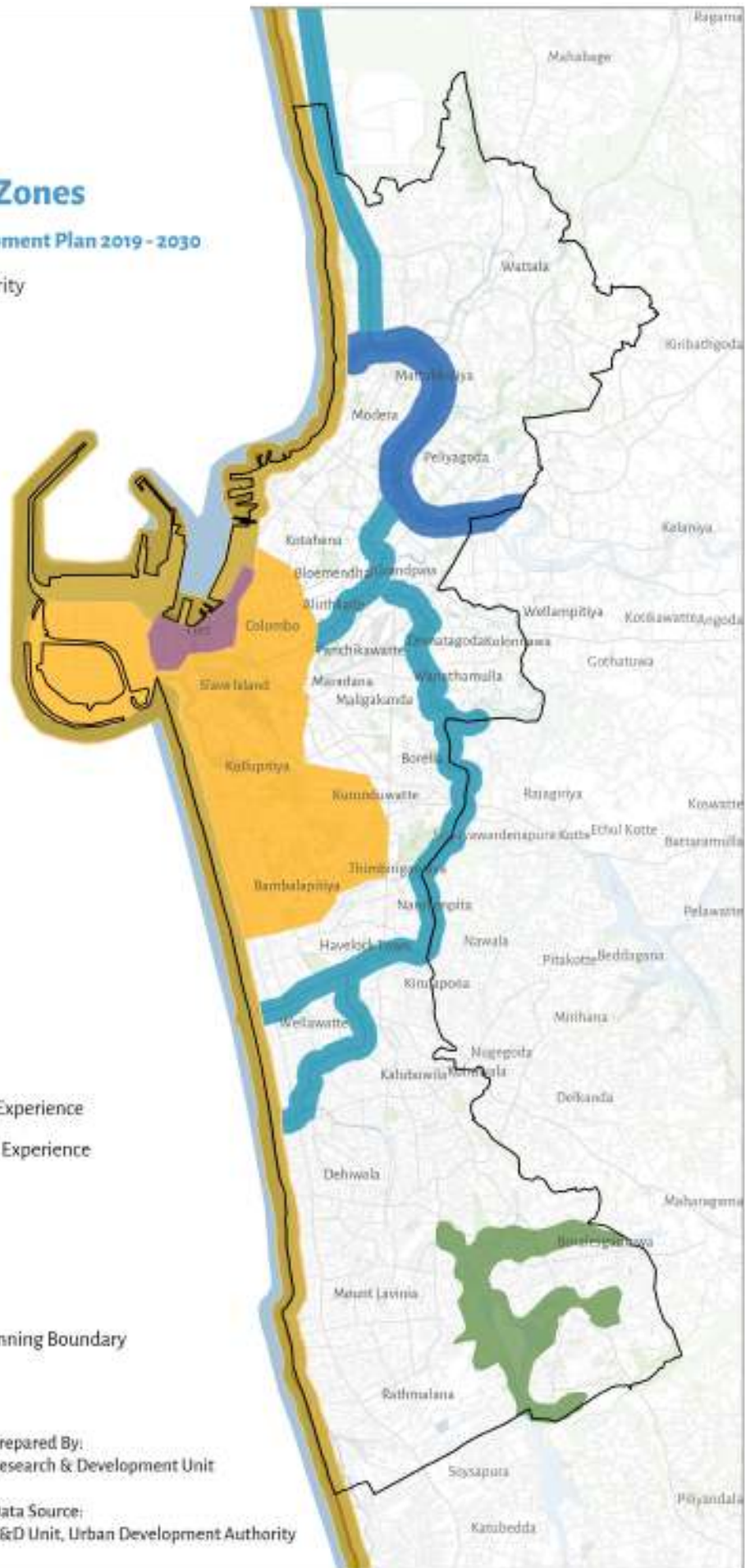
- Beach Tourism Zone
- Aqua Tourism Zone 01 - River Experience
- Aqua Tourism Zone 02 - Canal Experience
- Wetland Tourism Zone
- Colombo Tourism Zenith
- Colonial Heritage Zone
- Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 7.1 : Proposed Tourism Zones within Colombo Commercial City - 2030

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Carrying out Catalyst Tourism
Projects to promote identified
Tourism Zones

7.3.1. Carrying out Catalyst Tourism Projects to promote identified Tourism Zones (Project Code – E-3-1)

With the intention of promoting relevant tourism categories within above identified tourism zones, following tourism related catalyst projects have been either newly proposed or incorporated into the CCCDP – 2019-2030 under the City Economic Development Strategic Action Type 03 with the Project Code – E-3-1.

a) Catalyst Tourism Projects to promote Beach Tourism Zone (Project Code – E-3-1-1)

- Incorporating Tourism Projects proposed by stakeholder agencies at Beach Tourism Zone (Project Code – E-3-1-1-1)***

No.	Project Name	Implementing Agency	CCCDP Project Code
01	Colombo Port City Project	Ministry of Megapolis & Western Development & CHEC	E-3-1-1-1-a
02	Development of Yacht Marina and Boat Building Yard in Dikowita	Ministry of Economic Development	E-3-1-1-1-b
03	Maritime City Development Project	Ministry of Megapolis & Western Development	W-4-1-3-2 *Previous Reference: Table 4.11
04	Crow Island Beach Park Project	Metro Colombo Urban development Project	W-4-1-2-4 *Previous Reference: Table 4.10
05	Promoting a tourism fishery village at Dikkovita	Ministry of Economic Development	W-4-1-1-1-a *Previous Reference: Table 4.9
06	Developing a linear park along the beach from Kerawalapitiya to Kelani River Mouth at Mattakkuliya	Ministry of Economic Development	W-4-1-1-1-b *Previous Reference: Table 4.9

No.	Project Name	Implementing Agency	CCCDP Project Code
07	Promoting Preethipiura Beach for Recreational Activities	Ministry of Economic Development	W-4-1-1-1-c *Previous Reference: Table 4.9

Table 7.10: Catalyst Tourism Projects proposed by Stakeholder Agencies at Beach Tourism Zone of Colombo Commercial City

• **Tourism Projects proposed by CCCDP – 2019-2030 at Beach Tourism Zone (Project Code – E-3-1-1-2)**

No.	Project Name	CCCDP Project Code
01	Promoting water recreational and pleasure activities at Kelani River Mouth, Sea-front and Hamilton Canal Entrance Area	W-4-1-1-2 *Previous Reference: Table 4.9
02	Construction of a continuous walkable path (approx. 4.7 km) connecting Crow Island and Pettah Bazaar.	W-4-1-2-5 *Previous Reference: Table 4.10
03	Promoting the beach strip from Dehiwala Railway Station to Mount-lavinia including the section of underserved settlements (fishery industry based community settlement) for fisheries based tourism activities with application of the design concept of 'slum architecture'	W-4-1-3-3 *Previous Reference: Table 4.11
04	Promoting a beach park at Ratmalana Beach close to the Railway Station	T-4-2-2-5 *(Previous Reference: Table 6.9)

Table 7.11: Catalyst Tourism Projects proposed by CCCDP - 2030 at Beach Tourism Zone of Colombo Commercial City

b) Catalyst Tourism Projects to promote Aqua Tourism Zone 01 – River Experience (Project Code – E-3-1-2)

• **Incorporating Tourism Projects proposed by stakeholder agencies at Aqua Tourism Zone 01 – River Experience (Project Code – E-3-1-2-1)**

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No.	Project Name	Implementation Agency	CCCDP Project Code
01	Incorporating the proposals of Tourism & Livelihood Development Plan: Hamilton Canal and its Environs (2011) proposed by the Ministry of Economic Development	Ministry of Economic Development	W-4-2-2 *Previous Reference: Table 4.12

Table 7.12: Catalyst Tourism Projects proposed by Stakeholder Agencies at Aqua Tourism Zone 01 – River Experience of Colombo Commercial City

• **Tourism Projects proposed by CCCDP – 2019-2030 at Aqua Tourism Zone 01 – River Experience (Project Code – E-3-1-2-2)**

No.	Project Name	CCCDP Project Code
01	Promoting water recreational and pleasure activities at Kelani River Mouth, Sea-front and Hamilton Canal Entrance Area	W-4-1-1-2 *Previous Reference: Table 4.9 & 7.11
02	Develop two linear parks at left & right banks of Kelani River from Mattakkuliya to Peliyagoda	WO-1-3 *Previous Reference: Table 4.6 & 4.12
03	Colombo North Gate Development Project	W-4-2-1 *Previous Reference: Table 4.12
04	Promoting Water Transportation links along Kelani River as Tourism Recreational Activities (Cruise Service) and Passenger Transportation	W-4-2-3 *Previous Reference: Table 4.12
05	Development of an Urban Square along the Right Bank of Kelani River (Peliyagoda Stretch)	T-4-1-2-2 *Previous Reference: Table 6.7

Table 7.13: Catalyst Tourism Projects proposed by CCCDP - 2030 at Aqua Tourism Zone 01 - River Experience of Colombo Commercial City

c) Catalyst Tourism Projects to promote Aqua Tourism Zone 02 – Canal Experience (Project Code – E-3-1-3)

- ***Tourism Projects proposed by CCCDP – 2019-2030 at Aqua Tourism Zone 02 – Canal Experience (Project Code – E-3-1-3)***

No.	Project Name	CCCDP Project Code
01	Development of a Linear Park along the left bank of St. Sebastian Canal from Pettah to Peliyagoda (approx. length of 3.6 km)	WO-1-5 *Previous Reference: Table 4.6 & 4.14
02	Development of two Nodal Parks at St. Sebastian Canal Investment Esplanade	W-4-4-1 *Previous Reference: Table 4.14
03	Promotion of a Cruise Service linking Beira Lake and Kelani River	W-4-4-5 *Previous Reference: Table 4.14
04	Development of an Urban Park at the existing Meethotamulla Waste Dumping Site (approx. extent of 7.1 ha)	W-4-5-1 *Previous Reference: Table 4.15
05	Development of a Recreational Park at Kolonnawa Marsh (approx. extent of 18.5 ha)	W-4-5-2 *Previous Reference: Table 4.15
06	Constructing a Linear Park along Kittampahuwa Canal to connect Kolonnawa Marsh Recreational Park and Meethotamulla Urban Park (approx. length of 3.2 km)	WO-1-6 *Previous Reference: Table 4.6 & 4.15
07	Development of a Linear Park along Wellawatta Canal (approx. length of 3 km)	WO-1-7 *Previous Reference: Table 4.6 & 4.16
08	Development of an Open Public Space adjacent to Open University of Sri Lanka at Nawala managed by the University. (approx. length of 1 km)	W-4-6-1 *Previous Reference: Table 4.16

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No.	Project Name	CCCDP Project Code
09	Incorporating the existing proposal to initiate water transportation from Wellawatta to Battaramulla via Wellawatta, Kirulapana & Kinda Canals.	W-4-6-2 *Previous Reference: Table 4.16
10	Promoting a Water Transportation Hub by constructing of a boat/cruise anchoring area to facilitate water transportation initiation link from Wellawatta to Battaramulla	T-4-2-3-1 *Previous Reference: Table 6.10
11	Construction of two Linear Paths at the either sides of Mudun Ela by continuing the existing walking path. (approx. length of 3.3 km)	WO-1-8 *Previous Reference: Table 4.6 & 4.17

Table 7.14: Catalyst Tourism Projects proposed by CCCDP - 2030 at Aqua Tourism Zone 02 - Canal Experience of Colombo Commercial City

d) Catalyst Tourism Projects to promote Wetland Tourism Zone (Project Code – E-3-1-4)

- Incorporating Tourism Projects proposed by stakeholder agencies at Wetland Tourism Zone (Project Code – E-3-1-4-1)**

No.	Project Name	Implementation Agency	CCCDP Project Code
01	Bolgoda Lake Tourism Project		E-3-1-4-1-a

Table 7.15: Catalyst Tourism Projects proposed by Stakeholder Agencies at Wetland Tourism Zone of Colombo Commercial City

• **Tourism Projects proposed by CCCDP – 2019-2030 at Wetland Tourism Zone (Project Code – E-3-1-4-2)**

No.	Project Name	CCCDP Project Code
01	Promoting a Wetland Recreational Area (Development of a Wetland Park) at the Attidiya Bird Sanctuary area and Nedimala Canal Area	W-4-8-1 *Previous Reference: Table 4.18 & 6.13
02	Constructing a Linear Park connecting Weras Ganga Recreational Park and Borelesgamuwa Lake Recreational Area (approx. length of 1.6 km)	WO-1-10 *Previous Reference: Table 4.6 & 4.18
03	Promoting an Agricultural Tourism Model Village at Katuwawala	T-4-3-2-1 *Previous Reference: Table 6.13

Table 7.16: Catalyst Tourism Projects proposed by CCCDP – 2030 at Wetland Tourism Zone of Colombo Commercial City

e) Catalyst Tourism Projects to promote Colombo Tourism Zenith (Project Code – E-3-1-5)

• **Tourism Projects proposed by CCCDP – 2019-2030 at Colombo Tourism Zenith (Project Code – E-3-1-5)**

No.	Project Name	CCCDP Project Code
01	Incorporating Beira Lake Intervention Area Development Plan proposed & implemented by Urban Development Authority	W-4-3-1 *Previous Reference: Table 4.13 & 6.6
02	Continuation of the Linear Park encircling entire Beira Lake Area	W-4-3-2 *Previous Reference: Table 4.13
03	Open Space Development at Bestian Mawatha (At the existing Manning Market Premise & Private Bus Stand)	T-4-1-1-5 *Previous Reference: Table 6.6
04	Construction of Rooftop Public Deck on top of the Trace Expert City Building Complex (Sight Seen deck, Open restaurants)	T-4-1-1-7 *Previous Reference: Table 6.6

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Lanka Tourism Strategic Plan
– 2017-2020

No.	Project Name	CCCDP Project Code
05	Conducting a Cultural & Recreational Zone Development at Maradana linking Trace Expert City land, Maradana Railway Station, Elphinstone Theatre, Tower Hall, Kularatne Mawatha and T.B. Jaya Mawatha	T-4-1-1-6 *Previous Reference: Table 6.6
06	Development of a Contemporary History Museum and a Contemporary Art & Architecture Exhibition Centre	E-3-1-5-1

Table 7.17: Catalyst Tourism Projects proposed by CCCDP - 2030 at Colombo Tourism Zenith of Colombo Commercial City

f) Catalyst Tourism Projects to promote Colonial Heritage Zone (Project Code – E-3-1-6)

• Tourism Projects proposed by CCCDP – 2019-2030 at Colonial Heritage Zone (Project Code – E-3-1-6)

No.	Project Name	CCCDP Project Code
01	Conducting Colonial Heritage Conservation Project at Colombo Fort, Pettah & Maradana	E-3-1-6-1 *Previous Reference: Table 6.6
02	Implementing a special Guide Plan for the Pettah Bazaar Area in order to conserve the archeologically important buildings and the special character associated with its daily functioning pattern.	W-4-1-2-2 *Previous Reference: Table 4.10 & 6.6

Table 7.18: Catalyst Tourism Projects proposed by CCCDP - 2030 at Colonial Heritage Zone of Colombo Commercial City

7.3.2. Incorporating Tourism Projects Proposed by Sri Lanka Tourism Strategic Plan – 2017-2020 (Project Code – E-3-2)

Tourism Projects proposed by Sri Lanka Tourism Strategic Plan – 2017-2020, which are falling within the boundary limits of *Colombo Commercial City* and which are aligned with the Vision and development guidelines and proposals of CCCDP – 2019-2030 are incorporated in to the *Colombo Commercial City Development Plan* under the Project Code E-3-2.

7.3.3. Introducing a Heritage Trail as a novel tourism experience within Colombo Commercial City (Project Code – E-3-3)

It is proposed to introduce 3 different heritage trails within *Colombo Commercial City* area in order to provide a novel tourism experience which will be based on both tangible and intangible heritage. Accordingly, these three heritage trails are designed as to provide the sense of colonial heritage value, different social and urban characters and natural and man-made water feature experience etc. The tangible heritage category includes the archeologically, historically and architecturally important buildings, special streetscapes, and historically renown sites whereas intangible heritage category includes softscapes such as parks, green pastures, wetlands, sea & beaches and natural and man-made inland water bodies.

The three trails are designed in such a way that it enables the city tourist to experience the above mentioned both tangible and intangible heritages of *Colombo Commercial City* as well as diversified city characteristics composed of varying built form and skyline and rhythmic lifestyles of different communities. The sub trails of Colombo Heritage Trail are presented in the Table 7.19.

Name of the Trail	Experience
Trail 1 - Red Line (Feel the Legacy of Colombo)	One day tour around the Colombo Fort and Pettah area to experience the dynamic architecture and diversified characters at the core of Colombo
Trail 2 - Blue Line (Refresh with water)	One day tour along the River Kelani (water cruise) and Crow Island Beach park and Galle face Ground activities
Trail 3 - Green Line (Rest in the Green City)	One day tour in Colombo Garden City with deluxe shopping experience

Table 7.19: Proposed sub trails of Colombo Heritage Trail

All sub-projects proposed under the proposed Colombo Heritage Trail including all three trails; red line, blue line and green line are incorporated into the CCCDP – 2019-2030 under the Project Code – E-3-3. Few of the initial sub-projects identified under proposed Colombo Heritage Trail Project are listed in the Table 7.20.

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Introducing a Heritage Trail
as a novel tourism experience
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No.	Sub-project	Project Code
01	Renovation of Listed Building Falling within the identified Heritage Trail	E-3-3-1/ may be implemented linked with project code – E-3-2
02	Establishing Tourist Information Centers	E-3-3-2
03	Promoting Pettah Bazaar as a special walking area	E-3-3-3
04	Introducing a Hop-On Hop-Off City tour bus service	E-3-3-4
05	Linking water transportation into the Heritage Trail	E-3-3-5
06	Maintaining a special paved character and pedestrian environment within the pedestrian paths falling within the proposed Heritage Trail	E-3-3-6

Table 7.20: Sub projects proposed under Colombo Heritage Trail



Figure 7.10: Proposed Red Line of Colombo Heritage Trail

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Introducing a Heritage Trail as a novel tourism experience within Colombo Commercial City



Figure 7.11 : Proposed Colombo Heritage Trail

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*Introducing a new City
Branding to Colombo
Commercial City with a
Unique Signage System*

7.3.4. Introducing a new City Branding to Colombo Commercial City with a Unique Signage System (Project Code – E-3-4)

Maintaining a unique city image is important when promoting *Colombo Commercial City* as an internationally competing business hub and as well as an attractive tourist city. How the city-built form and the skyline should be arranged to maintain a unique city image was determined under the Spatial Development Strategy of CCCDP – 2019-2030 as explained under the Section 3.4. In addition to properly maintained city built-form and skyline, the signages within a city are also very effective visual elements which contribute to the image of a city. Thus, a special consideration should be given in designing the public signages within the city such as road signs, public advertisements, navigation signs, information boards and billboards etc. In maintaining a unique signage system, it is also important to have a unique typeface family which depicts the unique cultural and technical functionalities of the city. Dubai, London, New York and Hong Kong are some major cities which maintain unique signage systems and typeface families to maintain their unique city characters.

In this background, CCCDP proposes to conduct an overall city branding project under the project code – E-3-4 and the sub-projects mentioned in the Table 7.21 have been proposed as initiatives of this project.

No.	Sub-project	Project Code
01	Maintaining a unique signage system for road, highway, rail, LRT, water transport networks of Colombo Commercial City	E-3-4-1
02	Maintaining a unique signage system for public signs including information boards, navigation maps and public advertisements boards	E-3-4-2
03	Having a special set of guidelines to maintain standards for private sign-boards and billboards	E-3-4-3
04	Having a unique typeface family that can be used in all types of public documentation related to Colombo Commercial City	E-3-4-4

Table 7.21 : Sub projects identified under introducing a new city branding and a unique signage system

7.3.5. Promoting and facilitating identified tourist attraction places within Colombo Commercial City (Project Code – E-3-5)

It was identified in the context analysis that *Colombo Commercial City* is a well established most sought tourism destination in the country as well as in the world. There are a number of compelling tourist attraction places located within *Colombo Commercial City*. Highly sought public gathering places located within *Colombo Commercial City* as mentioned in the Figure 7.12 are promoted and facilitated as compelling tourist attractions of *Colombo Commercial City* by the CCCDP – 2019-2030 under the project code – E-3-5.

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Promoting and facilitating identified tourist attraction places within Colombo Commercial City



Figure 7.12: Compelling Tourist Attractions in Colombo Commercial City

City Economics Development Plan 2030

Colombo Commercial City Development Plan 2019 - 2030

Urban Development Authority
December 2018

Legend

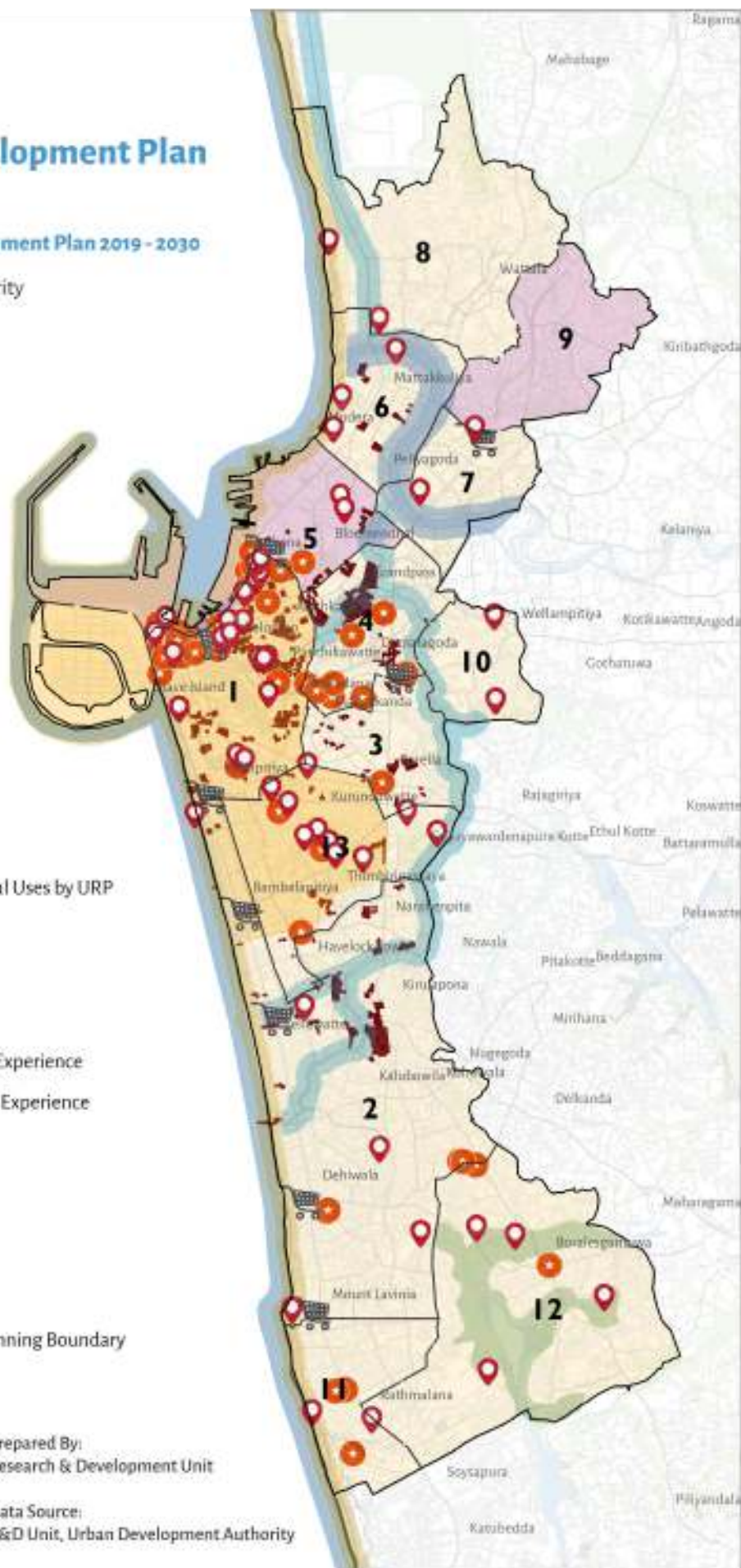
-  Tourist Attractions
 -  Archeological Sites
 -  Retail/ Wholesale Activities
 -  Lands releasing for Commercial Uses by URP
 -  Logistics Promotion Zone
- Tourism Promotion Zones**
-  Beach Tourism Zone
 -  Aqua Tourism Zone 01 - River Experience
 -  Aqua Tourism Zone 02 - Canal Experience
 -  Wetland Tourism Zone
 -  Colombo Tourism Zenith
 -  Colonial Heritage Zone
-  Zone Boundary
 -  Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Chapter 08

*Future Impacts due to
Activation of Aquarina*

Chapter 08

***Future Impacts
due to Activation
of Aquarina***

Chapter 08*Future Impacts due to
Activation
of Aquarina*

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*Future Impacts due to
Activation of Aquarina***Population Predictions***Resident Population*

Future Impacts due to Activation of Aquarina

In order to lead *Colombo Commercial City* towards its future vision, ‘Aquinara – The City in Water’, four key broader strategies such as Water Esplanade Development Strategy, Spatial Development Strategy, Transport Development Strategy and City Economic Development Strategy are proposed under the Aquarina Activation Plan as it has been elaborated in the previous chapters 04 to 07. The intention of this chapter is to forecast the impacts of these Aquarina Activation focused strategic interventions. Accordingly, the following sub-sections will present future resident and non-residential population predictions and forecast of future built space distribution that can be expected due to the impacts of Aquarina Activation Plan.

8.1. Population Predictions

8.1.1. Resident Population

Resident Population Forecast was carried out based on three scenarios and the detailed calculations are presented in the Annexure 8.1.

a) Forecast of Total Resident Population - 2030

Total Resident Population of Colombo Commercial City – 2011 (Based on National Censuses – 2011)	1,000,909
Total Resident Population of Colombo Commercial City – 2017 (Based on Local Authority wise Data)	1,063,947
Average Natural Growth Rate (GR) (2011 – 2017)	0.01%
Total Resident Population of Colombo Commercial City – 2030 (Based on Business as Usual Scenario (BUS) – Considering Natural Growth Rates of each Local Authority Area)	1,260,500
Overall Population Growth Rate in BUS (2017 – 2030)	1.3%
Total Resident Population of Colombo Commercial City – 2030 (As to match with anticipated developments induced by strategic interventions of CCCDP – 2019-2030)	1,300,000
Selected Overall Population Growth Rate (2017 – 2030) (GR that matches with the anticipated developments induced by strategic interventions of CCCDP – 2019-2030)	1.5%

Table 8.1 : Resident Population Forecast – 2030

Total Population of Colombo Commercial City – 2030 - 1,300,000

Average Population Growth Rate - 1.5%

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*Future Impacts due to
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b) Resident Population Distribution Pattern – 2030

It is predicted that total population of *Colombo Commercial City* – 2030 will be distributed within proposed thirteen character zones as indicated in the Table 8.1. Forecasted Population Densities of proposed Character Zones of *Colombo Commercial City* are presented in the Map 8.1

Population Predictions

Resident Population

Zone	Character	Resident Population 2030 (TP* - 1,288,763)	Resident Population Density 2030
Zone 1	Exclusive Premium Mixed Development	117,000	15,175
Zone 2	Premium Mixed Development	312,000	14,458
Zone 3	High Density Green Mixed Development	91,000	22,469
Zone 4	High Density Compact Mixed Development	117,000	24,174
Zone 5	Compact Logistics Development	65,000	9,673
Zone 6	High Density Residential	104,000	21,712
Zone 7	Transport Oriented Development	39,000	9,677
Zone 8	Moderate Density Residential - Wattala	117,000	10,522
Zone 9	Moderate Density Logistics Development	65,000	11,404
Zone 10	Moderate Density Residential - Kolonnawa	52,000	16,099
Zone 11	Moderate Density Residential - Ratmalana	78,000	16,250
Zone 12	Low Development Green Residential	91,000	5,894
Zone 13	Low Density Garden	52,000	6,887
		1,300,000	

*TP – Total Population

Table 8.2: Predicted Resident Population Distribution - 2030

Resident Population Density Distribution 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

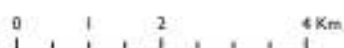
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Population Density (persons per sq.km)



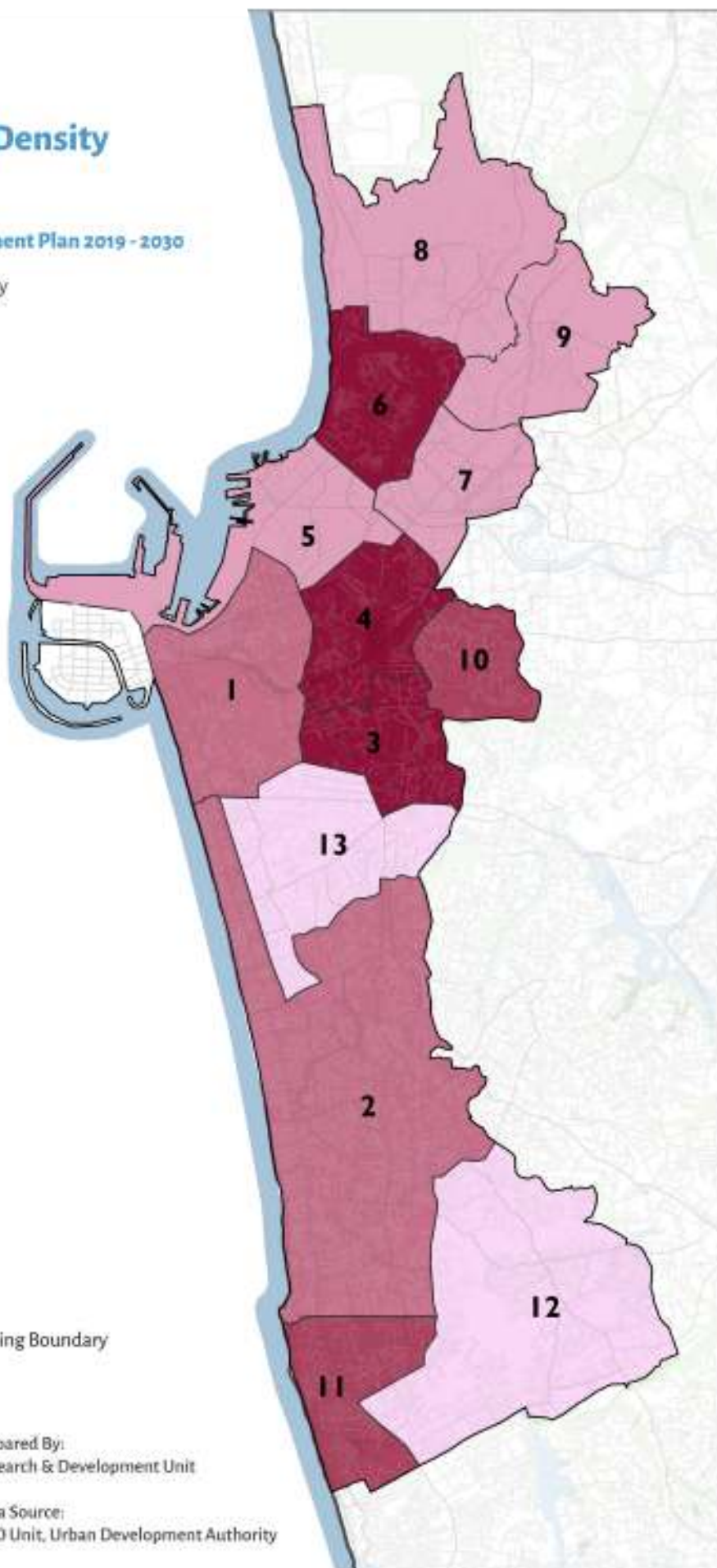
Zone Boundary

Colombo Commercial City Planning Boundary



Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



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Population Predictions

Non-residential Population

8.1.2. Non-residential Population

a) Forecast of Total Non-residential Population - 2030

Non-residential population was calculated considering the percentage increment of non-residential population which will be attracted to the respective Local Authorities (LA). The percentage increment values of each local authority were decided through brainstorming using intelligent guesses based on the future anticipated development within each Local Authority. The detailed calculations are presented in the Annexure 8.1.

Total Non-residential Population of Colombo Commercial City – 2017 (Based on Local Authority wise Data)	815,500
Total Non-residential Population of Colombo Commercial City – 2030 (As to match with anticipated developments induced by strategic interventions of CCCDP – 2019-2030)	1,100,000
Selected Non-residential Growth Rate (GR) (2017 – 2030) (GR that matches with the anticipated developments induced by strategic interventions of CCCDP – 2019-2030)	2.68%

Table 8.3 : Non-residential Population Forecast – 2030

Chapter 08*Future Impacts due to**Activation**of Aquarina***b) Non-residential Population Distribution Pattern – 2030**

The distribution of Non-residential Population within Proposed Thirteen Character Zones of *Colombo Commercial City* is indicated in the Table 8.4 and Map 8.2.

