

PROJECTS IDENTIFICATION REPORT

WESTERN REGION MEGAPOLIS PLANNING PROJECT

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MINISTRY OF MEGAPOLIS AND WESTERN DEVELOPMENT



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TRANSPORT, ENERGY AND WATER **01**

01 – TRANSPORT, ENERGY AND WATER

01.1 - TRANSPORT

1.1.1 – RAILWAY ELECTRIFICATION AND MODERNIZATION

Unavailability of a reliable, comfortable, time saving and safe mode of public transport system has caused the commuters to transfer to their private transport modes. Under the Western Region Megapolis Plan, entire railway system within Western Province and beyond will be upgraded, electrified and modernized to provide a quality and comfortable ride to passengers. This project will encourage the passengers shift to rail from other modes of transport. Passengers will get many benefits as; cost saving from travel time, reduction of road accidents, reduction of environmental emissions, provide an improve choice of rail use, improved stations, station access, quality of carriages and speed of travel and modernized ticketing.



Objectives

1. To increase the ridership by Rail
2. To improve the quality, efficiency and reliability of rail transport system
3. To improve passenger facilities

Project Components / Activities

- Feasibility study
- Improvement of tracks to facilitate electrification
- Resettlement and relocation
- Upgrading the existing railway stations including ticketing system
- Upgrading the existing signal system
- Purchasing new trains
- Establishment of electronic train tracking system

Summary of the Project	
Location	a) Polgahawela to Panadura b) Kelani Valley line c) Negombo line with airport access
Required Land Area	a) Land is available b) To be estimated and acquired c) To be estimated and acquired
Present Situation	Concepts have been approved in principle
Project Cost	SLR 14,600 mn (US \$ 100.00 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	About 2,000 Direct and indirect employment
Implementation Period	Medium Term (2016-2020)

Remarks: New trains are to be introduced for the system and existing trains operating within Western Province can be used for long distance services

1.1.2 – CONSTRUCTION OF NEW ELECTRIFIED RAILWAY LINES

In the present situation, there exist some corridors where the passenger demand has exceeded the capacity of available public bus transport service. Therefore, under the Western Region Megapolis Plan, new railway lines will be introduced to improve the connectivity by rail especially for high demand areas as Kottawa to Horana. In addition new railway line will be introduced from Avissawella to Peliyagoda to facilitate the freight transport and improve the connectivity for the proposed logistics zone.



Objectives

1. To improve the connectivity by Railway
2. To reduce road traffic congestion
3. To reduce the number of container traffic on High Level and Low Level roads
4. To increase the passenger and freight handling capacity by rail

Summary of the Project

Location	a) Kottawa to Horana b) Paliyagoda to Kosgama via Dompe
Required Land Area	To be identified
Present Situation	Concept Stage
Project Cost	SLR 3,250 mn (US \$ 22 mn)
Proposed Financing Method	Foreign and local funding
Method of Procurement	Open competitive
Employment	More than 1500 direct employment and 2,000 indirect employment
Implementation Period	Medium Term to Long term (2016/2020)

Project Components / Activities

- Conducting the feasibility study for the identified two lines
- Detailed designs of tracks and railway stations
- Land acquisition and resettlements if required
- Construction of new railway tracks and stations
- Installation of signaling system and train tracking center
- Purchase new trains, loading/unloading equipment

1.1.3 – COLOMBO RAPID TRANSIT SYSTEM (RTS) PROJECT

Within Colombo CBD area, the existing passenger demand in almost all the roads and in the existing public bus transport service has been surpassed. Therefore the traffic congestion in the core area is at the maximum. The new Rapid Transit System will be introduced in the Core Area of Western Region. It will introduce new transit modes and will provide easy access to the major attractions in the system. It will ensure a higher quality ride for everyone in terms of cost, time and mobility. Introducing new modes will help the rider to choose most appropriate mode of transport based on his trip purpose and hence will increase the modal shift towards the public transportation reducing the traffic congestion significantly. All the major points in the core are will be connected by the new system.



Objectives

1. To improve the connectivity and reduce the travel time among main nodes in CBD
2. To introduce new rapid transit modes in CBD
3. To improve the transfer facilities for passengers
4. Reduce the traffic congestion
5. Increase the public transport ridership
6. Improve the quality of public transport

Summary of the Project

Location	CBD area & suburbs
Required Land Area	
Present Situation	Concept Stage
Project Cost	SLR 450,000 mn (US \$ 3,103 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	About 2,000 direct and indirect
Implementation Period	Long term (2018/2030)

Remarks: RTS mode/s will only be specified after the feasibility study. Possible modes are elevated Monorail or elevated Light Rail.

Project Components / Activities

- Feasibility study on identified traces
- Detailed designs of tracks, signaling systems, stations and yard
- Land acquisition
- Construction of tracks/beams, stations, yards, signaling systems and controlling systems
- Purchase new trains

1.1.4 – IMPLEMENTATION OF NEW INLAND WATER TRANSPORT SYSTEM

Now there is no connecting mode in the East - West direction in the Colombo region while the existing road network transport the passengers radially from Colombo. Therefore, it is proposed to introduce new transit mode of inland water transport from Wellawatte to Battaramulla using the water connectivity via Wellawatte Canal, Kirulapone canal and Diyawannaoya. Comfortable air conditioned boats will provide a good ridership for passengers and reduce their travel time drastically. Day time this can be used as a public transport mode and it can be used as Eco tourism at night. Second system will be on Beira Lake from Fort to Gangarama.



Objectives

1. To introduce a new transport mode
2. Improve the accessibility and connectivity
3. To reduce the on road traffic congestion and travel time among the connecting locations
4. To promote as both public transport and eco tourism mode

Summary of the Project

Location	(a) Wellawatta to Battaramulla (b) Fort to Union Place (c) Mattakkuliya to Hanwella
Required Land Area	Has been identified and belongs to Land Reclamation Authority
Present Situation	Feasibility study and detailed designs are completed for Wellawatte to Battaramulla
Project Cost	SLR 18,100 mn (US \$ 125.0 mn)
Proposed Financing Method	Foreign and local funding
Method of Procurement	Open competitive
Employment	500 Direct and indirect employment
Implementation Period	Medium term (2016/2020)

Remarks: All the detailed designs are completed for the Wellawatte – Battaramulla section. Can commence the project once the canal is dredged and cleaned.

Project Components / Activities

- Clean and dredge the canal to suit the passenger service
- Constructing boat stations, yards and access paths
- Purchasing Boats
- Develop a regulatory mechanism
- Maintenance and operations

1.1.5 –IMPROVEMENT OF EXPRESSWAY NETWORK

The existing expressways are only being utilized for long distance passenger transportation. Yet, some of the nearby major towns can be connected through routes which runs through the expressways reducing the time to travel in between. The existing tolls have not being revised as per the changed demand over the past years and a lot of congestion occurs sometimes at the exit toll gates due to the prevailing manual toll collection method. Therefore, under the Western Region Megapolis Plan, vehicle operations on expressways are to be improved by changing the demand on expressways and improving the public transit operations.



Objectives

1. Provide an efficient public transport system on expressway
2. Introduce electronic toll collection system and reduce delays at toll gates
3. Maintain a constant demand on highway by revising the toll
4. Improve mobility on highways

Project Components / Activities

- Analyse the new demand on the highways
- Review existing tolls
- Introduce electronic toll collection system
- Use real time information systems
- Redesign the public transport system on highways

Summary of the Project

Location	Western Province and connecting areas through highways
Required Land Area	N/A
Present Situation	Concept stage
Project Cost	SLR 15 mn (US \$ 0.1 mn)
Proposed Financing Method	Local funding – Consolidated fund
Method of Procurement	Government interventions. Main responsible authority is RDA
Employment	100 employments
Implementation Period	Short term (2016/2018)

1.1.6 –CONSTRUCTION OF NEW EXPRESSWAYS

There are some stretches and corridors where there is a huge direct demand where the commuters need a high mobility. If this issue can be addressed, a lot of people will save their valuable time and draw new investments. Under this project it will develop the road network providing high mobility and connectivity in urban areas. Some of these expressways are elevated and some of them are at grade. It will reduce the travel time significantly between key areas.



Objectives

1. Provide high mobility between urban and sub urban areas
2. Improve the capacity of these links
3. Improve the access time to Colombo via Katunayake Expressway

Summary of the Project

Location	a) Ruwanpura expressway b) Kandy Expressway c) New Kelani bridge elevated road to Colombo Port and Fort area (CKE Extension) d) Elevated road from New Kelani Bridge to Battaramulla (New elevated urban expressway)
Required Land Area	
Present Situation	Feasibility study for Ruwanpura expressway and CKE extension are almost completed
Project Cost	SLR. 600,000 mn (US \$ 4138 mn)
Proposed Financing Method	Local / Foreign funding – Consolidated fund
Method of Procurement	Open competitive
Employment	Around 1000 direct or indirect employment
Implementation Period	Short term to Long term (2016/2025)

Remarks: Feasibility studies of New Kelani Bridge, port access road and Kandy Expressway are already completed

Project Components / Activities

- Carry out the feasibility studies for Kelani bridge to Battaramulla elevated urban expressway
- Implementation of Ruwanpura expressway and CKE Extension
- Implementation of Kandy expressway

1.1.7 – DEVELOPMENT OF MULTIMODAL TRANSPORT HUBS AND CENTERS

The poor connectivity between the available transport modes and unavailability of required facilities at transfer locations have caused a lot of problems and inconveniences for the public. Under the Western Region Megapolis Plan, new Multimodal Transport Hubs will be developed to enhance the development of a diverse, balanced, integrated transit service in many areas, people and freight transport. In addition, new transport hubs will co-ordinate the use of different modes with proper integration for efficiency and cost effectiveness.



Objectives

1. To improve the connectivity between different transport modes in Western Province
2. To improve the passenger transfer facilities and quality of ride
3. To accommodate business, accommodation and recreational facilities

Summary of the Project

Location	Hubs : Fort/Pettah Centers : Negombo, Kaduwela, Kottawa, Moratuwa, Panadura, Horana
Required Land Area	To be Estimated
Present Situation	Multimodal Hubs are already being identified. Concepts have been developed
Project Cost	SLR 31,000 mn (US \$ 214 mn)
Proposed Financing Method	Public Private Partnership
Method of Procurement	Open Competitive
Employment	About 10,000 Direct and indirect employment
Implementation Period	Medium term to Long Term (2018/2030)

Remarks: Fort/Pettah feasibility has already been completed by Com Trans project

Project Components / Activities

- Feasibility study for multimodal transport hubs
- Identification of activities to be included in the hub
- Identification and acquisition of lands
- Resettlements if required
- Detailed designs preparation
- Implementation

1.1.8 –IMPROVEMENT OF EXISTING ROADS

Apart from the traffic congestion, the low quality of roads has contributed towards the low capacity of certain road links which decreases the propagating speed of the traffic and underutilize the capacity of the road network. Under this project it will develop road network providing high mobility in urban areas. It will improve the surface conditions, shoulders, footwalls and drainage systems of roads. In addition, it will eliminate road bottlenecks and issues related to service lines, illegal encroachments as well.



Objectives

1. To provide high mobility in urban areas
2. To improve the capacity of roads
3. To improve the roads to maintain and average speed of 60 km/h between urban centers

Summary of the Project

Location	Western Province
Required Land Area	To be estimated
Present Situation	Concept stage has been approved by principle. Can start the detailed designs
Project Cost	SLR 30,000 mn (US \$ 207 mn)
Proposed Financing Method	Local / Foreign funding - Consolidated
Method of Procurement	Open competitive
Employment	Around 500 direct or indirect employment
Implementation Period	Short term (2016/2018)

Remarks: Needed road links are already being identified by RDA

Project Components / Activities

- Develop the High Mobility road network connecting districts with an average speed of 60 km/h which has developed by RDA for next 10 years
- Detailed designs to be done for identified networks
- Land acquisition
- Road improvements

1.1.9 –HORANA-MEERIGAMA, NEGOMBO- MEERIGAMA AND JA-ELA – DIVLAPITIYA ROAD IMPROVEMENT PROJECT

Existing roads are two lane undivided with less capacity and low mobility. Therefore, this project will improve the existing roads by widening into 4 lanes with required intersection improvements. These new roads will improve the connectivity between Kalutara and Gampaha Districts, airport access and facilitate the proposed logistics zone as well. Extension of road links within the core area will ensure a better connectivity and reduction of traffic congestion on existing roads



Objectives

1. To improve the capacity of key roads in Western Province
2. To improve facilities for freight transport
3. To improve the capacity of selected roads
4. To improve the mobility in core area
5. To provide a better connectivity and access speed to Katunayake expressway using proposed new Kelani bridge

Summary of the Project

Location	<ul style="list-style-type: none"> • Horana to Meerigama via Paddukka and Kirindiwela • Negombo- Divulapitiya - Mirigama • Ja-Ela to Divulapitiya via Ekala and Minuwangoda
Required Land Area	To be Estimated
Present Situation	Concept stage
Project Cost	SLR 15,000 mn (US \$ 103 mn)
Proposed Financing Method	Local funding – Consolidated fund
Method of Procurement	Open competitive
Employment	Around 500 direct or indirect employment
Implementation Period	Short term (2016/2020)

Project Components / Activities

- Detailed designs of roads and intersections, pavement designs
- Land acquisition and resettlement if required
- Improvement of selected road links

1.1.10 – MARINE DRIVE, DUPLICATION ROAD & BASELINE ROAD EXTENTION PROJECT

There are some missing road links, where if provided, a lot of people will be willing to use which in turn can reduce a lot of unnecessary traffic movements reducing the congestion significantly. Therefore, identification of such missing links and improvement of selected sections of the existing road network as appropriate to the Western Region Megapolis Plan will address this issue. This will improve the connectivity of existing main corridors.



Objectives

1. Capacity improvement of key roads in Western Province
2. Improve facilities for freight transport
3. Improve the capacity of selected roads
4. Improve the mobility in core area

Summary of the Project

Location	<ul style="list-style-type: none"> • Marine Drive extension to Galle Face and Dehiwala • Baseline extension up to Maliban junction • Duplication road extension up to Kalubowila hospital road
Required Land Area	To be estimated
Present Situation	Concept stage
Project Cost	SLR 9,950 mn (US \$ 69 mn)
Proposed Financing Method	Local funding – Consolidated fund
Method of Procurement	Open competitive
Employment	Around 500 direct or indirect employment
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Feasibility study to be carried out for these three projects
- Marine drive extension to Galle Face from Kollupitiya and to Dehiwela from Wellawatte
- Baseline road extension up to Maliban junction
- Duplication road extension up to Kalubowila Hospital Road

1.1.11 – DEVELOPMENT OF OFF-STREET PARKING FACILITIES

Now, there is a lot of traffic congestion being created due to the unavailability of proper and enough parking facilities within Colombo. It has paved the path for abrupt on street parking. Under the Western Region Megapolis Plan, a new Parking Management System is proposed as off-street parking facilities. The aim of parking management is to reduce vehicle trips by controlling on-street parking, on the assumption that people will change modes or carpool. Required parking facilities will be provided in identified locations as surface car parks, multi-storied parking buildings, mechanical car parks and roof top car parks as required.



Objectives

1. To improve the road capacity and flow of traffic
2. To minimize unnecessary on street parking for long hours
3. To reduce circulation time for searching of parking facilities
4. To ensure the safety of the vehicles

Summary of the Project

Location	CBD and suburbs
Required Land Area	3.85 Hectares
Present Situation	Concept has been developed and lands have been identified by UDA
Project Cost	SLR 6,000 mn (US \$ 41 mn)
Proposed Financing Method	Public Private Financing
Method of Procurement	Open competitive
Employment/output	Around 1000 Direct and indirect employment
Implementation Period	Short Term (2016 - 2018)

Remarks: UDA has confirmed the availability of lands in 26 locations.

Project Components / Activities

- Parking demand has to be identified
- Detail designs of parking building or parking lots for surface parking
- Construction of parking buildings and lots

1.1.12 – INTRODUCTION OF PARKING METERS

Irregular and long time on-street parking are two of the significant factors which contribute towards the urban traffic congestion. Regularizing and minimizing this helps to reduce this problem. Therefore, under the Western Region Megapolis Plan, introduction of parking meters for on-street parking was identified as a key requirement. The aim of parking meters is to reduce vehicle trips by controlling on-street parking and make it more expensive, on the assumption that people will change modes or carpool. This should be implemented only after providing an adequate amount of off street parking.



Objectives

1. To regulate on-street parking
2. To discourage on-street parking gradually
3. To eliminate the traffic congestion due to illegal and irregular on street parking

Summary of the Project

Location	CBD
Required Land Area	N/A
Present Situation	Concept has been developed and CMC has started installing parking meters on several locations
Project Cost	SLR 40 mn (US \$ 0.28mn)
Proposed Financing Method	Public Private Financing
Method of Procurement	Open competitive
Employment/output	Around 100 Direct employment
Implementation Period	Medium Term (2017 - 2020)

Remarks: Once adequate off street parking has been provided, on street parking can be eliminated

Project Components / Activities

- Identification of suitable locations
- Installing parking meters at the identified locations
- Develop regulatory and fining mechanisms

1.1.13 – MODERNIZATION OF PUBLIC BUS TRANSPORT SYSTEM IN WESTERN REGION

The recent data shows a degrading trend of public transport usage while increasing the trend for private vehicle usage which has caused a lot of traffic problems at present. We still have the route systems formulated for about 40 years ago which has caused a lot of inefficiencies. Therefore, public transport system development is the main requirement to be achieved in reducing road congestion and environmental pollution. Reliable public transport system will always enhance the safety and the comfort of the rider. Efficient transport system will reduce the stresses of commuters and the road rage. Productivity of employees can be increased drastically.



Objectives

1. Mitigate the prevailing quality slump in public transportation
2. Introduce more comfortable buses for passengers
3. Attract many passengers for public transport systems
4. Improve the quality and reliability of bus service
5. This is a pre-requisite for electronic road pricing of city entry points

Summary of the Project

Location	Western Province
Required Land Area	To be estimated
Present Situation	Conceptual stage
Project Cost	SLR 4000 mn (US \$ 27.6 mn)
Proposed Financing Method	Foreign funds , Consolidated fund
Method of Procurement	Open competitive
Employment	1000 Direct employee
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Change bus type to low floor A\C buses when replacing the existing buses to new ones
- Design and implement a control center to monitor busses through GPS and establish real time information system about busses for the public

1.1.14 – OVERFLOW PARKING FACILITY FOR LONG DISTANCE BUSES ENTERING COLOMBO

Due to large number of long distance buses entering the city center daily and keep waiting for long hours for the return trips. At the moment, there is no such proper place for these busses to wait compelling them to park them at random places. Hence Pettah and surrounding areas get congested during the day time. It is required to provide parking facilities for buses in Pettah or nearby areas to overcome this issue. Further better facilities must be provided for bus crew in the identified areas.



Objectives

1. Reduce the congestion in Pettah and surrounding area due to bus parking
2. Provide more facilities for long distance buses and crew

Summary of the Project

Location	Fort/Pettah
Required Land Area	To be estimated
Present Situation	Concept has been developed
Project Cost	SLR 80 mn (US \$ 1 mn)
Proposed Financing Method	Public Private Financing
Method of Procurement	Open competitive
Employment/output	Around 100 Direct and indirect employment
Implementation Period	Short Term (2016 - 2018)

Project Components / Activities

- Identification of suitable locations
- Carryout the detailed design and specify a regulatory mechanism
- Traffic impact assessment
- Revision of bus schedules to minimize waiting
- Project implementation

1.1.15 WIDENING AND IMPROVEMENTS OF INTERSECTIONS IN COLOMBO

The limited capacities of the existing intersections, due to the geometric and other conditions, have limited the efficiency of traffic management. Widening and improvements at some intersections will improve the turning movement capacity and the efficiency. This will help to initiate signal synchronization of the area as well.



Objectives

1. To facilitate the prerequisite for signal synchronization & IT based traffic management
2. To improve capacity of intersections

Summary of the Project

Location	Western Province
Required Land Area	To be estimated
Present Situation	Conceptual stage
Project Cost	SLR 500 mn (US \$ 3 mn)
Proposed Financing Method	External source, Consolidated fund
Method of Procurement	Open competitive
Employment	100 employments
Implementation Period	Medium term (2016/2020)

Remarks: Locations are already Identified by KOICA .



Project Components / Activities

- Identify the intersections to be improved
- Conduct a study on turning movement counts at intersections
- Detailed designs of intersections
- Construction of intersections

1.1.16 – UPGRADE SIGNAL LIGHTS AT INTERSECTIONS

Due to the unavailability of real time traffic detection and absence of synchronization of signal lights within the area, a considerable amount of time being wasted on roads. This project will improve the travel time of riders, energy consumption and quality of ride by reducing the intersection delays for riders. Real time traffic management measures will be introduced which will control the intersections, incident management and avoid illegal parking near intersection areas.



Objectives

1. To reduce congestion through real time traffic management
2. To improve management of incident/accident at intersections
3. To Improve the intersection capacities

Summary of the Project

Location	Central Business District (CBD), Fringe Area
Required Land Area	N/A
Present Situation	Conceptual stage
Project Cost	SLR 3,000 mn (UD \$ 20.7 mn)
Proposed Financing Method	Consolidated funds
Method of Procurement	Open competitive
Employment	Around 250 direct and indirect employment
Implementation Period	Medium term

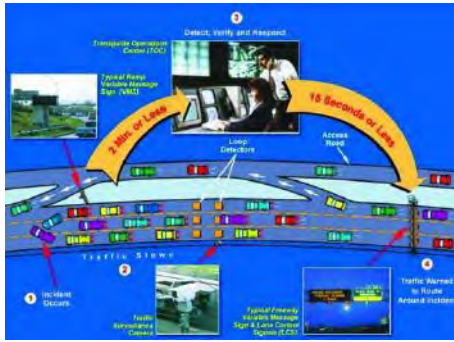
Remarks: Intersections and geometries have been identified by KOICA study and system requirements to be provided

Project Components / Activities

- Develop guidelines of standards for future signal lights synchronizing
- Re install necessary signal lights which has specified standards
- Operation and maintenance of signal lights

1.1.17 – IT BASED SMART TRAFFIC MANAGEMENT SYSTEM

Due to the unavailability of a control center for the traffic management of entire western province, the sudden incidents concentrated to certain areas affects the traffic on roads significantly by managing all the real time traffic flows in the entire Western Province at once. Traffic flow management will enhance the mobility on corridors, reduction of congestion, improvement in road safety and reduction of delay on roads. The roads users will have access to a real time information system on the prevailing traffic conditions on roads through their smart phones.



Objectives

1. To Reduce traffic congestion
2. To improve vehicle & passenger safety
3. To improve the travel time of different road users such as public transport users and private transport users

Summary of the project

Location	Colombo Municipal Council and Kotte Urban Council
Required Land Area	0.3 Hectares
Present Situation	Conceptual stage
Project Cost	SLR 2,200 mn (US \$ 15 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	Around 200 direct and indirect employment
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Installation of loop detectors/flow detection cameras at required locations
- Incorporate CCTV cameras purchased and installed under project No. 3.21 for traffic flow detection
- Design and installation of signal lights synchronization system (including civil works)
- Formulate policy document with department of motor traffic, police and other relevant parties on sending charges for road rule violators
- Establishment of a control and monitoring center

1.1.18 –IMPROVEMENT OF PEDESTRIAN FACILITIES

The existing pedestrian facilities in the urban areas are very poor despite the high pedestrian movements. Providing attractive, comfortable and safe pedestrian facilities will attract a lot of people to use them to fulfill their short distance trips rather than going for taxis. Under this project, Improvements are intended to enhance pedestrian access to transit service by aiding street crossings and providing more amenities at bus stops, including landscapes, sidewalks, curb extensions and ramps and improved street lightings. New and improved pedestrian facilities promote walking and provide greater access and mobility within our communities



Objectives

1. Enhance pedestrian access to transit service
2. Pedestrian safety and convenience
3. Promote walking
4. Improve road discipline
5. Improve road capacity by providing a separate walkways for pedestrians

Summary of the Project

Location	CBD area
Required Land Area	To be estimated
Present Situation	Some pedestrian walkways are already completed. Remaining areas to be constructed
Project Cost	SLR 1,000 mn (US \$ 7 mn)
Proposed Financing Method	Local funding – Consolidated fund
Method of Procurement	Open competitive
Employment	Around 1000 direct and indirect employment
Implementation Period	Short term (2016/2018)

Remarks: Needs land acquisition

Project Components / Activities

- Provide appropriate vegetation/concrete cover & adequate lighting along the roads
- Improve the quality of walk ways by providing continuous and interconnected sidewalks accessible by everyone by designing it
- Separate sidewalks from the road way using suitable buffer, on street parking, by appropriate curb or by landscaping between the sidewalk and the roadway
- Ensure safety of pedestrians at intersections through clearly marked crosswalks, overhead bridges /underpass and fences

1.1.19 – IMPROVEMENT OF TRAFFIC FLOW BASED ON IDENTIFIED INTERVENTIONS

Issues concentrated into certain areas affects the traffic condition of comparatively a large area. Traffic flow management through physical interventions and enforcement are identified to relieve the traffic congestion significantly. Here the carefully identified interventions by experts and required enforcements through police are to be implemented.



Objectives

1. To reduce the existing traffic congestion through physical interventions
2. To reduce the existing traffic congestion through law enforcement strategies

Summary of the Project

Location	Western Province
Required Land Area	Not required
Present Situation	Required interventions have been identified (Annex B)
Project Cost	SLR 10,000 mn(US \$ 69 mn)
Proposed Financing Method	External source, Consolidated fund
Method of Procurement	Open competitive
Employment	150 Direct employee
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Prioritize the identified interventions (refer Annex No.5)
- Implementation of the prioritized interventions

1.1.20 –LEGAL ENFORCEMENT OF TRAFFIC LAW VIOLATIONS THROUGH CCTV MONITORING

In the existing situation, law enforcement is only possible in the presence of law enforcement officers. Yet, traffic flow management through law enforcement is regarded as one of the most efficient and direct methods to control the traffic congestion, violations and safety. This CCTV real time monitoring and fining system over a large area has to be implemented without the presence of police officers on site.



Objectives

1. To make sure there are less or no traffic violations within the considered area
2. Reduce the congestion through enforced driver discipline
3. Safety assurance by eliminating the violations

Summary of the Project

Location	Western Province
Required Land Area	Not required
Present Situation	Required intervention has been identified
Project Cost	SLR 2,500 mn (US \$ 17 mn)
Proposed Financing Method	External source, Consolidated fund
Method of Procurement	Open competitive
Employment	75 direct employees
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Identification of locations where cameras to be installed
- Purchase and Installation of CCTV cameras at required locations
- Install red running detection cameras at selected intersections
- Development of policies to enable real time fining
- Identify and propose a regulatory mechanism for the system

1.1.21 – IMPROVEMENT OF TAXI TRANSPORT SERVICE

Absence of a proper regulatory mechanism and an authority for management purposes of taxis in the country has paved the path for many social and traffic problems. Yet, taxis are a part of a functioning community and it provides door to door service to the general public as a para transit mode. Numbers of taxis operating on roads have been increasing without any control and it had led to many social and traffic issues in the country. Controlling and regulating these taxi services can solve these issues successfully.



Objectives

1. Reduce the urban traffic congestion
2. Implement a reliable taxi transport service which ensures the safety
3. Implement a quality and comfortable taxi transport service

Summary of the Project

Location	Western Province
Required Land Area	Not required
Present Situation	Conceptual stage
Project Cost	SLR 50 mn (US \$ 0.34 mn)
Proposed Financing Method	Consolidated fund
Method of Procurement	Open competitive
Employment	100 direct employment
Implementation Period	Short term (2016/2018)

Project Components / Activities

- Introduce a common identification system for all taxis
- Promote and supply adequate parking space for taxis at major transit node
- Use internet to find taxi locations, contact numbers, use GPS tracking systems etc.
- Develop a regulatory authority and policy document for taxi operations
- Register all the taxis under the regulator

1.1.22 – INTRODUCE NEW SCHOOL TRANSPORT SERVICE (CONSULTANCY)

The existing school transport service is not enough to meet the demand and not up to the required standards by upper middle class of the society. As a result, majority of school children are coming by private vehicles and that consists a significant portion of the morning peak traffic. Changing this traffic to a few reliable and quality school transport service vehicles which operates from home to school can relieve the traffic congestion significantly.



Objectives

1. Reduce the urban traffic congestion
2. Implement a reliable school transport service which ensures the safety and well-being of children
3. Implement a quality and comfortable transport service for the children
4. Ensure the safety of school children

Summary of the Project

Location	Western Province
Required Land Area	Not required
Present Situation	Conceptual stage
Project Cost	SLR 200 mn (US \$ 1.38 mn)
Proposed Financing Method	Private Public Partnership
Method of Procurement	Open competitive
Employment	100 direct employment
Implementation Period	Short term (2016/2018)

Remarks: NTC is operating 'Sisuseriya" in selected areas only. However this is not a Home Based service

Project Components / Activities

- Form regulatory mechanism for school services (Operational guidelines including, seating capacity, driver/assistant registration, vehicle fitness, maximum travel time)
- Establish new bus companies, purchase new air conditioned buses and install GPS systems to detect the busses
- Form a separate company/s to operate school services in parallel to existing public school service (to provide door to door higher quality service with air condition, monitoring and reliability)
- Improve the reliability and extend the services of existing public school buses ('Sisuseriya' project can be continued as it is in identified routes by NTC. It can be further improved)

1.1.23 –ENCOURAGEMENT OF BICYCLE USE AND FEASIBILITY STUDY ON CYCLE AND MOTORCYCLE PATHS

Usage of bicycles as a transport mode is very sustainable, reducing emission; reduce fuel cost and healthy mode of transport and can reduce a lot of traffic congestion. Under the Megapolis project in Western Region new cycle paths will be constructed to encourage cycling. These paths will be connected to rail and bus terminals which are equipped with park and ride facilities.



Objectives

1. Promote cycling
2. Reduce on road traffic congestion
3. Encourage people to cycle to railway or bus terminal and use park and ride facilities.
4. Reduce fuel usage by motorized vehicles

Summary of the Project

Location	CBD area
Required Land Area	To be estimated
Present Situation	Concept stage
Project Cost	SLR 200 mn (US \$ 1.38 mn)
Proposed Financing Method	Local funding – Consolidated fund
Method of Procurement	Open competitive
Employment	Around 500 direct and indirect employment
Implementation Period	Short term (2016/2020)

Project Components / Activities

- Provide appropriate vegetation cover or paved area at either side of the roads
- Provide separate lane for bicycle uses. In suburban to rural areas it can be checked that the center median can be converted into a bicycle path
- Feasibility study on new cycle paths in CBD
- Project implementation

1.1.24 –POLICY ON USE OF ROAD/RAIL RIGHT OF WAY

Each and every Road / Rail has its demarcated boundaries and most of them acquired by unauthorized people. It makes inconvenience as well as the congestion within the cities. Due to poor policies in land acquisition, road projects get delayed unnecessarily. Under this project, a policy will be developed by professionals in the field to avoid such circumstances in the future projects.



Objectives

1. Develop a policy on maintaining right of way for roads and railway
2. Ensure the land availability and less friction in land acquisition in the future
3. Make clear paths for land acquisition for long term project proposals

Summary of the Project

Location	Western Province
Required Land Area	N/A
Present Situation	Concept stage
Project Cost	SLR. 10 mn (US \$ 0.07 mn)
Proposed Financing Method	Local funding – Consolidated fund
Method of Procurement	Open competitive
Employment	
Implementation Period	Short term (2016/2018)

Project Components / Activities

- Strict restrictions apply and demarcate road right of way lands
- Relocate people who unauthorized acquires and provide adequate space for pedestrians
- Develop a policy document on maintaining right of way for roads and rail and future land acquisition for development projects.
- Public awareness and discussions with communities and investors

1.1.25 –MINIMIZE FUEL USAGE POLICY

Currently the biggest portion of the GDP is dedicated to buy fuel. There exists the risk related to fuel price fluctuations and uncertainty surrounding a future environmental policy. Therefore, this project will encourage people to use more public transport, trip planning and create awareness on requirements of minimizing of fuel usage.



Objectives

1. Economic benefits achieving through less fuel usage.
2. Less environmental impact due to low output of CO₂, lead and CO.
3. Encourage more users for public transport systems.
4. Reduce air pollution

Summary of the Project

Location	Western Province
Required Land Area	Not required
Present Situation	Concept stage
Project Cost	SLR 50 mn (UD \$ 0.34mn)
Proposed Financing Method	Local funding – Consolidated fund
Method of Procurement	Open competitive
Employment	Around 80 direct and indirect employment will be generated
Implementation Period	Short term (2016/2018)

Project Components / Activities

- Reduce taxes for electric and hybrid vehicles while increase taxes for other cars
- Discourage vehicles having poor emission standards
- Introduce a policy to remove poor conditioned vehicles from the roads
- Encourage walkways and bicycle users

1.1.26 –REDUCE VEHICLE EMISSION

With the increase of air pollution in urban areas the requirement of controlling of vehicle emission has become an important requirement of the country. Since Western Province is highly congested and polluted it is important to take necessary actions to reduce the vehicle emissions. Under this project, the Western Region and Megapolis Plan will take the necessary initiatives to provide solutions to these problems.



Objectives

1. To avoid climate change
2. Reduce air pollution
3. To preserve public health

Summary of the Project

Location	Western Province
Required Land Area	Not required
Present Situation	Concept stage
Project Cost	SLR 100 mn (US \$ 0.7 mn)
Proposed Financing Method	Local funding – Consolidated fund
Method of Procurement	Open competitive
Employment	Around 200 direct and indirect employment
Implementation Period	Short term (2016/2018)

Project Components / Activities

- Introduction of higher quality fuel and catalytic converters for vehicles
- Facilitate Liquefied Natural Gas (LNG) use for three wheelers and taxis
- Introduce monitoring system
- The vehicle emission standards to be reviewed yearly

1.1.27 – RESTRUCTURE OF PUBLIC BUS TRANSPORT IN WESTERN REGION (CONSULTANCY)

The recent data shows a degrading trend of public transport usage while increasing the trend for private vehicle usage which has caused a lot of traffic problems at present. We still have the route systems formulated for about 40 years ago which has caused a lot of inefficiencies. Therefore, public transport system development is the main requirement to be achieved in reducing road congestion and environmental pollution. Reliable public transport system will always enhance the safety and the comfort of the rider. Efficient transport system will reduce the stresses of commuters and the road rage. Productivity of employees can be increased drastically.



Objectives

1. Mitigate the prevailing quality slump in public transportation
2. Introduce more comfortable buses for passengers
3. Attract many passengers for public transport systems
4. Improve the quality and reliability of bus service
5. This is a pre-request for electronic road pricing of city entry points

Summary of the Project	
Location	Western Province
Required Land Area	To be estimated
Present Situation	Conceptual stage
Project Cost	SLR 4000 mn (US \$ 28 mn)
Proposed Financing Method	Foreign funds , Consolidated fund
Method of Procurement	Open competitive
Employment	1000 Direct employee
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Change bus type to low floor A\C busses when replacing the existing buses to new ones
- Design and implement a control center to monitor busses through GPS and establish real time information system about busses for the public

1.1.28 –STUDY ON INTRODUCTION OF FLEXIBLE AND STAGGERING WORKING HOURS (CONSULTANCY)

Since all public and private institutions and organizations are following more or less the same time schedule to start and end their work, the peak hours are generated where the existing traffic congestion is unbearable. In order to mitigate this, flexible work and staggering work hours can be introduced to public and private organizations in the Western Region. By flexible work hours and staggering work hour's different organizations can change their starting times and let employees to choose their arrival and departure time which will help to dilute the heavy peak hour traffic in the morning and in the evening.

Objectives

1. Reduce peak hour traffic load
2. Reducing the overloading of Public Transportation System (peak hour overloading)
3. Improvement of quality of ridership
4. Improvement of employee productivity

Project Components / Activities

- Stakeholder meetings and public awareness
- Conducting the feasibility study
- Development of policy documents
- Implementing flexible work hours and staggered work hours in private and public sector

Summary of the Project

Location	Entire Western Province (Kaluthara, Colombo & Gampaha Districts)
Required Land Area	N/A
Present Situation	Concept and design stage
Project Cost	Feasibility study - SLR 1 mn (US \$ 0.01mn) Preparing Policy document – SLR 1 mn (US \$ 0.01 mn) Awareness and stakeholder meetings – SLR 5 mn (US \$ 0.04 mn) Total: SLR 7 mn (US \$ 0.05 mn)
Proposed Financing Method	Local funding – Consolidated fund
Method of Procurement	Government intervention
Employment	
Implementation Period	Medium term (2016/2020)

1.1.29- IMPROVEMENT OF FACILITIES AT SUBURBAN INTERCHANGE BUS TERMINALS AND STANDS

Almost all bus terminals where the passengers interchange buses and the bus stands located at many strategic locations on different routes lack facilities and information useful for users. Available basic facilities are not maintained properly due to lack of resources and had been dilapidated most of the terminal buildings located in prime locations in suburbs are eye sores as the buildings have not been designed to suit its surroundings or user needs in mind. These places are patronized by large number of passengers daily and are excellent places to develop many SME services needed by them and have a great commercial value that can not only provide employment but also good income to those who wish to own and operate them. Hence it is proposed to develop these bus terminals across the Colombo and its suburbs with all amenities and services needed by the general users. As these could be built and operated by local entrepreneurs it is recommended to float local tenders to lease these lands/spaces for private builders to build and maintain these services.



Objectives

1. To redevelop and improve the appearance, design and operational qualities of the bus terminals and bus stands to provide better facilities to passengers.
2. To minimize the operational costs of the bus terminals by the government while the services to bus passengers continue.

Project Components / Activities

- Call Design build and operate proposals for each site
- Construction and operation of the sites and sublease the properties
- Public services and facilities to be provided by the operators

Summary of the Project

Location	Colombo and suburbs
Land Area	Need no additional lands
Present Situation	Dilapidating buildings with minimum user facilities
Project Cost	SLR 1000 mn per site. (US \$. 7.0 mn) <i>[Bus Terminals SLR 300mn. Per site / Bus Stands SLR 1.5mn. per site]</i>
Proposed Financing Method	Public Private Partnership
Method of Procurement	Open competitive
Project Period	Two years (short term)
Employment	3000 (Approx.)

Remarks:

1. Private sector will be invited to undertake the reconstruction and improvement of the bus terminals to be equipped with all modern amenities on leased out lands on a long term lease basis.
2. The National Transport Commission and Western Megaplois to agree on terms and conditions to be stipulated and monitor the quality of services
3. Improve 200 strategically located bus stands to help passengers. The bus stands to have a kiosk which will be sub leased by the developers to operators (SMEs) who will maintain these bus stands while engaged in business of selling goods and services and provide information to passengers thru modern communication equipment.

1.1.30 – SUPPLY OF COMPRESSED NATURAL GAS (CNG) AND ESTABLISH ELECTRIC CHARGING FACILITIES (50 CENTRES) FOR BUSES AND OTHER VEHICLES

At present almost all busses and other vehicles in the WRM area consume diesel and petrol. This has caused high level of air pollution in the region posing adverse impacts to the environment and to the human health. Use of CNG and electricity as a source of fuel will reduce the pollution levels. There is an evidence of finding gas deposits in Indian ocean within the Sri Lankan territory and can be utilized more effectively by converting these vehicle in to CNG. Also CNG and electricity cheaper than other petroleum fuels. This process will create healthy human life in the WP.

Objectives

1. To reduce air pollution levels in the WP
2. To use environmental friendly technologies in WMP area.
3. To introduce more economic use of energy sources as well as the country as well as improved health status of the population.

Summary of the Project

Location	Western Province
Required Land Area	NA
Present Situation	Not a common practice of using CNG for vehicles
Project Cost	SLR. 3300 mn (US \$ 23 mn)
Proposed Financing Method	Private investment
Method of Procurement	Open competitive
Project Period	Medium term
Employment/output	



Project Components / Activities

- Identify suitable locations to store CNG
- Identify suitable locations for gas conversion centers
- Identify suitable locations for 50 electric charging centres
- Purchase machinery and equipment
- Training of technicians
- Develop a gas delivery network

1.1.31 - ESTABLISHMENT OF TRANSPORT INFORMATION ANALYSIS AND DISSEMINATION CENTRE

The information on transportation are many fold. The public as well as the urban planners and regulators of the urban services constantly need these information online on daily basis. Regular surveys on the performance of transport services as well as feedback from public to make management decision are essential for improvement of transport sector. Currently the University of Moratuwa carries out some of the research functions it is recommended that a recommended that a private sector based Transport Information Center that collects, analyzed and disseminate this information on commercial basis be established.



Objective

1. To improve the transport services with real time data
2. To facilitate transport management decision making process

Project Components / Activities

- Set up an institutional mechanism whereby the NTC will form a joint venture with a private sector or form a public company that will provide the services
- Train and introduce the GIS based information system and provide required information thru the telecom network to the public

Summary of the Project

Location	Colombo
Land Area	Need no additional lands but to be housed at the WRMP
Present Situation	No central information is in operation that provide such services to public online
Project Cost	SLR 300 mn per site (US \$. 2 mil) for setting up of the equipment and providing training to personal that will be recruited
Proposed Financing Method	Public Private Partnership
Method of Procurement	Open Competitive
Project Period	two Years (short Term)
Employment	50 (Approx.)

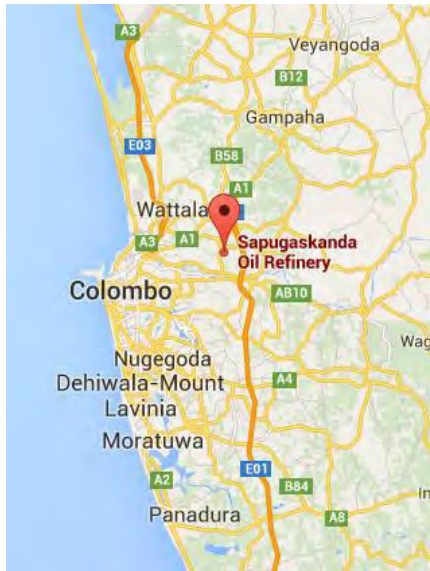
Remarks:

1. Invite the private sector to collaborate with the National Transport Commission to set up this center that will operate the Information services both at the retail and strategic level.
2. It is expected that the techniques such as GIS and mobile applications needed to make the data/information will be adopted when developing the proposed data base and information center.

1.2 –ENERGY

1.2.1 –SAPUGASKANDA OIL REFINERY EXPANSION & MODERNISATION (SOREM)

The Spugaskanda Oil Refinery is in need of improvement to its processing technology, capacity and its productivity. The refinery should be able to produce different product portfolio (power production, vehicle usage, aviation fuel etc.) to meet differences in demand which is difficult with the current facility. The capacity of the refinery should also need to be increased to meet future anticipated demand while better pollution control system to reduce emission level is necessary.



Objectives

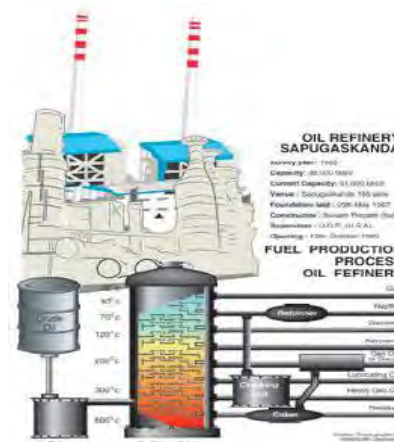
1. To double the refine capacity (to 100,000 b/day)
2. Reduction of "H2S" emission level by introducing "Hydro cracker"
3. To increase the productivity
4. To establish the national fuel security
5. Saving the foreign exchange

Summary of the Project

Location	Sapugaskanda
Required Land Area	
Present Situation	
Project Cost	SLR 200,000 mn (US \$ mn 1379)
Proposed Financing Method	Public Private Joint Venture Investment
Method of Procurement	
Employment/output	
Implementation Period	Medium term (2016/2017)

Project Components / Activities

- Restructuring the refinery with modern technology



1.2.2 – 600 MW NATURAL GAS COMBINED CYCLE POWER PLANT, KERAWALAPITIYA

Kerawalapitiya next stage 600MW combine cycle power plant is expected to partially meet the additional power requirement in the Western Region. The 220 KV transmission line and the Grid Substation to dispatch power is already built. This plant will set a new horizon for Sri Lankan power sector as it will be the 1st thermal plant in the country running on country owned fuel, as per the proposed Project.



Objectives

1. To enhance the national power generation capacity
2. To generate the power within the Western Region load center, so that new transmission lines and long distance transmission costs are minimized.
3. Harness the natural gas resource found in Mannar basin to reduce foreign fuel dependency.
4. To ensure highly paid, skilled jobs for the youth
5. To save foreign exchange



Summary of the Project	
Locations	Elakanda Road, Kerawalapitiya
Required Land Area	44 acres
Present Situation	Land & grid connectivity available,
Project Cost	SLR 50,000 mn (US \$ 345 mn)
Proposed Financing Method	Consolidated fund/ Private financing (Local/ foreign)
Method of Procurement	Open competitive
Employment	500 (direct and indirect) short term, 1000 (direct and indirect) long term
Implementation Period	Medium term (2017/2020)

Remarks:
Along with Natural Gas exploration this has to be started.

Project Components / Activities

- Procurement of the 600 MW combine cycle plant.
- Preparation to accommodate gas pipe network.
- EHV grid connectivity with Protection, SCADA & communication
- Design, EPC and financing of above

1.2.3 – CONVERSION OF 300 MW COMBINED CYCLE POWER PLANT TO NATURAL GAS, KERAWALAPITIYA

Kerawalapitiya stage 1 - 300MW Combine Cycle Power Plant was originally expected to run on natural gas. Due to the urgency of the power plant addition, this was constructed to run on furnace oil. Once the natural gas reserves in Mannar basin are harnessed, the gas pipe line will be laid parallel to the sea shore and the access route to this plant is already reserved. The conversion of the power plant from furnace oil to natural gas will enhance the power generation capacity by 10% and lower generation cost and will permit generation of much more energy than present level. The 220 KV transmission line and the Grid Substation to dispatch power is already built.



Objectives

1. To reduce the generation cost of power plant from shifting away from petroleum
2. Enhance the national energy power generation capacity
3. To generate the power within the Western Region load center, so that new transmission lines and long distance transmission costs are minimized.
4. Harness the natural gas resource found in Mannar basin to reduce foreign fuel dependency.
5. To ensure highly paid, skilled jobs for the youth
6. To save foreign exchange



Summary of the Project

Locations	Elakanda Road, Kerawalapitiya
Required Land Area	Already built area
Present Situation	Land & grid connectivity available,
Project Cost	SLR 2,800 mn (US \$ 19 mn)
Proposed Financing Method	Consolidated Fund/ Private Financing (Local/ foreign)
Method of Procurement	Existing IPP to decide.
Employment	100 (direct and indirect) short term, 200(direct and indirect) long term
Implementation Period	Medium term (2018/2020)

Remarks: Along with Natural Gas exploration this has to be started.

Project Components / Activities

- Preparation to accommodate gas pipe network.
- Changes in turbines, controls & protection, SCADA & communication
- Design, EPC and financing of above

1.2.4 – CONVERSION OF 450 MW COMBINED CYCLE/ GAS TURBINE (GT) POWER PLANT TO NATURAL GAS, KELANITHISSA

Kelanithissa Power Station site has 2 x 165 MW combine cycle power plants and one 115 MW Gas Turbine Plant. They are running on auto diesel and naphtha as at now. Once the natural gas reserves in Mannar basin are harnessed, the gas pipeline will be laid up to the CBD and the port city connecting Kelanithissa Power Station as well. The conversion of these power plant from furnace oil to Natural Gas will enhance the power generation capacity by 5% and lower generation cost and will permit generation of much more energy than present level. Since the plants are in the city center, the transmission losses will be minimal. Further the air pollution due to NG will be the lowest. The grid connectivity is already built.



Objectives

1. To reduce the generation cost of power plant from shifting away from petroleum
2. To enhance the national energy power generation capacity
3. To generate the power within the western region load center, so that new transmission lines and long distance transmission costs are minimized.
4. Harness the natural gas resource found in Mannar basin to reduce foreign fuel dependency.
5. To ensure highly paid, skilled jobs for the youth
6. To save foreign exchange



Summary of the project

Locations	KPS, Wellampitiya
Required Land Area	Already built area
Present Situation	Land & grid connectivity available,
Project Cost	SLR 3200mn (US \$ 22mn)
Proposed Financing Method	Consolidated Fund/ Private Financing (Local/ foreign)
Method of Procurement	International competitive
Employment	100 (direct and indirect) short term, 200 (direct and indirect) long term
Implementation Period	Medium term (2018/2020)

Remarks: Along with Natural Gas exploration this has to be started.

Project Components / Activities

- Preparation to accommodate gas pipe network.
- Changes in turbines, controls & protection, SCADA & communication
- Design, EPC and financing of above

1.2.5 – TRANSMISSION OF NATURAL GAS FROM MANNAR BASIN TO KERWALPITIYA

It is confirmed that Natural Gas has found in one of the wells dug in Dorodo and Barcuda in Mannar Basin. The available gas reserves are estimated to be adequate for running petroleum based thermal power plant in Western shore for more than 30 year. In the eve of the success, making necessary investment to ensure transmission to Western Region and distribution of same to the new townships that will be developed under Megapolis Plan a national priority. Further it is required to establish a gas pumping network for the vehicles, to promote use of gas for vehicle running, with the view to reduce vehicle running cost and vehicle emission. Proposed project is to transmit gas from Mannar Basin to Kerawalapitiya for storage and distribution of gas to new townships and provision of gas pumping facilities for vehicles.



Objectives

1. To ensure Natural Gas produced in Mannar available in Western Region for consumption
2. To supply gas to the other regions along the transmission line
3. To ensure distribution of gas within the Western Region, including for the use of vehicles, industries and domestic purposes

Summary of the project

Locations	The Path the will be determined from Mannar to Kerawalapitiya, and Kerawalapitiya Site
Required Land Area	To be determined
Present Situation	Gas exploration in Mannar Basin
Project Cost	SLR 15,000mn (US \$ 103mn)
Proposed Financing Method	Government to Government/Private
Method of Procurement	Depending on source of funding
Employment/Benefits	Control of flood in and around Kolonnawa Basin
Implementation Period	Medium term (2018/2021)



Project Components / Activities

- o Construction of transmission line from Mannar Basin to Kerawalapitiya
- o Storage and distribution facilities at Kerawalapitiya
- o Laying of distribution lines to CBD Zone, Port City, Science and Technology City, Logistic City and Aero City
- o Establishment of gas pumping station at identified locations in the region



1.2.6–ENHANCING THE CAPACITY OF NON CONVENTIONAL RENEWABLE ENERGY THROUGH NET-METERING

Despite of the fact that Sri Lanka is rich with solar radiation throughout the year, Western Region is somewhat hampered with year around clouds plus rain and land cost contributes making large scale solar parks are not feasible. The project is to use roof top for installation of solar panels which does not add land cost for solar projects, with the provision for net metering. It will help commercial, industrial or domestic establishments to generate solar energy, thus contributing to the power requirement Megapolis Region.



Objectives

1. To use non-conventional renewable energy to meet the demand for power in the Megapolis Region to the maximum extent possible



Summary of the Project

Locations	Industrial, Commercial and Domestic Installation of Western Region
Required Land Area	Does not apply
Present Situation	Ongoing project
Project Cost	SLR 2000 mn (US \$ 14mn)
Proposed Financing Method	Private Financing
Method of Procurement	First Come, First Serve
Employment	5000 (approx.)
Implementation Period	Medium term (2017/2019)

Remarks: This is an ongoing project

Project Components / Activities

- o Selection of 10,000 potential installation/people, with financial capacity for installation of solar panels
- o Arranging of soft loans through financing institutes, to the parties that financing assistance is required
- o Installation of solar panels
- o Providing national grid connectivity with net metering

1.2.7- CONVERSION OF OVERHEAD, LOW AND MEDIUM VOLTAGE LINES IN THE SUBURBS OF COLOMBO INTO UNDERGROUND INSULATED CABLES AND ARIAL BUNDLE CONDUCTORS

Over 90% of the low and medium voltage power distribution lines in Colombo and suburbs are laid overhead. This has resulted in frequent power disconnection due to fall of trees etc., mainly under bad weather conditions. This is a treat to the safety and disturbs the beauty of the City, due to untidiness. Reduction of conveyance losses and number of breakdowns, improving the distribution efficiency, ensuring the safety can be achieved through conversion of overhead power lines to underground insulated cables and Aerial Bundle Conductors, as applicable.



Objectives

1. To reduce number of power breakdowns in Colombo and suburbs
2. To improve the safety in power distribution
3. To maintain aesthetic beauty of the City

Summary of the Project

Locations	Colombo and Suburbs
Required Land Area	Road reservations
Present Situation	Over 90% overhead lines
Project	SLR 10,000 mn (US \$ 69mn) (Approx)
Proposed Financing Method	Consolidated Fund (Local/ foreign)
Method of Procurement	Competitive Bidding
Employment/benefits	Improvement of power distribution efficiency
Implementation Period	Medium term (2017/2022)



Project Components / Activities

- Laying of insulated underground power cables



01.3 - WATER

1.3.1 –WELIVITA WATER SUPPLY PROJECT

Welivita water Supply system is proposed to provide 100% coverage of potable water supply in areas such as Kotte, Battaramulla, Dehiwala, Maharagama, Pannipitiya, Malambe, Kaduwela and Athurigiriya and as well as Colombo city. Water supply to these areas is currently provided by Ambatale, Labugama and Kalatuwawa Water Treatment Plants. With the increase of water demand, the production of existing plants will not be adequate. Hence, it is proposed to implement Welivita Water Supply System which can be categorized as one of the priority water supply projects in Western Region.



