



Chapter 03 THE PLAN

Land Use Strategy

3.1 Land Use Strategy

It is expected to achieve ‘The Conceptual Spatial Form’ in the Capital City through the land use strategy. For this purpose, the Concept Plan has mainly recognized seven identical districts. On the other hand, the detailed analysis done on Capital City area has identified three main criteria namely, sensitive areas, special potential areas and livability characters and detailed out the Conceptual Plan with the intention of regulating, conserving and promoting harmless use. Thus, Capital City Development Plan performs not only as a development plan, but a key master guide for the molding of Capital City future improvement. In view of the three main criteria given above, land use is detailed to 12 zones instead of 7 zones identified in Concept Plan.

Since the Capital City Development Plan performs as a master plan, the expectations of it stretch beyond the norm. Hence, as the key initiatives, it is proposed to develop Nodes and Corridors within the next decade. Accordingly, four specially considered areas are identified, including, Center, Axis, Caring belt and Environmental Sensitive Areas (*wetlands*) to regulate the development and achieve the character of the proposed Capital City. Another reason is the majority of the public sense the area by moving along streets and parks. Hence, it is convenient to promote the identified main use of the zone along the Corridor or Node. Accordingly, the Node Place Analysis has been carried out to identify the future node development area as follow:

Criteria Considered in Organizing the Node Place Analysis

Node Place Analysis:

The Weighted Criteria Metrix is used to evaluate the value of a Node. It is used to evaluate Sub components based on specific evaluation criteria weighted by importance (Future 2030) using a brainstorming technique. Value of the node is decided based on following four criteria which include sub components.

- *Node Diversity*
- *Node Intensity*
- *Place Diversity*
- *Place Intensity*

The outcome of this analysis assists in understanding the existing hierarchy of the current nodes. The result is evaluated once more with another set of criteria to understand the future priority nodes of the planning area.



Chapter 03 THE PLAN

Land Use Strategy

Node Diversity:

The Node Diversity is based on,

- Roads to be connected to the national road network
- Railroad connections
- Regional integration
- Broadband facilities for telecommunication

The result indicates that, Kottawa, Delkanda, Maharagama, Nugegoda, Battaramulla, and Kaduwela Nodes possess the highest node diversity.

| Node | Node Diversity | | | | |
|--------------|--|----------------------|----------------------|--|-------|
| | Roads to be connected to the National Road Network | Regional Integration | Railroad Connections | Broadband facilities for Telecommunication | Total |
| Ambatale | 12 | 3 | 2 | 5 | 22 |
| Angoda | 12 | 3 | 2 | 5 | 22 |
| Arangala | 8 | 3 | 2 | 5 | 18 |
| Athurugiriya | 20 | 9 | 2 | 5 | 36 |
| Battaramulla | 20 | 15 | 2 | 5 | 42 |
| Bombiriya | 12 | 3 | 2 | 5 | 22 |
| Delkanda | 16 | 15 | 10 | 5 | 46 |
| Ethulkotte | 12 | 12 | 2 | 5 | 31 |
| Gothatuwa | 8 | 3 | 2 | 5 | 18 |
| Hokandara | 20 | 9 | 2 | 5 | 36 |
| Kaduwela | 20 | 15 | 2 | 5 | 42 |
| Kohilawatta | 8 | 3 | 2 | 5 | 18 |
| Korathota | 8 | 3 | 2 | 5 | 18 |
| Koswatta | 16 | 15 | 2 | 5 | 38 |
| Kotikawatta | 16 | 3 | 2 | 5 | 26 |
| kottawa | 20 | 15 | 10 | 5 | 50 |
| Maharagama | 16 | 12 | 10 | 5 | 43 |
| Malabe | 12 | 9 | 2 | 5 | 28 |
| Nawagamuwa | 8 | 3 | 2 | 5 | 18 |
| Nawala | 8 | 9 | 2 | 5 | 24 |
| Nugegoda | 16 | 12 | 10 | 5 | 43 |
| Pagoda | 8 | 6 | 2 | 5 | 21 |
| Pannipitiya | 12 | 6 | 10 | 5 | 33 |
| Pelawatta | 16 | 9 | 2 | 5 | 32 |
| Pitakotte | 8 | 6 | 2 | 5 | 21 |

Chapter 03 THE PLAN

Land Use Strategy

| Node | Node Diversity | | | | |
|-----------------|--|----------------------|----------------------|--|-------|
| | Roads to be connected to the National Road Network | Regional Integration | Railroad Connections | Broadband facilities for Telecommunication | Total |
| Rajagiriya | 20 | 12 | 2 | 5 | 39 |
| Thalahena | 8 | 3 | 2 | 5 | 18 |
| Thalapathpitiya | 8 | 3 | 2 | 5 | 18 |
| Thalawathugoda | 16 | 12 | 2 | 5 | 35 |
| Weliwita | 8 | 3 | 2 | 5 | 18 |

Table 3.1 : Node Diversity Analysis

Source : Western Province Division and Research & Development Division, Uda 2018

Node Intensity:

Node Intensity is based on,

- Actual quantities of the flows
- Building density
- Frequency of departures of public transportation

According to the weighted value of above criteria, it is clear that Battaramulla, Rajagiriya, Nugegoda, Maharagama, Kottawa, and Koswatta Nodes hold the highest Node Intensity.

| Node | Node Intensity | | | |
|--------------|--|------------------|--------------------------------|-------|
| | Frequency of Departures of Public Transportation | Building Density | Actual quantities of the Flows | Total |
| Ambatale | 3 | 4 | 3 | 10 |
| Angoda | 6 | 6 | 3 | 15 |
| Arangala | 3 | 4 | 3 | 10 |
| Athurugiriya | 12 | 6 | 9 | 27 |
| Battaramulla | 15 | 10 | 15 | 40 |
| Bombiriya | 3 | 4 | 3 | 10 |
| Delkanda | 12 | 8 | 9 | 29 |
| Ethulkotte | 9 | 8 | 12 | 29 |
| Gothatuwa | 6 | 6 | 3 | 15 |
| Hokandara | 3 | 4 | 3 | 10 |
| Kaduvela | 12 | 6 | 9 | 27 |
| Kohilawatta | 3 | 6 | 3 | 12 |
| Korathota | 3 | 4 | 3 | 10 |
| Koswatta | 15 | 8 | 9 | 32 |



Chapter 03 THE PLAN

Land Use Strategy

| Node | Node Intensity | | | |
|-----------------|--|------------------|--------------------------------|-------|
| | Frequency of Departures of Public Transportation | Building Density | Actual quantities of the Flows | Total |
| Kotikawatta | 3 | 8 | 9 | 20 |
| kottawa | 15 | 6 | 15 | 36 |
| Maharagama | 15 | 10 | 12 | 37 |
| Malabe | 9 | 6 | 12 | 27 |
| Nawagamuwa | 3 | 4 | 3 | 10 |
| Nawala | 6 | 6 | 9 | 21 |
| Nugegoda | 15 | 10 | 12 | 37 |
| Pagoda | 3 | 4 | 3 | 10 |
| Pannipitiya | 6 | 4 | 3 | 13 |
| Pelawatta | 9 | 6 | 9 | 24 |
| Pitakotte | 6 | 6 | 9 | 21 |
| Rajagiriya | 15 | 8 | 15 | 38 |
| Thalahena | 3 | 4 | 3 | 10 |
| Thalapathpitiya | 3 | 4 | 3 | 10 |
| Thalawathugoda | 9 | 6 | 9 | 24 |
| Weliwita | 3 | 4 | 3 | 10 |

Table 3.2 : Node Intensity Analysis

Source : Western Province Division and Research & Development Division, UDA 2018

Place Diversity:

Place diversity value is based on,

- *Land Use Diversity -*

Land Use Diversity (LUD) was measured by examining the spatial patterns and uses of land. The analysis shows that areas with a higher LUD are closer to main corridors while areas with lower LUD are located closer to residential areas.