Population Predictions*Non-residential Population*

Zone	Character	Non-residential Population 2030 (TP* - 1,088,625)
Zone 1	Exclusive Premium Mixed Development	197,000
Zone 2	Premium Mixed Development	295,000
Zone 3	High Density Green Mixed Development	106,000
Zone 4	High Density Compact Mixed Development	84,000
Zone 5	Compact Logistics Development	67,000
Zone 6	High Density Residential	90,000
Zone 7	Transport Oriented Development	60,000
Zone 8	Moderate Density Residential - Wattala	13,000
Zone 9	Moderate Density Logistics Development	19,000
Zone 10	Moderate Density Residential - Kolonnawa	4,000
Zone 11	Moderate Density Residential - Ratmalana	50,000
Zone 12	Low Development Green Residential	33,000
Zone 13	Low Density Garden	82,000
		1,100,000

Table 8.4: Predicted Non-residential Population Distribution - 2030

Non-Resident Population Density Distribution 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Population Density (persons per sq. km)



Zone Boundary

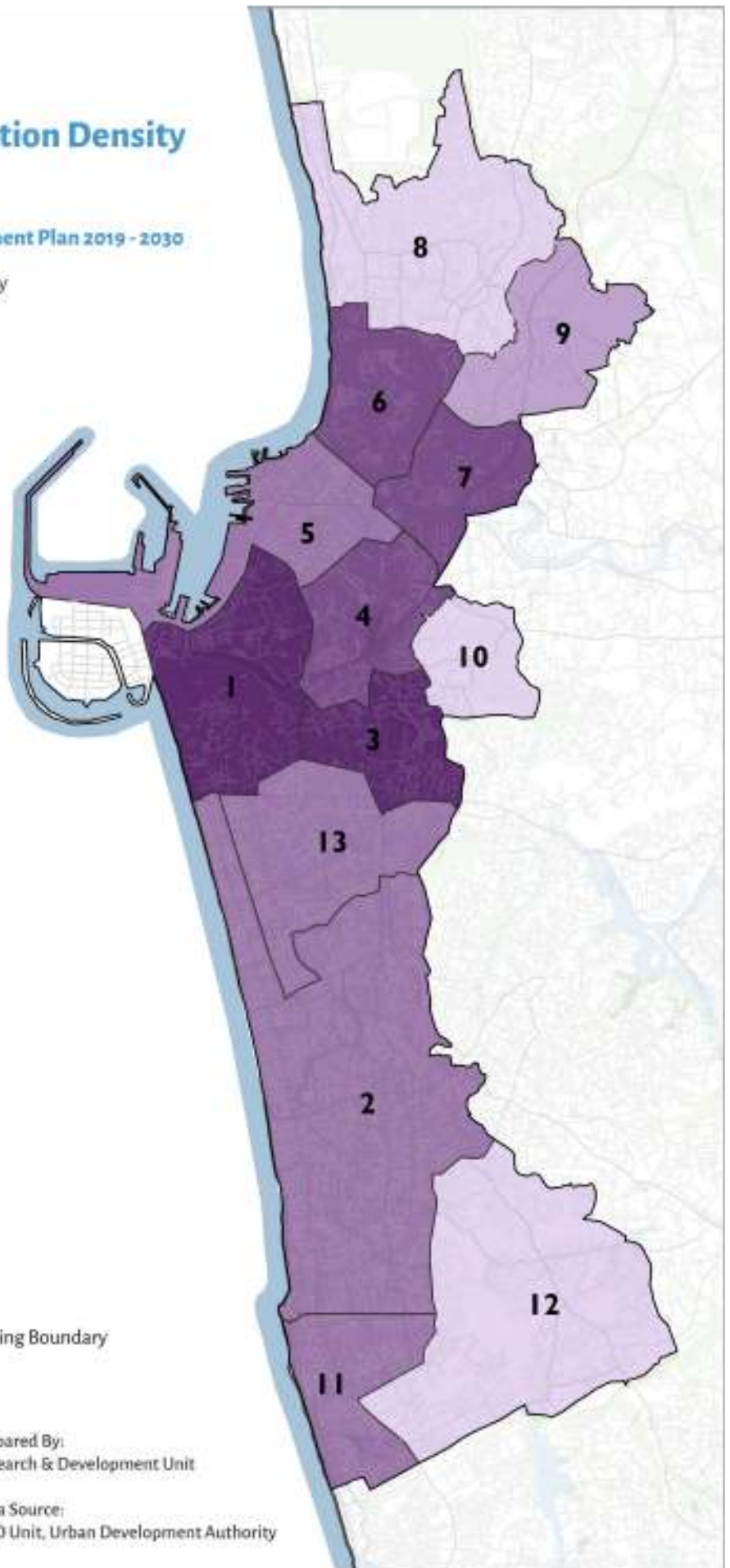
Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 8.2: Predicted Non-residential Population Distribution - 2030

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*Forecast of Future
Built Space*

8.2. Forecast of Future Built Space

Future developable space was predicted considering the space requirement to accommodate future forecasted resident and non-residential population. Accordingly, the forecasted total developable space including residential, commercial, supportive services and office space of each Character Zone are indicated in the Table 8.5.

Zone	Character	Residential Space	Economically Active Space and Services (m2)	Total Built Space 2030
Zone 1	Exclusive Premium Mixed Development	5,850,000	9,752,000	15,602,000
Zone 2	Premium Mixed Development	15,600,000	16,792,000	32,392,000
Zone 3	High Density Green Mixed Development	4,550,000	5,696,000	10,246,000
Zone 4	High Density Compact Mixed Development	5,850,000	5,232,000	11,082,000
Zone 5	Compact Logistics Development	3,250,000	3,720,000	6,970,000
Zone 6	High Density Residential	5,200,000	5,264,000	10,464,000
Zone 7	Transport Oriented Development	1,950,000	3,024,000	4,974,000
Zone 8	Moderate Density Residential - Wattala	5,850,000	2,392,000	8,242,000
Zone 9	Moderate Density Logistics Development	3,250,000	1,800,000	5,050,000
Zone 10	Moderate Density Residential - Kolonnawa	2,600,000	992,000	3,592,000

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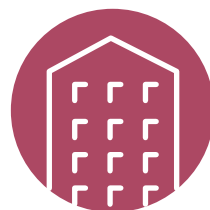
*Forecast of Future
Built Space*

Zone	Character	Residential Space	Economically Active Space and Services (m ²)	Total Built Space 2030
Zone 11	Moderate Density Residential - Ratmalana	3,900,000	3,248,000	7,148,000
Zone 12	Low Development Green Residential	4,550,000	2,776,000	7,326,000
Zone 13	Low Density Garden	2,600,000	4,112,000	6,712,000
	TOTAL	65,000,000	64,800,000	129,800,000

Table 8.5: Predicted Built Space Distribution - 2030



Chapter 09
Settlements
Development
Strategy



Promoting Colombo to be an Inclusive Home adored by all City Dwellers

A variety of Housing Choices ranging from High-rises to Garden Houses in High Quality Living Environments

Settlements Development Strategy

Introduction

Settlements and housing have been principal components of cities of all time and provisioning of adequate and affordable housing is a mandatory duty of any city development plan. Present Cities attract population in millions creating a high demand for quality housing and settlement facilities. The 11th Sustainable Development Goal; Sustainable Cities and Communities, carries a special focus on the provision of quality housing and making cities and human settlements inclusive, safe, resilient and sustainable.

Objective

One of the main objectives of the Settlements Development Strategy is to ensure affordable housing of high quality for all communities making Colombo Commercial City an inclusive city. The other major objective is to provide a range of housing choices in appropriate locations to address the housing requirements of various communities of Colombo Commercial City and to ensure overall facilitation of all types of settlements.

The records state that approximately 50% of population of Colombo Municipal Council reside in Underserved Settlements located in the northern and central parts of City of Colombo. On the other hand, there are approximately 850,000 population daily commuting to city for work and to obtain services. Assuming if at least a proportion of this population had access to housing within Colombo Commercial City, it would have avoided considerable amount of traffic influx to the city and

consequently would have saved considerable amount of energy, time and resources and reduced carbon emissions. Hence, provision of affordable housing has been considered as one of the major aspects of CCCDP – 2019-2030

Approach

The Settlements Development Strategy of CCCDP – 2019-2030 is composed of three broader interventions including overall area settlement facilitation, provision of middle-income and low-income housing in settlement promotion areas and management of underserved settlements. These interventions are proposed in line with the policy recommendations given in the National Housing Policy (Revision of January 2017). The settlements development Strategy of CCCDP – 2019-2030 adheres to the policy recommendation on urban housing given in National Housing Policy – 2025.

- Regulatory approach (including policies and regulations imposed by relevant state agencies)
- Direct interventions of state agencies
- Collaborative approach (including direct private investment & public-private partnerships)

Contribution towards the Vision & Goals of CCCDP – 2019-2030

The proposed Settlement Development Strategy contributes to achieve the Goal 03 - *The Smart, Smooth and Sensed Urban Space for all inhabitants* and its subsequent objectives as mentioned below.

- **Objective 04** – To have optimum utility of the existing and proposed infrastructure systems by 2025.
- **Objective 05** – To assure improved quality of lives of all communities and above minimum standards in physical quality of living environments of all citizens in *Colombo Commercial City* by 2030.

Scope

The planning framework of the Settlement Development Strategy includes:

- Identification of Settlement Promotion Areas based on residential suitability
- Strategic Interventions to facilitate identified settlement promotion areas (*provision of physical infrastructure, social infrastructure and public outdoor recreational spaces*)
- Strategic Projects, Recommendations and guidelines to manage underserved settlements

Chapter 09**Settlements****Development Strategy****Introducing Six****Settlement Promotion****Areas to cater future****residential demand**

9.1. Introducing Six Settlement Promotion Areas to cater future residential demand

Among the future proposed 13 character zones of *Colombo Commercial City*, six of them are considered to be residential prominent zones. Thus these six zones are designated as Settlement Promotion Areas and will be given special consideration in carrying out residential development and facilitation projects.

Zone No.	Settlement Promotion Areas	Respective Areas falling within the zone	Anticipated Residential Character
06	High Density Residential Zone	Mattakkuliya, Modara, Madampitiya	Special concentration area of High-rise residential apartments built for low-income communities of Colombo
08	Moderate Density Residential Zone I - Wattala	Hekitta, Kerawalapitiya, Dikovita and Part of Mabola	Middle- and high-income housing choices ranging from garden houses to luxury high/intermediate-rise residential apartments Considerable amount of high-rise residential apartments catering middle-income communities
10	Moderate Density Residential Zone II - Kolonnawa	Kolonnawa and Wellampitiya	
11	Moderate Density Residential Zone III - Ratmalana	Parts of Ratmalana and Mt-lavinia, Kaldemulla	
12	Moderate Density Green Residential Zone	Part of Ratmalana, Belekade Junction, Bakery Junction and Boralesgamuwa	Middle- and high-income housing choices ranging from garden houses to luxury intermediate/low-rise residential apartments
13	Low Density Garden Zone	Colombo 07 including Cinnamon Garden, Thimbirigasyaya	Housing choices ranging from garden houses to luxury low-rise residential apartments

Table 9.1 : Six Settlement Promotion Areas and anticipated Residential Character of each zone

Settlement Promotion Zones

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Settlement Promotion Zones

Zone Boundary

Zone 1 - Exclusive Premium Mixed Development

Zone 2 - Premium Mixed Development

Zone 3 - High Density Green Mixed Development

Zone 4 - High Density Compact Mixed Development

Zone 5 - Compact Logistics Development

Zone 6 - High Density Residential

Zone 7 - Central Transit based Development

Zone 8 - Moderate Density Residential - Wattala

Zone 9 - Moderate Density Logistics Development

Zone 10 - Moderate Density Residential - Kolonnawa

Zone 11 - Moderate Density Residential - Ratmalana

Zone 12 - Low Density Green Residential

Zone 13 - Low Density Garden

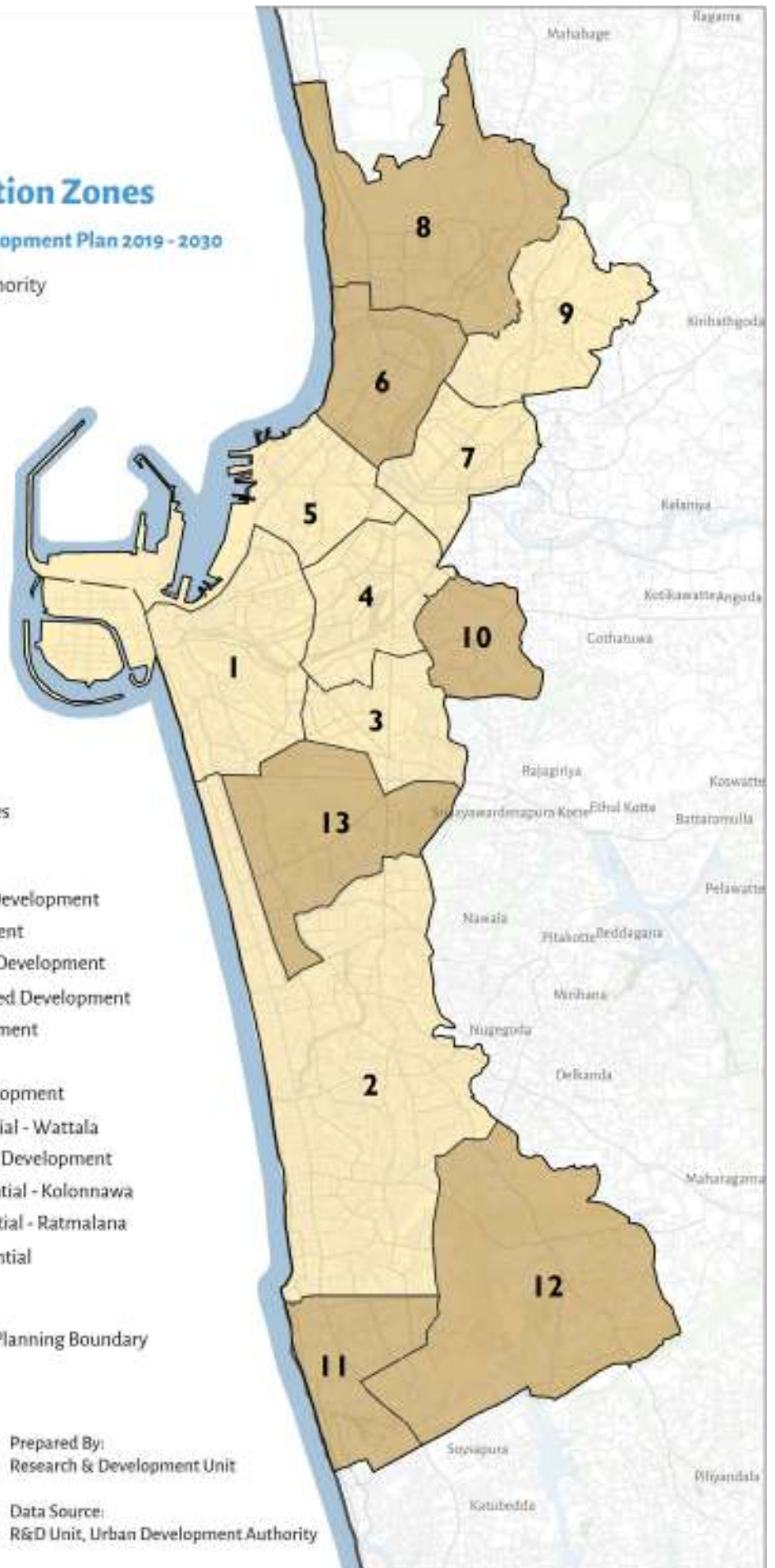
Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 9.1: Six Settlement Promotion Zones of Colombo Commercial City - 2030

Chapter 09**Settlements****Development Strategy****Introducing Six****Settlement Promotion****Areas to cater future****residential demand****Six Settlement Promotion****Areas – Justification****Special Housing Development****Projects within Colombo****Commercial City****9.1.1. Six Settlement Promotion Areas – Justification**

Identification of residential prominent zones/ settlement promotion areas was based on the determination of overall density zones and character zones as elaborated in the sections 5.1.2 and 5.2.2 respectively under the Spatial Development Strategy. The market trends in residential development and suitability for residential development in terms of availability of infrastructure were two main criteria considered for the identification of settlement promotion areas. The six settlement promotion areas fall into three broader density zones; high, moderate and low thus each area will have different residential activity densities based on the respective density classification.

9.1.2. Special Housing Development Projects within Colombo Commercial City (Project Code – S-1)

The following Housing Development Projects proposed by both Urban Development Authority under Urban Regeneration Project and through CCCDP – 2019-2030 and other stakeholder agencies have been incorporated into the CCCDP – 2019-2030 under Settlements Development Strategy – Action Project Type 01 with the Project Code – S-1.

a) Housing Development Projects undertaken by UDA (Project Code – E-2-1-2)

The current interventions of Urban Development Authority on the housing sector is through the Urban Regeneration Project (URP) which conducts intermediate-rise or high-rise residential apartments focusing on low-income to high-income earning communities. The main focus of URP is on construction of high-rise residential apartments to relocate low-income communities currently residing in underserved settlements within City of Colombo and its suburbs.

The ongoing and proposed low-income housing projects that are falling within the timeframe of CCCDP – 2019-2030 have been incorporated into the plan under Project Code – E-2-1-2 as one of the property development interventions under City Economics Development Strategy. The lists of low-income and middle-income housing projects are mentioned in the Table 7.6 and 7.7 under section 7.2.1 – (b) of City Economic Development Strategy of CCCDP – 2019-2030.

b) Housing Development Projects undertaken by other Stakeholder Agencies (Project Code – S-1-1)

The housing development projects undertaken by other relevant stakeholder agencies such as National Housing Development Authority and Urban Settlements Development Authority etc. within the limits of *Colombo Commercial City* are incorporated into CCCDP – 2019-2030 under the Project Code – S-1-1.

9.1.3. Facilitation of Settlement Promotion Areas

The following interventions are carried out to facilitate the identified Settlement Promotion Areas.

a) Improving Accessibility of and within identified Settlement Promotion Areas

It is proposed to improve the accessibility within Residential Promotion Areas by introducing more pedestrian friendly road networks. Also, it has been proposed to locate multimodal transport hubs, TOD centers and regular nodal developments in close proximity to identified Settlement Promotion Areas as mentioned in the Table 9.2. The relevant MMTH, TODs and Regular Nodal Developments are elaborated under the section 6.4 of Transport Development Strategy of CCCDP – 2019-2030.

No	Settlement Promotion Area	Main Transport Hub in Close Proximity
01	High Density Residential Zone	Pettah & Peliyagoda MMTH
02	Moderate Density Residential Zone I - Wattala	Peliyagoda MMTH & Hunupitiya Regular Nodal Development
03	Moderate Density Residential Zone II - Kolonnawa	Peliyagoda MMTH & Dematagoda TOD
04	Moderate Density Residential Zone III - Ratmalana	Ratmalana TOD
05	Moderate Density Green Residential Zone	Boralesgamuwa Regular Nodal Development
06	Low Density Garden Zone	Pettah MMTH

Table 9.2: Nodal Developments proposed in close proximity to identified Settlement Promotion Areas

Chapter 09 Settlements Development Strategy

Introducing Six Settlement Promotion Areas to cater future residential demand

*Special Housing Development
Projects within Colombo
Commercial City*

*Facilitation of Settlement
Promotion Areas*

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Facilitation of Settlement

Promotion Areas

b) Provision of more Public Open Spaces

It is proposed to provide more Public Open Spaces within identified Settlement Promotion Areas in order ensure that residents have access to adequate open spaces within the settlements. A detailed elaboration on all types of Public Open Spaces provided are given under the Public Outdoor Recreational Space Management Strategy of CCCDP – 2019-2030.

c) Provision of adequate infrastructure facilities

Availability of adequate infrastructure facilities such as pipe-borne water, electricity and sewerage and waste water management was considered as a main criterion in determining Settlement Promotion Areas. One of the main reasons to select Ratmalana and Boralesgamuwa as Settlement Promotion Areas was the availability of a sewerage and waste water management systems which are currently at an underutilized status in terms of their capacity usage.

In addition, it has been identified that provision of sewerage and waste water management systems is a mandatory requirement in the Settlement Promotion Areas; Moderate Density Residential Zone I – Wattala and Moderate Density Residential Zone II – Kolonnawa which are not currently being covered by any sewerage and waste water management system.

The demand forecast on pipe borne water supply, sewerage, solid waste and waste water disposal of each density zone including Settlement Promotion Areas are elaborated under the Utilities Management Strategy of CCCDP – 2019-2030.

9.2. Carrying out Overall Area Settlement Facilitation

The concept of human settlement is a combination of both social and physical components. A settlement is a combination of group of human and their habitat with all the infrastructure and the natural setting required to create a human settlement. It implies that when the settlement exceeds the threshold population in respect to the resources in a habitat, it causes many issues related to urban settlement. Therefore, settlements development should focus on empowering both social and physical components.

Major factors that have been highlighted by the specific targets under 11th Sustainable Development Goal are ensuring access for all to adequate, safe and affordable housing, having access to safe, affordable and sustainable transport systems and having sustainable settlement plan with more green and public spaces. The interventions under Overall Area Settlement Facilitation have been proposed in order to address these concern areas.

9.2.1. Identification of overall housing requirement to cater future demand

As per the population forecast, the future expected population distribution and corresponding housing requirement in each character zone are presented in the Table 9.3

Zone	Character	Population - 2030	Residential Space – 2030/ (m2)	No. of Houses
Zone 1	Exclusive Premium Mixed Development	117,000	5,850,000	29,250
Zone 2	Premium Mixed Development	312,000	15,600,000	78,000
Zone 3	High Density Green Mixed Development	91,000	4,550,000	22,750
Zone 4	High Density Compact Mixed Development	117,000	5,850,000	29,250
Zone 5	Compact Logistics Development	65,000	3,250,000	16,250

Chapter 09 Settlements Development Strategy

Carrying out Overall Area Settlement Facilitation

*Identification of overall
housing requirement to cater
future demand*

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**Carrying out Overall
Area Settlement
Facilitation**

*Identification of overall
housing requirement to cater
future demand*

Zone	Character	Population - 2030	Residential Space – 2030/ (m ²)	No. of Houses
Zone 6	High Density Residential	104,000	5,200,000	26,000
Zone 7	Transport Oriented Development	39,000	1,950,000	9,750
Zone 8	Moderate Density Residential - Wattala	117,000	5,850,000	29,250
Zone 9	Moderate Density Logistics Development	65,000	3,250,000	16,250
Zone 10	Moderate Density Residential - Kolonnawa	52,000	2,600,000	13,000
Zone 11	Moderate Density Residential - Ratmalana	78,000	3,900,000	19,500
Zone 12	Low Density Green Residential	91,000	4,550,000	22,750
Zone 13	Low Density Garden	52,000	2,600,000	13,000
	TOTAL	1,300,000	65,000,000	325,000

NOTE – No. of Housing Units has been calculated based considering average household size as 4 and average floor area of a housing unit as 200m²

Table 9.3 : Housing Requirement of each Character Zone of Colombo Commercial City - 2030

Residential Space Demand 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Percentage of Residential Space



Zone Boundary

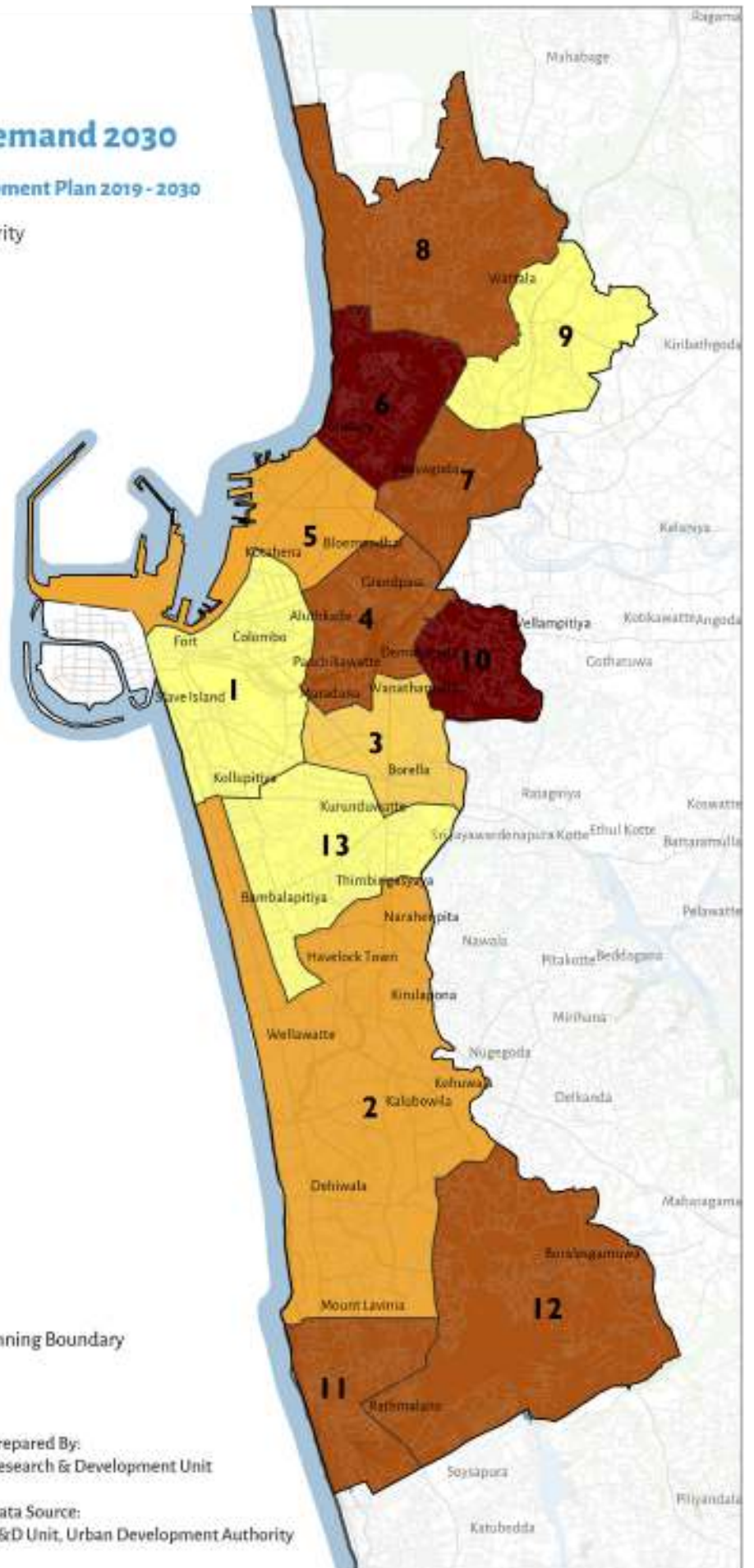
Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 9.2: Residential Space Demand in Colombo Commercial City - 2030

Chapter 09**Settlements****Development Strategy****Carrying out Overall****Area Settlement****Facilitation***Overall Area Settlement**Facilitation Interventions***9.2.2. Overall Area Settlement Facilitation Interventions**

In addition to the facilitation of identified Settlement Promotion Areas, following infrastructure facilities are provided covering entire *Colombo Commercial City* focusing on overall area settlement facilitation.

- **Improving the accessibility and mobility within Colombo Commercial City by;**
 - *Introducing new public transport modes such as LRT, Electrified Railway and Bus Priority Lane Systems and improving existing Rail and Road Network*
 - *Enabling easy transfer between different modes of transport by placing MMTHs, TOD Centers and Nodal Developments at strategic points and introducing Park & Ride Facilities (Detailed Elaborations are given under the Transport Development Strategy of CCCDP – 2019-2030)*
- **Ensuring the adequate availability of social infrastructure such as schools, hospitals, crematoriums and public markets. (Detailed Elaborations are given under the Utilities Management Strategy of CCCDP – 2019-2030)**
- **Provisioning of adequate Public Outdoor Recreational Spaces as to ensure that every child has access to a children's park within a radius of 500m and every citizen has access to a larger park within 1-2km radius**

9.3. Management of Underserved Settlements

As per the most recent survey on underserved settlements conducted by UDA in 2011, approximately 53% of population of City of Colombo lives in underserved settlements under poor living conditions such as 41% of settlements having common toilets, 8% without toilets, 28% having serious issues regarding disposal of sewage and 50% not having connected to the city's sewer network. On the other hand, most of these underserved settlements are located in prime locations of *Colombo Commercial City* especially along the river, canal and coast reservations, and this has led to serious negative environmental and economic repercussions as elaborated in the Chapter 03 of Volume I of CCCDP – 2019-2030.

In this context, CCCDP – 2019-2030 aims to provide sustainable solutions to the issues related to existence of underserved settlements by adopting two main approaches such as relocation and re-design/ redevelopment interventions as appropriate for the specific situations. It is expected that these interventions would contribute to achieve the objective of CCCDP – 2019-2030; assuring improved quality of lives of all communities and above minimum standards in physical quality of living environments of all citizens in *Colombo Commercial City* by 2030.

The application of relocation and re-design/ redevelopment interventions on be carried out under following criterion based on the type and character of the underserved settlement.

No	Type / Character of Underserved Settlements	Recommended Intervention
01	Shanties (Any settlement that can be categorized as a 'Shanty' based on the definitions given in Table 9.5)	Relocation
02	Slums located in the reservations of coast, inland water bodies, marshes, railway and any other type of declared reservations and slums located adjacent to water bodies	Relocation
03	Unauthorized Slums (USS households who do not have freehold land rights)	Relocation
04	Slums where households have freehold rights to the land	Redesign/ Redevelopment

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**Management of
Underserved Settlements**

No	Type / Character of Underserved Settlements	Recommended Intervention
05	Underserved settlements which have a locational attachment to the livelihood/ culture of majority of settlement dwellers	Redesign/ Redevelopment
06	Low-income community flats which are in poor condition	Redesign/ Redevelopment

Table 9.4: Recommended interventions for different types of underserved settlements

Term	Definition
Slum	‘Slum’ refers to old tenement buildings built for influxes of migrant labor to the city mostly in the 1930s. In the local language this type of settlement arrangement is called mudukku. People who live these types of houses do not like to call their houses by the official name or popular local term. They usually call these houses ‘row houses’ (peli gewal)
Shanty	The collection of small, single-unit improvised structures constructed with nondurable materials on vacant land throughout the city are shanties. Shanties illegally occupy state or private lands, usually with no regular water, sanitation or electricity supply, the majorities are built on land subject to frequent flooding. In local language this type of settlement arrangement is called pelpath. This term reflects a group of people who live in more difficult conditions and greater poverty than “mudukku” or slums according to the common usage.

Table 9.5: Definitions of terms ‘Slum’ & ‘Shanty’

Source: The Policy Paper on Slum and Shanty Upgrading in Colombo prepared by the Slums and Shanty Division of Urban Development Authority of Ministry of Local Government, Housing and Construction in 1979

9.3.1. Relocation of Underserved Settlements (Project Code – S-2)

All types of underserved settlement community relocation projects that will be carried out within the *Colombo Commercial City* will be aligned under Settlements Development Strategy – Action Project Type 02 with the Project Code – S-2.

It is recommended to adopt following model approaches as applicable for underserved settlement community relocation projects.

a) Public Private Partnership (PPP) Model

Land is handed over to a developer, who in return receives additional Floor Space Index (FSI) to build both market rate housing for sale & rehabilitation housing for slum dwellers.

b) On-site Relocation (In-situ development)

The implementing agency would provide a temporary accommodation for slum-dwellers until construction is completed. Then, beneficiaries will be moved back onto their original land, into improved housing with better amenities.

c) Participatory Slum Upgrading Program (PSUP)

Strengthening the capacity of local, central and regional institutions and key stakeholders' in settlement and slum improvement through the use of good governance and management approaches, pilot projects and contributing, where needed, to the policy development, and the implementation of institutional, legislative, financial, and normative and implementation frameworks.

The settlements which have been identified to be relocated under the Urban Regeneration Project of UDA are shown in the Figure 9.1.

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Management of

Underserved Settlements

*Redesign/ Redevelopment of
Underserved Settlements*

9.3.2. Redesign/ Redevelopment of Underserved Settlements (Project Code – S-3)

All types of underserved settlement redesign/redevelopment projects that will be carried out within the *Colombo Commercial City* will be aligned under Settlements Development Strategy – Action Project Type 02 with the Project Code – S-3.

It is recommended to adopt following guidelines under Place Based Approach as applicable for underserved settlement redesign/ redevelopment interventions.

- ***Place based approach***

Proposed Redesign & Maintenance Actions:

- Installing or improving basic infrastructure
- Removal or mitigation of environmental hazards
- Providing incentives for community management and maintenance
- Constructing or rehabilitating community facilities such as nurseries, health posts, community open space
- Regularizing security of tenure
- Home improvement
- Relocation/compensation for the small number of residents dislocated by the improvements
- Improving access to health care and education as well as social support programs to address issues of security, violence, among others
- Enhancement of income-earning opportunities through training and micro-credit

Underserved Settlements

Legend

- Underserved Settlements
- Colombo Commercial City Planning Boundary

0 0.75 1.5 3 Km

Data Source: Urban Regeneration Project, UDA

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Chapter 10

*Utilities Management
Strategy*

Chapter 10
***Utilities
Management
Strategy***



Enriching the City with upgraded Utility Services

**Efficient Networks of Utility Services running
through Every Corner of the City**

Utilities Management Strategy

Introduction

Well managed effective utilities network is a key component of a city that enables its efficiency functioning. It is important to have holistic and integrated solutions for city utilities management to ensure wise-resource management, energy conservation and equal access to infrastructure. Identification of demand and ensuring the adequate supply to match with the demand are basic functions of effective utilities management. The reason why a Utilities Management Plan should be combined with the City Development Plan is because it is necessary to ensure that all types of utilities and infrastructure are adequately supplied to meet the future demand that would be created consequent the anticipated developments which are being induced and facilitated through the Plan.

Objective

The objective of Utilities Management Strategy of CCCDP – 2019-2030 is to provide Colombo Commercial City with efficient utilities networks and adequate social infrastructure to facilitate all residents and commuters of Colombo Commercial City and to ensure smooth functioning of socio-economic and socio-political functions of the city.

Approach

Utilities Management Strategy of CCCDP – 2019-2030 is proposed to be implemented through following main approaches.

- **Regulatory approach** (*Including recommendation and guidelines*)
- **Direct interventions of state agencies**

Recommendations and guidelines to provide and improve utilities are based on future forecasting of demand to match with the future predicted population.

Contribution towards the Vision & Goals of CCCDP – 2019-2030

In the path of making “Colombo to be experienced as the Smart, Vibrant and Tropical Water Garden City of South Asia” the city should be provided with modern and adequate utilities and infrastructure facilities to cater all its owners; inhabitants, commuters and tourists.

Utilities Management Strategy contributes to achieve the **Goal 03** – ‘*The Smart, Smooth and Sensed Urban Space for all inhabitants*’ and its subsequent objectives;

- **Objective 04** – To have optimum utility of the existing and proposed infrastructure systems by 2025
- **Objective 06** – To have an urban environment with state-of-the-art utilities and smart facilities enjoyable by all residents and commuters of *Colombo Commercial City* by 2030.

Scope

In order to fulfill the above mentioned two objectives related to utilities management of Colombo Commercial City, three types of broader interventions are made.

- Ensuring efficient supply of utilities such as pipe-borne water and electricity
- Effective management of waste water, solid-waste and storm water
- Provision of adequate social infrastructure and smart public facilities to create convenient nodes, streets and public places.

The Utilities Management Strategy is delivered in the form of recommendations in order to guide the relevant stakeholder agencies to conduct detailed level planning on each above infrastructure facilities as to match with the anticipated future developments of Colombo Commercial City.