Objectives

- To provide reliable and safe water supply service to Colombo city and Kaduwela, Kotte, Maharagama, Dehiwala DS divisions in Colombo District

Summary of the Project

Location	Kaduwela, Kotte, Maharagama, Dehiwala DS Divisions
Required Land Area	8 Hectares
Present Situation	Inadequate production for 100% coverage
Project Cost	Stage I – SLR 49,200 mn (US \$ 339mn) Stage II – SLR 20,800 mn (US \$ 143mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	3000 Direct and indirect employment /400,000 new service connections
Implementation Period	Stage I - Medium term (2016/2020) Stage I - Medium term (2021/2024)

Remarks:

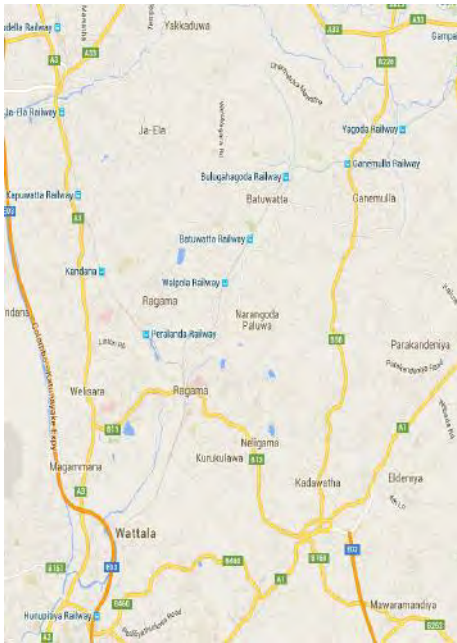
Completed the feasibility study submitted to DNP and approved

Project Components / Activities

- Construction of 400,000 m³/day capacity intake
- Construction of 180,000 m³/day capacity water treatment plant in each stages
- Construction of storage structures
- Supply & laying of transmission & distribution system

1.3.2 –KELANI RIGHT BANK WATER SUPPLY PROJECT STAGE - 11

The production of water from Kelani Right Bank – Stage I is not sufficient to cater to the proposed project areas by year 2017 and also to the developments in Muturajawela Eco zone and Logistics Zone under WRMPP. Kelaniya, Kadawatha, Wattala, Peliyagoda, Mahara, Ragama, Biyagama, Welisara, Kandana and Ja-Ela as well as Katunayake International Airport, Board of Investment and Air Force are being supplied by this plant. Hence the Stage II of the project is expected to increase potable water demand that need to be provided to enhance the quality of the living standard.



Objectives

- To provide reliable and safe water supply service improvements of the areas of Mahara, Welisara, Enderamulla, Ragama, Kandana, Ja-Eela, Ekala, Uswetekeiyawa, Muthurajawela, Pamunugama, Ganemulla, Katunayake, Seeduwa, Katana, Wattala, Kelaniya and Biyagama

Summary of the Project

Location	Biyagama, Mahara, Ja-Ela, Katana DSD
Required Land Area	4.5Ha
Present Situation	Inadequate production capacity to meet the increasing demand
Project Cost	SLR 25,000 mn (US \$ 172 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	3000 Direct and indirect employment /215,000 New Service Connections
Implementation Period	Medium term (2016/2020)

Remarks: Contractor is identified, since financing has delayed, this project is included.

Project Components / Activities

- Construction of 180,000 m³/day capacity water treatment plant
- Installation of additional raw water pumps
- Supply and laying of 1200 mm dia DI transmission mains from water treatment plant to Churchill reservoir
- Supply and laying of 800 mm dia DI transmission mains from Kadawatta to Ekala (19 km)
- Supply and laying of 800 mm dia DI transmission mains from water treatment plant to Kelaniya
- Supply and laying of 1000 mm dia DI transmission mains from water treatment plant to Mabima
- Construction of the balance part of the salinity barrier
- Construction of Interceptor sewer system from Biyagama BOI zone

1.3.3 –KALUGANGA WATER SUPPLY, PHASE – 11

Kalutara District areas water supply system has been mainly covered by Kandana WTP and Kethhena WTP. The existing production of Kandana WTP is not adequate to cater the demand in the area. Therefore, there is an urgent need to develop a potable piped water supply project to cater these areas. The main objective of the project is to provide drinking water to needy areas within Bandaragama, Horana, Kalutara, Madurawela ,Milleniya , Bullathsinhala, Panadura, Ingiriya, DS divisional areas within the Kalutara District and part of Kesbawa, Padduka, Moratuwa, Homagama DS Divisions in Colombo District.



Objectives

- To provide reliable and safe water supply services for the areas of Bandaragama, Horana, Kalutara (Part), Madurawela (Part), Milleniya, Bullathsinhala, Panadura, Ingiriya DS Divisions in Kalutara District and Kesbawa, Paddukka (Part), Moratuwa, Homagama (Part) DS Divisions in Colombo District.

Summary of the Project	
Location	Bandaragama, Horana, Kalutara (Part), Madurawela (Part), Milleniya, Bullathsinhala, Panadura, Ingiriya, Kesbawa, Paddukka (Part), Moratuwa, Homagama (Part)
Required Land Area	3.85 Hectares
Present Situation	Inadequate production capacity to meet the increasing demand
Project Cost	SLR 45,000 mn (US \$ 310 mn)
Proposed Financing Method	Public funding (Foreign)
Method of Procurement	Open competitive
Employment/output	3000 direct and indirect employment /260,000 New service connections
Implementation Period	Medium term,(2016/2023)

Remarks: Project proposal has been submitted to DNP and approved. Foreign funding is sought.

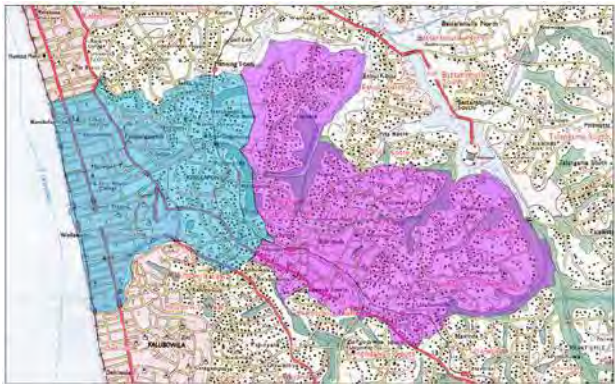
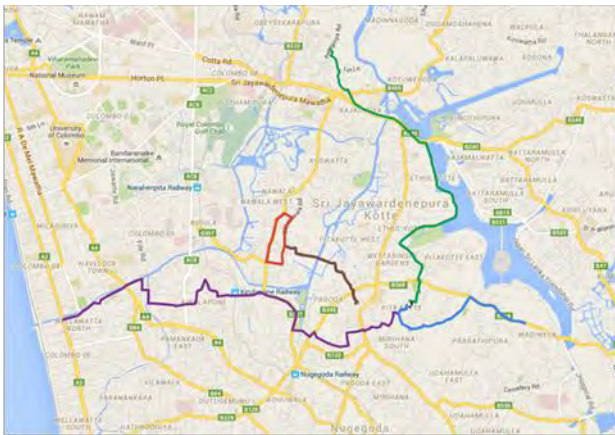


Project Components / Activities

- Construction of 288,000 m3/day capacity Intake at Kandana
- Construction of 140,000m3/day capacity water treatment plant at Kandana
- Construction of storage structures
- Supply and laying of transmission and distribution mains.

1.3.4-KOTTE AREA (JUBILEE RESERVOIR) WATER SERVICE IMPROVEMENT PROJECT

Part of Sri Jayawardanapura Kotte, Maharagama and Colombo Municipal Council areas are served by the Jubilee Reservoir. Maintaining of uninterrupted water supply is a key as this area is highly residential as well as commercial. Implementing this project it will ensure 24 hour water supply facility in the project area by increasing storage capacity and the capacity enhancement of transmission and distribution network. This will enhance the life style of the people to a high living standard as improving the health and sanitation by providing potable water.



Objectives

1. To provide uninterrupted water supply to the area
2. Enhance the quality of the living standard.
3. Reduction of water borne diseases due to improved water quality and as a result the reduction of health cost.

Summary of the Project

Location	Colombo Municipal Council & Kotte Urban Council
Land Area	0.3 Hectares
Present Situation	Inadequate facilities to increase the service level
Project Cost	SLR 7000 mn (US \$ 48mn)
Proposed Financing Method	Public Sector
Method of Procurement	
Project Period	Medium term
Employment	

Remarks: Completed the feasibility study.

Project Components / Activities

- 22,000 m3 Capacity Ground Reservoir
- Treated water transmission mains
- Feeder mains
- Installation of pumps
- Repairing of existing towers, office building & quarters

1.3.5 –CONSTRUCTION OF KELANI GANGA UPSTREAM RESERVOIRS

The hydrological studies reveal that the run of river in Kelani River will not be sufficient to cater the future demands as it experienced a low flow during prolonged droughts. Hence, need of impounding reservoirs upstream to store the water during wet season has become apparent and a prerequisite to ensure long term reliability and sustainability of water supply to Western Region. To cater the deficit at the run of river intakes in the Kelani River, proposed Wee Oya & Ruecastle reservoirs are considered as options to supplement the flows in the Kelani River during dry periods. It is recommended that 29 MCM capacity Wee Oya Reservoir in 2020 and 30 CUM capacity Ruecastle Reservoir thereafter are required to facilitate 30 m³/s abstraction which is necessary for ongoing and proposed treatment facilities.



Objectives

1. To maintain sufficient river flow of Kelani river during dry weather to ensure water supply for western Megapolis area



Summary of the Project

Location	Weeoya Reservoir - Malalpola, Yatiyanthota Ruecastle Reservoir - Deraniyagala
Required Land Area	Weeoya Reservoir - 130 Hectares Ruecastle Reservoir - 370 Hectares
Present Situation	Inadequate raw water during dry periods
Project Cost	SLR 10,000 mn (US \$ 69mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	2000 during construction phase direct and indirect employment
Implementation Period	Wee Oya Reservoir -Medium term (2016/2020) Ruecastle Reservoir -Medium term (2015/2030)

Project Components / Activities

- Construction of 29 MCM Wee Oya reservoir
- Construction of 30 MCM Ruecastle reservoir

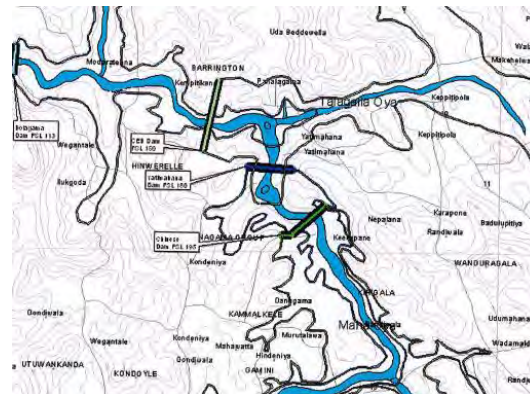
1.3.6 –CONSTRUCTION OF YATIMAHANA RESERVOIR IN MAHA OYA

The projected water demands in **Mirigama Industrial City** and **Aero City Katunayake** will be catered with water treatment plants to be located in Maha Oya. The entire water supply and demand situation in Maha Oya basin is not under proper management and hence as a result the shortages have been increased substantially. Establishment of a balancing reservoir at Yatimahana is clearly the overall most promising alternative from storage, geologic and environmental standpoints.



Objectives

1. To maintain sufficient river flow of Maha Oya during dry weather to ensure water supply for Western Megapolis area



Summary of the Project

Location	Yatimahana
Required Land Area	100 Hectares
Present Situation	Inadequate raw water in Maha Oya during dry periods
Project Cost	SLR 8,000 mn (US \$ 55mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	1000 Direct and indirect employment
Implementation Period	Medium term (2016/2021)

Remarks: Completed the feasibility study

Project Components / Activities

- Construction of 12.7 MCM capacity Yatimahana reservoir

1.3.7 –ALUTHGAMA, MATHUGAMA & AGALAWATTA WATER SUPPLY PROJECT

The main objective of the project is to provide drinking water to divisional secretariat areas of Kalutara, Dodangoda, Beruwala, Mathugama and Agalawatta. This project is designed to meet the year 2030 demand and total population coverage is 573,000. The project will be implemented in two packages (A&B). The total production capacity of the treatment plant to be constructed under this project will be 13,500 m³/day.



Objectives

1. To increase the production capacity of Kalutara WSS and to prevent salinity intrusion in the existing intake.
2. To improve & expand the WTP and transmission and distribution systems development along the coastal areas of Kalutara District and suburbs.

Summary of the Project

Location	Mathugama, Agalawatta, Dodangoda, Kalutara, Madurawela and Beruwala DS Divisions.
Required Land Area	2.25 Hectares
Present Situation	No pipe borne water supply in most areas
Project Cost	SLR 30,000 mn (US \$ 207 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	2000 direct and indirect employment /350,000 new service connections
Implementation Period	Medium term (2016/2020)

Remarks: Contractor is identified, since financing has delayed, this project is included.

Project Components / Activities

- Construction of 74,250 m³/day capacity intake at Kolemodara, Kuda Ganga
- Construction of 13,500 m³/day capacity water treatment plant at Kethhene
- Rehabilitation/Augmentation of existing Kethhene water treatment plant
- Rehabilitation/Augmentation of existing Kethhene Intake
- Construction of storage structures
- Supply & laying of transmission and distribution mains

1.3.8 –CONSTRUCTION OF SALINITY BARRIOR ACROSS KALUGANGA

Salinity intrusion to Thebuwana intake has become a major problem with regards to reliable water supply to Kalutara coastal area. As the WRMP has planned major developments in southern tourism zone, it is paramount important to find out sustainable solution to this issue. At present the water extract from Thebuwana intake provides the water need of 250,000 people through 60,000 water service connections. During dry weather conditions in the months of February, March and August, the water extraction from Thebuwana intake is badly affected by salinity intrusion which creates severe operational and social problems.



Objectives

1. To prevent salinity intrusion to intake of Kalutara water supply system during dry weather period and to ensure continuous water supply

Summary of the Project

Location	Kethhene
Required Land Area	
Present Situation	Salinity intrusion to water intakes during low river flow
Project Cost	SLR 5,000 mn (US \$ 34mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	200 Direct and indirect employment
Implementation Period	Medium term (2016/2020)

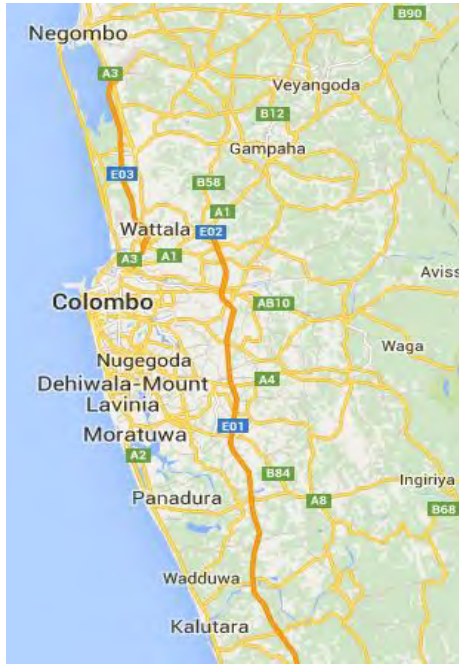
Remarks: Completed the Pre-feasibility study

Project Components / Activities

- Construction of gated structure downstream of Kethhene intake
- Construction of access road
- Construction of river bank protection

1.3.9 – TRANSMISSION & DISTRIBUTION SYSTEM IMPROVEMENT OF EXISTING WATER SUPPLY SCHEMES IN WESTERN PROVINCE

Reliable drinking water supply facility is a key element to have a sustainable development. There are lots of mega developments coming up in Western Region under WRMPP. Enhancing of water distribution facilities in Western Region is in high priority to address the increasing demand and to improve the service level.



Objectives

1. To provide safe and reliable drinking water to proposed townships developed under the Megapolis Project.

Summary of the Project

Location	Western province
Required Land Area	
Present Situation	Insufficient facilities of water transmission & distribution to cater 100% coverage
Project Cost	Approx. SLR 39,000 mn (US \$ 270 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	200 Direct and indirect employment
Implementation Period	Medium term (2016/2020)

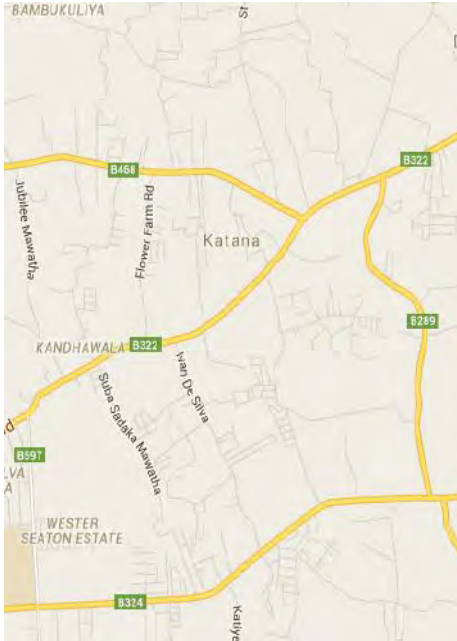
Remarks: Feasibility studies to be carried out

Project Components / Activities

- Transmission & distribution system developments in Colombo District
- Transmission & distribution system developments in Kalutara District
- Transmission & distribution system developments in Gampaha District

1.3.10 –KATANA WATER SUPPLY PROJECT

Reliable drinking water supply facility is a key element to have a sustainable development. At present there is no pipe borne water supply facilities to the most part of Katana area, which is expected to be developed under the Western Region Megapolis Project. Hence, system improvements of water distribution network are in high priority to address the increasing demand and to improve the service level of Katana Electorate. It is expected to transmit water from proposed Kelani Right Bank Water Supply Project – Stage II through transmission and distribution networks.



Objectives

1. To supply water to meet the demand in Katana DS Division in Gampaha District

Summary of the Project

Location	Katana DS Division
Required Land Area	0.7 Hectares
Present Situation	No pipe borne water supply in the area
Project Cost	SLR 9,000 mn (US \$ 62 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	500 direct and indirect employment
Implementation Period	Medium term (2016/2018)

Remarks: Contractor is identified, since, financing has delayed, this project is included.

Project Components / Activities

- Construction of 03 Nos 2000 m³ capacity water towers
- Construction of pump house and supply & installation of pumps
- Supply and laying of transmission and distribution mains.

1.3.11 –DIVULAPITIYA WATER SUPPLY PROJECT

Increasing of water supply coverage is important for national development. At present there is an existing water supply system extracting 1,000cum/day of ground water through bore holes for Divulapitiya town area. Since this amount is not sufficient to cater the increasing demand, a 7,500 cum/day capacity water treatment plant is proposed and the water will be extracted from Maha Oya. This will also enhance the life style of the people to a high living standard as improving the health and sanitation by providing potable water.



Objectives

1. To provide reliable and safe water supply services for the areas in Divulappitiya DS Division in Gampaha District

Summary of the Project

Location	Divulappitiya DS Division
Required Land Area	5 Hectares
Present Situation	Inadequate production of treated water
Project Cost	LKR 5,000 mn (US \$ 34 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	500 Direct and indirect employment
Implementation Period	Medium term (2016/2019)

Remarks: Feasibility studies are completed

Project Components / Activities

- Construction of 8,500 m³/day capacity Intake
- Construction of 7,500m³/day capacity water treatment plant
- Construction of storage structures
- Supply and laying of transmission and distribution mains.

1.3.12 – MIRIGAMA, KANDALAMA, KALELIYA AND GANEGODA GROUP OF TOWNS WATER SUPPLY PROJECT

Mirigama is a major transfer railway station location for people in the adjoining area to reach Colombo by train. Therefore, it is becoming highly populated and urbanized. Most of the people get water from wells. However, the wells get dry during the dry period. The source of the existing system of NWSDB is also deep bore holes and water quantity is inadequate at least to meet the demand for the available water connections. However, the iron content of the well water as well as water extracted from the bore holes is of the higher leading to operational problems and unpleasant appearance in the long run. Therefore, implementation of new water supply project is highly recommended.



Objectives

1. Provision of safe drinking water to household in 44 Grama Niladhari Divisions (GNDs).
2. Reduction of water borne diseases.
3. Expansion of the Mirigama industrial zone increasing the employment opportunities and production capacities.

Summary of the Project

Location	(1) Mirigama) (2) Kandalama (3) Kaleliya (4) Ganegoda
Required Land Area	Pipe laying and 18 ha for other structures
Present Situation	
Project Cost	SLR 4,500 mn (US \$ 31 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	
Project Period	Medium term (2016/2018)
Employment/output	

Project Components / Activities

- Construction of 12,000m³/day capacity intake at Ma-Oya
- 6,000m³/day capacity water treatment plant
- 750m³/day capacity ground reservoir at Ambanawatta
- 500m³/day capacity ground reservoir at Maveehena
- 14km long treated water transmission lines and 100km long water distribution network
- E&M works (6,000 m³/day)

1.3.13 –MIRIGAMA INDUSTRIAL CITY WATER SUPPLY PROJECT

Under the Western Region Megapolis Plan, importance of providing adequate, safe and reliable water supply to the industries located in Mirigama Industrial City has been realized. With the increase of water demand, the production of existing plants will not be adequate. The expected water demands in Mirigama Industrial Zones and surrounding areas will not be catered unless a new water treatment plant is constructed. The source for the proposed water treatment plant is from Maha Oya. During dry weather periods the flow of Maha Oya is drastically reduced. As such the proposed Yatimahana Reservoir in Mahaoya is pre-requisite for this project.



Objectives

1. To provide safe and reliable drinking water to proposed industrial zones in Mirigama area

Summary of the Project

Location	Mirigama
Required Land Area	7 Hectares
Present Situation	Inadequate production of treated water
Project Cost	SLR 9500 mn (US \$ 66 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	
Implementation Period	Medium term (2016/2020)

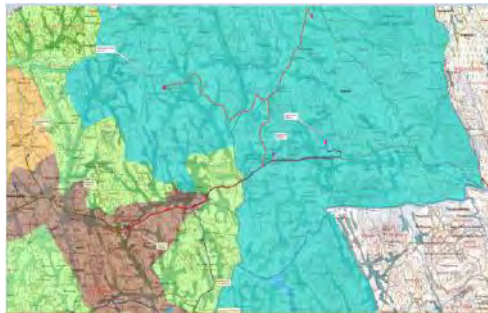
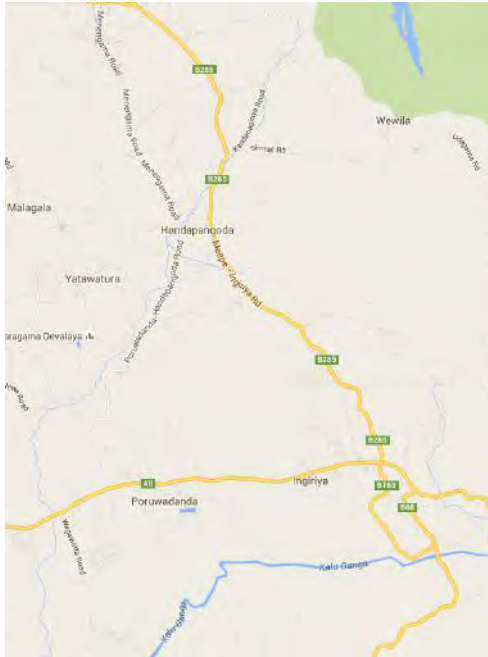
Remarks: Feasibility study is to be carried out

Project Components / Activities

- Construction of 38,000 m³/day capacity intake at Maha Oya
- Construction of 34,000m³/day capacity water treatment plant
- Construction of storage structures
- Supply and laying of transmission and distribution mains.

1.3.14 –INGIRIYA, HANDAPANGODA WATER SUPPLY PROJECT

The existing Ingiriya Water Supply Scheme provides only 120 m³/day which is totally not adequate to cater the water supply demand in the area. The existing scheme does not have full treatment facilities and the quality of water is not up to the standards. Reliable drinking water supply facility is a key element to have a sustainable development. Expanding of water distribution network to an unserved areas are in high priority to address the increasing demand and to improve the service level.



Objectives

- To increase the supply safe drinking water for the areas of Ingiriya, Madurawela, Bullathsinhala and Horana (part) DS Divisions

Summary of the Project

Location	Ingiriya, Madurawela, Bullathsinhala and Horana (part)
Required Land Area	0.8 Hectares
Present Situation	Inadequate production of treated water
Project Cost	SLR 11,000 mn (US \$ 76 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	1000 direct and indirect employment
Implementation Period	Medium term (2016/2019)

Remarks: Feasibility studies are completed

Project Components / Activities

- Construction of 2 Nos 3500 m³ capacity ground reservoirs
- Construction of 3 Nos 1500 m³ capacity Water towers
- Construction of pump houses and supply & installation of pumps
- Supply and laying of transmission and distribution mains.

1.3.15 –KIRINDIWELA WATER SUPPLY PROJECT

Under the Western Region Megapolis Plan, importance of providing adequate, safe and reliable potable water supply to the people living in Gampaha zone has been realized. At present the existing water treatment plant produces 6,000 cum/day for Ranpokunagama and Kirindiwela town areas. There is a high need of potable water supply in the adjacent areas and due to the limitations of production capacity present distribution network cannot be extended further. Hence a 30,000 cum/day capacity water treatment plant is proposed and the source of water will be from Kelani river.



Objectives

- To provide safe and reliable drinking water to meet the demand increase in Kirindiwela, Pugoda and suburbs in Gampaha district

Summary of the Project

Location	Kirindiwela, Pugoda
Required Land Area	8 Hectares
Present Situation	Inadequate production of treated water
Project Cost	SLR 13,000 mn (US \$ 90 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	
Implementation Period	Medium term (2017/2022)

Remarks: Feasibility studies to be carried out

Project Components / Activities

- Construction of 66,000 m³/day capacity intake
- Construction of 30,000m³/day capacity water treatment plant
- Construction of storage structures
- Supply and laying of transmission and distribution mains.



1.3.16 –MABIMA WATER SUPPLY PROJECT

Under the Western Region Megapolis Plan, importance of providing adequate, safe and reliable potable water supply to the people living in Gampaha zone has been realized. By year 2040, with the increase of water demand, the production of existing plants will not be adequate. Hence this project is proposed to supply water to Biyagama, Dompe, Dekatana, Giridara, Mahara, Ragama, Weliveriya, Ganemulla, and Kadawatha areas.



Objectives

1. To supply water to meet the demand increase in Biyagama, Dompe, Dekatana, Giridara, Mahara, Ragama, Weliveriya, Ganemulla and Kadawatha in Gampaha District

Summary of the Project

Location	Biyagama, Dompe, Dekatana, Giridara, Mahara, Ragama, Weliveriya, Ganemulla and Kadawatha
Required Land Area	8 Hectares
Present Situation	Present production capacity is inadequate
Project Cost	SLR 50,000 mn (US \$ 345 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	2000 direct and indirect employment
Implementation Period	Medium term (2021/2026)

Remarks: Preliminary studies are being carried out and tentative locations were identified

Project Components / Activities

- Construction of 273,000 m³/day capacity intake
- Construction of 180,000m³/day capacity water treatment plant
- Construction of storage structures
- Supply and laying of transmission and distribution mains.

1.3.17 – CONSTRUCTION OF TREATMENT PLANT AT KETHHENA

The production of existing Kethhena WTP is not sufficient to supply its service area in Kalutara District coastal zone. The area is densely populated and has a high potential for development along the coastal areas. Therefore improvements and expansion of the WTP and transmission and distribution systems are urgently required. Under the Western Region Megapolis Plan, importance of providing adequate, safe and reliable potable water supply to the Southern Tourism Zone has been realized. With the increase of water demand, the production of existing plants will not be adequate.



Objectives

1. To provide safe and reliable drinking water supply to the coastal areas of Kalutara district and suburbs

Summary of the Project

Location	Kalutara, Panandura and Beruwala DS Divisions
Required Land Area	10 Hectares
Present Situation	Inadequate production of treated water
Project Cost	SLR 17,000 mn (US \$ 117 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	1000 direct and indirect employment
Implementation Period	Medium term (2016/2021)

Remarks: Project identification report is completed

Project Components / Activities

- Construction of 126,000 m³/day capacity intake at Keththna
- Construction of 120,000m³/day capacity water treatment plant
- Construction of storage structures
- Supply and laying of transmission and distribution mains.



1.3.18 –CONSTRUCTION OF GROUND RESERVOIRS TO ENHANCE WATER STORAGE FACILITY FOR COLOMBO CITY

At present, Colombo water supply is provided from four elevated ground reservoirs located at Maligakanda, Ellie House, Jubilee and Dehiwala. There are lots of mega developments coming up in the Colombo area. In addition to above many infrastructure activities proposed in the Megapolis Eco Zone Development. Reliable drinking water supply facility is a key element to have a sustainable development. Enhancing water storage capacities in Colombo City is in high priority to address the increasing demand and to improve the service level.



Objectives

1. To increase water storage facilities at Ambatale, Maligakanda, Elliehouse and Jubilee service areas and enhance the level of service

Summary of the Project

Location	Ambatale, Maradana, Kotahena and Kotte
Required Land Area	6 Hectares
Present Situation	Inadequate storage capacity for uninterrupted service
Project Cost	SLR 15,000 mn (US \$ 103 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	500 direct and indirect employment
Implementation Period	Medium term (2016/2025)

Remarks: Preliminary studies are being carried out and tentative

Project Components / Activities

- Land acquisition
- Construction of storage reservoirs at Ambatale, Maligakanda, Elliehouse and Jubilee
- Supply and laying of transmission and distribution mains.

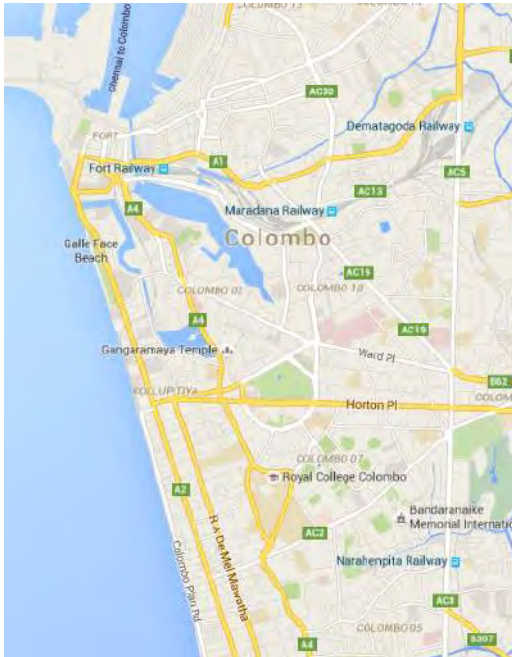
**HOUSING, TOWNSHIPS AND
RELOCATION OF ADMINISTRATION
OFFICES**

02

02.1 – HOUSING DEVELOPMENT

2.1.1- SOCIAL HOUSING DEVELOPMENT PROJECT (CBD ZONE)

This project is to cater the anticipated demand of 40,000 housing units in CBD Zone to accommodate underserved people and other social housing needs (for government offices and all) to improve their living standards that would create with Megapolis development during the project period.



Objectives

1. To meet the social housing needs of low income categories in CBD Zone.
2. To ensure optimum utilization of underutilized land in CBD Zone.
3. To create an enabling environment for development of housing for the middle income group
4. To facilitate and create a supportive environment for the expansion of private sector partnership to meet the housing challenges among middle income group
5. To identify and facilitate development of areas for “living in harmony with the nature”

Summary of the Project

Location	Colombo Core Area
Land Area	As indicated under the project Components / Activities
Present Situation	Severe shortage of social housing
Project Cost	SLR 150,000 mn (US \$ 1034 mn)
Proposed Financing Method	Public sector
Method of Procurement	Open competitive
Project Period	Short term and medium term
Employment	N/A

Project Components / Activities

- Mattakkuliya/Modara - 5000 units
- Kotahena /Modara - 5000 units
- Orugodawatte/Kollonawa - 5000 units
- Kirullapone/Narahenpita - 5000 units
- Obesekerapura/Welikada - 5000 units
- Wanthamulla/Dematagoda - 5000 units
- Maradana/Borella - 5000 units
- Wellawatte/Pamankada - 5000 units

2.1.2 –MIDDLE INCOME HOUSING DEVELOPMENT PROJECT (FRINGE ZONE)

Under the Western Region Megapolis plan, importance of a comprehensive plan of actions and strategies to meet the future needs in the region has been realized. The WRMPP has proposed well improved well standard housing for the middle income community with attracting facilities for green and healthy community.

Objectives

1. To provide all the people in Colombo Fringe Area with a socially sound living environment that promotes the sustainable management of natural resources and community facilities.
2. Support the green and healthy homes initiative, providing empowerment services to households in combination with efficient and affordable housing to middle income community.

Summary of the Project

Location	CBD and Fringe
Required Land Area	
Present Situation	
Project Cost	SLR 37,500 mn (US \$ 260 mn)
Proposed Financing Method	
Method of Procurement	
Project Period	Medium term
Employment/output	50,000 housing units

Project Components / Activities

- Residential areas comprising middle income housing and apartments.
- Housing development comprise with (landscaping areas, conservation zones, community facilities, play areas, entertainment areas / leisure parks, retail outlets, secured parking slots)
- Provide well standard infrastructure and utilities (road network, electricity, water supply lines, sewerage and drainage, etc.)

2.1.3 –MALABE RESIDENTIAL DEVELOPMENT (MIDDLE CLASS AND LUXURY HOUSING)

This residential development is proposed to construct as a component of Science and Technology Cluster which proposed in Malabe area which is a high end mega project and it will comprise education, research and development, innovations as well as trainings. So this area will be a 'sanctuary' of professionals and other qualified expertise. This residential township development will specially targeted for produce residential places to those professional and other expertise; fulfilled with all other requirements which attract more and more knowledgeable expertise to the area.



Objectives

1. To create an better environment to attract the professionals into the area to provide their services to Science and Technology City
2. To facilitate and create a supportive environment to reside the professionals inside the Science and Technology City itself
3. To avoid brain drain by provide luxury facilities to them by making them more impressed

Summary of the Project

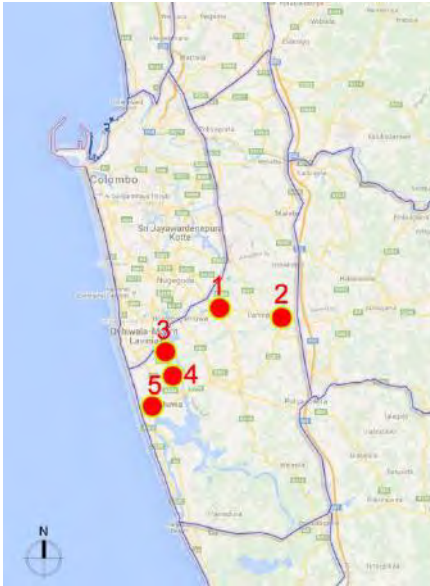
Location	Malabe
Required Land Area	App. 3100 acres
Present Situation	Conceptual Stage
Project Cost	SLR 25 ,000 mn (US \$ 170 mn)
Proposed Financing Method	Private
Method of Procurement	Open competitive
Employment	
Implementation Period	3 Years (Medium Term)

Remarks: Rifer Annexure 06.1 for more details.

PROJECT COMPONENTS /ACTIVITIES	NO OF UNITS	HEIGHT OF FLOORS	BUILDABLE AREA	APP. COST
Apartment type housing – Type 1	(12x22x6) = 1512	G+20	48642 SQ.M	3 Billion
Apartment type housing – Type 2	(9 x21x 9) =1701	G+20	33417 SQ.M	3.4 Billion
Middle rise housing	(36 x8x 8) =2304	G+7	41256 SQ.M	4.6 Billion
3 and four storied housing	(100 x6x 8) =4800	G+5	114600 SQ.M	9.6 Billion
Shopping area with cinema		G+5	37663 SQ.M	3 Billion
Sports activities and ground area			37037 SQ.M	2 Billion

2.1.4 –SOCIAL HOUSING DEVELOPMENT PROJECT (FRINGE ZONE)

Under the Western Region Megapolis Plan, importance of a comprehensive plan of actions and strategies to meet the future needs in the region has been realized. The WRMP has proposed its strategy and actions projects to address the projected housing needs while meeting the fundamental economic needs, social integrity and harmony, youth aspirations and environmental sustainability.



Objectives

1. To resettle all underserved settlements by 2020 in the Fringe Zone, Western Region in housing program that enable healthy living encouraging social integration and ethnic harmony
2. To ensure optimum utilization of underutilized land in Fringe Zone.
3. To create an enabling environment for development of housing for the middle income group
4. To facilitate and create a supportive environment for the expansion of private sector partnership to meet the housing challenges among middle income group
5. To identify and facilitate development of areas for "living in harmony with the nature"

Summary of the Project

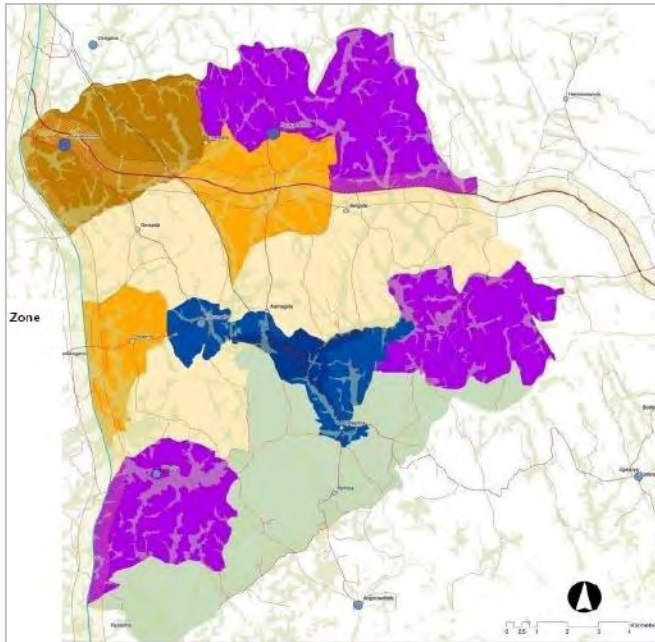
Location	Maharagama (1), Pannipitiya (2), Attidiya/Rathmalana (3), Rathmalana (4) /moratuwa
Required Land Area	
Present Situation	
Project Cost	SLR 70,000 mn (US \$ 483 mn)
Proposed Financing Method	
Method of Procurement	
Project Period	Medium Term
Employment/output	20,000 housing units

Project Components / Activities

- Maharagama/Pannipitiya centered fashion industry hub is expected to need large number of semi /skilled garment workers that need to be provided with housing (10,000 units to accommodate 50,000 persons) in,
 - Maharagama (2500 x2)
 - Pannipitiya (2500 x 2)
- 5,000 housing units to be provided to accommodate 25,000 persons in
 - Attidiya/Rathmalana (2500)
 - Borelesgamuwa/Attidiya (2500)
- Rathmalana/Moratuwa Industrial City will create enough employment to attract workers (25000) to the area that needs housing (5000)
 - Rathmalana/Moratuwa (2500)
 - Moratuwa/Panadura (2500)

2.1.5 -HOUSING DEVELOPMENT PROJECT - HORANA INDUSTRIAL ZONE

Horana Industrial City is a high employment generation area that will create many employment opportunities and therefore need to have housing for Middle income families, high quality housing, and staff quarters.



Proposed Generalized Land Use Zone

High Density Commercial/ Mix (C1)	Science/ Bussiness Parks (I2)
Commercial/ Mix (C2)	Logistics (LO)
Commercial/ Mix (C3)	Residential - Special (R1)
Town Center (C5)	Residential - Mix (R2)
Protected Areas (G1)	Residential - Mix (R3)
Plantation (G2)	Special Use (SU)
Homegarden (G4)	Special Use- Defence
Wetland/ Paddy (G5)	Special Use - Tourism
Industrial (I1)	

Objectives

1. To settle all in housing need for industrial staff with healthy living encouraging social integration and ethnic harmony
2. To create an enabling environment for development of housing
3. To facilitate and create a supportive environment for the expansion of private sector partnership to meet the housing challenges among middle income group

Summary of the Project

Location	R1, R2, R3
Required Land Area	
Present Situation	
Project Cost	Middle - SLR 4, 37, 500 mn (US \$ 259 mn) Luxury - SLR 112,500 mn (US \$ 776 mn)
Proposed Financing Method	Public and Private Sector
Method of Procurement	
Project Period	Medium term
Employment/output	Middle income housing 60k, Luxury housing 8k

Project Components / Activities

- Residential areas comprising luxury villas, apartments and staff quarters
- Affordable middle income housing areas.
- Landscaping and eco

2.1.6 - AERO CITY HOUSING DEVELOPMENT PROJECT- KATANA AND DIVULAPITIYA

Aero City (Katunayeka) is a high end mega project and it will generate vast amount of employment opportunities and need to have housing for middle income families, high quality luxury housing, and staff quarters. Divulapitiya area planned to develop as a mix residential zone under Aero City Project.

Objectives

- To settle all people who will displace as a result of new development, with high quality of life and facilities.

Project Components / Activities

- Residential Development comprise with (Landscaping areas, conservation zones, community facilities, golf course, entertainment areas / leisure parks, retail outlets)
- Residential areas comprising luxury villas, apartments and staff quarters.
- Better quality middle income housing areas.

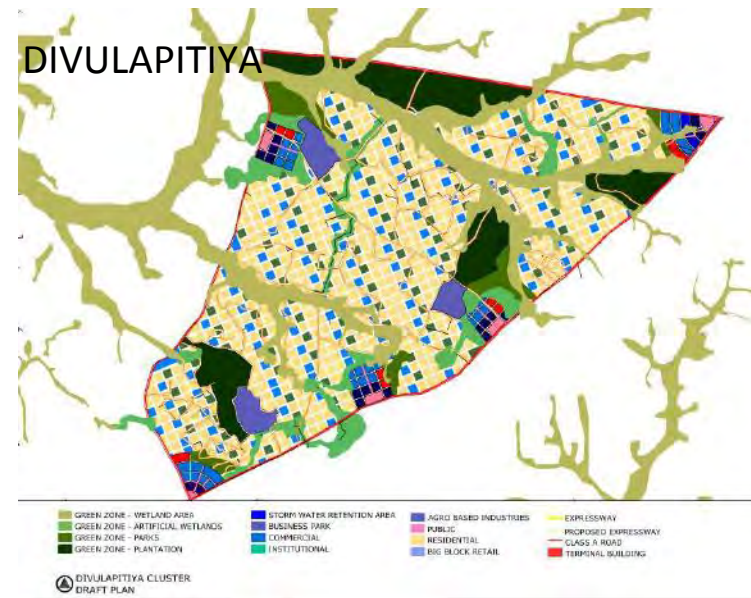
Summary of the Project

Location	Kandhawala / Divulapitiya and Katana
Land Area	Kandhawala / katana- 141 Ha Approx. Divulapitiya- 717 Ha Approx.
Present Situation	Scattered low density residential area
Project Cost	Middle - SLR 123,853 mn (US \$ 854 mn) Luxury - SLR 26,147 mn (US \$ 180 mn)
Proposed Financing Method	Public and Private investment
Method of Procurement	Open competitive
Project Period	Long Term (2016-2020)
Estimated Housing Unites	Middle income housing 75k, Luxury housing 24k

KATANA



DIVULAPITIYA



2.1.7 - MULTI-STORY MIDDLE INCOME HOUSING COMPLEX AT RAGAMA.

This housing complex mainly focus to cater to the middle income people specially for the government employees, who are need to settle close to the Colombo within 25 km radius from Colombo city. This development designed as self-sustaining system which includes different facilities.



Objectives

1. Cater the housing demand of middle income government employees
2. To reduce the travel time for the office and increase the efficiency and productivity of their duties

Summary of the Project

Location	Ragama city center
Land Area	30 Acres
Present Situation	Conceptual stage
Project Cost	SLR 7000 mn (US \$ 48 mn)
Proposed Financing Method	Private
Method of Procurement	Open competitive
Project Period	
Estimated Housing Unites	

Project Components / Activities

- Luxury housing units
- Commercial facilities (shops, stores, groceries, restaurants, banquet hall, gymnasium, healthcare centre, public parking facilities)
- Leisure activities (public green parks, walk paths, children play space, seating areas, large green reserved areas)

2.1.8 - MULTI-STORY LUXURY HOUSING COMPLEX AT KIRIMANDALA MAWATHA

Proposed housing complex mainly designed for high income population because of high land value and it is located in prime resident area within Colombo city. This includes multi-story luxury housing schemes which develop as self-sustaining system and other commercial and social activities.



Objectives

1. Cater the housing demand (in suburban areas) of high income communities

Summary of the Project

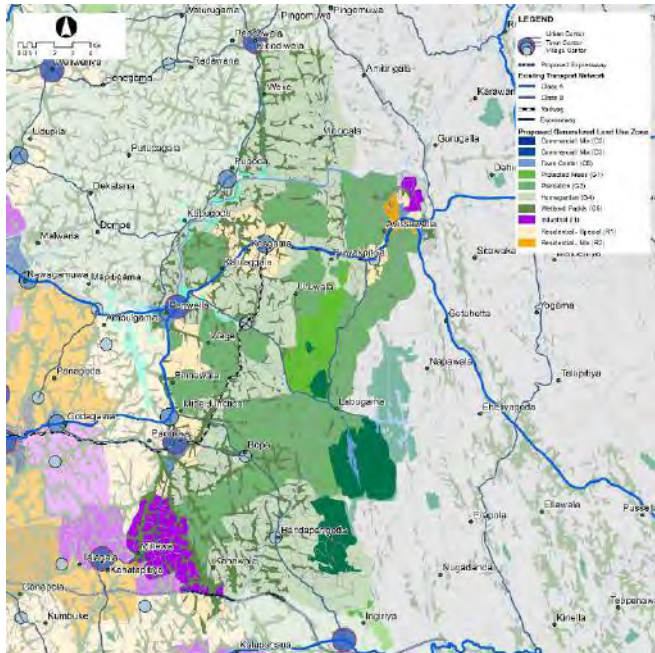
Location	Kirimandala Mawatha, Nawala
Land Area	6 Acres
Present Situation	Conceptual stage
Project Cost	SLR 3,000 mn (US \$ 21 mn)
Proposed Financing Method	Public Private Partnership
Method of Procurement	Open competitive
Project Period	
Estimated Housing Unites	

Project Components / Activities

- Residential facilities
- Commercial facilities, shops (stores, groceries, banks, restaurants, banquette hall, auditorium, mini cinema, gymnasium, healthcare centre, public parking areas)
- Educational facilities (primary/secondary schools, pre-schools, child day care centre)
- Leisure activities (play grounds, public green parks, walk paths, children play space, seating arrangements, open air theatres, green reserved areas)

2.1.9 - AVISSAWELLA RESIDENTIAL DEVELOPMENT PROJECT

Awissawella plantation city is a high employment generation area and tourism oriented city that will create many employment opportunities, therefore housing for middle income families, high quality housing, and staff quarters need to be fulfill by special housing project under the zone guidelines.



Objectives

1. To settle all in housing need for industrial staff with healthy living encouraging social integration and ethnic harmony
2. To create an enabling environment for development of housing
3. To facilitate and create a supportive environment for the expansion of private sector partnership to meet the housing challenges among middle income group

Summary of the Project	
Location	R1, R2
Required Land Area	
Present Situation	
Project Cost	Middle – SLR110,000 mn (US \$ 759 mn) Luxury – SLR40,000 mn (US \$ 276 mn)
Proposed Financing Method	Public and Private Sector
Method of Procurement	
Project Period	Medium term
Employment/output	Middle income housing 55k, Luxury housing 12k

Project Components / Activities

- o Residential areas comprising luxury villas, apartments and staff quarters
- o Affordable middle income housing areas.
- o Landscaping and eco

02.2 – TOWNSHIP DEVELOPMENT

2.2.1 – Town Centre upGrades (Sukithapurawara).

Most of the town centers in the expanding settlements (Suburbs of Colombo and other small and medium sized towns) in the Megapolis are characterized by unplanned growth of commercial and other buildings, dilapidated housing, absence of an efficient drainage system, narrow roads, poor quality of road surfaces, heavy traffic flow, traffic congestion, lack of parking space, and the inadequacy of utilities for the increasing number of residents, daily commuters and temporary visitors. Furthermore, amenities and services such as pre-schools, maternity and child care services, free dispensaries and children's parks that contribute to the welfare of the less advantaged persons are not sufficient.

Town center Development involves an attempt to upgrade the living standards of city dwellers and visitors. The projects include housing, road improvement, construction of bus stands, market places, public parks and commercial area development.



Objectives

1. Improve comfort, convenience of the city users.
2. Improve livability of the city.
3. Enhance city economy in a way which benefits to the all segments of the community.
4. Ease emerging issues in relation to traffic congestion, housing demand, community open spaces and etc.

Summary of the Project	
Location	
Required Land Area	Please Refer to Annexure 1
Present Situation	
Project Cost	SLR 25000mn, out of which it is expected to invest approximately Rs. 11 Billion for the year 2016 (US \$ 172 mn)
Proposed Financing Method	Public Private Partnership
Method of Procurement	
Project Period	Short and medium term
Employment/output	

Remark: Funds available under government financing in 2016

Project Components / Activities

- o Construction of bus stands, construction bypass roads, road Improvement, construction of multi storied car parks, mixed development, public market & parking development, commercial development, railway station development, construction of pedestrian overhead bridges, community halls and playgrounds and improvement of storm water drainage.

2.3.1- RELOCATION OF GOVERNMENT OFFICES IN AND AROUND CBD

At present, most of the government offices are located in the Colombo CBD, as CBD was the administrative Centre, easy accessibility and other infrastructure availability. Past decades, the situation has remarkably changed, mainly due to shifting of administrative centre to Sri Jayewardenepura – Kotte. As a result of shifting some of the important government entities to Sri Jayewardenepura -Kotte, general public are warranted to visit both new administrative centre and CBD, in order to obtain required public services. This has created an additional burden to the public and undue traffic congestion between CBD and Sri Jayewardenepura –Kotte. The public offices located in CBD are utilizing, high value commercial building spaces, creating a high alternative cost to the nation. In the backdrop, it has been identified that location of public offices in close proximity, where the alternative cost is comparatively low, with easy access to the public and modern facilities for government offices would bring more economic benefits to the country.

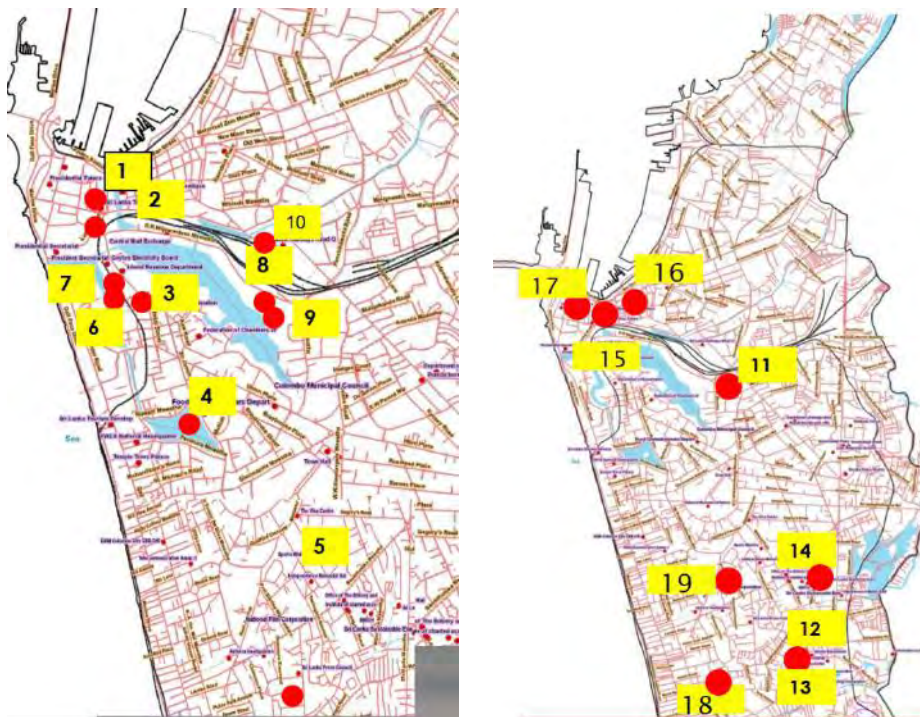


Figure 1: Locations of the main offices to be shifted

Summary of the Project

Location	CBD and Colombo Fringe area (<i>Rifer Annex 07</i>)
Land Area	
Present Situation	Located in highly valuable land plots
Project Cost (SLR mn)	SLR 1,000,000 mn (US \$ 6897 mn)
Proposed Financing Method	Public and Private Investment
Method of Procurement	Open competitive
Project Period	3 Years (Medium term)
Employment (Estimated)	

Objectives

- 1 To ensure optimum utilization of the urban lands and concentrated infrastructure network for efficient resources utilization
- 2 To ensure rational location of public offices
- 3 To provide modern office facilities to government offices to improve the efficiency and productivity
- 4 To provide a better and easy access to the public
- 5 Containing the ever increasing infrastructure needs within present magnitude and improving the productivity.

Project Components / Activities

- o Construction of relocating government offices
- o Provision of infrastructure and utilities.

ENVIRONMENT AND WASTE MANAGEMENT

03

3.0– ENVIRONMENT AND WASTE MANAGEMENT

3.1 – SOLID WASTE

3.1.1 – SOLID WASTE MANAGEMENT-COLOMBO AND SUBURBAN AREA

At present waste generation in Colombo Municipal Council area is 750 Mt per day. This could be increased up to more than 1000 Mt. if proper waste collection system is in place, the amount of solid waste in the Colombo and suburban areas (CMC, Dehiwala, Kotte, Moratuwa, Ratmalana, Maharagama) will be exceeding 2000 Mt per day. As present method of disposal is not in terms of the solid waste disposal standards the project is to dispose solid waste generated in Colombo and suburbs using the new technology to gain maximum economic benefits considering waste as an input to energy generation.

Objectives

1. To develop Megapolis area as a cleaner, healthy environmental friendly and waste free region.
2. To use waste as an input to generate electricity and other by-products such as bio gas, compost etc.
3. To increasing tourism attraction within the western province as well as the country as well as improved health status of the population.
4. To regulate the adhoc dumping, capacity development of Local Authorities and streamline collection/segregation of waste from the origin.