- *Services and other functions of inhabitants or firms -*

The level and functionality of service was measured based on infrastructure availability and basic services of central functional buildings (administrative, international and unique endowment)

- *Place in its veracity -*

This was analyzed based on the particular city's dependency on other key cities.

- *Innovativeness -*

Innovativeness was measured based on future potential cities that has capacity to create new spaces and societies with proposed development activities.

- *Attractiveness as living and working environment-*

Attractiveness as a living and working environment was measured through city attractiveness to investments and tourist destinations etc.

The results indicate that the highest diversity exists in Battaramulla, Maharagama, Nugegoda and Rajagiriya.

Chapter 03 THE PLAN

Land Use Strategy

| Node | Place Diversity | | | | | |
|--------------|-----------------|---|-----------------------|------------|---|-------|
| | Land use | Services and other functions of inhabitants or firms. | Place in its veracity | Innovation | Attract as living and working environment | Total |
| Ambatale | 10 | 8 | 2 | 2 | 9 | 31 |
| Angoda | 10 | 12 | 4 | 2 | 9 | 37 |
| Arangala | 10 | 8 | 4 | 2 | 6 | 30 |
| Athurugiriya | 15 | 16 | 8 | 6 | 12 | 57 |
| Battaramulla | 25 | 20 | 8 | 8 | 12 | 73 |
| Bombiriya | 10 | 8 | 2 | 2 | 9 | 31 |
| Delkanda | 15 | 8 | 4 | 6 | 9 | 42 |
| Ethulkotte | 15 | 12 | 6 | 4 | 9 | 46 |
| Gothatuwa | 10 | 8 | 2 | 4 | 6 | 30 |
| Hokandara | 10 | 8 | 8 | 4 | 6 | 36 |
| Kaduvela | 15 | 12 | 8 | 6 | 12 | 53 |
| Kohilawatta | 10 | 8 | 2 | 4 | 6 | 30 |
| Korathota | 10 | 8 | 6 | 4 | 6 | 34 |
| Koswatta | 15 | 16 | 8 | 8 | 12 | 59 |
| Kotikawatta | 10 | 12 | 4 | 6 | 9 | 41 |
| kottawa | 15 | 16 | 8 | 8 | 12 | 59 |
| Maharagama | 20 | 16 | 8 | 8 | 12 | 64 |
| Malabe | 15 | 12 | 8 | 6 | 12 | 53 |
| Nawagamuwa | 10 | 8 | 2 | 4 | 6 | 30 |
| Nawala | 15 | 12 | 8 | 6 | 9 | 50 |
| Nugegoda | 20 | 16 | 8 | 8 | 12 | 64 |
| Pagoda | 10 | 8 | 6 | 4 | 6 | 34 |
| Pannipitiya | 10 | 8 | 6 | 4 | 6 | 34 |
| Pelawatta | 15 | 16 | 8 | 6 | 9 | 54 |



Chapter 03 THE PLAN

Land Use Strategy

| Node | Place Diversity | | | | | |
|-----------------|-----------------|---|-----------------------|------------|---|-------|
| | Land use | Services and other functions of inhabitants or firms. | Place in its veracity | Innovation | Attract as living and working environment | Total |
| Pitakotte | 10 | 12 | 8 | 6 | 9 | 45 |
| Rajagiriya | 20 | 16 | 8 | 8 | 12 | 64 |
| Thalahena | 5 | 8 | 6 | 4 | 6 | 29 |
| Thalapathpitiya | 5 | 8 | 6 | 4 | 6 | 29 |
| Thalawathugoda | 15 | 12 | 8 | 6 | 9 | 50 |
| Weliwita | 10 | 8 | 2 | 4 | 6 | 30 |

Table 3.3 : Place Diversity Analysis

Source : Western Province Division and Research & Development Division, Uda 2018

Place Intensity:

Place Intensity value is based on,

- Quantity of activities (No of different activities that occur in a planning space)
- Rates of employment (Source: Census and Statistics Data 2017 / Sampath Pathika 2017)
- Population density

Accordingly, the highest place intensity is held by Koswatta, Nugegoda, Rajagiriya, Kottawa, Maharagama and Battaramulla areas.

| Name | Place Intensity | | | |
|--------------|------------------------|----------------------|--------------------|-------|
| | quantity of activities | Rates of employments | Population density | Total |
| Ambatale | 9 | 12 | 4 | 25 |
| Angoda | 9 | 12 | 6 | 27 |
| Arangala | 6 | 8 | 6 | 20 |
| Athurugiriya | 9 | 16 | 6 | 31 |
| Battaramulla | 12 | 20 | 6 | 38 |
| Bombiriya | 6 | 8 | 2 | 16 |
| Delkanda | 6 | 12 | 8 | 26 |
| Ethulkotte | 9 | 8 | 6 | 23 |
| Gothatuwa | 6 | 8 | 6 | 20 |
| Hokandara | 6 | 8 | 6 | 20 |
| Kaduwela | 12 | 16 | 6 | 34 |
| Kohilawatta | 9 | 8 | 6 | 23 |

Chapter 03 THE PLAN

Land Use Strategy

| Name | Place Intensity | | | |
|-----------------|------------------------|----------------------|--------------------|-------|
| | quantity of activities | Rates of employments | Population density | Total |
| Korathota | 6 | 8 | 2 | 16 |
| Koswatta | 12 | 20 | 8 | 40 |
| Kotikawatta | 9 | 8 | 8 | 25 |
| kottawa | 12 | 20 | 6 | 38 |
| Maharagama | 12 | 20 | 6 | 38 |
| Malabe | 9 | 16 | 6 | 31 |
| Nawagamuwa | 6 | 8 | 6 | 20 |
| Nawala | 9 | 16 | 8 | 33 |
| Nugegoda | 12 | 20 | 8 | 40 |
| Pagoda | 6 | 12 | 8 | 26 |
| Pannipitiya | 6 | 8 | 8 | 22 |
| Pelawatta | 9 | 16 | 6 | 31 |
| Pitakotte | 9 | 12 | 6 | 27 |
| Rajagiriya | 12 | 20 | 8 | 40 |
| Thalahena | 6 | 8 | 6 | 20 |
| Thalapathpitiya | 6 | 8 | 6 | 20 |
| Thalawathugoda | 9 | 16 | 6 | 31 |
| Weliwita | 3 | 8 | 2 | 13 |