Chapter 10

Utilities Management Strategy

Utilities Management Strategy

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Strategy

**Efficient Supply of
Utilities**

Pipe-borne Water Supply

10.1. Efficient Supply of Utilities (Project Code – U-1)

Supply of Pipe-borne water and electricity and management of wastewater & sewerage, solid waste and storm water are the key focus areas considered under the broader intervention of efficient supply of utilities. All projects falling within the above focus areas are aligned under the Utilities Management Strategy – Action Project Type – 01 with the project code – U-1.

10.1.1. Pipe-borne Water Supply (Project Code – U-1-1)

The pipe-borne water supply within *Colombo Commercial City* is owned and managed by National Water Supply and Drainage Board of Sri Lanka under the Western Province Metropolitan Area Water Supply Master Plan – 2013 which covers Colombo District and parts of Gampaha and Kalutara Districts. The mainly used surface water sources of the existing system are:

- Labugama and Kalatuwawa impounding reservoirs
- Kelani River and its tributary Seethawaka
- Kalu River and tributary Kuda River

The Kelani River is an important source of drinking water for Colombo District. The Labugama and Kalatuwawa reservoirs are situated around 39 km from Colombo City and, at the border of Colombo and Ratnapura Districts.

a) Pipe-borne water demand

Colombo Municipal Council area has a high pipe-borne water demand compared to the other local authorities. It has estimated that the normal daily water consumption is considered to be 300,000 m³/d including Non-Revenue Water. Ambatale water treatment plant is the main water supplier plant for CMC area.

According to the Western Province Metropolitan Area Water Supply Master Plan (2013), projected water demand of *Colombo Commercial City* is 614,173 m³/d whereas as per the population predictions of CCCDP – 2019-2030, pipe-borne water demand of *Colombo Commercial City* is 551,900 m³/d. The Local Authority wise projected pipe-borne water demand distribution of 2030 as per the population predictions of CCCDP – 2019-2030 is shown in the Table 10.2 and Map 10.1.

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Utilities Management Strategy

Efficient Supply of Utilities

Pipe-borne Water Supply

Local Authority	2030 - Population	2030 – Water Demand (m ³ /day)
Colombo MC	687,015	361,570
Dehiwala Mt-lavinia MC	226,155	85,379
Boralesgamuwa	72,595	18,151
Kolonnawa	80,951	20,906
Peliyagoda	35,825	13,323
Wattala Mabola UC	36,811	14,180
Wattala PS	191,242	59,244
Kelaniya PS	143,143	41,420
	1,473,737	614,173

Table 10.1 : Water Demand Predictions – 2030 by NWSDB

Source : Western Province Metropolitan Area Water Supply Master Plan, NWSDB - 2013

Local Authority	2030 - Population	2030 – Water Demand (m ³ /day)
Boralesgamuwa UC	93,794	23,448
CMC	639,410	338,888
Dehiwala-Mt. Lav inia MC	286,424	108,841
Kelaniya PS	79,674	23,106
Kolonnawa UC	65,555	17,044
Peliyagoda UC	31,265	11,568
Wattala Mabola UC	38,324	14,946
Wattala PS	65,555	20,322
TOTAL	1,300,000	558,163

NOTE – Pipe-borne water demand of Colombo Commercial City was calculated for the predicted population of CCCDP – 2019-2030 based on the assumption that Residential Water Demand Per Person Per Day (lpcd) varies in the range from 120 liters to 135 liters from low density to high density development respectively.

Table 10.2 : Water Demand Predictions – 2030 (As to match with the forecasted population of CCCDP – 2019-2030)

Pipe-borne Water Demand 2030

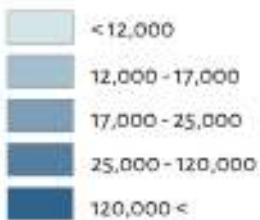
Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Water Demand 2030 (m³/d)



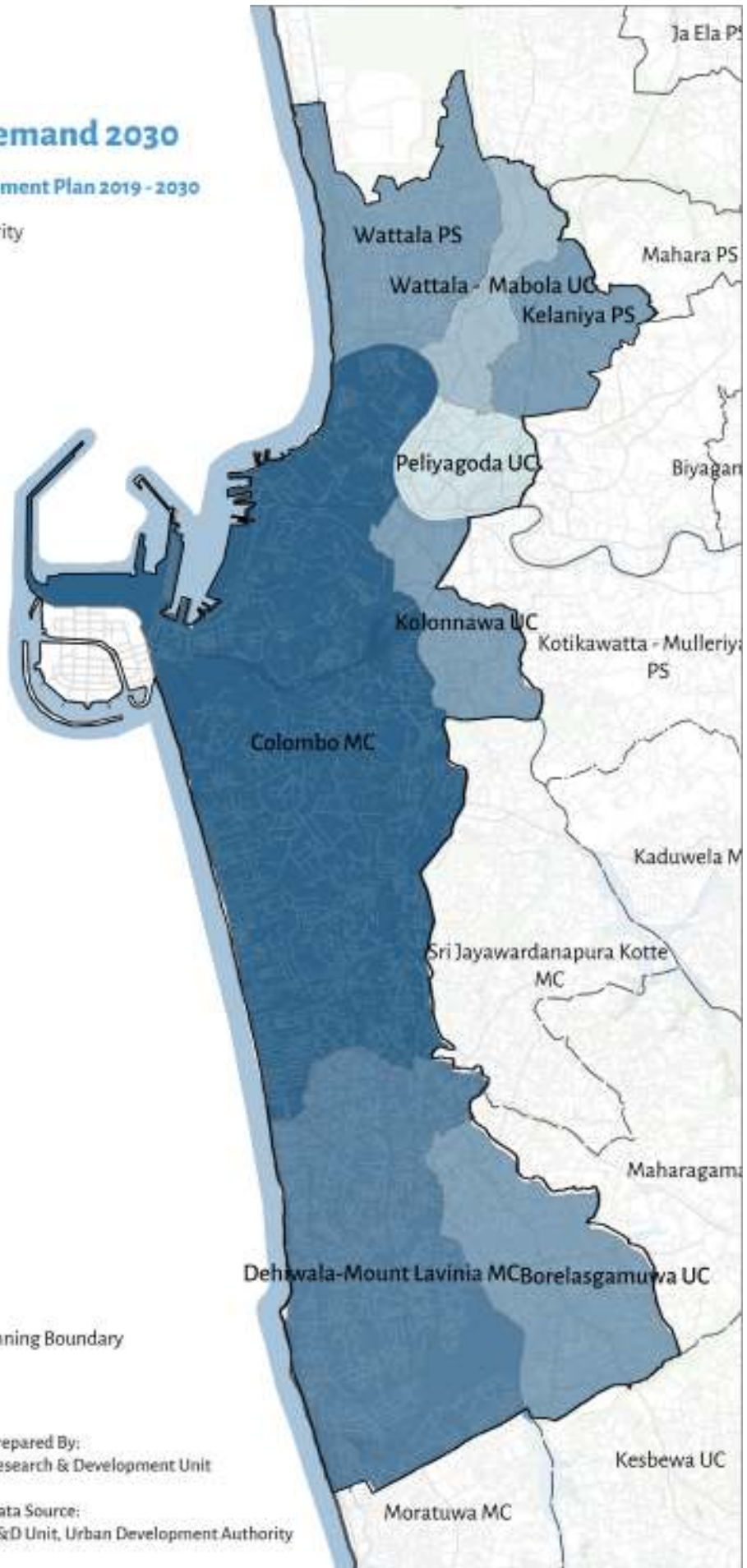
- Local Authority Boundary
- Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 10.1 : Pipe-borne Water Demand Distribution— 2030 (As to match with the forecasted population of CCCDP—2019-2030)

b) Incorporating Water Supply Improvement Projects proposed by relevant stakeholders (Project Code – U-1-1)

Western Province Metropolitan Area Water Supply Master Plan Update (MPU/2013) serves as the 'blue print' to guide future developments of water supply system of Western Province. It proposes water supply improvement projects which would improve availability and quality of water resources, increase treatment plant capacities, reduce energy consumption in the Western Province Metropolitan Area Transmission Systems reduce water loss in the distribution networks and increase their service levels in order to meet the water demand of western region up to 2040. The Master Plan proposes the implementation of its projects over three main phases such as immediate (2013-20), intermediate (2020-30) and ultimate (2030-40).

As per the demand calculations given in the Section 10.1.1 - (a), it can be identified that the projected water demand by Water Supply Master Plan is higher than the water demand projected by CCCDP. As per the recommendations of NWSDB, it is a mandatory requirement to implement the identified water supply projects of Water Supply Master Plan in order to meet the water supply demand forecasted for 2040. However, since the water supply demand projected by CCCDP is comparatively lower than the demand projected by Water Supply Master Plan, it can be assumed that the water demand which will be created due to the induced developments by CCCDP will be met without major issues if the identified water supply projects are implemented without any disturbances. Hence, CCCDP – 2019-2030 designates the recommended Water Supply Projects of Western Province Metropolitan Area Water Supply Master Plan Update (MPU/2013) which directly or indirectly contribute to the water supply of *Colombo Commercial City* as high priority projects and incorporate them into CCCDP – 2019-2030 under the Project Code – U-1-1.

Few of the identified water supply projects which are related to the water supply system of *Colombo Commercial City* as proposed by National Water Supply & Drainage Board are indicated in the Table 10.3.

No	Water Supply Project
01	Development of reservoir in Kelani River
02	Weliwita Water Supply Project
03	Kalu Ganga Water Supply Project – Phase II
04	Kandana Phase II WTP Improvement
05	Kethhena WTP Improvement

Table 10.3: Few of the Water Supply Projects related to the Water Supply System of Colombo Commercial City as proposed by of MPU/2013

Source: Western Province Metropolitan Area Water Supply Master Plan, NWSDB - 2013

Chapter 10 Utilities Management Strategy

Efficient Supply of Utilities

Pipe-borne Water Supply

Chapter 10**Utilities Management
Strategy****Efficient Supply of
Utilities****Electricity Supply****10.1.2. Electricity Supply (Project Code U-1-2)**

Colombo Commercial City has 100% coverage of electricity throughout the city and it is supplied from the national grid. There are few power plants located within the Western Region, that are mainly concentrated in Colombo Metropolitan Region, namely Kelanitissa, Sapugaskanda and Kerawalapitiya. The existing electricity demand of *Colombo Commercial City* is around 1,165 MW and 4,822 GWh. As per the recommendations of Ceylon Electricity Board, the supply of electricity to cater the future demand that will be resulted due to increased population and future developments induced by the interventions of **CCCDP – 2019-2030** is possible given the condition that necessary local area network capacity improvements are conducted in appropriate timeframes. Hence, **CCCDP – 2019-2030** recommends immediate attention of necessary stakeholders including Ceylon Electricity Board to identify necessary electricity supply improvement projects in order to ensure adequate supply to meet the electricity demand that will be resulted due to increased population and future developments induced by the interventions of **CCCDP**. Any such electricity supply improvement project that would directly or indirectly contribute to the electricity supply of *Colombo Commercial City* are incorporated into **CCCDP – 2019-2030** under the project code U-1-2.

In addition, it is proposed to install underground electricity network throughout Colombo commercial City to facilitate future convenient operational management. Colombo Commercial City is envisioned to have a considerably large green coverage including tree lines along the streets. In this regard, having on ground electricity poles and lines disturbs the continuity of tree lines and also acts as a visual barrier to the anticipated city aesthetics and architecture.

Therefore, it is recommended to install underground electricity network in highly densified areas, priority nodes such as Peliyagoda and identified water esplanades in the first phase and expand the network to the entire Colombo Commercial City in the second phase.

10.1.3. Wastewater & Sewerage Management (Project Code – U-1-3)

Wastewater systems of *Colombo Commercial City* are owned and managed by the National Water Supply and Drainage Board (NWSDB) and relevant local authorities. The two main wastewater systems currently in operation within *Colombo Commercial City* are Colombo Municipal Council Sewerage System (CMCSS) and Ratmalana Wastewater Management System. In the present context, the Colombo Sewerage System owned and operated by CMC is experiencing many failures due to exceeding of its capacities thus need immediate attention to avoid possible sudden failures of the system threatening public health, safety and city economy. In response to this requirement, Greater Colombo Wastewater Management Project has been proposed by the NWSDB in order to manage the increasing wastewater generation within Colombo Municipal Council Area. Ratmalana Wastewater System which is owned and managed by the NWSDB covers a part of DMMC, part of Moratuwa MC, Boralessgamuwa UC (Proposed), a part of Maharagama UC (Proposed). The plant capacity is 17000 (m³ per day) and its existing usage is 7000 (m³ per day).

a) Future Forecast of Wastewater Generation

In order to manage the increased wastewater generation that will be resulted consequent to the induced high density developments of CCCDP – 2019-2030, it is important to have an efficient wastewater system within *Colombo Commercial City*. In the present context, the available wastewater management systems do not cover the entire *Colombo Commercial City* and also lack the adequate capacities to meet the existing demand. According to wastewater generation statistics of 2017, wastewater management capacity of both existing and proposed wastewater treatment plants is 225,000 m³/d whereas the projected wastewater generation of 2030 is 442,000 m³/d. It emphasizes that there is a high deficiency in existing wastewater management capacities and future demands. Compared to the projected wastewater generation, the missing wastewater management capacity is about 280,000 m³/d.

The capacities of existing and proposed wastewater treatment plants are indicated in the Table 10.4.

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Efficient Supply of Utilities

Wastewater & Sewerage Management

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Strategy****Efficient Supply of
Utilities****Wastewater & Sewerage
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Capacity of Proposed Greater Colombo Wastewater Management Project (GCWMP)	200,000 m ³ per day
Population that will served by GCWMP	838,000
Capacity of Proposed Ratmalana – Boralesgamuwa Wastewater Management Project (RBWMP)	17,000 m ³ per day
Population that will served by RBWMP	71,000
Total population that will be served by both proposed WMP	909,000
Predicted Total Population of Colombo Commercial City - 2030	1,288, 000
Percentage Population that will be served by proposed WMP	70%

Table 10.4 : Forecasted Waste Water Generation within Colombo Commercial City - 2030

The Local Authority wise predicted wastewater generation of 2030 is shown in the Table 10.5 and Map 10.2.

Local Authority	2030 - Population	2030 – Waste Water Generation (m ³ /day)
Boralesgamuwa UC	93,794	20,389
CMC	639,410	166,302
Dehiwala-Mt. Lavinia MC	286,424	54,589
Kelaniya PS	79,674	15,333
Kolonnawa UC	65,555	11,662
Peliyagoda UC	31,265	6,205
Wattala Mabola UC	38,324	7,413
Wattala PS	65,555	11,393
TOTAL	1,300,000	293,286

Table 10.5 : Waste Water Generation – 2030 (As to match with the forecasted population of CCCDP – 2019-2030)

Waste Water Generation 2030

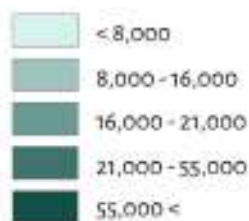
Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Waste Water Generation 2030 (m³/d)



Local Authority Boundary

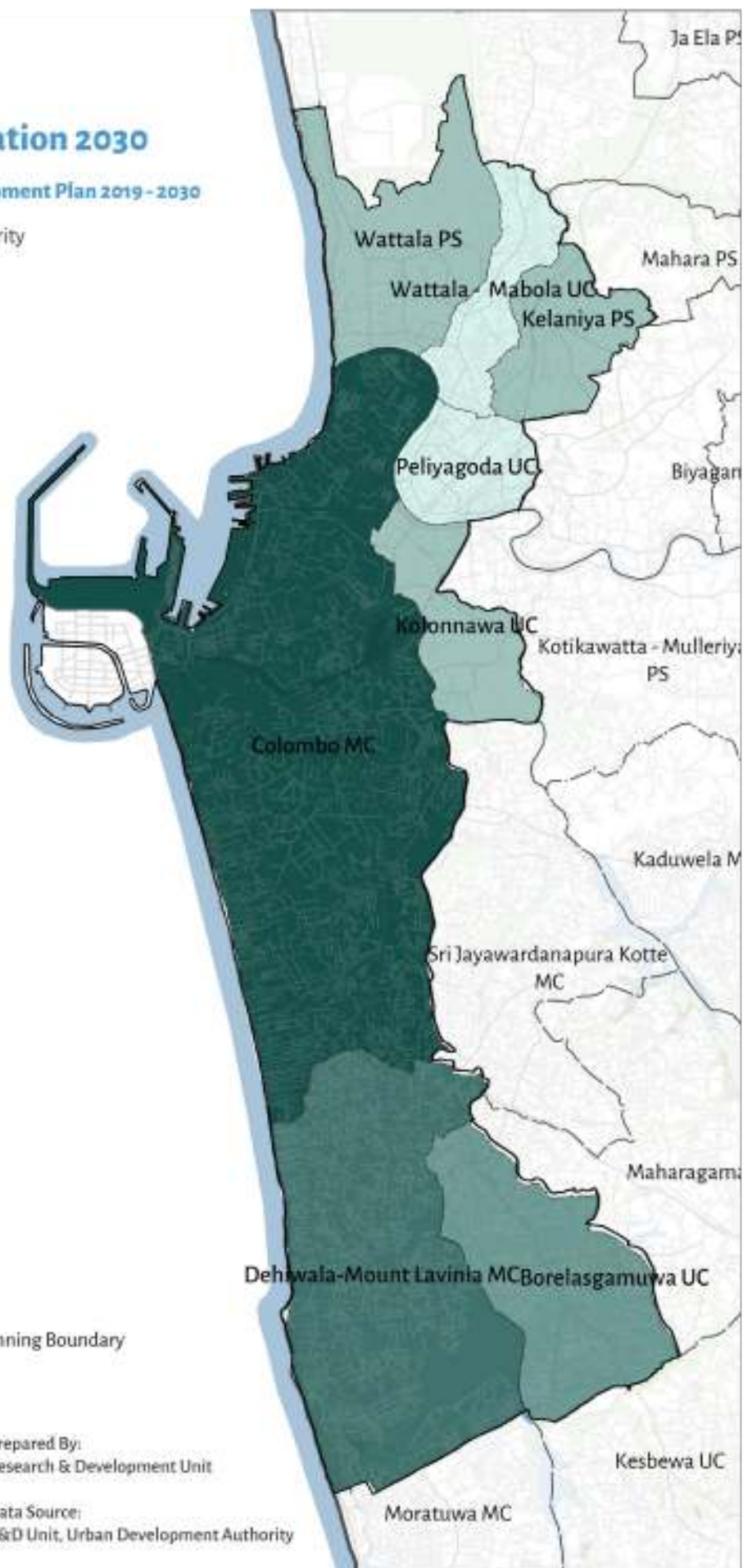
Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 10.2: Waste Water Generation – 2030 (As to match with the forecasted population of CCCDP – 2019-2030)

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**Efficient Supply of
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**Wastewater & Sewerage
Management**

b) Incorporating Wastewater Management Projects proposed by relevant stakeholders (Project Code – U-1-3)

Even though Table 10.4 indicates that approximately 70% of *Colombo Commercial City* will be served by the proposed wastewater management systems, these systems do not adequately cover the areas such as Wattala, Peliyagoda, Kolonnawa and parts of Kelaniya in which considerably high wastewater generation can be expected due to induced developments of CCCDP. Hence, CCCDP – 2019-2030 recommends that there is an immediate requirement to identify wastewater management projects by relevant stakeholder agencies to handle the wastewater generation that can be expected due to the induced developments of CCCDP. Any such wastewater management project that would contribute to wastewater management of *Colombo Commercial City* are incorporated into CCCDP – 2019-2030 under the project code U-1-3.

The ongoing Wastewater Management Projects are indicated in the Table 10.6.

No	Waste Water Management Project	Project Code
01	Greater Colombo Wastewater Management Project	U-1-3-1
02	Ratmalana – Boralesgamuwa Wastewater Management Project	U-1-3-2

Table 10.6: Ongoing waste water management projects within Colombo Commercial City - 2030

Under the Greater Colombo Wastewater Management Project, it is expected to improve the existing sewerage system of CMC by installing of a wastewater treatment plant with the capacity of 2000 million liters per day (MLD). It is expected that the improved wastewater management services serve approximately up to 838,000 residents within the project area.

Under the Boralesgamuwa and Maharagama area wastewater project, it is expected to install a wastewater treatment plant with a capacity of 6675 (m³ per day) with 6270 domestic connections and 551 non-domestic connections.

10.1.4. Solid Waste Management (Project Code – U-1-4)

Disposal of solid waste has become a national concern in Sri Lanka. Rapid urbanization has led to the generation of large quantities of solid waste without proper management or sustainable waste disposal measures. Households, markets and commercial places industries, institutions and hospitals, and hotels are the main sources of solid waste generation. Due to plurality of solid waste generation sources, western region and most of the adjacent local authorities face the problem of waste collection and management. Serious issues has arisen especially in finding the locations and establishing the solid waste plants. Against this backdrop, presently Central Environment Authority, National Solid Waste Management Support Center, Waste Management Authority of Western Province and relevant other institutions are taking several actions to minimize these issues.

According to the Table 10.7 Colombo and Dehiwala Municipal Councils are the foremost solid waste generating local authorities exist within the planning area.

Local Authority	Population	Floating Population	Waste Generation (MT)	Present Waste Collection (MT/D)
Colombo MC	555,031	600,000	900	765
Peliyagoda UC	27,392	15,000	21	13.5
Wattala PS	156,050	120,00	50	27.5
Wattala UC	30,917	15,500	28	20
Boralesgamuwa UC	813,78	80,000	56	34
Dehiwala MC	209,943	147000	286	155
Kolonnawa UC	57,285	10,000	40	32
Total	1,036,618	867,500	1,381	1,047

Table 10.7: Local Authority wise Waste Water Generation - 2018

Source: Waste Management Authority of Western Province

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Strategy****Efficient Supply of
Utilities****Solid Waste Management****a) Future Forecast of Solid Waste Generation**

Due to high solid waste generation, existing capacities of sites are becoming inadequate. Existing capacities of Karadiyana and Kerawalapitiya dumping sites are 500 MT per day. The projected solid waste generation calculated based on the population predictions of CCCDP- 2019-2030 is 1500MT per day. The Local Authority wise solid waste generation is shown in the Table 10.84 and Map 10.3.

Local Authority	2030 - Population	2030 – Waste Water Generation (m3/day)
Boralesgamuwa UC	93,794	43
CMC	639,410	1,021
Dehiwala-Mt. Lavinia MC	286,424	341
Kelaniya PS	79,674	28
Kolonnawa UC	65,555	31
Peliyagoda UC	31,265	20
Wattala Mabola UC	38,324	22
Wattala PS	65,555	21
TOTAL	1,300,000	1,527

Table 10.8 : Solid Waste Generation – 2030 (As to match with the forecasted population of CCCDP – 2019-2030)

Solid Waste Generation 2030

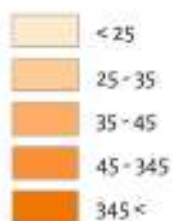
Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Solid Waste Generation 2030 (MT/d)



Local Authority Boundary

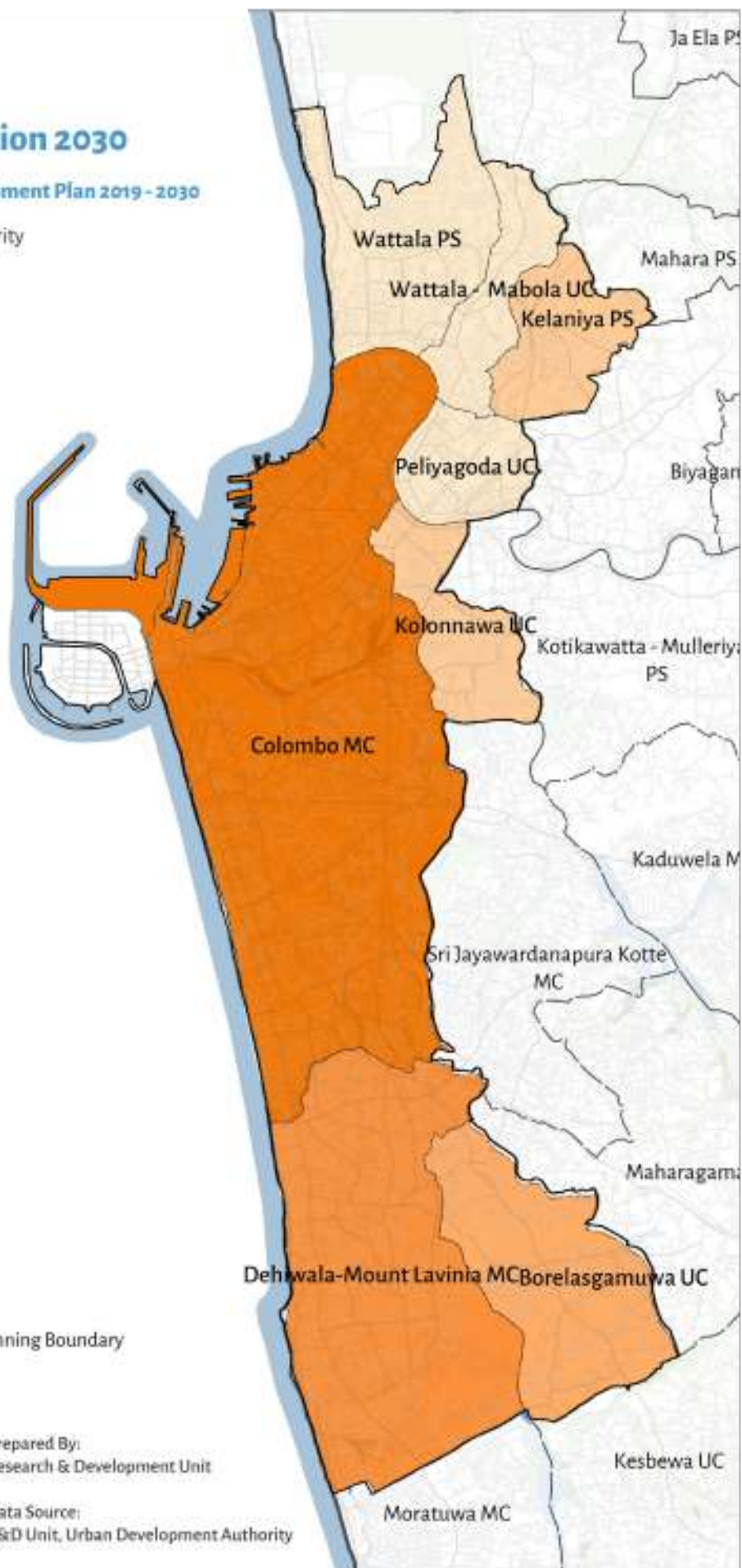
Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Map 10.3: Solid Waste Generation – 2030 (As to match with the forecasted population of CCCDP – 2019-2030)

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Solid Waste Management

(b) Incorporating Solid Waste Management Projects proposed by relevant stakeholders (Project Code – U-1-4)

Ministry of megapolis has initiated different projects to solve the solid waste problems. Waste to Energy project is one of the key projects that is proposed to be implemented. Under this project waste dumped in Karadiyana and Kerawalapitiya sites will be used to generate energy. Accordingly, waste collected from Dehiwala – Mt. Lavinia, Moratuwa, Maharagama, Boralesgamuwa, Kesbewa, Piliyandala, Homagama local authorities will be used to generate energy. In addition, a new project has been proposed by the Ministry of Megapolis & Western Development to Transfer of Solid Waste to Aruwakkaru Sanitary Landfill Site at Puttlam.

The Solid Waste Management Projects undertaken by relevant stakeholders within *Colombo Commercial City* are incorporated into CCCDP – 2019-2030 under the Project Code – U-1-4.

No.	Project Name	Implementation Agency	Project Code
01	Kerawalapitiya Waste to Energy Project (500Mt to 10MW)	Western Power (Pvt) Ltd	U-1-4-1
02	Karadiyana Waste to Energy Project (500Mt to 10MW)	Fairway Holdings (Pvt) Ltd	U-1-4-2
03	Transfer of Solid Waste to Aruwakkaru Sanitary Landfill Site at Puttlam	Ministry of Megapolis & Western Development	U-1-4-3

Table 10.9: Proposed Solid Waste Management Projects that will be incorporated into CCCDP – 2019-2030

10.1.5. Introducing Underground Utility Ducts (Project Code – U-1-5)

CCCDP – 2019-2030 identifies the importance of introducing Underground Utility Ducts in order to carry utility lines such as electricity cables, water supply and wastewater pipelines and communication utilities such as fiber optics and telephone cables. There are many advantages of underground utility ducts as they cut down unnecessary costs on digging and reconstruction of roads and pathways for the repairs and management of individually buried different utility lines,

avoid unnecessary visual and physical disturbances on road which downgrade the city image, enable easy and efficient management of utility networks and more importantly ensure public safety.

Hence, CCCDP – 2019-2030 recommends Installing of Underground Utility Ducts (Project Code – U-1-5) as a high priority project which needs to be implemented parallel to the road improvement projects that will be carried out under the project code T-1 of CCCDP – 2019-2030.

10.2. Provision of Adequate Social Infrastructure (Project Code U-2)

Provision of social infrastructure is essential in ensuring social development of a community in a city. It ensures the inclusiveness of diverse communities uplifting their quality of life. Therefore, provision of adequate social infrastructure to cater the demand is vital in a development plan.

Colombo City being the country's most demanding city for education, health, sports and recreation facilities has the best social infrastructure facilities compared to the rest of the country. Being the commercial capital of the country, it attracts a huge population flow to the city. However, it was identified in the problem identification as explained in the Volume I of CCCDP – 2019-2030 that *Colombo Commercial City* has become less user friendly due to lack of some of the vital social infrastructure. In addition, the intention of this section is to evaluate whether *Colombo Commercial City* has adequate social infrastructure of all kind to supply for the future increasing demands.

Consequently, in the path of making “Colombo to be experienced as the Smart, Vibrant and Tropical Water Garden City of South Asia” the city should be provided with modern and adequate social infrastructure facilities to cater all its owners; inhabitants, commuters and tourists.

Colombo Commercial City Development Plan 2019-2030 ensures provision of adequate social infrastructure facilities such as education, health, public markets, sports and recreation facilities, public burial spaces, public sanitary facilities, information centers and public seating areas to ensure more inclusive, comfortable, user friendly city.

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Efficient Supply of Utilities

Introducing Underground Utility Ducts

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Strategy

**Provision of Adequate
Social Infrastructure**

Educational Institutions

10.2.1. Educational Institutions

Education being a fundamental right of every child in Sri Lanka, the State should take responsibility of making education available for all ensuring equity and giving leadership to all providers of school education and State should ensure free education from kindergarten to university and compulsory education to all children aged 5-16 years making it available, accessible, acceptable and adaptable for them (New Education Act for General Education in Sri Lanka, Ministry of Education).

Colombo city is one of the most demanding city for education as it provides various education facilities in primary, secondary and tertiary education sectors. National schools, Provincial schools, Private schools, International schools, Universities, Vocational Training Institutes and other educational institutes have created enormous demand for education within the city.



Figure 10.1 : Distribution of Schools within Colombo Commercial City - 2018

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Utilities Management Strategy

Provision of Adequate Social Infrastructure

Educational Institutions



Figure 10.2: Distribution of Higher Education Institutes within Colombo Commercial City - 2018

Literacy rate of Colombo District is 98% which is the highest literacy rate in the country whereas the country's literacy rate is 95.7 (Census and Statistics Department, 2012) and world literacy rate is 86.0 (*ourworldindata.org*, 2015). Educated people are a great asset for a country to move forward with the fast developing countries in the world. Thus provision of quality education ensuring the equity is considered a fundamental value in the plan.

Colombo Commercial City comprises 38 National schools, 58 Provincial Schools, 48 International schools and 34 Private schools which have ensured adequate primary and secondary schools to cater the children within the city. *Colombo Commercial City* has many government and private tertiary education providing institutes like University of Colombo, University of Sri Jayawardhanapura, General Sir John Kotalawela Defence University, University of Visual and Performing Arts, British

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Council, National Institute of Business Management, Institute of Personnel Management, Academy of Design, etc. These higher education institutes attract not only the resident population but also majority of people from all over the country. The spatial distribution of existing schools and higher education institutes are given in Figure 10.1 and 10.2 respectively. When evaluating the future school demand to match with the future forecasted student population, it was identified that the existing number of schools is adequate to meet the demand. However, it is recommended to undertake necessary existing school/ education centre upgrading projects to increase their capacities and quality of services.

10.2.2. Hospitals

Sri Lanka is providing free health services to its citizens as a national priority since the adoption of Free Health Policy in 1951. Government has ensured the health facilities of the country by locating National and Base hospitals around the country. Colombo acts as the main health services providing city in the country having the national hospital and large number of government and private hospitals within the city. Most of these hospitals are equipped with modern health facilities to ensure effective health service provision to its citizens.

Main Government Hospitals located within *Colombo Commercial City* are;

- National Hospital of Sri Lanka
- National Eye Hospital of Sri Lanka
- Castle Street Hospital for Women
- De Soysa Hospital for Women
- National Dental Hospital of Sri Lanka
- Lady Ridgeway Hospital for Children
- Colombo Central District Hospital - Maligawatte
- Colombo South Teaching Hospital – Kalubowila
- Ayurvedic Teaching Hospital - Borella

However, it is recommended to carry out necessary capacity improvements of existing government hospitals and introduce few more government hospitals with considerable capacities to serve northern and southern parts of *Colombo Commercial City* in order to meet the demand for health services created by increasing population. It is also recommended that the private sector has more potential to invest for Private Hospitals within *Colombo Commercial City* in order to serve for the increasing demand.