Summary of the Project

Location	(1) Karadiyana (2) Muturajawela (3) Meethotamulla
Required Land Area	(1) Karadiyana -12 Acres (2) Muturajawela - 25 Acres
Present Situation	
Project Cost	SLR. 25,000 mn (US \$ 172 mn)
Proposed Financing Method	Private Investment
Method of Procurement	Open Competitive
Project Period	Medium/ Long Term
Employment/output	600

Remarks: Even though Western Region generates highest quantity of solid waste, so far no sustainable action has been taken to resolve the issues pertaining to management of solid waste. In order to make the waste management practices sustainable, it is essential to explore possibilities to use waste for production of energy and other byproducts in collaboration with the private sector.



Project Components / Activities

- o Identification of suitable waste to energy process, technical evaluation and potential developers/investors for three sites
- o Identification of suitable land for the project
- o Environment assessment process
- o Contract and handing over of land to investor
- o Public and stake holder awareness programme
- o Project implementation through selected investor and arrangement for machinery/Plant
- o Power purchase by CEB and LA's for collection and transport of waste or collection, transport and disposal by private sector
- o Existing site rehabilitation
- o Power purchase by CEB and LA's for collection and transport of waste or collection, transport and disposal by private sector

3.1.2 - INTEGRATED SOLID WASTE MANAGEMENT FOR LOCAL AUTHORITIES

Inadequate Solid Waste Management is one of the major environmental issues in all Local Authority areas of Western Province. There are many contributory factors for this situation including the lack of required infrastructure as well as inadequate equipment, machinery and dedicated human resources necessary for the task within most local authorities. The solid waste management issue has to be resolved on an urgent basis in order to ensure that the Western Region Megapolis will be the clean and green Megapolis as envisaged in its vision and mission statements.

Objectives

1. To regulate the adhoc dumping, capacity development of Local Authorities and streamline collection/segregation of waste from the origin.
2. Proper management of municipal solid waste within all local Authority areas in the Western Region Magapolis thereby creating a clean, healthy and livable set of cities and suburban areas within the Western Province.
3. This method of solid waste management can also be utilized to facilitate composting and various ways of other production using waste resources.

Summary of the Project

Location	All Local Authority Areas in the WR
Required Land Area	5 ha for each Local Authority
Present Situation	Adhoc and no proper system
Project Cost	SLR 500 mn (US \$ 3 mn)
Proposed Financing Method	Local & foreign
Method of Procurement	Open Competitive
Project Period	Long Term
Employment/output	30 for each

Remarks: This project is required on an urgent basis as Local Authority area Municipal solid waste management is the most serious environmental issue within the Western Region Megapolis which requires a solution on an urgent basis.

Project Components / Activities

- o Review of the solid waste management status within LAs in the WRM
- o Initiating required policy and legal changes required in order to obtain private sector participation in solid waste management in composting plant and waste to energy projects
- o Strengthening of Local Authorities for solid waste management including provision of required equipment and training
- o Identification and development of sanitary landfill site for municipal solid waste disposal.
- o Enacting the required legislation/regulations to compel waste separation at source including training of Local Authorities
- o Review of the present operation of composting plants completed under various projects and provision of composting plants to other local authorities as required.

3.1.3 - IMPLEMENTATION OF AN INTEGRATED HAZARDOUS WASTE MANAGEMENT FACILITY

Due to the absence of proper hazardous waste disposal facilities in the country some industrialists tend to practice haphazard disposal methods causing health and environmental implications as well. As such it is an urgent requirement to facilitate the industries to carry out their industrial processes without any interruption while minimizing the possible health and environmental impacts.



Objectives

1. To establish a fully-fledged, integrated hazardous waste treatment and disposal facility
2. To establish a waste Exchange Facility in order to minimize treatment and disposal of hazardous waste.
3. To ensure effective implementation of the hazardous waste Management regulation published under the National Environmental Act.

Project Components / Activities

- Calling EOI and selection of a suitable investor
- Carrying out a feasibility study and quantitative and qualitative analysis of generation of Hazardous waste
- Identify suitable land
- EIA/IEE process
- Establishment of Waste Exchange System and the Integrated Hazardous waste treatment and disposal facility

Summary of the Project

Location	Location has to be identified through a proper study
Required Land Area	Approx. 75 acres
Present Situation	Seeking investors
Project Cost /Revenue	SLR 1000 mn (US \$ 7 mn)
Proposed Financing Method	Private Public Partnership
Method of Procurement	calling EOI internationally
Project Period	Maximum Three years
Employment/output	at least 150

Remarks: Initial feasibility study along with a quantitative and qualitative analysis of generation of Hazardous waste has to be carried out. It is expected to minimize the waste subject to treatment and final disposal through the Waste Exchange System. The Whole Project should be undergone through an EIA/IEE process prior to the initiation.

3.1.4 - IMPLEMENTATION OF CLINICAL WASTE MANAGEMENT FACILITY

Due to the absence of adequate options for the disposal of clinical waste in the country, haphazard disposal methods are in practice by the health care facilities causing health and environmental implications. As such it is an urgent requirement to provide adequate disposal and treatment facilities to cater the total health care waste generated within the country.



Objectives

4. To establish Health care waste management facility/facilities including disposal facilities
5. To ensure effective implementation of the hazardous waste Management regulation published under the National Environmental Act.

Project Components / Activities

- Calling EOI and selection of a suitable investor/s
- Carrying out a feasibility study and quantitative and qualitative analysis of generation of clinical waste
- Identify suitable locations
- EIA/IEE process
- Establishment of Clinical waste treatment and disposal facilities

Summary of the Project

Location	In all the provinces within the country (Suitable locations within each province should be identified)
Required Land Area	Approx. 02 acres in each province
Present Situation	Seeking investors
Project Cost /Revenue	SLR 300 mn (US \$ 2 mn)
Proposed Financing Method	Private Public Partnership
Method of Procurement	Calling EOI internationally
Project Period	Maximum Two years
Employment/output	at least 150

Remarks: Initial feasibility study along with a quantitative and qualitative analysis of generation of clinical waste has to be carried out in provincial level. Whole Project should be undergone through an EIA/IEE process prior to the initiation.

3.1.5 - ESTABLISHMENT OF ELECTRONIC WASTE RECYCLING FACILITY

The rapid increase and changing need of consumers for electrical devices and information technology on a global scale has resulted in a significant rise in electronic and electrical products. Like other developing countries in Asia and Africa Sri Lanka is now confronted with the huge problem of e-waste both locally generated. At present some private sector companies had moved on with successful collecting systems for Electronic waste while, considerable amount of e-waste continues to be recycled in the informal sector.



Objectives

1. Establish a national level electronic and electrical waste management system that makes reuse and recycle of products readily available to the country.
2. Provide *cradle to cradle* national framework for responsibly addressing the increasing volumes of e-product scrap
3. assure responsible exportation through fulfilling international regulatory requirements as well as international obligations on management of E Waste
4. To establish a proper E waste recycling facility in the country
5. To encourage the public private partnerships to facilitate the E waste management mechanism in the country

Summary of the Project

Location	Suitable location has to be identified through a proper study.
Required Land Area	Approx. 0.8 ha in each province
Present Situation	Seeking investors
Project Cost /Revenue	SLR 300 mn (US \$ 2 mn)
Proposed Financing Method	Private Public Partnership
Method of Procurement	Calling EOI internationally
Project Period	Maximum Two years
Employment/output	at least 100

Remarks: Proper collection system for the e-waste should be established island wide and mechanism to streamlining the informal sector in to the main stream of e-waste management must be in place.

Project Components / Activities

- Calling EOI and selection of a suitable investor
- Carrying out a feasibility study and quantitative and qualitative analysis of generation of electronic waste
- Establishment of e-waste collection system island wide
- Identification of a suitable location
- EIA/IEE process
- Establishment of electronic waste recycling facility

3.1.6 - SANITARY LAND FILLS FOR THE REGION

Management of solid waste has become one of the critical issues particularly in the urbanized areas, mainly because of changing the consumption pattern due to economic changes, establishment of new industries etc. Therefore, it is required to establish a proper system of solid waste collection, treatment and disposal.

Objectives

1. To develop megapolis area as a cleaner and waste free region
2. To establish proper system of waste collection, treatment and disposal, creating the cleaner and attractive region in Sri Lanka.
3. To establish long lasting solution to solid waste problem and related issues.
4. To establish a proper and systematic system for waste disposal.
5. To fulfill the requirement of disposal of bottom ash or remaining residual in to a sanitary landfill site.

Summary of the Project

Location	One site in each District of the province
Required Land Area	Approx 10- 15 ha.
Present Situation	No proper system
Project Cost	SLR 50 mn (Us \$ 0.3 mn)
Proposed Financing Method	Private Investment
Method of Procurement	Open Competitive
Project Period	Short Term
Employment/output	100 persons

Project Components / Activities

- o Selection of land getting it released for this purpose
- o Compromise with LA/ stake holders
- o Environmental issues and EIA process
- o Contract, agreements, handing over of the land
- o Mobilizing of equipments and staff, Formal engineering preparations
- o Waste collection, transport , treatment and disposal , arrangement
- o Site preparation
- o Trials and commencement of implementation
- o Implementation of overall process

3.1.7 - IMPROVEMENT TO SOLID WASTE MANAGEMENT COLLECTION PROCESS

The solid waste collection is an essential service that needs to be delivered most efficiently by the local authorities and city administrators. The public who pays for these services are entitled to demand for such services and interact with the authorities directly and give a feed back to in order to improve the services. Use of GPS and GIS technology will help the authorities such as Waste Management Authority of the Western Provincial Council to interact closely with the public to ensure that best services are provided by the service providers. The Waste Management Authority therefore needs to set up a Central operations room where the waste collection process in the entire region is monitored and managed. This center will be equipped and need to be financed through the rates collected by the local authorities



Objective

1. To ensure a more efficient people friendly solid waste collection system is installed and monitored.
2. To have a central data collection system for the solid waste management system operated from the Waste Management Authority.

Summary of the Project

Location	At Colombo with the Waste Management Authority
Land Area	Need no additional lands
Present Situation	No such services are available
Project Cost	SLR 70 mn (US \$ 0.5 mn)
Proposed Financing Method	Public Private Partnership
Method of Procurement	Open Competitive
Project Period	two Years (short Term)
Employment	25 people

Remarks:

The tax payers who expect an efficient solid waste collection system needs to be given access to the SWM information base that will provide them with information to know about the service they obtain online.

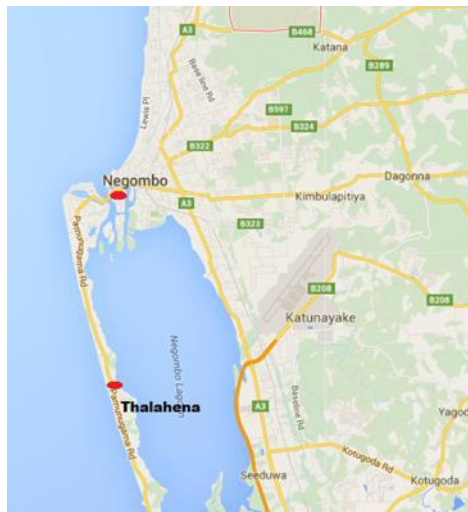
Project Components / Activities

- o Develop a user friendly GIS/GPS based data base for operating the Solid waste collection information system
- o Disseminate the information through the online media.
- o Set up the institutional mechanism that will enable the private sector to provide the services required

03.2 – SEWERAGE

3.2.1 – WASTEWATER COLLECTION AND DISPOSAL SYSTEM FOR NEGOMBO TOWNSHIP

Negombo City is a popular tourist destination and it is famous for fishing industry. The Negombo wastewater project was formulated in three phases. The current wastewater disposal practice of the project area is mostly septic tanks which are not functioning properly. Increasing population of the city also has put more pressure to the environment. Improper disposal of wastewater leads to environmental and health issues to the area. Since tourism is going to be the largest foreign exchange earner and Negombo is one of the tourist cities in Sri Lanka proper wastewater disposal arrangement is necessary for the area.



Objectives

1. To provide sewer connections to collect wastewater to the Negombo City, prevent ground water pollution, eliminate discharge of wastewater to the inland water bodies, increase the social welfare and health condition, and improve the economic development and creating a safer environment.

Summary of the Project

Location	1. Negombo City
Required Land Area	For Pumping Stations and Treatment Plants
Present Situation	Loan Agreement signed
Project Cost	SLR 16,000 mn (US \$ 110 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	
Employment/output	Direct and indirect employment opportunities are there
Implementation Period	2016/2019

Project Components/Activities

- o Construction of 11km Sewer Reticulation system
- o Construction of 9 Sewer Pumping Stations
- o Construction of 12,500 m³/day Treatment Plant
- o Construction of Short Sea Outfall
- o Construction of Office buildings and quarters
- o Providing 3,000 Domestic Connections
- o Land Acquisition and Allocation

3.2.2 – KELANIYA- PELIYAGODA WASTEWATER COLLECTION AND DISPOSAL PROJECT

Kelaniya- Peliyagoda area is highly urbanized and commercialized city since it is located adjoining to Colombo, the commercial capital of Sri Lanka. As the project area is an industrial city, high wastewater flow is there than the domestic, commercial and institutional flow. Private septic tanks, soakage pits and pit latrines are the existing sewage disposal systems in the project area. Since, most of the areas are situated on low altitude and high groundwater table, the soakage pits and pit latrines are not functioning properly. There is a serious issue regarding the provision of on-site wastewater disposal system to various commercial and government buildings which are being constructed and already built. The proposed project will contribute as a technical solution to the current wastewater problem.



Objectives

1. To provide sewer connections to collect wastewater to the Kelaniya-Peliyagoda area, prevent ground water pollution, eliminate discharge of wastewater to the inland water bodies, increase the social welfare and health condition, and improve the economic development and creating a safer environment.

Summary of the Project

Location	Kelaniya, Peliyagoda Cities
Required Land Area	For Pumping Stations and Treatment Plants
Present Situation	Loan Agreement signed
Project Cost	SLR 12,000 mn (US \$ 83 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	
Employment	Direct and indirect employment
Implementation Period	2016/2019

Project Components/Activities

- o Construction of 12.5 km Sewer Reticulation system
- o Construction of 7 Sewer Pumping Stations
- o Construction of 12,000 m³/day Treatment Plant
- o Construction of Office buildings and quarters
- o Providing 3,000 Domestic Connections
- o Land Acquisition and Allocation

3.2.3 – SRI JAYAWARDENAPURA KOTTE WASTEWATER COLLECTION AND DISPOSAL PROJECT

Sri Jayawardenapura Kotte is the national administrative capital of Sri Lanka. Subsequent infrastructure development together with the increased domestic population leads to higher generation of wastewater. Septic tanks, soakage pits and pit latrines are the existing sewage disposal systems in the project area. Since, most of the areas are situated on low altitude and high groundwater table, the soakage pits and pit latrines are not functioning properly. In addition to the above reduction of size of the building plots and existence of shallow wells in nearby lands it is very difficult to establish a septic tank inside a building plot. Other than the groundwater pollution there is a growing concern due to pollution of Diyawanna Oya which is the major water body in SJK. Therefore, a centralized sewerage system is essential to cater for the rapid development of the project area.



Objectives

1. To provide sewer connections to collect wastewater to the Sri Jayawardenapura Kotte Municipal Council area, prevent ground water pollution, eliminate discharge of wastewater to the inland water bodies, increase the social welfare and health condition, and improve the economic development and creating a safer environment.

Summary of the Project

Location	Sri Jayawardenapura Kotte
Required Land Area	For 22 Pumping Stations
Present Situation	Feasibility study completed
Project Cost	SLR 40,000 mn (US \$ 276 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	Open competitive
Employment	Direct and indirect employment
Implementation Period	2016-2020

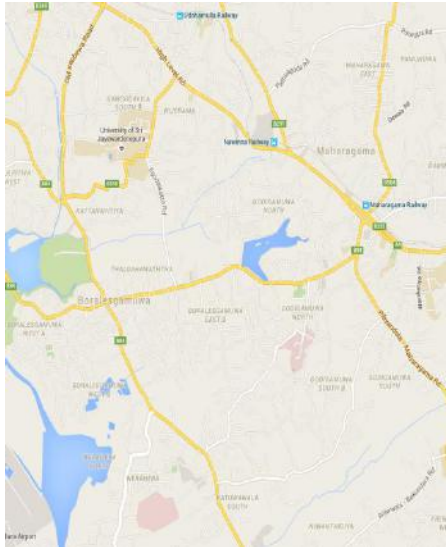
Remarks: EIA studies have to be carried out.

Project Components/Activities

- Construction of 48 km Sewer Reticulation system
- Construction of 22 Sewer Pumping Stations
- Construction of Long Sea Outfall at Mount Lavana
- Construction of Office buildings and quarters
- Providing 5,000 Domestic Connections
- Land Acquisition and Allocation

3.2.4 – MAHARAGAMA- BORALASGAMUWA WASTEWATER DISPOSAL PROJECT

As Sri Jayawardenapura Kotte is the national administrative capital of Sri Lanka most of the government institutions have been moved there. In line with the development, the adjacent areas were developed as commercial centers. Maharagama and Boralasgamuwa are situated in low line area and receive high rainfall during the year. Due to high population density of these areas, the level of environmental pollution is very high. Maharagama Cancer Hospital, Sri Jayawardenapura University and National Institute of Education are situated within the project area and facing wastewater issues. Providing sanitary facilities to the growing population will be a challenging task in this area.



Objectives

2. To provide sewer connections to collect wastewater to the Maharagama- Boralasgamuwa areas, prevent ground water pollution, eliminate discharge of wastewater to the inland water bodies, increase the social welfare and health condition, and improve the economic development and creating a safer environment

Summary of the Project

Location	Maharagama, Boralasgamuwa Cities
Required Land Area	For Pumping Stations
Present Situation	Contract awarded
Project Cost	SLR 5,000 mn (US \$ 34 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	
Employment	Direct and indirect employment
Implementation Period	2016-2019

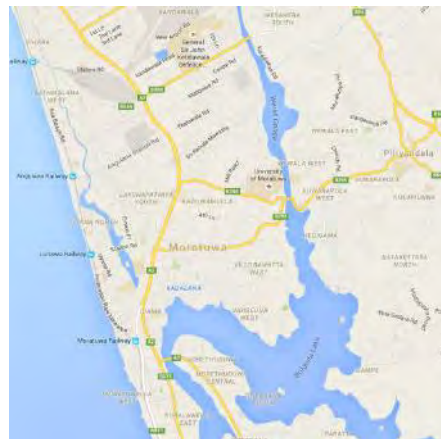
Remarks: Land acquisition in progress

Project Components/Activities

- Construction of 16.5 km Sewer Reticulation system
- Construction of 10.6 km Force Mains
- Construction of 12 Sewer Pumping Stations
- Construction of Office buildings and quarters
- Providing 5,000 Domestic Connections
- Land Acquisition and Allocation

3.2.5 – WASTEWATER COLLECTION, TREATMENT AND DISPOSAL SYSTEM FOR JA-ELA/EKALA AND RATMALANA/MORATUWA STAGE-I PHASE-II PROJECT

Swedish International Development Agency (SIDA) supported the Stage-I of the project according to the request made by the External Resources Department (ERD). After awarding the contract due to financial constraints, a scope reduction was done and the project was divided into two phases. Phase-I was completed and the next phase of the project to be started immediately due to lack of wastewater flow from the single phase. New catchments have to be connected to the Phase-I system covering the maximum area possible.



Objectives

- To provide sewer connections to collect wastewater to the Ja-Ela / Ekala and Moratuwa / Ratmalana areas, prevent ground water pollution, eliminate discharge of wastewater to the inland water bodies, increase the social welfare and health condition, and improve the economic development and creating a safer environment.

Summary of the Project

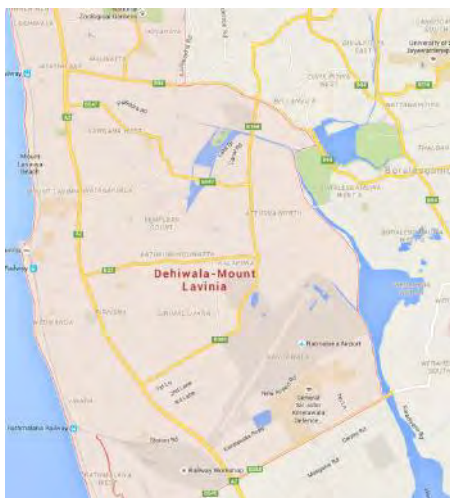
Location	Ja-Ela, Ekala, Moratuwa, Ratmalana Cities
Required Land Area	For Pumping Stations and Treatment Plant
Present Situation	
Project Cost	Ja Ela/Ekala – SLR 6,194 mn (US \$ 43 mn) Ratmalana/Moratuwa – SLR 9,806 mn (US \$ 68 mn) Total: SLR 16,000 mn (US \$ 110 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	
Employment	Direct and indirect employment
Implementation Period	2016-2019

Project Activities/Activities

- Construction of 40 km and 58 km Sewer Reticulation system
- Construction of 7 and 8 Sewer Pumping Stations
- Construction of office buildings and quarters
- Providing 3,000 and 12,000 Domestic Connections
- Land Acquisition and Allocation

3.2.6 – EXPANSION OF PIPE BORNE SEWERAGE COVERAGE FOR DEHIWALA-MOUNT LAVANIA MUNICIPAL COUNCIL AREA

Dehiwala-Mt. Lavinia is located adjoining to the metropolitan area of Colombo and Sri Jayawardenapura Kotte. There is an existing Sewerage disposal facility, has been functioning since 1987. Subsequent infrastructure developments together with the population growth during the recent times leading to high generation of wastewater. Therefore, immediate rehabilitation and improvement of the existing system is necessary because of the non-adequacy of the existing sewer network.



Objectives

1. To provide sewer connections to collect wastewater to the Dehiwala, Mount Lavinia areas, prevent ground water pollution, eliminate discharge of wastewater to the inland water bodies, increase the social welfare and health condition, and improve the economic development and creating a safer environment.

Summary of the Project	
Location	Dehiwala, Mount Lavinia Cities
Required Land Area	For Pumping Stations
Present Situation	
Project Cost	SLR 28,000 mn (US \$ 193 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	
Employment	Direct and indirect employment
Implementation Period	2016-2019

Project Activities/Activities

- Construction of 45 km Sewer Reticulation system
- Construction of 12 Sewer Pumping Stations
- Construction of Long Sea outfall Structure at Mount Lavinia
- Construction of Office buildings and quarters
- Providing 2,500 Domestic Connections
- Land Acquisition and Allocation

3.2.7 – WASTEWATER COLLECTION, TREATMENT AND DISPOSAL SYSTEM FOR GAMPAHA MUNICIPAL COUNCIL AREA

Gampaha act as a town of high accessibility as it connects with Colombo and Sri Jayewardenepura the commercial and administrative capital of Sri Lanka through the 'A' class road network of Colombo-Kandy Highway and Colombo-Kandy Railway at National level respectively. Further proposed Colombo-Kandy Express way that would run in close proximity to the Gampaha Municipal Council limits will enable the city to be linked to other areas of Sri Lanka at a National level.

Due to high accessibility, Gampaha town attracts a floating population of about one hundred thousand daily while Yakkala and Miriswathta attracts estimated twenty thousand populations. As there is no much industrial activity in the proposed project area, the most important and problematic source of wastewater generation is household, commercial and institutional (schools, hotels, hospitals, etc.)

In addition, subsequent infrastructure developments together with the growth in population during recent times leading to high generation of wastewater within the Gampaha Municipality area. Therefore, a centralized sewerage system is essential to cater for the rapid development of the project area.



Objectives

1. To provide sewer connections to collect wastewater in the Gampaha Municipal Council area, prevent ground water pollution, eliminate discharge of wastewater to the inland water bodies, increase the social welfare and health condition, and improve the economic development and creating a safer environment.

Summary of the Project	
Location	Gampaha, Yakkala and Miriswattha towns
Required Land Area	For Pumping Stations and Treatment Plants
Present Situation	Feasibility study completed
Project Cost	SLR 17,000 mn (US \$ 117 mn)
Proposed Financing Method	Foreign funding
Method of Procurement	
Employment	Direct and indirect employment
Implementation Period	2017-2020

Project Activities/Activities

- o Construction of 98 km Sewer Reticulation system
- o Construction of 17 Sewer Pumping Stations
- o Construction of 15,000 m³/day Treatment Plant
- o Construction of 3.1km River outfall (Disposing to Attanagalu oya)
- o Construction of Office buildings and quarters
- o Providing 2,500 Domestic Connections
- o Land Acquisition and Allocation

3.2.8 – WASTEWATER COLLECTION, TREATMENT AND DISPOSAL SYSTEM FOR HORANA INDUSTRIAL ZONE

Horana is a town in Kalutara District, in the Western Province of Sri Lanka. It is situated on the road from Panadura to Ratnapura. It is located in 42 km away from Colombo and 18 km away from Panadura. The current wastewater disposal practice of the project area is mostly septic tanks which are not functioning properly. Improper disposal of wastewater leads to environmental and health issues to the area. The Feasibility Study of the “Horana Wastewater Collection and Disposal Project” is currently under preparation by the Planning and Designs (Sewerage) Division of National Water Supply and Drainage Board. Since there are health issues as well as social issues in the area, proper wastewater disposal arrangement is necessary for the area.



Objectives

1. To provide sewer connections to collect wastewater to the Horana City, prevent ground water pollution, eliminate discharge of wastewater to the inland water bodies, increase the social welfare and health condition, and improve the economic development and creating a safer environment.

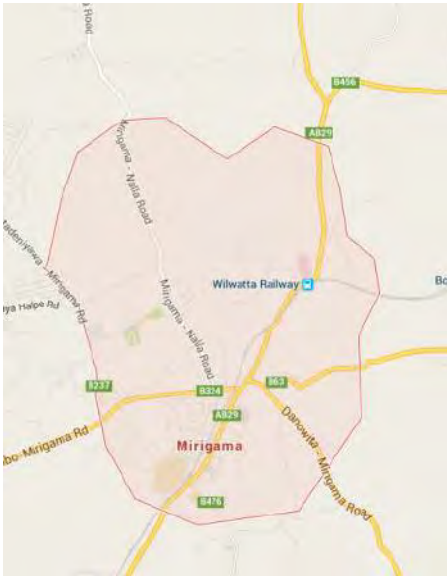
Summary of the Project	
Location	Horana City
Required Land Area	For Pumping Stations and Treatment Plant
Present Situation	Feasibility study in progress
Project Cost	SLR 15,000 mn (US \$ 103 mn) (Tentative Cost)
Proposed Financing Method	Foreign Funding
Method of Procurement	
Employment/output	Direct and indirect employment opportunities are there
Implementation Period	2017/2020

Project Activities/Activities

- Construction of 20km Sewer Reticulation system
- Construction of 12 No. of Sewer Pumping Stations
- Construction of 7,000 m³/day Treatment Plant
- Construction of Office buildings and quarters
- Providing 3,000 Domestic Connections
- Land Acquisition and Allocation

3.2.9 – WASTEWATER COLLECTION, TREATMENT AND DISPOSAL SYSTEM FOR MIRIGAMA INDUSTRIAL ZONE

Mirigama (also spelled Meerigama) is a town in Gampaha District, Western Province, Sri Lanka. It is located 57 km from Colombo, and 34 km from Negombo. Mirigama has direct rail and highway connections to many cities in the country. The first stage of the E04 Expressway (Kadawatha to Kandy) is currently being constructed from Kadawatha to Mirigama. Private septic tanks, soakage pits and pit latrines are the existing sewage disposal systems in the project area. There is a serious issue regarding the provision of on-site wastewater disposal system to various commercial and government buildings which are being constructed and already built. The proposed project will contribute as a technical solution to the current wastewater problem.



Objectives

2. To provide sewer connections to collect wastewater to Mirigama area, prevent ground water pollution, eliminate discharge of wastewater to the inland water bodies, increase the social welfare and health condition, and improve the economic development and creating a safer environment.

Summary of the Project

Location	Mirigama City
Required Land Area	For Pumping Stations and Treatment Plant
Present Situation	Feasibility Study in progress
Project Cost	SLR 12,000 mn. (US \$ mn 83)
Proposed Financing Method	Foreign Funding
Method of Procurement	
Employment	Direct and indirect employment
Implementation Period	2017/2020

Project Activities/Activities

- Construction of 15 km Sewer Reticulation system
- Construction of 15 No. of Sewer Pumping Stations
- Construction of 6,000 m³/day Sewerage Treatment Plant
- Construction of Office buildings and quarters
- Providing 3,000 Domestic Connections
- Land Acquisition and Allocation

03.3 – NATURAL ENVIRONMENT IMPROVEMENTS

3.3.1 – RIVERINE BUFFER ZONE DEVELOPMENT AND MANAGEMENT IN KELANI, KALU, ATTANAGALU AND DEDURU RIVER SYSTEMS

Reliable drinking water supply facility is a key element to have a sustainable development. System improvements of water distribution network as well as maintenance of ambient water quality standards are in high priority to address the increasing demand and to improve the service level.



Objectives

1. To systematic effective mechanisms to manage and conserve the buffer zones in place near four river systems and water bodies, leading to multiple benefits
2. Image enhancement on being SMART and green while being able to adapt or mitigate climate challenges.

Summary of the Project

Location	Both banks of the Kelani, Kalu, Attanagalu and Deduru river systems and tributaries
Required Land Area	100m Buffer on either sides of the river bank
Present Situation	No proper management
Project Cost	SLR 7,000 mn (US \$ 48 mn)
Proposed Financing Method	Public Private Partnership
Method of Procurement	Competitive bidding process
Employment / Other Economic Benefit	Community involvement as much as possible
Implementation Period	Medium/ long term

Project Components / Activities

- Identify and summarize the land use and landscape characteristics of the buffer zones (100 meter or as stipulated by technical agencies) and demarcation of boundaries.
- Development of water source specific management and conservation plans by compiling multi-sector information related to buffer zone management.
- Develop materials, Public Private Partnerships and enhanced awareness and buy in of local authorities, agencies and communities on the planned activities on each water source and other buffer zone types.
- Mobilize resources or through Govt. budget develop and establish a management system (central, decentralized at local authority level, agency mandated or community driven) based on the need, issues and approach identified.

3.3.2 –DECLARATION OF ECO ZONES IN THE WESTERN REGION

The forest cover in the Western Province is the lowest out of all the nine provinces. These forest and the remaining environmentally sensitive areas in the Western Province are threatened by rapid urbanization, pollution, unauthorized reclamation and intrusions into sensitive areas. In order to ensure that these areas are preserved through the identification and boundary demarcation of these areas, enacting legislations and regulations are key in this regard.

Objectives

1. Ensuring long term conservation of existing natural habitats and water bodies including the coastal zone in the Western Province
2. Increase the current level of knowledge about the natural resource base in the western province
3. Enhancing the quality and extent of natural habitats
4. Preventing loss of species and pollution and deterioration of water quality in the inland water bodies and the marine waters.

Summary of the Project

Location	All environmental sensitive areas in the WP with special attention to wetlands.
Required Land Area	
Present Situation	
Project Cost	SLR 900 mn (US \$ 6 mn)
Proposed Financing Method	Local / Foreign funds
Method of Procurement	Open competitive
Project Period	long Term
Employment/output	

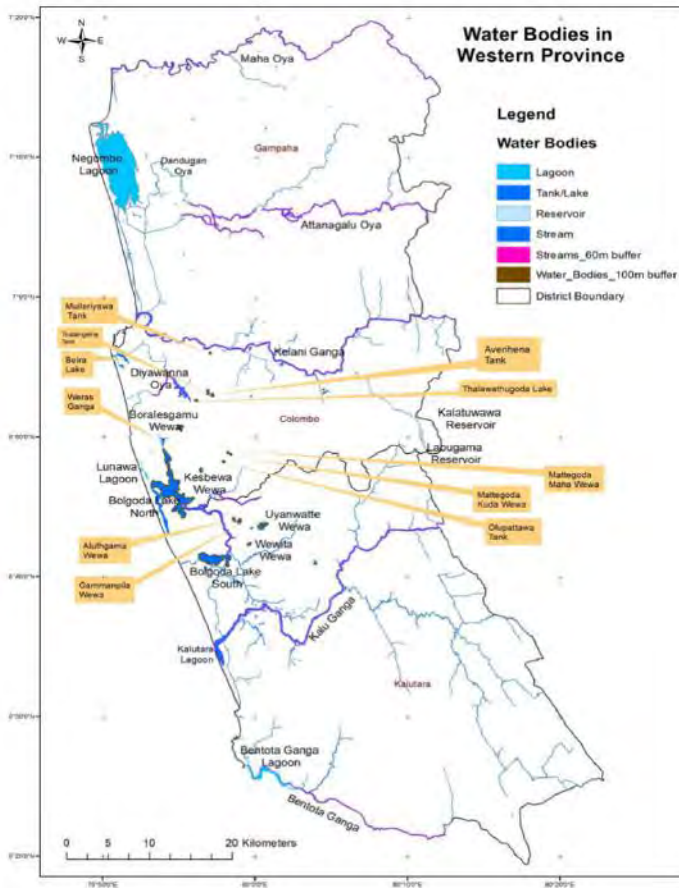
Remarks:The environmentally sensitive areas in the Western Province has already been identified (please refer map of environmentally sensitive areas map in the Environment Sector Report of the Western Region Megapolis Plan.

Project Components / Activities

- o Demarcation and Mapping of all the Protected Areas in the Province monitoring units with fully equipped laboratories and qualified personnel for environmental monitoring.
- o Identify all the natural areas that are not currently being designated
- o Declaration and Management of Eco zone areas within the Western Region Megapolis
- o Declaration of Ambient Water Quality standards for water bodies and classification of water bodies according to use category
- o Undertake pilot projects in identified sites to mitigate human-wildlife conflict
- o Establish urban forests, urban parks, refugees, recreation areas
- o Establish a connectivity programme to connect possible forest patches in the Kalutara district
- o Develop nature based tourism products for the province
- o Complete resource inventorying of all natural habitats in the province and establish a database on natural resources of the province
- o Conduct recovery planning for critically endangered species that are restricted to the Western province
- o Undertake projects in identified sites to manage IAS through ecosystem restoration
- o Reforestation in degraded lands and river/ stream reservations

3.3.3 – PROTECTION OF INLAND WATER BODIES IN THE WESTERN REGION

Inland water bodies such as rivers, lakes including manmade lakes and lagoons within the Western Province are severely threatened due to pollution as well as unauthorized reclamation. In the Western Province a very large quantity of wastewater, both treated and untreated is being discharged into such water bodies resulting in severe pollution. The rivers in the Western Province are especially important as they are used for the provision of drinking water to the population in the Western Province. In view of this it is particularly important that pollution of these water bodies is prevented through the adoption of appropriate policy and legal measures.



Objectives

1. To ensure long term protection of the inland water bodies and coastal areas in the Western Province.
2. To prevent the pollution of water bodies in the Western Province.
3. To maintain the water quality of all inland water bodies and coastal waters.
4. To classify the water bodies according to use category.
5. To promote sustainable use of water bodies.

Summary of the Project

Location	Water bodies indicated in the map
Required Land Area	Not applicable
Present Situation	
Project Cost	SLR 140 mn (US \$ 1 mn)
Proposed Financing Method	Treasury funds
Method of Procurement	Open competitive
Project Period	3 years
Employment/output	Not applicable

Project Components / Activities

- Classification of Water Bodies according to use category (drinking, fisheries, industry, recreation etc)
- Upgrading of selected laboratories for water quality monitoring
- Continuous Monitoring of water quality in selected water bodies within the Western Province to detect pollution trends
- Inventorisation of polluting inputs into water bodies
- Relocation of polluting industries

3.3.4 - PUBLIC PRIVATE PARTNERSHIPS (PPPS) TOWARDS EFFECTIVE ENVIRONMENT MANAGEMENT IN THE KELANI AND KALU RIVER BASINS

WRMP provides an equitable opportunity for all stakeholder groups to be part of its planning and implementation, including the private sector. On the other hand, Kelani and Kalu River Basins resources are being widely shared by private sector as inputs to industry, urban services and recreation, among others. The Kelani River and Kalu River Multi-Stakeholder Partnership (KRMP) approach by design proposes to empower and involve the private sector companies to come together and work with Govt. and communities at basin down to minor-watershed levels through PPPs. Kelani River and Kalu River health is the key for the sustainability of the WRMP, therefore this PPPs will play a key role in ensuring the success of the WRMP.

Preliminary discussions with the private sector entities have been extremely encouraging. While supporting and participating in basin level initiatives, a number of companies are keen in participating and supporting the local level minor-watershed restoration, education and awareness where their factories and facilities are located and most of the employees are from the vicinity. In this context the PPPs activities proposed (technical and awareness/education) are expected to contribute to the sustainability of the KRMP and that of the WRMP.

Objective

1. To protect and maintain source of water quality in the Kelani and Kalu rivers.
2. To actively involve and contribute private sector companies towards the sustainability of the Kelani and Kalu rivers and objectives of WRMP.
3. To Sustain the KRMP and WRMP ensured through additional resources and technical inputs by the Private Sector.
4. To enhance level of knowledge, education and awareness efforts ensured through basin and minor-watershed level programmes.
5. To develop a global model on PPPs in management and conservation of natural resources.

Summary of the Project

Location	Kelani River / Kalu River
Land Area	
Present Situation	
Project Cost	SLR 80 mn (US \$ 0.55 mn)
Proposed Financing Method	Local/foreign
Method of Procurement	Public Private Partnership
Project Period	
Employment	

Remark:The activities cited are also part of the CEA led project on "Kelani and Kalu River Basins Multi-Stakeholder Partnership (KRMP)" approach proposed to be implemented starting 2016 for a four-year period

Project Activities

- River basin free of hazardous waste - A public private partnership effort to collect and dispose hazardous waste expanding from current CEA and private sector efforts.
- Water and ecosystem monitoring (real time and manual) through a public- private - community partnership approach and implement management and conservation approaches at stream segments or minor-watersheds
- Promotion of emerging management concepts for enhanced sustainability and breakthrough thinking
- Recognition of champions (state sector agencies, NGOs, CBOs, private sector, Individuals, etc.) who significantly contributed to the KRMP approach
- Voluntary indoor air quality promotion - Indoor Clean Air Initiative
- Retail chains in action - A scheme to collect selected waste types for proper disposal
- Kelani and Kalu Kids - Introductory Environment
- Development of a new set of Public Private Partnership programmes based on the needs and interests
- Upscaling the Environment Pioneer Brigade Programme with Private Sector Inputs - Sustainable Community Development and Nature Leadership
- Basin wide celebration of selected international convention related events facilitated.

3.3.5 – AIR AND WATER QUALITY BASELINE ESTABLISHMENT & CONTINUOUS MONITORING

As WRM development takes place the monitoring of air and water resources along with related information is required not only to ensure the sustainability of WRM and to take corrective actions, when required. Early attention and investments will help to establish a sound baseline at the start of WRMP so that the subsequent monitoring can provide multiple benefits including the “additionality” condition required by many climate projects, highlight the results of the WRMP plan implementation and to highlight the SMART aspects of the process. It is also important make the baseline and monitoring plans “futuristic” so that the measurements can be of more value and link with global initiatives such as Sustainable Development Goals. As both air and water quality and quantity cuts across multiple sectors and the different uses require varying levels of accuracy and spatial resolutions (eg: health, transport, wetlands, ground water, process based simulations and scenario assessments, EIAs, waste management, near shore and climate change) an extensive dialogue is needed to ensure that proper and adequate parameters and conditions are met, also using the global experience and requirements.

Objectives

1. To establish a baseline and a monitoring system for air and water resources
2. To create a data sharing system for agencies
3. Provide data for determining pollution trends and background level of pollutants for air and water quality
4. Provide data for determining pollution trends and background level of pollutants for air and water quality
5. To provide Information for project development and access the benefit of global funds

Summary of the Project

Location	Selected locations to represent the WP in totality
Required Land Area	Not applicable
Present Situation	
Project Cost	SLR 680 mn (US \$ 5 mn)
Proposed Financing Method	Public Private Partnership
Method of Procurement	Open competitive
Project Period	Long Term
Employment/output	Not applicable

Project Components / Activities

- Identification of parameters, spatial resolution, accuracy, potential present/future applications, equipment needs, capacity gaps in technical knowledge in responsible agencies, current level of information collection, sharing and easiness to access and global experience in similar tasks (USEPA etc.)
- Design of a system to measure, process and share information based on the item 1 findings that include a) technical capacity building of institutions; b) exposure to global practices and agreements on information collection and sharing
- Procurement of necessary equipment (including mobility) as identified in item 1 and training to operate
- Operationalizing the system designed in item 2 with multiple agencies.

3.3.6 – ASSESSMENT OF HEALTH COSTS OF AIR POLLUTION AND RECOMMENDATIONS ON POLICY MITIGATORY INTERVENTIONS

Cost of air pollution to the WRMP and the country could be significant. Poor air quality (Particulate Matter less than 10 and 5 micro meter – PM10 and PM05, Carbon Dioxide and Monoxide, Oxides of Nitrogen, Oxides of Sulphur, Metals and other additives from fuels and open burning have proven to increase asthma and other respiratory diseases, cancer, reduce fertility and specially affect children, elderly and selected segments of the society (based on exposure – ex: Policemen on the road). Although the WRMP generate economic and social benefits, poor health, loss of work days/time, deterioration of quality of life as a result of air pollution can take away some of the development gains. At the same time the cost of pollution may justify a potential high investment on transport sector to minimize the foot print. This intervention will quantify the potential costs of air pollution (there are examples already including city of Bangkok by World Bank) and derive potential risk reduction measures and necessary policy recommendations.

Objectives

1. To provide quantitative and qualitative estimates of cost of air pollution
2. To establish a framework to justify the large investment to curtail air pollution including the investments in transport, power and industry
3. To better understand the sources and causes of air pollution and health linkages
4. To provide material for awareness and education plus policy formulation
5. To enhance knowledge on global interventions and options for WRMP

Summary of the Project

Location	Western Province
Required Land Area	Not applicable
Present Situation	
Project Cost	SLR 10 mn (US \$ 0.07 mn)
Proposed Financing Method	Public Sector
Method of Procurement	
Project Period	2 years
Employment/output	Not applicable

Project Components / Activities

- Document the sources of air pollution and current levels of pollution
- Identify the direct and indirect health impacts due to air emissions
- Develop methods (using global literature) to compute health costs and pollution linkages for policy, investment and awareness and education
- Prepare policy papers and other documents to promote investment to minimize air pollution in transport, industry, urban waste and power sectors.

3.3.7 – RIVERINE BUFFER ZONE DEVELOPMENT AND MANAGEMENT IN KELANI, KALU, ATTANAGALU AND DEDURU RIVER SYSTEMS WHILE PAYING ATTENTION TO ENVIRONMENT SENSITIVE, CULTURAL AND HERITAGE SITES

Buffer zones play a critical role ensuring the water quality and integrity of river systems of WRM. Therefore, it is important to understand the present conditions of the Kelani, Kalu, Attanagalu and Maha Oya plus their tributaries, plus the other water bodies in the four basins while identifying the appropriate roles the buffer zones can play not only in reducing the degradation of the water bodies but also the opportunities buffer zones provide in terms of aesthetics, potential socio-economic development entry points, including ecotourism, recreation and as spaces for community use. Providing increased focus on the economic valuation of the value of buffer zones towards enhanced ecosystem services, pollution control and recreation capacity could further justify the investments on conservation and management of buffer zones. Improved buffer zone quality and their management requires policy interventions, implementing legal measures to arrest unsustainable land uses (agriculture, construction, illegal mining etc.) and encroachments. In addition, the process of management of buffer zones may include improved technologies and best practices, incentives to relocate or remove buildings and people and extensive agency and community participatory type monitoring.

Objectives

1. To define buffer zones for the selected rivers and water bodies in the Western Province.
2. To manage and conserve the buffer zones in place near four river systems and water bodies, leading to multiple benefits
3. To Increase awareness and understanding among, agencies, stakeholder groups on the roles and functions of buffer zones and the areas to be focused
4. To provide multi-sector approach for buffer zone management and conservation that also include the use of buffer zones for pollution control

Summary of the Project

Location	Four river systems in WP and selected water bodies
Required Land Area	100m buffer zone around each water body
Present Situation	
Project Cost	SLR 7233 mn (US \$ 50mn)
Proposed Financing Method	Public Sector
Method of Procurement	
Project Period	Long Term
Employment/output	Not applicable

Project Components / Activities

- o Identify and summarize the land use and landscape characteristics of the buffer zones (100 meters or as stipulated by technical agencies) in all four rivers and tributaries and also include heritage, cultural and other sensitive areas that need buffer zone protection, management and conservation.
- o Development of water source specific management and conservation plans by compiling multi-sector information related to buffer zone management and conservation while promoting stakeholder dialogue on essential activities to protect the buffer zone and sustainable use of the same.
- o Develop legislation/regulations as required for effective buffer zone management.
- o Develop materials, Public Private Partnerships and enhanced awareness and buy in of local authorities, agencies and communities on the planned activities on each water source and other buffer zone types.
- o Mobilize resources or through Govt. budget develop a management system (central, decentralized at local authority level, agency mandated or community driven) based on the ne the need, issues and approach identified.
- o Management, implementation and monitoring of buffer zone related activities including providing incentives for relocation of identified populations, business and activities.

3.3.8 – DISASTER RISK MANAGEMENT IN WRMP INCLUDING DISASTERS CAUSED BY CLIMATE CHANGE

Disasters can take away the benefits of investments quickly unless risk reduction measures and knowledge to avoid disasters are mainstreamed in the development. Disasters affect the poor mostly as per the statistics by UNISDR. Investments in disaster risk identification, mainstreaming disaster risk reduction in planning of infrastructure and land uses, improved disaster preparedness at all levels (agency, private sector and communities) including the strengthening multi-hazard early warnings, standard operating procedures, building and land use planning including permitting processes are some of the critical steps that can be considered in the WRMP. Number of basic steps have been already taken (eg: National Hazard Profiles of Sri Lanka; 30-year disaster inventory – DisInventar; Comprehensive Disaster Management Programme including over 40 agencies) and the WRMP can consolidate on the work already been done. In addition, two key areas that did not get adequate attention in the past are the “Ecosystem Based Disaster Risk Reduction” and “Slow on set health related disasters by water pollution and poor hazardous waste management” both are in the risk reduction domain. Continuity of businesses operations also depend on preparedness and damage and loss compensation ability.

Objectives

1. To improve understanding of the linkages of ecosystems, disasters, human actions and potential ways to minimize the risks
2. To prepare better institutional structure for rapid and slow on-set disasters
3. Better preparedness adding to life quality (eg: First-Aid, search and rescue skills, swimming, observation of the environment for signs of natural disasters etc.)

Summary of the Project

Location	Covering the totality of the Western Province
Required Land Area	N/A
Present Situation	
Project Cost (SLR mn)	SLR 1,000 mn (US \$ 7 mn)
Proposed Financing Method	Public Sector
Method of Procurement	
Project Period	3 years
Employment/output	Not applicable

Project Components / Activities

- Review potential natural and man-made disaster potential in WRM including climate change induced disasters.
- Develop a hazard, vulnerability and risk profiles and a protocol for Damage and Loss (DaLa) covering the WRM (extension of ongoing work by WB/GFDRR)
- Develop or strengthen Standard Operating Procedures (SOPs) for relevant agencies including airports, harbours and city centers including military-civil interfaces in implementing SOPs
- Capacity assessment on disaster response and risk reduction for Govt. Armed Forces, CSOs and others and develop targeted training plans
- Improve policy and coordination of fire and search and rescue related entities and their funding structures (eg: Fire brigade of city of Colombo cannot respond to a fire in Homagama due to administrative issues)
- Comprehensive education, awareness and practice (drills) programme covering all aspect of disaster management involving different stakeholder types (agency, community, schools etc.)
- Resource mobilization for implementation and capacity development of agencies and others plus innovative financing schemes for compensations, risk reductions and response (eg: Disaster response fund global fund access including expertise – already GFDRR has setup one for SL)

3.3.9 – CREATING THE ENABLING ENVIRONMENT TO ACCESS GREEN FUNDS

One of the requirements of accessing Green Funds (climate change, land degradation, biodiversity etc. or through foundations) is the ability to demonstrate the global benefits through the project (eg: WRMP) also called local action for global benefits. It requires to have systems to demonstrate the initial state of the environment, document the standard practices (business as usual without adopting green practices) and the ways to highlight the additional global benefits achieved through the project by adopting environmentally friendly approaches which is also termed as the additionally criteria. The WRMP itself can be converted into a mega green project by planning to be one from the outset. The required baseline is already available in most part. The proposed initiative, therefore, require knowledge of global funding sources, writing and presentation skills plus identifying WRMP initiatives that can be used to leveraged with global funds. There are multiple areas in WRMP such as reduction of carbon foot print via multi-modal transport, green buildings, biodiversity and other conservations measures, reduction of emissions from industry, lands etc, that can be pulled into a one system and match with the criteria or requirements of global funds or can be handled separately when the funds are specific to a certain technical area (eg: climate change or biodiversity).

Objectives

1. To articulate WRMP as a one green programme with sub-components on major potential green areas to qualify for global funding.
2. To give high visibility to WRMP implementation
3. To ad resources for training and capacity building
4. To exchange knowledge to add value to WRMP

Summary of the Project

Location	WP
Required Land Area	Not applicable
Present Situation	
Project Cost	SLR 103 mn (US \$ 0.7 mn)
Proposed Financing Method	Public Sector
Method of Procurement	
Project Period	3 years
Employment/output	Not applicable

Project Components / Activities

- Identification of potential global funding sources and areas (local action for global benefits) relevant for Project Identification Formats
- Initial discussions with probable funding sources and concept development
- Setting up baseline data and information required for proposal development based on the identified funding sources including the follow up with identified donors, respond to questions and further project development including the implementation modalities
- Establish a project board to oversee the globally funded project (one team overseeing all projects) with sub technical committees along with fund handing modalities established
- Capacity building of national agencies to support efficient implementation of projects, monitoring, record results, reporting etc.
- Intearation of experience bevond WRM

3.3.10 – ENHANCED CAPACITY TO TRACK THE CLIMATE CHANGE IMPACTS ON THE WRM ECOSYSTEM INCLUDING SEA LEVEL RISE, RAINFALL CHANGES AND TEMPERATURE INCREASE RELATED IMPACTS

Understanding and preparedness to address climate induced impacts on the coastal and inland areas of the WRM is important for the sustainability. This aspect needs to be mainstreamed from the inception and carried out during the operationalizing phase of the WRMP. For example the potential sea level rise, at global level, is predicted by IPCC to be around 0.80 m per 100 years. Climatic data indicates changes of rainfall patterns (Punyawardena, 2014) and increase in minimum air temperature. Additional contributions can be expected through land modifications and constructions related to WRM development, unless compensated. The National Hazard Profiles of Sri Lanka (Disaster Management Centre, 2013) include details on the sea level rise, storm surges and coastal erosion in local context, although the resolution is not very high. In addition, there are a number of studies in global and local levels on how rainfall, temperature and other changes impact the biodiversity, ecosystems including the threat of Invasive Species. All of these impacts need to be understood and tracked to ensure that WRMP related infrastructure, settlements, livelihoods, tourism, agriculture etc. are sustainable and resilient.

Objectives

1. To understand the potential climate impacts on WRM and the ability plan/mainstream risk reduction and adaptation measures.
2. To enhance institutional capacity to monitor the changes of environment due to climate change such as sea level rise, coastal erosion, coastal salinity, invasive species etc.,
3. To predict and advice on improving/adjusting the adaptive measures on infrastructure, agriculture and other livelihood and settlement related topics.
4. To establish a model approach that can be used in other parts of the country

Summary of the Project

Location	All vulnerable areas in the WP
Required Land Area	Not applicable
Present Situation	
Project Cost	SLR 172 mn (US \$ 1.2 mn)
Proposed Financing Method	Public Sector
Method of Procurement	Public Private Partnership
Project Period	Short Term-2 years
Employment/output	Not applicable

Project Components / Activities

- Identification of potential global funding sources and areas (local action for global benefits) relevant for Project Identification Formats
- Initial discussions with probable funding sources and concept development
- Setting up baseline data and information required for proposal development based on the identified funding sources including the follow up with identified donors, respond to questions and further project development including the implementation modalities
- Establish a project board to oversee the globally funded project (one team overseeing all projects) with sub technical committees along with fund handing modalities established
- Capacity building of national agencies to support efficient implementation of projects, monitoring, record results, reporting etc.
- Integration of experience beyond WRM

3.3.11 – PROMOTION OF CLEANER/RENEWABLE ENERGY SOURCES IN TRANSPORTATION, POWER AND DOMESTIC SECTORS

WRMP strives to be greener, resilient and sustainable as part of the SMART strategy. In that context the use of cleaner fuels such as natural gas and energy derived from renewable sources in transportation, renewable energy generation (solar, wind and biogas/biomass based) for multiple uses may play a major role. With new technological advances it is possible to be innovative and technically adopt a number of interventions at appropriate levels, namely, the policy, institutional, technological etc.