Table 3.4 : Place Intensity Analysis

Source : Western Province Division and Research & Development Division, Uda 2018

Finally, the separately weighted values are combined and calculated to result the level of the Node as below. As for the results, Battaramulla is the Level One Node of the planning area.

| Node | Node Analysis | | Place Analysis | | Level of Node |
|--------------|---------------|----|----------------|----|---------------|
| Ambatale | 22 | 10 | 31 | 25 | 88 |
| Angoda | 22 | 15 | 37 | 27 | 101 |
| Arangala | 18 | 10 | 30 | 20 | 78 |
| Athurugiriya | 36 | 27 | 57 | 31 | 151 |
| Battaramulla | 42 | 40 | 73 | 38 | 193 |
| Bombiriya | 22 | 10 | 31 | 16 | 79 |
| Delkanda | 46 | 29 | 42 | 26 | 143 |
| Ethulkotte | 31 | 29 | 46 | 23 | 129 |
| Gothatuwa | 18 | 15 | 30 | 20 | 83 |
| Hokandara | 36 | 10 | 36 | 20 | 102 |
| Kaduvela | 42 | 27 | 53 | 34 | 156 |



Chapter 03 THE PLAN

Land Use Strategy

| Node | Node Analysis | | Place Analysis | | Level of Node |
|-----------------|---------------|----|----------------|----|---------------|
| Kohilawatta | 18 | 12 | 30 | 23 | 83 |
| Korathota | 18 | 10 | 34 | 16 | 78 |
| Koswatta | 38 | 32 | 59 | 40 | 169 |
| Kotikawatta | 26 | 20 | 41 | 25 | 112 |
| kottawa | 50 | 36 | 59 | 38 | 183 |
| Maharagama | 43 | 37 | 64 | 38 | 182 |
| Malabe | 28 | 27 | 53 | 31 | 139 |
| Nawagamuwa | 18 | 10 | 30 | 20 | 78 |
| Nawala | 24 | 21 | 50 | 33 | 128 |
| Nugegoda | 43 | 37 | 64 | 40 | 184 |
| Pagoda | 21 | 10 | 34 | 26 | 91 |
| Pannipitiya | 33 | 13 | 34 | 22 | 102 |
| Pelawatta | 32 | 24 | 54 | 31 | 141 |
| Pitakotte | 21 | 21 | 45 | 27 | 114 |
| Rajagiriya | 39 | 38 | 64 | 40 | 181 |
| Thalahena | 18 | 10 | 29 | 20 | 77 |
| Thalapathpitiya | 18 | 10 | 29 | 20 | 77 |
| Thalawathugoda | 35 | 24 | 50 | 31 | 140 |
| Weliwita | 18 | 10 | 30 | 13 | 71 |

Table 3.5 : Summary Table Of Node Place Analysis

Source : Western Province Division and Research & Development Division, Uda 2018

As the next step, the recognized nodes were weighted considering the future scenario to understand the difference of hierarchy of nodes in the current situation.

| Name | Administrative | Commercial | Residential | Development Pressure | Sensitivity Analysis | Land Value | Vertical Density | Horizontal Density | Land Availability | Land Uses Change % | Total |
|-----------------|----------------|------------|-------------|----------------------|----------------------|------------|------------------|--------------------|-------------------|--------------------|-------|
| Ambatale | 1 | 2 | 4 | 2 | 2 | 6 | 12 | 15 | 12 | 14 | 70 |
| Angoda | 2 | 3 | 4 | 3 | 4 | 9 | 16 | 15 | 18 | 14 | 88 |
| Arangala | 1 | 1 | 4 | 2 | 8 | 6 | 8 | 15 | 18 | 14 | 77 |
| Athurugiriya | 2 | 3 | 4 | 3 | 6 | 9 | 12 | 15 | 24 | 21 | 99 |
| Battaramulla | 4 | 4 | 3 | 4 | 4 | 12 | 16 | 10 | 12 | 21 | 90 |
| Bombiriya | 1 | 2 | 4 | 1 | 4 | 3 | 8 | 10 | 18 | 14 | 65 |
| Delkanda | 1 | 3 | 3 | 3 | 8 | 9 | 16 | 20 | 18 | 21 | 102 |
| Ethulkotte | 2 | 2 | 4 | 3 | 6 | 9 | 12 | 15 | 6 | 14 | 73 |
| Gothatuwa | 1 | 2 | 3 | 2 | 4 | 6 | 12 | 15 | 18 | 14 | 77 |
| Hokandara | 1 | 3 | 5 | 3 | 6 | 12 | 16 | 20 | 18 | 14 | 98 |
| Kaduvela | 1 | 4 | 4 | 3 | 4 | 9 | 16 | 20 | 18 | 21 | 100 |
| Kohilawatta | 1 | 4 | 4 | 1 | 4 | 6 | 8 | 10 | 18 | 14 | 67 |
| Korathota | 1 | 2 | 3 | 2 | 4 | 6 | 8 | 20 | 28 | 14 | 84 |
| Koswatta | 5 | 2 | 3 | 5 | 10 | 12 | 20 | 25 | 18 | 28 | 130 |
| Kotikawatta | 1 | 4 | 3 | 4 | 6 | 9 | 16 | 20 | 18 | 21 | 102 |
| kottawa | 1 | 3 | 4 | 5 | 8 | 15 | 20 | 25 | 18 | 28 | 129 |
| Maharagama | 2 | 5 | 4 | 3 | 8 | 12 | 20 | 20 | 24 | 14 | 120 |
| Malabe | 2 | 5 | 4 | 4 | 10 | 12 | 16 | 20 | 24 | 14 | 109 |
| Nawagamuwa | 1 | 3 | 4 | 2 | 4 | 6 | 8 | 15 | 24 | 14 | 79 |
| Nawala | 2 | 2 | 3 | 4 | 6 | 12 | 16 | 20 | 12 | 21 | 99 |
| Nugegoda | 1 | 3 | 3 | 5 | 8 | 12 | 20 | 20 | 18 | 28 | 121 |
| Pagoda | 1 | 5 | 4 | 3 | 8 | 9 | 16 | 20 | 12 | 21 | 88 |
| Pannipitiya | 1 | 2 | 3 | 3 | 8 | 9 | 8 | 20 | 12 | 21 | 89 |
| Pelawatta | 3 | 3 | 4 | 4 | 4 | 12 | 8 | 15 | 12 | 21 | 85 |
| Pitakotte | 2 | 2 | 3 | 3 | 8 | 9 | 12 | 20 | 12 | 14 | 85 |
| Rajagiriya | 2 | 4 | 3 | 4 | 8 | 15 | 20 | 25 | 12 | 28 | 122 |
| Thalahena | 1 | 3 | 4 | 3 | 6 | 9 | 12 | 15 | 18 | 7 | 78 |
| Thalapathpitiya | 1 | 1 | 4 | 2 | 6 | 12 | 12 | 20 | 18 | 7 | 83 |
| Thalawathugoda | 3 | 4 | 3 | 4 | 8 | 12 | 16 | 20 | 18 | 14 | 102 |
| Weliwita | 1 | 2 | 3 | 2 | 2 | 6 | 8 | 10 | 24 | 7 | 65 |

Table 3.6 : Weighted Overlay Node Place Analysis
Source : Western Province Division and Research & Development Division, Uda 2018