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Provision of Adequate Social Infrastructure

Hospitals

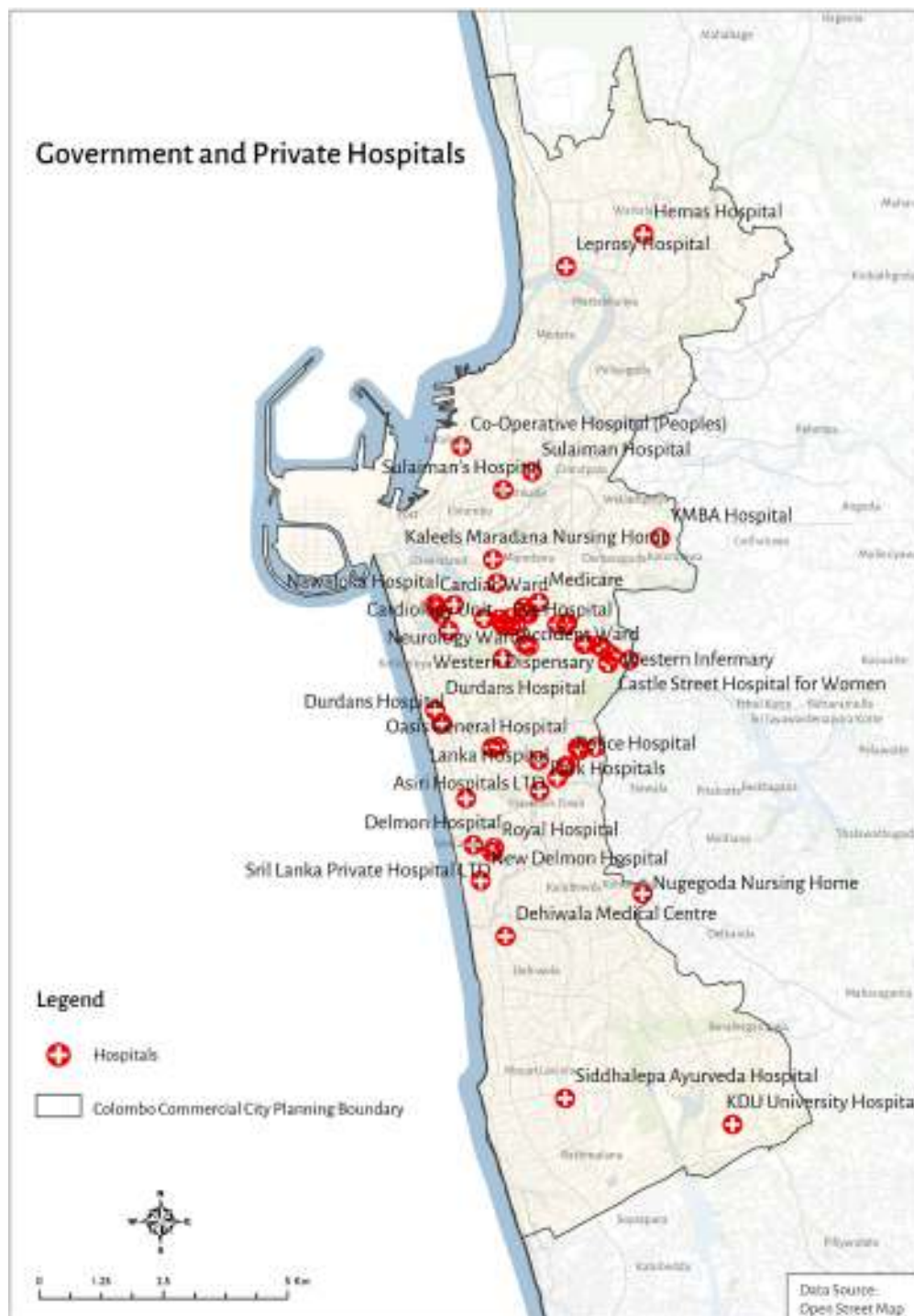


Figure 10.3: Distribution of Hospital within Colombo Commercial City - 2018

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*Provision of Adequate
Social Infrastructure*

Public Markets

10.2.3. Public Markets (Project Code – U-2-1)



Figure 10.4: Distribution of Public Markets within Colombo Commercial City - 2018

Citizens must be provided with essential every day shopping needs within the city. These should be accessible and affordable for everyone. *Colombo Commercial City* has around 22 public markets to serve its citizens providing sufficient and variety of goods. It has been identified that with the increasing urbanization, the demand for public markets are being replaced by the demand for upcoming modern super markets and department stores. However, **CCCDP – 2019-2030** considers provision and maintaining of public markets with good quality as a mandatory requirement thus incorporates any public market construction or improvement project falling within the limits of *Colombo Commercial City* and being proposed by either UDA or any relevant Local Authority under the Project Code - U-2-1.

10.2.4. Sports and Recreational Facilities (Project Code – U-2-2)

Chapter 10 Utilities Management Strategy

Provision of Adequate Social Infrastructure

Sports and Recreational Facilities



Figure 10.5: Distribution of Sports & Recreational Facilities within Colombo Commercial City - 2018

Provision of sports and recreation facilities improves personality and mental health of citizens which ultimately contributes positively for the growth of the city. *Colombo Commercial City* is provided with many sports facilities which are accessible for public such as swimming pools, tennis courts, stadiums, etc. For the recreation purposes, city is comprised with cinemas, art galleries, parks, playgrounds, theaters, theme parks, etc which are currently highly and effectively consumed by the public. Provision of public open spaces are elaborated in the Chapter 11 under the Public Outdoor Recreation Space Management Strategy of CCCDP – 2019-2030. Any project that will be proposed by UDA or any other relevant local authority related to provision of Sports & Recreation will be incorporated into CCCDP – 2019-2030 under the project code U-2-2.

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Utilities Management
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**Provision of Adequate
Social Infrastructure**

Public Burial Places

10.2.5. Public Burial Places



Figure 10.6: Distribution of Public Burial Spaces within Colombo Commercial City - 2018

Colombo Commercial City has about 18 cemeteries which is approximately 100 acres of land allocated as public burial space. Although burial space is essential for a city, with the growing demand for land in the main commercial city and as these cemeteries are located in prime locations, it has become more difficult to allocate space as burial space. Therefore, the existing burial spaces will be used in the future without allocating additional spaces. Cremation is encouraged within the city to ease the issue on burial space.

10.3. Making Convenient Nodes by providing Open Public Facilities

Colombo is the most population attracting city in the country and it is expected with nearly total of 2 million population of inhabitants and commuters in 2030. Therefore, the city should be more user friendly and comfortable for everyone.

10.3.1. Public Sanitary Facilities (Project Code – U-3-1)

Provision of public sanitary facilities is essential for a city with a frequent population flow throughout the day. Public sanitary facilities are important especially for older people, disabled people, families (especially those with babies and very young children), women, tourists and visitors. Thus, *Colombo Commercial City Development Plan* ensures public sanitary facilities are to be provided in;

- All 17 nodes proposed within the city
- All main public transport terminals and stations and major car parks
- Wide range of businesses participate, including pubs, restaurants, cafes, community centers, retail stores, shopping centers and supermarkets
- All parks and leisure areas

And following facilities are recommended to be provided within the public sanitary facilities;

- Facilities for disabled people
- Baby-change facilities
- Bathing areas in main transport terminals (At Pettah and Peliyagoda MMTHs)
- Availability through 24 hours (Facilities at MMTHs, stations, car parks, and public leisure areas)

Further, it is recommended to display direction maps within the city for the easy identification accessibility of public sanitary facilities. In addition, it is recommended to have sound maintenance plans for each sanitary facility directly monitored by the relevant local authority to ensure cleanliness within the facilities. Any of the Sanitary Facility Improvement project undertaken by the UDA or the relevant Local Authorities are incorporated into CCCDP – 2019-2030 under the project code U-3-1.

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*Making Convenient
Nodes by providing
Open Public Facilities*

Public Sanitary Facilities

Other Public Facilities



Figure 10.7: Distribution of Public Sanitary Facilities within Colombo Commercial City - 2018

10.3.2. Other Public Facilities (Project Code – U-3-2)

(a) City Information Centers (Project Code – U-3-2-1)

City information centers are essential for a city attracts large number of commuters and tourists. Therefore, two city information centers are proposed at Pettah and Peliyagoda Multi Modal Transit Hubs as mentioned in the Table 10.10 as most of commuters and tourists are arriving to the city through these MMTHs.

Information Centers are proposed to be equipped with;

- Multilingual Support
- General Tourist Information
- City Maps
- Information on Latest Events
- Information on Service Providing Institutes
- Free Wi-Fi

No	Proposed City Information Centers	Project Code
01	Information Centre at Pettah MMTH	U-3-2-1-1
02	Information Centre at Peliyagoda MMTH	U-3-2-1-2

Table 10.10: Proposed City Information Centres within Colombo Commercial City - 2030

(b) Direction Maps (Project Code – U-3-2-2)

Currently only few Direction Maps are displayed within the city. Colombo being one of the busiest and complex city, more direction maps are proposed to be displayed at following locations for the public convenience under the project code U-3-2-2.

- All 17 Nodes
- All main public transport terminals, bus stops, stations and major car parks
- All parks and leisure areas

(c) Seating Areas (Project Code – U-3-2-3)

Colombo Commercial City is used by many population categories; older people, disabled people, families and tourists, etc. These people should be provided with seating areas where they can relax and have a pause between their journeys. Although there are some seating areas provided in the city, those are not sufficient to cater the large population flow. Thus, public seating areas are proposed to be provided at all main public transport terminals and stations and all parks and leisure areas under the project code U-3-2-3.

10.4. Introducing Smart Facilities (Project Code – U-3-3)

A smart city is a highly developed, innovative, environment-friendly city which incorporates relevant aspects of the economy, technology, mobility, quality of life and other aspects that contribute to the well-being of its residents. It is a high-tech intensive city that connects people, information, and city elements using new technologies and infrastructure to create a sustainable, greener city, competitive and innovative economy, and an enhanced life quality (Tahir & Malek, 2016).



Figure 10.8: Proposed Smart City Concept

Being the country's one of the well-developed cities, most of the people within the city have relatively high rates of computer and digital literacy rates. Colombo District indicates 48.9% computer literacy rate which is the highest among other districts while the country's literacy rate is 28.3% (Department of Census and Statistics, 2017 (during 1st 6 months)). According to the percentage distribution of Internet and E-mail using household population (aged 5 – 69 years), 44.6% use internet while 26.3% use emails in Colombo District (Department of Census and Statistics, 2017 (during 1st 6 months)) which are the highest percentages among other districts. Therefore, there is a high potential to develop the city with technology to improve and ease the lives of inhabitants and commuters.

Smart concept can be associated with areas such as energy, transportation, mobility, parking, infrastructure, waste management, lighting, healthcare, security, construction, communication, etc. As an initiative *Colombo Commercial City Development Plan – 2019-2030* proposes to integrate smart concept into transportation, street lighting and waste management in the city.

10.4.1. Smart Transportation (Project Code – U-3-3-1)

City transportation is an important pillar in a city. Technology can ensure convenient and effective transportation of goods and people and reduce traffic congestion through effective public travel management. Also it can improve reliability of public transportation network by providing easy access to information on arrivals/departures/route information for travelers for a smooth journey. It will also reduce pollution, road accidents ensuring safety and promoting a healthier life.



Figure 10.9: Proposed Smart Transportation Concept

It is proposed to introduce Smart Transportation System within *Colombo Commercial City* under the project code – U-3-3-1. Following features are proposed to the Smart Transportation System of the city by *Colombo Commercial City Development Plan*.

- Interactive journey planner for all modes
- Automated Vehicle Location System
- Automated Fare Collection System
- Intelligent Signaling System
- Real Time Monitoring System
- Passenger Information Display

Chapter 10
*Utilities Management
Strategy*

**Introducing Smart
Facilities**

Smart Street Lighting

10.4.2. Smart Street Lighting (Project Code – U-3-3-2)

Street lights improves security and safety of people and vehicle users and also it helps for a smooth traffic flow. Use of smart street lighting can reduce the cost and electricity consumption. Intelligent lighting system can dim the lights on streets when there's no traffic and pedestrians. Also street lights can be used with solar powered lights. Smart lighting systems can be equipped with central management software that tracks usage and leads to maintenance efficiency. The surveillance cameras attached to light posts can be used for traffic monitoring and security enhancement of the city.



Figure 10.10: Conceptual Image of Smart Street Lighting

Therefore, it is proposed to introduce Smart Street Lighting within *Colombo Commercial City* under the Project Code – U-3-3-2. Features to be incorporated for the Smart Street Lighting System of the City are;

- Energy Efficient Lights
- Street Light Control (On/ Off/ Dimming)
- Wi-Fi
- Traffic Monitoring
- Enhance Security

10.4.3. Smart Waste Management (Project Code – U-3-3-3)

Waste Management has become a major issue in the city. This can be critically monitored in most of the public gathering places in several locations of *Colombo Commercial City* which has contributed for the pollution of natural environment and bad odor. The main issue for this is the improper solid waste management system of the city.

Colombo Commercial City Development Plan propose installing sensors inside the bins which are kept at MMTHs and all major parks and leisure areas, which would help in monitoring the levels of trash in each bin. Then the bins can be emptied only when they are full without following the standardized process to collect the waste bins frequently. When the bins are full, the respective local authority and the collecting vehicles will get notifications through the sensors where they can empty the bins. It is proposed to introduce Smart Waste Management within *Colombo Commercial City* under the project code – U-3-3-3.

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Introducing Smart Facilities

Smart Waste Management

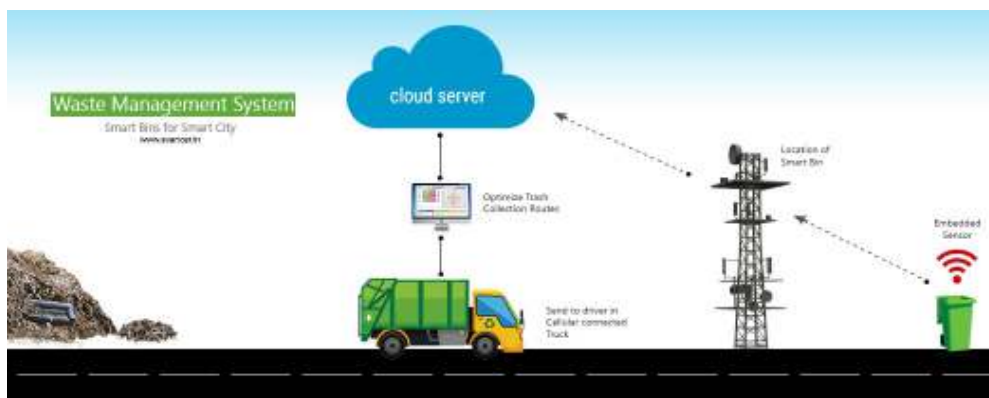


Figure 10.11 : Proposed Smart Waste Management Concept



Chapter 11

*Public Outdoor
Recreational Space
(PORS) Management
Strategy*

Chapter 11
***Public Outdoor
Recreational
Space (PORS)
Management
Strategy***

Chapter 11
*PORS Management
Strategy*

*Public Outdoor
Recreational Space
(PORS) Management
Strategy*



Harmonizing Garden Ambiance into the City Fabric

A Chain of Green & Blue Pastures

Public Outdoor Recreational Space (PORS) Management Strategy

Introduction

Public Outdoor Recreational Spaces are a key component of a convenient and attractive city. The historical evolution of open spaces started in ancient times. The significance of open spaces, as well as their importance in the settlements' evolution has been changing continually during the development of civilization. Open space in urban environments provides many advantages: formal and informal sport and recreation, preservation of natural environments, provision of green space and even urban storm water management. There are numerous health benefits associated with access to public open space and parks. Access to vegetated areas such as parks, open spaces, and playgrounds has been associated with better perceived general health, reduced stress levels, reduced depression and more.

Objective

The main objective of PORS Management Strategy is to harmonize the garden ambiance into the city fabric by creating a chain of green and blue pastures. The biggest potential of Colombo Commercial City is perceived to be the existence of natural elements such as different types of water bodies, wetlands and green pastures which accounts for 17% of the total area of Colombo Commercial City. Hence, the PORS Management Strategy aims to conserve these natural spaces and provide more outdoor recreational spaces in order to create a livable city adored by all city dwellers.

Approach

PORS Management Strategy is proposed to be implemented in the real grounds in terms of four approaches such as;

- Regulatory approach (including policies and regulations imposed by relevant state agencies)
- Direct interventions of state agencies
- Collaborative approach (including direct private investment & public-private partnerships)
- Private Investments

Contribution towards the Vision & Goals of CCCDP – 2019-2030

One of the major goals of Colombo Commercial City Development Plan is the Revived Internationally Renowned Green Garden City of South Asia. City of Colombo still has the reminiscence of ‘Garden City’ which was planned in 1921 through Sir Patrick Geddes Plan.

There are number of specific objectives aligned in the path of achieving the above-mentioned goal.

- To create a network of parks and green spaces of 520 ha linked with water and wetland networks in Colombo Commercial City by 2030.
- To ensure that every citizen of Colombo Commercial City has access to public open spaces within 500m walking distance by 2030.
- To have an average of 35% green cover and the enhanced green experience in Colombo Commercial City by 2030.
- To maintain 20% of the total area as special garden zones by 2030.
- To assure ‘Green Developments’ in Colombo with energy conscious, conserving and environment friendly designs and practices.

Scope

The strategic interventions proposed by PORS Management Strategy will have desired outcomes to, engage the community in promoting parks and green spaces as accessible places for everyone to experience and enjoy, to provide good quality parks and green spaces that are well managed and provide a range of attractive facilities. The Plan has described the Environment Sustainable Strategies under 03 Sub sections,

1. Environmental Conservation.
2. Green Space Networking (Landscape Management).
3. Provisioning of Public Open Spaces.

Chapter 11

PORS Management Strategy

Public Outdoor Recreational Space (PORS) Management Strategy

Chapter 11**PORS Management
Strategy****Conservation of
Environmental Assets
within Colombo
Commercial City****Conservation of Natural &
Man-made Water Surfaces****Conservation of Wetlands**

11.1. Conservation of Environmental Assets within Colombo Commercial City

Colombo Commercial City consists of various valuable natural environmental assets such as rivers, canals, lakes, coast, and wetlands and the availability of these natural assets is considered as the City's largest potential to be the 'Aquarina – the City in Water'. Thus, conservation of these natural assets of *Colombo Commercial City* is considered as a high priority strategic intervention of CCCDP – 2019-2030.

11.1.1. Conservation of Natural & Man-made Water Surfaces

The major interventions on conservation of natural and man-made water surfaces was elaborated in the Section 4.2 under Water Esplanade Development Strategy. There is a variety of water bodies located within *Colombo Commercial City* including 7 km length of Kelani River, 0.78 km² extent of Beira Lake, 53 km length of canals and 31 km stretch of coast.

The major strategic actions taken to conserve natural and man-made water surfaces are cleaning & improving of the existing water network (project code – W-1), maintaining the standard reservations of all water bodies within *Colombo Commercial City* and exposing the existing water network by introducing water drives (project code – WT-1 & WT-2), linear parks (project code – WO-1) and gateway boulevards (project code – WO-2).

11.1.2. Conservation of Wetlands

Colombo was accredited a RAMSAR Wetland Site during the 13th Conference of the Parties to the Ramsar Conservation on Wetlands (COP13) in Dubai on 25th October 2018. At the same conference, 18 cities were declared as wetland cities across the globe where Colombo emerged the only South Asian city amongst them. Rebranding cities as wetland cities under the Ramsar Wetland Accreditation scheme is an initiative that began in 2012. Accordingly, cities located in the vicinity of wetlands and dependent on wetlands are encouraged to utilize urban and peri-urban wetlands sustainably.

According to Environmental Foundation Limited (EFL), wetlands are an indispensable asset due to all the services they provide the Colombo city with. Some of these services are indispensable. For example, Colombo wetlands are estimated to carry 39% of the city's storm water thereby functioning as a natural barricade

against flooding of the city. (Ranasinghe P., 2018) By sequestering carbon it also mitigates climate change. Wetlands also purify water, absorbing contaminants and pollutants. They are natural cooling agents without which cities will continue to become warmer. It also serves as a source of socio-economic supplements for urban dwellers who are dependent on wetland for the daily sustenance of their lives. The rich vegetation purifies the air in the city and performs various bodily functions mitigating cardiopulmonary and respiratory diseases of urban and peri-urban dwellers. (Ranasinghe P., 2018)

Wetland complex of Colombo consists of Beddagana Wetland, Diyasaru Wetland, Heen-ela Wetland, Kolonnawa Wetland, Kotte Wetland, Mulleriyawa Wetland and Thalangama Wetland. Among them Heen-ela and Kolonnawa wetlands are located within the boundary limits of *Colombo Commercial City*. However, it has been found out that total wetlands and paddy in the planning area, which was 1026.87 ha in 2010 has reduced to 627.59 ha in 2018 resulting a decrease of 399.28 ha accounting for 38.9% of total decrease.

a) Classification of Wetlands within Colombo Commercial City

As per the Western Province Wetland Management Plan prepared by Urban Development Authority in collaboration with relevant stakeholder agencies, all wetlands of Western Province have been classified into five zones such as Wetland Protection Zone, Wetland Nature Conservation Zone, Wetland Agricultural Zone, Low-lying Potential Development Zone and Special Paddy Cultivation Zone. Accordingly, the wetlands of *Colombo Commercial City* fall into four wetland categories as mentioned in the Table 11.1.

No.	Wetland Category	Wetlands of respective Local Authority Areas	Extent of Wetlands
01	Wetland Protection Area	Muthurajawela – Part of Wattala Pradesiya Sabha Attidiya Marsh – Boralesgamuwa Urban Council Kolonnawa Marsh - Kolonnawa Urban Council	434.25ha
02	Wetland Nature Conservation Area	Wetlands in Wattala Pradeshiya Sabha & Peliyagoda Urban Council area	78.94ha
03	Wetland Agriculture Area	Kolonnawa Urban Council	0.97ha

Chapter 11**PORS Management
Strategy****Conservation of
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within Colombo
Commercial City****Conservation of Wetlands**

No.	Wetland Category	Wetlands of respective Local Authority Areas	Extent of Wetlands
04	Low lying Potential Development Area	Wattala Pradeshiya Sabha Peliyagoda Urban Council Part of Keliniya Pradeshiya Sabha	125.63ha
Total Wetland Area			627.59ha

Table 11.1 : Wetland Categories within Colombo Commercial City as per the Western Province Wetland Management Plan

Source : Western Province Wetland Management Plan

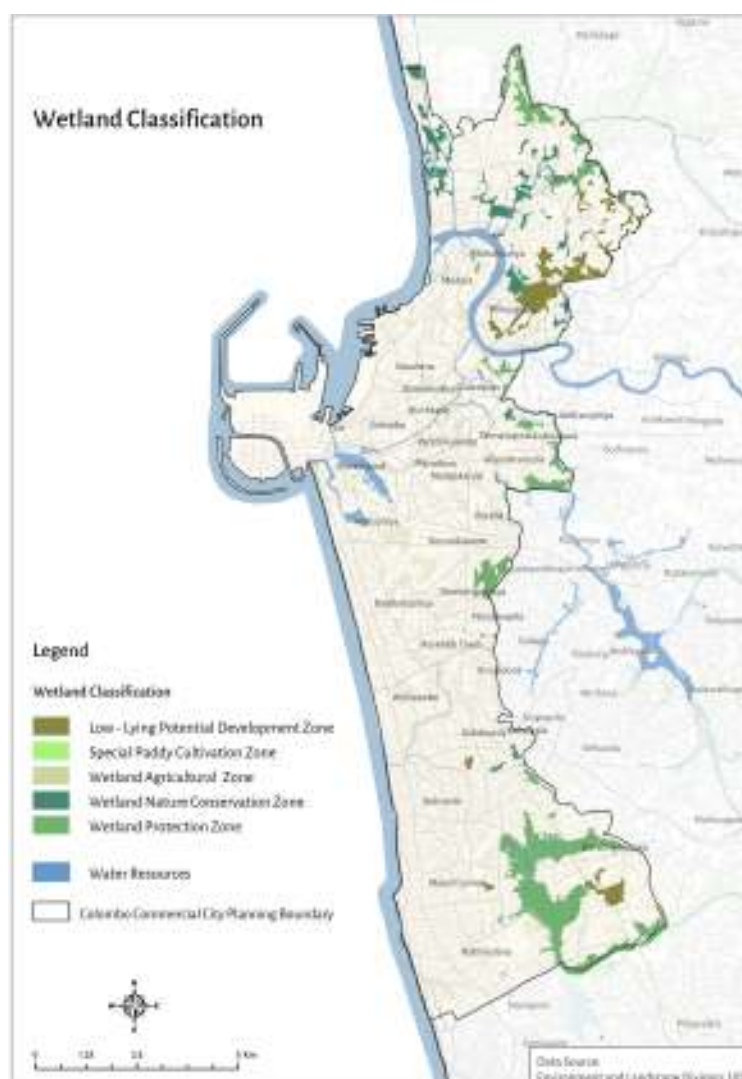


Figure 11.1 : Wetland Categories within Colombo Commercial City as per the Western Province Wetland Management Plan

Source : Western Province Wetland Management Plan

The Figure 11.1 indicates the wetlands of *Colombo Commercial City* as identified and classified by the Western Province Wetland Management Plan. Considering the importance of safeguarding the remaining wetlands portion of *Colombo Commercial City*, CCCDP – 2019-2030 proposes to fully conserve all wetlands located within the boundary limits of *Colombo Commercial City* as recommended by the Western Province Wetland Management Plan.

b) Conservation of Bellanwila – Attidiya Sanctuary

Bellanwila - Attidiya Wetland had been gazetted as a Sanctuary under the legal provisions of Fauna & Flora Protection Ordinance in 1990. Central Environment Authority has produced a wetland site report and management plan including detailed conservation measures for Bellanwila – Attidiya Marsh in 1993.

The Bellanwila – Attidiya Wetland is interconnected to the flood plains of the Bolgoda system through the Bolgoda Canal. Several other man-made canals connect Attidiya marsh with the Colombo wetland network. A small man-made lake is also located within the wetland system. Bellanwila – Attidiya Marsh is primarily a freshwater marsh ecosystem, surrounded by a rapidly developing urban landscape. Additionally, the wetland is an important stopover for a number of migratory birds and an important roosting site for herons and egrets. As a result, it has been identified as an Important Bird Area (IBA) by Bird Life International. There is significant biodiversity including 77 species of butterflies and 37 species of dragonflies. Among these species, 5 species of butterflies are considered nationally threatened. Additionally, 15 species of nationally threatened and endemic vertebrates have been recorded from the wetland. Bird life is profuse, and to date, over 168 species have been recorded. More than 30 species of freshwater fish have been recorded, including several exotic species. (National Wetland Directory of Sri Lanka, 2006)

Considering the importance of Bellanwila – Attidiya Bird Sanctuary, CCCDP – 2019-2030 proposes to promote a Recreational Park under the project code - W-4-8-1 in the sanctuary area along with the conservation measures.

Chapter 11**PORS Management
Strategy****Provisioning of
Open Spaces****Forecast of Open Space
Requirement of 2030**

11.2. Provisioning of Open Spaces

The provision of public open space is a basic element of settlement planning and an important component of community life. Public open space supports a broad spectrum of activities and interactions between people and nature and sustains critical environmental functions for the health of communities.

11.2.1. Forecast of Open Space Requirement of 2030

The current standard used for provisioning of public open spaces by UDA is 1.4 ha per 1000 persons. However, considering the high densified development demand and existing extent of public open spaces within *Colombo Commercial City* it was determined to adopt a relatively flexible standard, which is 0.2 ha per 1000 people for the forecast of future open space requirement to ensure that every person has access to a public open space within the walking distance of 500 m. However, the current standard of 1.4 ha per 1000 persons was used to forecast the large park requirement given the condition that every citizen has access to a large within the radius of 5 km. During the forecast of public open space requirement, it was identified that even though there is considerable extent of public open spaces within *Colombo Commercial City* as a whole, most of these open spaces are concentrated in Colombo Municipal Council limits thus do not cover some of the fringe areas in northern, eastern and southern parts of *Colombo Commercial City*.

a) Overall Open Space Requirement

The overall open space requirement of *Colombo Commercial City* is given in the Table 11.2.

Existing Total Public Open Space within Colombo Commercial City (A)	132 ha
Total Forecasted POS requirement as to match with the predicted population in CCC by 2030 (B)	258 ha
Total Balance requirement (A-B)	126 ha

Table 11.2: Forecast of Overall Future Public Open Space Requirement of Colombo Commercial City

b) Character Zone wise Public Open Space Requirement

The character zone wise public open space requirement is indicated in the Table 11.3.

No	Name of the Zone	Open Space Requirement* / (ha)	Existing Open Space/ (ha)	Open Space/ (ha) with proposed projects**	Gap in demand and supply
01	Exclusive Premium Mixed Development	23.40	9.76	9.76	13.64
02	Premium Mixed Development	62.40	21.96	124.95	-62.55
03	High Density Green Mixed Development	18.20	0	0	18.20
04	High Density Compact Mixed Development	23.40	0	0	23.40
05	Compact Logistics Development	13.00	0	10.38	2.62
06	High Density Residential	20.80	14.72	14.72	6.08
07	Transport Oriented Development	7.80	0	0	7.80
08	Moderate Density Residential - Wattala	23.40	5.73	5.73	17.67
09	Moderate Density Logistics Development	13.00	0.03	0.03	12.97
10	Moderate Density Residential - Kolonnawa	10.40	0	12.45	-2.05
11	Moderate Density Residential - Ratmalana	15.60	9.42	9.42	6.18

Chapter 11 PORS Management Strategy

Provisioning of Open Spaces

Forecast of Open Space
Requirement of 2030

Chapter 11**PORS Management
Strategy****Provisioning of
Open Spaces****Forecast of Open Space
Requirement of 2030**

No	Name of the Zone	Open Space Requirement*/ (ha)	Existing Open Space/ (ha)	Open Space/ (ha) with proposed projects**	Gap in demand and supply
12	Low Development Green Residential	18.20	3.44	173.18	-154.98
13	Low Density Garden	10.40	70.08	87.55	-77.15
		212.79	132.18	445.91	-233.12

NOTE – *Open Space Requirement is calculated based on the standard – 0.2 ha per 1000
 **Extent of Open space including the open spaces that will be added by ongoing/ proposed projects such as Maritime City and Beira Lake Intervention Area Development Plan etc.

Table 11.3: Forecast of Character Zone wise Future Public Open Space Requirement within Colombo Commercial City

Table 11.3 indicates that even though the open space requirement of total city is fulfilled with the open spaces that will be added to the city by the ongoing and proposed projects, there are some zones which do not have the adequate supply of open spaces to meet the requirement. Thus one of the major strategic intervention of CCCDP – 2019-2030 is to provide open spaces of different modes to fulfill the standard requirement of open spaces within each and every Character Zone of Colombo Commercial City.

c) Large Park Requirement

In addition to the overall public open space requirement, the requirement of large parks was calculated based on the standard of 1.4 ha for 1000 persons on the criteria that every citizen has access to a large park within the radius of 5 km. Currently, Colombo Commercial City has two major larger parks which serve for the entire country such as, Viharamahadevi Park and Gall face Green. But these two park do not fulfill the large park requirement as forecasted by the above calculation. However, it has been estimated that the large park requirement will be fulfilled after developing the ongoing/ proposed projects such as Maritime City Development Project and Bellanwila - Attidiya Wetland Recreational Park Project.

11.2.2. Proposed Open Spaces Categorization within Colombo Commercial City - 2030 (Project Code O-1)

In order to fulfill the public open space requirement within *Colombo Commercial City*, the CCCDP – 2019-2030 proposes provisioning of new modes of public open spaces as explained in the Figure 11.2 under the Public Outdoor Recreational Space Management Strategy –Strategic Project Type – O1 with the project code O-1.

Chapter 11 PORS Management Strategy

Provisioning of Open Spaces

*Proposed Open Spaces
Categorization within
Colombo Commercial City -
2030*

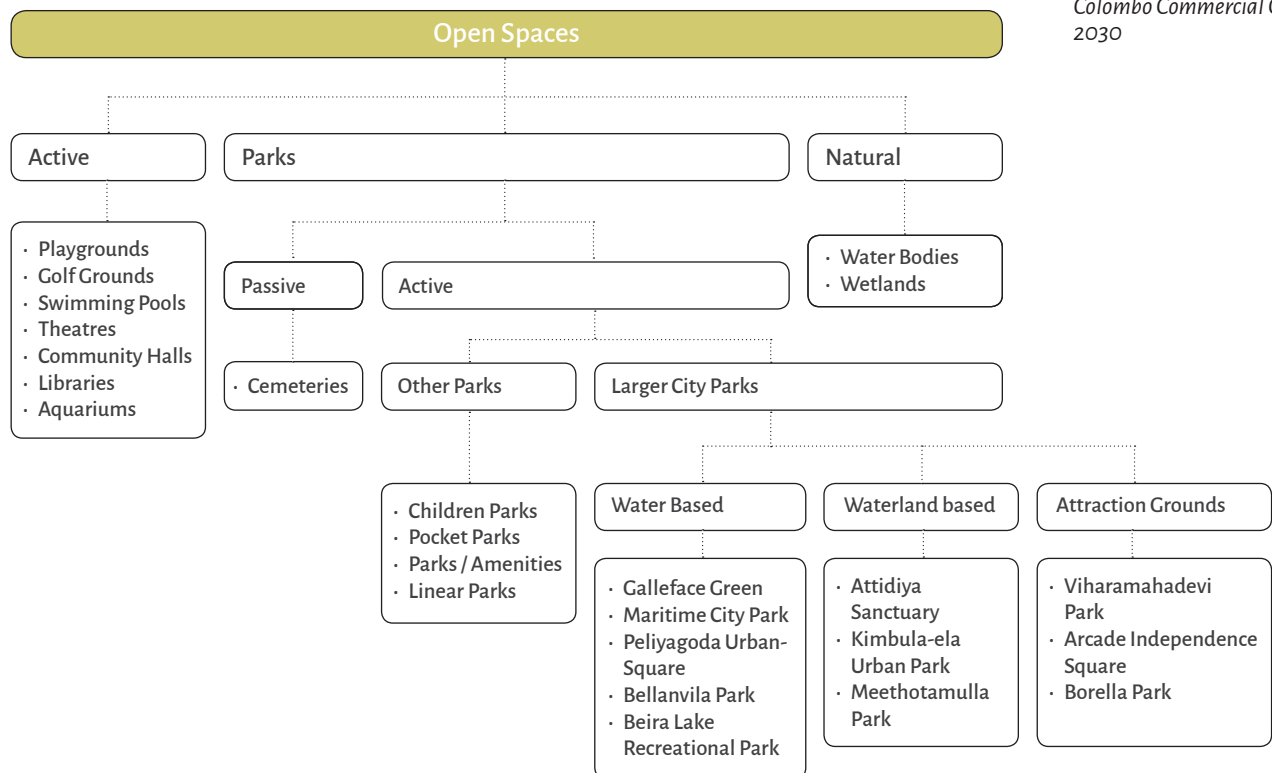


Figure 11.2: The Types of Open Spaces provided within Colombo Commercial City - 2030

Chapter 11
PORS Management
Strategy

Provision of Public Open Spaces of different types will be carried out under specific project codes as indicated in the Table 11.4.