Objectives

1. To create a detailed action plan to mainstream cleaner fuels and renewable energy generation and use in WRMP for selected sectors such as Transportation, Energy generation, Industry, Domestic Use
2. To project a greener image as a destination
3. To attract investments including green funds
4. To reduce health costs and improve quality of life

Summary of the Project

Location	WP
Required Land Area	Not applicable
Present Situation	
Project Cost	SLR 290 mn (US \$ 2 mn)
Proposed Financing Method	Public Sector
Method of Procurement	Public Private Partnership
Project Period	Short Term
Employment/output	Not applicable

Project Components / Activities

- Initial screening of options (sectors, potential amount, feasibility, costs and timelines) to mainstream cleaner fuels and renewable energy within the framework of WRMP
- Detailed feasibility, in Sri Lanka context, on expanding the solar and wind power applications in transport and building sectors including innovative storage (to use as base load) beyond net metering such as pump and other new (Teslar, Solar Tower in Spain) storage mechanisms; better access to technical options and financing; building designs including efficient solar light use plus solar tubes in underground areas etc.;
- Energy related information, communications, awareness, education to promote new approaches and efficiency improvements
- Document and disseminate details of biomass/biogas generation and use for household and other applications (eg: use of household waste and septic collections; hotel applications -food waste and septic)
- Awareness, education and promotion of safety aspects renewable energy generation, storage, conversions and applications (eg: high voltage situations in solar and other energy applications; aging or wire resistance increasing with time)
- Capacity assessment for institutions and officers to mainstream cleaner fuels and renewable sources of energy as above and provision of training opportunities in targeted areas plus develop partnerships with international agencies to foster the renewable energy use

3.3.12 – MANAGEMENT OF AREAL EMISSIONS FROM WASTE BURNING

Open burning of waste, especially the plastic related waste generates hazardous harmful gases that may cause serious impacts on humans, fauna and flora. Indiscriminate burning of plastic and electronic related waste, knowingly or unknowingly, the consequences are a major threat in the WRMP as the region where most of the plastic waste is being generated, processed, exported or disposed. It is therefore necessary to adopt a systematic approach for handling emissions from waste burning (eg: low temperature burning of plastics from hospitals, municipal or household resulting the production of cancer causing dioxins; burning of electronic mix waste releasing mercury, lead and other metals into atmosphere; household practices of burning shopping bags to ignite fires in kitchen and outside etc.). This initiative is aimed at raising the awareness of the target groups and promoting scientific ways of disposing waste as opposed to open burning working towards a zero burning scenario.

Objectives

1. To eliminate the practice of waste burning
2. To establish an integrated system to accept and dispose the waste that is being burnt presently
3. To reduce health risks, especially the poor, elderly and children from inhaling toxic fumes as demonstrated by air quality indicators
4. To Improve aesthetics of the WRM area as indicated by incidents of burning reported by public (using a social media tool). To project a greener image as a destination

Summary of the Project

Location	Western Province
Required Land Area	Not applicable
Present Situation	
Project Cost	SLR 34 mn (US \$ 0.2 mn)
Proposed Financing Method	Local /Foreign
Method of Procurement	Public Private Partnership
Project Period	Short Term
Employment/output	Not applicable

Project Components / Activities

- Understanding the magnitude and issues related to waste burning including the documentation of a) waste types being disposed through burning; b) sources of waste; c) factors/causes behind the burning; d) ability to get the involvement of sector leaders of original materials such as plastics, electronic waste and other (both public and private) for a cradle to grave type (Life cycle) effort.
- Develop a comprehensive awareness campaign based on item 1 to a) convince public on harmful aspects of waste burning; b) Public and private sector to invest on taking the waste back and processing to close the loop; and c) support the implementation of laws and regulations
- Investigate options, dialogue and integrate with other waste management programmes in the WRMP such as a) management of hospital waste, municipal waste and electronic waste; and b) awareness and education programmes of the same and ensure that open burning aspect is addressed adequately.
- Establish and operationalize a monitoring system to track open/other waste burning incidents using multiple modalities such as a) compliance related monitoring; b) social media such as Facebook applications; and c) complains and follow up plus monitoring of VOC and other selected parameters in air at selected locations in the WRM.

3.3.13 – ENCOURAGEMENT ENVIRONMENTAL FRIENDLY TECHNOLOGIES

The reduction of taxes on environmentally friendly technology (example Solar panels, Electric cars, Hybrid cars, energy and water saving equipment, pollution control equipment will go a long way in reaching our ultimate goal of a Low C, Green magapolis by making environmentally friendly technology within the reach of the common man and encouraging the use of renewable energy, energy and water saving and a green economy.

Objectives

1. To gain environmental benefits due to reduction in energy and water usage, reduced emissions of air pollutants, better control of pollution from industries, reduced vehicle emissions etc.

Summary of the Project

Location	No specific location
Required Land Area	
Present Situation	
Project Cost	SLR 5 mn. (US \$. 0.03 mn)
Proposed Financing Method	Local
Method of Procurement	Public Sector
Project Period	Short Term
Employment/output	

Project Components / Activities

- o Identification of items on which tax reductions will be made.
- o Extended Cost benefit analysis of the proposed tax reductions. (Calculate the cost in terms of reduced tax revenue against the value of environmental benefits accrued through this action.
- o Implementation of the proposed tax regime depending on the results of the cost benefit analysis
- o Monitoring of the results of the project.

3.3.14 - PREPARATION OF CADASTRAL MAP FOR WRMP AREA

The Cadastral Map is a primary requirement to register title to land under Registration of Title Act No.21 of 1998 and Surveyor General is mandated to fulfill requirement of preparation of Cadastral Maps under section 11 of the same Act and section 10 of the Survey Act No.17 of 2002. A cadaster is a methodically arranged inventory of land parcels of individual ownership with unique identification number based on a survey of property boundaries. Thus a cadaster is essentially a systematic description of land parcels within an area. At the beginning of country cadaster, the unit of Cadastral Map was a village and recently changed as a Grama Niladhari (GN) division of a district. A cadastral map consists essentially of two parts via graphic record and textual record.

The Surveyor General is responsible to maintain a base of cadastral survey information as per section 8 of the Survey Act and also to fulfill the requirements in section 36 of Registration of Title Act. Accordingly, Survey Department maintains Cadastral Database, as part of its Land Information System(LIS), in both digital and manuscript form.

Objective

1. To make available updated land details
2. To convenient to give development approvals.
3. To systematic records
4. To achieve smooth administration, effective resource utilization. aid development in WRMP

Project Activities

- Review previously available Cadastral maps

Summary of the Project

Location	Entire WRMP
Land Area	
Present Situation	
Project Cost	SLR 3 mn (US \$ 0.02 mn)
Proposed Financing Method	Local/foreign
Method of Procurement	Public
Project Period	
Employment	

Remark:This project description should be detailed with the help of an expert senior Licensed Survey Consultant.

3.3.15 - PREPARATION OF THE DRAINAGE MASTERPLAN FOR WRMP AREA

Preparation of the drainage master plan for WRMP area is essential to identify the overall drainage issues, drainage improvements required to alleviate flooding and water pooling, resettle people outside critical flood areas, avoiding important waterways and flood areas from hard development

Objective

1. To identify critical flood areas
2. To give practical solutions for drainage issues
3. To Identify reservation areas for water bodies, rivers and streams
4. To identify O&M weaknesses
5. To recommend further sub projects/studies
6. To identify most suitable flood alleviation options (channel improvement, regular maintenance , diversions , sea outfall improvement , timely opening of sand bars, resettlements of people outside critical flood areas)
7. To classify drainage canals with possible ownership (main, secondary and tertiary canals)

Summary of the Project

Location	Entire WRMP
Land Area	
Present Situation	
Project Cost	SLR 100 mn (US \$ 0.7 mn)
Proposed Financing Method	Local/foreign
Method of Procurement	Public
Project Period	
Employment	

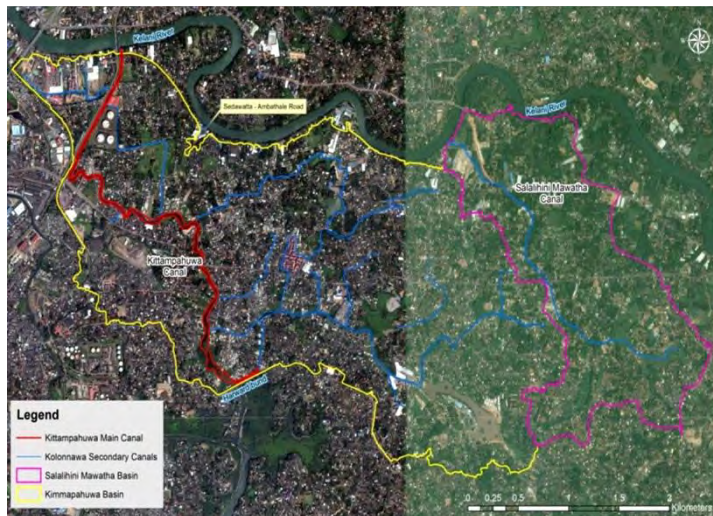
Remark:A comprehensive ToR should be prepared.

Project Activities

- Identification of detailed drainage network, rivers and streams of Kalu Gnga Basin, Kalu Oya Basin, Kelani River (balance portion), Ja-Ela Basin, area drains to Bentota River, Bolgoda Basin and area drains to Maha Oya
- Identification of water bodies , irrigation tanks, lakes, marshes , wetlands
- Identification of all sea outfalls , internal outlets
- Identification of major and minor irrigation schemes and their drainage channels/irrigation canals
- Prepare a detailed drainage network.
- Collect all recent drainage study reports
- Carry out site reconnaissance
- Identify and map all critical flood areas , drainage issues and map them
- Obtain proposed development footprints from Planning Group
- Propose solution options for flood alleviation for the baseline situation as well as for the development scenarios. If resettlement is the best option for flood areas provide recommendations
- Prepare detailed drainage master plan showing the drainage network, development footprint and solution options.

3.3.16 - JA-ELA BASIN AND KOLONNAWA BASIN, NEW MUTWAL TUNNEL/TORRINGTON TUNNEL, ST. SEBASTIAN SOUTH DIVERSION, MADIWELA DIVERSONS STORM WATER DRAINAGE AND FLOOD CONTROL PROJECTS

Kolonnawa basin in Colombo District has an area of 14 km², and it is lying in the flood plain area of Kelani River. Being the flood plain of Kelani River, Kolonnawa basin is flooding very often, due to unplanned town development, ad hoc reclamation of low land, reduction of water retention areas, encroachment, illegal construction, inadequacy of drainage systems, and increase of run-off due to urbanization, high intensity of rainfall and dumping of solid waste into canals. Further it is required to intervene in to drainage problems related to Madivela east and South Diversions, North Lock, New Mutwal and Torrington Tunnels, and St Sebastian South Diversion to mitigate floods in Colombo area. The Project is to intervene into mitigate flooding in the area, as flooding has created many hardships, including damage of properties of the people in the basin.



Objectives

1. To enhance the conveyance capacity of the existing main and secondary channels in the basin.
2. To minimize the flood burden of Parliament Lake.
3. To minimize localized flood in the area.

Summary of the Project

Location	Kolonnawa basin, Ja-Ela Basin (Atthanagalu Oya)
Required Land Area	14 km ²
Present Situation	Flooding the Area during Rainy Season and overflow of Kelani River
Project Cost	Rs. 12000 mn (US \$ 83 mn)
Proposed Financing Method	Consolidated Fund/ (foreign)
Method of Procurement	Open competitive
Employment / Benefits	Control of flood in and around Kolonnawa Basin
Implementation Period	Medium term (2017/2018)

Remarks

The feasibility studies completed

Project Components / Activities

- Connecting Kolonnawa Canal to Kattampahuwa Canal through Harvard Flood Bund, Gothatuwa.
- Improvement of Secondary canal draining in to Kattampahuwa Canal and Salalihini Mawatha Canal, which drain into Kelani River
- Improvement of low Kelani and high Kelani tanks and diversion canals related to adiwela East Diversion
- Improvement of low Kelani and high Kelan new diversions related to Mutwl and Torrington Tunnels
- Improvement of low Kelani and high Kelan new diversions related to St. Sebastian South Diversion.
- Gravity gate improvement and pumping station pertaining to North Lock.

3.3.17 - RATHMALANA – MORATUWA STORM WATER DRAINAGE AND ENVIROMENT IMPROVEMENT PROJECT (WERAS GANGA PROJECT IS ONGOING)

Kandawala, Thelawala and Ktubedda is a highly urbanised area along the Weras Ganga right bank. The area is prone to drainage congetion because of the low-lying topography. Although this problem originates from the topographic constraints, making it difficult to drain storm water runoff from its own catchment, it is necessary to provide alleviation measures by improving the existing urban drainage system in the area.



Objectives

1. To mitigate drainage congestion of Rathmalana and Moratuwa, along the right bank of Weras Ganga
2. To minimize the flood burden in the area.

Project Components / Activities

- o Urban drainage improvement
- o Kandawala retention pond
- o Thelawala retention pond
- o Channel improvement of Katubedda Tributary

Summary of the Project

Location	The lowland with ground elevation of 1.0 m or les along the right bankof Weras Ganganga covering Kndawala, Thelawala and Ktubedda,
Required Land Area	13 ha
Present Situation	Flooding the Area during Rainy Season
Project Cost	Rs. 5,200 mn (US\$ 36 mn)
Proposed Financing Method	Consolidated Fund/ (foreign)
Method of Procurement	Open competitive
Employment / Benefits	Control of flood in and around Bolgoda Basin
Implementati on Period	Long term (2018/2021)

3.3.18 - MASTER PLAN FOR WETLANDS AND ASSESSMENT OF WATER QUALITY IN THE INLAND WATERWAYS & LAKES WITHIN WESTERN REGION

Wetlands play a number of roles in the environment, principally water purification, flood control, carbon sink and shoreline stability. Wetlands are also considered the most biologically diverse of all ecosystems, serving as home to a wide range of plant and animal life. At present a majority of the wetlands in Sri Lanka are adversely affected by human activities such as unauthorized land filling, waste disposal, pollution due to effluent discharges, clearing of natural vegetation in and around wetlands, spread of invasive alien species etc. This plan is to protect the wetlands in Western region after assessing their present situation



Objectives

1. Wise use and sustainable management of all wetlands within the Colombo Metropolitan Region
2. Possess cross-cutting synergies and are addressed through the following five themes: recognize, prevent, restore, engage and governing

Summary of the Project	
Location	Wetlands in Western Region
Required Land Area	
Present Situation	On going
Project Cost	SLR 750 mn (US \$ 5 mn)
Proposed Financing Method	
Method of Procurement	
Employment	
Implementation Period	

3.3.1 9 - POINT SOURCE POLLUTION AND ENVIRONMENTAL QUALITY MONITORING SYSTEM

The environmental quality of the new urban areas is highly vulnerable if not managed. The high density of population and the intensive land use expected with the growth of the city will pose many environmental problems including the deterioration of air and water quality. While the pollution of these resources can happen due to both non-point sources (agro chemicals and marine oil spills as well as point sources such as industries and municipal solid waste, the management of these potential risks need to be done on 24 hours x 7 days basis, If such detections are done on real time basis the authorities can act faster to ensure that these problems are contained and less impact results. The introduction of the network of CCTV as well as pollution sensors across the strategic locations will help the authorities like CEA to monitor the environmental quality and pollution sources. It is recommended that industries who are releasing treated effluents are required to install the system in the same way as the smart electric meters which will relay the information on the operations of the waste water treatment operating on real time basis to the CEA.



Objective

1. to enhance the environmental quality by better control of the environmental pollution at the point of pollution
2. to ensure the quality of environment in the marine and water ways through regular monitoring

Summary of the Project

Location	All strategic locations identified by the CEA
Land Area	Need no additional lands
Present Situation	No such monitoring system is in place, the current system required authorities to physically visit pollution culprits physically
Project Cost	SL R 750 mn (US \$ 5 mn)
Proposed Financing Method	Public Private Partnership where the equipment can be supplied by a service provider or as a donor project
Method of Procurement	
Project Period	Three Years (short Term)
Employment	100

Remarks:

Such digital system is expected to help reduce the inefficiencies and technical problems associated with physical monitoring

Project Components / Activities

- o Prepare a map of all point source pollutions and waste water treatment plants in the region.
- o Install the sensors and other detection and relaying systems
- o Set up a national monitoring center at the CEA

THE AERO MARITIME – TRADE HUB **04**

04 –THE AERO MARITIME – TRADE HUB

4.1 PORT & AIRPORT/LOGISTICS

4.1.1 – EAST CONTAINER TERMINAL OF COLOMBO PORT

In line with the growth of the container volume to the Port of Colombo, SLPA identified the requirement of a new deep draft container terminal on immediate basis. Therefore, SLPA has constructed 440 m length of -18 m deep quay wall and 10 ha of container stacking yard space of East Container Terminal facilitating to handle 0.8 million TEUs per annum (Phase-1). Procurement of container handling equipment for the project is in progress. The total quay length of the ECT is 1.2 km and its full capacity is planned as 2.4 million TEUs per annum.

Objectives

1. To maintain the hub-status of the Port of Colombo



Summary of the Project

Location	Port of Colombo
Required Land Area	75 ha
Present Situation	Civil works of the phase-1 have been completed. Procurement of container handling equipment for phase-1 is in progress.
Project Cost	SLR 91000 mn (US \$ 628 mn)
Proposed Financing Method	SLPA / JV
Method of Procurement	Depend on method of financing
Project Period	3 years
Employment/output	Employment: Direct and indirect 1000 Output: Increase the container handling capacity by 2.4 million TEUs per annum

Remarks: Feasibility study and EIA for the project has already been completed.

Project Components / Activities

Phase-1:

- o Contraction of 440 m quay wall and yard facilities.
- o Procurement of container handling equipment for 440 m quay wall

Phase-2:

- o Construction of balance part of the quay wall and yard facilities
- o Procurement of container handling equipment

4.1.2 – IMPROVEMENT OF UCT, PVQ AND GUIDE PIER OF COLMBO PORT

At present, Port of Colombo handles conventional cargo at the Bandaranayaka Quay (BQ), North Pier, PVQ and Guide Pier. Depths of these facilities are limited. SLPA has revealed the need of attracting larger conventional cargo vessels and improve the facilities to operate conventional cargo. Considering the above requirements, SLPA has identified to improve Unity Container Terminal (UCT), Prince Vijay Quay (PVQ) and Guide Pier (GP) to operate conventional cargo.

Objectives

1. To enhance facilities to operate conventional cargo in the Port of Colombo
2. To enhance customer satisfaction in domestic cargo operation at the Port of Colombo



Project Components / Activities

- Relocation of existing facilities at the PVQ
- Deepening of berths and improvement to yard facilities
- Construction of warehouses

Summary of the Project

Location	Port of Colombo
Required Land Area	18 ha
Present Situation	Project is in conceptual stage
Project Cost	SLR 8500 (US \$ 59 mn)
Proposed Financing Method	Not identified
Method of Procurement	Not identified
Project Period	2018-2020
Employment/output	Employment : N/A Output : Deep draft berths for conventional cargo operation

Remarks: Feasibility study to be carried out for the project.

4.1.3 – FACILITATING CRUISER LINERS AND YATCHS IN COLOMBO PORT

Cruising has become a major part of the tourism industry. In line with the rapid growth of cruising industry, it is worthwhile to develop recreational facilities in the Port of Colombo to deliver a better contribution for enhancement of tourism. Port of Colombo will require modernized passenger terminal in line with the other development in the tourism sector in the country. SLPA has identified to develop BQ as a passenger terminal to accommodate large cruise ships and to enhance adjacent areas as recreational facilities including a yacht marina. The Project will be implemented in stages.

Objectives

1. To accommodate world class cruises at Port of Colombo
2. To enhance the tourism industry
3. To introduce entertainment feature to the Port of Colombo



Summary of the Project

Location	Port of Colombo
Required Land Area	Phase-1: 6 ha Phase-2: 6.5 ha
Present Situation	Conceptual stage
Project Cost	Phase-1: SLR 4118 mn (US \$ 28 mn) Phase-2: SLR 2882 mn (US \$ 20 mn)
Proposed Financing Method	Private investment
Method of Procurement	BOT
Project Period	Phase-1: 2017 - 2018 Phase-2: 2022-2023
Employment/output	Employment : 100 Output : Cruise terminal having 2 Nos. 400 m long berths, yacht marina and recreational zone in the Port of Colombo

Remarks: The east berth and warehouses are presently occupied for conventional cargo operation and MCC. This proposed development could commence subject to the possibility of relocation of present facilities.

Project Components / Activities

Phase-1

- Deepening of the west berth of BQ
- Establishment of temporary buffer wall
- Development of passenger terminal facilities and supporting infrastructure
- Improvements to the finger jetties to accommodate yachts
- Development of recreational facilities for users

Phase-2

- Deepening of the east berth of BQ
- Relocation of existing warehousing facilities
- Improvements to passenger terminal facilities and supporting infrastructure
- Improvements to the recreational facilities for users

4.1.4 – ESTABLISHMENT OF LOGISTIC CORRIDOR IN COLOMBO PORT

Port of Colombo handles a combination of domestic and transshipment container cargo. Transshipment has accounted for around 75% of Colombo's total container traffic. Whilst there is almost no effective competition for domestic cargo, Colombo competes with an extensive range of major hub ports to handle transshipment traffic. SLPA has developed massive port infrastructure to handle this transshipment cargo which is heavily depends on global financial and trading position. Therefore, SLPA intends to create opportunity for logistics and cargo value added services to increase its domestic cargo handling and thereby to minimize the risk of loss of transshipment market.

Expansion of cargo operation and logistics in Port of Colombo have been restricted due to limited land availability for port business. In global context, a sufficient land have been utilized next to the main commercial ports for logistic business to harvest its maximum benefit to the country. SLPA has identified that allocation of approximately 200 ha of land close to the Port of Colombo for logistic function is essential. Considering the potential requirement, SLPA will establish logistics and cargo value added service center in SLPA owned land adjacent to Port Access Road until intervention of Government to allocate sufficient land for the business.

Objectives

1. To be a logistic hub in the South Asia Region



Summary of the Project	
Location	Adjacent to Port of Colombo
Required Land Area	Phase-1: 10 ha Phase-2: 200 ha
Present Situation	Conceptual stage
Project Cost	Phase-1: SLR 5800 mn (US \$ 40 mn) Phase-2: SLR 2000 mn (US \$ 14 mn)
Proposed Financing Method	Public-private partnership
Method of Procurement	Public-private partnership basis
Project Period	Phase-1: 2016 – 2017 Phase-2: 2018 - 2025
Employment/output	Employment : 1500 Output: Well-planned logistic corridor.

Remarks: With implementation of this project traffic congestion due to cargo transportation will be minimized. Government intervention is essential for the implementation of this project.

Project Components / Activities

Phase-1:

- o Relocation of the existing SLPA quarters
- o Construction of warehouses
- o Development of custom inspection facilities
- o Shifting of the Port Gate No. 6
- o Calling proposals for investments on logistic business

Project Components / Activities

Phase-2:

- o Development of facilities for expansion of the logistic and cargo value added service business
- o Calling proposals for investments on logistic business

4.1.5 – DEVELOPMENT OF WEST CONTAINER TERMINAL (WCT-1) OF COLOMBO HARBOUR

Container throughput forecast will reach 12 million TEUs by 2030 as per the present studies of SLPA. With the saturation of the container handling capacity of Port of Colombo, SLPA will require to develop an additional deep draft container terminals by that time. The project will create a terminal with the capacity of 2.4 million TEUs per annum having 1.2 km deep draft berths and 50 ha of container stacking yard.

Objectives

1. To enhance the hub-status of the Port of Colombo



Summary of the Project

Location	Port of Colombo
Required Land Area	60 ha
Present Situation	Feasibility study and EIA has been completed
Project Cost	SLR 85,000 mn (US \$ 586 mn)
Proposed Financing Method	Public-private partnership
Method of Procurement	BOT
Project Period	2020 - 2025
Employment/output	Employment : 150 Output: Increase the container handling capacity by 2.4 million TEUs

Remarks:

Breakwater and the harbour basin to facilitate the terminal operation has already been constructed.

Project Components / Activities

- o Selection of a suitable operator
- o Construction of quay walls, terminal and associated facilities
- o Procurement of container handling equipment

4.1.6 – EXTENSION OF COLOMBO PORT EXPANSION PROJECT BREAKWATER AND DEVELOPMENT OF WEST CONTAINER TERMINAL 2

Accordance with the container forecast, Port of Colombo will reach its container handling to 19 million TEUs in year 2040. This will lead to need of implementation of Colombo Port Expansion Project Phase 2.

Objectives

1. To enhance the hub-status of the Port of Colombo



Summary of the Project

Location	Port of Colombo
Required Land Area	60 ha
Present Situation	Feasibility study and EIA completed.
Project Cost	Stage-1: SLR 28750 mn (US \$ 198 mn) Stage-2: SLR 86250 mn (US \$ 595 mn)
Proposed Financing Method	Stage-1: Loan Stage-2: Public-private partnership
Method of Procurement	Stage-1: ICB Stage-2: BOT
Project Period	2033-2035
Employment/output	Employment : 150 Output: Increase the container handling capacity by 2.4 million TEUs

Project Components / Activities

Stage-1

- Extension of CPEP breakwater
- Removal of part of the existing breakwater and dredging up to required depths

Stage-2

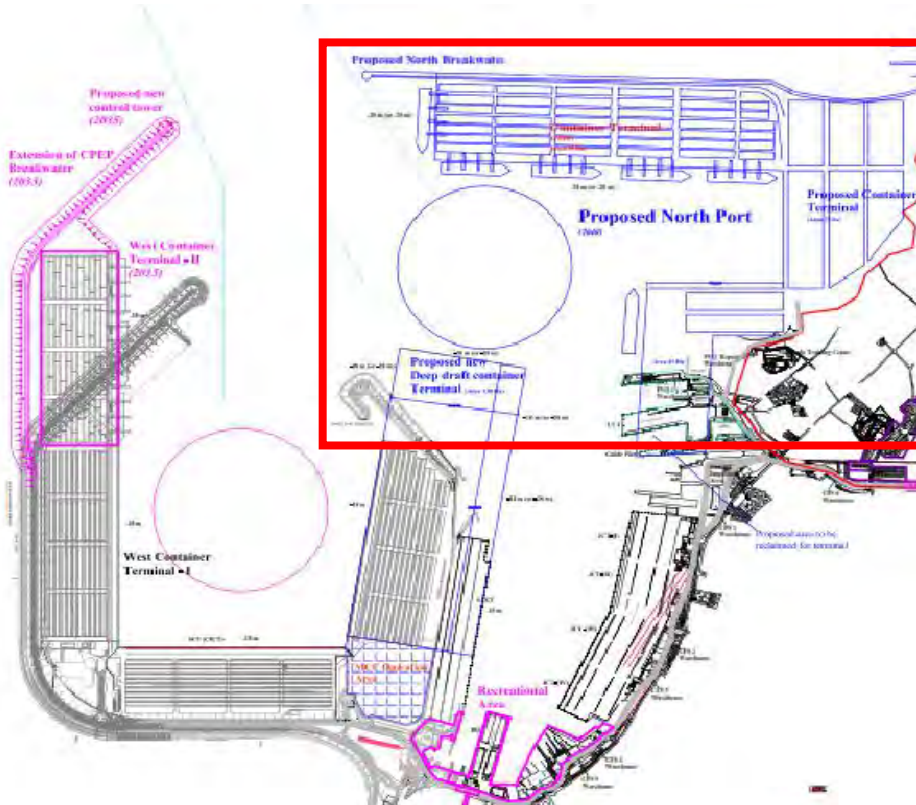
- Selection of suitable operator for WCT-2
- Construction of terminal

4.1.7 – NORTH PORT DEVELOPMENT PROJECT

Beyond the demand that can be accommodated with in the Colombo South Port and the perennial port, SLPA will require to extend its developments towards north side of the port. Proposed New North Port development has been identified as the ultimate port development plan at the Port of Colombo, which will create more deep draft container terminals, conventional cargo handling facilities and other essential port facilities.

Objectives

1. To become leading hub port in the South Asian region
2. To enhance the conventional cargo handling facility



Summary of the Project

Location	Port of Colombo
Required Land Area	250 ha
Present Situation	A conceptual study completed.
Project Cost	Stage-1: SLR 43043 mn(US \$ 297 mn) Stage-2: SLR 286957 mn(US \$ 1979 mn)
Proposed Financing Method	Stage-1: Loan Stage-2: Public-private partnership
Method of Procurement	Stage-1: ICB Stage-2: BOT
Project Period	2040-2050
Employment/output	Employment : Not estimated Output: Not estimated

Remarks: Implementation of the project entirely depends on the growth of container demand of Port of Colombo and saturation of Colombo South Port. A comprehensive EIA study to be done due to sensitive nature of the project environment.

Project Components / Activities

Stage-1

- o Construction of Breakwater and common user facilities

Stage-2

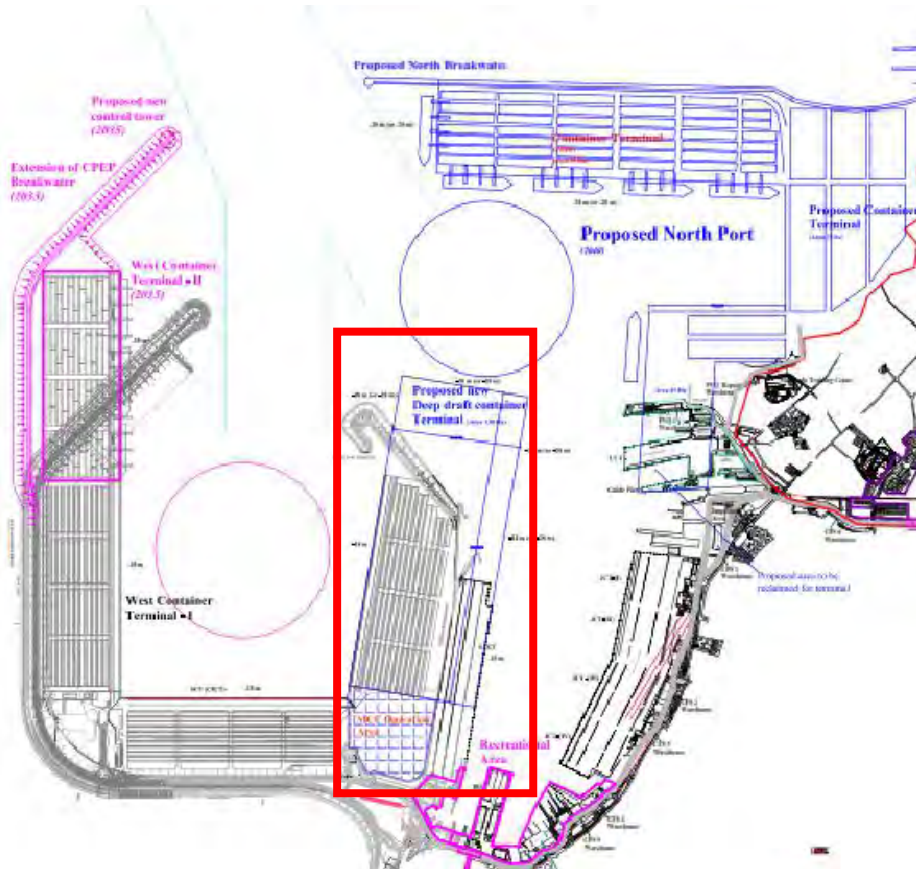
- o Selection of suitable terminal operator
- o Construction of the quay walls, terminal and other associated facilities
- o Dredging of harbour basin
- o Procurement of cargo handling equipment

4.1.8 – EXTENSION OF ECT AND SAGT AS COMBINED BACK TO BACK TERMINAL

With the introduction of North Port, opportunity will be created to extend the ECT and SAGT and operate as a combined back to back main-feeder container terminal. This project will enhance the capacity and productivity of two terminals. Further, an area of 15 ha adjacent to the terminals will be developed for Multi-Country Consolidation (MCC) operations.

Objectives

1. To improve the container handling capacity and productivity of Port of Colombo.



Summary of the Project

Location	Port of Colombo
Required Land Area	130 ha
Present Situation	Conceptual stage
Project Cost	SLR 70000 mn (US \$ 483 mn)
Proposed Financing Method	Public-private partnership
Method of Procurement	Not identified
Project Period	2045-2050
Employment/output	Employment : Not estimated Output: Not estimated

Remarks:

This project is feasible only after implementation of North Port Development Project. Feasibility study to be carried out.

Project Activities

- Removal of North-west Island Breakwater
- Extension of ECT and SAGT
- Procurement of container handling equipment for the extension
- Establishment of MCC operation area

4.1.9 – ESTABLISHMENT OF CARGO VILLAGE

The Port of Colombo, owing to its close geographic proximity to major arterial global East–West shipping lane and, its centric position to the greater Indian Sub-Continent and adjacent markets, enjoys a unique strategic advantage. Massive population and existing medium level labour cost create good opportunity for Sri Lanka to take a major part of logistic business in the region with the location advantage of the Port of Colombo. Even though the country left behind the technology level of the world, this could be improved during the performance of the business. Therefore, in addition to the proposed logistic corridor of 200 ha in the Mattakkuliya area, it is worthwhile to establish a cargo village of about 2000 ha in suitable location close to the Port of Colombo with necessary transportation access and infrastructure facilities.

This project to be implemented in stages with the growing demand for the business. Required land to be allocated by the Government of Sri Lanka and necessary road connections and infrastructure will need to be provided by the Government in line with the demand. The proposed land(s) to be connected with Port of Colombo through a dedicated access or expressway link. The cargo village to be operated as a free-trade zone. Land to be offered to investors by calling proposals and appropriate concessions may have to be given to attract more investors. This project will create a good platform to centralized the logistic business thereby reduce production cost and traffic congestion.

Objectives

1. To enhance the logistic hub-status of the country

Project Activities

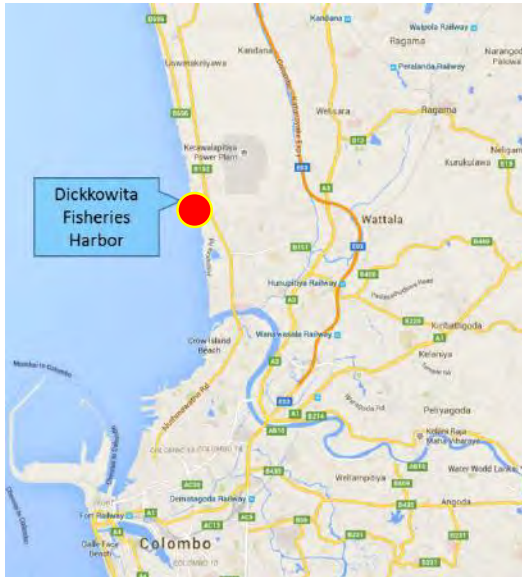
- Identification suitable land(s)
- Identification of business opportunities
- development of infrastructure facilities
- Calling proposals for investments
- Operation, monitoring and development of cargo village

Summary of the Project

Location	Not identified
Required Land Area	2000 ha
Present Situation	Proposal
Project Cost	SLR. 1,000,000 mn (US \$ 6,897 mn)
Proposed Financing Method	Public-private partnership
Method of Procurement	Not identified
Project Period	2020 - 2030
Employment/output	Employment : Not estimated Output: Enhancement of domestic cargo demand and generate income to the country. Reduce production cost and traffic congestion.

Remarks: Only the requirement of development of facilities for logistic business has been revealed by SLPA. Allocation of land(s) and operation of the cargo village to be implemented under the intervention of Government of Sri Lanka.

4.1.10 – ESTABLISHING A MARINA BY CONVERTING SOUTHERN PART OF DICKKOWITA FISHERIES HARBOUR



Objectives

1. To serve niche market in marine tourism
2. Compliment the Negombo tourism development , and encourage further investment in the sector to enhance foreign exchange earnings

Summary of the Project

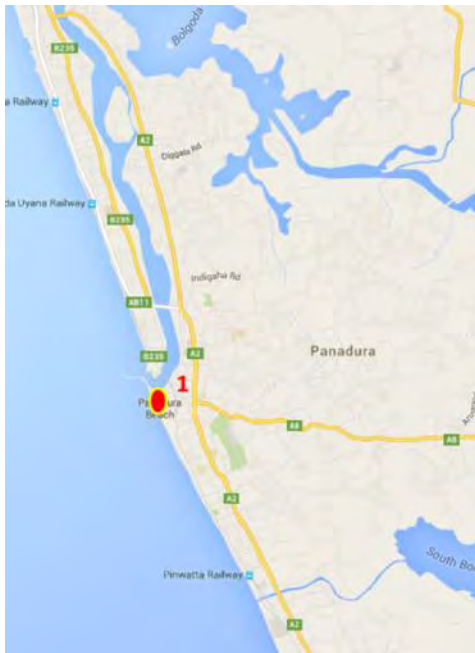
Location	1 Dickkowitz /2 Hadala/3 Wattala
Required Land Area	
Present Situation	Concept Stage
Project Cost	SLR 50 mn (US \$ 0.34 mn)
Proposed Financing Method	Public Private Partnership
Method of Procurement	Open Competitive Bidding
Project Period	Medium term (2016-2020)
Employment/output	Direct indirect 500

Remarks: At present marine based tourism has a large potential in the Asian Region

Project Components / Activities

- Carryout a feasibility study (encompassing technical, commercial, economic and environmental viability and decide on scale of development including phased development
- Develop the other linking facilities for marine development
- Invite for ppp proposals
- Relocation of some of the existing fisheries infrastructure.
- Preparation of a business development plan for the marina
- Implementation of the marina development

4.1.11 – REHABILITATION OF PANADURA FISHERIES HARBOR



Objectives

1. To establish safe and improved accessibility fishery harbor in Panadura.

Summary of the Project

Location	(1) Panadura
Required Land Area	
Present Situation	Conceptual stage
Project Cost	SLR 600 mn (US \$ 4 mn)
Proposed Financing Method	
Method of Procurement	Open Competitive Bidding
Project Period	Medium term (2013 – 2020)
Employment/output	Over 1000 Direct, Indirect

Project Components / Activities

- Coastal Engineering studies to ascertain the causes of siltation and unsafe navigability at the entrance to the channel
- Coastal/ Marine designs for the identified changes to the harbor configuration and feasibility study.
- Undertake IEE/EIA, if required based on the modifications
- Implementation of modifications to the harbor configuration through a construction contract, including dredging

4.1.12 – ESTABLISHMENT OF THE LOGISTIC HUB

As of current Logistic Performance Index (LPI), Sri Lanka stands at 89th position whereas India is at 54th and Pakistan is at 72nd position of in 160 countries. The poor performance is due to many factors such as Customs, infrastructure facilities, number of shipments etc. Considering the specific advantages Sri Lanka has, such as strategic location and access to business opportunities, Sri Lanka should be in a better LPI ranking. Sri Lanka should thrive to become a world class logistic hub (within the top 30 in LPI rankings by 2020) and to achieve that, many policy and structural changes should be pursued. Upgrading the transport infrastructure, simplifying the Customs & clearing formalities, encouraging more logistics businesses, increasing no of warehouses (different types), enhanced BOI facilities for investors are expected to help the efficiency to improve.



Objectives

1. To improve the LPI ranking to be within the first THIRTY (30) in the Logistic Performance Index BY 2020.
2. To be competitive in the region comparing with Singapore & UAE (Dubai).
3. Create value addition facilities for related logistic industries

Remarks: (Benefits to Sri Lanka)

- Integration of Sri Lanka into the global value and supply chain
 - o Transformation of the Sri Lankan economy with more exports
 - o Provision of tens of thousands of jobs
 - o The development of projects according to highest environmental standards
 - o The opportunity for training and development of new careers
 - o Global recognition for Sri Lanka and its products

Project Components / Activities

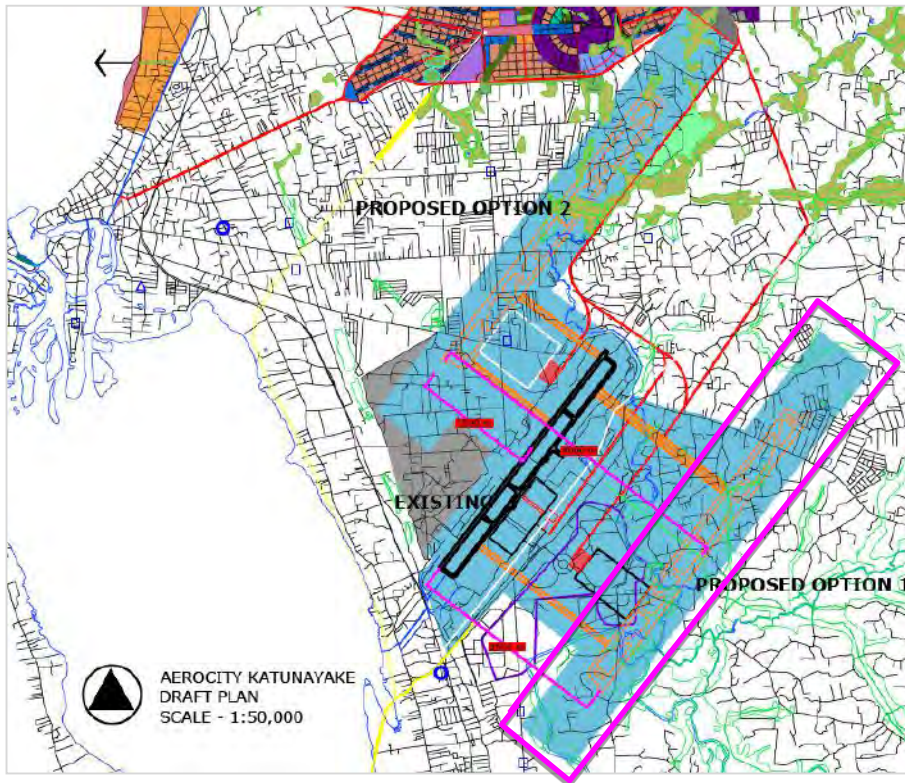
- o The government to enact the provision of gazette notification declaring the corridor between BIA to Port of Colombo as a free Port.
- o Infrastructure development by the Government (I.e. Land acquisition, Road & Rail networks).
- o Industries/businesses related to logistics industries which are already exit in the demarcated area to be included in the project.
- o Tax holiday and other benefits to be given to the foreign companies who intends to invest in this zone.
- o Logistics infrastructure to be provided (I.e. Two way rail network for cargo & passenger to be linked between BIA and Port of Colombo).
- o Major manufacturing and distribution companies with offices and/or warehousing facilities to be set up.
- o **Value-added activities including assembling, processing, packaging, labeling, and finishing, manufacturing and repairing boats and ships i.e. getting goods to completion.**
- o The activities will be supplemented by a wide range of services, typically provided by Micro, Small and Medium size Enterprises (MSMEs), geared

Summary of the Project

Location	Corridor between BIA to port of Colombo.(Peliyagoda, Second Phase : walisara, Katana)
Required Land Area	12,618 hectares; for manufacturing, value additions, warehousing, exports, multi country consolidation, logistic service providers
Present Situation	No logistic hub in operation
Project Cost/Revenue	Government funding is for basic infrastructure development (such as land acquisition, road and rail facilities for cargo transportation private investment- SLR 3,000,000 mn (US \$ 20690 mn) (Approx)
Proposed Financing Method	Government funding –through foreign financial institutions & local financial institutions for infrastructure development. Private investments – approx. US \$ 20690 mn for various projects.
Method of Procurement	Open competitive bidding – local Private investors- long term lease.
Project Period	Medium to long term- 2016 to 2020
Employment/output	More than 100,000

4.1.13 - SECOND RUNNERWAY AND ASSOCIATED INFRASTRUCTURE AT BANDARANAIKE INTERNATIONAL AIRPORT

Katunaye Bandarayanayake International Airport currently functions with a Runner-way and a Terminal. The facilities at present in the BIA can't cater the expected future arrivals. The predicted passenger / tourist number to the BIA will be 30 mn by 2030. As per the predictions and Megapolis goals and economic targets, the need of second Runner-way becomes very vital. The construction of the second runner way has been identified to meet this demand of Megapolis plan. According to the analytical studies project team has identifies two options as demonstrate in the following figure. Out of both, option one recommend for detail designs and feasibilities.



Summary of the Project	
Location	Katana/ Munuangoda (option 1)
Land Area	750 hec
Present Situation	Current Runnerway inadequate to meet the predicted demand
Project Cost	SLR 3,000 mn (US \$ 21 mn)
Proposed Financing Method	Public private partnership
Method of Procurement	Open Competitive
Project Period	Long Term
Employment	More than 10 k

- Objectives**
- To cater the future demand of tourist / Air passenger increase.
 - To facilitate the capacity enhancement.

- Project Components / Activities**
- Preparation of master plan
 - Land acquisition.
 - Resettlement activities.
 - Capacity building
 - Construction of the proposed runway

PROJECTS TO BE PLANNED

	Name of the Project	Cost of the project
4.1.14	PORT RELATED INFRASTRUCTURE DEVELOPMENT (DRY DOCK, FLOATING DOCK, SLIPWAY ,SYNCRO LIFT	SLR 1,800 mn (US \$ 12 mn)
4.1.15	CONSTRUCTION OF DEEP SEA COASTAL FISHING CRAFTS	SLR 250 mn (US \$ 2 mn)
4.1.16	PORT RELATED INDUSTRIES - CHAINS, GENERATORS AND OTHER PORT RELATED EQUIPMENT	SLR 150 mn (US \$ 1.0 mn)
4.1.17	PORT RELATED SHIPPING SERVICES – BUNKERING ETC.	SLR 250 mn (US \$ 2 mn)
4.1.18	SPECIALIST AND SKILLED LABOR TRAINING CENTRE	SLR 250 mn (US \$ 2 mn)
4.1.19	RESEARCH AND DEVELOPMENT, INNOVATION INCUBATORS RELATED TO MARINE SECTORS	SLR 500 mn (US \$ 3.5 mn)
4.1.20	ESTABLISHMENT OF TRANSSHIPMENTS CENTRE	SLR 500 mn (US \$ 3.5 mn)

4.1.21 –BONDED HIGHWAY FOR THE LOGISTICS CORRIDOR

If there is an easy access between Colombo port and Katunayake logistics area, it will attract major investors in the region. Under this project an elevated highway will be constructed connecting Colombo Port to the Katunayake airport parallel to the existing railway line mainly targeting freight transportation. This will serve only the logistics areas which have been identified in the Megapolis Project and the Port.



Objectives

1. Provide direct and easy access between port, airport area and logistics corridor
2. Provide easy transportation of goods between logistics areas and Port

Summary of the Project

Location	Colombo - Katunayake
Required Land Area	To be estimated
Present Situation	Conceptual stage
Project Cost	SLR 100,000 mn (US \$. 690 mn)
Proposed Financing Method	Local / Foreign funding – Consolidated fund
Method of Procurement	Open competitive
Employment	Around 500 direct or indirect employment
Implementation Period	Medium term (2016/2020)

Project Components / Activities

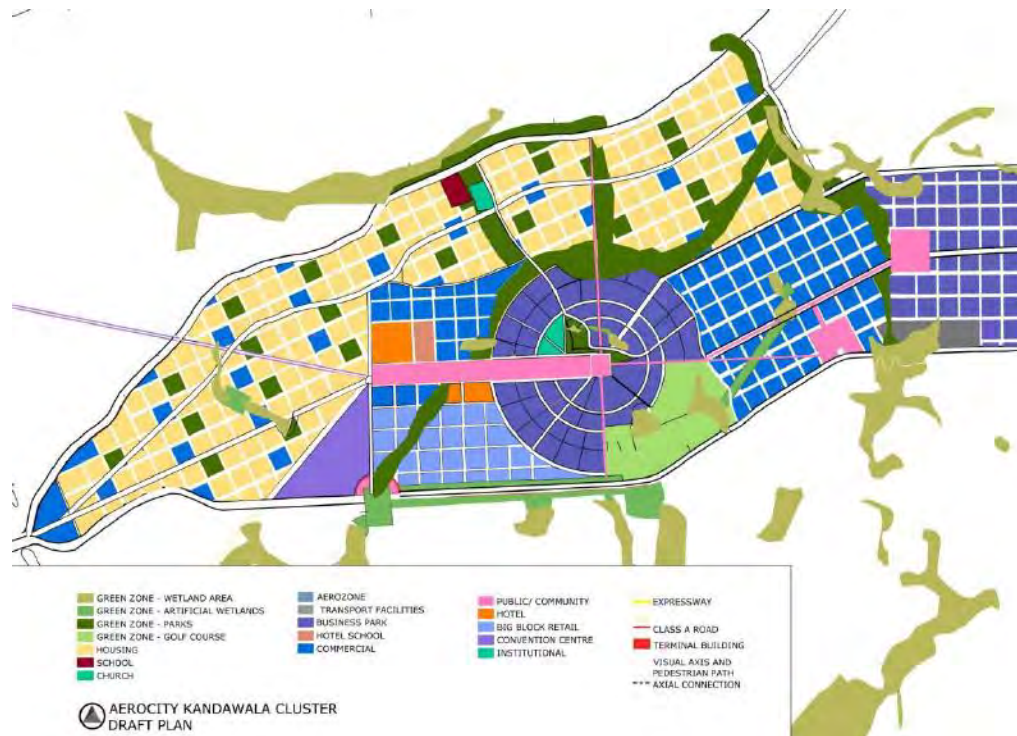
- Carry out the feasibility study
- Detailed designs
- Land acquisition and resettlements if required
- Construction of the bonded highway

4.1.22 - AERO CITY BUSINESS TOWNSHIP DEVELOPMENT PROJECT- KATANA

Due to the growth in tourism where the passenger movement through the BIA is expected to increase several folds, high demand for transit facilities is expected. Passenger arrivals are expected to increase from 7,820,000 2014 to 300,000,000 2030. This necessitates improved airport facilities and expansion to make BIA preferred destination for tourist and transit passengers. Establishment of new businesses and commercial operations related to Airport activities are needed to absorb the increasing demand. The nearest town is Negombo located 5km away is congested and highly populated with many established activities. A new township at Katana located 5km away with all modern urban facilities to meet expected demand is proposed.

Objectives

1. To provide modern urban tourist and transit facilities patronizing the Airport.



Summary of the Project

Location	Kandhawala, Katana
Land Area	630.4 Ha Approx.
Present Situation	Adhoc development
Project Cost	SLR 400,000 mn (US \$. 2759 mn)
Proposed Financing Method	Public and Private Investment
Method of Procurement	Open competitive
Project Period	Long term (2016-2020)
Employment	394,000 (Approx.)

Remarks:

- o Land acquisition to be concluded by the government.
- o Direct rail access to the airport to be provided by the developer.
- o Alternate land use pattern for the township may be entertained.

Project Components / Activities

- o Establish transit hotels with sufficient accommodation.
- o Business park
- o Commercial and big block retail establishments
- o Recreational areas including golf course, public spaces and community parks.
- o Regeneration of residential area as an improved housing development.
- o Residential areas comprising luxury villas, apartments and staff quarters. (This is detailed in Housing section in same document)
- o Infrastructure provision (road network, electricity, water supply lines, sewerage and drainage, etc.)

4.1.23 - COLOMBO BUSINESS DISTRICT (CBD) MIXED DEVELOPMENT PROJECT

CBD that includes Pettah and Fort area is mainly confined to business activities such as wholesale trading, port related business and financial transactions. It also serves as the node for rail and road transportation where almost all long distant buses and trains start and terminate journeys. As a result the area is patronized by thousands of daily visitors. Except for few high rise buildings such as World Trade Centre and few hotels the area consists of old dilapidated buildings which are average 2-4 stories in areas which are of high commercial value but remain underutilized, Area regeneration is required to harness the maximum economic benefit of the land. The Project is to develop the area with more economic sense, and make use of the port that will continue to be the main economic driver of the entire region to promote more employment and revenue generating activities, without compromising on the environmental and social sustainability, ensuring optimum utilization of highly valued commercial properties of the CBD Zone.



Summary of the Project	
Location	CBD
Land Area	500 Ha Approx
Present Situation	Adhoc development
Project Cost	SLR 1,000,000 mn (US \$. 6897 mn) without Multi-modal transport hub at Fort
Proposed Financing Method	Public and Private Investment
Method of Procurement	Open Competitive
Project Period	Six Years (Long Term)
Employment (Estimated)	150,000

Objectives

1. Position Colombo as Asia's new 'Global City.'
2. To redevelop Downtown Colombo's Beira Lake precinct as a high-end regional business hub
3. Restore and revitalize the Colombo Fort Heritage District & the Pettah Bazaar District, areas with a character unique to Colombo.
4. To serve CBD with world class transport system.
5. To position Colombo as a cruise travel destination.
6. To develop the Port City as an extension of the CBD

Remarks:

- o Most lands that belong to the state agencies will be released for initial development while the acquisition for redevelopment will follow the initial phase. Worldwide tenders will be called for redevelopment of the fort area to highest international standards.
- o Interested developers may seek to package the project components in appropriate way to make the projects commercially viable and attractive.

Project Components / Activities

- o Multi-modal transport hub at Fort (Detail in Transport Sector projects)
- o Construction of High Rise Commercial Buildings to accommodate businesses (front offices, auction houses etc. eg. Tea, gem, processed food etc.)
- o Business and Financial hub in the Beira Lake surrounding.
- o Construction of Middle Income Housing Units
- o Marina and water front commercial development around Beira Lake
- o Landscaping and Public Open Areas with restaurants and entertainment facilities.
- o Develop Fort as tourism related commercial zone while preserving its historical sites.