Chapter 03 THE PLAN

Land Use Strategy

The final result is as below,

Proposed Nodes

1st priority nodes

- Koswatta (will merge with Battaramulla)
- Kottawa (will merge with Makubura)
- Nugegoda

2nd priority nodes

- Maharagama
- Rajagiriya

3rd priority nodes

- Kaduwela
- Malabe
- Kotikawatta
- Thalawathugoda

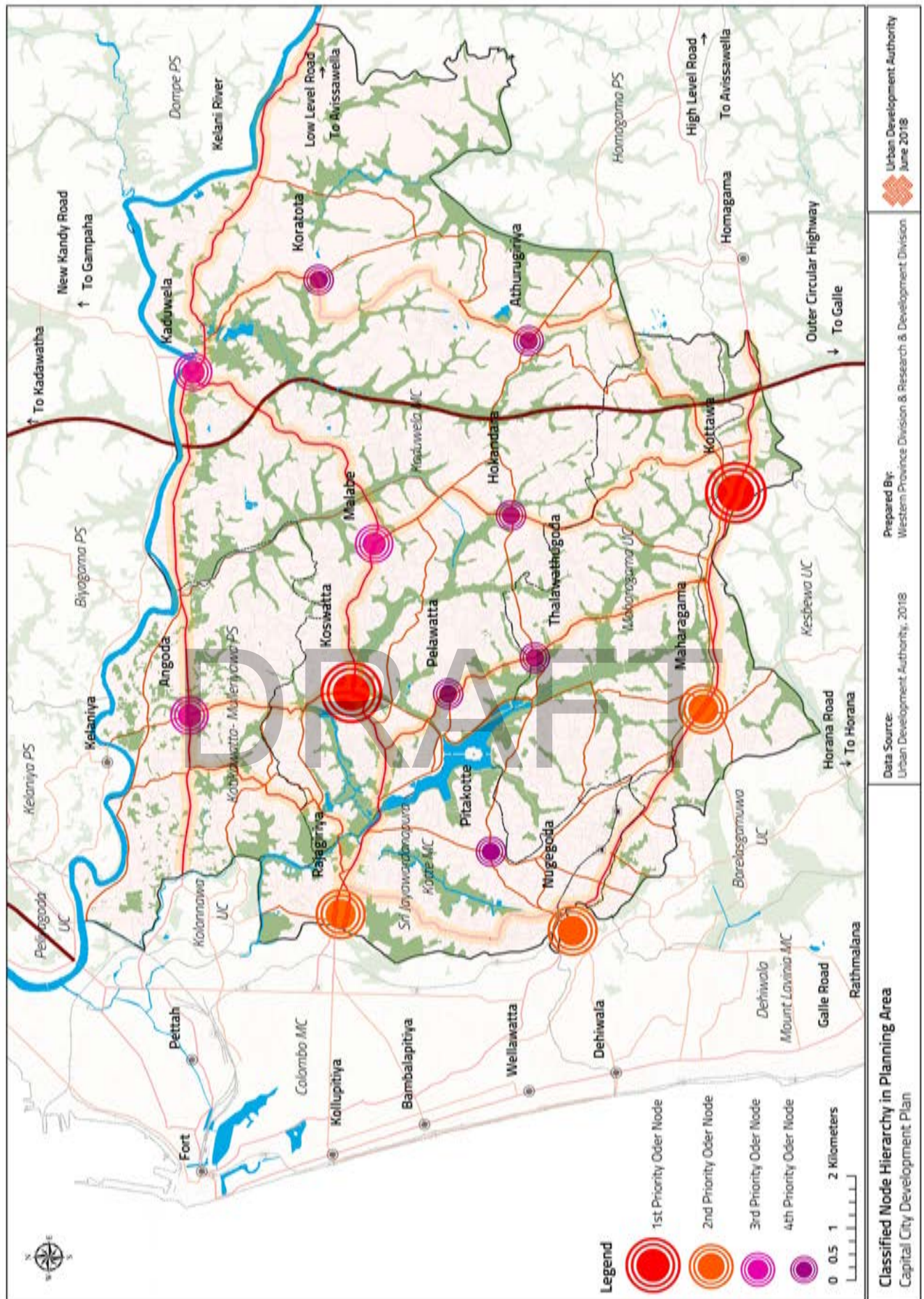
4th priority nodes

- Athurugiriya
- Hokandara
- Korathota
- Palawatta
- Pitakotte

Further, the analysis indicates the following nodes as main nodes of the area which focus on future development.

- *Primary Nodes – Higher order Service Centers*
- *Secondary Nodes – Town Centers*
- *Tertiary Nodes – Neighborhood Centers*
- *Peripheral Nodes – Precinct Centers*

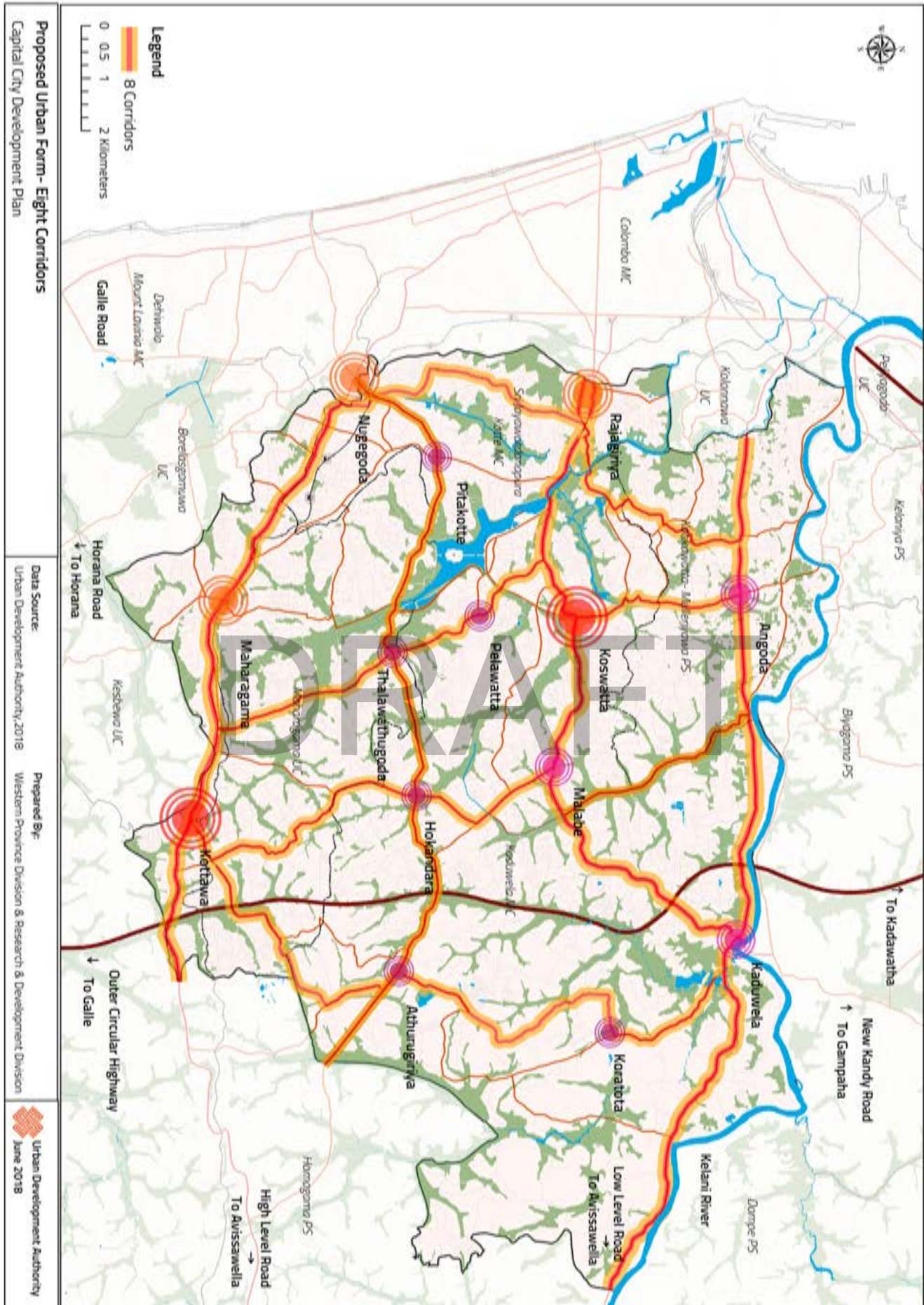
Further, eight main corridors are identified. The above identified nodes are to release the pressure of the node along those corridors. The below map indicates the irregular shape grid network created by the mentioned strategy,