Provisioning of
Open Spaces

Proposed Open Spaces
Categorization within
Colombo Commercial City -
2030

No	Type of Open Space	Project Code
01	Active Open Spaces (Eg: playgrounds, golf grounds, swimming pools, theatres, community halls, libraries & aquariums)	O-1-1
02	Passive Parks (Eg: Promotion of Cemeteries as public parks)	O-1-2
03	Active – Other parks (Eg: children parks, pocket parks, parks/ amenities, linear parks)	O-1-3
03-a	Development of a Nodal Park in between Sanchiarachchi garden Road and St. Sebastian Canal (approx. area of 0.7 ha)	W-4-4-1-a *(Previous Reference - Table 4.14)
03-b	Development of a Nodal Park next to Kettaramaya Maha Viharaya Temple (approx. area of 1.35 ha)	W-4-4-1-b *(Previous Reference - Table 4.14)
04	Water based Larger City Parks	O-1-4
04-a	Maritime City Beach Park	W-4-1-3-2
04-b	Peliyagoda Urban Square	T-4-1-2-2
04-c	Galle Face Green (Any further improvement project shall be conducted under project code – O-1-4-1)	O-1-4-1
04-d	Bellawila Wetland Park	O-1-4-2
04-e	Incorporating the Crow Island Beach Park Project conducted by Metro Colombo Urban development Project in collaboration with Colombo Municipal Council.	W-4-1-2-4 *(Previous Reference: Table 4.10)
04-f	Promoting Preethipiura Beach for Recreational Activities	W-4-1-1-1-c *(Previous Reference: Table 4.9)
05	Wetland based Larger City Parks	O-1-5
05-a	Bellawila – Attidiya Wetland Recreational Park	W-4-8-1
05-b	Kimbulala Urban Park	O-1-5-1

No	Type of Open Space	Project Code
05-c	Meethotamulla Urban Park	W-4-5-1 *Previous Reference: Table 4.15
05-d	Development of a Recreational Park at Kolonnawa Marsh (approx. extent of 18.5 ha)	W-4-5-2 *Previous Reference: Table 4.15
06	Attraction Grounds	O-1-6
06-a	Viharamahadevi Park (Any further improvement project shall be conducted under project code – O-1-6-1)	O-1-6-1
06-b	Arcade Independence Square (Any further improvement project shall be conducted under project code – O-1-6-2)	O-1-6-2
06-c	Borella Cemetery Park	O-1-6-3
06-d	Development of an Open Public Space adjacent to Open University of Sri Lanka at Nawala managed by the University. (approx. length of 1 km)	W-4-6-1 *(Previous reference – Table: 4.16)
07	Linear Parks proposed in association with Water Esplanades	WO-1

Table 11.4: Proposed Types of Open Spaces within Colombo Commercial City - 2030

Chapter 11

PORS Management Strategy

Provisioning of Open Spaces

Proposed Open Spaces
Categorization within
Colombo Commercial City -
2030

Open Spaces 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend



Parks

Active Open Spaces



Playground



Swimming Pool



Art Gallery



Library



Movie Theater



Private Open Space



Natural Open Space



Water Resources



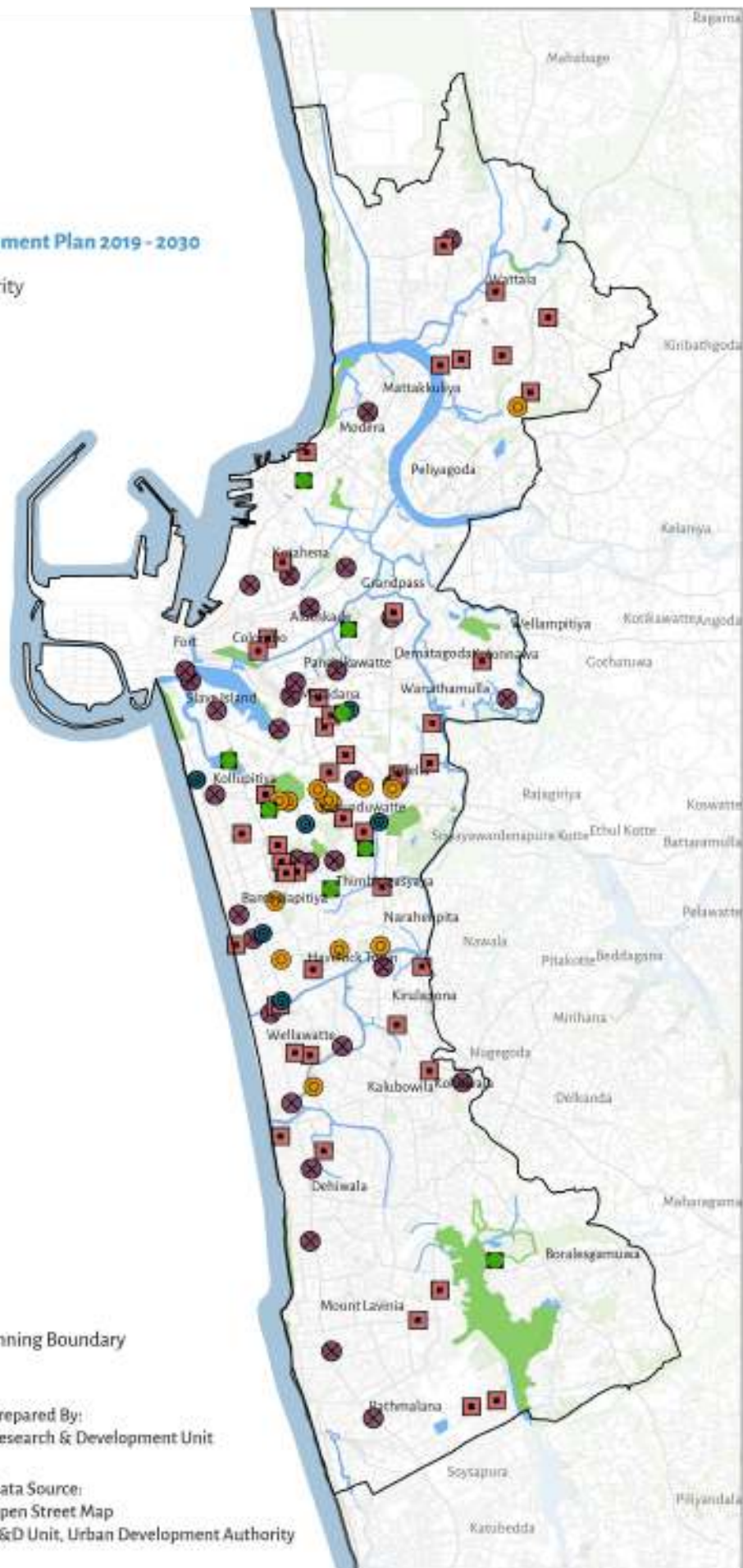
Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
Open Street Map
R&D Unit, Urban Development Authority



11.3. Networking of Green Spaces (Project Code – O-2)

One of the main objectives of CCCDP – 2019-2030 is to create a network of parks and green spaces of 520 ha linked with water and wetland networks in *Colombo Commercial City* by 2030. In order to achieve this objective, it has been proposed to introduce three types of boulevards, linear parks and water transportation links to connect all types of green and blue spaces within *Colombo Commercial City* into a single chain of green and blue pastures. The three types of boulevards, linear parks and the water transportation links proposed under Water Esplanades Development Strategy are given in the Map 11.2, Map 11.3 and Map 11.4 respectively.

11.3.1. Promoting Ceremonial Boulevards (Project Code – O-2-1)

Ceremonial Boulevards which act as the main access ways to the Capital City as proposed by the *Capital City Development Plan – 2019-2030*. The roads within *Colombo Commercial City*, which have been identified to be promoted as Ceremonial Boulevards carry special boulevard characters as they are the legacies of radial boulevard network of Garden City proposed by Patrick Geddes in 1921. Another main objective of this intervention is to conserve the remaining garden character within the Garden Zone proposed by the CCCDP – 2019-2030. Ceremonial Boulevards identified under CCCDP – 2019-2030 within the boundary limits of *Colombo Commercial City* are indicated in the Table 11.5.

No.	Name of the Ceremonial Boulevard	Length	Project Code
01	Horton Place Road	3.08 km	O-2-1-1
02	Buddhaloka Mawatha up to Sri Jayawardenepura Rd	3.46 km	O-2-1-2
03	Dudley Senanayake Mw. & Sri Jayawardenepura Rd	1.28 km	O-2-1-3

Table 11.5: Proposed Ceremonial Boulevards within Colombo Commercial City - 2030

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Networking of Green Spaces

Promoting Ceremonial Boulevards

Promoting Gateway Boulevards

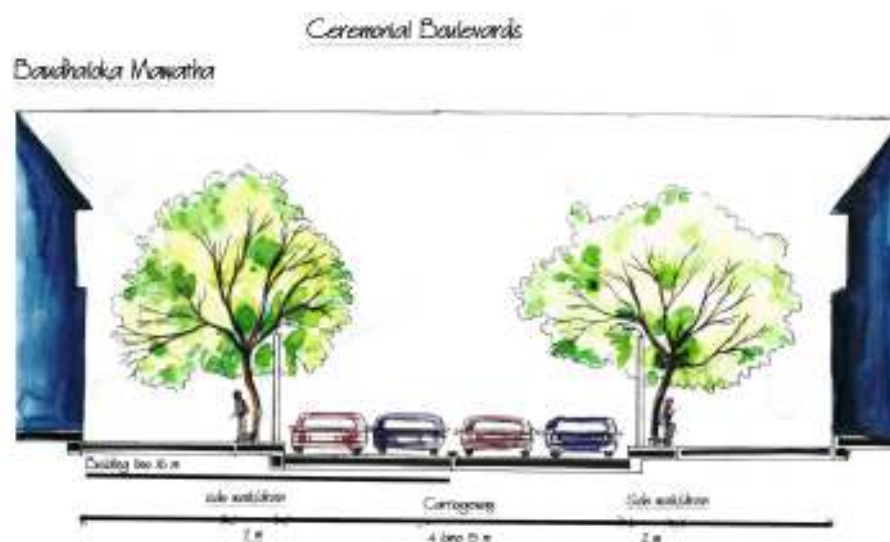


Figure 11.3 : Road Cross Section of a Proposed Ceremonial Boulevard

11.3.2. Promoting Gateway Boulevards (Project Code – WO-2)

Promotion of Gateway Boulevards is a intervention proposed under the Water Esplanade Development Strategy in order to expose water bodies and to provide direct access between main roads and water bodies. Gateway Boulevard is a road having trees at either side that connects a waterfront with a main road, node or a public place. The purpose of Gateway Boulevards is to maintain the continuity of walkways or drives towards waterfronts. In the meantime, Gateway Boulevards also contribute to the city green coverage, improve walkability of streets, enhance the livability standards and city image and contribute to improve air quality. Construction and promotion of Gateway Boulevards will be undertaken under Water Esplanade Development & PORS Management Strategies – Combined Action Projects Type - 02 with the base project code WO – 2 as indicated in the Table 11.6.

No.	Name of the Gateway Boulevard	Water Body/ Location	Length	Project Code
01	Kollupitiya Station Road	Seafront	0.14 km	WO-2-1
02	Bambalapitiya Station road	Seafront	0.23 km	WO-2-2
03	5th Lane, Bambalapitiya	Seafront	0.76 km	WO-2-3
04	Lester James Peries Mawatha	Seafront	0.75 km	WO-2-4
05	Vajira Road	Seafront	0.69 km	WO-2-5
06	St. Peter's Lane	Seafront	0.34 km	WO-2-6

Chapter 11

PORS Management Strategy

Networking of Green Spaces

Promoting Gateway Boulevards

No.	Name of the Gateway Boulevard	Water Body/ Location	Length	Project Code
07	Wellawatta Station Road	Seafront	0.37 km	WO-2-7
08	Wasala Road	Seafront	0.42 km	WO-2-8
09	Dehiwala Station Road	Seafront	0.41 km	WO-2-9
11	Hotel Road – Mount Lavinia	Seafront	1.16 km	WO-2-10
12	Mount Lavinia Station Road	Seafront	0.82	WO-2-11
13	Ratmalana Station Road	Seafront	1.33 km	WO-2-12
14	Sea Road – Crow Island	Seafront	2.20 km	WO-2-13
15	Justice Akbar Mawatha	Beira Lake	0.77 km	WO-2-14
16	Mattakkuliya Church Road	Kelani River	1.36 km	WO-2-15
17	Madampitiya Road	Kelani River	1.44 km	WO-2-16
18	Fransewatta Lane	Kelani River	0.52 km	WO-2-17
19	Pamankada Road	Dehiwala Canal	1.44 km	WO-2-18
20	Stratford Avenue	Dehiwala Canal	0.58 km	WO-2-19
21	Gajaba Road	Heen Ela	0.66 km	WO-2-20
22	Preethipura Road	Seafront & Hamilton canal	4.45 km	WO-2-21
23	Hekitta Road	Hamilton Canal	1.53 km	WO-2-22
24	Gongale Goda Banda Raja Mawatha	Kelani River	1.16 km	WO-2-23
25	Meegahawatta Road	Peliyagoda Water Fountain	0.55 km	WO-2-24
26	Dutugemunu Mawatha	Peliyagoda Water Fountain	0.87 km	WO-2-25
27	Parakrama Lane	Peliyagoda Water Fountain	0.18 km	WO-2-26
28	4th Cross Lane	Peliyagoda Water Fountain	0.35 km	WO-2-27
29	Ananda Rajakaruna Mawatha	Demtagoda Canal	0.72 km	WO-2-28
30	Sri Nigrodharama Road	Demtagoda Canal	0.67 km	WO-2-29
31	Vijaya Road	Kolonnawa Marsh, Kittampahuwa Canal	1.30 km	WO-2-30

Table 11.6: Proposed Gateway Boulevards within Colombo Commercial City - 2030

Chapter 11

PORS Management Strategy

Networking of Green Spaces

Promoting Gateway Boulevards

Promoting Transit Boulevards

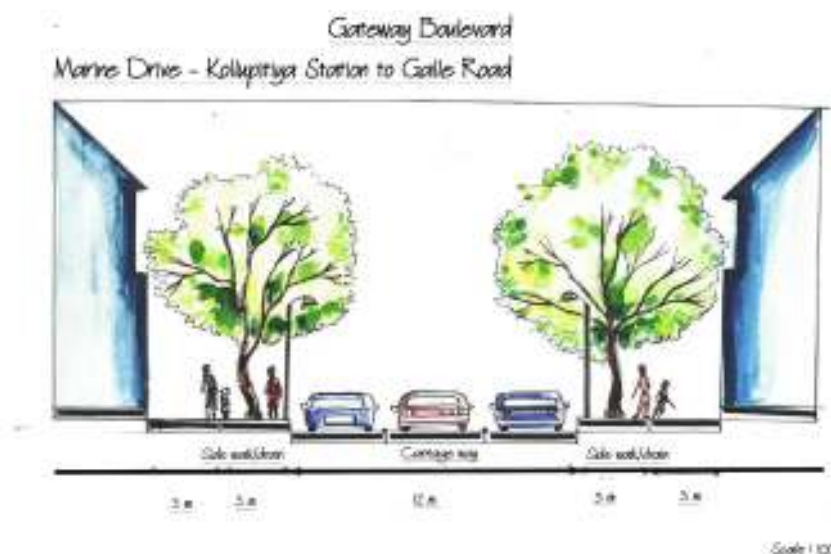


Figure 11.4: Road Cross Section of a Proposed Gateway Boulevard

11.3.3. Promoting Transit Boulevards (Project Code – O-2-2)

The main traffic conduits are identified to be promoted as Transit Boulevards with the intention of ensuring convenient travel environment while maintaining a visually appealing landscaping along the roads. In addition to the benefits related to aesthetic aspects, another main benefit of promoting Transit Boulevards is to control the adverse effects of air pollution in traffic conduits. Hence, it is recommended to select plant species which have relatively higher Carbon Dioxide Absorption capacities especially for Transit Boulevards. It is proposed to maintain a single tree line at the median or two tree lines at the either side of the road as to suit with the road type, function and physical characters of the road. The roads proposed to be promoted at Transit Boulevards under the project code – O-2-2 are indicated in the Table 11.7.

No.	Name of the Transit Boulevard	Length	Project Code
01	Kandy Road	2.91 km	O-2-2-1
02	Negombo Road	6.05 km	O-2-2-2
03	Base line road	8.77 km	O-2-2-3
04	Cotta Road	1.27 km	O-2-2-4
05	Maradana Road	2.72 km	O-2-2-5

Chapter 11

PORS Management Strategy

Networking of Green Spaces

Promoting Gateway Boulevards

Promoting Transit Boulevards

No.	Name of the Transit Boulevard	Length	Project Code
06	awissawella road	2.44 km	O-2-2-6
07	bandarayaka mawatha	2.93 km	O-2-2-7
08	Sri Sumanatissa Mawatha	2.84 km	O-2-2-8
09	Hunupitiya Railway Road	1.04 km	O-2-2-9
10	Horana Road	7.78 km	O-2-2-10
11	High level Road	5.33 km	O-2-2-11
12	Baseline extention	7.34 km	O-2-2-12
13	Hunupitiya Road	1.62 km	O-2-2-13
14	Olcott Road	4.48 km	O-2-2-14
15	Galle Road	14.58 km	O-2-2-15
16	T.B.Jayah Mawatha	0.38 km	O-2-2-16
17	Mc Callum Road	1.92 km	O-2-2-17

Table 11.7: Proposed Gateway Boulevards within Colombo Commercial City - 2030

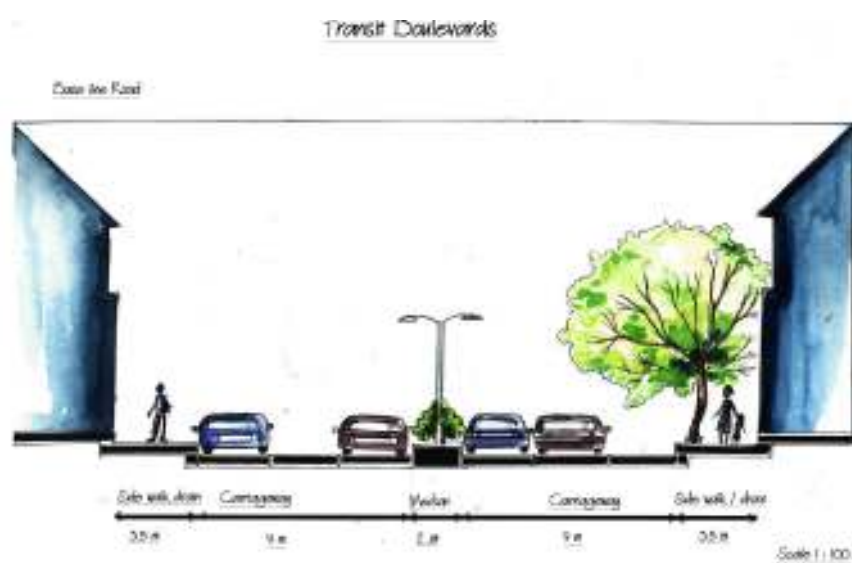


Figure 11.5: Road Cross Section of a Proposed Transit Boulevard

Colombo Commercial City Development Plan 2019 - 2030

Urban Development Authority
December 2018



11.3.4. Promoting Linear Parks (Project Code – WO-1)

Promoting Linear Parks is another strategic intervention proposed under the water Esplanade Development Strategy of CCCDP – 2019-2030. Linear parks are proposed parallel to rivers, canals and along the perimeter of lakes. The purpose of linear parks is to provide more public access to waterfronts, avoid possible encroachments of river and canal reservations and to transform the waterfronts into front-yards of the city. On the other hand, linear parks contribute to increase the total public open recreational spaces and also act as the links connecting green and blue spaces within the city. The proposed linear parks are given in the Table 11.8 and shown in the Map No. 11.3.

Chapter 11 PORS Management Strategy

Networking of Green Spaces

Promoting Linear Parks

Water Esplanade	Name of the Linear Park	Respective Water Body/ wetland	Length of Linear Park	Project Code
Eminent – Marina Investment Esplanade	Preethipura Linear Park parallel to sea-front	Sea-front	4.5 km	WO-1-1
	Ratmalana Canal Linear Park	Sea-front & Ratmalana Canal	1.0 km	WO-1-2
Eminent – Kelani River Investment Esplanade	Kelani River Left & Right Bank Linear Parks	Kelani River	20.0 km	WO-1-3
Eminent – Beira Lake Investment Circle	Linear Parks along the perimeter of Beira Lake	Beira Lake	10.2 km	WO-1-4
Classic – St. Sebastian Canal Investment Esplanade	St. Sebastian Canal Linear Park	St. Sebastian Canal	4.4 km	WO-1-5
Classic – Dematagoda, Kinda Canal & Kirulapana Canal Investment Esplanade	Kittampahuwa Canal Linear Park	Kittampahuwa (Kolonnawa) Canal	5.3 km	WO-1-6
	Kirulapana Canal Linear Park	Kirulapana Canal (Wellawatta Canal)	2.5 km	WO-1-7
Trivial – Mudun Ela Investment Esplanade	Hunupitiya – Wattala Kalu Ela Linear Park	Kalu Ela	3.3 km	WO-1-8
	Mudun Ela Linear Park	Mudun Ela	2.1 km	WO-1-9
Trivial – Bolgoda Lake Investment Esplanade	Boralesgamuwa Linear Park	Boralesga-muwa Paddy Lands	4.4 km	WO-1-10

Table 11.8: Proposed Linear Parks within Colombo Commercial City - 2030

Urban Development Authority
December 2018



11.3.5. Introducing Water transportation Linkages (Project Code – O-2-3)

Promoting water transportation is a key strategic action proposed under three strategies of CCCDP – 2019-2030 including Water Esplanade Development, Transport Development and Public Outdoor Recreational Space Management strategies. Promotion of water transportation is considered as a key tool to expose more waterfronts for public access and development. In the scope of Public Outdoor Recreational Space management, water transportation links can be used as ideal links to connect green and blue pastures within the city to create a complete network of open spaces. Ministry of Megapolis & Western Development proposes to initiate water transportation along Wellawatta Canal as a key project identified in the Western Region Megapolis Planning Project and this project has been incorporated into CCCDP – 2019-2030 under the project code W-4-6-2. In addition, CCCDP – 2019-2030 proposes to initiate recreational and public water transport along parts of Kelani River, St. Sebastian Canal, Hamilton Canal, Kolonnawa Canal and Beira Lake. The proposed water transportation links under the project code O-2-3 are mentioned in the Table 11.9 and Map 11.4.

Chapter 11 PORS Management Strategy

Networking of Green Spaces

Introducing Water transportation Linkages

No	Water Transportation Link	Project Code
01	Kelani River	O-2-3-1
02	Beira Lake	O-2-3-2
03	St. Sebastian Canal	O-2-3-3
04	Hamilton Canal	O-2-3-4
05	Kolonnawa Canal	O-2-3-5

Table 11.9: Proposed Water Transportation Links within Colombo Commercial City - 2030

Proposed Water Transportation 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

- Water Transportation Route
- Public Open Space
- Private Open Space
- Natural Open Space
- Water Resources
- Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



Public Outdoor Recreational Space Management Plan 2030

Colombo Commercial City Development Plan 2019 - 2030



Urban Development Authority
December 2018

Legend

Active Open Spaces

- Playground
- Swimming Pool
- Art Gallery
- Library
- Movie Theater
- Ceremonial Boulevard
- Gateway Boulevard
- Transit Boulevard
- Linear Park
- Water Transportation Route

- Public Open Space
- Private Open Space
- Natural Open Space
- Water Resources

Colombo Commercial City Planning Boundary



0 1 2 4 Km

Prepared By:
Research & Development Unit

Data Source:
R&D Unit, Urban Development Authority



11.4. Future Expected Public Open Space Stock within Colombo Commercial City – 2030

The impacts of above-mentioned strategic interventions proposed under Public Open Recreation Space Management Strategy of CCCDP – 2019-2030 were evaluated in terms of service coverage of all existing and proposed public open spaces and larger parks as indicated in the Map 11.5. It was identified that with the provision of proposed public open spaces it can be ensured that every citizen has access to a park within 500 m radius and a larger park within the radius of 5 km as mentioned in the Map 11.5.

In addition, it was identified that the overall total public open space stock within *Colombo Commercial City* will be 518 ha accounting for four times increment of existing open spaces. As a result of these interventions, it can be ensured that average of 0.45 ha of open spaces per 1000 persons will be available within the boundary limits of *Colombo Commercial City*.

Chapter 11
PORS Management Strategy

Future Expected Public Open Space Stock within Colombo Commercial City – 2030

Chapter 12
*Implementation
Strategy*

*Prioritization of
Strategic Projects*

Prioritized Projects

Chapter 12
***Implementation
Strategy***

Chapter 11
*Implementation
Strategy*

—

*Implementation
Strategy*

*Prioritization of
Strategic Projects*

Implementation Strategy

The anticipated vision for *Colombo Commercial City* ‘Aquarina – The City in Water’ is proposed to be achieved with 03 broader goals, 16 Objectives and 07 broader strategies. Planning & Building Regulations, Planning Guidelines and Strategic Projects derived under each broader strategy are the ultimate tools designed to implement the plan in real grounds.

12.1. Prioritization of Strategic Projects

Strategic Projects, which can be identified as the major interventions to activate Aquarina have been prioritized to ensure successful and convenient implementation of the plan in different phases. Prioritization of projects was carried out based on four major criteria such as projects with most benefits and optimum costs, inter-dependency of projects, projects having higher contribution to achieve the vision and projects with minimum risk due to uncertainty, disputation among stakeholders and complexity. The appropriate financing mechanism is also proposed in order to guide the relevant stakeholder in implementation of identified projects and to ensure smooth realization of the future vision of *Colombo Commercial City*.



Figure 12.1 : Proposed Implementation Mechanism of CCCDP – 2019-2030

Chapter 11
Implementation
Strategy

Implementation
Strategy

Prioritization of
Strategic Projects

No	Project Prioritization Criteria	Ranking Criteria
01	Project Costs and Benefits	Projects with most benefits and optimum costs were ranked high in the prioritization list
02	Inter-dependency of projects	Projects which are mandatory pre-requisites for the implementation of fellow projects were ranked high in the prioritization list
03	The level of contribution in achieving the anticipated vision	Projects which have higher contribution to achieve the anticipated vision were ranked high in the prioritization list
04	Project Risks due to uncertainty, disputation among stakeholders and complexity	Projects with lower risks were ranked high in the prioritization list

Table 12.1 : Project Prioritization Criteria

1) Projects with Most Benefits and Optimum Costs

In identification of projects with most benefits, three aspects were considered such as positive impacts on environment, society and city economy through financial benefits. The financial benefits were evaluated in terms of the contribution of relevant project to attract more investments and increase land values. The following matrix was developed to evaluate each project under above mentioned criteria. The projects were initially scored based on 1 – 10 criteria with 1 given for projects with least benefits and 10 given for projects with most benefits.

Project Name	Impact Factors						Level of Benefits (Normalized Value)
	Positive Impacts on Environment Setting	Positive Impacts on Social Setting	Impact on City Economy			Total Positive Impacts (level of benefits)	
			Contribution to attract investments	Contribution to increase land values	Composite Impacts on City Economy		
Project 1	Y1	Y2	X1	X2	Y3 = X1 + X2	Z1 = Y1 + Y2 + Y3	= Z1/(ΣZ _i)
Project 2							
Project 3							

Figure 12.2 : Sample Matrix used to identify projects with most benefits

One of the limitations that can occur during the implementation of identified strategic projects is the costs attached to them in terms of negative impacts on environment, society and financial costs. Financial costs are also usually attributed to factors such as land development costs and public infrastructure development costs. The following matrix was developed to evaluate each project in terms of above-

mentioned criteria. 1 – 10 scale was adopted in here as well in the inverse terms as to give 1 for projects with most costs and 10 for projects with least costs.

Project Name	Impact Factors						Level of Costs (Normalized Value)
	Negative Impacts on Environment Setting	Negative Impacts on Social Setting	Negative Impact on City Economy			Total Negative Impacts (level of benifits)	
			Land Development Costs	Public Infrastructure Development costs	Composite Financial Costs		
Project 1	Y1	Y2	X1	X2	Y3 = X1 + X2	Z1 = Y1 + Y2 + Y3	= Z1/(ΣZ _i)
Project 2							
Project 3							

Figure 12.3 : Sample Matrix used to identify projects with optimum costs

2) Inter-dependency of Projects

Inter-dependency of projects is another criterion considered in prioritization of strategic projects. The concept here is that a project which is a pre-requisite for a one or more other project automatically gains its priority in the order of implementation. Hence, a Pair-wise Matrix was worked out to derive the order of implementation of the identified projects.

Project	P1	P2	P3	P4	P5	P6	Total	Normalized Value
P1								
P2								
P3								
P4								
P5								
P6								
Total								
Normalized Value								

NOTE – If left hand project is a pre-requisite for the top project – 1
 If left hand project is not a pre-requisite for the top project - 0

Figure 12.4 : Sample Matrix used to identify the inter-dependency of projects

3) Projects having higher contribution to achieve the vision

The projects which have higher contribution or direct impact to achieve the vision were given high scores in prioritization of projects. This was evaluated based on the contribution of each project in achieving objectives under three broader goals.

Chapter 11 Implementation Strategy

Prioritization of Strategic Projects

Prioritized Projects

Project Name	Goal 01					Goal 02					Goal 03						Total	Normalized Value
	O1	O2	O3	O4	O5	O1	O2	O3	O4	O5	O1	O2	O3	O4	O5	O6		
P1																		
P2																		
P3																		
P4																		

Figure 12.5: Sample Matrix used to identify the projects having higher contribution in achieving the vision

4) Projects with Least Risk due to Uncertainty, Disputation among Stakeholder and Complexity

In practical implementation of projects, it is important to evaluate each project's stand in terms of the risk. The risk of a project can be occurred due to uncertainty, disputation among stakeholders and complexity. Hence, a similar matrix was developed to evaluate each project under above three factors. Accordingly, 1 – 10 scale was used with 1 given for projects with least risks and 10 given for projects with higher risks.

12.2. Prioritized Projects

The prioritized projects were classified into three broader categories such as 1st priority, 2nd priority and 3rd priority projects. Given the implementation mechanism and the financing capabilities, it was identified that the 1st priority projects are implementable with the next 11 years in the period of 2019 to 2030.