4.2 – COASTAL AND MARINE

4.2.1 – FORMATION OF RECREATIONAL BEACH AREA ALONG THE SHORELINE SOUTH OF COLOMBO (IN THE FORM OF PERCHED BEACHES)



Objectives

1. To enhance amenity value to the public, for recreational activities.
2. To improve aesthetic value of the coastal stretch (which otherwise confined with buildings and other commercial structures)
3. To provide a soft coastal protection measure (reclaimed beaches)

Summary of the Project

Location	Galleface southward (Colpitty, Bambalapitiya, Wellawatte, Dehiwala (upto the drainage canal outlet). This could further extended in a later stage to Rathmalana, Moratuwa, Korawella, and Egodayana) areas, depending on the demand for such beaches. Sub division of each stretch into locations need to be prioritized.
Required Land Area	8 km of coastal stretch
Present Situation	Conceptual stage
Project Cost	SLR 3,500 mn (US \$ 24 mn)
Proposed Financing Method	Local Funds / Public Private Partnership
Method of Procurement	Open Competitive Bidding
Project Period	Medium Term
Employment/output	3000 to 5000 Direct /Indirect

Project Components / Activities

- Demarcate the exact area to be replenish of length of the shoreline
- Sand exploration study to identify quality and quantity of offshore sand required for the reclamation and conduct Project Feasibility Study
- Undertake Environment Assessment of the proposed activities, and identify any social, ecological, physical, and environment impacts. Find mitigation measures and built them into the detailed design
- Carryout coastal and marine designs for perched beaches, including all required marine surveys and investigations
- Implement the reclamation and forming perched beaches
- Improve the beach access through overhead bridges at suitable locations
- Monitor the performance of the new beaches (coastal stability point of view), and lessons learned to be incorporated in the subsequent phases of beach development

**INDUSTRIAL AND TOURIST CITIES-
MEERIGAMA, HORANA, NEGOMBO,
ALUTHGAMA**

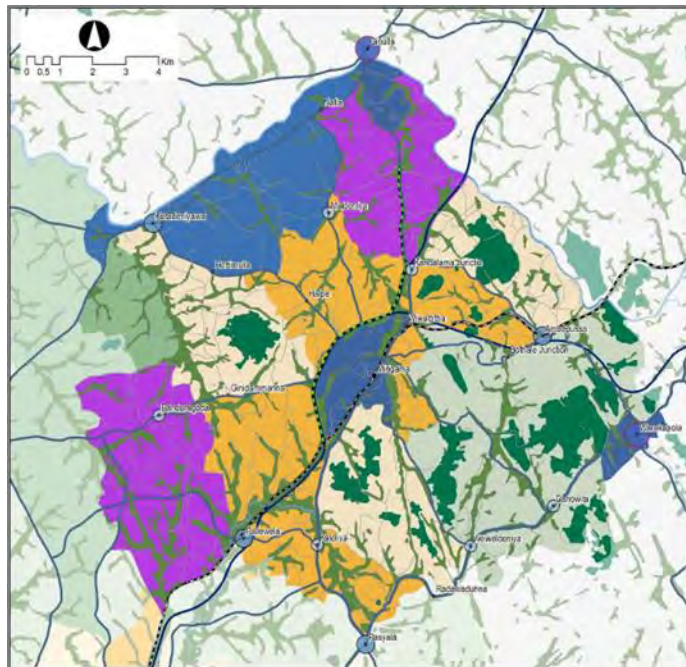
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05 –INDUSTRIAL AND TOURIST CITIES-MEERIGAMA, HORANA, NEGOMBO, ALUTHGAMA

5.1 INDUSTRIAL ESTABLISHMENTS

5.1.1- MIRIGAMA INDUSTRIAL TOWNSHIP DEVELOPMENT PROJECT

Currently Mirigama town performs multiple middle/lower order functions to a small agricultural hinterland and to the underutilized Industrial estate. The Town has been selected for upgrading as a self-contained Township in the periphery in order to reduce spatial and income inequalities in the Megapolis. The town will be the Northern Gateway transport hub, as the entry point to northern, eastern and central provinces of the country. This also will be connected directly with the proposed Airport City and Colombo through the upgraded road and rail network. The Township project aims to provide social infrastructure; affordable housing for low, middle and high income groups and modern industrial infrastructure that would attract investment, industries and other economic activities.



Objectives

1. To facilitate development of high value added, technology based industries, agro base products and aviation industry related products by providing modern industrial and other infrastructure and utility services,
2. To induce commercial activities in and around the township.
3. To make it a preferred township for living with state of urban facilities, including housing, transport and other amenities.

Summary of the Project

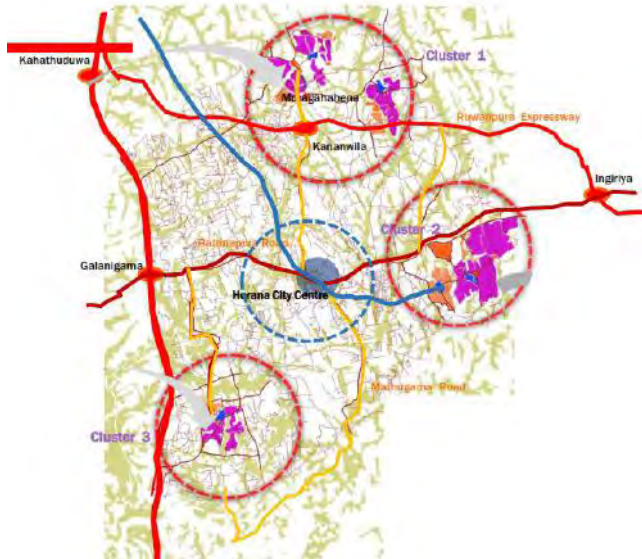
Location	Mirigama DSD, Divulapitiya DSD
Required Land Area	18,389 Ha (Approx.)
Present Situation	Underdeveloped Urban and Industrial Infrastructure
Project Cost	SLR 1,535,000 mn (US \$ 10,586 mn)
Proposed Financing Method	Public and Private Investment
Method of Procurement	Open Competitive
Project Period	Long Term
Employment	110k (Estimated)

Project Components

- o Develop two specialized large-scale industrial clusters.
- o Use existing wetlands and forest areas as green buffers for industrial development.
- o Develop Logistics Hub with multimodal access.
- o Expand the existing town center to cater the future demand.
- o Develop Multimodal Transport Hub.
- o Preserve Environmentally Sensitive Areas through regulation.

5.1.2- HORANA INDUSTRIAL TOWNSHIP DEVELOPMENT PROJECT

Horana is a middle order town, which caters to the agricultural hinterland and 5 industrial clusters. It is a major transport hub connecting the Western coastal area with the Sabaragamuwa and Uva Provinces. The current land use pattern is dominated by coconut, rubber and paddy lands (51%). Under the WRMP, Horana town will be developed into a self-contained compact industrial township for production of high value added, innovative products based on regional resources, with social infrastructure; affordable housing for low, middle and high income groups and modern industrial infrastructure that would attract investment, industries and other economic activities.



Objectives

1. To facilitate transforming of industries to high value added, innovative industries, utilizing regional resources.
2. To induce commercial activities in and around the township.
3. To make it a preferred township for living with state of urban facilities, including housing, transport and other amenities.

Summary of the Project

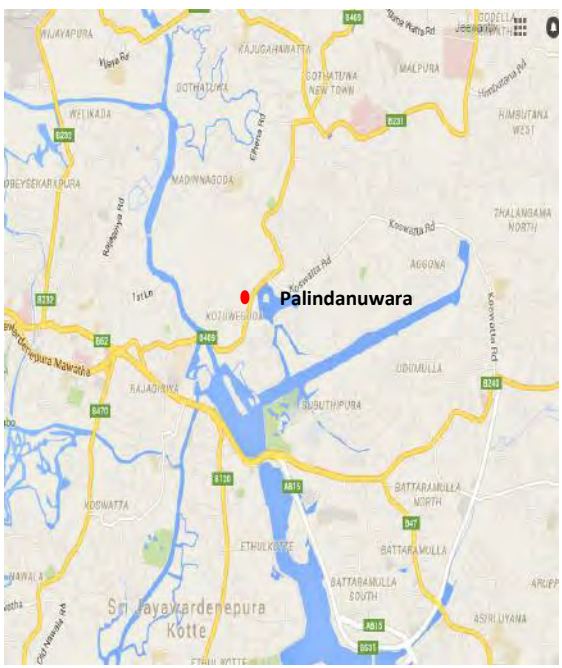
Location	Horana City Centre,
Required Land Area	1340 hec.
Present Situation	Underdeveloped Urban and Industrial Infrastructure. Predominantly agricultural land uses
Project Cost	SLR 1,535,000 mn (US \$ 10,586 mn)
Proposed Financing Method	Public and Private Investment
Method of Procurement	Open Competitive
Project Period	Long Term
Employment	150k (Estimated)

Project Components / Activities

- o Develop three specialized large scale industrial clusters (Moragahahena/Millewa, Poruwadanda, Milleniya – size 1340 Hectares with industrial infrastructure, housing units and logistics hubs.
- o Connectivity through E 01 Expressway, Proposed Ruwanpura Expressway, Proposed Rail link via Kottawa.
- o Use existing wetlands, rubber and forest areas as green buffers between industrial clusters and other built up areas.
- o Develop and expand the Horana town center
- o Preserve environmentally sensitive areas through regulation.

5.1.3 - ESTABLISHMENT OF BAMBOO PRODUCTS TRAINING & SERVICES CENTRE AT PALINDANUWARA IN KALUTARA DISTRICT

Bamboo as material is considered as one of the most dynamic and flexible material suitable for manufacture of several types of products. As a renewable source bamboo products may be considered as eco-friendly. Therefore, there are immense opportunities for future growth of bamboo sector. This sector is not yet developed as an industry in the country to its best potential. Unlike other crafts the bamboo craft persons are not organized and the organized marketing effort has not been formed in respect of bamboo products in the country. Therefore, neither they are in a position to exercise their right nor they are in a position to form organizations to promote common facilities to them. Therefore, IDB hopes to initiate this project by setting up of training centre as the primemode of intervention.

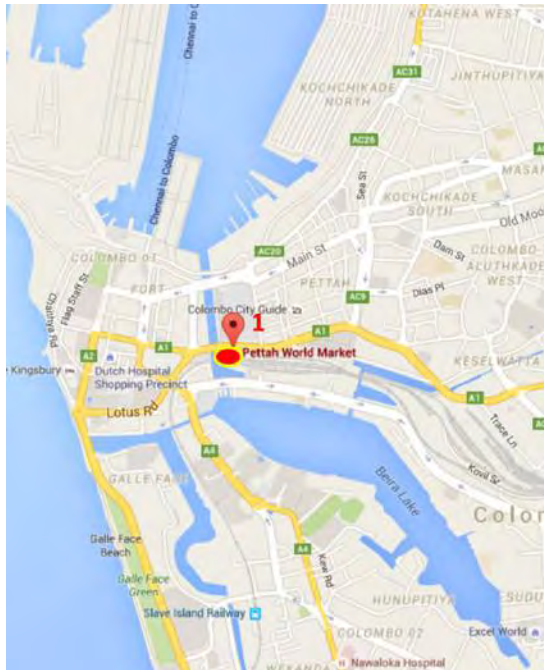


- Objective**
1. To develop a sustainable bamboo resource base in Sri Lanka
 2. To facilitate the establishment of market tie ups, both local and external
 3. To provide livelihood generation identified beneficiaries
 4. To introduced bamboo based products intern resulting improved utilization of local resource
 5. To analyse policy and make relevant recommendations

Summary of the Project	
Location	Palindanuwara
Land Area	10 Acres
Present Situation	Concept
Project Cost	SLR 20mn (US \$ 0.14mn)
Proposed Financing Method	Public Sector
Method of Procurement	Open Competitive
Project Period	Medium term, (2016-2020)
Employment	5000 Direct and indirect employment /75000 Housing units

- Project Components / Activities**
- o Identify, undertake, coordinate and support strategic activities pertaining to Bamboo based industry in Sri Lanka
 - o Transfer of appropriate technology to the community
 - o Introducing the use of new and appropriate machinery and equipment for improved productivity
 - o Training and Capacity building programs to build individual and institutional capacity
 - o Workshops for dissemination and exchange of technology and technical knowledge related to sustainable bamboo-based industry

5.1.4-ESTABLISHMENT OF A MARKETING HUB IN THE WESTERN PROVINCE



Objective

1. To increase marketing opportunities for SMEs.
2. To make publicity for SMEs products.
3. To create a link between buyer & seller.
4. To initiate sub-contracting process between medium scale manufacturer & supplier of semi-finished products.
5. Facilitate export marketing opportunities.
6. Establish a data base regarding SME's products of each district in the Western province.
7. Improve the quality and standards of products in Sri Lanka which are competitive with internationally known brands.

Summary of the Project

Location	Laknipaum Centre, Industrial Development Board, World market, Fort
Land Area	About 100 Hectares
Present Situation	SMEs have faced problems in selling their products for local & export market
Project Cost	SLR 20 mn (US \$ 0.14 mn)
Proposed Financing Method	Public Sector
Method of Procurement	Open competitive bidding
Project Period	Short Term
Employment	Direct - 100 Indirect - 5000

Project Components / Activities

- Gathering Information
- through AGA offices in each district
- Renovation of an existing building & furniture (Annex I)
- Publicity With digital boards for SMEs products Implementation
- Monitoring & follow up by relevant authorities

5.1.5 –ESTABLISHMENT OF INDUSTRIAL PARKS (KATANA, GAMPAHA, ATTANAGALLA, MAHARA, DOMPE, HANWELLA, PADUKKA, HOMAGAMA, INGIRIYA, BULATHSIGNHALA, MATHUGAMA)

Cost of infrastructure, on water, power, roadways and waste disposal systems is a factor effects the cost of products and services and Industrial Parks contribute to reduce the costs on products and services and as a result to gain the market. Further different types of SMEs are scattered in Western Region even in residential areas without any proper plan which leads to environmental problems in most cases. Time has reached to locate SMEs in industrial parks with adequate facilities. Industrial Parks Programme is a solution to overcome this situation and suggested to establish industrial parks close to identified commercial centers.



Objectives

1. To adhere to rules and regulations easily as environmental solutions such as waste disposal systems available.
2. Improvement of productivity through enhancement of infrastructure facilities.
3. To establish 11 SME industrial parks

Summary of the Project	
Location	Katana, Gampaha, Attanagalla, Mahara, Dompe, Hanwella, Padukka, Homagama, Ingiriya, Bulathsinhala, Mathugama
Required Land Area	10 Acres
Present Situation	Different types of SMEs are scattered in Western Region even in residential areas without any proper plan which leads to environmental problems in most cases
Project Cost	SLR 20,000 mn(US \$ 138 mn)
Proposed Financing Method	Public private sector
Method of Procurement	Open competitive bidding
Employment	Employment creation will be nearly 10,000 during the first five years period
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- o Land allocation done at the planning stage
- o Designing of industrial parks
- o Surveying and sub divisional approvals
- o Provide infrastructure facilities to the parks
- o EOI for development of parks
- o Selection of investors

5.1.6 –ESTABLISHMENT OF BUSINESS DEVELOPMENT CENTERS

To improve the competitiveness of SMEs in the Western Region in an effective and efficient way of implementation.



Objectives

1. To establish 5 Business Development Centers
2. To establish and expansion of 1000 SMEs in first 5 years
3. To create 6000 (approximately) jobs in first 5 years.
4. To create indirect employment opportunities
5. To create value addition for the products
6. To contribute to increase national income.

Summary of the Project

Location	Homagama, Mirigama, Gampaha, Horana, Kalutara
Required Land Area	5 Acre
Present Situation	Policy and Concept
Project Cost	SLR 20 mn (US \$ 0.14mn)
Proposed Financing Method	Public Private partnership (PPP)
Method of Procurement	Open competitive bidding
Employment	6000 Direct and indirect employment
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Create awareness on GMP certification and Funding Scheme
- Selection of industries for GMP certification based on pre-set eligibility criteria (Pre-assessment)
- Need assessment and fund release
- Project Monitoring and Evaluation until GMP certification and thereafter.

5.1.7 -PROMOTE VALUE ADDED AGRICULTURE AND AGRO BASED INDUSTRIES.

At present the quality and quantity of agricultural products such as paddy, vegetables and other tree crops are not in the maximum level. The value additions of these projects are at sub optimal level. In order to gain a competitive advantage over our competitors, value addition, reduce food imports and improve the quality and quantity of agricultural products developing agricultural and agro base industries are required.



Objective

1. To promote value added agro based industries.
2. To improve quality and quantity of agricultural products.
3. To promote use of organic fertilizers in agricultural crops.

Summary of the Project	
Location	Gampaha, Attanagalla, Kirindiwela, Malwana, Pugoda
Land Area	20 Acres
Present Situation	The quality and quantity of agricultural products are sub-optimal level
Project Cost	SLR 2000 mn (US \$ 14 mn)
Proposed Financing Method	Private Sector (Local/ foreign)
Method of Procurement	Open competitive bidding
Project Period	Long term (2016-2022)
Employment	Direct - 2000 indirect – 10,000

Project Activities

- Value chain analysis (VCA) for value enhancement in the supply chain and efficiency management.
- Establish Fruit corridors and Orchards and provide extension services and other requirements, in consultation with Fruit Crops Research and Development Centre, disseminate technologies in collaboration with state and private sector extension organizations.
- Encourage Organic Farming.
- Establish Food Parks for food processing (pulping and processing, oil extraction), paddy, coconut, cashew nut, herbs, and spices based on local raw materials.
- Formalize the prepared-food market.

5.1.8 – IDENTIFICATION OF INDUSTRIAL PARKS FOR HIGH POLLUTING INDUSTRIES AND THE SME SECTOR

At the present haphazard siting of industries is causing a major issue in the Western Province. This issue is caused due to siting of high polluting industries outside of industrial zones thereby resulting in pollution of air, water, major nuisance and health hazards to neighboring residents. There are many stand-alone industries as well as industrial estates with high polluting industries located directly above water intake points such as Ambatale. In addition there are many highly hazardous industries such as Asbestos industries and other chemical industries operating in highly residential areas and even near schools thereby posing a major human health threat. Some of these high polluting industries are discharging highly polluting wastewater into rivers such as Kelani and Kalu which are being used as drinking water sources to the population in the Western Province.

Objectives

1. Relocation of high polluting industries presently operating in unsuitable locations
2. To minimize ecological and human health issues arising from the operation of high polluting industries

Project Components / Activities

- Survey/estimate of the number of new high polluting as well as SME sector industries to be accommodated within the industrial estates.
- Survey of the number of both high polluting as well as SME and cottage industries presently operating in unsuitable locations to be relocated within industrial estates.
- Identification of suitable sites for high polluting sector of industries as well as for SME's and cottage industries at Divisional Secretariat level with adequate stakeholder participation
- Setting up of the industrial sites with all required facilities such as waste treatment facilities for industrial estates identified for high polluting sector of industries.
- Setting up of environmental monitoring units with fully equipped laboratories and qualified personnel for environmental monitoring.

Summary of the Project

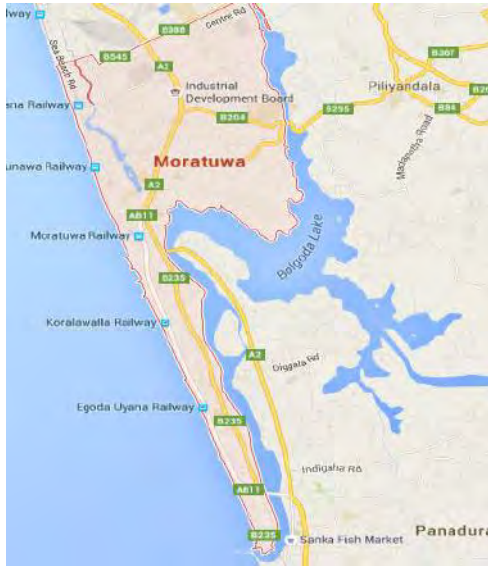
Location	locations require to be identified through the project
Required Land Area	
Present Situation	
Project Cost	SLR 1000 mn (US \$ 7 mn)
Proposed Financing Method	Local Funds (treasury)
Method of Procurement	Open competitive
Project Period	Short Term
Employment/output	

Remarks: The siting of the industrial estates should be undertaken after assessing the quality of the receiving environment and after adequate consultation with surrounding communities.

Space within these industrial estates should be provided to small and medium scale industrialists free of charge or at a nominal rate as a means of facilitating the small and medium scale industries.

5.1.9 - ESTABLISH WOOD CRAFT AND FURNITURE INDUSTRY CLUSTER

To promote craft industry clusters in which the industries can compete globally to widen the narrow industry base and move up the value chain with higher value addition. Traditionally, Moratuwa has been renowned as the centre of the furniture industry in Sri Lanka. The production of semi- finished, finished and allied activities had provide a livelihood to members of 10,000 families and indirectly to timber and finished products transporters.



Objective

1. To Develop craft industry and diversified the industry
2. To introduce new designs for the domestic market
3. To utilize local raw materials – and conventional knowledge
4. To develop Marketing & Promotion services
5. To create direct and indirect benefits to craftsmen and creating new employment opportunities

Summary of the Project

Location	Moratuwa
Land Area	
Present Situation	Moratuwa is predominately developed as a Carpentry works
Project Cost	SLR. 500 mn (US \$ 3.5 mn)
Proposed Financing Method	Public private partnership / FDI
Method of Procurement	Open competitive bidding
Project Period	3 years (Short term)
Employment	

Project Activities

- o Establish contacts with leading craft industries and institutions for collaboration
- o Establish Marketing & Promotion services

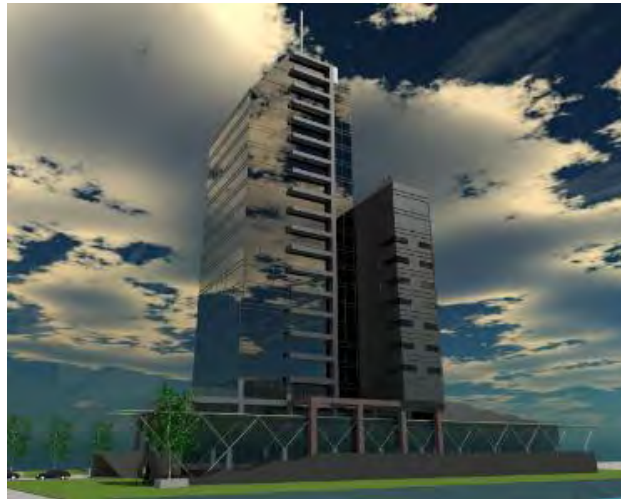


5.1.10 – CONSTRUCTION OF SHIPPING AND MARITIME CENTER BUILDING

SLPA has planned to construct a Shipping and Maritime Center to house SLPA staff and port related other organizations under a single roof not only to enhance the efficiency of the port service but also to get released land space to container handling activities inside the Port of Colombo. This development will also help to improve the image of the Port of Colombo whilst offering energy efficient, well secured and purpose built administrative complex gearing up for meeting future demands. This building will be constructed on Canal yard land owned by SLPA.

Objectives

1. To provide integrated customer service



Summary of the Project

Location	Port of Colombo
Required Land Area	1 ha
Present Situation	Approval stage for calling proposals
Project Cost	SLR 8500 mn (US \$ 59 mn)
Proposed Financing Method	Private investment
Method of Procurement	Public-private partnership basis
Project Period	2018-2020
Employment/output	Employment : N/A Output: Integrated customer service for port and port related customers.

Remarks: SLPA expect to secure a developer to construct building on SLPA land. Part of the building is to be allocated to SLPA Maritime center and balance part could be used by the developer for the recovery of investment.

Project Components / Activities

- o Selection of suitable investor/developer in line with Government procurement guidelines
- o Construction of building

5.1.11	CONSTRUCTION OF MULTIPURPOSE CRAFTS	SLR 300 mn (US \$ 2.0 mn)
5.1.12	CONSTRUCTION OF MARITIME DEFENSE CRAFTS	SLR 1,000 mn (US \$ 7.0 mn)

5.1.13 – COMMERCIAL EXTRACTION OF OFFSHORE SAND FOR ECONOMIC DEVELOPMENT

Sri Lanka does not have adequate sand deposits to meet the anticipated sand requirement for construction and land reclamation. The limited sand deposits available need to be managed. Off shore sand can be used for reclamation and for limited construction purposes. To meet this requirement, off shore sand should be extracted and made available for local construction industries.



Objectives

1. To create sand reserves to meet the requirements of local construction industries
2. To utilize untapped natural resources efficiently and effectively
3. To reduce the construction cost by supplying for the local market

Summary of the Project

Location	Panadura to Chilaw offshore marine area
Required Land Area	N/A
Present Situation	
Project Cost /Revenue	SLR 500 mn (US \$ mn 3)
Proposed Financing Method	Private Public Partnership
Method of Procurement	
Project Period	
Employment/output	

Remarks: Initial exploration studies have been completed and locations are mapped. Reserved estimates are to be worked out by the investor before commercial extractions are to be permitted.

- Exploration to be carried out under the guidance of GSMB
- Obtain mining license from GSMB
- Mining to be done under the supervision of GSMB

Project Components / Activities

- Identify the area and apply for licenses from the Geological Survey and Mines Bureau (GSMB).
- Identify suitable arrangements for stock piling.

5.1.14 - TYRE FACTORY GONAPOLA, HORANA

Establishment of new Radial Tyre Manufacturing Plant in Gonapola enabling to attract more foreign exchange and new technical knowledge to the country. It will be a vast opportunity to make value addition to the natural rubber production in the country.

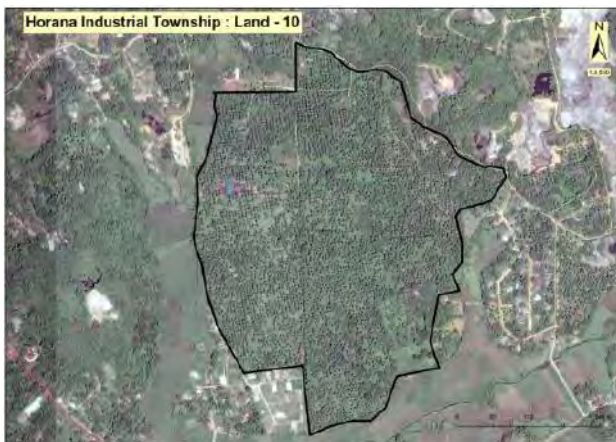


Objectives

1. To Enhanced foreign exchange earnings
2. To create value addition to the natural rubber
3. To create new employment opportunities
4. To encourage further investment in the sector
5. To encourage human resource development through establishing research development department & technical knowledge transfer among the countries

Summary of the Project

Location	Gonapola (Horana)
Required Land Area	42.62 Ha. (105 Acres)
Present Situation	
Project Cost	SLR 10,870 mn (US \$ 75 mn)
Proposed Financing Method	Private Investment
Employment	Direct- 1200, Indirect-2500
Implementation Period	Medium term (2016/2020)



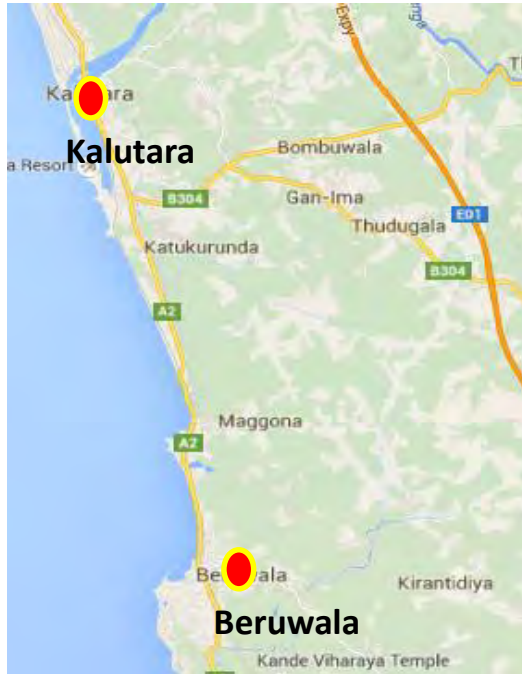
Project Components / Activities

- Land allocation and construction of tyre plant
- Construction of other facilities like laboratories, workshop, and research center...etc.
- Provide necessary infrastructure facilities

05.2 –TOURISM

5.2.1 – MARINA DEVELOPMENT IN THE OUTER HARBOR AREA OF BERUWALA FISHERIES HARBOR

Complementing Tourism Development, and attracting new segment of Tourists



Objectives

1. To Enhanced foreign exchange earnings
2. To create New employment on maintaining/ servicing yachts, by providing ancillary services Complement the Bentota/ Dedduwa tourism development
3. To encourage further investment in the sector
4. To utilize optimum of the underutilized outer harbor space (water area) and buffer land area between the fish harbor and Colombo-Galle Road, at Beruwala Fish Harbor, thus allowing Ceylon Fisheries Harbor Corporation (CFHC) to generate additional income

Summary of the Project

Location	Beruwala, Kalutara
Required Land Area	6 Acres
Present Situation	
Project Cost	SLR 500 mn(US \$ 3.5 mn)
Proposed Financing Method	Public Private Partnership
Method of Procurement	Open competitive bidding
Employment	Direct- 500, Indirect-5000
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Carryout a Feasibility Study (encompassing technical, commercial, economic, and environmental viability) and decide on scale of development (including phased development)
- Develop Master Plan for Marina Development, including shore infrastructure
- Invite for PPP proposals
- Re-assign operational space for OFRP boats to another location (recently developed Maradana Anchorage)
- Preparation of a Business Development Plan for the Marina, aligning with Bentota Tourism Development plans
- Implementation of the Marina development

5.2.2 – DEDDUWA RIVER MOUTH AND SURROUNDING AREA TOURISM DEVELOPMENT.

Tourism development is vitally important contributor for the achievement of economic prospects (contributing to increase the GDP of the country) which could generate considerable income as well as employment to the region. Also the tourism industry has identified as one of the main income earning sectors in Western Region Megapolis plan. The identified project location Dedduwa river mouth and surrounding area has many potential attractions with wetland, lakes, irrigation canals and abandoned paddy fields. It is rich in biodiversity with diverse vegetation such as mangroves, fauna, and different kinds of fresh water fish, mammals and reptiles, aquatic birds which can be potentially developed as eco-tourism promotion area to attract both foreign and local tourism.



Objective

1. To attract and retain more foreign and local tourists into the Western region
2. To offer direct and indirect jobs and career opportunities
3. To protect the wetlands, marshes and flood prevention
4. To create environmental and research education facilities
5. Regeneration and conservation of integrated natural and built environment

Summary of the Project

Location	Dedduwa river and surrounding area in Bentota
Land Area	20.23 hec
Present Situation	Concept stage
Project Cost	SLR 770 mn (US \$ 5mn)
Proposed Financing Method	Private Sector
Method of Procurement	Open competitive bidding
Project Period	2016 - 2019
Employment	Direct - 100 indirect - 400

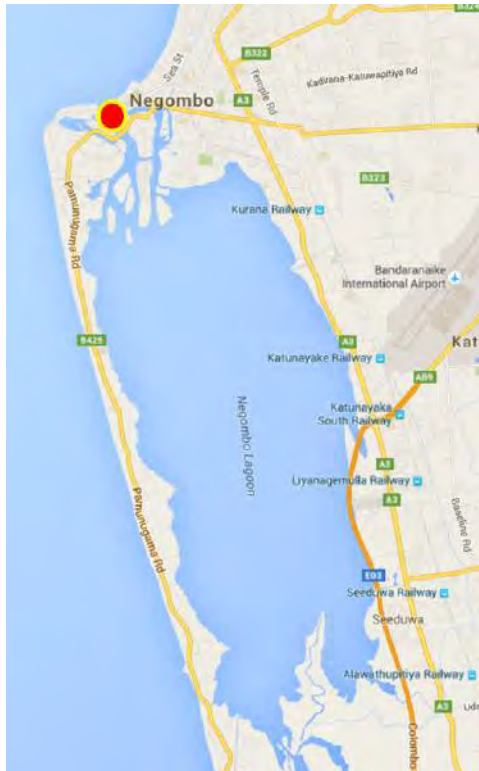
Project Components / Activities

- Setting out accommodation facilities such as hotels, guest houses
- Developing all amenities
- Develop recreational facilities – inland and water
- Provide visitor information centers, research and education facilities
- Convention center
- Improvement of transport and other infrastructure
- Improve the medical tourism facilities (Auyurvedic centers and spas)

5.2.3 – DEVELOPMENT OF MARINE INFRASTRUCTURE IN THE WESTERN PROVINCE IN ORDER TO DEVELOP MARINE TOURISM

Sri Lanka has a coastal shore-line of 1340 Kilometers and a large inland water mass consisting of lagoons, lakes, reservoirs etc. There are 13 major fishery harbors, 15 anchorages and 1053 landing sites on the coastal belt. However the full potential of the ocean has not been utilized.

Many yachts and super yachts pass along the navigational routes of the territorial sea of Sri Lanka each day. These vessels need services such as berthing, re-fueling, maintenance and repair facilities. Further, food and accommodation, shopping and recreational facilities could be provided to visiting yachtsmen. Attracting these yachts and providing services could generate a substantial income and create direct and indirect employment opportunities.



Objectives

1. To tap the potential of ship building and repair industry in Sri Lanka.
2. To generate a substantial income and create direct and indirect employment opportunities.
3. To improve the profile of the country in the international tourism circuit.
4. To attract foreign tourists and increase hotel occupancy and airline traffic.

Summary of the Project

Location	1. Dikovita
Required Land Area	5 Acres
Present Situation	Concept
Project Cost	SLR 500 mn (US \$ 3.5 mn)
Proposed Financing Method	Private / local/ foreign
Method of Procurement	Open bidding
Project Period	Long Term
Employment/output	

Project Components / Activities

- Water sports area- leisure fishing/diving/snorkeling/whale watching etc
- Restaurant/Shopping/leisure/recreational area
- Maritime Museum with Inbuilt Aquarium
- Training Centre
- Provisional Sum for O&M facilities

5.2.4 – NEGOMBO TOWNSHIP TOURISM DEVELOPMENT AND EXPANSION OF FACILITIES DEVELOPMENT

05

Tourism development is vitally important contributor for the achievement of economic prospects (contributing to increase the GDP of the country) which could generate considerable income as well as employment to the region.

Objectives

1. To gain economic development
2. To prepare a comprehensive development plan with ecofriendly buildings, other amenities with modern infrastructure and recreational facilities along the beach as well as landward well planned parks, golf links etc.
3. To regenerate and conserve the build and natural environment, to preserve habitats, to provide environmental education as well as environmental improvements. To protect wetlands especially Negombo lagoon and Muthurajawela marsh and other marshes, water bodies and to prevent flood.

Summary of the Project

Location	Negombo city area
Required Land Area	
Present Situation	
Project Cost	SLR. 15,000 mn (US \$ 103 mn)
Proposed Financing Method	Local /Foreign
Method of Procurement	Public Private Partnership
Project Period	Short Term
Employment/output	

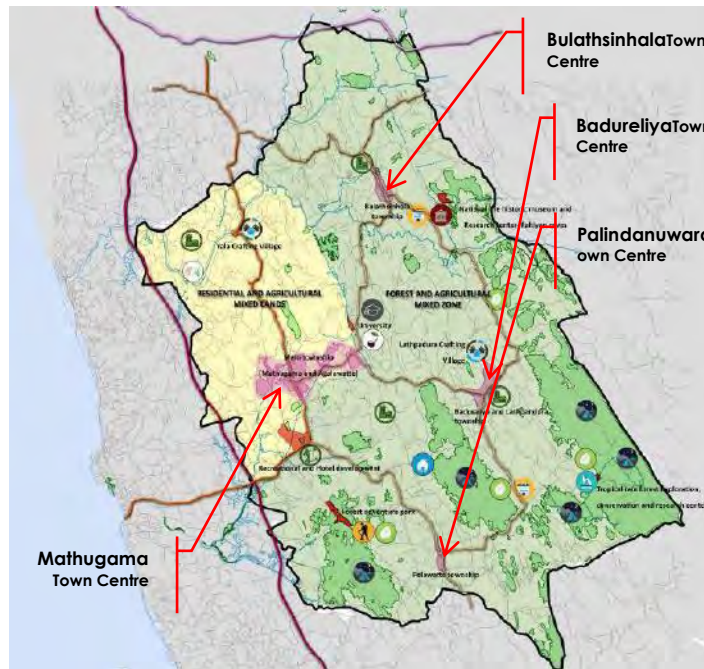
Remarks: This project will pave the way for development of rural areas away from city of Colombo. It support the social development too. However there are mandatory requirements to be fulfilled as well as social intearation need to be considered

Project Components / Activities

- o Setting up of accommodation
- o Facilities, such as hotels, guest houses etc.
- o Need to develop all amenities and recreational facilities: parks etc.
- o Visitors centers, Research, and educational facilities
- o Convention Centre
- o Improvement of transport and other infrastructure
- o Improvement of Health sector facilities

5.2.5 - DEVELOPMENT OF HAMLETS WITH RESEARCH AND NATURE TOURISM ACTIVITIES.

South-East end of the Western Region hosts high bio diversity, and consists several sensitive eco systems such as tropical rain forest and hill slopes. Development of the urban facilities in the area needs to take these special features in the area in to consideration when developing infrastructure. The area can provide immense opportunities to carry out research in to bio diversity related studies and promoting eco-tourism. The scattered nature of isolated villages in the area with limited economic opportunities for the community has created a unique lifestyle among the people that need to be respected when planning development activities. Sri Lanka has experience in setting of research hamlets in in places like Agalawatte, Thalawakelle, where research base economic activities help the villages to gain better lifestyle and wellbeing through greater opportunities. In effort it is important that proposed developments are highly regulated to ensure sustainable use of natural resources while encouraging selected economic activities.



Objectives

1. Conservation of forests in environmentally sensitive areas and reforestation
2. Preservation of Archeological Sites
3. Provision of utilities, social infrastructure and employment opportunities.
4. Promotion of nature tourism to attract local and foreign professionals, nature lovers, research students
5. Development of agro based SMEs and provision of better livelihoods

Summary of the Project

Location	Agalawatta, Bulathsinhala Palindanuwara DSDs, parts of Mathugama, Dodangoda, Mlleniya and Madurawela DSDs
Affected Land Area	103640 Ha
Present Situation	Approx. 60% under forest, scrubland and rubber. natural and archeological resources
Project Cost	SLR. 500 mn (US \$ 3.5 mn)
Proposed Financing Method	Public Private Partnership
Method of Procurement	Open competitive bidding
Project Period	Medium Term
Employment/output	18,000(Estimated)

Project Components / Activities

- o Develop basic infrastructure services and improve the connectivity such as roads and communication
- o Establish a Research Convention Center and a Post-graduate Forestry and Environmental Study Center attached to the Sri Jayewardenepura University.
- o Establish a Forest Adventure Park at Yagirala.
- o Introduce a Tropical Rain Forest Exploration, Conservation and Research Center
- o Establish a Research center for bamboo product development.
- o Promote agro based small industries based on local raw materials.
- o Establish a pre-historic Museum and Research Center
- o Establish Dendro renewable power Station

5.2.6 – DEVELOPMENT OF ANCIENT FORTRESS OF KOTTE/ CONSERVATION OF MONUMENTS OF KOTTE KINGDOM

The Kotte Archaeological site is very important since it is the closest main site to Colombo and situated within the present Political capital of Sri Lanka. It can be conveniently developed as a cultural, heritage and tourist destination. The advantage is a tourist can reach the ancient city within less than 30 minutes from the Colombo city centre. A tourist can enjoy one day excursion with boat trips, visiting model ancient village and the Wetland Park. Even if a tourist has only a few hours to spend a suitable package can be offered. In addition the Ancient City of Kotte which was the capital of the country for 150 years is to be conserved, in accordance with the national policies and for posterity. Therefore, the implementation of the Project is fully justified.



Objectives

1. Conserve and restore the Ancient Kotte Fortress – Capital City
2. Develop the area as a leisure, heritage and cultural destination for tourists
3. To promote as destination to the Chinese and Portuguese, and even to the Dutch tourist that can earn a substantial increase revenue
4. To popularize among the local tourists
5. To popularize as an excursion package for local and foreign tourist with the combination of boat trips, visiting Apegama and Nature Park at Beddabana and other cultural activities

Summary of the Project

Location	Sri Jayawardhapura Kotte
Land Area	Appox. 1.3 Sq. km
Present Situation	Completed the Feasibility study
Project Cost	SLR 800 mn(US \$ 6 mn)
Proposed Financing Method	Public (Central Cultural Fund)
Method of Procurement	Open Competitive
Project Period	Medium term (2016/2020)
Employment	Direct – 5100 Indirect - 2000

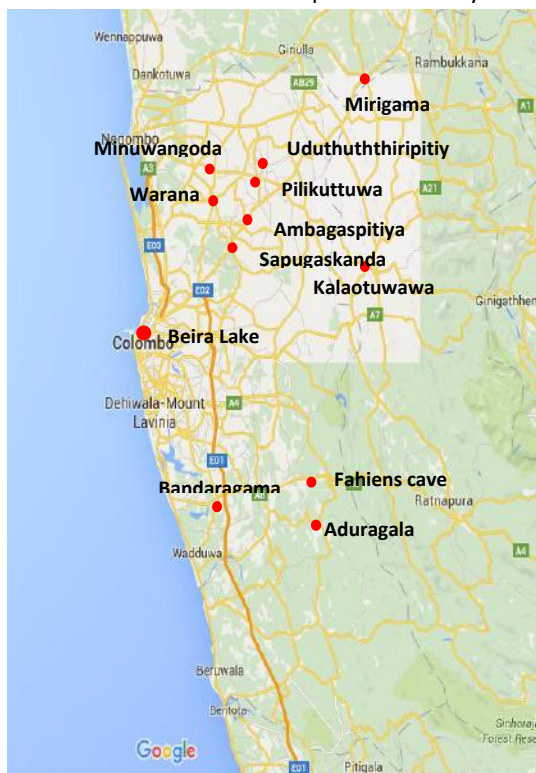
Project Activities

- Construction of Model Drawbridge that was there during the Kotte period at Rajagiriya
- Conservation of Ralapanava at Rajagiriya
- Recreation of a small section of the ancient Diyavanna Bund at Rajagiriya and Recreation of the bastion at Rajagiriya
- Conservation of the Rampart and the Bunds that were there right round the ancient inner-city
- Conservation of the inner-city moat and Angampitiya Bastion
- Recreation of Angampitiya Pass and Rehabilitation of two outer-city moats
- Conservation of AlakesvaraMaligava and Ancient Gal Ambalama
- Conservation of the Tunnel at the inner-city boundary and outer-city Tunnel and Conservation of Tunnel Junction at AnandaSastralaya
- Restoration of sections of some inner tanks of Kotte ,Ran Pokuna and the boulder with wooden pillars
- Recreation of part of the inner-city gate and outer-city gate
- Improvement to the museum and Development of monuments in the Maligava Road area
- Development of Palace area and Veherakanda
- Construction of an information centre at the museum premises

Required Land Area	Appox. 1.3 Sq. km
Present Situation	Completed the Feasibility study

5.2.7 – DEVELOPMENT OF ARCHEOLOGICAL CONSERVATION PLANS

To identify the sites and monuments in the area and to protect these during the Megapolis Program, this will also enhance the cultural tourism activities within Western Region. The project will enhance the cultural tourism activities within Kalutara District as these sites will be ideal places for the tourists, locals including school children to understand the pre-historic city of Sri Lanka as far back from 35,000 B.C.



Objectives

1. To popularize among the local tourist
2. To enable the general public to learn about the ancient warfare and defenses of ancient Sri Lanka.
3. Safeguard the authenticity and integrity of the sites and monuments.
4. Visitors to be aware of the historicity of ground that they are standing.
5. To explore the ancient transport mechanisms in domestic waters
6. To explore the rich maritime and naval history of the country.
7. To trace ancient footpaths.

Summary of the Project

Location	Annex 6
Required Land Area	To be Identified
Present Situation	Large numbers of archeological sites are neglected and deteriorating at fast rate.
Project Cost	SLR 1500 mn (US \$ 10mn)
Proposed Financing Method	Public (Central Cultural Fund)
Method of Procurement	Open competitive bidding
Employment	500,000
Implementation Period	Long Term

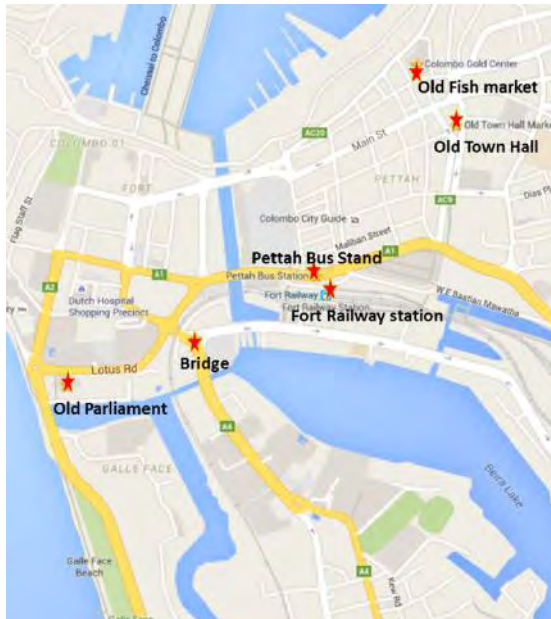
- setting up and maintain a dedicated web site for these cave sites
- Relocation of people /monks inside the caves or declared sites.
- Conservation of TampitaViharaya
- Conservation of painted murals
- Conservation of other shrines
- Conservation of caves
- Publication of inscriptions
- Conservation of Ambalamas
- Clearing of footpaths

Project Components / Activities

- Conservation of the Dutch Fortification walls (1640-1796 A.D.) of the site of the Harbor and the Light House to trace the rest of the fortifications, marking it on the floors of the buildings with some different tiles or cement markings.
- Conservation of the Portuguese Fortification (1505-1658 A.D.) walls to trace the rest of the fortifications, marking it on the floors of the buildings with some different tiles or cement markings.
- Exploration of marine wrecks around the sea of the western province (cruising the sea for geophysical, geological and video (ROV) studies, in order to identify underwater cultural heritage sites (shipwrecks, ancient sunken cities)
- Setting up mini information centers

5.2.8– TO DECLARE A SPECIFIC AREA IN THE COLOMBO CITY AS HISTORICAL AND A STRICT PLANNING ZONES

The sites and monuments in the area and to protect these during future development of the Colombo City and specifically during the Megapolis Program. At present large number of British Period Buildings are been neglected and deteriorating at fast rate. The old buildings of a city are considered as the “memory of the city” and these buildings are once conserved and or restored will enhance the historicity and the cultural tourism activities within Colombo city.



Objectives

1. To safeguard the authenticity and integrity of the sites and monuments in the area.
2. To enhance the historicity of the area.
3. To enable the general public to learn about the ancient city of Colombo.

Summary of the Project

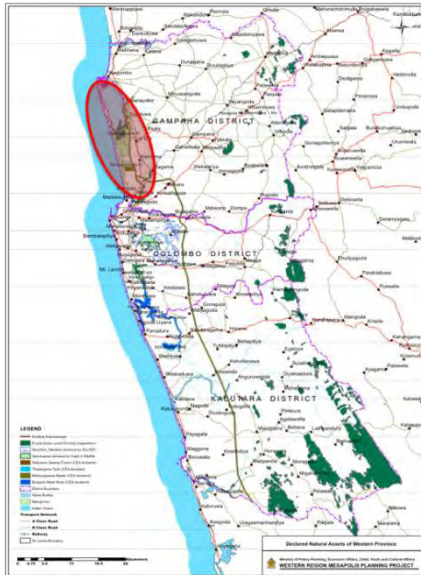
Location	Area starting from beira lake Old Parliament, Bridge under Lake house, Fort railway station, Bo tree, Pettah bus stand, Old town hall and Old fish market up to sea
Required Land Area	To be Identified
Present Situation	Large numbers of British Period Buildings are been neglected and deteriorating at fast rate.
Project Cost	SLR 500 mn (US \$ 3.5 mn)
Proposed Financial Method	Public (Central Cultural Fund)
Method of Procurement	Open competitive bidding
Employment	3000
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Surveying and map to be generated
- Monitoring the monuments and sites of the areas.
- Preparation of conservation reports
- Review of the existing regulations of UDA and DOA.
- Conservation and restoration of some of the buildings.
- Construction of an information center about the ancient Colombo City.

5.2.9 – MUTHURAJAWELA ECO-TOURISM ZONE

Muthurajawela is in the southern region of the Negombo lagoon, 30 km north of Colombo. It is the Sri Lanka's largest peat bog, and is notable for its unique and highly diverse ecosystem. "Muthurajawela" translates to "Swamp of Royal Treasure". The marsh is believed to have originated about 7000 years ago. Muthurajawela was declared as a sanctuary in 1996 in recognition of its vast bio-diversity. The region supports 192 distinct species of flora and 209 distinct species of fauna, including Slender Loris, as well as another 102 species of birds. Some of the identified species have been shown to be indigenous to the marsh. The marsh is a major local and tourist attraction, primarily for sightseeing and boating tours, and the area also supports local agriculture and forestry. Visitors to the region are guided through the sanctuary areas by the staff of the Muthurajawela Marsh Centre to avoid serious harm to the marsh ecosystem. Proposed project is to derive maximum social, economic and other benefits from the Country's most precious wet-land eco-system, while giving highest priority for protection.



Objectives

1. A Wetland Showcase
2. Restoring a wetland ecosystem that will function as a Flood Control and Water Filter for Colombo & Negombo
3. Income generation through Environmentally Sustainable Livelihoods and Industries
4. A primary Circulation artery creating an aquatic link between Colombo & Negombo

Summary of the Project

Location	a) Kelani River – Hamilton Canal South b) Kandana- Bopitiya c) Negombo Lagoon North d) Negombo Lagoon North
Required Land Area	
Present Situation	
Project Cost	SLR. 300 mn (US \$ 2 mn)
Proposed Financing Method	
Method of Procurement	
Employment / Benefits	
Implementation Period	

Project Components / Activities

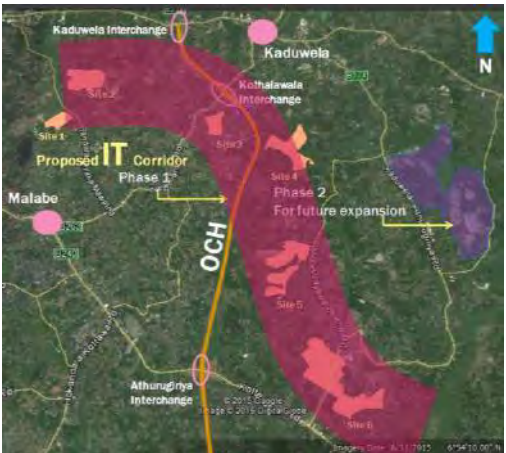
- Water Filter for Colombo & Negombo
- Flood Control for Colombo & Negombo
- Wetland & Oceanography Research Center
- Wetland interpretation centers
- Environmentally sustainable livelihoods and industries
- Aquatic linking of Colombo and Negombo through ferry services

SCIENCE AND TECHNOLOGY CITY 06

06 – SCIENCE AND TECHNOLOGY CITY

6.1–CLUSTER FOR ELECTRONICS AND ELECTRONIC BASED PRODUCTS IN THE SCIENCE AND TECHNOLOGY CORRIDOR

High-tech exports are less than 1% of total exports in Sri Lanka. Therefore in this project it is planned to increase exports of Knowledge Electronics and/or Electronic based Products and Import Substitution of foreign made products – E.g. medical equipment and some industrial equipment.



Objectives

1. To encourage developing three basic areas such as Medical Electronics, Industrial Electronics, Consumer Electronics for export market and as well as domestic market.
2. To develop of a strong eco-system which will be supporting the complete value chain from Design up to Manufacturing.
3. To develop the state of the art Manufacturing facilities cater to product designs.
4. To initiate the design space related to Electronic Industry.
5. To create a niche higher value addition Knowledge Electronic Industry in Sri Lanka.
6. To promote Semi - conductor Intellectual Property Design and Development, Integrated Circuit (IC) Design, new Electronic Product Development and Import Substitution in mid to high end Electronic based Products.

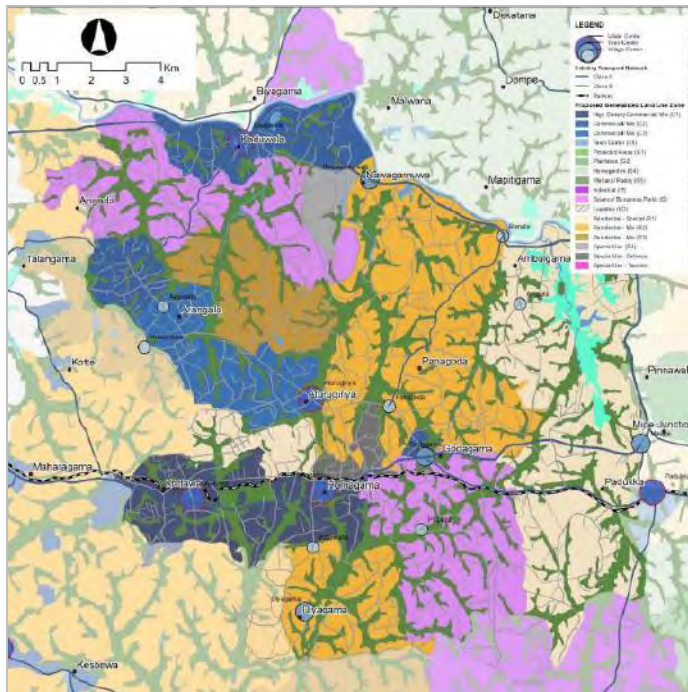
Summary of the Project	
Location	Malabe to Homagama
Required Land Area	
Present Situation	
Project Cost	SLR 10,000 mn (US \$ 69 mn)
Proposed Financing Method	Private Partnership
Method of Procurement	
Employment / Other Economic Benefit	
Implementation Period	Long term

Project Components / Activities

- o Maintenance of Electronic Design Automation Software Licenses - Sufficient number of licenses for Front End tools (Schematic Design, Simulation), Analysis Tools (such as Signal and Power Integrity, Electromagnetic Interference Analysis) and Back End tools for IC Design.
- o Commercial Prototyping of Products – This includes expedited PCB fabrication, enclosure design and manufacture, IC Design on Multi Project Wafer (MPW), Certification of Products.
- o Short Term highly specialized training for Engineers in the Industry (in startup companies) and also for academic staff members in the relevant fields.
- o Acquiring equipment for testing laboratory and for their maintenance – Electronics Products need to go through number of mandatory tests such as USA Federal Communication Commission (FCC) testing, Electro-Magnetic Compatibility Testing.
- o Specialized Lab Instruments for High Speed Electronics – such as high speed Oscilloscopes and Spectrum Analyzers.
- o Batch training for engineers in the industry in specialized areas.

6.2 -HOMAGAMA TECHNOLOGY CITY PROJECT

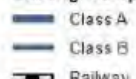
The manufacturing sector in the Country is mainly consisting of low value added primary goods and percentage of high value added, knowledge based goods in the export basket is around 1%. To achieve the macro economic targets of the Megapolis project, transforming the manufacturing sector, to innovation-based sector, with provision of necessary facilities for research and development is in the highest priority. Homagama, Innovation City Development is aimed at developing the area to provide research and development facilities and technology transfer avenues pertaining to NANO Technology and Bio Technology where there is a high market potential in the world market.