Map 3.2: Classified Node Hierarchy In Planning Area

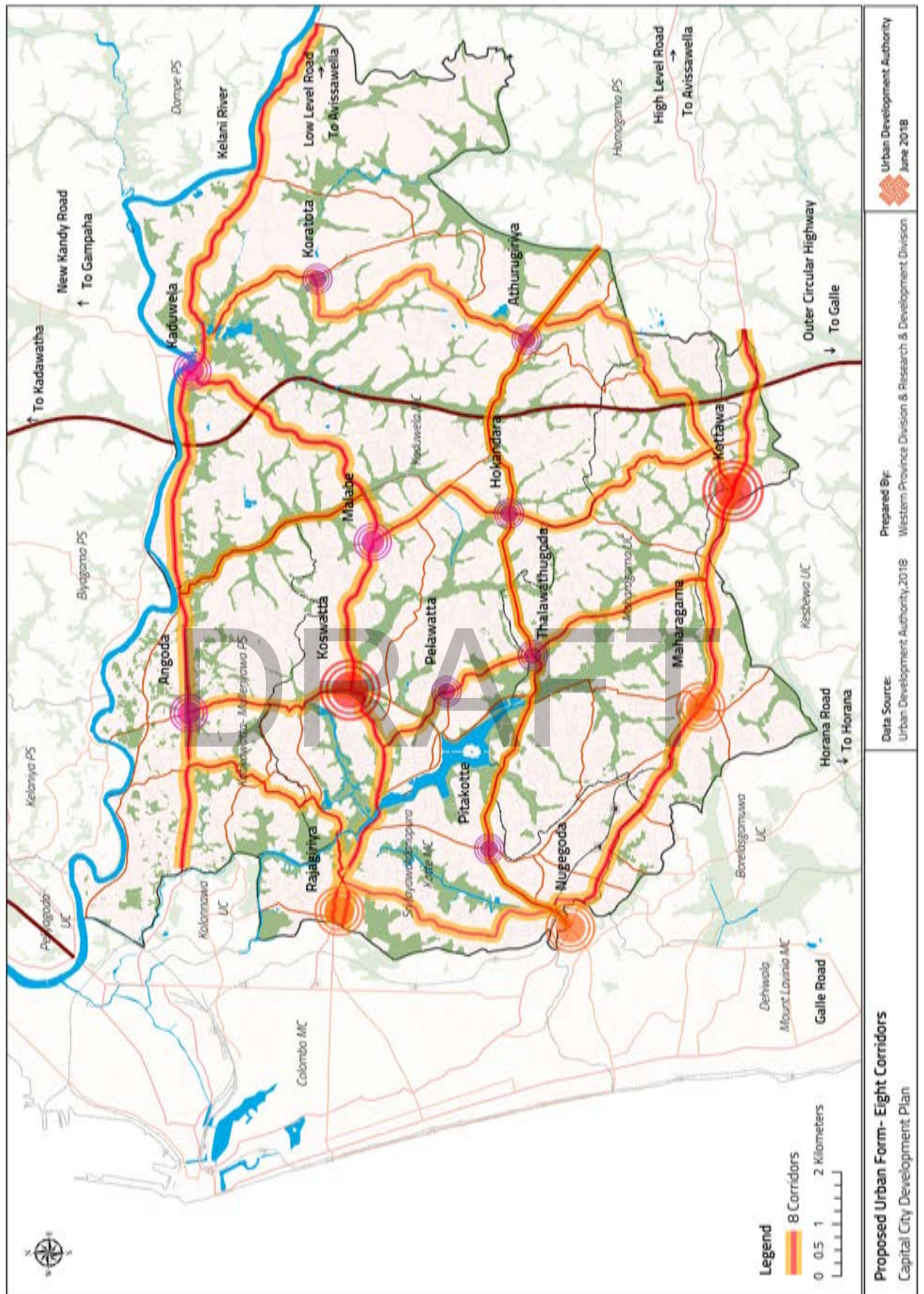
Source : Western Province Division and Research & Development Division, Uda. 2018

Proposed Eight Corridors
DIANFM SOVEREIGN SRI LANKA

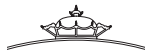


Map 3.3 : Map Of Proposed Eight Corridors

Source : Western Province Division and Research & Development Division, Uda. 2018



Nap 3.4 : Proposed Composite Spatial Strategy For Next Ten Years (2020-2030)
Source : Western Province Division and Research & Development Division, Uda. 2018