Identified first priority projects are also classified into three categories such as;

1. Strategic Projects identified by Colombo Commercial City Development Plan – 2030
2. Complementary Projects identified by Colombo Commercial City Development Plan – 2030
3. Existing and on-going projects incorporated by Colombo Commercial City Development Plan - 2030

12.2.1. Projects under Water Esplanade Development Strategy

1st Priority Projects identified by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
W-1	Cleaning & connecting of missing links of the existing water network		
W-3	Maintaining adequate surface water level of all inland water bodies of Colombo Commercial City	Irrigation Department/SLLR&DC	1,2,3,4
WT-1	Construction of Water Drives		
WT-1-1	Proposed Water Drive along Kelani River Left Bank	RDA/PRDA/ Relevant Local Authority	1,2,3
WT-1-2	Proposed Water Drive along Beire Lake		
WT-1-3	Extended Lake Drive		
WT-1-4	Proposed Water Drive along Dematagoda Canal		
WT-1-5	Proposed Water Drive along Dehiwala Canal		
WT-1-6	Proposed Water Drive along Bolgoda Canal		
WT-1-7	Proposed Water Drive along Mudun Ela		
WT-2-1	Proposed Water Drive along Kelani River Right Bank		
WT-2-2	Proposed Water Drive along Hamilton Canal		
WT-2-3	Proposed Water Drive along Sea Street		
WT-2-4	Proposed Water Drive along Marine Drive		
WT-2-5	Proposed Water Drive along St. Sebastian Canal		
WO-1	Linear Parks		
WO-1-1	Proposed Preethipura Linear Park parallel to sea-front	UDA/CCD/Wattala PS	1,3,3,4

- 1 Treasury Funds
- 2 Institutional Funds

- 3 Funds granted by international organizations
- 4 Public Private Partnerships

- 5 Loans granted by international organizations
- 6 Private Investments

1st Priority Projects identified by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
WO-1-3	Proposed Kelani River Left & Right Bank Linear Parks	UDA/CMC/Irrigation Department/CEA	
WO-1-4	Proposed Linear Parks along the perimeter of Beira Lake	UDA/SLLR&DC/CMC	
WO-1-5	Proposed St. Sebastian Canal Linear Park	UDA/CMC/SLLR&DC	
WO-1-6	Proposed Kittampahuwa Canal Linear Park	UDA/SLLR&DC/CMC	
WO-1-7	Proposed Kirulapana Canal Linear Park	UDA/SLLR&DC/CMC	
W-4	Conducting Catalyst Projects to induce developments in the proposed Water Esplanades		
W-4-1	Catalyst Projects at Marina Investment Esplanade		
W-4-1-1	Recreational Stretch		
W-4-1-1-2	Promoting water recreational and pleasure activities at Kelani River Mouth, Sea-front and Hamilton Canal Entrance Area	UDA/ Irrigation Department/ CCD/ Relevant Local Authority	5,6
W-4-1-2	Cultural Stretch		
W-4-1-2-1	Enhancing the view of Colombo Port and Seafront along the edge of Colombo Port at Sea Street	Port Authority/ UDA	1,4
W-4-1-2-2	Implementing a special Guide Plan for the Pettah Bazaar Area.	UDA/CMC/RDA	4,5,6
W-4-1-3	Premium Investment Stretch		
W-4-1-3-1-b	Construction of a physical barrier at the either side of southern railway line.	CMC/Railway Department/CCD	1,2,3
W-4-1-3-3	Promoting the beach strip from Dehiwala Railway Station to Mount-lavinia including the section of underserved settlements (fishery industry based community settlement) for fisheries based tourism activities with application of the design concept of 'slum architecture'	CCD/SLTDA/UDA/ Fisheries and Aquatic Department/DMMC	1,2,3

W-4-1-3-5	Upgrading the lives and settlements of Fishery Based Communities living in underserved settlements at the beach strip from Mount-lavinia to Ratmalana (Application of the design approach 'Slum Architecture and interlinking with tourism activities)	CCD/SLTDA/UDA/ Fisheries and Aquatic Department/DMMC	1,2,3
W-4-2	Kelani River Investment Esplanade		
T-4-1-2-1	Peliyagoda Multi Modal Transport Hub Development	UDA/SLTB/Irrigation Department/PRDA/ Peliyagoda UC/ SLLR&DC	1,2,3,5
W-4-2-1	Colombo North Gate Development Project proposed by Urban Development Authority.	UDA	1,2,3,4,5
W-4-4	St. Sebastian Canal Investment Esplanade		
W-4-4-1	Development of two Nodal Parks at St. Sebastian Canal Investment Esplanade	UDA/CMC/SLLR&DC	1,2,3,5
W-4-4-1-a	Development of Nodal Park in between Sanchiarachchi Garden Road and St. Sebastian Canal	UDA/ CMC/SLLR&DC	1,2,3,5
W-4-4-1-b	Development of Nodal Park next to Kettaramaya Maha Viharaya Temple	UDA/ CMC/SLLR&DC	1,2,3,5
W-4-5	Dematagoda, Kinda Canal & Kirulapana Canal Investment Esplanade		
W-4-5-1	Development of an Urban Park at the existing Meethotamulla Waste Dumping Site	UDA/CMC/CEA/ NBRO	4
W-4-6	Wellawatta & Dehiwala Canal Investment Esplanade		
W-4-6-1	Development of an Open Public Space adjacent to Open University of Sri Lanka at Nawala managed by the University.	Open University/ SLLR&DC	5
W-4-8	Bolgoda Lake Investment Esplanade		
W-4-8-1	Promoting a Wetland Recreational Area at the Attidia Bird Sanctuary area and Nedimala Canal Area	UDA/Forest & Wild life Conservation Department/CEA/Boralessgamuwa UC	1,2,3

- 1 Treasury Funds
2 Institutional Funds

- 3 Funds granted by international organizations
4 Public Private Partnerships

- 5 Loans granted by international organizations
6 Private Investments

2nd Priority Projects identified by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
WT-1	Construction of Water Drives		
WT-1-6	Proposed Water Drive along Bolgoda Canal	RDA/PRDA/ Relevant Local Authority	1,2,3
WT-1-7	Proposed Water Drive along Mudun Ela		
WO-1	Linear Parks		
WO-1-2	Proposed Ratmalana Canal Linear Park	UDA/DMMC/SLLR&DC	1,2,3,4
WO-1-8	Proposed Hunupitiya – Wattala Kalu Ela Linear Park	UDA/Wattala PS/SLLR&DC	
WO-1-9	Proposed Mudun Ela Linear Park	UDA/SLLR&DC/Peliyagoda UC	
WO-1-10	Proposed Boralessgamuwa Linear Park	UDA/SLLR&DC/ Boralessgamuwa UC	
WO-2	Gateway Boulevards		
WO-2-1	Kollupitiya Station Road	CMC/UDA/PRDA	1,2,3
WO-2-2	Bambalapitiya Station road	CMC/UDA/PRDA	1,2,3
WO-2-3	5th Lane, Bambalapitiya	CMC/UDA/PRDA	1,2,3
WO-2-4	Lester James Peries Mawatha	CMC/UDA/PRDA	1,2,3
WO-2-5	Vajira Road	CMC/UDA/PRDA	1,2,3
WO-2-6	St. Peter's Lane	CMC/UDA/PRDA	1,2,3
WO-2-7	Wellawatta Station Road	CMC/UDA/PRDA	1,2,3
WO-2-8	Wasala Road	CMC/UDA/PRDA	1,2,3
WO-2-9	Dehiwala Station Road	CMC/UDA/PRDA	1,2,3
WO-2-10	Hotel Road – Mount Lavinia	CMC/UDA/PRDA	1,2,3
WO-2-11	Mount Lavinia Station Road	CMC/UDA/PRDA	1,2,3
WO-2-12	Ratmalana Station Road	CMC/UDA/PRDA	1,2,3

WO-2-13	Sea Road – Crow Island	CMC/UDA/PRDA	1,2,3
WO-2-14	Justice Akbar Mawatha	CMC/UDA/PRDA	1,2,3
WO-2-15	Mattakkuliya Church Road	CMC/UDA/PRDA	1,2,3
WO-2-16	Madampitiya Road	CMC/UDA/PRDA	1,2,3
WO-2-17	Fransewatta Lane	CMC/UDA/PRDA	1,2,3
WO-2-18	Pamankada Road	CMC/UDA/PRDA	1,2,3
WO-2-19	Stratford Avenue	CMC/UDA/PRDA	1,2,3
WO-2-20	Gajaba Road	CMC/UDA/PRDA	1,2,3
WO-2-21	Preethipura Road	CMC/UDA/PRDA	1,2,3
WO-2-22	Hekitta Road	CMC/UDA/PRDA	1,2,3
WO-2-23	Gongale Goda Banda Raja Mawatha	CMC/UDA/PRDA	1,2,3
WO-2-24	Meegahawatta Road	CMC/UDA/PRDA	1,2,3
WO-2-25	Dutugemunu Mawatha	CMC/UDA/PRDA	1,2,3
WO-2-26	Parakrama Lane	CMC/UDA/PRDA	1,2,3
WO-2-27	4th Cross Lane	CMC/UDA/PRDA	1,2,3
W-4	Conducting Catalyst Projects to induce developments in the proposed Water Esplanades		
W-4-1	Catalyst Projects at Marina Investment Esplanade		
W-4-1-2	Cultural Stretch		
W-4-1-2-3	Upgrading fishery community settlements along the coast with the application of ‘Slum Architecture’ design approach.	CCD/SLTDA/UDA/ Fisheries and Aquatic Department/ Relevant Local Authority	1,2,3
W-4-1-2-5	Construction of a continuous walkable path (approx. 4.7 km) connecting Crow Island and Pettah Bazaar.	UDA/CMC/PRDA	1,2,3

- 1 Treasury Funds
- 2 Institutional Funds

- 3 Funds granted by international organizations
- 4 Public Private Partnerships

- 5 Loans granted by international organizations
- 6 Private Investments

2nd Priority Projects identified by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
W-4-1-3	Premium Investment Stretch		
W-4-1-3-4	Connecting the either sides of Beach discontinued by the Mount Lavinia Beach Hotel.	CCD/UDA	1,2,3
W-4-5	Dematagoda, Kinda Canal & Kirulapana Canal Investment Esplanade		
W-4-5-2	Development of a Recreational Park at Kolonnawa Marsh	UDA/SLLRDC/ Kolonnawa UC	1,2,3,5
W-4-5-2	Conducting a Mixed Development Project at Sri Nigrodharama Mawatha Slums Area	UDA	5
W-4-7	Mudun Ela Investment Esplanade		
W-4-7-1	Construction of three pedestrian bridges to link either sides of Mudun Ela	PRDA/ Wattala UC	1.2.3

Proposed and On-going projects incorporated by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
W-2	Incorporating storm water projects conducted by relevant stakeholder agencies		
W-2-1	Ongoing & proposed interventions for Macro Drainage Network by SLLRDC		
W-2-1-1	Ongoing Projects		
W-2-1-1-1	Improvements to Madiwela East Diversion Scheme – Stage I	SLLR&DC	
W-2-1-1-2	Improvements to Madiwela East Diversion Scheme – Stage II	SLLR&DC	
W-2-1-1-3	Improvements to Madiwela East Diversion Scheme – Stage III	SLLR&DC	

W-2-1-1-4	St. Sebastian North Canal	SLLR&DC	
W-2-1-1-5	St. Sebastian North Lock Gates & Pumping Station	SLLR&DC	
W-2-1-2	Procurement Stage		
W-2-1-2-1	New Mutwal Tunnel & Torrington Tunnel	SLLR&DC	
W-2-1-2-2	Kolonnawa Canal Diversion Scheme – Stage II	SLLR&DC	
W-2-1-2-3	St. Sebastian South Pumping Station	SLLR&DC	
W-2-1-2-4	Ambathale Pumping Station	SLLR&DC	
W-2-1-3	Finalizing / Detailed Design Stage		
W-2-1-3-1	Kolonnawa Canal Diversion Scheme – Stage I	SLLR&DC	
W-2-1-3-2	Kolonnawa Canal Diversion Scheme – Stage III	SLLR&DC	
W-2-1-3-3	Kolonnawa Canal Diversion Scheme – Stage IV	SLLR&DC	
W-2-1-3-4	Real Time Control System	SLLR&DC	
W-2-1-3-5	Flushing Gates	SLLR&DC	
W-2-2	Proposed interventions for storm water drainage network by CMC		
W-2-2-1	Prevention of flooding at Garden No. 175 and No. 211 Nagalagam Street and Garden No. 75 Ferguson Road	CMC	
W-2-2-2	Prevention of flooding along K. Cyril C. Perera Mw from George R. De Silva Mw up to Arthur De Silva Mw. Junction	CMC	
W-2-2-3	Prevention of flooding at Kimbula Ela Housing Scheme	CMC	
W-2-2-4	Prevention of flooding at Sangaraja Mawatha, Prince of Wales Avenue; opposite to Diesel and Motor Engineering (PLC)	CMC	
W-2-2-5	Prevention of flooding at Green Lane, George R de Silva Mawatha and Rathnam Play Ground Area	CMC	

- 1 Treasury Funds
- 2 Institutional Funds

- 3 Funds granted by international organizations
- 4 Public Private Partnerships

- 5 Loans granted by international organizations
- 6 Private Investments

Proposed and On-going projects incorporated by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
W-2-2-6	Prevention of flooding at Saunders Place	CMC	
W-2-2-7	Prevention of flooding at Maligawatta Housing Scheme	CMC	
W-2-2-8	Prevention of flooding at Norris Canal	CMC	
W-2-2-9	Storm Water improvements of Siridhamma Mawatha and surrounding area	CMC	
W-2-2-10	Prevention of flooding at High level road, Kirullapone Junction and Robert Gunewardhana Mawatha	CMC	
W-2-2-11	Prevention of flooding at Poorvarama Road and Kandewaththa Road	CMC	
W-2-2-12	Prevention of flooding at Park Road	CMC	
W-2-2-13	Periperal drains around Thummulla Junction	CMC	
W-2-2-14	Balance part of Marine Drive development from Dehiwala Bridge up to Bambalapitiya Station Road	CMC	
W-2-3	Incorporate Lower Kelani Flood Mitigation Proposals of Climate Resilience Project (CRIP)	Irrigation Department/ Foreign Partners	
W-4	Conducting Catalyst Projects to induce developments in the proposed Water Esplanades		
W-4-1	Catalyst Projects at Marina Investment Esplanade		
W-4-1-1	Recreational Stretch		
W-4-1-1-1	Incorporating the proposals of Tourism & Livelihood Development Plan: Hamilton Canal and Its Environs (2011) by the Ministry of Economic Development.	Ministry of Economics Developments	
W-4-1-1-1-a	Promoting a tourism fishery village at Dikkovita	UDA/CCD/ Relevant Local Authority	
W-4-1-1-1-b	Developing a linear park along the beach from Kerawalapitiya to Kelani River Mouth at Mattakkuliya	CCD/ UDA/ Peliyagoda UC	

W-4-1-1-1-c	Promoting Preethipiura Beach for Recreational Activities	CCD/UDA/Wattala PS	
W-4-1-1-1-d	Hamilton Canal Entrance Development Project	SLLR&DC/ Wattala PS/UDA	
W-4-1-2	Cultural Stretch		
W-4-1-2-4	Incorporating the Crow Island Beach Park Project conducted by Metro Colombo Urban development Project in collaboration with Colombo Municipal Council.	UDA/Coast Conservation Department (CCD)	
W-4-1-2-6	Incorporating ongoing Modara Kovil Sacred Area Development Project proposed by Urban Development Authority.	UDA/Department of Cultural Affairs	
W-4-1-3	Premium Investment Stretch		
W-4-1-3-1-c	Incorporating the proposal by Colombo Port City Project to connect Colombo Plan Road and Port City with an underground road link	Ministry of Megapolis & Western Development	
W-4-1-3-2	Incorporating Maritime City Development Project.	Ministry of Megapolis & Western Development	
W-4-3	Beira Lake Investment Circle		
W-4-3-1	Incorporating Beira Lake Intervention Area Development Plan proposed & implemented by Urban Development Authority	UDA	
W-4-6	Wellawatta & Dehiwala Canal Investment Esplanade		
W-4-6-2	Incorporating the existing proposal to initiate water transportation from Wellawatta to Battaramulla via Wellawatta, Kirulapana & Kinda Canals.	UDA/SLLR&DC/CMC	

① Treasury Funds

② Institutional Funds

③ Funds granted by international organizations

④ Public Private Partnerships

⑤ Loans granted by international organizations

⑥ Private Investments

12.2.2. Projects under Transport Development Strategy

1st Priority Projects identified by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
T-1	Road Construction & Improvement Projects		
T-1-1	Improvements to Level 01 Roads		
T-1-1-1	Level 01 Roads – New Road Constructions		
T-1-1-2	Level 01 Roads – Road Widening Projects		
T-1-2	Improvements to Level 02 Roads		
T-1-2-1	Level 02 Roads – New Road Links		
T-1-2-1	Level 02 Roads – Road widening projects – (Category A – Roads with existing carriage width less than 7m)		
T-2	Rail Improvements		
T-2-1	Improvements to existing Railway Network		
T-2-1-1	Construction of a Railway Station with mega service capacity at Peliyagoda interlinked with proposed regional bus terminal.	Sri Lanka Railway Department (SLRD)	1,2,3
T-2-1-2	Shift of Dematagoda Railway Station towards west to serve both Main line and Kelani Valley line.	Sri Lanka Railway Department (SLRD)	1,2,3
T-2-1-3	Rerouting of Kelani Valley line as to go parallel to Baseline via Borella Junction	Sri Lanka Railway Department (SLRD)	1,2,3
T-2-1-4	Construction of a new Railway Station at Borella Junction	Sri Lanka Railway Department (SLRD)	1,2,3
T-2-1-5	Capacity improvement of Ratmalana Railway Station as a part of proposed Ratmalana TOD development	Sri Lanka Railway Department (SLRD)	1,2,3

T-4	Nodal Developments		
T-4-1	Proposed 1st Priority Nodal Developments		
T-4-1-1	Pettah Nodal Development		
T-4-1-1-2	Incorporating Charmer's Granary Mixed Development Project Proposed by Urban Development Authority	UDA/ CMC	5
T-4-1-1-3	Waterfront Mixed Development Project at Galle Face Front	UDA/ CMC	5
T-4-1-1-4	Mixed Development Project at Gunesinghapura, Pettah	UDA/ CMC	5
T-4-1-1-5	Open Space Development at Bestian Mawatha (At the existing Manning Market Premise & Private Bus Stand)	UDA/ CMC/ SLTB	5
T-4-1-1-6	Conducting a Cultural & Recreational Zone Development at Maradana linking Trace Expert City land, Maradana Railway Station, Elphinstone Theatre, Tower Hall, Kularatne Mawatha and T.B. Jaya Mawatha	UDA/CMC	5
T-4-1-1-7	Construction of Rooftop Public Deck on top of the Trace Expert City Building Complex (Sight Seen deck, Open restaurants)	UDA/CMC	5
T-4-1-1-8	Implementing a Special Guide Plan for Panchikawatta Triangle Area	UDA/CMC	1,2,3,4,5,6
T-4-1-2	Peliyagoda Nodal Development		
T-4-1-2-1	Peliyagoda Multi Modal Transport Hub Development	UDA/Ministry of Megapolis & Western Region Development/Peliyagoda UC/ UDA/ SLRD	1,2,3
T-4-1-2-1-a	Development of Peliyagoda Regional Bus Terminal	UDA/SLTB/ Irrigation Department	1,2,3
T-4-1-2-2	Development of an Urban Square along the Right Bank of Kelani River (Peliyagoda Stretch)	UDA/Peliyagoda UC	1,2,3,5,6
T-4-1-2-2-a	Construction of a Public Square/ Art Installation/ Picnic Area	UDA/Peliyagoda UC	1,2,3,5,6

① Treasury Funds

② Institutional Funds

③ Funds granted by international organizations

④ Public Private Partnerships

⑤ Loans granted by international organizations

⑥ Private Investments

1st Priority Projects identified by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
T-4-1-2-2-b	Development of an Open Market Space	UDA/Peliyagoda UC	1,2,3,5,6
T-4-1-2-3	Construction of three pedestrian bridges across the Kelani river connecting urban square and Kelani River left bank developments	PRDA	1,2,3,5,6
T-4-2	Proposed 2nd Priority Nodal Developments		
T-4-2-1	Proposed Transit Oriented Development at Dematagoda		
T-4-2-1-1	Construction of LRT station close to the Railway station	SLRD	5
T-4-2-1-2	Promote mixed development at existing Dematagoda Railway station area	SLRD	5
T-4-2-2	Proposed Transit Oriented Development at Ratmalana		
T-4-2-2-1	Promoting mixed developments with public open space at railway lands (existing CGR Quarters land), Ratmalana	SLRD /UDA/DMMC	5
T-4-2-2-2	Promoting a Park, Public Square, Playground and an Exhibition Space at the proposed Public Open Space at CGR Land	SLRD /UDA/DMMC	1,2,3
T-4-2-2-3	Construction of an artificial water fountain at the proposed Public Open Space at CGR Land	SLRD /UDA/ DMMC	4,6
T-4-2-2-4	Promoting middle income housing in the proposed mixed development area at CGR Land	SLRD /UDA/ DMMC	1,2,3,4
T-4-2-2-5	Promoting a beach park at Ratmalana Beach close to the Railway Station	CCD/UDA/ DMMC	1,2,3,4
T-4-2-2-6	Constructing a Linear Park/ Bicycle path connecting Railway, LRT station, Mixed Development & Beach Park	UDA/PRDA/DMCC	1,2,3,4,5
T-4-2-2-7	Conducting Ratmalana - Belekade Pola Development Project	UDA/ DMMC	1,2,3,4

T-4-2-3	Proposed Nodal Development at Wellawatta		
T-4-2-3-1	Promoting a Water Transportation Hub by constructing of a boat/cruise anchoring area to facilitate water transportation initiation link from Wellawatta to Battaramulla	Ministry of Megapolis & Western Development/ SLLR&DC/ DMMC	1,2,3
T-4-2-3-4	Redevelopment of Wellawatta Railway Station	SLRD	5
T-4-2-4	Proposed Nodal Development at Dehiwala		
T-4-2-4-1	Redevelopment of Dehiwala Railway Station	SLRD	5
T-4-2-4-2	Mixed Development Project at UDA Market Land	UDA/ DMMC	5
T-4-2-4-4	Constructing a Cycling path connecting Dehiwala Zoological Garden and proposed Dehiwala Canal Linear path	UDA/DMMC	1,2,3
T-4-2-5	Proposed Nodal Development at Kollupitiya		
T-4-3	Proposed 3rd & 4th Priority Nodal Developments		
T-4-3-1	Proposed Nodal Development at Hunupitiya		
T-4-3-1-1	Redevelopment of Hunupitiya Railway Station	SLRD	5
T-4-3-1-2	Development of LRT Station	Ministry of Megapolis & Western Region Development	5
T-4-3-2	Proposed Nodal Development at Boralessgamuwa		
T-4-3-2-2	Development of a Wetland Park at Attidiya Sanctuary	UDA/CEA/ Wild Life and Forest Conservation Department/ Relevant Local Authority	1,2,3
T-4-3-2-3	Promoting Mixed Developments at UDA owned land located adjacent to Colombo – Horana Road opposite to Pirivena Road	UDA/ Boralessgamuwa UC	5
T-4-3-2-4	Promoting Commercial and Mixed Developments at the existing Boralessgamuwa Police Station Land	UDA/ Boralessgamuwa UC	5

1 Treasury Funds

2 Institutional Funds

3 Funds granted by international organizations

4 Public Private Partnerships

5 Loans granted by international organizations

6 Private Investments

2nd Priority Projects identified by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
T-1	Road Construction & Improvement Projects		
T-1-2	Improvements to Level 02 Roads		
T-1-2-1	Level 02 Roads – Road widening projects – (Category B – Roads with existing carriage width equal or more than 7m)	RDA/ PRDA/ Local Authority	1,2,3
T-3	Proposed Improvements to Bus Transportation System		
T-4	Proposed Nodal Developments		
T-4-1	Proposed 1st Priority Nodal Developments		
T-4-1-2-1	Peliyagoda Multi Modal Transport Hub Development	UDA/Ministry of Megapolis & Western Development/Peliyagoda UC/ / SLLRDC	
T-4-1-2-2-c	Development of an Open Air Theater & a Public Gathering Arena	UDA/Peliyagoda UC	5
T-4-1-2-2-d	Construction of a Cruise/ Boat anchoring area and a deck facilitating Water Transportation (Boat)	Irrigation Department/ UDA	5
T-4-2	Proposed 2nd Priority Nodal Developments		
T-4-2-3	Proposed Nodal Development at Wellawatta		
T-4-2-3-2	Construction of a linear park along the Wellawatta Canal	DMMC/UDA	1,2,3,4
T-4-2-3-3	Exposing Cooray Park for public access and linking it with Canal Front through 1st Lane, 3rd Lane and Rohini road	UDA/ DMMC	1,2,3,4
T-4-2-3-5	Promoting mixed developments at Wellawatta Public Car Park Land	UDA/ DMMC	5
T-4-2-4	Proposed Nodal Development at Dehiwala		
T-4-2-4-3	Mixed Development project Dehiwala Mt-lavinia MC Market Land	DMMC	5

T-4-3	Proposed 3rd & 4th Priority Nodal Developments		
T-4-3-1	Proposed Nodal Development at Hunupitiya		
T-4-3-1-3	Recommending Promotion of Mixed Development at the land currently utilized by Ceylon Fertilizers Company Limited	UDA/ Kelaniya PS	5
T-4-3-1-4	Recommending Promotion of Commercial Developments combined with the proposed Railway Station Development	Sri Lanka Railway Department	5
T-4-3-1-5	Recommending a new Expressway Entrance/ Exit Point at Hunupitiya	RDA	1,2,3
T-4-3-2	Proposed Nodal Development at Boralesgamuwa		
T-4-3-2-1	Promoting an Agricultural Tourism Model Village at Katuwawala	UDA/ Agriculture Department/ Boralesgamuwa UC	5
T-4-3-2-5	Constructing a Walking Path along the wetland stretching from Colombo – Horana Road towards Boralesgamuwa Lake	UDA/ Boralesgamuwa UC	1,2,3
T-4-3-2-6	Conducting a special Landscaping Project at Boralesgamuwa Town Center	UDA/Boralesgamuwa UC	1,2,3

① Treasury Funds

② Institutional Funds

③ Funds granted by international organizations

④ Public Private Partnerships

⑤ Loans granted by international organizations

⑥ Private Investments

Existing and On-going projects incorporated by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
T-1	Road Construction & Improvement Projects		
T-1-3	Proposed Elevated Highways in Colombo Commercial City		
T-1-3-1	Proposed Port Access Elevated Highway	RDA	1,2,3
T-1-3-2	New Kelani Bridge – Athurugiriya Elevated Highway	RDA	1,2,3
T-2-2	Electrified Railway Proposals		
T-2-2-1	Electrification and modernization of Coastal line (Pettah to Panadura)	SLRD	1,2,3
T-2-2-2	Electrification and modernization of Main Line (Pettah to Veyangoda)	SLRD	1,2,3
T-2-2-3	Construction of Dompe Line (Newly introducing an electrified rail facility)	SLRD	1,2,3
T-2-2-4	Kelani valley Railway line development	SLRD	1,2,3
T-2-3	Proposed Light Rail Transit (LRT) Projects		
T-2-3-1	Proposed JICA Line	Ministry of Megapolis & Western Development	5
T-2-3-2	Package 01 (Red Line)	Ministry of Megapolis & Western Development	5
T-2-3-3	Package 02 (Green Line) Proposed by Western Region Megapolis Planning Project	Ministry of Megapolis & Western Development	5
	Package 02 (Green Line) – Route recommended by CCCDP – 2019-203	Ministry of Megapolis & Western Development	5
T-2-3-4	Package 03 (Blue Line)	Ministry of Megapolis & Western Development	5

T-3-1	Proposed Bus Priority Lane System in Colombo Commercial City		
T-4	Proposed Nodal Developments		
T-4-1	Proposed 1st Priority Nodal Developments		
T-4-1-1	Pettah Nodal Development		
T-4-1-1-1	Pettah Multi Modal Transport Hub Development	UDA/Ministry of Megapolis & Western Development/CMC/ SLRD	5
T-4-1-2	Peliyagoda Nodal Development		
T-4-1-2-4	Construction of a water retention Pond	SLLR&DC	4
T-4-1-2-5	Mixed Development at (Sedawatta) Kelani River left bank area	UDA/Peliyagoda UC	5

① Treasury Funds

② Institutional Funds

③ Funds granted by international organizations

④ Public Private Partnerships

⑤ Loans granted by international organizations

⑥ Private Investments

12.2.3. Projects under Economic Development Strategy

1st Priority Projects identified by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
E-1	Port & Logistics Development		
E-1-5	Promoting Port related Recreational and Pleasure Activities	Port Development Authority/ UDA/ CMC	5
E-2	Property Development in Colombo Commercial City		
E-2-1	Direct Engagements in Property Developments		
E-2-1-2	Property Developments conducted under Urban Regeneration Project of UDA		
E-2-1-2-1	Low-income housing development projects		
E-2-1-2-1-1	Mihindusenpura Housing Project	UDA	1,2,3,4
E-2-1-2-1-2	Puradora Sevana Housing Project	UDA	1,2,3,4
E-2-1-2-1-3	Lakmuthu Sevana Housing Project	UDA	1,2,3,4
E-2-1-2-1-4	Sirisanda Sevana Housing Project	UDA	1,2,3,4
E-2-1-2-1-5	Sirisara Uyana Housing Project	UDA	1,2,3,4
E-2-1-2-1-6	Methsara Uyana Housing Project	UDA	1,2,3,4
E-2-1-2-1-7	Randiya Uyana Housing Project	UDA	1,2,3,4
E-2-1-2-1-8	Sirimuthu Uyana Housing Project	UDA	1,2,3,4
E-2-1-2-1-9	Laksanda Sevana	UDA	1,2,3,4
E-2-1-2-1-10	Muwadora Uyana	UDA	1,2,3,4
E-2-1-2-1-11	Thachchiwatta Housing Project	UDA	1,2,3,4
E-2-1-2-1-12	Pradeepa Mawatha Housing Project	UDA	1,2,3,4
E-2-1-2-1-13	Salamulla (PhaselI) Housing Project	UDA	1,2,3,4
E-2-1-2-1-14	Kalinga Mawatha Housing Project	UDA	1,2,3,4

E-2-1-2-1-15	Colombage Mawatha I Housing Project	UDA	1,2,3,4
E-2-1-2-1-16	Maligawatta Housing Project	UDA	1,2,3,4
E-2-1-2-1-17	Kolonnawa Housing Project	UDA	1,2,3,4
E-2-1-2-1-18	Agrarian Service Land, Mattakkuliya Housing Project	UDA	1,2,3,4
E-2-1-2-1-19	Aluthmawatha I Housing Project	UDA	1,2,3,4
E-2-1-2-1-20	Aluthmawatha II Housing Project	UDA	1,2,3,4
E-2-1-2-1-21	Mattakkuliya Housing Project I	UDA	1,2,3,4
E-2-1-2-1-22	Mattakkuliya Housing Project II	UDA	1,2,3,4
E-2-1-2-1-23	Orugodawatta Housing Project	UDA	1,2,3,4
E-2-1-2-1-24	Apple Watta Housing Project – Phase I	UDA	1,2,3,4
E-2-1-2-1-25	Aramaya Place Housing Project	UDA	1,2,3,4
E-2-1-2-1-26	Torington Mawatha Housing Project	UDA	1,2,3,4
E-2-1-2-1-28	Colombage Mawatha Housing Project II	UDA	1,2,3,4
E-2-1-2-2	Middle-income housing development projects		
E-2-1-2-2-1	Pelangasthuduwa Housing Project	UDA	1,2,3,4
E-2-1-2-2-2	Ratmalana – Kandawalawatta Housing Project	UDA	1,2,3,4
E-2-1-2-2-3	Elliot Place Housing Project	UDA	1,2,3,4
E-2-1-2-2-4	Ambahagawatta Housing Project	UDA	1,2,3,4
E-2-1-2-2-5	Maradana Housing Project	UDA	1,2,3,4
E-2-1-2-2-6	Palathuruwatta Housing Project	UDA	1,2,3,4
E-2-1-2-2-7	Orugodawatta Housing Project	UDA	1,2,3,4
E-2-1-2-2-8	Baseline Road, Borella Housing Project	UDA	1,2,3,4
E-2-1-2-2-9	Peliyagoda Housing Project	UDA	1,2,3,4

1 Treasury Funds

2 Institutional Funds

3 Funds granted by international organizations

4 Public Private Partnerships

5 Loans granted by international organizations

6 Private Investments

1st Priority Projects identified by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
E-2-1-3	Special Property Development Projects conducted by UDA		
E-2-1-3-2	Mixed Development Project at Borella Postal Office Premises	UDA/CMC	5
E-2-1-3-3	Elumaduwa and Masmaduwa (Baseline Station) Development Project	UDA/CMC	5
E-2-1-3-4	Existing Kyman Gate and Old Town Hall Regeneration Project	UDA/CMC/ Department of Cultural Affairs	1,2,3
E-2-3	Management of Historical Buildings through conservation to safeguard historical value while enhancing economic value		
E-3	Tourism Development		
E-3-1	Carrying out Catalyst Tourism Projects to promote identified Tourism Zones (Project Code – E-3-1)		
E-3-1-6	Catalyst Tourism Projects to promote Colonial Heritage Zone		
E-3-1-6-1	Conducting Colonial Heritage Conservation Project at Colombo Fort, Pettah & Maradana	UDA/ Archeological Department/ CMC	1,2,3,5
E-3-3	Introducing a Heritage Trail as a novel tourism experience within Colombo Commercial City		
E-3-3-1	Renovation of Listed Building Falling within the identified Heritage Trail	UDA/CMC/ Ministry of Cultural Affairs/ Archeological Department	1,2,3,4,5
E-3-3-2	Estabilishing Tourist Information Center	UDA/CMC/ Ministry of Cultural Affairs/ Archeological Department	5
E-3-3-3	Promoting Pettah Bazaar as a special walking area	UDA/CMC/ SLTDA	1,2,3
E-3-3-4	Introducing a Hop-On Hop-Off City tour bus service	CMC/ SLTDA/ SLTB	5
E-3-3-5	Linking water transportation into the heritage trail	SLTDA/ SLLRDC/ CMC/ Archeological Department/ Ministry of Cultural Affairs	1,2,3
E-3-3-6	Maintaining a special paved character and pedestrian environment within the pedestrian paths falling within the proposed Heritage Trail	CMC/ PRDA/ Archeological Department	1,2,3

E-3-4	Introducing a new City Branding to Colombo Commercial City with a Unique Signage System		
E-3-4-1	Maintaining a unique signage system for road, highway, rail, LRT, water transport networks of Colombo Commercial City	UDA/CMC/RDA	
E-3-4-2	Maintaining a unique signage system for public signs including information boards, navigation maps and public advertisements boards	UDA/CMC	
E-3-4-3	Having a special set of guidelines to maintain standards for private sign-boards and billboards	UDA/CMC	
E-3-4-4	Having a unique typeface family that can be used in all types of public documentation related to Colombo Commercial City	UDA/CMC	

① Treasury Funds

② Institutional Funds

③ Funds granted by international organizations

④ Public Private Partnerships

⑤ Loans granted by international organizations

⑥ Private Investments

2nd Priority Projects identified by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
E-3	Tourism Development		
E-3-1	Carrying out Catalyst Tourism Projects to promote identified Tourism Zones (Project Code – E-3-1)		
E-3-1-5	Catalyst Tourism Projects to promote Colombo Tourism Zenith (Project Code)		
E-3-1-5-1	Development of a Contemporary History Museum and a Contemporary Art & Architecture Exhibition Centre	UDA/CMC/ Ministry of Cultural Affairs	5
E-3-5	Promoting and facilitating identified attraction places within Colombo commercial city		

Proposed and On-going projects incorporated by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
E-1	Port & Logistics Development		
E-1-1	Incorporating Colombo Port Expansion Project proposed by Sri Lanka Ports Authority	Port Development Authority	
E-1-1-1	East Container Terminal (ECT)	Port Development Authority	
E-1-1-2	Jaya Container Terminal III & IV Extension	Port Development Authority	
E-1-1-3	West Container Terminal (WCT)	Port Development Authority	
E-1-1-4	WCT Extension	Port Development Authority	
E-1-1-5	Colombo Port Expansion Project – Phase II	Port Development Authority	
E-1-1-6	ECT – SAGT (South Asia Gateway Terminal) Back to Back Terminal	Port Development Authority	

E-1-1-7	North Port Breakwater	Port Development Authority	
E-1-1-8	North Port Terminals	Port Development Authority	
E-1-2	Incorporating Logistics Corridor Development proposed by Western Region Megapolis Planning Project	Port Development Authority / UDA/	
E-1-3	Two special road and rail transport developments proposed by Ministry of Megapolis & Western Development and Sri Lanka Railways	Ministry of Megapolis & Western Development and SLRD	
E-1-4	Incorporating Bloemendhal Logistics Park Project	Port Development Authority / Sri Lanka Customs/ UDA/ SLLR&DC	
E-2	Property Development in Colombo Commercial City		
E-2-1	Direct Engagements in Property Developments		
E-2-1-3	Special Property Development Projects conducted by UDA		
O-1-6-3	Borella Cemetery Park Development Project	UDA/CMC	
E-2-1-3-1	Colombo Hospital Square Development Project	UDA/CMC	
E-2-1-3-5	Manning Market Relocation Project	UDA/CMC	
E-2-1-3-6	Kirimandala Mawatha Mixed Development Projects	UDA/CMC	
E-2-2	Releasing of Realty Space (lands & built space) for Property Developments		
E-2-2-1	Releasing lands occupied by Underserved Settlements through Urban Regeneration Project (URP) of UDA	UDA	
E-2-2-2	Releasing of lands by relocating Government Establishments to Kotte Capital City		
E-2-2-3	Releasing of Urban Development Authority Owned Properties for Developments	UDA	