LEGEND



Existing Transport Network



Proposed Generalized Land Use Zone



Objectives

1. To facilitate productive research on marketable technological innovations/innovative products, in the fields Bio and Nano Technology.
2. To support commercialization of innovative, marketable & productive research in the areas.
3. To groom start-up companies, on "Supporting the Winners" Basis.
4. To facilitate demand driven research proposals to fill the technology gap of manufacturing sector and to provide infrastructure for the industrialists to closely associate with research and development activities

Summary of the Project

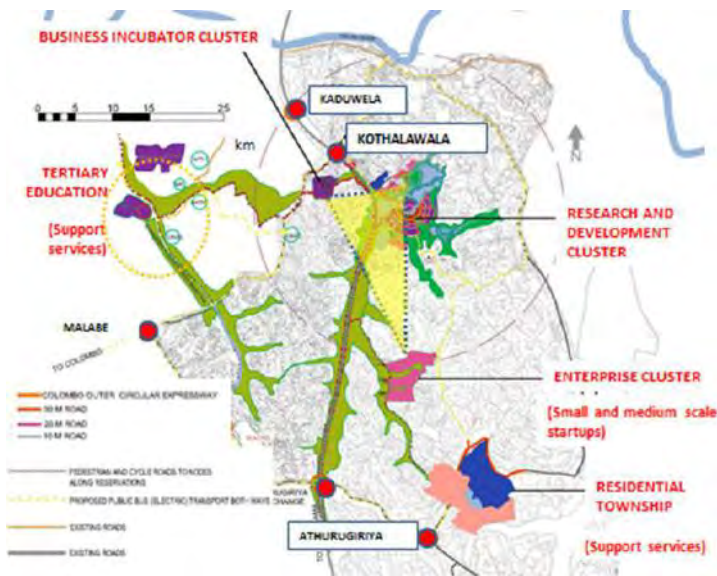
Location	Homagama
Required Land Area	30-40 Hec (Approx.)
Present Situation	Underdeveloped Urban and NANO Technology related Infrastructure and Research
Project Cost	SLR. 20,000 mn (US \$ 138 mn) (Approx.)
Proposed Financing Method	Public and Private Investment
Method of Procurement	Open Competitive
Project Period	Long Term
Employment	195k (Estimated)

Project Components / Activities

- o Laboratories and centers of excellence
- o High end equipment and calibration facility
- o Industry space
- o Intellectual Property Unit
- o Construction of Research and Development Cluster
- o Waste management facilities
- o Develop associated high-end housing and other infrastructure facilities.
- o Conference facilities, hostel, hotels, hospitals and recreation facilities etc.

6.3 –MALABE SCIENCE CITY PROJECT

The country is need of upgrading medical facilities available to provide more modern services. The medical facilities such as research, training, both non communicable and tropical infection deceases in collaboration with technologically advance counters should are provided.



Objectives

1. To create a facility to attract investments on medical and science research and training
2. To develop research needed for upgrading local medical commercial applications
3. To support modern medical research and development

Summary of the Project

Location	Kaduwela, Athurugiriya, Malabe
Required Land Area	168 Ha
Present Situation	Underutilized urban lands surrounded by marshes and Paddy lands.
Project Cost	SLR. 500,000 mn (US \$ 3448 mn) (Approx.)
Proposed Financing Method	Public and Private Investment
Method of Procurement	Open Competitive
Project Period	Long Term
Employment	

Remarks:

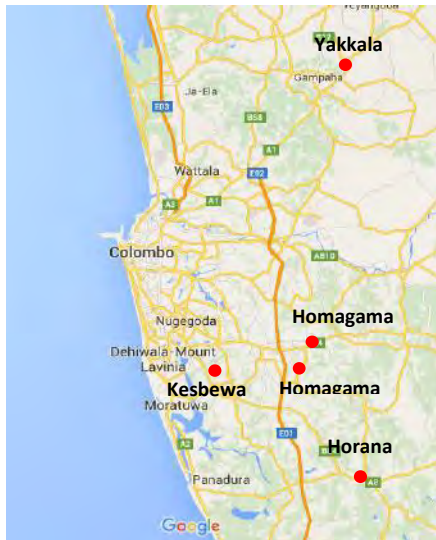
1. Integrate the existing facilities with the creation of 3 new clusters
2. Land for new development to be identified
3. Create link to existing town centers with the residential township (**Annex 06.2**)

Project Components / Activities (*Annex 06.1*)

- o Construction of Research and development cluster for medical
- o Construction of training facilities
- o Providing Residential township and Residential township Supportive Services
- o Providing Infrastructure Facilities

6.4—ESTABLISH OUTREACH CAMPUSES OF THE MORE COMPACT UNIVERSITIES IN THE MEGAPOLIS

Traditionally, Sri Lankan academic institutions follow the European approach where faculty are devoted to teaching, research, and service - the involvement of faculty in university governance, their individual disciplines and professional associations. At present there is a need to reduce the skills gap between the demand (technical and soft skills, language and communication skills) and supply (graduate and non-graduate youth who do not possess the right skills to enable them to gain access to employment in IT and BPO, hospitality and skilled infrastructure professionals such as engineers, architects, designers and managers). Secondly, there is a need for 'up skilling the current workforce through on-the-job training or through mentoring'. In order to cater to these demands, the universities to integrate their traditional classroom subjects with the needs of outside organizations through the creation of outreach programs. The curriculum needs to be prepared in consultation with the business and industry leaders and the academics



Objectives

1. To Reduce the skills gap
2. To increase employment opportunities and per capita income
3. To create additional opportunities for tertiary education for students who are unable to enter the traditional Universities.
4. To train the current workforce through on-the-job training or through mentoring

Summary of the Project

Location	Horana (Colombo University), Yakkala (Kelaniya University), Homagama (Moratuwa University), Kesbewa (Visual and Performing Arts, Colombo), Homagama (University of Sri Jayewardenepura)
Required Land Area	Between 16-30 Acres per each
Present Situation	Concept
Project Cost	SLR 20,000 mn(US \$ 138 mn)
Proposed Financing Method	Public and Private Sector
Method of Procurement	Open competitive bidding
Employment	Direct – 5000 Indirect - 50000
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Construct green buildings.
- Develop curricular
- Recruit staff
- Commence intake of students

6.5 – GAMPAHA EDUCATION HUB

Gampaha District is representing the highest population in the Western Region, mainly consisting with a semi-urban educated population. Over past two three decade, it was witnessed that the district was developing as an education center. Many secondary level private education institutes are rapidly developing in the district, attracting student population of the district and outside areas. Gampaha Wickramarachchi Ayurveda Faculty of University of Kelaniya, which is located at Yakkala-Gampaha, has a prestigious history in Ayurveda education for many decades. As such there is a very high potential to attract more students for Ayurveda education from the Island as well as from abroad, if facilities of the faculty is improved to international standards Further, due to the high population, in the district, large number of student population are travelling daily to Colombo and back to attend popular schools in Colombo, creating number of logistic issues. Hence, it has been identified that Gampaha District can be developed as an education hub, with developing the leading government schools to provide high quality primary and secondary education for increased number of student, developing Wickramarachchi Ayurveda Faculty as an international education Centre and promoting private investment if education sector, to open universities affiliated to world renowned universities.



Objectives

1. To develop the district as an international education center
2. To develop vocational skills to cater the demand created with Megapolis development
3. To ensure highly paid, skilled jobs for the youth
4. To promote Ayurveda Education
5. To reduce the undue pressure on schools in Colombo
6. To earn foreign exchange

Details of the project	
Locations	Veyangoda, Nittambuwa, Gampaha and Yakkala
Required Land Area	20 acres
Present Situation	Developing as an Education Centre
Project Cost	SLR 870 mn (US \$ 6 mn)
Proposed Financing Method	Consolidated Fund/ Private Financing (Local/ foreign)
Method of Procurement	Open Competitive
Employment	2000 (direct and indirect) short term, 4000(direct and indirect) long term
Implementation Period	Medium term (2016/2020)

Project Activities

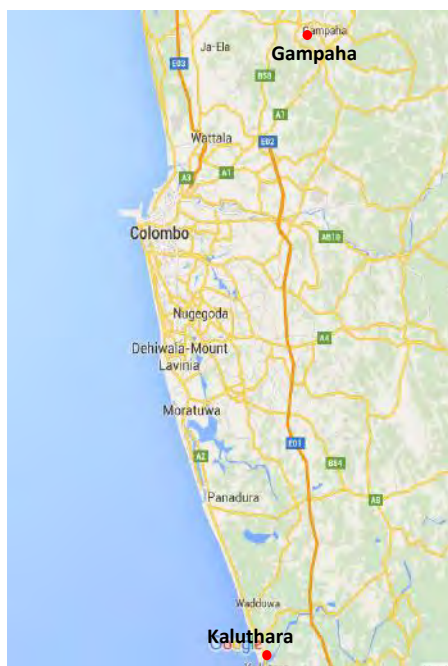
- Expansion and construction of school infrastructure, such as school buildings, laboratories, technology centers, IT centers etc of Veyangoda MMV, Sangabodhi MMV, Sri Bodhi Vidyalaya and RathnawaliBalika,Vidyalaya, Bandaranaike MMV, Kirindiwela MMV, Holycross Girls School and Malwana MMV
- Procurement of laboratory equipment, educational equipment and machinery for technology centers, IT cennters etc.
- Training of school teachers in technology education
- Provision of infrastructure to Wickramarachchi Ayurveda Faculty, Yakkala to develop the area as an international level Ayurveda Township,
- Develop policies with the Board of Investment to attract foreign direct investment for education

ECO HABITAT AND PLANTATION CITY 07

07 – ECO HABITAT AND PLANTATION CITY

7.1- DIVERSIFICATION OF UNPRODUCTIVE TEA, RUBBER AND COCONUT LANDS IN THE WESTERN REGION.

A large extent of plantation crop lands in the Western Region is unproductive due to soil degradation, old plants and high cost of production. Diversification of unproductive lands by more productive systems of agriculture such as fruit crops, pasture, and fuel wood are economically and socially viable. This will assist to make these lands more productive.



Objective

1. To improve the productivity of uneconomic tea, rubber and coconut lands in the Western Province.
2. To introduce more productive systems of agriculture such as pasture/fodder grass for cattle. Gliricidia for dendro-power.
3. To reduce soil degradation.

Summary of the Project

Location	Kaluthara, Gampaha Districts
Land Area	To be estimated
Present Situation	Extent of agriculture lands in Gampaha and Kalithara districts are uneconomic and not productive
Project Cost	SLR. 14 mn (US \$ 0.1 mn)
Proposed Financing Method	Public Private Sector
Method of Procurement	Open competitive bidding
Project Period	Long term
Employment	

Remarks: A detail survey has to be carried out

Project Components / Activities

- Identification of uneconomic/marginal, tree crops in Kaluthara and Gampaha districts.
- Identify potential agriculture crops suitable for these lands
- Conduct awareness and training programs with the relevant public institutions.
- Arrange financial and implementing mechanism

7. 2 – ESTABLISHMENT OF FOOD PARKS

Large amount of fruits are wasted and farmers cannot get a fair price for their fruit harvest in the harvesting season. Climate and soil condition in the proposed area is more suitable for delicious fruit cultivation. Farmers do not have facilities to process or reduce waste during the fruit harvesting season. Food Park aims to establishment of a strong food processing industry backed by an efficient supply chain, which would include collection centres, primary processing centers, and cold chain infrastructure.



Objectives

1. Enhance the existing food cultivation and upgrade to end product industry.
2. To minimize waste during fruit harvest season
3. To certify high income generation opportunities for farming community.

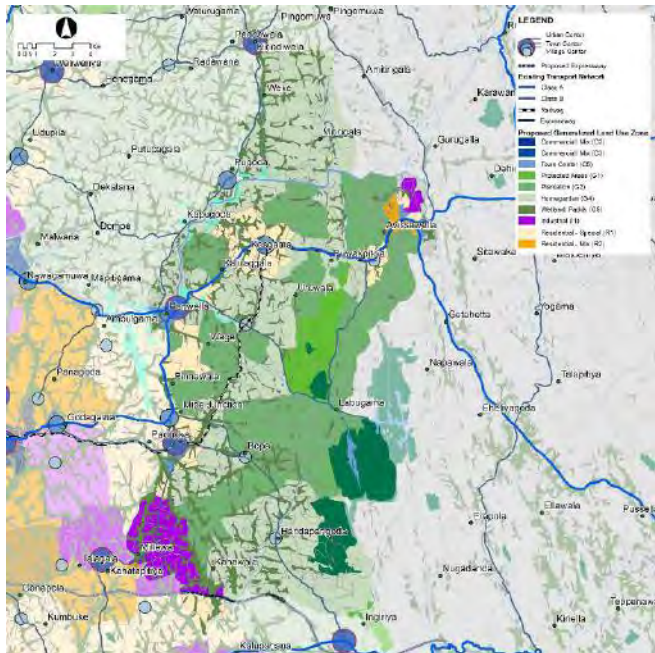
Summary of the Project	
Location	Attanagalla, Kirindiwela, Malwana, Pugoda
Required Land Area	50-100 HA
Present Situation	No infrastructure facilities for fruit harvest
Project Cost	SLR 6 mn (US \$ 0.04mn)
Proposed Financing Method	Public private sector
Method of Procurement	Open competitive bidding
Employment	6000 direct and indirect
Implementation Period	Medium term (2016/2020)

Project Components / Activities

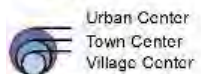
- Establish infrastructure facilities such as, transportation, logistics and centralized processing centers.
- Human resource development and training programmes for introducing new technologies and R&D.
- Establish food processing training centers and industries

7.3 - AVISSAWELLA PLANTATION CITY DEVELOPMENT PROJECT

Awissawella planning area characterize with environmentally sensitive, plantation/agricultural and tourism oriented economic back boned culture. Strategically important economic base, planned to enhance for economic targets in 2030 while preserving the natural resources.



LEGEND



Proposed Expressway

Existing Transport Network



Proposed Generalized Land Use Zone



Objectives

1. Branding Awissawella as a Plantation and Tourism City as a main Eastern Gateway to the Western Region.
2. To promote dying agricultural and plantation sector with high Tec storage and logistic facilities.
3. To facilitate all housing needs for middle income groups, industrial staff and professionals, for healthy living environment.

Summary of the Project

Location	
Required Land Area	
Present Situation	
Project Cost	SLR 5,000 mn (US \$ 34 mn)
Proposed Financing Method	Public and Private sector
Method of Procurement	
Project Period	Medium Term
Employment/output	

Project Components / Activities

- o Construct Plantation improvement, storage and logistics infrastructure.
- o Construction of Research and Development Cluster
- o Waste management facilities and other utilities and infrastructure provision.

'TRANQUILITY' – THE SPIRITUAL DEVELOPMENT FACILITATION 08

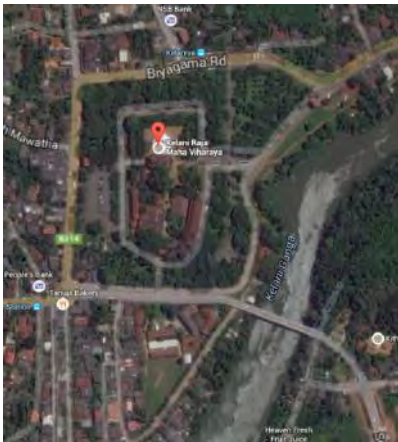
08 – ‘TRANQUILITY’ – THE SPIRITUAL DEVELOPMENT FACILITATION

8.1 - ESTABLISHMENT OF BUDDHIST CULTURAL AND EDUCATIONAL CENTRE AT KELANIAYA

Theravada Buddhism is the most invaluable national heritage that has been protected and preserved for over 2500 years under the fullest blessing of the State. It is recognized that spiritual development is as important or more important as physical development for a successful life, free of stress. Buddhism and its teaching is recognized as one of the greatest philosophical interventions human being had been gifted and Sri Lanka is considered to be the global center that is capable of preserving and offering the Buddhist teaching to the world. Establishment of Buddhist Cultural Centre that will promote Buddhist education and culture for the benefit of world population is expected to boost the image of the country as a center for spiritual tourism.

The proposed center is at the Kelaniya Raja Maha temple where there is having a Buddhist cultural history is identified as a suitable center to develop a Buddhist Cultural Museum and an education center that offers English Education and other higher level training to Bhikku (Monks) community. The Manelwatte temple adjacent to the Kelaniya temple is a potential site with facilities to be affiliated to the Kelaniya temple for development of the said educational programs.

It is also recommended that several other key temples in the region with archeological value to be protected and upgraded with the facilities to promote them among the visitors to the country.



Objectives

1. To safeguard, promote and spread Buddhist culture and philosophy.
2. To offer scholarships to attract foreign students interested on learning Buddhist philosophy
3. To help Bhikkus (Monks) to effectively spread Buddhism across the globe.

Summary of the project

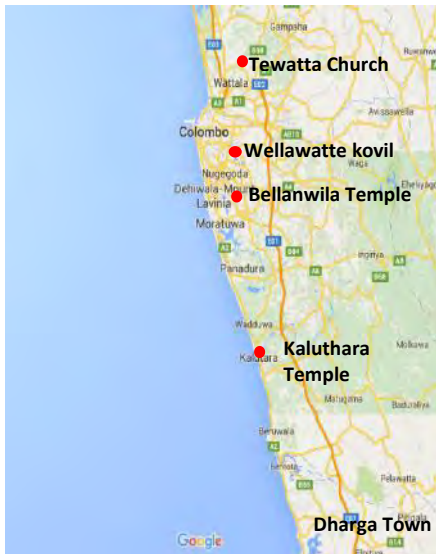
Location	Kelaniya
Required Land Area	10 ha
Present Situation	No Buddhist cultural center or museum is in Western region
Project Cost	SLR 200 mn (US \$ 1.4 mn)
Proposed Financing Method	Public funding
Method of Procurement	
Employment	
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Establish a Buddhist Cultural Centre and Museum at the Kelaniya Viharaya or at nearby premises
- Conduct international level training programs for local and foreign Bhikkus on Buddhism
- Carryout cultural activities and enrich the talent pool that can perform at the Buddhist cultural pageants and events.

8.2 - DEVELOP AND MAINTAIN CULTURAL AND RELIGIOUS CENTERS

To protect these religious monuments and sites in the province and this will also enhance religious harmony and the cultural tourism activities within all 3 districts. To preserve religious and cultural existing standards and maintain for the future community. Enhance the local and global recognition of these religious centers.



Objectives

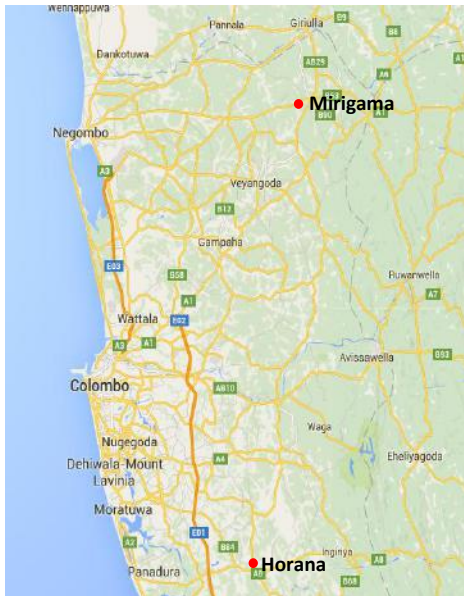
1. To enhance the historicity of the province.
2. To enhance religious harmony of the province
3. To enhance socio-cultural harmony
4. To safe guard the authenticity and integrity of the religious monuments and sites in the province

Summary of the project

Location	Kaluthara Temple, Bellanwila Temple, Dharga Town, Tewatte church, Wellawatta Kovil
Required Land Area	To be identified
Present Situation	Concept
	SLR 600 mn (US \$ 4 mn)
Proposed Financing Method	Public private sector
Method of Procurement	Open competitive bidding
Employment	600
Implementation Period	Medium term (2016/2020)

8.3 - ESTABLISHMENT OF MULTY CULTURAL CENTRES

As a multi-cultural, multi ethnic country Sri Lanka is blessed with invaluable cultural heritage, which transformed, developed and embedded to the life of its people, over centuries. In the path of achieving modern development goals, the cultural heritage of the Nation and the social values based on the culture should be the bedrock of such a development, to ensure Sri Lankan identity. Further such cultural values are instrumental for ethnic harmony as it paves the way to understand and respect each other. Hence, it is proposed to establish multi-cultural Centers, in center location in the Region, where different cultural identities could preserve, exchange, display and widespread their culture and values.



Objectives

1. To establish a platform for different cultural groups to meet and exchange their cultural heritage and values
2. To use deferent cultures as a mode for ethnic harmony.
3. To preserve different cultures, specific to deferent groups and localities
4. To promote tourism

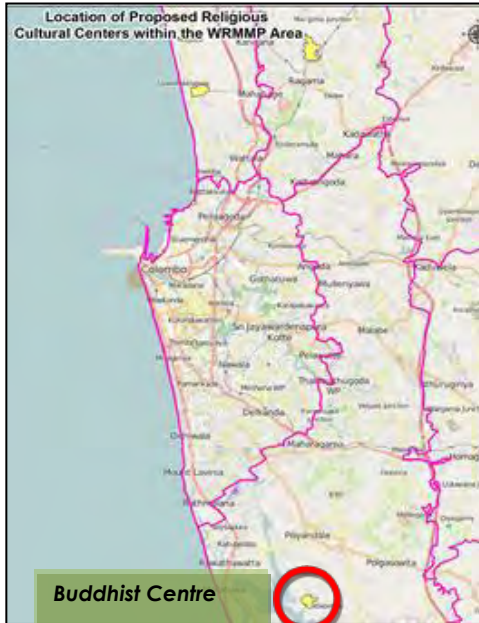
Summary of the project

Location	Gampaha, Kaluthara, Kiribathgoda and Avissawella, Rajagiriya
Required Land Area	2 Acres for each center
Present Situation	At present there is no common mean to practice, display, and exchange different cultural heritages
Project Cost	Rs.1000 mn (US \$ 7mn)
Proposed Financing Method	Consolidate Fund
Method of Procurement	Open competitive
Employment	Direct - 1000 Indirect - 5000
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Design and building of cultural centers
- Procurement of necessary equipment and instruments
- Providing of roads and other infrastructure
- Provision of utility services
- Provision of man power

8.4- ESTABLISHMENT OF BUDDHIST RELIGIOUS CULTURAL CENTRE



Objectives

1. To provide religious and spiritual platform to improve religion and spirituality among the different ethnic and religious groups.
2. Promote peace, harmony, integration and tolerance.
3. Promote friendly relations among each religion.
4. Provide high quality authentic traditional education to children and youth.

Summary of the Project

Location	(1) Regidel Watte - Kesbawa
Required Land Area	28 Ha. (Approx.)
Present Situation	
Project Cost (Phase I)	SLR 100 mn (US\$ 1 mn) (Approx.) (Excluding Land Cost)
Proposed Financing Method	Public sector
Method of Procurement	
Project Period	Long Term
Employment/output	

Remarks:

Initially this land was allocated to establish Buddhist Cultural Centre. Subsequently, the land has been allocated to Zoological Department for expansion of Dehiwala Zoo. The project yet to be started and therefore, land is available for the proposed development immediately.



Project Components / Activities

- Worship Area/Buildings
- Accommodation Buildings for Priests
- Accommodation Buildings for Staff
- Meditation Area
- Pilgrim's Accommodation Buildings
- Public Open Area
- Internal Road and Drainage Construction
- Landscaping
- Provisions of Infrastructure (Electricity, Water etc.)
- Health care Centre

8.5- ESTABLISHMENT OF CATHOLIC RELIGIOUS CULTURAL CENTRE



Objectives

1. To provide religious and spiritual platform to improve religion and spirituality among the different ethnic and religious groups
2. Promote peace, harmony, integration and tolerance
3. Promote friendly relations among each religion
4. Provide high quality authentic traditional education to children and youth

Summary of the Project

Location	(1) Podiveekumbura, Walpola West and Jaya Sri Gama - Ja-Ela
Required Land Area	80 Ha. (Approx.)
Present Situation	
Project Cost (Phase I)	LKR 100 mn (US\$ 1mn)
Proposed Financing Method	Public sector
Method of Procurement	
Project Period	Long Term
Employment/output	

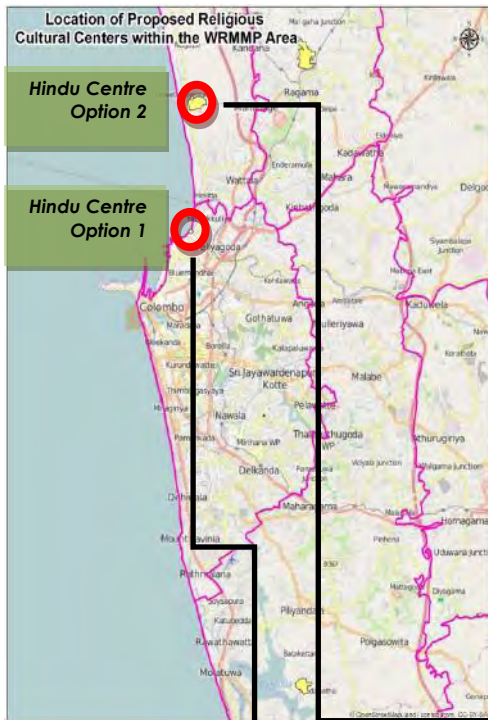
Remarks: To discuss with the Delasal Catholic Society for releasing of 15 Ha. Land for the proposed development. The proposed development activities would be started immediately as acquisition of land and relocation is not required.



Project Components / Activities

- Worship Area/Buildings
- Accommodation Buildings for Priests
- Accommodation Buildings for Staff
- Meditation Area
- Pilgrim's Accommodation Buildings
- Public Open Area
- Internal Road and Drainage Construction
- Landscaping
- Provisions of Infrastructure (Electricity, Water etc.)
- Health care Centre

8.6 – ESTABLISHMENT OF HINDU RELIGIOUS CULTURAL CENTRE



Objectives

1. To provide religious and spiritual platform to improve religion and spirituality among the different ethnic and religious groups
2. Promote peace, harmony, integration and tolerance
3. Promote friendly relations among each religion
4. Provide high quality authentic traditional education to children and youth

Summary of the Project	
Location	Option 1 - Modara - Colombo Option 2 -Pattiyawala -Wattala
Required Land Area	Option 1 - 4.5 Ha. (Approx.) Option 2 - 31 Ha. (Approx.)
Present Situation	
Project Cost (Phase I)	SLR 150 mn (US\$ 1 mn) (Without Cost of Relocation)
Proposed Financing Method	Public sector
Method of Procurement	
Project Period	Long Term
Employment/output	

Remarks: The land is available for immediate development and drainage system around the land to be developed.



Project Components / Activities

- Worship Area/Buildings
- Accommodation Buildings for Priests
- Accommodation Buildings for Staff
- Meditation Area
- Pilgrim's Accommodation Buildings
- Public Open Area
- Internal Road and Drainage Construction
- Landscaping
- Provisions of Infrastructure (Electricity, Water etc.)
- Health care Centre

8.7 - ESTABLISHMENT OF MUSLIMS RELIGIOUS CULTURAL CENTRE



Objectives

1. To provide religious and spiritual platform to improve religion and spirituality among the different ethnic and religious groups
2. Promote peace, harmony, integration and tolerance
3. Promote friendly relations among each religion
4. Provide high quality authentic traditional education to children and youth

Summary of the Project	
Location	(1) Thimbirigasyaya
Required Land Area	7.5 Ha. (Approx.)
Present Situation	
Project Cost (Phase I)	SLR 150 mn. (US\$ 1 mn) (including Relocation Cost)
Proposed Financing Method	Public sector
Method of Procurement	
Project Period	Long Term
Employment/output	

Remarks: About 2ha land is occupied by the underserved settlement and identified to relocate under the Urban Regeneration Project of the Colombo City. Only 15% of the land area is occupied by the building belonging to Mosque and balance area reserved for landscaping and cemetery.

Project Components / Activities

- Worship Area/Buildings
- Accommodation Buildings for Priests
- Accommodation Buildings for Staff
- Meditation Area
- Pilgrim's Accommodation Buildings
- Public Open Area
- Internal Road and Drainage Construction
- Landscaping
- Provisions of Infrastructure (Electricity, Water etc.)
- Health care Centre

8.8 – PROMOTING ETHNIC HARMONY

Given the ethnic and religious diversity of the population of the region and the intermittent ethnic conflicts and tensions, an intervention programme to bring about ethnic harmony is necessary. The proposed project is intended to facilitate mutually beneficial interaction between communities with a view to promoting harmony and peaceful coexistence.



Objectives

1. To establish 3 multi ethnic cultural centers
2. To promote mutual understanding through social and cultural activities

Summary of the Project

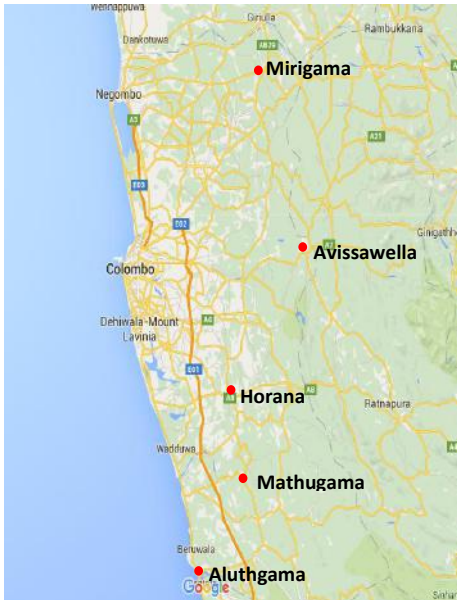
Location	Negombo, Beruwala, Wellawatta
Required Land Area	N/A
Present Situation	Concept
Project Cost	SLR 30 mn. (US \$ 0.2mn)
Proposed Financing Method	Public sector
Method of Procurement	Open competitive bidding
Employment	Direct – 100 Indirect - 1000
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Establish Community organizations in related areas
- Establish community centers
- Mobilize resource persons to develop programs
- Conduct a public education and dissemination programs
- Implement programs

8.9 – ESTABLISHMENT OF COMMUNITY RECONCILIATION CENTER

There exists no local level institution or facility that brings together people living in different ethno religious communities. The proposed centers will facilitate close interaction and mutual understanding among them.



Objectives

1. To promote mutual understanding
2. To promote interaction and exchange
3. To establish 5 community reconciliation centers

Summary of the Project

Location	Mirigama, Avissawella, Horana, Mathugama, Aluthgama
Required Land Area	1 Acre per each
Present Situation	Concept
Project Cost	SLR 500 mn. (US \$ 3.5 mn)
Proposed Financing Method	Public sector
Method of Procurement	Open competitive bidding
Employment	Direct – 250 Indirect - 5000
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Identify areas where centers are necessary
- Develop a modern facility
- Develop program
- Mobilize resources
- Establish centers

8.10 – SENIOR RECREATION AND CARE VILLAGES

Activities, socialization and enhanced community connectedness can prevent depression, decrease feelings of isolation and increase quality of life. By providing adequate space for leisure, recreation and caring facilities to the large community of seniors at a place as senior center. This project will have an immediate and significant beneficial impact on the quality of life for today's seniors and an ongoing impact on tomorrow's need for long-term care. The senior recreation and care center addresses and meets the needs of this growing population of seniors for their great commitment to the country.



Objectives

1. To facilitate high standard of living condition with high level facilities.
2. To improve physical & mental health of the elderly people
3. Place for happy and relaxing life for seniors

Summary of the project

Location	Mathugama, Malwana, Attanagalla
Required Land Area	
Present Situation	
Project Cost	SLR 2000 mn. (US \$ 14 mn)
Proposed Financing Method	Private /Foreign
Method of Procurement	Open competitive bidding
Employment	Direct - Indirect -
Implementation Period	Medium term (2016/2020)

Project Components / Activities

- Identify well qualified agency and assign responsibility
- Identify appropriate activities
- Identify lands
- Develop the medical centers for physical therapy and other health and recreational facilities
- Establish farms for the gardening
- Construct walking paths and landscaping the area

8.11 - 'MAHAMAGA MITHURO' – THE PROJECT TO MOVE FROM THE STREET TO HOME (REHABILITATION OF BEGGAR FOLKS)

According to a survey conducted in the Municipal Council, Urban Council and Pradeshiya Sabha areas in Colombo district, approximately 405 begging people have identified. The ministry, with the help of other relevant ministries, departments and Non-Governmental Organizations; has attempted some solutions rehabilitate them by developing their skills and incorporate them to strengthen the economy rather than depending on others.



Objectives

1. Rehabilitate beggar folk and effectively integrate them into the society
2. Developing their skills in different sectors and effectively harness their inputs to the mainstream economy
3. Facilitate the efforts for beautification of the city

Summary of the Project

Location	Covering all the Municipal Council, Urban Council and Pradeshiya Sabha areas in Colombo district
Required Land Area	
Present Situation	
Project Cost	SLR. 50 mn (US \$ 0.34 mn)
Proposed Financing Method	
Method of Procurement	
Employment	
Implementation Period	

Project Components / Activities

- o Skills development programs with education and vocational training
- o Forming committees for street children and mothers / people with mental disabilities to identify rehabilitation strategies
- o Direct the begging people to the existing rehabilitation center in Ridiyagama, Hambantota
- o Converting two non-functional schools to hostels (for rehabilitated street children) in Homaaama area

8.12 - CARING OF STRAY ANIMALS

The stray animals mostly stray dogs and cattle are also identified as a significant issue that adversely affects the visual attraction of the city. According to a survey conducted in Municipal Councils, Urban Councils and Pradeshiya Sabha areas in Colombo district, approximately there are about 16509 dogs and 830 cattle which are straying in and around Colombo city. Under the above project, a solution has an identified to give proper caring to those stray animals which also will also benefits Colombo City beautification project while giving proper caring to those animals.



Objectives

1. Introducing proper caring method for stray animals.
2. Facilitate the efforts for beautification of the city

Summary of the Project

Location	Covering all the Municipal Council, Urban Council and Pradeshiya Sabha areas in Colombo district
Required Land Area	
Present Situation	
Project Cost	SLR. 50 mn (US \$ 0.34 mn)
Proposed Financing Method	
Method of Procurement	
Employment	
Implementation Period	

Project Components / Activities

- o Handing over the stray cattle to the persons who are willing to take care of them (eg. Temples – Buddhist and Hindu, farmers from other parts of the country etc)
- o 'Adopt a dog concept' or center for dog caring with the help of NGO or any other suitable financing method

8.13 – CENTER FOR NON-COMMUNICABLE DISEASES (CANCER, KIDNEY, HEART)

Non Communicable Diseases now being identified as leading cause of deaths worldwide, of which 80% of deaths occur in low and middle income countries. The main objective of the center is to prevent and control the non-communicable diseases in the country by integrating new technology, research and development and high quality equipments. There will be huge group of experts attached to the center will contribute significantly to prevent and control of Non communicable diseases with the establishment of center.



Objectives

1. To attract the people who are going to well established countries for modern medical treatments; for their surgeries and treatments. (spending our money inside our country)
2. To attract foreigners who are seeking better and quality treatments for Sri Lanka by enhancing the potential methods technologies
3. To understand the multiple determinants and complex pathways to causes and outcomes of Non communicable diseases

Summary of the Project	
Location	Kirimandala Mawatha, Narahenpita.
Required Land Area	
Present Situation	Conceptual stage
Project Cost	SLR 200,000 mn (US \$ 1379 mn)
Proposed Financing Method	Public private partnership
Method of Procurement	Open competitive
Employment	
Implementation Period	Medium term

Project Components/Activities

- o Non communicable disease research unit
- o Cardio vascular unit
- o Cancer diseases unit
- o Kidney disease cause identification and transplant unit
- o In-patient wards
- o Public counseling and consultancy unit

8.14- ESTABLISH CHILD CARE CENTERS; INCLUDING MECHANISM FOR DELIVERING PROPER EDUCATION AND SKILL DEVELOPMENT

With the present daily busy schedules of parents; mostly their children will be given under care of private caring centers. The purpose of this project is to make those caring centers in developed manner; where these children can get the education which will automatically missing by their parents with their busy schedule. A proper mechanism will be implemented by giving set guidelines to child cares. So there is a necessity to develop licensed child care centers within the region



Objective

1. To ensure the education and the caring for the children
2. To ensure the creativity through their activities (playing, performing etc)

Summary of the Project

Location	Mirigama, Colombo, Horana
Land Area	
Present Situation	No sufficient child care centers in order to facilitate the increasing demand for proper caring of children
Project Cost	SLR 300 mn (US \$ 2 mn)
Proposed Financing Method	private partnership
Method of Procurement	Open competitive bidding
Project Period	3 years (Short term)
Employment	

Project Components / Activities

- Establish centers to train care givers
- Promote indoor activities
- Establish a library and collection of toys
- Promote physical activities



LIST OF PROECTS **09**

LIST OF PROJECTS – WESTERN REGION MEGAPOLIS PLAN (WRMPP)

No.	Sectors and Names of the Projects	Cost of the Project SLR (mn) (Approx)	Cost of the Project US \$ (mn) (Approx)
	01 - TRANSPORT, ENERGY AND WATER		
	1.1 TRANSPORT		
1	Railway Electrification and Modernization	14,600	100.69
2	Construction of New Electrified Railway Lines	3,250	22.41
3	Colombo Rapid Transit System (RTS) Project	450,000	3103.45
4	Implementation of New Inland Water Transport System	18,100	124.83
5	Improvement of Expressway Network	15	0.10
6	Construction of New Expressways	600,000	4137.93
7	Development of Multimodal Transport Hubs and Centers	31,000	213.79
8	Improvement of Existing Roads	30,000	206.90
9	Horana- Meerigama, Negombo- Meerigama and Ja-Ela- Divlapitiya Road improvement Project	15,000	103.45
10	Marine Drive, Duplication Road & Baseline Road Extension Project	9,950	68.62
11	Development of Off-Street Parking Facilities	6,000	41.38
12	Introduction of parking meters	40	0.28
13	Modernization of Public Bus Transport System in Western Region	4,000	27.59
14	Overflow Parking Facility for Long Distance Buses Entering Colombo	80	0.55
15	Widening and Improvements of Intersections in Colombo	500	3.45
16	Upgrade Signal Lights at Intersections	3,000	20.69

17	IT Based Smart Traffic Management System	2,200	15.17
18	Improvement of Pedestrian Facilities	1,000	6.90
19	Improvement of traffic flow based on Identified Interventions	10,000	68.97
20	Legal Enforcement of Traffic Law Violations Through CCTV Monitoring	2,500	17.24
21	Improvement of Taxi Transport Service	50	0.34
22	Introduce New School Transport Service (consultancy)	200	1.38
23	Encouragement of Bicycle Use and Feasibility Study on Cycle and Motorcycle Paths	200	1.38
24	Policy on Use of Road/Rail Right of Way	10	0.07
25	Minimize Fuel Usage Policy	50	0.34
26	Reduce Vehicle Emission	100	0.69
27	Restructure of Public Bus Transport in Western Region (consultancy)	4,000	27.59
28	Study on Introduction of Flexible and Staggering Working Hours (consultancy)	7	0.05
29	Improvement of Facilities at Bus Suburban Interchange Terminals and Bus Stands	1,000	6.90
30	Supply of Compressed Natural Gas (CNG) and Establish Electric Charging Facilities (50 centres) for Buses and other Vehicles	3,300	22.76
31	Establishment of Transport Information Analysis and Dissemination Centre	300	2.07
	Sub Total	1,210,452	8,348
	1.2 ENERGY		
32	Sapugaskanda Oil Refinery Expansion and Modernization (SOREM)	200,000	1379.31
33	600 MW Natural Gas Combined Cycle Power Plant, Kerawalapitiya	50,000	344.83
34	Conversion of 300 MW Combined Cycle Power Plant to Natural Gas, Kerawalapitiya	2,800	19.31
35	Conversion of 450 MW Combined Cycle/ GT Power Plant to Natural Gas, Kelanithissa	3,200	22.07
36	Transmission of Natural Gas from Mannar Basin to Kerwalpitiya	15,000	103.45

37	Enhancing the Capacity of Non-Conventional Renewable Energy through Net-metering	2,000	13.79
38	Conversion of overhead, low and medium voltage lines in the suburbs of Colombo into underground Inculcated Cables and Arial Bundle Conductors	10,000	68.97
	Sub Total	283,000	1,952
	1.3 WATER		
39	Welivitta Water Supply Project	70,000	482.76
40	Kelani Right Bank Water Supply Project Stage - 11	25,000	172.41
41	Kaluganga Water Supply Phase - 11	45,000	310.34
42	Kotte Area (Jubilee reservoir) Water Service Improvement Project	7,000	48.28
43	Construction of Kelani Ganga Upstream Reservoirs	10,000	68.97
44	Construction of Yatimahana Reservoir in Maha Oya	8,000	55.17
45	Aluthgama, Mathugama and Agalawatta water supply project	30,000	206.90
46	Construction of salinity barrier across Kaluganga	5,000	34.48
47	Transmission and distribution system improvement of existing water supply schemes in Western Province	39,000	268.97
48	Katana water supply project	9,000	62.07
49	Divulappitiya water supply project	5,000	34.48
50	Mirigama, Kandalama, Kaleliya and Ganegoda group of Towns Water Supply Project	4,500	31.03
51	Mirigama industrial city water supply project	9,500	65.52
52	Ingiriya, Handapangoda water supply project	11,000	75.86
53	Kirindiwela water supply project	13,000	89.66
54	Mabima water supply project	50,000	344.83
55	Construction of treatment plant at Kethhena	17,000	117.24
56	Construction of ground reservoirs to enhance water storage facility for Colombo city	15,000	103.45

		Sub Total	373,000	2,572
		Total	1,866,452	12,872
	02 - HOUSING, TOWNSHIPS AND RELOCATION OF ADMINISTRATION OFFICES			
	2.1 HOUSING			
57	Social housing development project (CBD Zone)		150,000	1034.48
58	Middle Income Housing Development Project (Fringe Zone)		37,500	258.62
59	Malabe Residential Development (Middle Class and Luxury Housing)		25,000	172.41
60	Social Housing Development Project (Fringe Zone)		70,000	482.76
61	Housing development project -Horana Industrial Zone (Middle Class and Luxury Housing)		150,000	1034.48
62	Aero City Housing development Project -Katana and Divlapitiya		150,000	1034.48
63	Multi-Story Middle Income Housing Complex at Ragama		7,000	48.28
64	Multi-Story Luxury Housing Complex at Kirimandala Mawatha		3,000	20.69
65	Avissawella residential development project (Middle Class and Luxury Housing)		150,000	1034.48
		Sub Total	742,500	5,121
	2.2 TOWNSHIPS			
66	Town Centre Upgrades (Sukithapurawara)		25,000	172.41
		Sub Total	25,000	172.41
	2.3 RELOCATION OF ADMINISTRATION OFFICES			
67	Relocation of Government Offices located in and around CBD		1,000,000	6896.55
		Sub Total	1,000,000	6896.55
		Total	1,767,500	12,190

03 - ENVIRONMENT AND WASTE MANAGEMENT			
3.1 SOLID WASTE			
68	Solid waste management-Colombo and suburban area	25,000	172.41
69	Integrated solid waste management for Local Authorities	500	3.45
70	Implementation of an integrated hazardous waste management facility	1,000	6.90
71	Implementation of clinical waste management facility	300	2.07
72	Establishment of electronic waste recycling facility	300	2.07
73	Sanitary land fill for the region or district wise	50	0.34
74	Improvement to solid waste management collection process	70	0.48
	Sub Total	27,220	188
3.2 SEWERAGE			
75	Waste water collection and disposal system for Negombo township	16,000	110.34
76	Kelaniya-Peliyagoda waste water collection and disposal project	12,000	82.76
77	Sri Jayawardenapura Kotte wastewater collection and disposal project	40,000	275.86
78	Maharagama, Boralesgamuwa wastewater disposal project	5,000	34.48
79	Waste water collection, treatment and disposal system for Ja-Ela/Ekala and Ratmalana / Moratuwa stage-i phase-ii project	16,000	110.34
80	Expansion of pipe borne sewerage coverage for Dehiwala-Mt.Lavinia Municipal Council Area	28,000	193.10
81	Wastewater collection, treatment and disposal system for Gampaha Municipal Council Area	17,000	117.24
82	Wastewater collection, treatment and disposal system for Horana industrial zone	15,000	103.45
83	Wastewater collection, treatment and disposal system for Mirigama industrial zone	12,000	82.76
	Sub Total	161,000	1,110

3.3 NATURAL ENVIRONMENT IMPROVEMENT			
84	Riverine buffer zone development and management in Kelani, Kalu, Attanagalu and Deduru river systems	7,000	48.28
85	Declaration of Eco Zones in the Western Region	900	6.21
86	Protection of inland water bodies in the Western Region	140	0.97
87	Public private partnerships (PPPs) towards Effective Environment Management in the Kelani and Kalu river Basins	80	0.55
88	Air and water quality baseline establishment and continuous monitoring	680	4.69
89	Assessment of Health Costs of Air Pollution, and Recommendation on Policy Mitigatory Intervention	10	0.07
90	Riverine buffer zone development and management in Kelani, Kalu, Attanagalu and Deduru river systems while paying attention to environment sensitive, cultural and heritage sites	7,233	49.88
91	Disaster risk management in WRMP including disasters caused by climate change	1,000	6.90
92	Creating the enabling environment to access green funds	103	0.71
93	Enhanced capacity to track the climate change impacts on the WRM ecosystem including sea level rise, rainfall changes and temperature increase related impacts	172	1.19
94	Promotion of cleaner / renewable energy sources in transportation, power and domestic sectors	290	2.00
95	Management of areal emissions from waste burning	34	0.23
96	Encouragement Environmental Friendly Technologies	5	0.03
97	Preparation of Cadastral map for WRMP Area	3	0.02
98	Preparation of the drainage master plan for WRMP area	100	0.69
99	Ja-Ela Basin and Kolonnawa Basin , new mutuwal tunnel / Torington tunnel, St, Sebestian South diversion, Madivela diversions, storm water drainage and flood contral projects	12,000	82.76
100	Rathmalana – Moratuwa Storm Water Drainage and Environment Improvement Project (Weras ganga project is ongoing)	5,200	35.86

101	Master plan for wetlands and assessment of water quality in the inland waterways and lakes within the Western Region	750	5.17
102	Point Source Pollution and Environmental Quality Monitoring System	750	5.17
	Sub Total	36,450	251
	Total	224,670	1,549
04 - AERO, MARITIME TRADE			
4.1 PORT & AIRPORT/ LOGISTIC			
103	East container terminal of Colombo Port	91,000	627.59
104	Improvement of UCT, PVQ and Guide Pier of Colombo Port	8,500	58.62
105	Facilitating Cruiser Liners And Yachts In Colombo Port	7,000	48.28
106	Establishment of logistic corridor in Colombo Port	7,800	53.79
107	Development of west container terminal (WCT-1) of Colombo Harbor	85,000	586.21
108	Extension of Colombo port expansion project breakwater and development of west container terminal 2	115,000	793.10
109	North port development project	330,000	2275.86
110	Extension of ECT and SAGT as combined back to back terminal	70,000	482.76
111	Establishment of cargo village	1,000,000	6896.55
112	Establishing a Marina by Converting Southern Part of Dickkowitz Fisheries Harbor	50	0.34
113	Rehabilitation of Panadura fisheries harbor	600	4.14
114	Establishment of the logistic hub	3,000,000	20689.66
115	Second runway and associated infrastructure at Bandaranaike international airport	3,000	20.69

116	Port Related Infrastructure Development (Dry Dock, Floating Dock, Slipway ,Syncro Lift	1,800	12.41
117	Constructing Deep Sea Coastal Fishing Crafts	250	1.72
118	Port related Industries- Chains, Generators and Other Port Related Equipment	150	1.03
119	Port Related Shipping Services – Bunkering etc.	250	1.72
120	Specialist and Skilled Labor Training Centre	250	1.72
121	Research and Development, Innovation Incubators Related to Marine Sectors	500	3.45
122	Establishment of Transshipments Centre	500	3.45
123	Bonded Highway for the Logistics Corridor	100,000	689.66
124	Aero city business and residential township development project- Katana	400,000	2758.62
125	Colombo Business District (CBD) mixed development project	1,000,000	6896.55
	Sub Total	6,221,650	42,908
4.2 COASTAL AND MARINE			
126	Formation of Recreational Beach Area Along the Shoreline South of Colombo (in the form of perched beaches)	3,500	24.14
	Sub Total	3,500	24.14
	Total	6,225,150	42,932
05 - INDUSTRIAL AND TOURIST CITIES			
5.1 INDUSTRIES			
127	Meerigama Industrial Township Development Project	1,535,000	10586.21
128	Horana Industrial Township Development Project	1,535,000	10586.21
129	Establishment of Bamboo Products Training & Services Centre at Palindanuwara in Kalutara District	20	0.14
130	Establishment of a Marketing Hub in the Western Province	20	0.14

131	Establishment of Industrial Parks (Katana, Gampaha, Attanagalla, Mahara, Dompe, Hanwella, Padukka, Ingiriya, Homagama, Bulathsinghala, Mathugama)	20,000	137.93
132	Establishment of business development centers	20	0.14
133	Promote value added Agriculture and Agro based Industries.	2,000	13.79
134	Identification of industrial parks for high polluting industries and the SME sector	1,000	6.90
135	Establish Wood Craft and Furniture Industry Cluster	500	3.45
136	Construction of shipping and maritime center building	8,500	58.62
137	Construction of Multipurpose Crafts	300	2.07
138	Construction of Maritime Defense Crafts	1,000	6.90
139	Commercial Extraction of Offshore Sand for Economic Development	500	3.45
	Sub Total	3,103,860	21,406
	5.2 TOURISM		
140	Marina Development in the Outer Harbour Area of Beruwala Fisheries Harbor	500	3.45
141	Dedduwa River Mouth and Surrounding Area Tourism Development	770	5.31
142	Development of Marine Infrastructure in the Western Province in Order to Develop Marine Tourism	500	3.45
143	Negombo Township Tourism Development and Expansion of Facilities Development	15,000	103.45
144	Development of Hamlets with Research and Nature Tourism Activities.	500	3.45
145	Development of Ancient Fortress of Kotte/ Conservation of Monuments of Kotte Kingdom	800	5.52
146	Development of Archeological Conservation Plan	1,500	10.34
147	To Declare a Specific Area in the Colombo City as Historical and a Strict Planning Zones	500	3.45
148	Muthurajawela Eco-Tourism Zone	300	2.07

		Sub Total	20,370	140
		Total	3,124,230	21,546
	06 - SCIENCE AND TECHNOLOGY CITY			
149	Cluster for electronics and electronic based products in the science and technology corridor		10,000	68.97
150	Homagama Technology City Project		20,000	137.93
151	Malabe Science City Project		500,000	3448.28
152	Establish Outreach Campuses of the more Compact Universities in the Megapolise		20,000	137.93
153	Gampaha Education Hub		870	6.00
		Total	550,870	3,799
	07 - ECO HABITAT AND PLANTATION CITY			
154	Diversification of unproductive tea, rubber and coconut lands in the Western region.		14	0.10
155	Establishment of Food parks		6	0.04
156	Avissawella plantation city development project		5,000	34.48
		Total	5,020	35
	08 - 'TRANQUILITY' THE SPIRITUAL DEVELOPMENT FACILITATION			
157	Establishment of Buddhist Cultural and Educational Centre at kelaniaya		200	1.38
158	Develop and maintain cultural and religious centers		600	4.14
159	Establishment of Multi-Cultural Centers		1,000	6.90
160	Establishment of Buddhist Religious Cultural Centre		100	0.69
161	Establishment of Catholic Religious Cultural Centre		100	0.69
162	Establishment of Hindu Religious Cultural Centre		150	1.03

163	Establishment of Muslims religious Cultural Centre	150	1.03
164	Promoting Ethnic Harmony	30	0.21
165	Establishment of Community Reconciliation Center	500	3.45
166	Senior Recreation and care Villages	2,000	13.79
167	Mahamaga Mithuro' - The Project to Move from the Street to Home (Rehabilitation of Beggar Folks)	50	0.34
168	Caring of Stray Animals	50	0.34
169	Center for Non-Communicable Diseases (Cancer, Kidney, Heart)	200,000	1379.31
170	Establish Childcare Centers; Including Mechanisms for Delivering Proper Education and Skills Development	300	2.07
	Total	205,230	1,415
	Grand Total	13,969,122	96,339

LIST OF PROEECTS **10**

11 - ANNEXURES

Annexure 1

1. Background of the Study

The total land area in three districts of the Western Province is 372,903 Ha divided as follows:

Colombo District	67,921Ha.
Gampaha ..	141,423Ha.
Kalutara ..	163,859Ha.

These lands fall into public and private sector categories. State lands of the public sector are under the control of the government departments, local authorities and statutory organizations. The lands belongs to Land Reform Commission (LRC) are not considered as state lands. Most of these organizations do not have accurate and up to date information of their property assets.

Three districts of the western province have been divided into forty Divisional Secretary areas on the following basis.

Colombo	13
Gampaha	13
Kalutara	14

State lands of the entire country are under the management of the Land commissioner. Divisional Secretaries (DS) are the custodians of the state lands located in their divisions. However the records with regard to the lands belong to various departments, local authorities and statutory organizations located in the DS divisions are not available with the divisional secretaries. It was possible to collect only the state land details by visiting offices of the Divisional Secretaries. Certain DSs did not have up to date information of state properties in their divisions.. It was not possible to collect land details of each and every department, Local Authorities and Statutory organizations In this connection the details had with the Land Use Policy Planning Department was very useful.

In addition to the details of state lands, details of private lands also were collected in some DS areas. In order to have an idea of the available developable lands in the divisions, the details were collected on the basis of both unutilized and underutilized lands. Underutilized lands can be made available for development by relocating or allocating a portion of the same land for current use. The following Table indicates the summary of the lands available in the three districts on the basis of four categories based on the extent of each land.