Chapter 03 THE PLAN

Land Use Strategy

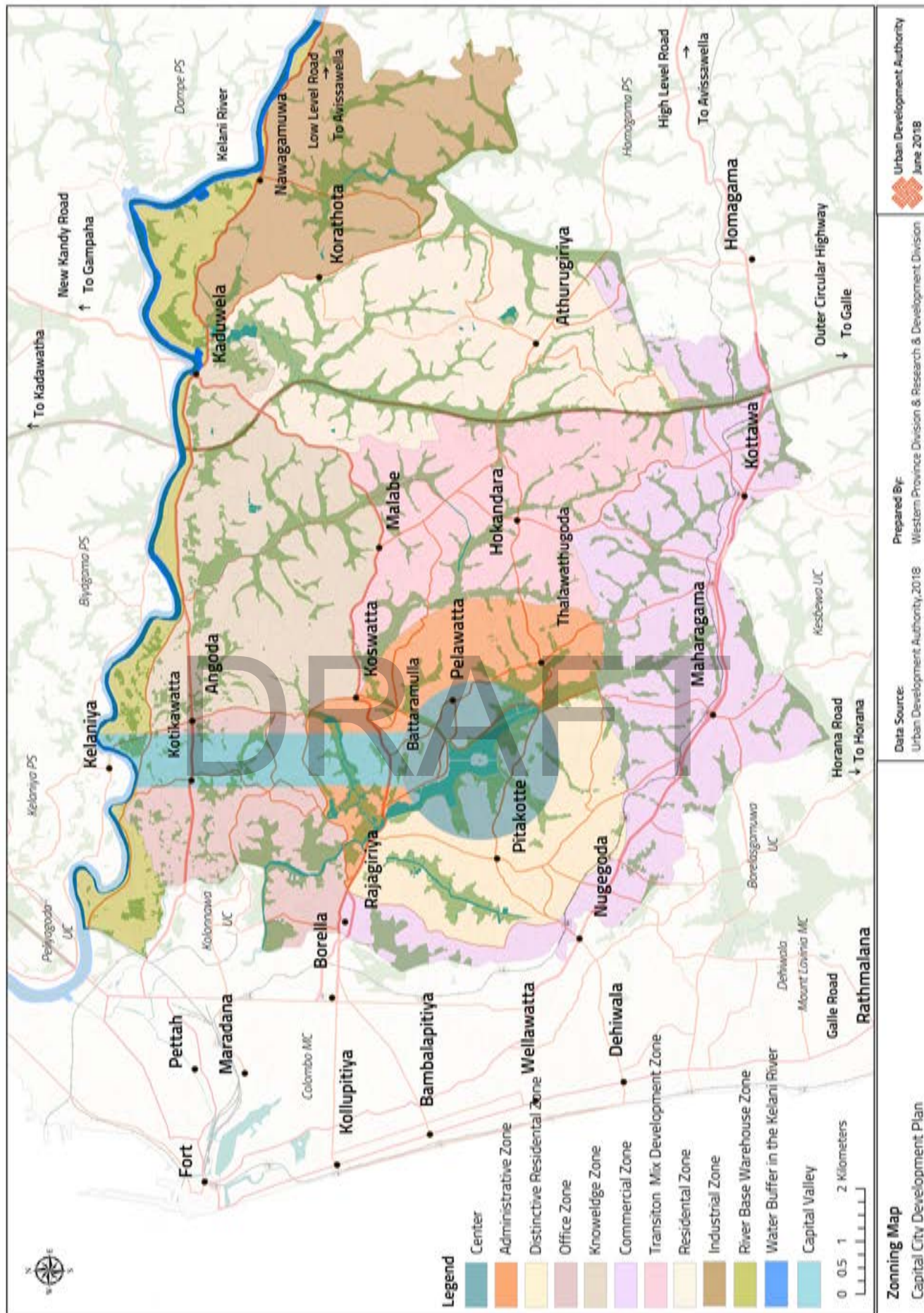
The diagram indicates that;

1. *Koswatta, Kottawa and Nugegoda shall be Priority Nodes (Higher Order)*
2. *Rajagiriya, Malabe, Maharagama, Kaduwela and Angoda shall be Secondary Nodes (Town Centers)*
3. *Pita Kotte, Thalawathugoda, Pelawatta, Hokandara, Athurugiriya, Korathota shall be Tertiary Nodes (Neighbourhood Centers)*

Battaramulla, Ethul Kotte, Nawala, Kalapaluwawa, Thalahena, Weliwita and Kotikawatta are missing. They shall be indicated along with the above as Tertiary Nodes.

As a result of density development in proposed corridors and nodes, it is assumed the space demand for the remaining areas of identified zones would rise. Hence, it is proposed to develop the identified corridors within zones. The corridor development is projected to create more densities which would lead to mini zones. On the other hand, the remaining areas would develop as the third stage of proposed land use along with the development of all corridors, nodes and mini zones.

To achieve the above Zoning Plan, following floor spaces in different land uses and population in residential and commuter categories are expected.



Map 3.5 : Zoning Map Of The Capital City Plan

Source : Western Province Division and Research & Development Division, Uda. 2018



Chapter 03
THE PLAN

Projection of
Population, Floor Space
and Commuter

Proposed Population
Projection for
the Capital City

3.2 Projection of Population, Floor Space and Commuter

3.2.1 Proposed Population Projection for the Capital City

Considerations:

- *The center with low population -
It is proposed to develop a center in the area with concern to accentuate 'The Sovereign Power of Control of Sri Lanka.'*
- *Inner and Outer city area with moderate density -
It is proposed to encourage economic and administrative uses within the Inner City and Outer City areas exclusive of Executive Residence area.*
- *Periphery with high density -
It is proposed to encourage the residential population in the Periphery Area*

Assumptions:

- *The population growth of the Center is predicted based on the lowest positive growth rate (0.011) recorded in the area. Currently, all GNDs excluding one GND in the Center area represent a negative growth rate.*
- *Inner and Outer city population growth rate is predicted based on a 10% rise to the current growth rate of GNDs in the area. (Average Proposed Growth Rate is 0.019)*
- *The Executive Residential Zone is encouraged to be used for residential purposes. Therefore, the population prediction is based on the highest positive average growth rate of the area (0.01). The reason behind this growth rate adoption is, the negative growth rate indicated by the GNDs as well as the Center.*
- *The Transition Zone encourages residential population in its area. However, compared to the existing moderate population densities of the area, the predicted population growth rate is 0.04. This value is recorded as the highest growth rate.*
- *Periphery of the Capital City encourages a high population density to the area. Therefore, population of the area is predicted based on the highest growth rate. (0.04)*
- *According to the selected growth rate, average growth rate of the area is expected to be 0.025 while natural average growth rate of area is 0.003.*

Limitations:

The proposed growth rates for different zones are based on planned developments proposed by the Capital City Plan. According to the Implementation Plan of the Capital City, it is assumed a period of 30 years would be taken approximately to complete all projects proposed by the plan. Therefore, in order to achieve the projected population, it approximately requires 30 years with the growth rate of 0.01.

| Zone | Population 2018 | Population based on Business as Usual scenario | Population based on Projects Based scenario | Difference between Existing and Predicted Population | Difference between Business as Usual and Proposed Growth rate |
|----------------------|-----------------|--|---|--|---|
| Center | 39,000 | 37,000 | 43,000 | 4,000 | 6,500 |
| Inner and Outer City | 637,000 | 1,140,000 | 1,298,000 | 661,000 | 158,000 |
| Periphery | 137,000 | 186,000 | 204,000 | 67,000 | 18,500 |
| Total Area | 774,000 | 1,362,000 | 1,546,000 | 772,000 | 184,000 |