① Treasury Funds

② Institutional Funds

③ Funds granted by international organizations

④ Public Private Partnerships

⑤ Loans granted by international organizations

⑥ Private Investments

Proposed and On-going projects incorporated by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
E-3	Tourism Development		
E-3-1	Carrying out Catalyst Tourism Projects to promote identified Tourism Zones		
E-3-1-1	Catalyst Tourism Projects to promote Beach Tourism Zone		
E-3-1-1-1	Incorporating Tourism Projects proposed by stakeholder agencies at Beach Tourism Zone		
E-3-1-1-1-a	Colombo Port City Development Project	Ministry of Megapolis & Western Development	
E-3-1-1-b	Development of Yacht Marina and Boat Building Yard in Dikowita	Ministry of Megapolis & Western Development	
E-3-1-4	Catalyst Tourism Projects to promote Wetland Tourism Zone		
E-3-1-4-1	Incorporating Tourism Projects proposed by stakeholder agencies at Wetland Tourism Zone		
E-3-1-4-1-a	Bolgoda Lake Tourism Project	UDA/SLLR&DC	
E-3-2	Incorporating Tourism Projects Proposed by Sri Lanka Tourism Strategic Plan – 2017-2020	SLTDA	

1 Treasury Funds

2 Institutional Funds

3 Funds granted by international organizations

4 Public Private Partnerships

5 Loans granted by international organizations

6 Private Investments

12.2.4. Projects under Utilities Management Strategy

1st Priority Projects identified by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
U-2	Social Infrastructure Projects		
U-2-1	Public Markets Improvement & Construction Projects		
U-2-2	Provision of Sports and Recreational Facilities		
U-3-1	Provision of Public Sanitary Facilities		
U-3-2	Provision of Other Public Facilities		
U-3-2-1	Provision of City Information Centers		
U-3-2-2	Provision of Direction Maps		
U-3-2-3	Provision of Seating Areas		
U-3-3	Introducing Smart City Facilities		
U-3-3-1	Introducing Smart Transportation		
U-3-3-2	Introducing Smart City Lighting		

① Treasury Funds

② Institutional Funds

③ Funds granted by international organizations

④ Public Private Partnerships

⑤ Loans granted by international organizations

⑥ Private Investments

1st Priority Projects identified by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
U-1	Pipe-borne Water Supply		
U-1-1	Incorporating Water Supply Improvement Projects proposed by relevant stakeholders		
U-1-2	Incorporating Wastewater Management Projects proposed by relevant stakeholders		
U-1-3-1	Greater Colombo Wastewater Management Project	NWS&DB	
U-1-3-2	Ratmalana – Boralesgamuwa Wastewater Management Project	NWS&DB	
U-1-3	Incorporating Solid Waste Management Projects proposed by relevant stakeholders	NWS&DB	
U-1-4-1	Kerawalapitiya Waste to Energy Project (500Mt to 10MW)	Western Power (Pvt) Ltd	PPP
U-1-4-2	Karadiyana Waste to Energy Project (500Mt to 10MW)	Faiway Holdings (pvt) Ltd	PPP
U-1-4-3	Transfer of Solid Waste to Aruwakkaru Sanitary Landfill Site at Puttlam	Ministry of Megapolis & Western Development	PPP
U-1-5	Introducing Underground Utility Ducts	Public Utilities Commission of Sri Lanka/ CECB/ NWSDB	

① Treasury Funds

② Institutional Funds

③ Funds granted by international organizations

④ Public Private Partnerships

⑤ Loans granted by international organizations

⑥ Private Investments

12.2.5. Projects under Public Outdoor Recreational Space Management Strategy

1st Priority Projects identified by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
O-1	Provision of Public Open Spaces		
O-1-1	Provision of Active Open Spaces (Eg: playgrounds, golf grounds, swimming pools, theatres, community halls, libraries & aquariums)	UDA/Relevant Local Authorities	1,2,3,5
O-1-2	Provision of Passive Open Spaces/ Parks (Eg: Promotion of Cemeteries as public parks)	UDA/Relevant Local Authorities	1,2,3,5
O-1-3	Provision of Active Open Spaces– Other parks (Eg: children parks, pocket parks, parks/ amenities, linear parks)	UDA/Relevant Local Authorities	1,2,3,5
O-1-4	Provision Water based Larger City Parks	UDA/Relevant Local Authorities / SLLR&DC	1,2,3,5
O-1-4-1	Improvement of Galle Face Green	UDA/Relevant Local Authorities	1,2,3,5
O-1-4-2	Development of Bellanwila Wetland Park	UDA/Relevant Local Authorities SLLR&DC/ Central Environmental Authority	1,2,3
O-1-5	Wetland based Larger City Parks		
O-1-5-1	Kimbula-ela Urban Park	UDA/CMC/SLLR&DC	
O-1-5-2	Meethotamulla Urban Park	UDA/CMC/SLLR&DC	
O-1-6	Attraction Grounds		
O-1-6-1	Viharamahadevi Park	UDA/ CMC	
O-1-6-2	Arcade Independence Square	UDA/ CMC	
O-1-6-3	Borella Cemetery Park	UDA/ CMC	

① Treasury Funds

② Institutional Funds

③ Funds granted by international organizations

④ Public Private Partnerships

⑤ Loans granted by international organizations

⑥ Private Investments

1st Priority Projects identified by Colombo Commercial City Development Plan – 2019-2030			
Project Code	Project Name	Responsible Agencies	Financing Mechanism
O-2	Networking of Green Spaces		
O-2-1	Promoting Ceremonial Boulevards		
O-2-1-1	Horton Place Road	CMC/ UDA/ RDA	
O-2-1-2	Bauddhaloka Mawatha up to Sri Jayawardenepura Rd	CMC/ UDA/ RDA	
O-2-1-3	Dudley Senanayake Mw. & Sri Jayawardenepura Rd	CMC/ UDA/ RDA	
O-2-2	Promoting Transit Boulevards		
O-2-2-1	Kandy Road	CMC/ RDA	
O-2-2-2	Negombo Road	CMC/ RDA	
O-2-2-3	Base line road	CMC/ RDA	
O-2-2-4	Cotta Road	CMC/ RDA	
O-2-2-5	Maradana Road	CMC/ RDA	
O-2-2-6	awissawella road	CMC/ RDA	
O-2-2-7	bandarayaka mawatha	CMC/ RDA	
O-2-2-8	Sri Sumanatissa Mawatha	CMC/ RDA	
O-2-2-9	Hunupitiya Railway Road	CMC/ RDA	
O-2-2-10	Horana Road	CMC/ RDA	
O-2-2-11	High level Road	CMC/ RDA	
O-2-2-12	Baseline extention	CMC/ RDA	
O-2-2-13	Hunupitiya Road	CMC/ RDA	
O-2-2-14	Olcott Road	CMC/ RDA	

O-2-2-15	Galle Road	CMC/ RDA	
O-2-2-16	T.B.Jayah Mawatha	CMC/ RDA	
O-2-2-17	Mc Callum Road	CMC/ RDA	
O-2-3	Introducing Water transportation Linkages		
O-2-3-1	Kelani River	Irrigation Department	
O-2-3-2	Beira Lake	SLLR&DC	
O-2-3-3	St. Sebastian Canal	SLLR&DC	
O-2-3-4	Hamilton Canal	SLLR&DC	
O-2-3-5	Kolonnawa Canal	SLLR&DC	

1 Treasury Funds

2 Institutional Funds

3 Funds granted by international organizations

4 Public Private Partnerships

5 Loans granted by international organizations

6 Private Investments

Annexure – 5.1

Demarcation of Broader Density Zones within Colombo Commercial City

Demarcation of Broader Densification Zones

1.1) Criterion Considered for the demarcation of Broader Densification Zones

a) Carrying Capacities - (Supply capacity of Infrastructure, Bearing Capacity of Environment, Human Space Demand)

The reason for inclusion of this criteria was to make certain that high densities will be allowed only within the areas which have relatively high carrying capacities in terms of supply capacities of infrastructure, bearing capacity of environment and space capacities to meet average human space demands. One of the main issues identified during the context analysis was the increasing trend of high-dense developments taking place in areas which do not have adequate infrastructure facilities to meet the growing demands. Hence, it was attempted to address this issue by identifying the areas which have relatively high infrastructure capacities towards which the high-dense developments can be promoted. Also, based on environmental sensitivity analysis, it was ensured that high-dense developments would not be promoted within the areas with high environmental sensitivity.

b) Population & Urbanization Trends

Existing population growth and urbanization trends are good indicators which help to identify existing development trends. Hence, these trends were analyzed to identify the areas towards which the natural development is trending as a result of market forces, state interventions and other environmental, social and economic factors. The main idea was to lead the future high-dense developments towards the areas where the development is naturally trending.

c) Land Use & Existing Floor Area Ratios (FAR)

Existing land use pattern and the utilization of allowed FAR were also considered as main criteria to determine the proposed broader densification zones. The areas in which the high-dense developments and related uses are already evident or rapidly trending as per the existing land use pattern were given priority in promoting high dense developments. In addition, the areas which have not achieved permissible FARs due to other development constraints were also identified to be promoted with high-dense developments under the condition those constraints are managed with simultaneous right planning interventions.

d) Ongoing & Proposed Projects

The ongoing and proposed projects were considered as another major criteria when determining the areas to be promoted with high-dense developments. Any area that was supposed to be served with on-going or proposed infrastructure developments were considered priority areas that could be promoted for high-dense developments without encountering problems due to deficiencies in infrastructure such as pipe-borne water supply, electricity supply, waste water management, solid-waste management etc. Also, the inclusion of this criteria enabled to identify the areas which are underutilized in terms of availability of enough capacities, thus which can be immediately densified.

1.2) GIS based Weighted Overlay Analysis for the demarcation of broader zoning boundaries

The input layers under the above mentioned criterion were identified based on the availability of data as mentioned in the Table 1.

Criterion	Input Data Layer	Figure
<i>Carrying Capacities - (Supply capacity of Infrastructure, Bearing Capacity of Environment, Human Space Demand)</i>	<i>Environment Sensitivity Index</i>	<i>Figure 01</i>
	<i>Development Pressure Index</i>	<i>Figure 02</i>
<i>Population & Urbanization Trends</i>	<i>Future Forecasted Population Density based on Natural Growth Rate</i>	<i>Figure 03</i>
	<i>Present Level of Urbanization</i>	<i>Figure 04</i>
	<i>Land Value Distribution</i>	<i>Figure 05</i>
<i>Land Use & Existing Floor Area Ratios (FAR)</i>	<i>Existing Land Use Pattern</i>	<i>Figure 06</i>
	<i>Existing FAR Utilization Pattern</i>	
<i>Ongoing & Proposed Projects</i>	<i>Impact Area of Ongoing Mega Projects</i>	

Table 01 – Criterion Considered for the demarcation of Broader Densification Zones

The above mentioned input layers were evaluated based on their level of significance and analyzed using weighted overlay method using Arc GIS Software. The Composite Map which is the output layer of Weighted Overlay Analysis was considered as the base for demarcating broader densification zones such as high, moderate and low density zones.



Figure 1 : Environment Sensitivity Index

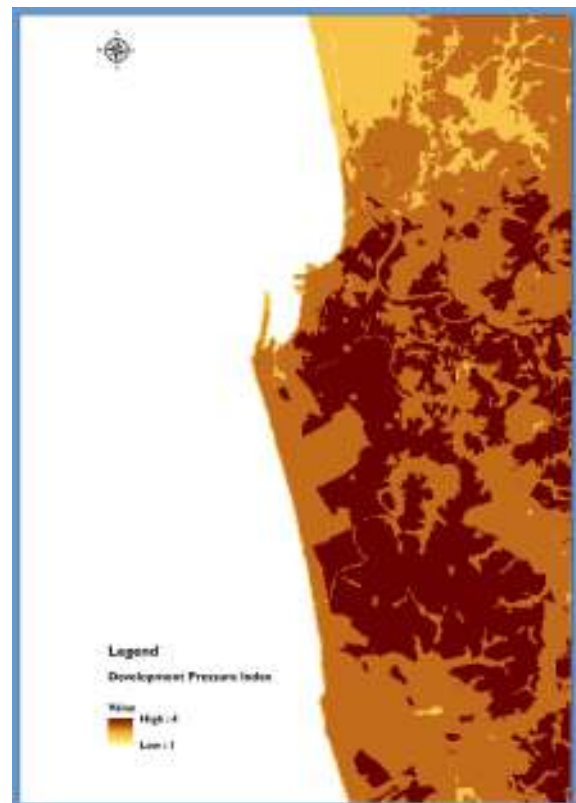


Figure 2 : Development Pressure Index

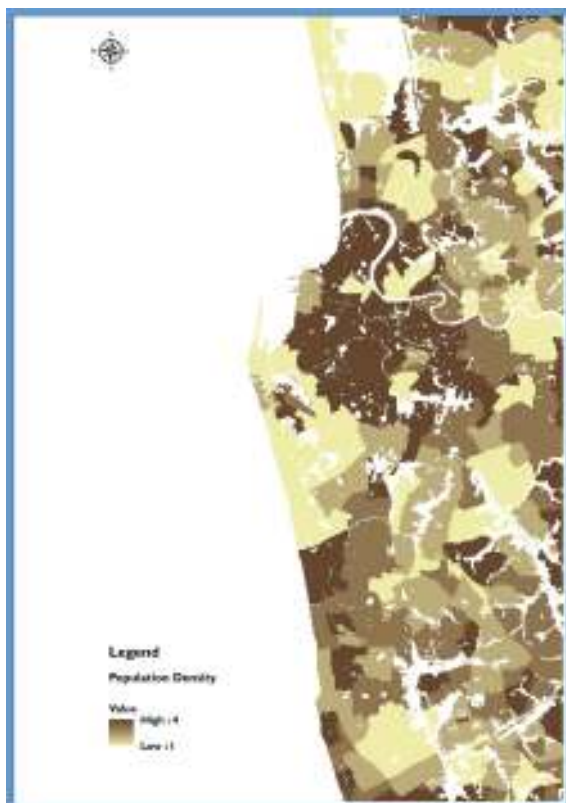


Figure 3 : Population Density - 2030

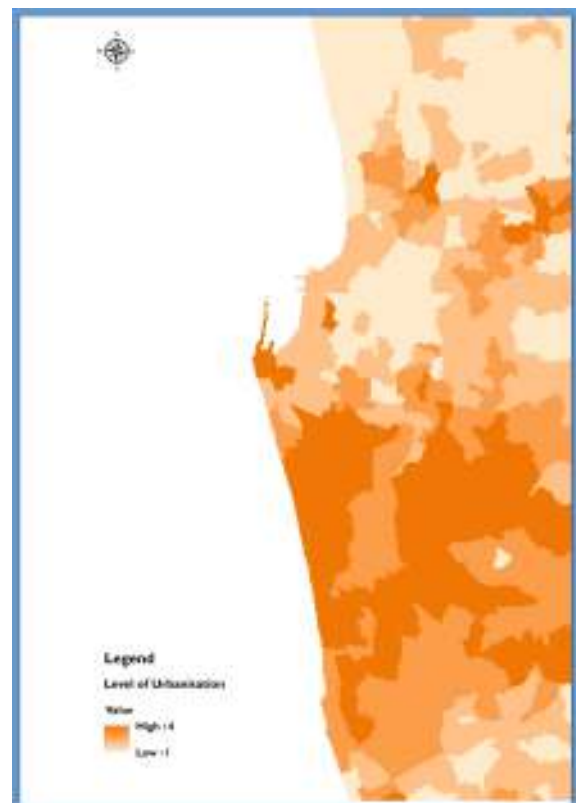


Figure 4 : Level of Urbanization

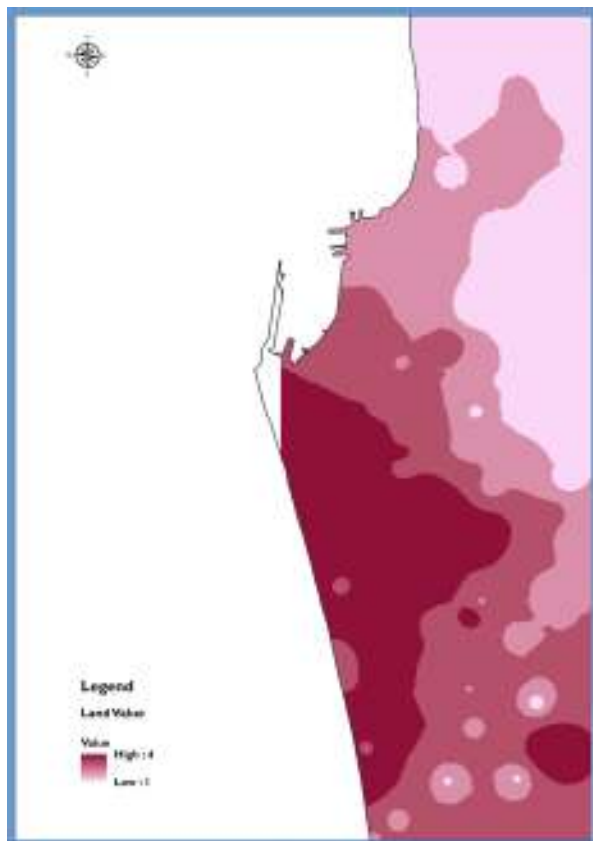


Figure 5: Land Value Distribution

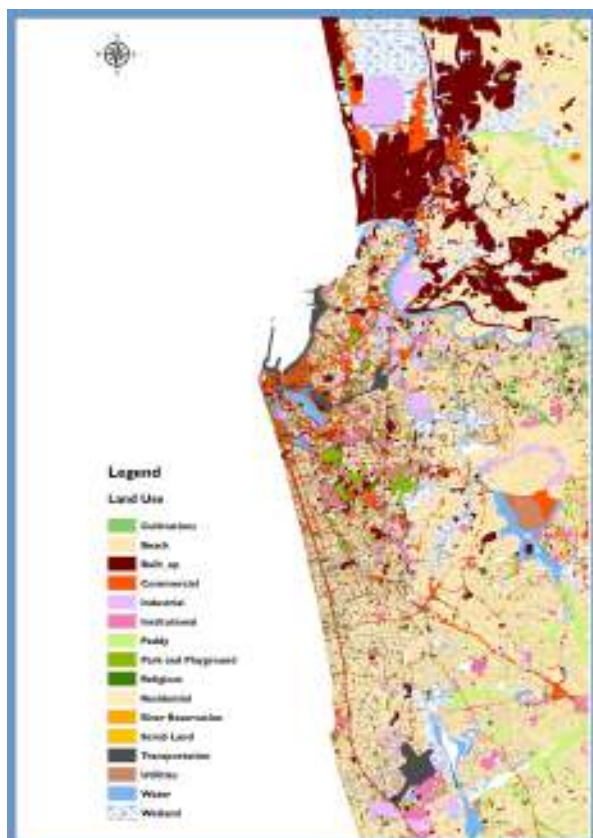


Figure 6: Land Use Pattern

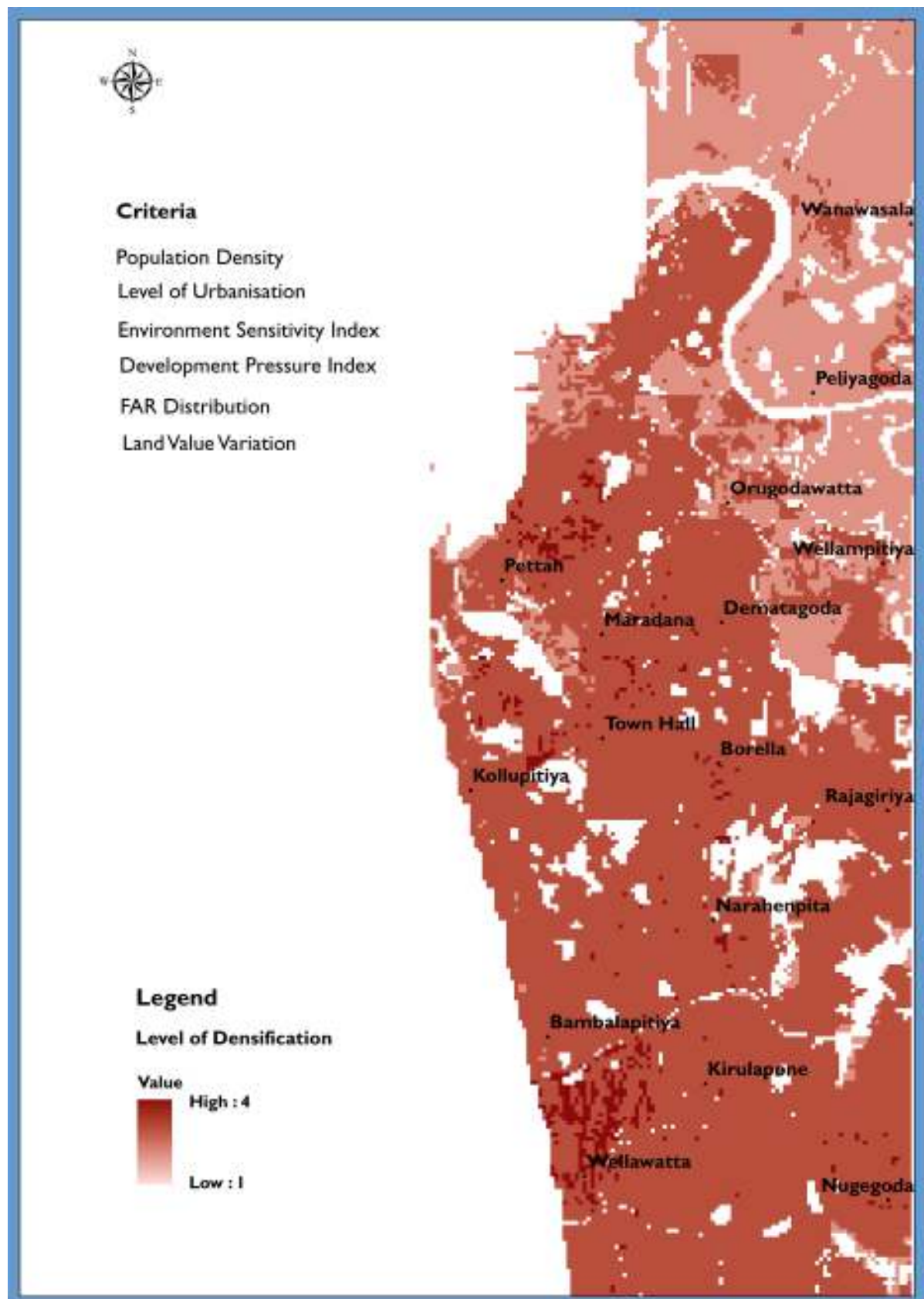


Figure 7 : Level of Densification – Output Layer of Weighted Overlay Analysis

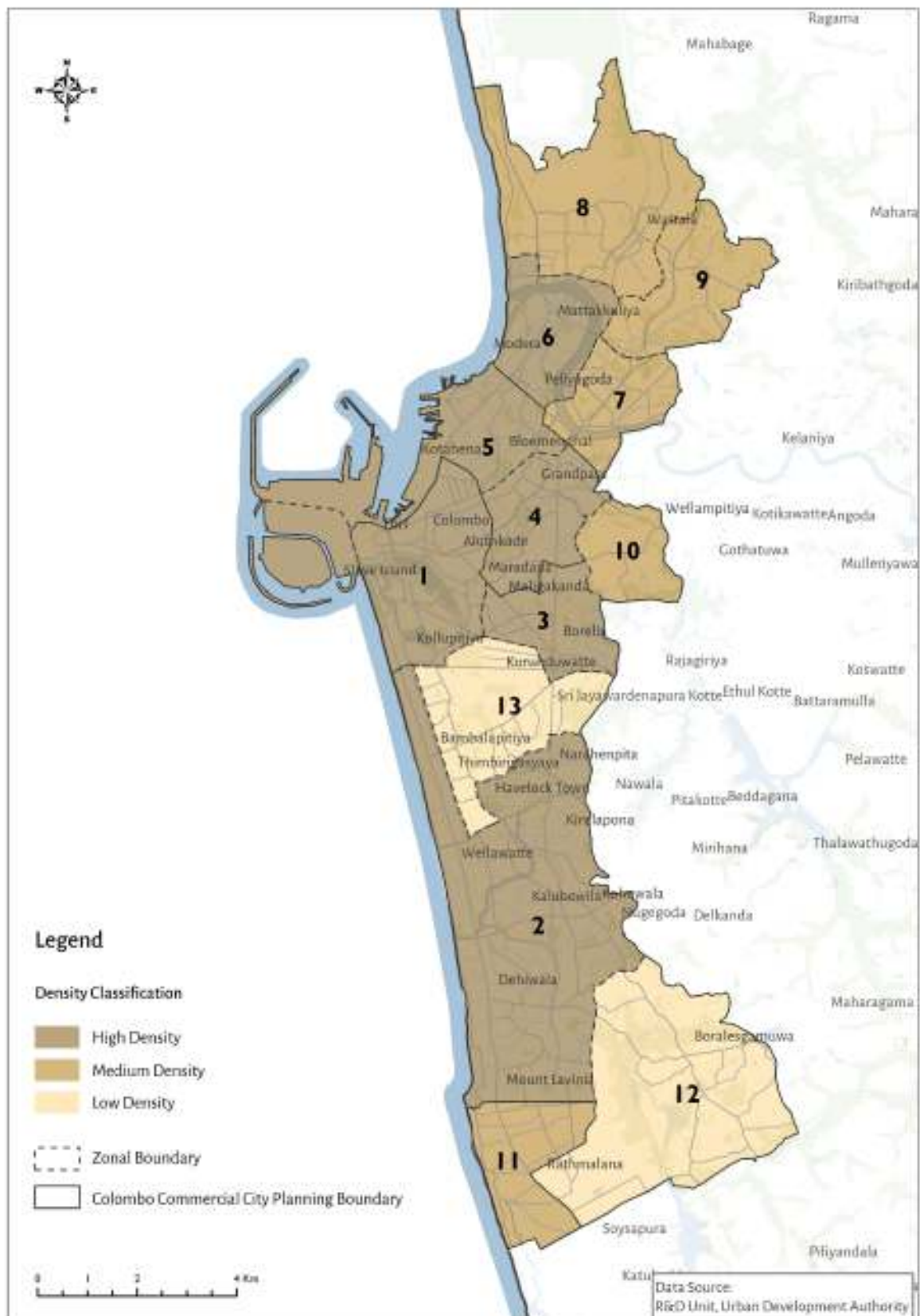


Figure 8: Proposed Broader Densification Zones of Colombo Commercial City

Annexure – 7.1

Listed Buildings & Monuments within City of Colombo

<i>Id</i>	<i>Name</i>	<i>Description</i>	<i>Gazette No</i>	<i>Type</i>	<i>Existing Use</i>
H01	Delft Gateway	Used as an entrance to the Colombo Fort	1739-2011/12/30	Monument	Historical Monument
H02	Dutch Hospital	Used as a hospital for Dutch soldiers and officials	1401-2005/07/03	Ancient Building/Architecture	Commercial
H03	Cargills Building	Initially built for mercantile purposes	1736-2011/12/09	Ancient Building/Architecture	Commercial (basement abandon)
H04	Parama Vighnartha Building	Parama Vighnartha Buddhist Association Building	1085-1999/06/18	Ancient Building/Architecture	Commercial
H05	Cliffenburg House	Old Residence at SI Navy premises	1116-2000/01/21	Ancient Building/Architecture	SL Navy administrative
H06	Old Railway Station	Colombo terminus Station	1085-1999/06/18	Ancient Building/Architecture	Museum
H07	Kaiman Tower	Old Dutch bell tower	1116-2000/01/21		Historical Monument
H08	Dutch Museum	Initially used as the residence for Dutch Governor (Thomas Van Re)	1085-1999/06/18		Museum
H09	Post Office Building	Initially used as a residence for British governor Arthar Havelock	1116-2000/01/26		Administrative
H10	Olkot Building	House for Henry Olkot	1085-1999/06/18		Conserved
H11	Gothami Viharaya	Historic temple with wall arts done by George Kitt	1505-2007/07/06	Ancient building/Religious	Religious
H12	St. Lucia's Church	Historic Church	1085-1999/06/18	Ancient building/Religious/Architecture	Religious
H13	Grand Oriental Hotel	First hotel in Asia	1116-2000/01/21	Ancient Building/Architecture	Only ground floor use by BOC
H14	Deepaduththaramaya	First Buddhist temple in Colombo city	1116-2000/01/21	Ancient Building/Architecture	Religious
H15	Jawatta Old Well	Established in Portuges period	1401-2005/07/08	Monument	Monument
H16	Jinthupitiya Kovila	Ancient Church	1868-2014/06/20	Ancient Building/Architecture	Religious
H17	Kuppiyawatta Jayasekaramaya	Historic temple & devalaya	1085-1999/06/18	Ancient building/Religious	Religious
H18	Maligakanda Vidyodaya Piriwena	Historic temple	1085-1999/06/18	Ancient building/Religious	Religious

Id	Name	Description	Gazette No	Type	Existing Use
H19	Maligakanda Mahabodhi Viharaya	Historic temple	1085-1999/06/18	Ancient building/ Religious	Religious
H20	Old Guard House	Guard House near old Parliament	10589-1953/01/16	Monument	Guard House
H21	Pilot Station Light house	Ancient Light house at Southern breakwater	1116-2000/01/21	Monument	Historical Monument
H22	North end Light house	Ancient Light house at North end breakwater	1116-2000/01/21	Monument	Historical Monument
H23	Sri Lanka Port Authority	Old Custom building	1116-2000/01/21	Ancient Building/ Architecture	Port authority activities
H24	National Museum	The biggest museum in SL, commenced in British period	1401-2002/10/18	Ancient Building/ Architecture	Museum
H25	White ways Building	Initially used for retail commercial		Ancient Building/ Architecture	Administrative (own by ministry of defense)
H26	Loyd's Building	Initially used for commercial purposes by Clifford Lake Company		Ancient Building/ Architecture	Commercial
H27	Gramarakshaka Building	Initially used for British Administrative purposes		Ancient Building/ Architecture	Gramarakshaka Head Office
H28	St. Peter's Church	Initially used as residence for Dutch governors		Ancient Building/ Architecture	Religious
H29	Rajasingha Sirakutiya	Temporary locker for King Sri Wickrama Rajasingha		Monument	Monument
H30	Red Mosque	Initially Commissioned by local Indian community		Ancient Building/ Architecture	Religious
H31	Kochchikade Church	Ancient Church built in Dutch period		Ancient Building/ Architecture	Religious
H32	Wolfendal Church	Ancient church built by Dutch period		Ancient Building/ Architecture	Religious
H33	Standard Chartered Bank Building	Built at British period		Ancient Building/ Architecture	Commercial
H34	Eye Hospital	Queen Victoriya Memorial Hospital at British Period		Ancient Building/ Architecture	Health Services
H35	President's House	Old residence of British Governors		Ancient Building/ Architecture	Official Residence to SL President
H36	Indian Bank Building	First overseas branch of Indian Bank		Ancient Building/ Architecture	Commercial
H37	Clock Tower - Chathem Street	Light house and clock tower		Monument	Historical Monument

Colombo Commercial City Development Plan 2019 – 2030

Urban Development Authority

<i>Id</i>	<i>Name</i>	<i>Description</i>	<i>Gazette No</i>	<i>Type</i>	<i>Existing Use</i>
H38	Old Town Hall	Used as old town hall		Ancient Building/ Architecture	Museum
H39	Bellanvila Rajamaha Viharaya	Placed one of the first offshoots of Jaya Sri Maha Bodhi		Ancient Building/ Religious	Religious
H40	York Building	Built at British period		Ancient Building/ Architecture	Commercial
H41	General Post Office	General Post office commenced in British period		Ancient Building/ Architecture	Postal services
H42	Valker's Building	Commercial building built at British period		Ancient Building/ Architecture	Commercial
H43	Annai Velakkanni Church	Ancient Church		Ancient Building/ Architecture/ Religious	Religious
H44	BOC Building	BOC at Lower Chatham Street		Ancient Building/ Architecture	Finance/ Commercial
H45	Paramananda Viharaya	Historic temple		Ancient building/ Religious	Religious
H46	Methodist Church	Methodist church at Dam Street		Ancient Building/ Architecture/ Religious	Religious
H47	Gafoor Building	Initially used by H.W.Kave & Company for mercantile purposes		Ancient Building/ Art	Religious
H48	Laden Bastian Gate	Entrance gate to port		Monument	Security entrance
H49	St. Thomas Church	Ancient Church		Ancient Building/ Architecture/ Religious	Religious
H50	Sri Ponnambalawaneswaram Kovil (Gal Kovila)	Ponnambalam Ramanadan entrusted the administrative after his father.		Ancient Building/ Architecture/ Religious	Religious
H51	Pettah Rail Station Building	Pettah Rail Station Building		Ancient Building/ Architecture	Railway station facilities
H52	Light House	Ancient light house near Navy camp		Monument	Historical Monument
H53	Osusala	Ancient Building designed by British period by John Walker		Ancient Building/ Architecture	Commercial
H54	Pohora Gabadawa			Monument	Historical Monument
H55	Lamp Post			Monument	Historical Monument

<i>Id</i>	<i>Name</i>	<i>Description</i>	<i>Gazette No</i>	<i>Type</i>	<i>Existing Use</i>
H56	Sathosa Building			Ancient Building/ Architecture	Commercial
H57	Laksala Building			Ancient Building/ Architecture	Commercial
H58	NSB Building			Ancient Building/ Architecture	Commercial
H59	Police Station Building			Ancient Building/ Architecture	Police Station (services)
H60	Technical Collage			Ancient Building/ Architecture	Academic
H61	Mathiw's Building			Ancient Building/ Architecture	Commercial
H62	C.W.Mackie Building				

Other Significant Buildings and Monuments in Colombo Commercial City

<i>Id</i>	<i>Name</i>
S01	BMICH
S02	BOC Head Office
S03	Central Bank of Sri Lanka
S04	Department of National Archives
S05	Galle Face Hotel
S06	Independent Square
S07	Leprosy Hospital
S08	Lotus Tower
S09	Mount Lavinia Hotel
S10	Municipal Council, Colombo
S11	National Art Gallery
S12	Nulum Pokuna Theater
S13	Old Parliament Building
S14	Planeterium
S15	Public Library, Colombo
S16	Sambodhi Chaithyaya
S17	Seema Malakaya
S18	The Supreme Court
S19	Twin Tower (East)
S20	Twin Tower (West)

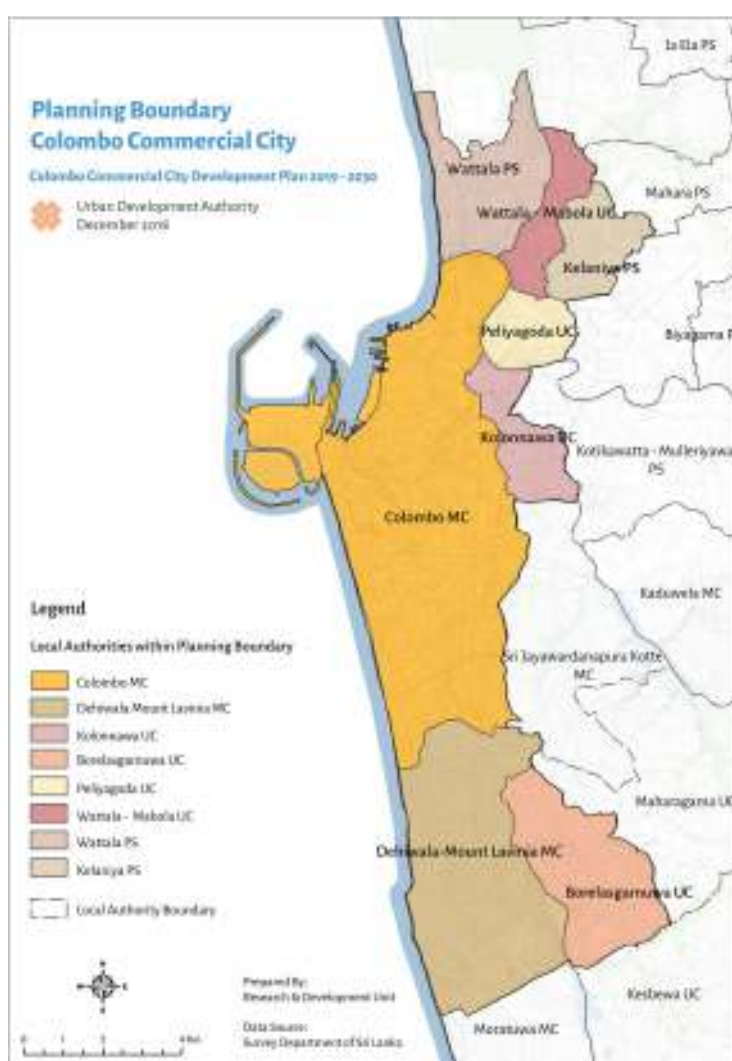
Annexure – 8.1

Population Prediction for Colombo Commercial City

Colombo Commercial City

Colombo Commercial City consists with 08 Local Authorities (LAs) in Colombo and Gampaha Districts.