Table 1: Land Availability on District Basis

District	Land Extent (Acre)				Total
	Below 2 Ac	2-5 Ac	5-10 Ac	Over 10 A	
Colombo	342	686	926	3,629	5,583
Gampaha	593	1,759	2,271	27,649	32,272
Kalutara	2,464	5,638	7,840	63,720	79,662
Total	3,399	8,083	11,037	94,998	117,517

Table 2: Land Availability on Ownership Basis

District	Ownership (Acre)				Total
	Public	Private	Religious	Not Known	
Colombo	654	4,930	-	-	5,584
Gampaha	2,745	25,388	106	4,033	32,272
Kalutara	27,119	52,469	75	-	79,663
Total	30,518	82,787	181	4,033	117,519

Table 3: Availability of land to be Acquired and Vested on District Basis

District	Acquire/Vest Land (Acre)			Total
	Acquire	Vest	Unclassified	
Colombo	4,974	610	-	5,584
Gampaha	27,080	1,158	4,033	32,271
Kalutara	55,904	23,759	-	79,663
Total	87,958	25,527	4,033	117,518

Table 4: Categories of land available in Colombo District

DSD Name	Ownership (Aare)										Total
	Owned by Other Institution	Owned by the CGR	Owned by the CTB	Owned by the LRC	Owned by the NHDA	Owned by the SLRDC	Ports Authority	Privately Owned Lands	State Owned	Urban Development Authority	
Colombo	-	32.0	-	-	-	-	44.4	-	10.8	39.7	126.9
Dehivala	-	-	-	-	-	3.1	-	-	-	-	3.1
Homagama	16.5	-	3.7	-	-	-	-	925.4	2.9	8.8	957.4
Kaduwela	26.1	-	-	-	-	-	-	1,288.2	0.3	4.8	1,319.4
Kesbawa	0.3	-	10.4	-	-	-	-	315.0	37.6	4.1	367.3
Kolonnawa	8.8	0.8	-	-	-	-	-	124.8	37.4	6.4	178.3
Maharagama	-	-	5.1	-	-	-	-	338.7	36.9	-	380.7
Moratuwa	-	-	22.5	-	23.4	-	-	-	-	-	45.9
Padukka	12.5	-	-	43.6	-	-	-	306.8	1.5	-	364.4
Rathmalana	-	57.0	-	-	-	-	-	-	25.0	-	82.0
Seethawaka	372.6	-	-	-	-	-	-	731.4	0.5	36.3	1,140.8
SJPura	-	-	-	-	-	8.0	-	-	-	5.0	13.0
Thimbirigasyaya	-	12.8	-	-	-	1.6	-	-	43.5	6.2	64.2
Total	436.8	102.6	41.7	43.6	23.4	12.7	44.4	4,030.3	196.5	111.3	5,043.3

Table 5: Categories of land available in Gampaha District

DSD Name	Ownership (Aare)											Total
	Owned by Other Institution	Owned by the CGR	Owned by the CTB	Owned by the LRC	Owned by the NHDA	Owned by the SLRDC	Ports Authority	Privately Owned Lands	State Owned	Urban Development Authority	Uncliffified	
Attanagalle	2.5634	-	-	105.7530	-	-	-	2008.4266	11.7950	-	4033.3262	6,161.9
Divulapitiya	40.4382	-	-	-	-	-	-	1049.4289	32.1833	-	-	1,122.1
Dompe	9.5851	-	-	-	-	-	-	2448.5209	-	-	-	2,458.1
Gampaha	8.4796	-	-	-	-	-	-	1129.7055	-	-	-	1,138.2
Ja-Ela	59.5026	-	-	-	-	15.5604	-	1900.1903	3.5362	-	-	1,978.8
Katana	218.6502	-	-	22.3885	-	-	-	4404.5135	500.1735	-	-	5,145.7
Kelaniya	99.28	-	-	-	-	25	-	-	-	-	-	124.3
Mahara	30.8554	-	-	-	-	-	-	3478.6308	-	-	-	3,509.5
Minungoda		-	-	40.3600	-	-	-	2803.0936	-	-	-	2,843.5
Mirigama	265.8494	-	-	1417.5064	-	-	-	5475.0342	14.6076	-	-	7,173.0
Negombo	25.0575	-	-	-	-	481.7730	-	4.7	-	-	-	511.6
Total	760.3	-	-	1,586.0	-	522.3	-	24,702.3	562.3	-	4,033.3	32,166.5

Table 6: Categories of land available in Kaluthara District

DSD Name	Ownership (Aare)							Total
	Owned by Other Institution	Owned by the LRC	Other State Institutions	Privately Owned Lands	State Owned	Urban Development Authority	Forest Department	
Agalavatte	480	32	239	934	4,542	-	3	6,231
Bandaragama		-	-	4,072	16	-	-	4,089
Beruwala		-	-	13	812	-	-	825
Bulathsinhala		450	-	10,777	249	-	-	11,476
Dodungoda		225	-	1,821	117	-	-	2,163
Horana		-	-	1,618	-	79	-	1,697
Ingiriya		-	-	10,715	385	-	-	11,100
Kaluthara		-	1	2,685	263	-	61	3,010
Madurawala		13	-	3,042	263	-	-	3,318
Matugama		1,674	5	4,727	993	-	-	7,398
Millaniya	-	297	-	1,774	56	-	-	2,127
Palindanuwara	21	486	157	3,581	1,861	-	76	6,182
Panadura	-	-	-	1,639	-	-	-	1,639
Walalavita	-	182	99	4,569	13,469	-	14	18,333
Total	501	3,359	500	51,968	23,026	79	154	79,588

Table 8: Availability on Highland and Lowland on District Basis

District	High/Low Land (Acre)		
	High	Low	Total
Colombo	1,015	4,568	5,583
Gampaha	19,908	12,364	32,272
Kalutara	64,149	15,514	79,663
Total	85,072	32,446	117,518

The list of lands indicated in the above Tables , Plans indicating the location of those lands based on DS areas shown in the annex 1- 40

In order to have an accurate database of available properties in the western region, it is proposed to implement a Property Audit jointly with the Bimsaviya Program . Implementation of Property Audit requires the approval of the Cabinet of Ministers as most organizations are not willing to release the details of their property assets. Implementation of Bimsaviya Program in the Western Region is necessary to have location maps and correct extents of lands available.

Procedure to follow for acquisition of land for implementation of projects

The procedures to follow for acquisition of lands for implementation of identified in the Megapolis Master Plan need to be based on the provisions available in the Western Region Megapolis Development Authority Act and the rules and regulations introduce from time to time. These guidelines have been prepared based on the provisions available in the draft act and the general procedures followed for project implementation

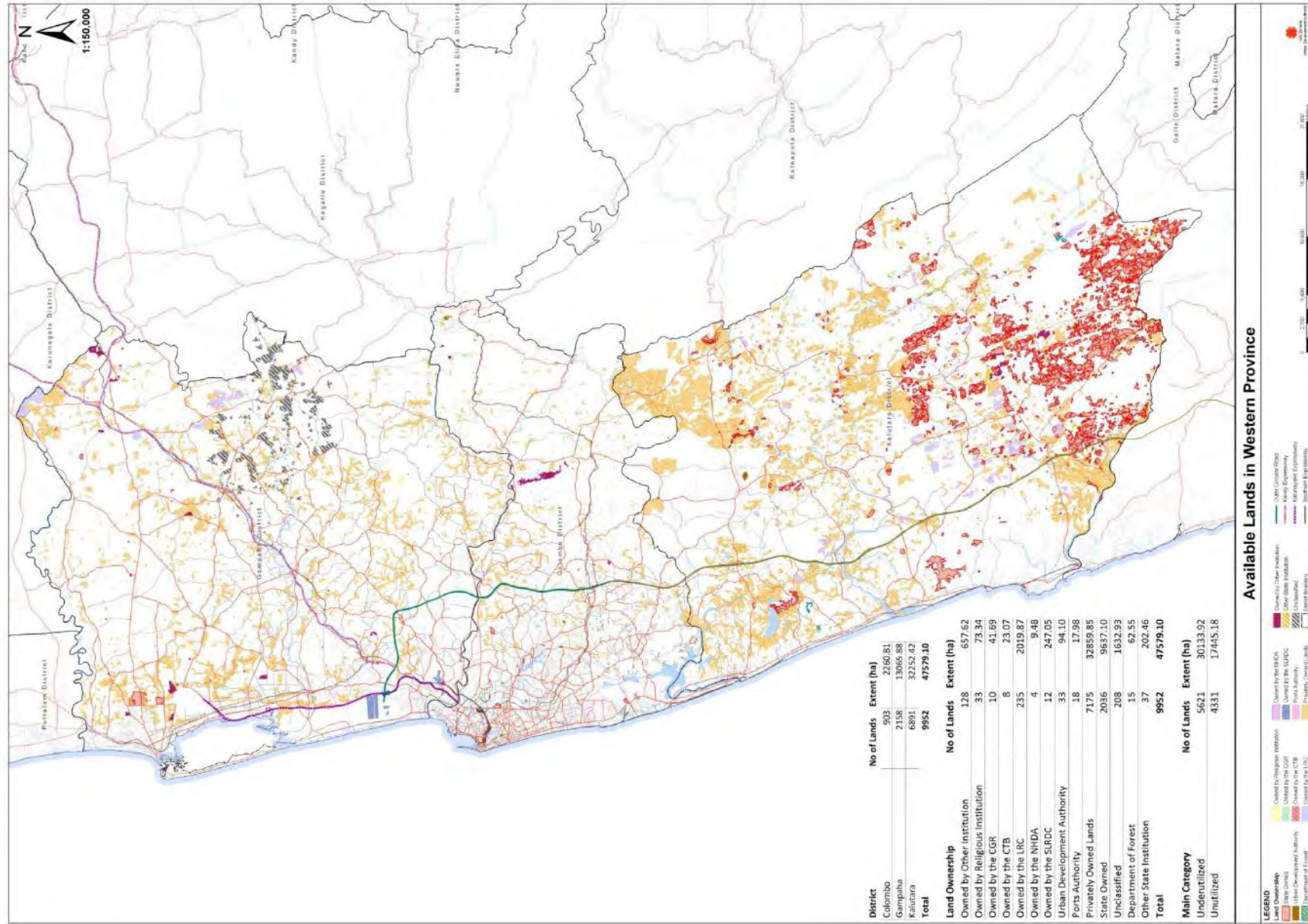
Following are the steps to be followed for acquisition of land for project implementation

1. Identification of the development site on ground
There are different type and size of projects. It can be a building project, road project or industrial estate or science park project. As specified by the project formulation team, the location of the development site need to be identified. In case of the location, Grama Niladhare (GN) division and the Divisional Secretary(DS) area is important. Approach road is other important factor. In case of road or railway tract development, there may be several DS areas. The site can be identified on ground with the assistance of the DS and GN of the area.
2. Ascertaining the physical and legal status of the site
The physical and legal status of the site can be ascertained with the assistance of the GN. The officer visiting the site should prepare a location sketch and obtain the following information
 - i. availability of infrastructure and the capacity
 - ii. availability of houses and other development
 - iii. land ownership type or types.
 - iv. ground characteristics
3. Discuss with the project formulation team and confirm the suitability of the site
4. Send a survey requisition to the Survey Superintendent of the District with copy to DS to carry out a site survey. Identifying the different ownership types is important to decide on the acquisition procedure to follow,
5. If there are private lands or houses, it is necessary to brief the owners and indicate their position. Also it is necessary to obtain the views regarding their ownership rights and expectations for the provision of alternate accommodation or compensation. These can be arranged while the acquisition is in progress.
6. On completion of the survey plan acquisition procedure can be commenced
Procedure to follow vary depending on the land ownership type. Generally the following ownership types are available.
 - (a) Private land
 - (b) State land
 - (c) Local Authority land

- (d) Statutory Organization land
- (e) LRC land

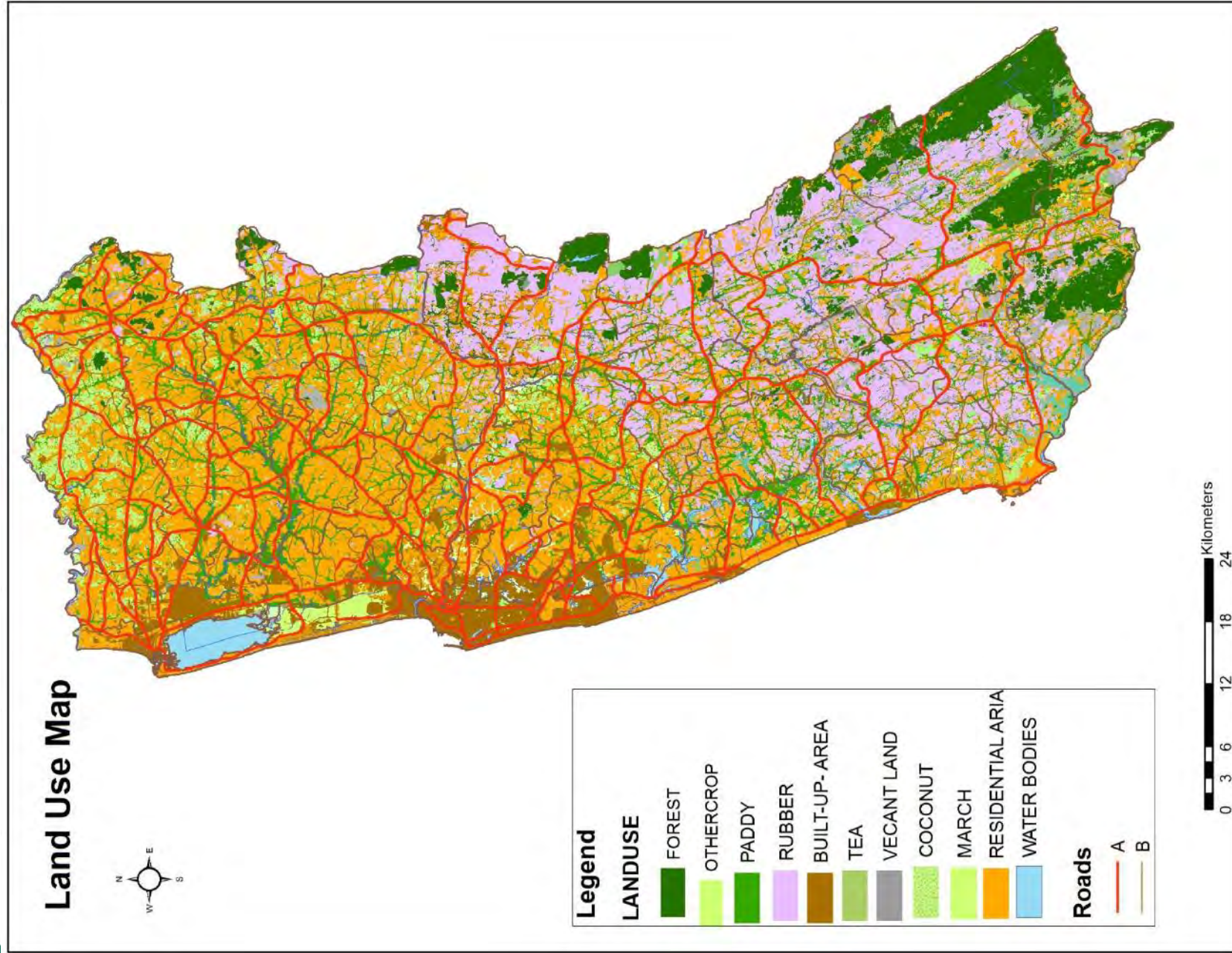
7. In case of a private land or LRC land action can be taken under the provisions of Section 21 of the WRMP Act. Issues including the payment of compensation and resettlement are included in this section of the Act.
8. In case of state land action can be taken under the provisions of Section 20 of the WRMP Act
9. In case of Local Authority or Statutory Organization land action can be taken under the provisions of the Section 19 of the WRMP Act.
10. On receipt of the survey plan indicated in item 4 , It would be necessary to prepare a report to the DG/Chairman indicating the estimated compensation. Resettlement requirement if any , provision of additional services if necessary for the management to grant approval for acquisition and to make provision for meeting the costs involved

Land availability map of Western Province



Land use map of western province

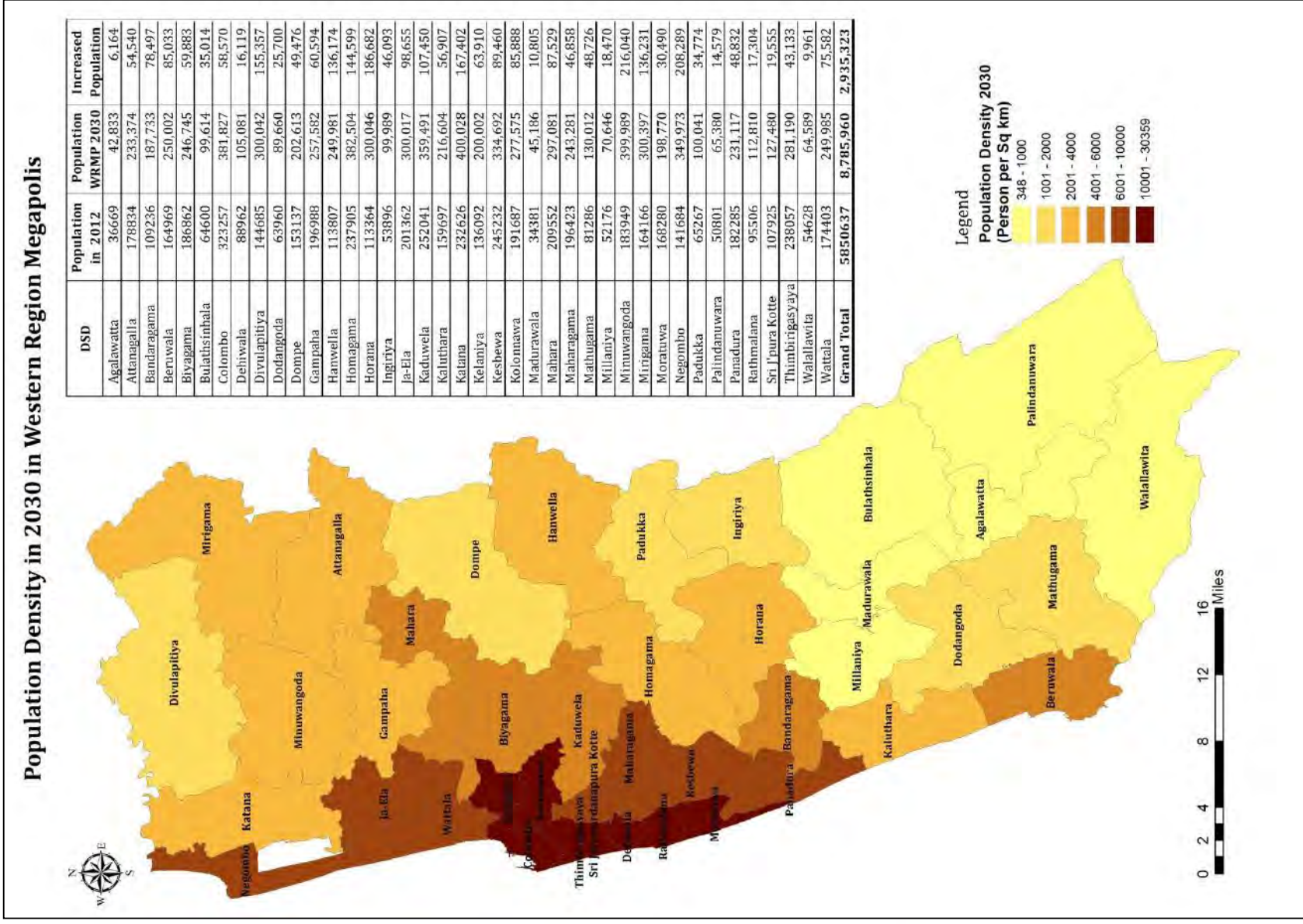
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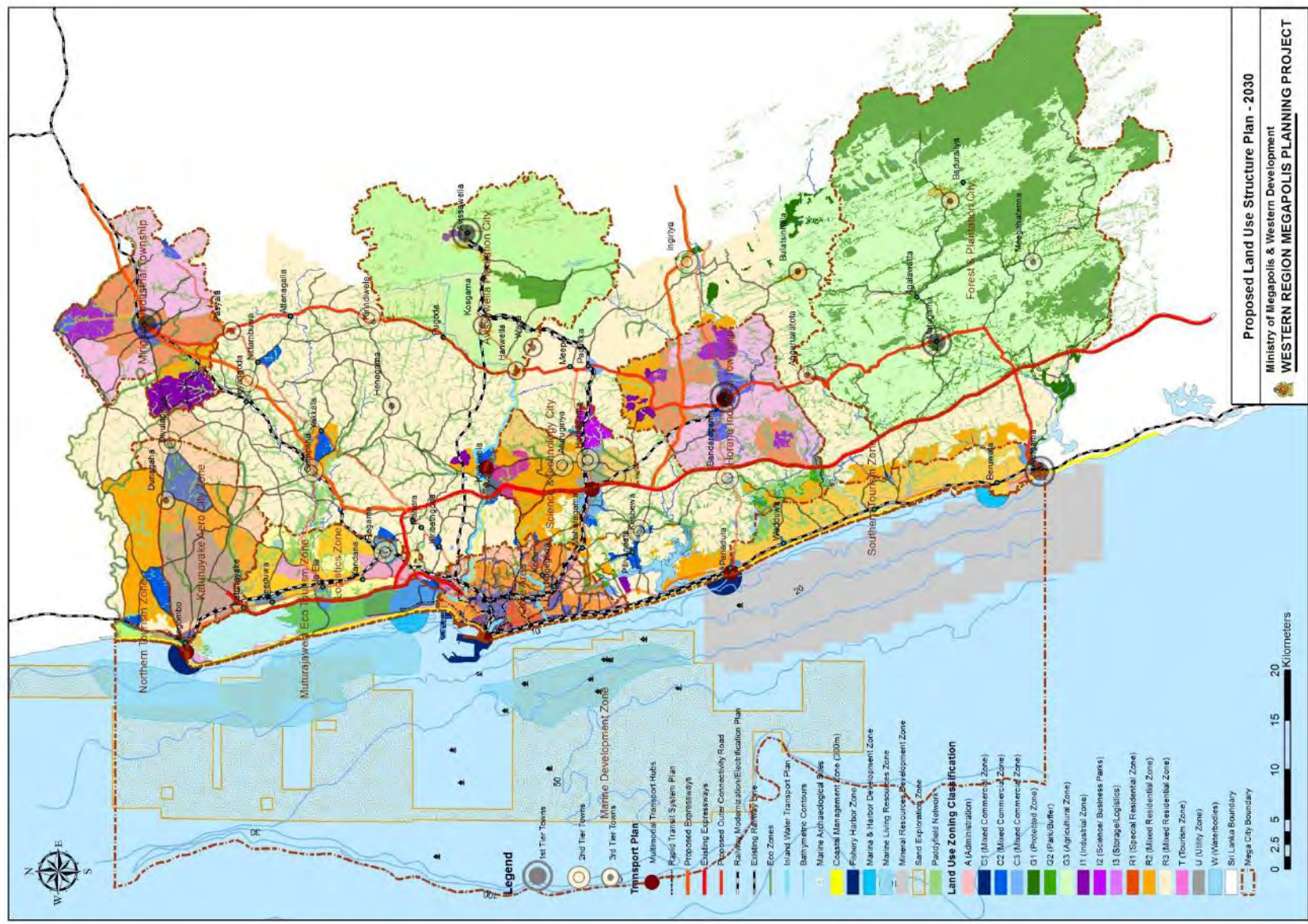
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estimated population density (2030) in Western Province



Structure plan



TRANSPOROT NETWORK PLAN

-  EXISTING EXPRESSWAY
-  EXISTING ROADS
-  PROPOSED ROADS
-  RAILWAY
-  EXSITING TOWN CENTERS



 **AERO CITY PLAN**
SCALE 1 :50 000

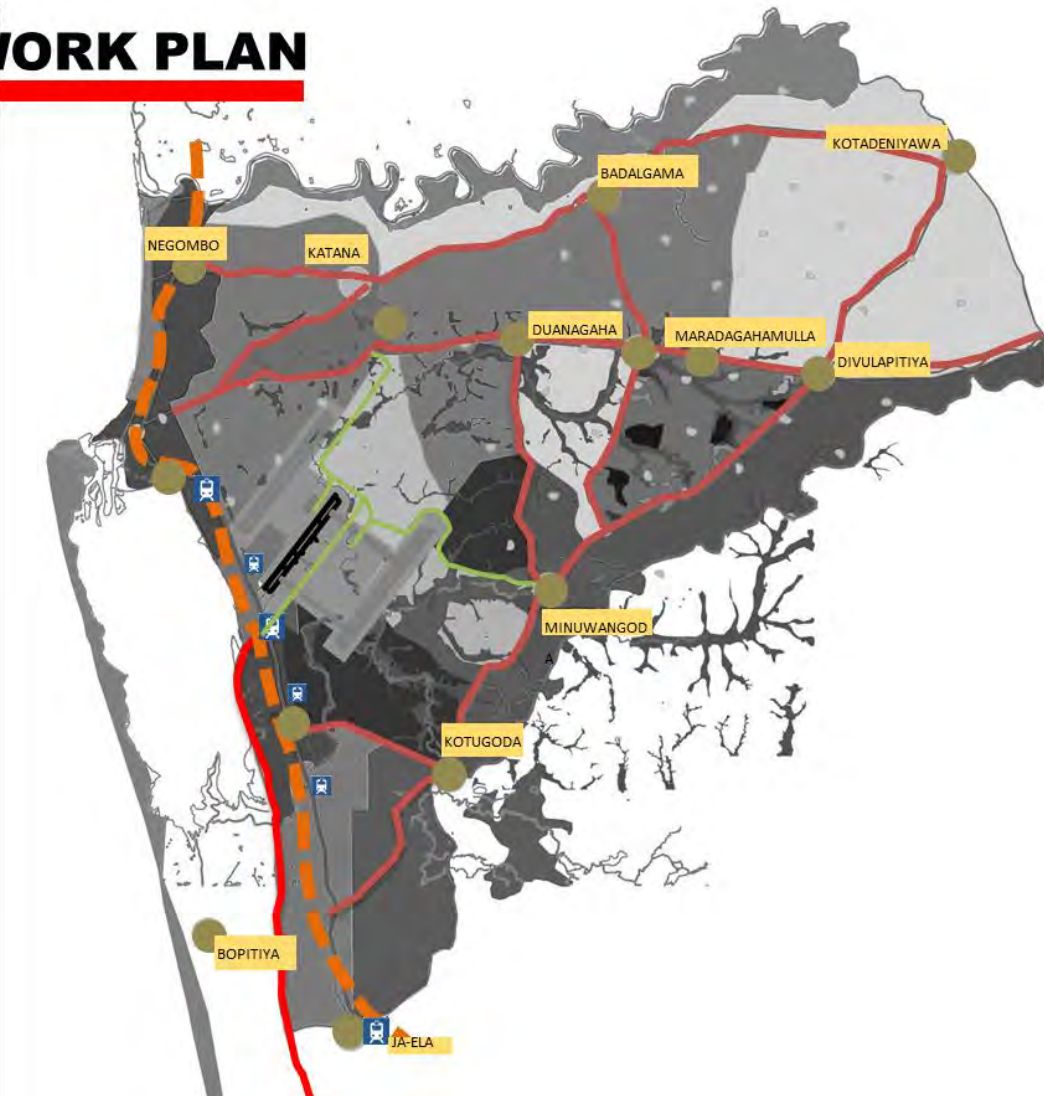


Table 07: Town Centre Upgrades (Sukithapurawara Project) / Source: UDA (Urban Development Authority)

No.	City	SubProject	Taskin2016	TECMillion	ContractMethod/Contractor	KeyProjectOfficers	Remarks
1	Homagama	1.ConstructionofBusstand(Stage2)	1.LandDevelopment&Drainagework	90.0	CompetitiveBiddingamongGovernmentAgencies	1 PrasadRanaweera(DD-Planning) -TeamLeader-(T.P-071-4446146)	Lands belongsto UDA. Contracts canbeawarded in1st quarter of 2016.Surveyplanstobeprepared.
		2.Westernbypassroad	ConstructionofRoad	75.0	CompetitiveBiddingamongGovernmentAgencies	2.AnushaDeSilva(DD-Project) -Co.TeamLeader-(T.P-011-2888015)	
		3.PitipanaMahahenawatt	ConstructionofRoad	75.0	CompetitiveBiddingamongGovernmentAgencies		
2	Kottawa	1. Constrictionofbusstand&L	1.Retainingwall&Drain	47.0	CompetitiveBiddingamongGovernmentAgencies	1 PrasadRanaweera(DD-Planning) -TeamLeader-(T.P-071-4446146)	Landbelongs toUDA.Land developmenthas been completed.Canstart immediately
		2.WideingofKottawaPinHenaRoad	Wideingof Road		CompetitiveBiddingamongGovernmentAgencies	2.ThushaniWelivitiya(DDProjects) -Co.TeamLeader-(T.P-077-330613)	
3	Maharagama	1.ConstructionofMultystoriedCarPark(Stage)	1.Design&constructionofCarParkbuilding	100.0	CompetitiveBiddingamongGovernmentAgencies	1 PrasadRanaweera(DD-Planning) -TeamLeader-(T.P-071-4446146)	Onsiterelocation tobefor Bus Standprojectandvestingtubecompleted(needCTBconsent)
		2.ConstructionofBusStand	2.Design&constructionofBusStand	75.0	CompetitiveBiddingamongGovernmentAgencies	2.AnushaDeSilva(DD-Projects) -Co.TeamLeader-(T.P-011-2888015)	
4	Piliyandala	1.LandDevelopment	1.LandDevelopment&Drainagework	100.0	CompetitiveBiddingamongGovernmentAgencies	1.PrasadRanaweera(DD-Planning) -TeamLeader-(T.P-071-4446146)	Landbelongs toUDA.Canstart immediately
		2.ConstructionofBusStand	2.ConstructionofBusStand	50.0	CompetitiveBiddingamongPrivateSector		

5	Kaduwela	1.ShiftingofPola&overflow Parking	1.Design&cons.OfPola&Public space	90	CompetitiveBiddingamongGovernmentAgencies	1.ThamaraJayagoda(DD-Planning) -TeamLeader-(T.P-011-2861114)	1.Section 38tobeproceeded to getthephysicalpossessionof land. Sectioncompleted(pola)
		2.ExtensionofCBKRoadto Ambathale	2.Roaddesign&Construction	100	CompetitiveBiddingamongGovernmentAgencies	2.SamanKapugamaarachchi(DD-Project)	2.Acquisitioncompletedfor road
6	Battaramulla	1.MixeddevelopmentStage1(Land	1.LandDevelopment,Drainagework&Onsite	1.40.0	CompetitiveBiddingamongGovernmentAgencies	1.ThamaraJayagoda(DD-Planning) -Co-TeamLeader-(T.P-011-2861114)	1. TemporaryAir Force accommodationto beshiftedfrom UDAlandto commenceland developmentwork.
		2.Cons.of Bypassroad.	CompletionofBypassRoad		Awarded.	2.LawanyaWeerasuriya(DD-Project) -Co.TeamLeader-(T.P-011-2862910)	
7	Malabe	1.LandAcquisitionforbypassroad&pola	1.Acquisitionoflands. 2.Design ofBypassroad&Pola	50.0	PRDAto beawardedthedesign&Co	1.ThamaraJayagoda(DD-Planning) -TeamLeader-(T.P-011-2861114)	Acquisitionprocedureshould be expeditethrough President proclamation
		2.Landdevelopment	3.Landdevelopment&Drainagework.		CompetitiveBiddingamongGovernmentAgencies	2.SamanKapugamaarachchi (DD-Projects) -Co.TeamLeader-(T.P-077-1988325)	

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No.	City	SubProject	Taskin2016	TECMillion	ContractMethod/Contractor	KeyProjectOfficers	Remarks
8	Borella	1.RenovationofBorellaMarket(Temporary)to relocateTypingwattashopstoreleaseland.	1.DesignforrenovationofBorellaMarketto relocateTypingwattashops. 2.NegotiationwithCMCandshoowners)	25.0	ConsultancybyUDA	1.JanakRanaweera(DD-Planning) -TeamLeader-(T.P-071-4756083) 2.ThushariThilakarathne(DDProjects)) -Co.TeamLeader-(T.P-011-2883308)	need to negotiate withCMC because the building belongs to CMC.
9	Wellampitiya	1.ConstructionofPola&Busstand	1.Designandconstructionofpola&Busstand		CompetitiveBiddingamongGovernmentAgencies	1.PrasadRanaweera(DD-Planning) -TeamLeader-(T.P-071-4446146) 2.ThushariThilakarathne(DDProjects) -Co.TeamLeader-(T.P-011-2883308)	LandsbelongstoUC.
10	Hanwella	1.LanddevelopmentforPolaStage2	1.Landacquisition 2.DesignofPolaStage2.		CompetitiveBiddingamongPrivateSector	1.ThamaraJayagoda(DD-Planning) -TeamLeader-(T.P-011-2861114) 2.ThushaniWelivitiya(DDProjects)	
11	Awissawella	1.BypassroadAmithirigalatoIndustrialZone	1.Vesttheland 2.DesignofBridge&ByPassRoad	1750.0	RDA	1.ThamaraJayagoda(DD-Planning)	UDA&BOlands.BOagree to givealand.Anewbridgeto be constructed.

			3.Constructionthebridge&ByP assRoad		CompetitiveBiddingamongPrivat eSector	-TeamLeader-(T.P-011-2861114)	
12	Panadura	1.Cons.OfBusstandStage3	1.DesignandconstructionofBus stand	170.0	CompetitiveBiddingamongGover nmentAgencies	1.RupaRanjaneer(DD-Planning) -TeamLeader-(T.P-011-2861113)	1. Cons. Bus stand can be commencedimmediatly,
		2.DevelopmentofGalawatt Land(Stage1)	2.DevelopmentofGalawatt Land.	65.0	CompetitiveBiddingamongGover nmentAgencies	2.AnushaDeSilva(DD-Projects) -	2.Someshopstoberelocated.
		3.Bypassroaddevelopme nt	3.Landacquisition	200.0	CompetitiveBiddingamongGover nmentAgencies	Co.TeamLeader-(T.P-011-3560674)	3.Landacquisition
13	Kalutara	1.PublicMarket&ParkingD evelopment	1.Design&Cons.OfPublicMark et&CarPark	90	CompetitiveBiddingamongGover nmentAgencies SubjecttoconcentofKalutaraUrban Council	1.RupaRanjaneer(DD-Planning) -TeamLeader-(T.P-011-2861113)	1. Land belongs to KUC. Some shopstoberelocated.
		2.Commercialdevelopme ntbetweenstation& busstand(Stage1)	2.Cons.OfCommercialbldg(Stage2)	100	Awarded.inprogress	2.ThushaniWelivitiya(DD-Projects) -Co.TeamLeader-(T.P-011-3560983)	2. Construction of Stage 1 in progress.
14	Horana	1.ConstructionofBusstand(Stage2)	1.ConstructionofBusstand.	160	Awarded.Inprogress	1.RupaRanjaneer(DD-Planning) -TeamLeader-(T.P-011-2861113)	1.Stage1isinprogress.Stage2t o beawarded.
		2.Cons.Ofbypassroad	2.LandAcquisition&DesignofB ypassRoad.	144.0	CompetitiveBiddingamongGover nmentAgencies	2.M.Hemanthi(DD-Planning) -Co.TeamLeader-(T.P-011-2876298)	2.landacquisitiontobeexphi dite.
		3.PolaDevelopment					3.Landacquisition

No.	City	SubProject	Taskin2016	TECMillion	ContractMethod/Contractor	KeyProjectOfficers	Remarks
15	Bandaragama	1.Cons.OfMarketBuilding	1.ConstructionoftheBuilding	90.0	CompetitiveBiddingamongGovernmentAgencies	1.RupaRanjaneer(DD-Planning) -TeamLeader-(T.P-011-2861113) 2.Hemanthi(DD-Planning)	1.LandbelongstoBandaragama PS.Twoshopstoberelocated.
16	Ragama	RailwayStationDevelopment(Phase1)	RedevelopmentofRailwayStation	150	CompetitiveBiddingamongGovernmentAgencies	1.ThamaraJayagoda(DD-Planning) -TeamLeader-(T.P-011-2861114)	
		RegenerationofCity	ConstructionofBusstandwithCommercial	70	CompetitiveBiddingamongGovernmentAgencies		
17	Kiribathgoda	MultiStoryCarParkwithShoppingmall(Stage 1)	Landacquisition	-			LandBelongs-PrivateSector
			ConstructionofCarPark	100	CompetitiveBiddingamongGovernmentAgencies		
	i.Udupila	ConstructionofPublicFair	1.Landacquisition	98.0	CompetitiveBiddingamongGovernmentAgencies		Vacant land available for developmentafteracquisition.
		ConstructionofTwo.BusHalls	1.ConstructionofTwoBusHalls	20.0	CompetitiveBiddingamongGovernmentAgencies		Availablefordevelopment
		JunctionImprovement(Roadwidening, Drainageandpav	1.Roadwideninganddrainageandpavements improvements	50.0	CompetitiveBiddingamongGovernmentAgencies	2.SamanthaKumara(AD-Planning) -TeamLeader-(T.P-033-2234757)	There is no relocation and availablefordevelopment
	ii.Henegama		1.Landacquisition	98.0			Thelandsarevacantandavailable

		Construction of alter	1. Vest the land		Competitive Bidding among Government Agencies		for construction after acquisition.
		Construction of community centre	1. Vest the land	90.0	Competitive Bidding among Government Agencies		Land owned by Public Trust and available for development
		Junction Improvement (Road widening)	1. Road widening and drainage and pavements	95.0	Competitive Bidding among Government Agencies		Available for development
18	Gampaha	1. Multi-storied Public Carpark - Stage I	Construction of multi-storied car park	98.0	Competitive Bidding among Government Agencies. Subject to consent of Gampaha Urban Council	1. Indika Balasuriya (DD-Projects) - Co. Team Leader - (T.P-011-3083864) 2. Samantha Kumara (AD-Planning) - Team Leader - (T.P-033-2234757)	Land is vacant and owned by Gampaha MC
		2. Pedestrian overhead bridge at Rathnawali	Construction of overhead bridge	75.0	Competitive Bidding among Government Agencies		Available for development
		3. Development of Bus stand at Molawaththa	Construction of Bus stand	75.0	Competitive Bidding among Government Agencies		Land is vacant and owned by
		4. Urban Park Development along - Yakkala Road	Land acquisition	50	Competitive Bidding among Government Agencies Subject to consent of Gampaha Urban Council		Available for development.

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No.	City	SubProject	Taskin2016	TECMillion	ContractMethod/Contractor	KeyProjectOfficers	Remarks
19	Ja-Ela	ImprovementofalternativeroadtoColombo-NegombomainRoad	RedevelopmentofExitingroadupto40ft.And 1.5kmlength.	50	CompetitiveBiddingamongGovernmentAgencies SubjecttoconcentofGampahaUrbanCouncil	1.AnushaLiyanamanna(DD-Projects) -Co.TeamLeader-(T.P-011-3560674) 2.SamanthaKumara(AD-Planning) TeamLeader-(T.P-033-2234757)	
20	Mahara	1.Multifunctionaldevelopmentprojectat MaharaJunction	Landacquisition	98	CompetitiveBiddingamongGovernmentAgencies	2.SamanthaKumara(AD-Planning) -TeamLeader-(T.P-033-2234757)	Land isowned byCoporativeand AGA.Ownesareagreedto hand
		2.Gongitotacommunityproject	Landacquisition	50	CompetitiveBiddingamongGovernmentAgencies		
		3.Enderamullastationareadevelopment	StationAreaDevelopment	45	CompetitiveBiddingamongGovernmentAgencies		Availablefordevelopment
		4.AGAOfficeJunction-Roadsidedrainageimprovement	DranageImprovement	50.0	CompetitiveBiddingamongGovernmentAgencies		Availablefordevelopment
		1.JunctionImprovement(Roadwidenin g, Drainageandpave	Roadwidening,Drainageand pavements	75.0	CompetitiveBiddingamongGovernmentAgencies		Availablefordevelopment
		2.Constructionofcommercialbuilding	LandAqasition&Construction ofCommercial Building	90.0	CompetitiveBiddingamongGovernmentAgencies		Vacant land available for developmentafteracquisition.
21	Kadawatha		1VesttheLand		CompetitiveBiddingamongGovernmentAgencies	Vacant land owned by CTB and CTB agreed tohandover theland fordevelopment	
	i.Ederamulla	ConstructionofPlaygroundandStormWater	1.VesttheLand&ConstructionofstromWater	98.0	CompetitiveBiddingamongGovernmentAgencies forDesiantheStromWaterDrainaa	LRC land and available for development	

		PublicFairDevelopment	VesttheLand&Strom WaterDrainage improvement	50.00	CompetitiveBiddingamongGov ernmentAgencies forDesignthePublicFair		Land isowned bythechurchand agreedfordevelopment.
ii. Welipillawa	WelipillawaJunctionImpro vement	Roadwidening,drainsandped estrianwalkways.	98.0	CompetitiveBiddingamongGover nmentAgencies		Project Components / Activitiesare road widening,drainsand pedestrian walkways.	
	DevelopmentofCommuni tyCentre	VesttheLand ConstructionofCommunityCe ntre	95.0	CompetitiveBiddingamongGover nmentAgencies	2.SamanthaKumara(AD-Planning) -TeamLeader-(T.P-033-2234757)	VacantlandofLRC	
iii. Malwathuh iripitiya	Multi-purposebuilding	VesttheLand&Constructionof theBuilding	98.0	CompetitiveBiddingamongGover nmentAgencies		Vacant state land available for development	
	PublicPlaygroundImprov ement	ConstructionofthePlayPlayGr ound	75.0	CompetitiveBiddingamongGover nmentAgencies		Availablefordevelopment	
	ConstructionofTwo.BusHal ts	ConstructionofBusHalts	20.0	CompetitiveBiddingamongGover nmentAgencies		Availablefordevelopment	

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No.	City	SubProject	Taskin2016	TECMillion	ContractMethod/Contractor	KeyProjectOfficers	Remarks
	iv. Idigahamulla	Junction Improvement (Road widening, Drainage and pavements)	Road widening, Drainage and pavements	50.0	Competitive Bidding among Government Agencies		There is no relocation and available for development
22	Mirigama	Road development from Rendapola Junction to Pasyala-Giriullamain road (Stage I)	Road Development	98.0	Competitive Bidding among Government Agencies	1. Lawanya Weerasuriya (DD-Project) -Co. Team Leader - (T.P-011-2862910)	Available for development
		98.0		2. Samantha Kumara (AD-Planning) -Team Leader - (T.P-033-2234757)		Land is owned by CGR and available for development.	
23	Negombo	Construction of Fish Market at Porutota	Vest the Land	75.0	Competitive Bidding among Government Agencies	1. Indika Balasuriya (DD-Projects) -Co. Team Leader - (T.P-011-3083864)	Land is owned by Coast Conservation Dept. and available for development
						2. Samantha Kumara (AD-Planning) -Team Leader - (T.P-033-2234757)	

Annexure - 03

TRANSPORTATION & HEALTH+ EDUCATION PRECINCTS - GENERAL LAYOUT



PRECINCTS

P1 - PRECINCT 1

STUDY AREA - PRECINCTS



Annexure – 04

Figure 01: Avissawella Plantation City Development Project detail UD Site Plans

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<p>SOCIAL GENERATORS</p>	<p>Housing for low income, middle and higher income groups, Housing for industrial workers, Upgraded General hospital/District hospital, Schools and other educational facilities, Adult education center, Cottage industries center for women, Plantation research & development center</p>
<p>ECONOMIC GENERATORS</p>	<p>Facilitation of diverse employment opportunities, Commercial facilities of different scale, Market precincts, Tourism-related facilities, rest rooms, etc. Support for local produce and local artifacts; cottage industries, Industrial zone related economic activities Plantation-sector related economic activities</p>
<p>CULTURAL GENERATORS</p>	<p>Public Parks, Urban community garden, Meeting place for elders, Community Reconciliation Centers, Youth Centers, Centers for performance arts, art galleries, etc.</p>
<p>INFRASTRUCTURAL GENERATORS</p>	<p>E-governance centre, Community composting centre, Transport hub, Weekend fair for local produce, Tourist service centers; information regarding local attractions; Internet facilities.</p>

Table 02: Avissawella Plantation City Development and Investment opportunities

Annexure – 04

TOWNSHIPS

Horana

1. Develop three specialized large scale industrial clusters. (Moragahahena/Millewa, Poruwadanda, Milleniya)
2. Develop Mini Logistics Hub at each cluster with access. (Highway, Proposed Ruwanpura highway, Proposed Rail link)
3. Use the existing Horana town center with improvements to cater future demand.
4. Preserve environmentally sensitive areas through regulation.
5. Use existing wetlands, Rubber and forest areas as green buffers for the industrial development.
6. Preserve environmentally sensitive areas through regulation.

Proposed industrial clusters.

INDUSTRIAL CLUSTER 01 - Moragahakanda-Millewa (1350 acres)

Proposed Activities

1. Industrial Zone

Precision Engineering, Bio Medical, Electronics, Associated SME's, Agro based Industries, Gem & Jewelry, Common Health Care facilities, Fire rescue facilities

2. Residential areas

Workers quarters, Housing Units, Recreational Activities, Day care/ nursery Retail shops & etc.

3. Logistics Hub

Container yard, Container handling facility, Warehousing , Cold Storages

Office space, Inter modal transfer facilities, Banking & Insurance &etc

4. Proposed Facilities.

- Uninterrupted power supply,
- Water supply, Fire fighting/ rescue facilities.
- Central waste water treatment plant, Solid waste management facilities.
- Storm water management, Telecommunication facilities.
- Wide access road, Multimodal logistics transportation facility.

- Shuttle bus services connecting residential areas and industrial parks.

INDUSTRIAL CLUSTER 02–Poruwadanda

Proposed Activities

1. Industrial Zone

Precision Engineering, Bio Medical, Electronics, Associated SME's, Agro based Industries, Gem & Jewelry, Common Health Care facilities, Fire rescue facilities

2. Residential areas

Workers quarters, Housing Units, Recreational Activities, Day care/ nursery Retail shops & etc.

3. Logistics Hub

Container yard, Container handling facility, Warehousing, Cold Storages
Office space, Inter modal transfer facilities, Banking & Insurance &etc

4. Proposed Facilities.

- Uninterrupted power supply,
- Water supply, Fire fighting/ rescue facilities.
- Central waste water treatment plant, Solid waste management facilities.
- Storm water management, Telecommunication facilities.
- Wide access road, Multimodal logistics transportation facility.
- Shuttle bus services connecting residential areas and industrial parks.

INDUSTRIAL CLUSTER 03 – Millaniya

Proposed Activities

1. Industrial Zone

Precision Engineering, Bio Medical, Electronics, Associated SME's, Agro based Industries, Gem & Jewelry, Common Health Care facilities, Fire rescue facilities

2. Residential areas

Workers quarters, Housing Units, Recreational Activities, Day care/ nursery Retail shops & etc.

3. Logistics Hub

Container yard, Container handling facility, Warehousing, Cold Storages
Office space, Inter modal transfer facilities, Banking & Insurance &etc

4. Proposed Facilities.

- Uninterrupted power supply,

- Water supply, Fire fighting/ rescue facilities.
- Central waste water treatment plant, Solid waste management facilities.
- Storm water management, Telecommunication facilities.
- Wide access road, Multimodal logistics transportation facility.
- Shuttle bus services connecting residential areas and industrial parks.

MALABE Science and Technology City

Develop twospecialized large scale Research and Development Hubs

1. Malabe Research and Development Hub

- Science Center,
- Medi City (R&D University, Specialized Hospital complex, Pharmaceutical facility area, Research incubators, Housing)
- Research and Development University,
- Convention Center
- Atriums- Business Enterprise Hub (Business Support Functions)
- Courtyards - Small and Medium Enterprise Hub, Innovation and
- Manufacturing Hub
- Star class Hotel (200 rooms)

2. Avissawella

Precinct 1. Transport Hub –Railway Station and New Bus Terminal, Commercial Zone

Precinct 2. Retail Hub- , Rubber and retail zone, Mix Residential Zone, Commercial Zone

Precinct 3. Administrative Hub- Existing Administration /Civil Authorities Potential New Office.

Precinct 4. Health and Education Hub Upgrade Existing Hospital Upgrade Existing School Commercial Zone.

Precinct 5 industrial Hub, Existing FTZ, Commercial Zone, Residential Zone

3. Forest City

- National Pre historic Museum and Research Center
- Tropical Forest Research Center

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- Forest Adventure Park
- Tropical Rain Forest Exploration, Conservation and Research Center
- Craft Villages –clay crafts, mask making
- Recreation and Hotel Development, Mid-Size Hotels, Boutique Hotels
- University
- Dendro and Renewable Power Stations
- Township Enhancement
- Upgrading the Rubber Research Center in Agalawatta
- Upgrading the Paddy Research Center in Bombuwala.