Table 3.7 : Population Projection For The Capital City

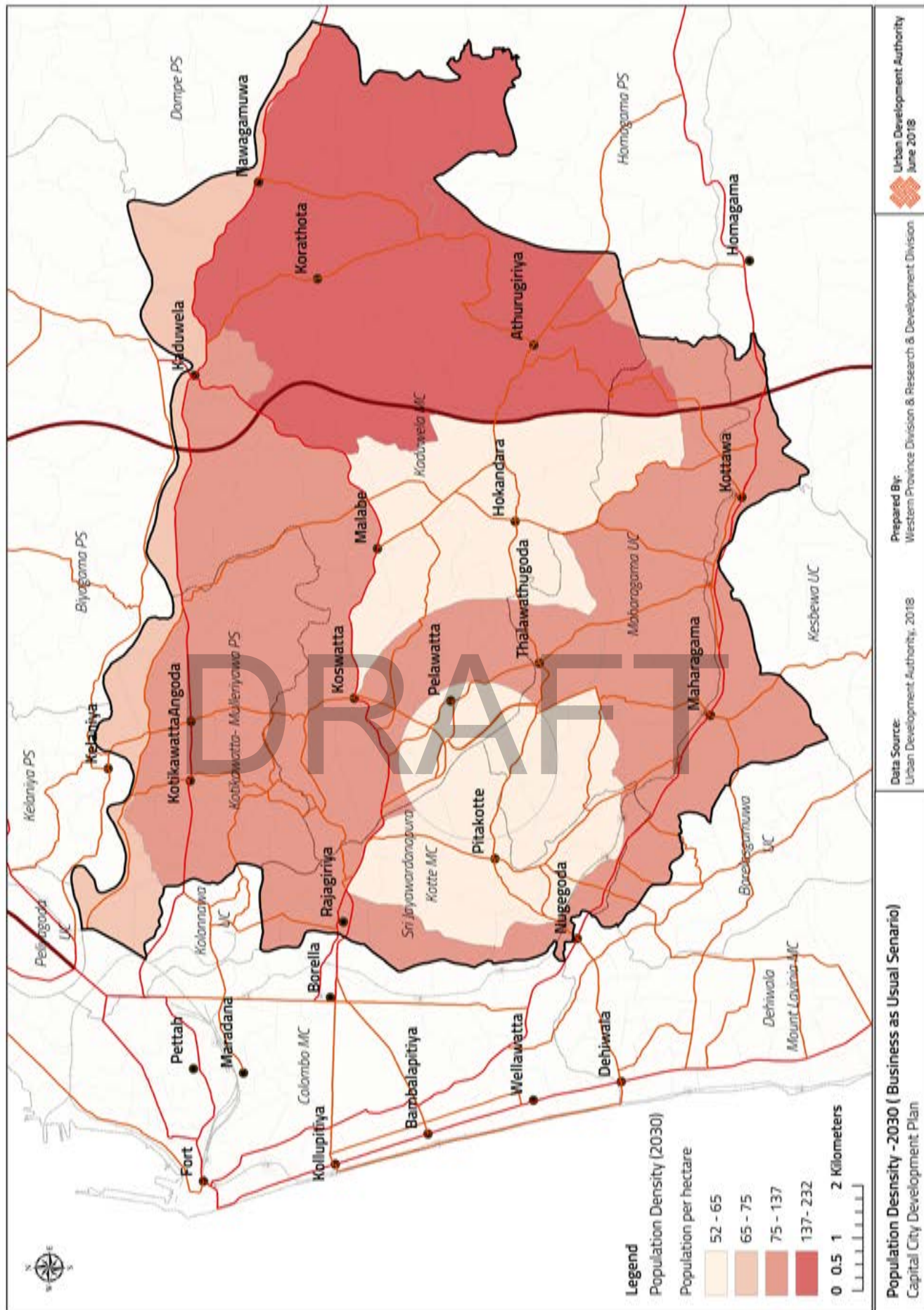
Source : Western Province Division and Research & Development Division, Uda 2018

‘The Existing Population Density of Capital City’ (Map 42) map even now depicts the highest population density in the Periphery as expected in the plan, while other areas hold a low density. Further, the maps ‘Business as Usual Scenario’ (Map 43) and ‘Project Based Scenario’ (Map 44) elaborate how population density varies. Accordingly, the ‘Project Based Scenario’ achieves a higher population density in areas where the Capital City Development Plan promotes residential developments compared to the ‘Business as Usual Scenario’ and supports the overall plan and concept.

Chapter 03 THE PLAN

Projection of Population, Floor Space and Commuter

Proposed Population Projection for the Capital City



Map 3.7 : Population Density In Capital City (Business As Usual Scenario)-2030

Source : Western Province Division and Research & Development Division, Uda. 2018

Chapter 03 THE PLAN

Projection of Population, Floor Space and Commuter

Proposed Spatial Change for the Capital City

3.2.2. Proposed Spatial Change for the Capital City

The proposed spatial form of the area is prepared mainly on the plan concept since it is vital to change the land use to represent the proposed use of the zone. According to the below tables, it clearly depicts that the Capital City Development Plan is able to accomplish the spaces as planned. Most importantly, it is expected to double the office space by 2030. (The assumptions of the space calculation are detailed in the Volume III of the Capital City Development Plan)

Consideration:

Space Development of Capital City is proposed to achieve the proposed urban form of the Capital City Plan.

Limitations:

According to the Implementation Plan of Capital City, it is assumed to take 30 years to complete the given projects. Therefore, the achievement of space development will be completed by 2050.

Existing Distribution of Different Land Uses

| Zone | Existing Residential space (Sqm) | Existing Commercial Space (Sqm) | Existing Office Space (Sqm) | Existing Industrial Space (Sqm) | Existing Other Space (Sqm) | Total Development Area (Sqm) |
|-------------------------|----------------------------------|---------------------------------|-----------------------------|---------------------------------|----------------------------|------------------------------|
| Executive Resident Zone | 7,674,364 | 582,687 | 102,848 | 46,479 | 399,064 | 8,805,443 |
| Administrative Zone | 4,919,099 | 254,389 | 186,605 | 13,754 | 310,880 | 5,684,727 |
| Commercial Zone | 6,488,113 | 2,507,431 | 879,424 | 466,473 | 354,552 | 30,695,993 |
| Office Zone | 4,866,118 | 881,561 | 842,999 | 290,235 | 232,438 | 7,113,350 |
| Knowledge Zone | 10,678,413 | 1,448,411 | 314,723 | 234,030 | 467,191 | 13,142,768 |
| Transition Zone | 9,052,899 | 554,076 | 21,392 | 282,415 | 158,868 | 10,069,650 |
| Industrial Belt | 4,032,965 | 632,854 | | 718,440 | 126,551 | 5,510,810 |
| Industrial Zone | 6,068,358 | 267,633 | 40,695 | 1,520,226 | 214,621 | 8,111,532 |
| Residential Zone | 10,692,470 | 457,278 | 50,916 | 118,225 | 311,733 | 12,694,655 |
| Total Space | 84,472,799 | 7,586,320 | 2,439,602 | 4,754,308 | 2,575,897 | 101,828,927 |

Table 3.8 : Land Use Distribution In 2018

Source : Western Province Division and Research & Development Division, UDA 2018



Chapter 03 THE PLAN

Projection of Population, Floor Space and Commuter

Proposed Spatial Change for the Capital City

Existing Proportional Distribution of Different Land Uses

| Zone | Residential space % | Commercial Space % | Office Space% | Industrial Space % | Other Space % |
|----------------------------|---------------------|--------------------|---------------|--------------------|---------------|
| Executive Residential Zone | 87 | 7 | 1 | 1 | 5 |
| Administrative Zone | 87 | 4 | 3 | 0.2 | 5 |
| Commercial Zone | 90 | 4 | 3 | 2 | 1 |
| Office Zone | 68 | 12 | 12 | 4 | 3 |
| Knowledge Zone | 81 | 11 | 2 | 2 | 4 |
| Transitional Zone | 90 | 6 | 0.2 | 3 | 2 |
| Industrial Belt | 73 | 11 | 0 | 13 | 2 |
| Industrial Zone | 75 | 3 | 1 | 19 | 3 |
| Residential Zone | 84 | 4 | 0 | 9.3 | 2 |
| Total Area | 83 | 7 | 2 | 5 | 3 |