- Colombo Municipal Council (CMC)
- Dehiwala – Mt.Lavinia Municipal Council (DMMC)
- Boralesgamuwa Urban Council (UC)
- Kolonnawa Urban Council
- Peliyagoda Urban Council
- Wattala-Mabola Urban Council
- Wattala Pradeshiya Sabha (PS) - Part
- Kelaniya Pradeshiya Sabha - Part



Scenario 1 – Business as Usual Scenario (BAU)

Resident Population

Resident population was estimated as per the natural growth rate of each LA.

LA	Population 2011	Population 2017	Growth Rate	Population 2030
Boralesgamuwa UC	59,483	81,378	0.05224	160,500
CMC	555,152	555,031	-0.00004	554,800
Dehiwala-Mt. Lavinia MC	182,747	209,943	0.02312	283,600
Kelaniya PS	35,292	45,472 ¹	0.04224	78,700
Kolonnawa UC	59,802	57,285	-0.00717	52,200
Peliyagoda UC	27,434	27,392	-0.00026	27,300
Wattala - Mabola UC	27,944	30,917	0.01685	38,500
Wattala PS	53,055	565,291 ¹	0.01057	64,900
	1,000,909	1,063,947	0.01018	1,260,500

Sources: Population 2001 – Department of Census and Statistics,
Resident Population 2017 – Respective Local Authorities

Accordingly Resident Population in 2030	1,260,500
Population Increment (2017 – 2030)	196,553
Annual Growth Rate (2017 – 2030)	1.30%

Non-Residential Population

Commuter population was only available for 2017. Therefore commuter population was calculated considering the resident to commuter ratio in 2017.

¹ 2017 GND (Grama Niladhari Division) wise data was not available. Therefore, as only parts of Kelaniya and Wattala PSs are included in the planning boundary, population was taken considering the growth rates of respective local authorities.

Colombo Commercial City Development Plan 2019 – 2030

Urban Development Authority

LA	Population 2017	Commuter Population 2017	Population 2030	Commuter Population 2030 (According to Resident to commuter ratio)
Boralesgamuwa UC	81,378	12,000	160,500	24,000
CMC	555,031	600,000	554,800	600,000
Dehiwala-Mt. Lavinia MC	209,943	147,000	283,600	199,000
Kelaniya PS	45,472	12,000	78,700	20,000
Kolonnawa UC	57,285	10,000	52,200	9,000
Peliyagoda UC	27,392	15,000	27,300	15,000
Wattala - Mabola UC	30,917	15,500	38,500	19,000
Wattala PS	56,529	4,000	64,900	5,000
	1,063,947	815,500	1,260,500	891,000

Source : Resident Population & Commuter Population 2017 – Respective Local Authorities

Accordingly Commuter Population in 2030	- 891,000
Commuter Population Increment (2017 – 2030)	- 75,500
Annual Growth Rate (2017 – 2030)	- 0.71%

Conclusion;

Resident Population

- CMC, Kolonnawa UC and Peliyagoda UC have negative growth rates which are not acceptable with the ongoing and proposed projects that will attract more residents to the respective areas.
- Boralesgamuwa UC shows a high growth rate of 5.2%, during the period of 2011 to 2017 which shows that there was a high demand for the area as a residential destination. But considering the existing land availability of the area, it cannot be expected to have the same growth rate in the coming years.
- Therefore considering the above, population according to the BAU scenario cannot be accepted.

Non-residential Population

- As residential population of CMC, Kolonnawa UC and Peliyagoda UC were decreased, the non-residential population has also been decreased accordingly. But with the anticipated development and ongoing and proposed projects it is expected to increase the non-residential population in respective areas.
- Therefore Non-residential population according to the BAU scenario also cannot be accepted.

Scenario 2 – Based on Carrying Capacities of Urban Systems

1. Pipe Borne Water Supply

Existing Water Demand 2015

LA	Population 2015	Water Demand (m3/d)
Colombo MC	576,740	350,990
Dehiwala-Mt.Lavinia MC	189,853	83,652
Boralesgamuwa UC	58,841	13,867
Kolonnawa UC	63,146	17,480
Peliyagoda UC	28,825	11,158
Wattala - Mabola UC	29,402	11,848
Wattala PS	153,875	39,537
Kelaniya PS	114,326	33,187
Total	1,215,008	561,719

Source : National Water Supply and Drainage Board (NWSDB)

Water Demand in 2030

LA	Population 2030	Water Demand (m3/d)
Colombo MC	687,015	361,570
Dehiwala-Mt.Lavinia MC	226,155	85,379
Boralesgamuwa UC	72,595	18,151
Kolonnawa UC	80,951	20,906
Peliyagoda UC	35,825	13,323
Wattala - Mabola UC	36,811	14,180
Wattala PS	191,242	59,244
Kelaniya PS	143,143	41,420
Total	1,473,737	614,173

Source : National Water Supply and Drainage Board (NWSDB)

NWSDB has estimated population in 2030 as 1,473,737 and accordingly water demand as 614,173 m3 per day. Further, NWSDB ensures pipe borne water supply for the region with ongoing and proposed water supply projects.

Therefore, when considering the carrying capacity of the city in terms of pipe borne water supply, a resident population of 1,473,737 could be served within the city in 2030.

2. Waste Water Treatment Systems

Existing Situation (2011)

Existing Waste Water Treatment Systems are available only for CMC and part of DMMC.

CMC

- No of houses connected to CMC wastewater system 71,032
(Source: Census & Statistics Department, 2011)
- Total Population served with the waste water treatment system 284,128
(Household Size – 4)
- Total Population in CMC 2011 555,152
(Source: Census & Statistics Department, 2011)
- Population not being served from the system 271,024 (49%)

DMMC

- Population served with the waste water treatment system 10,790
(Source: Water Environment Partnership in Asia & NWSDB)
- Total Population served with waste water treatment systems in the planning area 294,918
- Total Population within Colombo Commercial City 2017 1,063,947
(Source: Respective Local Authorities)
- Total Population not being served from the systems 769,029

Accordingly, current waste water treatment systems only serves for 28% of the population.

Future Scenario (2030)

CMC

- Capacity of the treatment plant 200 MLD (million liters per day)
200,000 m³/d
- Catchment Population 838,000
(Source: NWSDB, 2017)
- Population in CMC according to the BAU Scenario 554,800

DMMC – Boralesgamuwa Catchment

- *Waste water flow in 2030 (For Boralesgamuwa)* 1,422 m³/d
- *Catchment Population in 2030* 9,140
(Source : NWSDB, 2017)

As mentioned above, currently waste water disposal system at Ratmalana serve 10,790 population in DMMC. Hence the total population that will be served from the waste water disposal systems will be 574,730 which is 46% of total population estimated according to the BAU scenario. But this is 95% of increase (population increment – 279,812) related to the existing situation in the area.

Conclusion;

Population that will be served in 2030 by;

<i>Pipe Borne Water Supply</i>	1,473,737
<i>Waste Water Treatment System</i>	574,730
<i>Total Population in 2030</i>	1,260,500
<i>(According to BAU Scenario)</i>	

Accordingly, water supply for the anticipated population will be sufficient while the waste water disposal will be lacking for 54% of the population.

But currently the city survives with only 28% of coverage of waste water treatment within the city. Therefore, with an increased service upto 46% in the city in 2030, the city will be able to accommodate population of 1.5 million without a serious issue in waste water management.

Scenario 3 – Based on the Anticipated Development

Although according to the BAU scenario and carrying capacity scenario population of 1,260,500 and 1,500,000 were derived respectively, the actual population that might attract with the anticipated development by the development plan must be predicted to serve the city population with adequate infrastructure and other facilities. Therefore a 3rd scenario was carried out to forecast the actual population that might be within the city in 2030.

Resident Population

LA	Population 2011	Population 2017	Growth Rate	Population 2030 (BAU)	Population 2030 (Adjusted)
Boralesgamuwa UC	59,483	81,378	0.05224	160,500	93,000
CMC	555,152	555,031	-0.00004	554,800	634,000
Dehiwala-Mt. Lavinia MC	182,747	209,943	0.02312	283,600	284,000
Kelaniya PS	35,292	45,472	0.04224	78,700	79,000
Kolonnawa UC	59,802	57,285	-0.00717	52,200	65,000
Peliyagoda UC	27,434	27,392	-0.00026	27,300	31,000
Wattala - Mabola UC	27,944	30,917	0.01685	38,500	38,000
Wattala PS	53,055	56,529	0.01057	64,900	65,000
	1,000,909	1,063,947	0.01018	1,260,500	1,289,000

Total population of 1,289,000 is rounded to 1,300,000.

Growth rates of CMC, Kolonnawa UC and Peliyagoda UC were negative. But with the anticipated development, these areas will be more populated. Therefore, the overall growth rate which was 1.02% was considered as the growth rate for these three areas.

When considering the population growth rate of Boralesgamuwa during 2011 to 2017, it shows a growth rate of 5.2% which is the highest in the area. It was because of the high demand for residential uses in the area. But with the existing land availability and the buildable space in the area, this growth rate will not sustain in the coming years. But a positive growth in the residential population can be anticipated. Therefore, the overall growth rate of 1.02 was taken as the growth rate of Boralesgamuwa UC also.

Accordingly Resident Population in 2030	1,300,000
Population Increment (2017 – 2030)	236,000
Annual Growth Rate (2017 – 2030)	1.5%

Non-residential Population

For the BAU scenario, non-residential population was forecast considering the residential to non-residential ratio in 2017. But this ratio will not be the same with the anticipated development within the city. Therefore, the percentage increment of non-residential population which will be attracted to the respective local authorities were decided by brainstorming based on the future anticipated development within the LA.

LA	Non-residential Population 2017	Expected Increment in Non-residential Population (%)	Non-residential Population Accordingly
<i>Boralesgamuwa UC</i>	12,000	20	14,400
<i>CMC</i>	600,000	35	810,000
<i>Dehiwala-Mt. Lavinia MC</i>	147,000	35	198,000
<i>Kelaniya PS</i>	11,600	20	14,000
<i>Kolonnawa UC</i>	10,000	15	12,000
<i>Peliyagoda UC</i>	15,000	20	18,000
<i>Wattala - Mabola UC</i>	15,500	12	17,000
<i>Wattala PS</i>	4,300	15	5,000
	815,400		1,088,000

<i>Accordingly Non-residential Population in 2030</i>	<i>1,100,000</i>
<i>Non-residential Population Increment (2017 – 2030)</i>	<i>284,600</i>
<i>Annual Growth Rate (2017 – 2030)</i>	<i>2.68%</i>

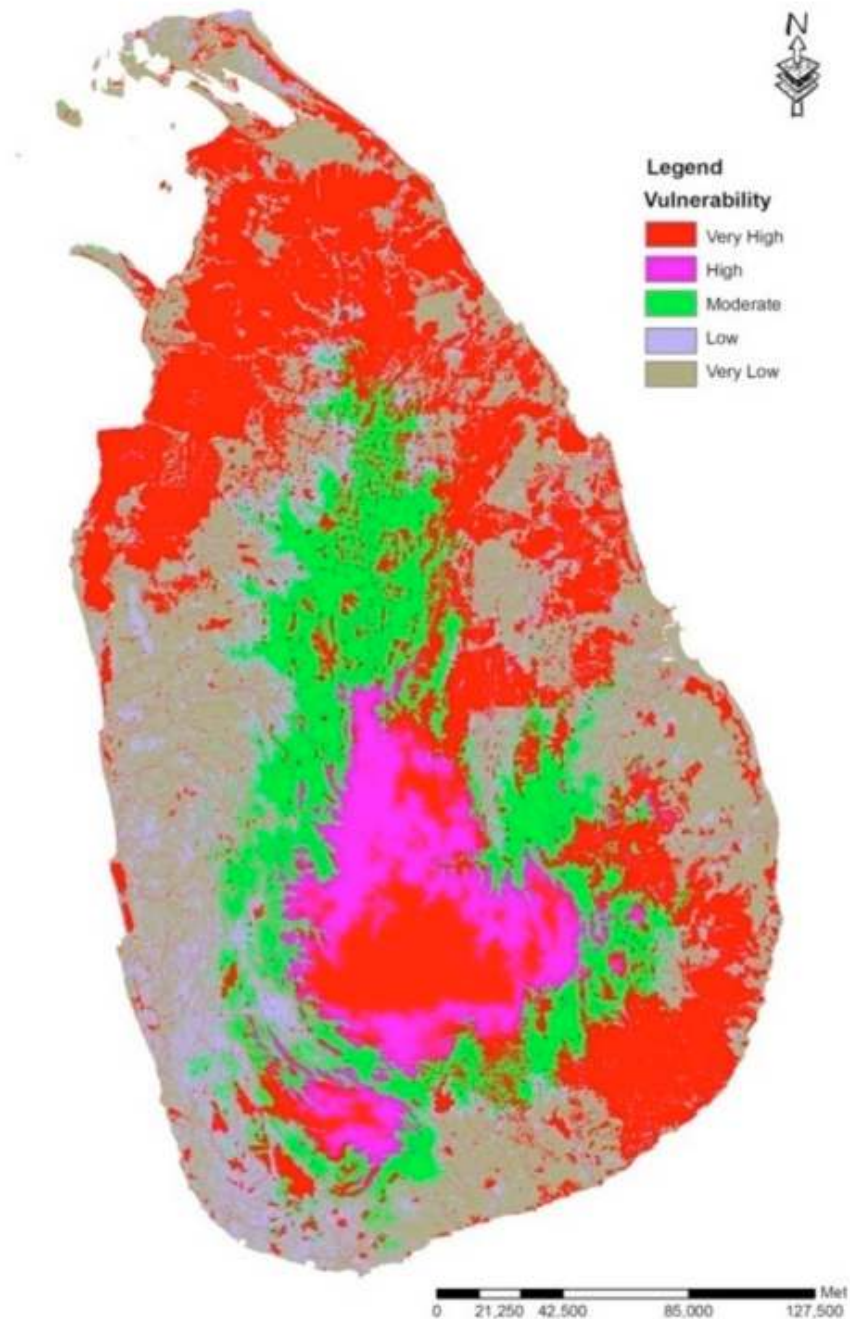
Evaluation of the Predicted Population with the NPP share of the Future Population

As all the development plans should be in line with the NPP, it is important to accommodate the projected population for the planning area by the NPP. According to NPP 2050, Colombo Metro Region is expected to have 4,000,000 residents by 2050. So, approximately 1,288,700 of population can be considered as reasonable for the Colombo Commercial City in 2030.

Further, the NPP has considered four aspects to select the developable lands in the country.

1. The Constrained Space that needs to be conserved due to sensitivities and to protect the long standing uniqueness of the landscape

Figure 1: Lands Crucial for Conservation due to Environmental Sensitivity

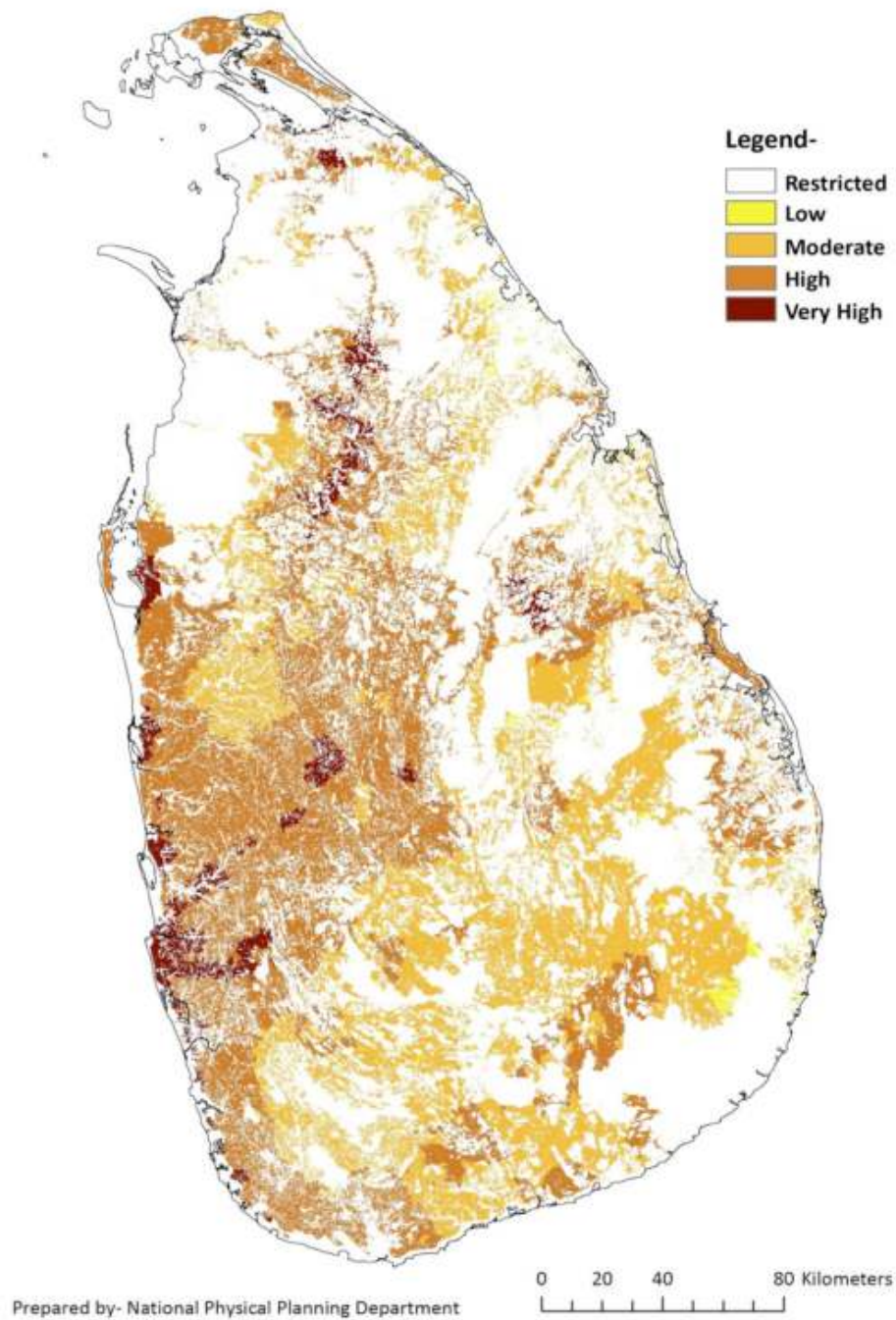


Prepared by the National Physical Planning Department on the information from Survey Department, Forest Department, National Building Research Organization, Wildlife Conservation Department

Source : NPP 2050, Updates- 2017 (Summary), National Physical Planning Department

2. The Potential Space in order to optimize and best utility of the available potentials throughout the island

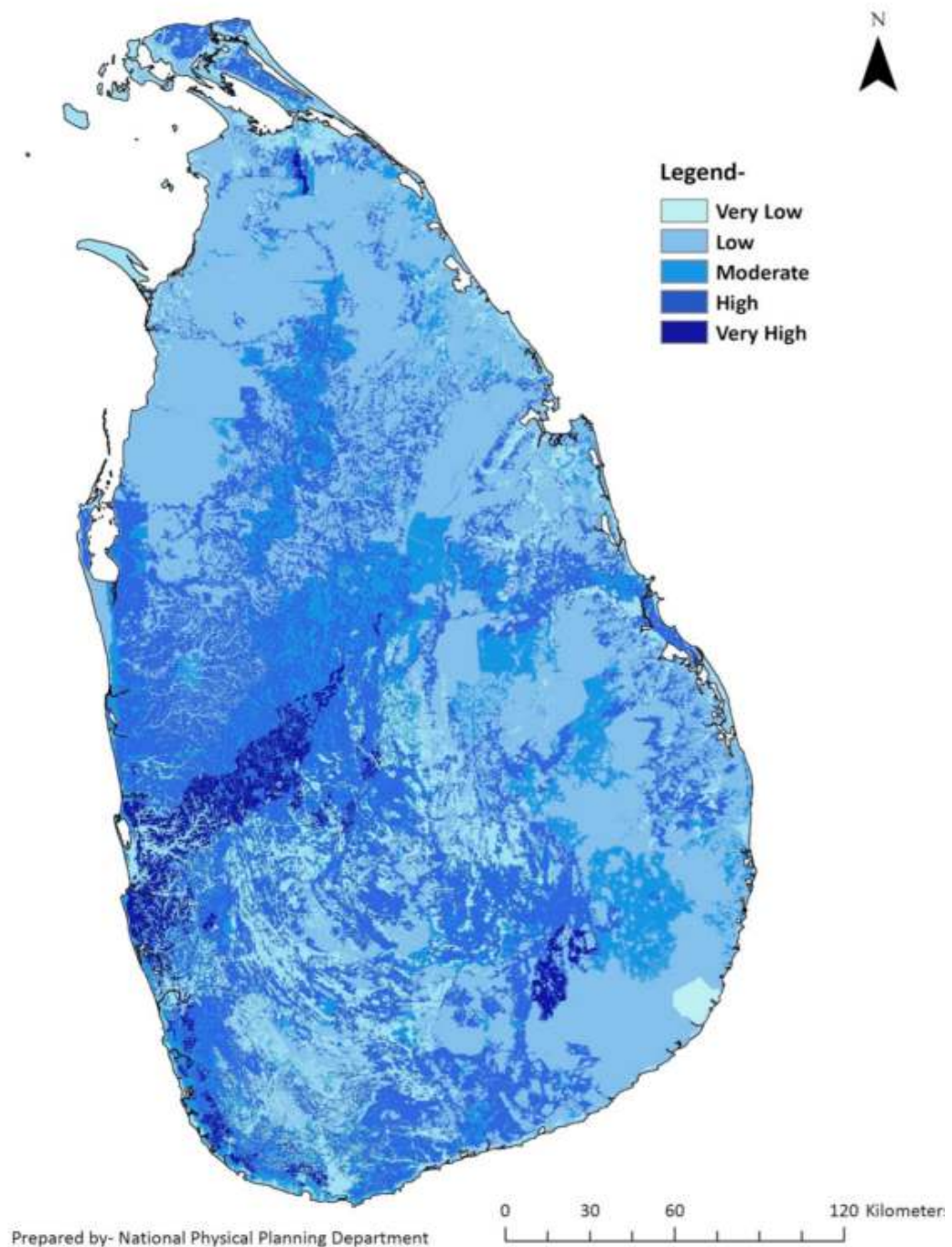
Figure 2: Lands Developable for the Best Utility of Land, Infrastructure and Other Resources



Source: NPP 2050, Updates- 2017 (Summary), National Physical Planning Department

3. The Livable Space that provides the most conducive environments for human habitation in the island

Figure 3: Lands with Livability and Suitable for Human Habitats



Source : NPP 2050, Updates- 2017 (Summary), National Physical Planning Department

4. The Explored Space that enables to identify the desired directions for future physical developments

Figure 4: Locations with High Potentials for Exploration of Possibilities



Source : NPP 2050, Updates- 2017 (Summary),
National Physical Planning Department

Accordingly, lands within the Colombo Commercial City has a very high potential to be developed in future with the lands with less environmental sensitivity, with lands developable for best utility of lands, infrastructure and other resources, lands with livability and suitable for human habitats and locations with high potentials for exploration of possibilities.

Therefore the predicted population can be accommodated within the region in the lands available and this population is in line with the population share predicted by the NPP for the region.

Population Distribution in to Zones

Colombo Commercial City was divided in to thirteen zones based on the ore, the resident population and commuter population predicted for the cities were distributed to the zones.

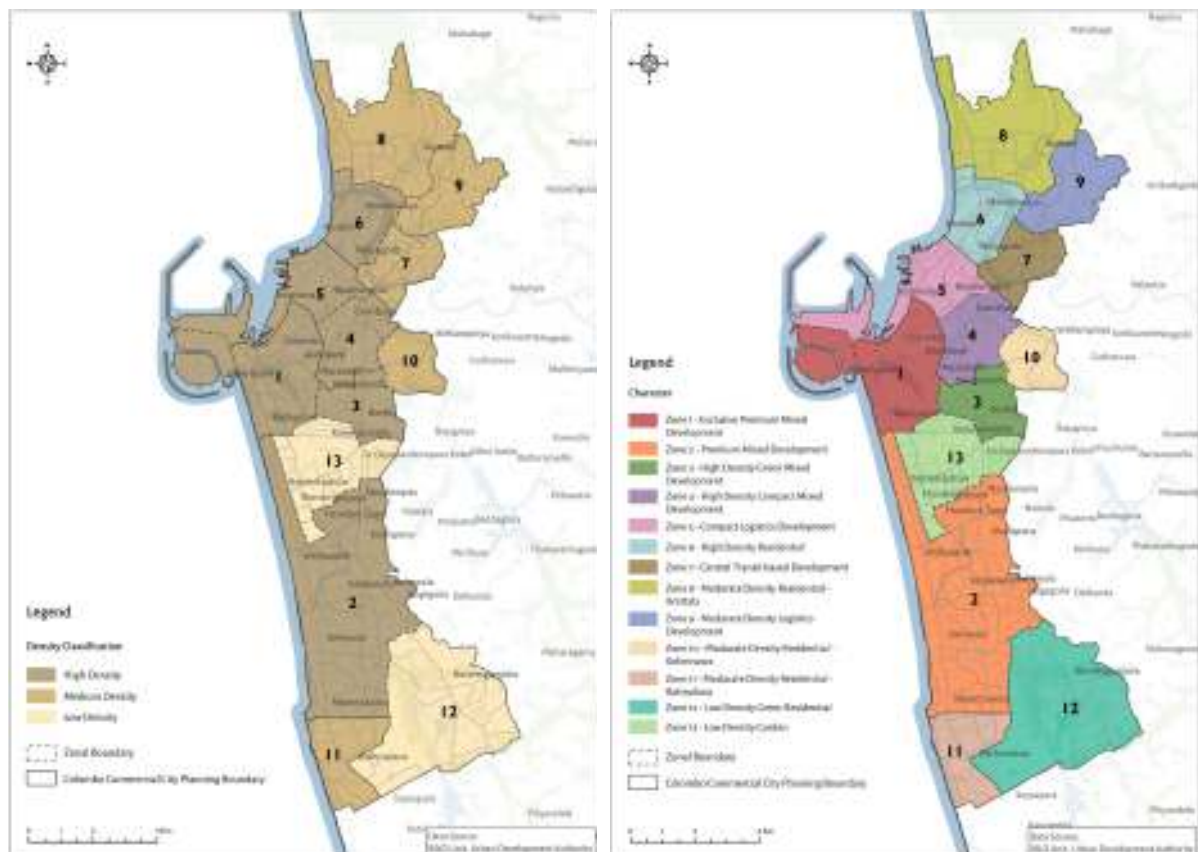


Figure 1 : Expected Density and Character of Zones

Resident Population Distribution

According to the development plan, resident population is encouraged in each zone without depopulating. Therefore, the estimated population was divided among the 13 zones considering the population distribution in the respective zones in 2011 as GND wise population data was not available in 2017.

Zone	Character	Population 2017 (TP* - 1,063,946)	Percentage to Total 2017	Expected Percentage 2030	Population 2030 Accordingly
Zone 1	Exclusive Premium Mixed Development	109,853	10	9	117,000
Zone 2	Premium Mixed Development	254,628	24	24	312,000
Zone 3	High Density Green Mixed Development	75,681	7	7	91,000
Zone 4	High Density Compact Mixed Development	114,776	11	9	117,000
Zone 5	Compact Logistics Development	63,666	6	5	65,000
Zone 6	High Density Residential	77,320	7	8	104,000
Zone 7	Transport Oriented Development	37,075	3	3	39,000
Zone 8	Moderate Density Residential - Wattala	76,560	7	9	117,000
Zone 9	Moderate Density Logistics Development	52,617	5	5	65,000
Zone 10	Moderate Density Residential - Kolonnawa	34,724	3	4	52,000
Zone 11	Moderate Density Residential - Ratmalana	51,520	5	6	78,000
Zone 12	Low Development Green Residential	75,796	7	7	91,000
Zone 13	Low Density Garden	39,730	4	4	52,000
		1,063,946			1,300,000

*TP – Total Population

Non-residential Population Distribution

Non-residential Population data was only available by Local Authority wise in 2017. Therefore, the non-residential population was divided considering the anticipated development within each zone based on brainstorming.

Zone	Character	Percentages to be considered in commuter population distribution								Non-residential Population
		CMC	DMMC	Kolonnawa UC	Peliyagoda UC	Wattala-Mabola UC	Wattala PS	Borales-gamuwa UC	Kelaniya PS	
		*819,000	*200,000	*12,000	*18,000	*17,000	*5,000	*14,000	*14,000	
Zone 1	Exclusive Premium Mixed Development	0.24								197,000
Zone 2	Premium Mixed Development	0.2	0.65					0.1		295,000
Zone 3	High Density Green Mixed Development	0.13								106,000
Zone 4	High Density Compact Mixed Development	0.1		0.2						84,000
Zone 5	Compact Logistics Development	0.08		0.1						67,000
Zone 6	High Density Residential	0.1			0.12	0.2	0.5			90,000
Zone 7	Transport Oriented Development	0.05		0.4	0.8					60,000
Zone 8	Moderate Density Residential - Wattala					0.6	0.5			13,000
Zone 9	Moderate Density Logistics Development				0.08	0.2			1	19,000
Zone 10	Moderate Density Residential - Kolonnawa			0.3						4,000
Zone 11	Moderate Density Residential - Ratmalana		0.25							50,000
Zone 12	Low Development Green Residential		0.1					0.9		33,000
Zone 13	Low Density Garden	0.1								82,000
		1	1	1	1	1	1	1	1	1,100,000

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Acronyms

ADPC	Asian Disaster Preparedness Center
AQI	Air Quality Index
BIA	Bandaranayake International Airport
BMICH	Bandaranaike Memorial International Conference Hall
BRT	Bus Rapid Transit
CBD	Central Business District
CCCDP	Colombo Commercial City Development Plan
CCDP	City of Colombo Development Plan
CEA	Central Environment Authority
CECB	Central Engineering Consultancy Bureau
CEPA	Centre for Poverty Analysis
CHEC	China Harbour Engineering Company
CMA	Condominium Management Authority
CMC	Colombo Municipal Council
CMRSP	Colombo Metropolitan Regional Structure Plan
CO	Carbon monoxide
COD	Chemical Oxygen Demand
DMC	Disaster Management Centre
DMMC	Dehiwala Mount-Lavinia Municipal Council
EIU	Economist Intelligence Unit
EPA's	Environmental Protection Areas
FAR	Floor Area Ratio
GDP	Gross domestic product
GHG	Green House Gas
GIS	Geographic information system
HOV	High occupancy vehicles
IT	Information Technology
JICA	Japan International Cooperation Agency
KEI	Knowledge Economy Index
LRT	Light Rail Transit
MC	Municipal Council
MCUDP	Metro Colombo Urban Development Project
MLD	Million liters per day

MT	Metric Tons
NHDA	National Housing Development Authority
NO ₂	Nitrogen Dioxide
NTC	National Transport Commission
NWSDB	National Water Supply & Drainage Board
OD	Origin and Destination
OPD	Out Patient Department
PAEH	Port Access Elevated Highway
PPHPD	Passengers per hour per direction
PS	Pradeshiya Shaba
R&D	Research and Development
RDA	Road Development Authority
RTS	Rapid Transit Systems
SLLRDC	Sri Lanka Land Reclamation & Development Corporation
SLPA	Sri Lanka Port Authority
SLR	Sri Lanka Railways
SLTB	Sri Lanka Transport Board
SLTDB	Sri Lanka Tourism Development Authority
SME	Small and medium-sized enterprises
SPRZ	Special Residential Zone
TAZ	Transport Analysis Zone
TDM	Transport Demand Management
UAE	United Arab Emirates
UC	Urban Council
UDA	Urban Development Authority
UHI	Urban Heat Island
UNDP	United Nations Development Program
USA	United States of America
USD	United States dollar
USS	Underserved settlements
WFD	Water Framework Directives
WMA	Waste Management Authority
WR	Western Region
WRSP	Western Region Structure Plan
WTP	Water treatment plant
WWTP	Waste Water Treatment Plants

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