Table 3.9 : Proportional Distribution of Different land uses

Source : Western Province Division and Research & Development Division, UDA 2018

Proposed Distribution of Different Land Uses

| Zone | Proposed Residential space | Proposed Commercial Space | Proposed Office Space | Proposed Industrial Space | Proposed Other Space | Total Development Area |
|----------------------------|----------------------------|---------------------------|-----------------------|---------------------------|----------------------|------------------------|
| Executive Residential Zone | 8,501,098 | 1,165,375 | 137,714 | 46,479 | 798,127 | 10,648,793 |
| Administrative Zone | 10,988,286 | 2,708,084 | 1,086,605 | 13,754 | 621,760 | 15,418,489 |
| Commercial Zone | 29,962,436 | 18,700,920 | 1,289,259 | 466,473 | 510,217 | 50,929,305 |
| Office Zone | 12,058,396 | 3,526,243 | 3,379,047 | 290,235 | 267,303 | 19,521,224 |
| Knowledge Zone | 20,581,329 | 10,120,606 | 1,573,615 | 234,030 | 2,335,953 | 34,845,534 |
| Transitional Zone | 24,562,858 | 749,912 | 42,783 | 282,415 | 244,566 | 25,882,535 |
| Industrial Belt | 10,003,560 | 1,265,708 | - | 1,436,880 | 253,102 | 12,959,251 |
| Industrial Zone | 6,223,220 | 334,541 | 50,868 | 3,040,452 | 263,983 | 9,913,064 |
| Residential Zone | 11,496,719 | 685,918 | 101,831 | 118,225 | 383,432 | 13,850,158 |
| Total Space | 134,377,903 | 39,257,307 | 7,661,723 | 6,992,974 | 5,678,445 | 193,968,353 |

Table 3.10 : Proposed Space distribution in Different land uses

Source : Western Province Division and Research & Development Division, UDA 2018

Proposed Proportional Distribution Different Land Use

| Zone | Residential space % | Commercial Space % | Office Space% | Industrial Space % | Other Space % |
|----------------------------|---------------------|--------------------|---------------|--------------------|---------------|
| Executive Residential Zone | 80 | 11 | 1 | 0.4 | 7 |
| Administrative Zone | 71 | 18 | 7 | 0.1 | 4 |
| Commercial Zone | 59 | 37 | 3 | 1 | 1 |
| Office Zone | 62 | 18 | 17 | 1 | 1 |
| Knowledge Zone | 59 | 29 | 5 | 1 | 7 |
| Transitional Zone | 95 | 3 | 0.2 | 1 | 1 |
| Industrial Belt | 77 | 10 | 0 | 11 | 2 |
| Industrial Zone | 63 | 3 | 1 | 31 | 3 |
| Residential Zone | 83 | 5 | 0.7 | 9 | 3 |
| Total Area | 69 | 20 | 4 | 4 | 3 |

Table 3.11 : Proposed Proportional distribution in different landuses

Source : Western Province Division and Research & Development Division, UDA 2018

3.2.3. Proposed Commuter Population of the Capital City

Commuter population of the Capital City is predicted based on the proposed land use and following assumptions.

Assumptions:

| Activity Type | Average Per Capita Space |
|-------------------|--------------------------|
| Retail/Whole Sale | 20 |
| Tourism | 40 |
| Private Office | 30 |
| Industrial | 60 |
| Institutional | 25 |
| Residential | 50 |

Table 3.12 : Average per Capita Space

Source : Western Province Division and Research & Development Division, UDA 2018

Limitations:

According to the Implementation Plan of Capital City, it is planned to complete all the identified projects by 2050. Hence, it requires a period of 30 years to achieve the predicted commuter population in reality.

Chapter 03 THE PLAN

Projection of Population, Floor Space and Commuter

Proposed Spatial Change for the Capital City

Proposed Commuter Population of the Capital City



Chapter 03 THE PLAN

Projection of Population, Floor Space and Commuter

Proposed Commuter Population of the Capital City

Existing Commuter Population of the Capital City

| Existing Commuter Population | | | | | |
|------------------------------|------------------------------|--------------------------|------------------------------|-------------------|---------------------------|
| Zone | Commuter of Commercial Space | Commuter of Office Space | Commuter of Industrial Space | Commuter of Other | Total Commuter Population |
| Executive Residential Zone | 29,000 | 3,500 | 775 | 16,000 | 49,275 |
| Administrative Zone | 13,000 | 6,000 | 230 | 12,500 | 31,730 |
| Commercial Zone | 560,000 | 29,000 | 8,000 | 28,000 | 625,000 |
| Office Zone | 44,000 | 28,000 | 5,000 | 9,000 | 86,000 |
| Knowledge Zone | 73,000 | 11,000 | 4,000 | 17,000 | 105,000 |
| Transitional Zone | 28,000 | 700 | 5,000 | 6,000 | 39,700 |
| Industrial Belt | 32,000 | - | 12,000 | 5,000 | 49,000 |
| Industrial Zone | 13,000 | 1,300 | 25,000 | 8,500 | 47,800 |
| Residential Zone | 23,000 | 28,000 | 20,000 | 12,500 | 83,500 |
| Total Space | 814,000 | 107,000 | 79,000 | 117,000 | 1,117,005 |

Table 3.13 : Existing Commuter population in the Capital City

Source : Western Province Division and Research & Development Division, UDA 2018

Predicted Commuter Population of the Capital City

| Projected Commuter Population | | | | | |
|-------------------------------|------------------------------|--------------------------|------------------------------|-------------------|---------------------------|
| Zone | Commuter of Commercial Space | Commuter of Office Space | Commuter of Industrial Space | Commuter of Other | Total Commuter Population |
| Executive Residential Zone | 58,000 | 4,500 | 775 | 32,000 | 95,275 |
| Administrative Zone | 135,000 | 36,000 | 230 | 25,000 | 196,230 |
| Commercial Zone | 935,000 | 43,000 | 8,000 | 20,000 | 1,006,000 |
| Office Zone | 176,000 | 113,000 | 5,000 | 11,000 | 305,000 |
| Knowledge Zone | 500,000 | 52,000 | 4,000 | 93,000 | 649,000 |
| Transitional Zone | 37,000 | 1,400 | 5,000 | 10,000 | 53,400 |
| Industrial Belt | 63,000 | - | 24,000 | 10,000 | 97,000 |
| Industrial Zone | 17,000 | 1,700 | 51,000 | 10,000 | 79,700 |
| Residential Zone | 34,000 | 3,000 | 20,000 | 15,000 | 72,000 |
| Total Space | 1,962,865 | 255,391 | 116,550 | 227,138 | 2,553,605 |

Table 3.14 : Predicted Population of the Capital City

Source : Western Province Division and Research & Development Division, UDA 2018