Annexure – 5.1 RESEARCH AND DEVELOPMENT CLUSTER

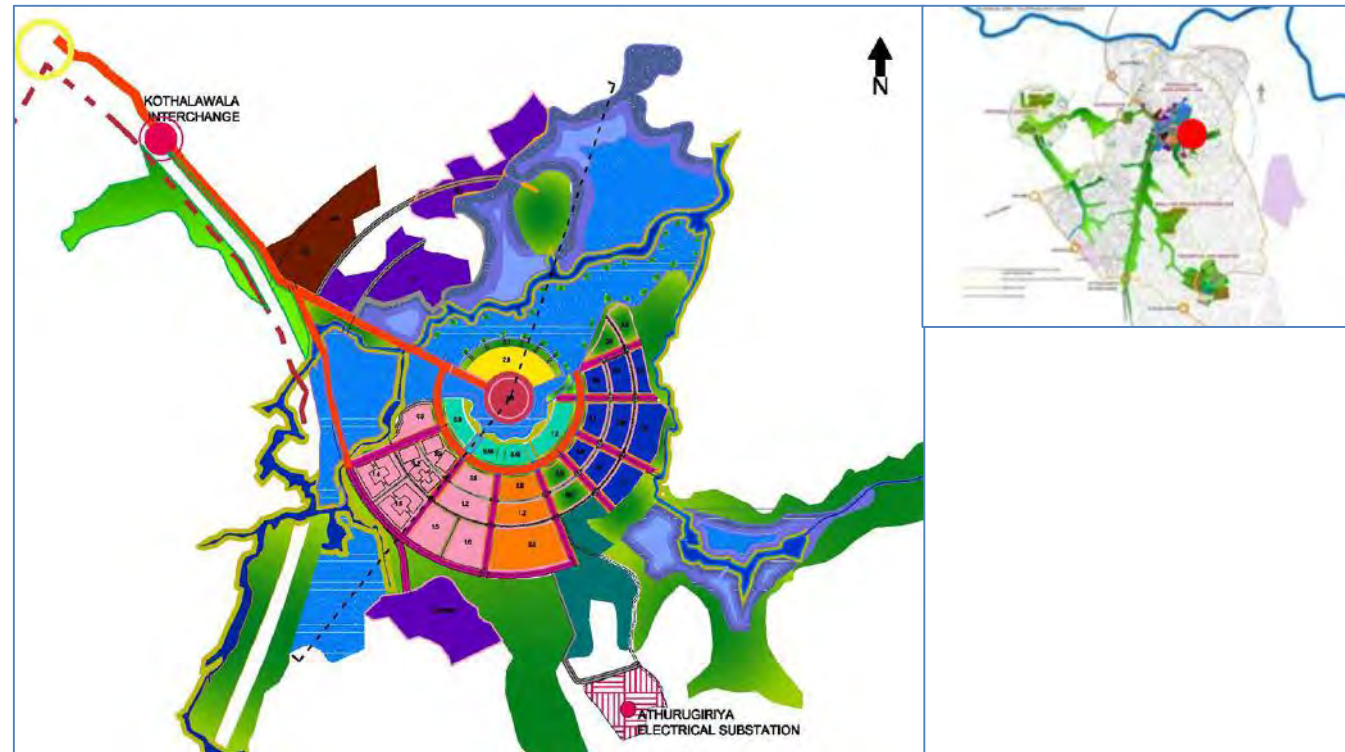
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RESEARCH AND DEVELOPMENT CLUSTER

ECO INFRASTRUCTURE –ECO FEATURE – ‘WATER FRONT’

Proposed Activities

- Nanotechnology
- Biotechnology
- Mechatronics
- Electronics
- Advanced manufacturing
- Advance materials
- ICT
- Satellite communication
- Robotics
- Advanced engineering design
- IT



BUSINESS INCUBATOR CLUSTER

ECO INFRASTRUCTURE –ECO FEATURE – ‘ATRIUM’

Proposed Activities

- Physical infrastructure
- Business support functions
(Management, marketing, Information, administration and legal supports)



ENTERPRISE CLUSTER

ECO INFRASTRUCTURE –ECO FEATURE – ‘COURTYARD’

Proposed activities

1. Small and medium enterprise hub
 - Shop houses
 - Workshops
 - Training center
2. Innovation and manufacturing hub
(Information Technology Park)
 - Inter industry linkages
 - Joint projects among firms

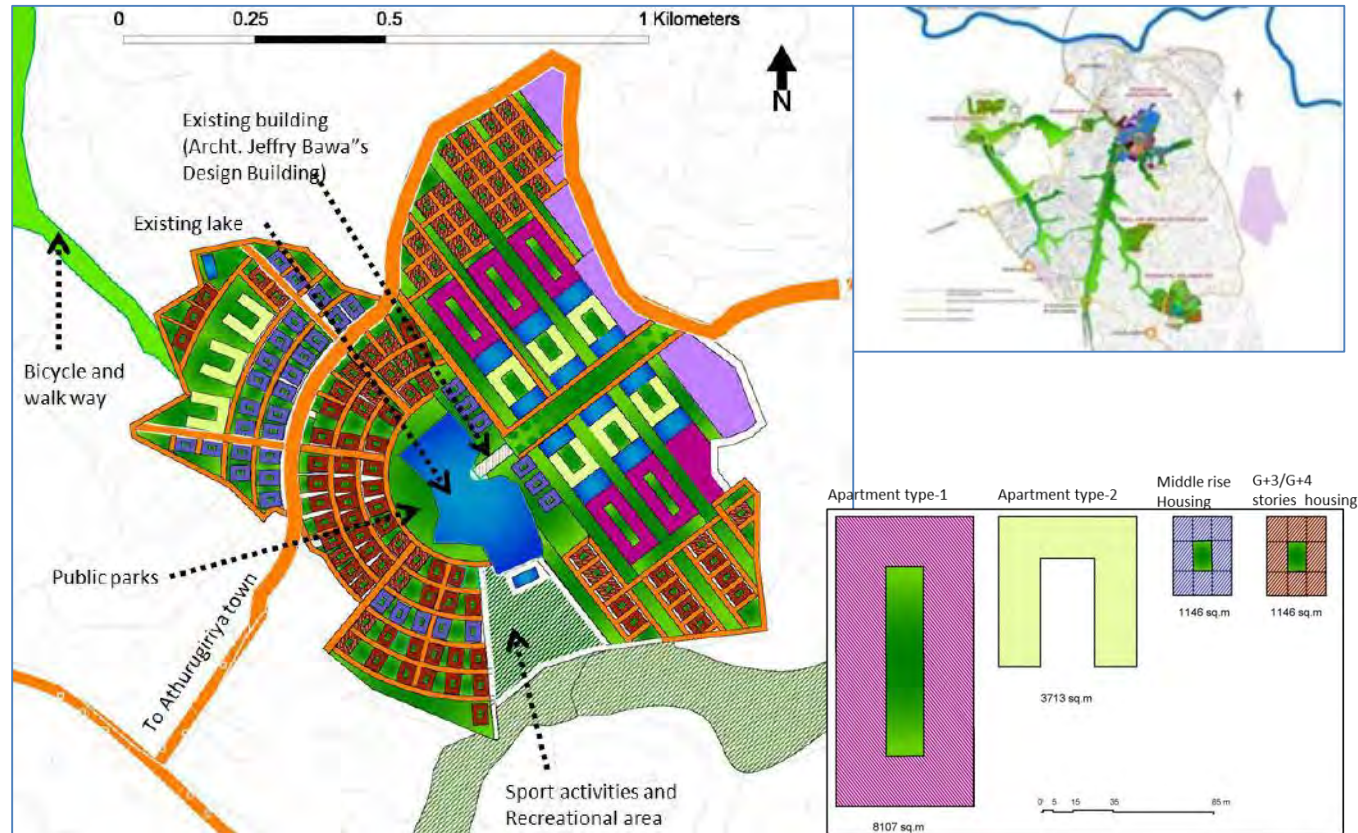


RESIDENTIAL TOWNSHIP

ECO INFRASTRUCTURE –ECO FEATURE – ‘FOREST PARK’

Proposed activities

- Apartment type housing
- 3 and 4 storied housing
- Shopping complex
- Cinema
- Sport activities
- Recreation Activities



Annexure – 5.2

GUIDELINES

Environmental Planning Guidelines

A new form of city living which includes the 'greening 'of megacities and even small cities starting by recycling whatever is possible and cutting car use to a minimum as well as :

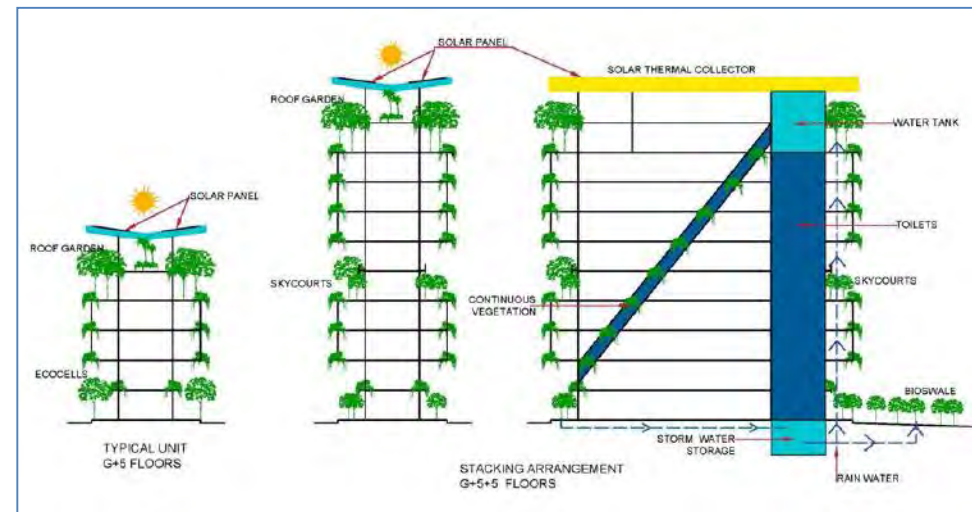
- Developing energy –efficient buildings.
- Placing emphasis on increasing the use of public transportation.
- Redesigning how cities are organized to integrate work and living areas into a single neighborhood; rather than separating cities into residential, commercial and industrial zones.
- Utilizing hanging gardens and water fountains to cool the air.
- Developing wind turbines and roof top solar cells to generate the electricity used in buildings.
- Rooftop rainwater collectors to supply much of the water needs.
- Minimize the need for the use of cars by building multiple centers where people live close to their work in high rise blocks that are also near public the transportation hubs.
- Planting more trees along the streets to help reduce the air temperature.
- Have more low- rise buildings surrounded by forests, organic farms and lakes.
- Providing better recycling of waste products with anaerobic digesters to convert sewage and compost into biogas which will be used for cooking, heating, and power generation.
- Develop walkable areas with shops, schools, jobs, and services close o housing.
- Layout streets to favor public transportation, bicycles and pedestrians and to make it difficult for cars to be used.
- Urban farming creates green spaces, recycles, waste, cuts down on freight transport.

Building Guidelines

- All buildings to adhere to building guidelines identified in zoning plan and height restrictions
- All buildings to be sustainable in terms of waste disposal and energy conservations
- All buildings adhere to bio climatic design practices with maximum technical innovations
- Create green roof terraces larger than the foot print of the buildings.
- Create vertical garden in all floors and every 10 floor to be a green space with vegetation.
- Create a podium connecting with ground level through landscape terraces.
- Create vertical gardens harnessing water as storages.

Architectural Design Guidelines

1. All buildings to be constructed with concrete and to be made of units ground + 5 with 6th and 7th floors to be used as sky garden crated by 10m setbacks allowing for landscaping using indigenes plants carefully selected to create the necessary microclimate for attracting birds and fruit bearing plants
2. East and west facing façade to be made as rain harvesting zones to collect for gray water usage and the surplus water is allow to drain to catchment area for recirculation.
3. Solar panels are extensively use for both hot water and electricity generation
4. All solid and liquid waste is store separated and treated or incinerated before disposal.
5. All rain water is circulated thought bio-swell and reed marshes for purification.



Annexure – 06

Location/Buildings	Colombo District
	- The Dutch Fortification walls of the site of the Harbour and the Light House and to trace the rest of the fortifications,
	- Portuguese Fortification,
	- Marine and other under water wrecks,
	<u>PETTAH</u>
	Red Mosque
	Dutch Museum
	Old Town Hall
	<u>KOTAHENA</u>
	AnnaiVelangani Church
	Wolvendaal Church
	St. Lucia's Cathedral
	St. James' Church
	New KathiresanKovil
	St. Anthony's Shrine
	ShriPonnabmbalawaneswaramKovil
	<u>HULFTSDORP</u>
Chief Magistrate Court	
All Saint's Church	
High Court	

A

Location/Buildings	<u>FORT</u>
	Miller's Building
	Cargill's Building
	Old Parliament
	Lakehouse
	Dutch Hospital
	Colombo City Hotel
	HSBC Building
	Chatham Street
	Presidential Palace
	Grand Oriental Hotel
	Gaffoor Building
	St. Peter's Church
	PWD
	Laksala
	Regal Cinema
	Regal Apartments
	Baus Flats
	HNB
	Old Port Passenger Terminal
Kaluthara District	
- The Fahiens cave, Bollunna and Aduragala prehistoric cave	
Gampaha District	
- Ancient paintings of TampitaVihara, Attanagalle, RaddalgodaTampitaVihara, Mirigama, WekeMillatheTampitaVihara at Mahaloluwa, Mahara, Uduthuththiripitiya Ancient tampitaVihara, Gampaha PahalagamaTampitaVihara at Yatawatta	

PuranaVihara, Minuwangoda, Metikotumulla
TampitaVihara at SaddarthilakaramaVihara,
Important shrines such as Attanagalla Ancient
Vihara and paintings, Gampaha
KoskandawalaAncientVihara and Paintings,
Thihariya Ancient Vihara and paintings at
Varana Raja MahaVihara, Ancient Vihara and
Paintings at Sapugaskanda Raja MahaVihara,
Pilikuththuwa Ancient Vihara and Paintings at
PilikuththuwaVihara, Mahara.
- Ledged Cave SitesAmbagahawatta,
Kekirihena, Midigahalanda, Viharakandawatta,
Lindara Raja MahaVihara
- Conserve ambalam of MaharaAmbagaspitiya,
Bollatha, Mahara,
- Conserve prehistoric cave sites Pilikuththuwa,
Warana , Kalaotuwawa , Alawala,
Danawukanda and Samanabadda

Annexure – 07

Name of Institution	Street	Nu. Employers	Nu of Floors	Land extent	No
CID Office	York Street	1481	8f	-	1
SL. Telecom	Lotus St.	1500	9f	3A 1R 15P	2
Inland Revenue	Sir. Chitt. Ga. Mw	1500	15f	2R 38 P	3
Training Ce	Nawam Mw	300	-	-	4
Data Centre	Jawatte Rd	200	-	-	5
NHDA	Sir. Chitt.	2200	9f	-	6
CECB	Ga. Mw	800	10f	3R 34p	7
Dept. Of	Sir. Chitt.	340	2f	6A 0R 28P	8
Postal	Ga. Mw	245		1A 0R 26P	9
Moter Traffic Police	D.R. Wejewrdena Mw.				
	Mihindu Mw.				10

Category	No.
Departments	50
Authorities & Boards	32
Ministries	31
Total	113

Selected Criteria for Relocation Program – Phase 1

- Distance from the city center (Core area)
- Number of employees
- Service provision to the public
- Utilization of the land
- Economic value of the location
- Present issues of the location

List of the Government offices / intuitions that are to be relocated under Phase 1

1. President House
2. Presidential Secretariat
3. Prime Minister's Residence
4. Prime Minister's Secretariat
5. Prison Head quarters
6. Defense Head Quarters
7. Mahaweli Development Authority
8. Department of Survey
9. Labor Secretariat
10. Department of Motor Traffic
11. CID Office
12. Sri Lanka Telecom
13. Motor Traffic Department
14. Department of Inland Revenue
15. National Housing Development Authority
16. CEB
17. Postal Department
18. Ministry of Transport
19. Ministry of Disaster Management
20. Manning Market

Annexure – 08

PROCUREMENT ARRANGEMENTS AND FINANCIAL MODELS FOR WESTERN PROVINCE MEGAPOLIS PROJECT (WPMPP)

1. Background:

In the planning process of Western Province Mega polis Project, different groups, sub-groups and sub-committees are appointed to study and make recommendations/report on various aspects pertaining to the planning of the project. This report is prepared by the Sub-Group on Procurement Arrangements and Financial Modeling, which was meant to make recommendations on available procurement methods that should be followed for procurement of services/projects and goods under the Megapolis Project and preferable financial models that could gain best advantage to the public.

Agreed Terms of Reference of the Committee is as follows.

1. Review of project concepts/projects identified and proposed by the committees for identification of projects under Mega polis Development Project.
2. If necessary, call for additional information from respective committees that may be required for the review.
3. Considering the crosscutting issues pertaining to projects proposed by different committees
4. Identify areas where there are overlapping between suggested projects.
5. Packaging/combining of projects or part thereof, with due regards to economy, rationality, financing feasibility etc.
6. Identify public, private or donor funding financing feasibility considering the nature of the project and recommending a financing model for consideration
7. Recommending 50 to 60 medium and large scale projects with a implementation time plan to meet overall objective of Megapolis Project

Followings, representing public institutions that are related to the subject and also respective subject matters were appointed as the members of the Committee;

<u>Name</u>	<u>Designation/Subject</u>
1. Mr. W.D. Jayasinghe	Chairman of Sub Committee/ Procurement Specialist
2. Ms. I. Wijegunawardene	Land Commission
3. Mr. M.F.A. Mubarak	National Planning Department
4. Mr. SamanSenarathne	External Resources Department
5. Mr. D. Siriwardene	Urban Development Authority
6. Mr. Vidarshan Fernando	Board of Investment
7. Mr. T. Hewawasam	Expert on Legal & Institutional Framework
8. Mr. A. Wedamulla	Expert on Land Acquisition & PPP Models
9. Mr. SudarshanSenaratne	Expert on Financial Modelling
10. Mr. AvanthiJayathilake	

The Committee convened 09 meetings from 22nd June 2015 to 16th September 2015.

During its deliberations, the Committee decided to appoint following sub-committees to study and report on the issues, which are mentioned therein.

- 1) Status of Joint Venture Projects, Land Acquisition and Allocation process (headed by Mr. A. Wedamulla)
- 2) Recommended process to be followed for the private sector investors by the sub-committee (Mr. D. Siriwardene and Mr. V. Fernando)
- 3) Obtaining Environmental clearance in the process of procurement (headed by Mr. A. Jayathilake)

Reports of said committees are attached as Annex: 1.

2. Introduction:

Public procurement is acquisition of goods, works and services by the government in a matter, which is acceptable to the general public, from private sector or public bodies through contracted agreements. Value for Money (VfM) efficiency, integrity, accountability, equal opportunities, effectiveness and opening up public markets for international trade are main objectives of public procurement, ensuring an open, transparent and compliant process. Further, due to the correlation with public expenditure management which large sums of public funds involved, public procurement process is built upon the concept of VfM. Therefore public procurement process should produce economically and qualitatively best goods, works and services aligning with integrity and transparency plays a pivotal role as a strongly influential economic factor in all facets of development programmes. This has created a challenge in implementation of public project.

Public procurement process made more challenging, with the notion of Public Private Partnership (PPP), which came to practice and developed in 1970s and 1980s as a financing model and it changed the standard model of Public Procurement, enabled the public sector to harness the expertise and efficiencies that the private sector can bring to the delivery of certain facilities and services traditionally procured and delivered by the public sector. It is structured so that the public sector body seeking to make a capital investment does not incur any borrowing. Rather, the private sector vehicle implementing the project incurs the PPP borrowing. Over a period of time this situation has change by changing the degree of contribution of the private sector and sharing the risk involved with the projects by both public and private sectors. Nevertheless, amidst the above changes, competitiveness is considered as the best practice as such private sector involvement also tent to deliver public goods at the cost to the public.

As such, following basic three principles in public procurement remains unchanged and all public procurement laws, procedures and processes are based on them;

- I. Timely procurement (Speed and appropriateness of timing)

- A
- II. Ensuring most advantageous work, goods or services are procured (Value for money)
 - III. Ensuring level playing field for all the competitors and stakeholders (Openness and transparency)

It was said that, recent amendments (Supplement 23) which are introduced to Part II of the Guidelines on Government Procurement Procedure, to accommodate unsolicited proposals was mainly to ensure expeditious procurement of infrastructure projects, more particularly roads and water supply. In the recent past this issue was openly discussed by the public, criticizing that entertainment of unsolicited proposals paved the way for corruptions, while increasing the cost of the projects well above the market rates.

This is due to giving an undue weightage to speed in public procurement while underestimating the other basic principles of public procurement. Mere effort to achieve the speed would eventually open the floodgates for corruptions, misuse of public funds and procurement of mega projects, with no proper assessment on cost and benefits and national priorities. Hence balance approach to achieve overall economic objectives in a systematic, planned manner through the mean of Public Procurement would be more results oriented.

Therefore, any procurement system or process, irrespective of PPP or public procurement, which fails to operate within the above three basic principles would no doubt be open for public criticism and will be opened for corruption and mismanagement of public fund, causing undue cost to the public.

3. GENERAL PROCUREMENT ARRANGEMENT IN THE COUNTRY

In case of procurement under the Mega polis Project or any other public procurement, in Sri Lanka, it is mandatory to use following guidelines, which are in force for procurement of works, goods, consultant services and private sector financed project, as such guidelines have the force of law on procurement issues, within the jurisdiction of the territory of Sri Lanka and as applicable law on procurement matters is the law of Government of Sri Lanka.

1. Procurement Guidelines – 2006, applicable to procurement of goods and works under the project financed by the Consolidated Fund or Foreign Financing Agencies (Bi-lateral or Multi-lateral)
2. Guidelines, Selection and Employment of Consultants – August 2007.
3. Guidelines on Government Tender Procedure applicable to procurement of private infrastructure projects - 2000.
4. Procurement Guidelines of multi-lateral and bilateral financing agencies. (if use of such guidelines are mandated in the loan agreement for project financing)

The Courts of Sri Lanka have accepted that the provisions of the Guidelines have the force of Law on Procurement issues. In this connection, Supreme Court judgment in the case: SmithKline Beecham Biological S. A. and Another v. State Pharmaceutical Corporation of Sri Lanka and Others (April 16, 1997) is most relevant. Honorable Supreme Court Justice, Dr. Amerasinghe, while delivering judgment on a procurement related case drew attention to provisions of Article 12(1) of the Constitution, stating, "With great respect, I am unable to accept the view that "law" in Article 12(1) is confined to the enactments of Parliament. In my view law includes regulations, rules, directions, instructions, guidelines and schemes that are designed to guide public authorities. If they contain provisions that are impermissible in terms of the provisions of Article 12 (1), or if in their application the guarantee of article 12(1) are violated, they must be declared unconstitutional". Preceding this, his Honor made reference to the contents of Article 12(1) which states that "All persons are equal in the law and are entitled to the equal protection of the law". The fifty-six page judgment published by Sri Lanka Law Reports makes references to the Guidelines and their provisions extensively. From the judgment, inference can easily be drawn that the Guidelines have the full force of law. As such it is mandatory to follow the prescribed procurement procedure in public procurement in Sri Lanka.

Provision under Chapter XIX B– Sec. 156b. (1), in the 19th Amendments to the Constitution of Democratic Socialist Republic of Sri Lanka for establishment of the National Procurement Commission has further reinforced the legality of the procurement guidelines on procurement matters in the Country

3.1 Procurement Guidelines – 2006 for Procurement of Goods and Works

Procurement of goods and works under the projects in whole or in part financed by GoSL or a Foreign Funding Agency should be done in accordance with the Procurement Guidelines – 2006. However, In the case of a Foreign Funded Project, if the Foreign Funding Agency mandates the use of Procurement Guidelines of such funding agency, such funding agency guidelines shall prevail over the Guidelines, 2006 to the extent applicable. In the event of a conflict between these Guidelines and that of the funding agency, the funding agency guidelines shall take precedence over the Guidelines- 2006.

Following methods of procurement are available, depending on the nature of such procurement.

- I. International Competitive Bidding
- II. National Competitive Bidding
- III. Limited/Restricted International Competitive Bidding and Limited/Restricted National Competitive Bidding
- IV. Shopping
- V. Direct Contracting
- VI. Repeat Orders
- VII. Force Account
- VIII. Emergency Procurement
- IX. Community Participation in Procurement
- X. Two Stage Bidding
- XI. Two Envelope System
- XII. Pre-qualification of Bidders

Financial thresholds applicable to procuring entities, such as Department Procurement Committees, Ministry Procurement Committees and Cabinet Appointed Procurement Committees are varies according to the source of funding and nature of the work or goods.

Authority	GOSL Funded Projects	Foreign Funded Projects
Cabinet Appointed Procurement Committee (CAPC) for Works	More than or equal to Rs.100 m	More than or equal to Rs.500 m
Cabinet Appointed Procurement Committee (CAPC) for Goods and Services	More than or equal to Rs.100m	More than or equal to Rs.300 m
Ministry Procurement Committee (MPC) for major contracts - Works	Less than Rs.100 m	Less than Rs.500m
Ministry Procurement Committee (MPC) for minor contracts – Works (when Procuring Entity is ministry)	Less than Rs.10 m	Less than Rs.25 m
Ministry Procurement Committee (MPC) for major contracts - Goods and Services	Less than Rs.100 m	Less than Rs.300m
Ministry Procurement Committee (MPC) for minor contracts – Goods and Services (when Procuring Entity is ministry)	Less than Rs.5 m	Less than Rs.10 m

3.2 Guidelines, Selection and Employment of Consultant

The purpose of the Guidelines is to set forth the procedures that should be adhered to by the Procurement Entities, in carrying out any selection and employment of Consultants, financed in whole or in part by GoSL or a Foreign Funding Agency, in the circumstances where the PE is lacking the necessary:

- (a) Expertise;
- (b) Knowledge; or
- (c) Organizational strength
to carry out the proposed assignment

Following methods of selection are available for selection and employment of consultants, depending on the requirement of the procurement entity.

- I. Quality and Cost Based Selection (QCBS);
- II. Quality Based Selection (QBS);
- III. Selection under a Fixed Budget (FBS);
- IV. Least Cost Selection (LCS);
- V. Selection Based on Consultant's Qualifications (CQS);
- VI. Single Source Selection (SSS); and
- VII. Selection of particular types of Consultant

Guidelines 2.10.1 prescribes the authority levels of different procurement entities.

3.3 Guidelines on Government Tender Procedure applicable to procurement of private infrastructure projects - 2000.

Infrastructure projects, which are not identified, to be financed under the Consolidated Fund, may be identified to be financed/developed by private investors. Projects financed by the private sector will be considered on a Build, Own and Operate, Build, Own and Transfer, Build, Own, Operate and Transfer (BOO/BOT/BOOT)* and other variants would be built, owned and operated by the investor or transferred or leased to the public sector after a concession period.

Co-ordination

The Bureau of Infrastructure Investment (BII) of the Board of Investment of Sri Lanka (BOI) will function as the promoting, facilitating and coordinating agency for servicing the Line Ministries/Line Agencies in this regard under the overall supervision of the Ministry of Finance. However, the final responsibility and authority of selection and approval will lay with the relevant line Ministry and the Cabinet of Ministers respectively.

On following basis, Infrastructure Development Projects will be managed by the Private Sector.

- I. Build- Own-Operate (BOO),
- II. Build-Own-Transfer (BOT)
- III. Build-Own-Operate-Transfer (BOOT)
- IV. or other variant basis, which will be wholly or partly implemented by the private sector.

Infrastructure projects that will be considered under the guidelines include, but are not limited to:

- o - power plants
- o - highways
- o - ports
- o - airports
- o - telecommunications
- o - railways
- o - transport systems
- o - industrial parks
- o - solid waste management
- o - water supply and drainage
- o - Warehouses, housing, markets etc.
- o - Land reclamation
- o - Other economic infrastructure

Cabinet Appointed Negotiating Committee

The Cabinet will appoint a Negotiating Committee to handle all matters pertaining to BOO/BOT projects and make recommendations on the selection of a proponent.

The composition of CANC shall be determined by the Cabinet. Generally the Chairman of CANC may be Secretary to the Treasury or Deputy Secretary to the Treasury. The Secretary of the relevant line Ministry/Ministries and Chairman/BOI may be the other members.

Project Committee (PC)

The Project Committee will be constituted once the Cabinet in principle approves the project. The Project Committee will be appointed by the Secretary to the Treasury at the request of the Secretary of the line Ministry in liaison with BII. Its membership will include representatives of the following Ministries/Departments:

- I. Line Ministry
- II. Ministry of Finance & Planning
- III. BOI/BII
- IV. Relevant State Agency/ies
- V. Attorney-General's Department

- VI. Any other Ministry/Department/Agency as appropriate:
- VII. Central Environmental Authority

The PC may co-opt consultants/experts from time to time to obtain expert advise. The Committee will service project development and will also be responsible for guiding the project through its various stages of implementation.

3.4 Procurement Guidelines of multi-lateral and by-lateral financing agencies.

If use of such guidelines are mandated in the loan agreement for project financing by the respective financing agency (World Bank, Asian Development Bank, Japan Bank for International Cooperation etc.) Procurement Guideline – 2006 has made provision to use such guidelines for procurement of goods, works and consultant services. And increased financial thresholds also granted to the procurement entities, such as CAPCs, MPCs and DPCs, as such financing agencies to review major procurement prior to float of bids and post procurement review for small scale procurement. Further it is mandated to use Standard Bidding Documents of those financing agencies.

3.5 Applicability of Procurement Guidelines.

Application of procurement guidelines, which are in force is mainly depending of source of funding to the particular procurement or the project.

Source of Funding	Applicable Procurement Guidelines
Consolidate Fund	<ul style="list-style-type: none"> I. Procurement Guidelines – 2006 for procurement of goods and works. II. Guidelines, Selection and Employment of Consultants – August 2007.
Foreign Financing (Bi-lateral or Multi-lateral)	<ul style="list-style-type: none"> I. Procurement Guidelines – 2006 for procurement og goods and works. II. Guidelines, Selection and Employment of Consultants – August 2007. <li style="text-align: center;"><u>or</u> III. Procurement Guidelines of respective funding agency, if specified to use in the loan/financing agreement
Private Sector Financing	<ul style="list-style-type: none"> I. Guidelines on Government Tender Procedure applicable to procurement of private infrastructure projects - 2000.

3.6 Concerns over the Use of Existing Procurement Arrangements

Major concern over application of procurement guidelines in procurement of goods, works, services and private sector infrastructure projects is **the delay** in catering the needs of the public and utilization of allocated limited resources. In my opinion the delay is not merely inherited with the procurement procedure. The procedure is prepared with due regards to international best practices, in consultation with bilateral and multilateral financing agencies with the view to achieve following objectives.

- (a) maximizing economy, timeliness and quality in Procurement resulting in least cost together with the high quality;
- (b) adhering to prescribed standards, specifications, rules, regulations and good governance;
- (c) providing fair, equal and maximum opportunity for eligible interested parties to participate in Procurement;
- (d) expeditious execution of Works and delivery of Goods and Services;
- (e) compliance with local laws and regulations and international obligations;
- (f) ensuring transparency and consistency in the evaluation and selection procedure; and
- (g) retaining confidentiality of information provided by bidders.

3.6.1 Reasons for the delay in procurement of development projects.

- lack of capacity (Planning and Procurement)
- lack of integrity
- procedural issues including multi layered procurement entities
- multi-layered procurement entities
- issues related to resource allocation.
- pre-procurement arrangements

3.6.2 Lack of Capacity:

Many positive steps have been taken to strength the capacity of public officers in the areas of planning and procurement. As procurement is a integral part of resource allocation and utilization process, identification of projects on priority basis objectively is very much essentials, to ensure rational allocation of resources as well as to plan the procurement to ensure timely delivery.

3.6.3 Lack of integrity:

This has to be maintained by procurement personnel all trough out the procurement process. Existence of open, transparent systems and procedures, which allows all stakeholders to participate on pre-disclosed rules, regulations, terms and conditions would put additional pressure to procurement staff to maintain integrity. Proper planning to a greater extent contributes in these regards.

3.6.4 Procedural issues:

- Rewards, as well as punishment provisions

Present rewarding system has to be made attractive, with due consideration to the magnitude of procurement and timely completion. And for the delay it has to be compensated accordingly. Introduction of a Procurement Law to define the broader legal framework of public procurement may be considered for with provisions for punishment for violation of the procedure.

➤ Procurement Committees/Technical/Bid/Tender Evaluation Committees

It is the high time to consider of having two layers and to explore the possibility for having one procurement committee.

➤ Provisions for a second bid soon after bid opening (If bids are high).

This would pave the way to bring down the cost of the project, as the bidders have to compete in a open environment, with the knowledge of the bid price immediately after bid opening.

➤ Bid opening and Bid evaluation

Instead of having two committees, Procurement Committee should commence evaluation of bid, immediately after bid opening, and to be continued till the evaluation is completed.

➤ Authority of the Cabinet and its approval process

Once the Cabinet appoints the CAPCs, recommendations of the CAPC should be submitted to the Secretary to the Cabinet with copies to the respective line ministry, instead submitting such recommendations to the line ministry for the line ministry to submit a Cabinet Memorandum. As the Cabinet is the ultimate authority to approve the recommendations of CAPC, and the Cabinet appoints CAPC, this will be the clear line of authority and thus reduce the delay.

3.6.5 Issues related to resources:

▪ Human resources

This is the major cause for the delay in procurement. Procurement should be handle by a professional group, representing various subject matter specialists, including finance, engineering, legal etc. As finding such specialists to each and every organization is not practical, option to create a "Central Unit" with highly competent procurement professional to handle complicated procurements would bring more results.

▪ Financial/Liquidity issues

One of the contributory factors for the delay in implementation of development projects is liquidity issue related to payment for work performed. This issue to be addressed by creation of a separate fund to finance such projects temporarily until such time the amount is reimbursed through the normal financing mechanism or else opening up local LCs for a portion of the contracted amount and to allow contractor to claim the amount due on a certificate of the implementing agency, if the bill is not settled during the period specified in the agreement.

3.6 Pre-procurement arrangements:

Completion of following pre-procurement arrangement/steps is a prerequisite to ensure appropriate and timely procurement, gaining VfM.

- Environment clearances
- Land acquisition
- Plans, designs, cost estimates, including the cost of procurement preparedness
- Procurement planning, Procurement Activity Schedule
- Sanctioning the estimates
- Rational packaging of bids.
- Bidding documents

Commencement of the procurement process without making necessary pre procurement arrangement is one of the major contributory factors for the delays in acquiring public goods. More emphasis is to be given to make pre-arrangement, as it is the process, which ensures procurement of best advantageous good, work or service, on competitive basis in timely manner. Out of the above pre-procurement activities, it is the experience that obtaining **environment clearance** and **acquisition of necessary lands and preparation of plans, designs, and cost estimate** are the most time consuming and complicates activities.

3.6.1 Environment Clearance

The National Environmental Act (1980) has stipulated environmental clearance process which involves doing either an Environmental Impact Assessment (EIA) or an Initial Environmental Examination (IEE). While the major impacting projects which are listed as Prescribed projects need to undergo EIAs, those projects with lesser impacts can be cleared with IEE approvals. The concept of Strategic Environmental Assessment (SEA) has also been adopted by the Central Environmental Authority with the objective of assessing environmental impacts at strategic level due to projects of multiple nature such as tourism Master plan or northern regional development plan.

Due to the complexity of the some multifunctional Projects, a SEA can be prepared to ensure that all potential impacts at strategic level are identified early, so that appropriate corrective measures can be recommended when projects are formulated. Hence, the SEA process may help to minimize the time and extensive studies that are usually required for completion of an EIA.

It is recommended that projects if fall within the WRM areas have been cleared under the SEA, such projects should undergo an environmental clearance process such as IEE, so that the time and requirement of extensive nature of the studies can be reduced.

3.6.2 Land Acquisition Process Pertaining to the Preparation and Implementation of WRMP

The total land area of the three districts which are coming under the purview of the of the WRMP are as follows;

Colombo District 69900.0 Hec.

A Gampaha District 138700.8 Hec.

Kalutara District 160760.0 Hec.

Total 369360.8 Hec.

General indication is that about 20% of the total extent of the western region is state owned. The government departments, local authorities and statutory organizations manage/own these state lands. The WRMPP will come out with varied type of development projects to provide physical and social infrastructure to serve the public. In addition there will be housing, commercial, industrial and recreational projects. Land is the basic requirement to locate each and every project. It is the responsibility of the project-implementing officers to find the most suitable locations to locate the projects. The first step in finding suitable locations is to make sure whether developable state lands are available. If not the alternative is to look for suitable private lands. However, in case of large projects such as roads, reservoirs etc., there is no option other than going for private lands. Finding the most suitable site to locate a development project is the responsibility of the officers that will be attached to the WRMPP. These officers will have to investigate the suitability of the land identified for acquisition and gather required information to initiate the acquisition under the provisions of the Land Acquisition Act No.9 of 1950.

3.6.3 Legal and Institutional Profile of Land Acquisition

Legal Profile

The compulsory acquisition of private lands in Sri Lanka was commenced with the enactment of Land Acquisition Ordinance of 1876. The Land Acquisition Act No.9 of 1950 (LAA), the Act presently in operation was built upon the 1876 Ordinance. This Act repealed and replaced the Land Acquisition Ordinance 1876. According to the preamble of LAA, it is "an act to make provision for acquisition of private lands and servitudes for public purposes and to provide for matters connected with or incidental to such provision" LAA provides detailed procedure for acquisition of land or servitude, and sets out a process with several inbuilt safeguards. In case of an urgent acquisition, there is provision under Section 38 A of LAA to take over possession on priority basis. The provisions of LAA apply to the acquisition of land for ministries, government departments, local authorities and statutory bodies.

3.6.4 Other Laws Related to Land Acquisition

Fulfilling the provisions of certain other laws is necessary to proceed with certain acquisitions.

Legal Safeguards for Land Acquisition and Involuntary Resettlement

No	Law/Subsidiary Legislation	Purpose	Provisions for Safeguards
1	National Environmental Act (1980)	(i) establishment of an EA procedure is necessary for	(i) 23 AA(1) – WRMPP will be required to obtain approval

		<p>'prescribed projects' except for projects within Coastal Zone</p> <p>(ii) provides for an IEE or EIA for project approval</p> <p>(iii) Provides for an EA where a development follows from land acquisition. A RAP may be a part of the EIA report and thus part of the development project</p>	<p>(ii) 23BB (2) on receipt of IEE or EIA, Project approving agency should invite public comments</p>
2	Coast Conservation and Coastal Resource Management Act (1980)	<p>(i) a permit from Director General is required for any development activity in Coastal Zone.</p>	<p>(i) 16 (i) Submission of an EIA is necessary</p> <p>16 (2) (b) Project approving agency should invite public comments</p>
3	Fauna and Flora Protection Ordinance (1937)	<p>Provides for an EIA for any development activity within one mile of the boundary of a National Reserve.</p> <p>Written approval from Director General is necessary</p>	<p>9(A)(3) (b) should invite public comments</p>

EA: Environmental Assessment, IEE: Initial Environmental Examination

EIA: Environmental Impact Assessment RAP; Resettlement Action Plan

3.6.5 Initial Payment for acquisition

Following statutory bodies and local authorities, according to their governing Acts are required to make payment for initiating acquisition;

- (a) National Water Supply and Drainage Board Act – Under Section 92(2) of the Act
- (b) National Aquatic Resources Research and Development Agency Act – Under Section 37(2) of the Act
- (c) National Craft Council and Allied Institutions Act- Under Section 70 (2)
- (d) Ceylon Electricity Board Act – Under Section 57(2)
- (e) Municipal Councils Ordinance – Under Sections 45, 188 & 191

3.6.6 Urban Development Projects (Special Provisions) Act No2 of 1980

This is an Act to provide for the declaration of lands urgently required for carrying out urban development projects and to provide for matters connected therewith or incidental thereto.

Section 2 of this Act provides that where the President, on the recommendation of the Minister in charge of the subject of Urban Development is of the opinion that any particular land in any area is urgently required for the purpose of carrying out an urban development project which would meet the just requirements of the general welfare of the people, the President may declare that such land is required for such purpose by an order published in the gazette declare that such land is, or lands in such area as may be specified are, required for such purpose.

No person aggrieved by the Presidential Order shall be entitled to any remedy, redress or relief in any court other than by way of compensation or damages.

3.6.7 Institutional Profile for Land Acquisition

The Ministry of Land and Land Development (MLLD) can acquire Land under the provisions of the Land Acquisition Act.,(LAA). The provisions of LAA apply to the acquisition of land for Ministries, government departments, local authorities and statutory bodies. The Divisional Secretary acts as the Acquiring Officer (AO) for acquisition of lands located within his Division. Survey Department undertakes the surveying of land to be acquired. Department of Valuation is responsible for determining the compensation payable. Acquiring Officer submits any objections for acquisition to the Attorney General to obtain an order from the District Court. Also if there is no claimant for the land acquired, the AO deposits the amount of compensation with the District Court. In case that the land owner is not willing to hand over the acquired land, the AO can obtain an order from the Magistrate Courts of the area. Government Press undertakes the publication of gazettes required for acquisition. Finally, every land acquired must be registered in the Land Registry. If the claimants are not satisfied with the award of compensation, they can make an appeal to the Land Acquisition Board of Review (LABR)

3.6.8 Land Acquisition Process

There are several steps to be undertaken as provided in the act to initiate and complete the acquisition of a private land. The process can be clarified under 11 steps.

Step -1

Investigation of land, preparation of acquisition proposal and obtaining approval (Sec.2 of LAA)

These are preliminary functions of the project implementing agency. These functions include the identification of a suitable land for the proposed project, finding the name, boundaries and the claimants, location of the land including village, GramaNiladharee and Divisional Secretary Divisions and the District. The application named as Application for Land Acquisition under Land Acquisition Act need to be filled and submit along with a location sketch to the Secretary of the Land and Land Development Ministry (MLLD). The Secretary, Lands submits the request to his minister for approval.

Step -2

Preparation of Section 2 Notice and advance tracing of the land to be acquired (Sec.2 of LAA)

The Divisional Secretary (DS), as the Acquiring Officer (AO) exhibits the Section 2 Notice in the area and makes a request to the Surveyor General to prepare a plan of the land to be acquired.

Step.3 Intention of acquisition and calling for objections (Sec.4 of LAA)

Section 4 Notice sent to the claimants is the notice of intension of acquisition. The claimants within 14 days submit objections if they are against the acquisition. There will be an objection inquiry if objections are there and the Minister of Lands decides whether to proceed with the acquisition.

Step.4 Decision to acquire land and preparation of preliminary plan (Sec.5 & 6 of LAA)

If the Minister decides to acquire the land, the decision will be gazette as Section 5 Notice and exhibits in public places of the area. Acquiring Officer makes a request to the Surveyor General (SG) to prepare the preliminary plan and the SG after preparation of the plan submits to the MLLD, AO and the Chief Valuer (CV)

Step.5 Publication of Section 7 Notice, submission of claim for ownership and compensation and the conduct of inquiry (Sec 7&9 of LAA)

AO publishes Sec.7 Notice based on the particulars of land given in the preliminary plan and submits to MLLD and CV.

Date of Section 7 Notice is the relevant date for assessment of compensation

AO summons all interested parties for the inquiry called Section 9 inquiry and records all evidence provided by the parties summoned.

Step.6 Determination of ownership status and request for valuation (Sec.10.1.Aof LAA)

In terms of Section 10 (1) A, AO issues a Notice determining ownership status to the owners. If the owners are not satisfied, they request refer the matter to courts. AO refers it to the Attorney General to take it up with courts.

AO submits a copy of Section 10(1) a notice and Section 9 inquiry notes to CV to undertake valuation if there is no objection from the owners.CV prepares valuation and communicate to the AO

Step. 7 Award of compensation, payment of compensation and appeal process (Sec.17, 22 and 23 of LAA)

A AO informs the amount of compensation they are entitled to the owners. If they are not satisfied with the quantum of compensation, the request the AO to refer the matter to back to review the compensation. Under Section 17, AO issues award letter. If the parties are not satisfied, it can be referred to Land Acquisition Board of Review (LABR) under Section 22 and 23. The parties can appeal to the Supreme Court if they are not satisfied with the decision of the LABR

Step8 taking over of the possession of the land (Sec.38 and 38 (a) proviso of LAA)

There are two methods of taking over the land acquired.

Under Section 38, after awarding the Section 17 award.

Under Section 38(a), can take over the land as an urgent acquisition any time after issuing Section 2 and Section 4 Notices. If the land owners are not prepared to hand over the land, an order can be obtained from the Magistrate Courts under Section 42 (2).

Step. 9. Vesting of land (Sec. 44 of LAA) AO issues a Vesting Order to the institution requested for acquisition.

Step 10 Registration of land acquired in the Land Registry of the area.

Step 11 Revocation of vesting order and divesting of land (Sec. 39, 50(1) and 39A of LAA)

3.6.9 Gaps and Issues of Current Land Acquisition Process

Present Land Acquisition Act, as is the case in many Acts is modeled on parallel Acts in the UK. The Act in Sri Lanka was enacted in 1950 and no comprehensive revision of the principles and practice has taken place for the period of 65 years. Certain provisions in the acquisition law need to be reviewed to support the development taking place in the country.

3.6.10 Definition of Public Purpose

As indicated in the preamble, acquisition of private lands is confined only for public purposes. "Public purpose", according to the interpretation of the act includes a purpose which, under this Act or any other written law, is deemed to be a public purpose". This definition is vague and a meaningful definition is necessary to avoid varied controversies. Provision of social and physical infrastructure falls into the category of public purpose. Apart from social and physical infrastructure purposes, acquisition of private lands are taking place for real estate development that was commenced with the establishment of the Urban Development Authority, Board of Investment, National Housing Development Authority and Sri Lanka Land Reclamation & Development Corporation after opening of the economy in 1977. The laws connected with the establishment of these institutions have provided to undertake real estate development for housing, commercial, industrial and recreational uses directly or through developers. Provisions are there for these organizations to acquire private lands and dispose of the acquired lands for varied types of development. Are these acquisitions and disposals within the public purpose category? There were several court cases in connection with the acquisition and disposal of land for development by these newly established organizations. Accordingly, the term" public purpose" needs a clear definition to avoid legal controversies and revise the Act to accommodate the development expected in the WRMPP. It will be useful to verify the provisions available in other countries.

3.6.11 Acquisition for Planning and Development

It would be necessary to verify whether leasing of acquired land to private developers for development and disposal falls into the category of public purpose. In the UK, there is provision to acquire private lands in connection with development and planning. As provided under Section 112 of the Town and Country Planning Act 1971 given below, specified local authorities have powers to undertake acquisition for planning and development. It is necessary to explore the possibility of introducing this provision in Sri Lanka to avoid legal controversy of acquiring and leasing land to private developers for development.

Section 112 of the Act provides for “Compulsory acquisition of land in connection with development and for other planning purposes -

The Secretary of State may authorize a local authority to which this section applies to acquire compulsorily any land within their area if he is satisfied—

- (a) that the land is required in order to secure the treatment as a whole, by development, redevelopment or improvement, or partly by one and partly by another method, of the land or of any area in which the land is situated; or
- (b) That it is expedient in the public interest that the land should be held together with land so required; or
- (c) that the land is required for development or redevelopment, or both, as a whole for the purpose of providing for the relocation of population or industry or the replacement of open space in the course of the redevelopment or improvement, or both, of another area as a whole ; or
- (d) That it is expedient to acquire the land immediately for a purpose which it is necessary to achieve in the interests of the proper planning of an area in which the land is situated.

Where under subsection (1) of this section the Secretary of State has power to authorize a local authority to whom this section applies to acquire any land compulsorily he may, after the requisite consultation, authorize the land to be so acquired by another authority, being a local authority within the meaning of this Act.

Before giving an authorization under subsection (2) of this section, the Secretary of State shall—

- (a) Where the land is in a county borough, consult with the council of the borough;
- (b) Where the land is in a county district, consult with the councils of the county and the county district;
- (c) Where the land is in a London borough, consult with the council of the borough and with the Greater London Council.

The Acquisition of Land (Authorization Procedure) Act 1946 shall apply to the compulsory acquisition of land under this section and accordingly shall have effect as if this section had been in force immediately before the commencement of that Act.

The local authorities to whom this section applies are the councils of counties, county boroughs, and county districts, the Greater London Council and the councils of London boroughs.

3.6.12 Acquisition for other Specific Purposes in Addition to Public Purpose

According to the preamble of the Land Acquisition Act of Singapore, it is an act to provide for the acquisition of land for public purpose and certain other specified purposes, the assessment of compensation to be made on account of such acquisition and for purposes connected therewith.

A The Section 5 of the Act provides to acquire land for other purposes other than for public purpose

Section 5- (1) whenever any particular land is needed –

- (a) For any public purpose,
- (b) By any person, corporation or statutory board, for any work or an undertaking which, in the opinion of the Minister, is of public benefit or of public utility or in the public interest; or
- (c) For any residential, commercial, or industrial purposes,

The President may, by notification published in the Gazette, declare that the land to be required for the purpose specified in the notification.

This provides for acquisition of land for other purposes other than for public purposes.

3.6.13 Alternative Means to Use Private Lands for Development

Under the provisions of PPP, there are avenues to develop private lands without resort to compulsory acquisition. Joint Venture is a method that can be used to develop private lands with the initiative of the public sector. Different development projects identified in the WRMP can be implemented using the joint venture vehicle. Legal provision is required;

- (a) To use joint venture method as one of the methods of PPP methodology to develop private lands without using acquisition procedure
- (b) To use joint venture method for implementation of development projects identified in the WRMP. Most suitable locations could be selected for these projects as the ownership of land will not be a barrier

3.6.14 Resettlement of affected Persons

“An affected person is a person directly or indirectly affected by changes arising from development projects in the use of land, water or other resources”. Parties get affected mainly by compulsory acquisition of private lands. The acquisition sometimes results in physical and economic displacement of persons and bringing adverse impacts on affected parties. The donor agencies providing funds for different type of projects are highly concerned on the procedures followed by the government to settle the issues of affected parties. There can be lot of parties getting affected by acquisition of lands for the projects funded by the donor agencies. Also there are lots of grievances raised by the affected parties of the acquisitions undertaken by different government agencies. In consideration of these the government has adopted the National Involuntary Resettlement Policy (NIRP) in 2001. The policy is designed to ensure that;

- (i) project affected persons are adequately compensated, relocated and rehabilitated;
- (ii) delays in project implementation and cost overruns are reduces and

- (iii) better community relations are restored.

The NIRP that has been approved by the Cabinet of Ministers in 2001 covers every aspect of resettlement. It would be more effective if NIRP is incorporated in to the Acquisition Law.

3.6.15 Acquisition Process and the Time Factor

A prolonged procedure has been adopted by LAA for acquisition of private properties. There are 10 steps commencing from Section 2 Notice up to vesting of acquired land in the organization applied for the acquisition and the registration of land acquired. The estimated time for completion of the acquisition process is about 72 weeks. However, in practice, the process takes longer time and sometimes runs over several years. This delay has become a problem in project implementation especially in case of foreign funded projects.

3.6.16 Acquisition by Agreement – Means to Cut Down Delays

We follow the British legal procedure in the acquisition of private lands. Acquisition laws in the UK changed on several occasions to accommodate the problems coming up from time to time. There is provision in the UK to acquire land by agreement. Section 120 of the Local Government Act 1972 contains wide power to acquire land by agreement for any of their statutory functions.

Section 120" Acquisition of land by agreement by principal councils.

- (1) For the purposes of—
 - (a) any of their functions under this or any other enactment, or
 - (b) the benefit, improvement or development of their area,

a principal council may acquire by agreement any land, whether situated inside or outside their area.

- (2) A principal council may acquire by agreement any land for any purpose for which they are authorized by this or any other enactment to acquire land, notwithstanding that the land is not immediately required for that purpose; and, until it is required for the purpose for which it was acquired, any land acquired under this subsection may be used for the purpose of any of the council's functions.
- (3) Where under this section a council are authorized to acquire land by agreement, the provisions of Part I of the M1 Compulsory Purchase Act 1965 (so far as applicable) other than section 31 shall apply, and in the said Part I was so applied the word "land ' shall have the meaning assigned to it by this Act."

This provision can be introduced in Sri Lanka .to avoid delays take place in the long process of acquisition. Purchase by agreement provision can be applied in case of land owners who object the acquisition. Once the site plans are prepared, deed transfer procedure can be applied to transfer the title and take over the land using this provision. However, the acquisition procedure needs to be proceeded to make the acquired land a state land and clear the title if title problems are there. Purchase price can be based on the Chief Valuer's valuation. .

In addition to legal provision, consultations, counseling and educating the parties who will be affected by the acquisition need to be done prior to initiating any acquisition to minimize the objections.

(More details on “purchase by agreement” are Available in Chapter 6 of Compulsory Purchase and Compensation by Barry Denyer Green and Chapter 2, Part C, Statutory Purchase by Agreement in Law of Compulsory Purchase and Compensation by Keith Davies)

3.6.17 Payment of Compensation

The procedure and the types of compensation payable for the lands and properties acquired under the provisions of the LAA, are described in Part VI of the Act. Section 46(1) of the LAA Prescribes that the amount of compensation payable to any person interested in a land should be determined on the basis of;

- Market value of the land or servitude to be acquired ,plus
- Severance (46(1)(i)), Injurious Affection (46(1) (ii)), Loss of earnings (46(1) (iii)) and reasonable Expenses for Change of Residence (46 (1) (iv))

Further, LAA regulates the compensation for;

- Severance and injurious affection to a maximum of 20% of the market value of the property acquired
- Loss of earnings for a maximum of 300% of the average net profit (but not for the sale of produce of the same land) as shown in the books of accounts for three years prior to the publication of Section 7 Notice

The main criticism over the acquisition of land is leveled at the quantum of compensation and the time taken to pay the compensation. Most of the shortcomings of the compensation have been addressed by the Land Acquisition Regulations 2008 ratified by the Parliament of Sri Lanka on 17th March 2009 as regulations under Land Acquisition Act.

3.6.18 Recommendations For Setting Up Of Effective /Efficient Land Use Planning And Land Acquisition Process

Land Use Planning

A land use plan for the western region will provide a framework for the best possible use of land in the area. The plan will not only lead to the protection ,conservation and sustainable use of land in western region .It will generate a pattern of land use that will meet the needs of the present generation while safeguarding resources for future generations as well. The following are proposed to achieve the results of land use planning

- Acquire basic information about the area. This is a first stage of gathering information which will be acquired in more detail in later steps. In order to gather accurate and up to date information, it is recommended to expedite the provisions of Title Registration Act in western region.
- Establish the goals. The goals may arise from local problems or from national policy and development priorities of the western region as per government vision. List the problems of the area and the benefits sought; distinguish between long-term goals and those that can be achieved in the planning period.
- Identify the problems and opportunities. Illustrate the present land-use situation. Identify the problems that the plan is intended to tackle and the opportunities for improvement.
- Identify constraints to implementation. Constraints to the implementation of the proposed plan may be legal, economic, institutional, social or environmental. Remedial measures need to be taken to achieve goals.
- Set the planning period. Planning period may be broken down into phases for review, revision and monitoring.

Land Acquisition Process

- It is highly important to educate the parties who will be affected by the acquisition prior to initiating any acquisition by meeting them individually or in groups. They must be informed about the benefits that the country will achieve from the proposed project. Also the newly approved resettlement and compensation arrangements must be brought to their notice. Leaflets that explain the issues can be used.
- It is important to introduce the system of acquisition by agreement to reduce the time taken to complete the acquisition procedure
- Acquisition procedure should be confined to the provision of social and physical infrastructure provision
- Act need to be amended to introduce acquisition for planning and development purposes. However, PPP should be introduced legally to undertake development of private lands for housing, commercial , industrial and recreational uses on government initiative

3.7 Preparation of plans, designs, cost estimates

Preparation of plans, designs and cost estimates as a preparatory action prior to floating of the procurement process is to identify the exact needs of the procuring entity while clearly defining of the scope of the procurement, to assess the cost that could be involved with the particular procurement. This will pave the way to allow prospective bidders to clearly understand the requirement of the client, thus allow them to compete at a similar level, reduce ambiguities in the bidding process and simplify the bid evaluation process. This would make the procurement more competitive and thus can ensure value for money.

Turn Key Contracts (Design and Build)

Procuring entity needs to have necessary skills for preparation of plans, designs and cost estimates and otherwise to hire such services. In the cases where necessary skills are not available, procurement can be floated on Turn Key basis (Design and Build), with leaving the responsibility for preparation of plans, designs and estimates with the bidder. In the process, **Two Envelope System** would allow the procuring entity to select the best technical proposal including conceptual design and plans at the first instance and upon selection of the best technical proposal, which caters the requirements, and consider the financial proposal thereafter.

If the procuring entity is of the opinion that the designs are really complicated, warranting special designs, due to the special nature of the particular procurement, **Two Stage Bidding** process would ensure the procuring entity to select the most appropriate design first and call for the financial proposal upon finalization of the design.

These options should be used provided that the procuring entity left no option for preparation of designs, plans and estimate as handing over the designing responsibility to the bidders would end up with incurring undue cost and thus reducing the competitiveness.

4. Financial Models, which can be used for funding of the projects under WPMPP

4.1 Why financial models are required

WRMPP has identified number of projects ranging from infrastructure development to various public services to be implemented within the mega polis region. As financial support for those projects under traditional financing models such as Consolidated Fund, Foreign Aid/Assistance is so much limited and restrictive, alternative financing models are to be explored for implementation of the projects to achieve its development objectives within the projected time frame. Further,

Designing, building, implementing these projects may require modern technology, high-level expertise, which is not available with the public sector. This will provide opportunities for involvement of other models such as public and private partnerships, where varying scale of private involvement is allowed. Therefore, to source private sector participation where appropriate, facilitate technology acquisition and acquire expertise, it is necessary for the mega polis to depend on innovative and flexible financial models, for funding of planned projects.

4.2 Financing instruments, which are commonly used for Private Sector Financing.

Commonly used financial instruments for structuring financial models are described below

- Equity –This refers to direct equity investments in projects usually in the form of shares. These could include local or foreign investment, which could be in the form of private placements or public offerings.
- Grants – Although Sri Lanka as a country may not be considered for grants, specific grants such as results based financing or similar sector specific grants/concessionary financing by governments, multilateral, bilateral or international agencies could be an option.
- Term Loans -. Term loans could be over 10-year duration and can be secured or unsecured. Some projects there may also be mezzanine loans. Mezzanine finance generally refers to the layer of financing between a company's senior debt and equity, filling the gap between the two. Funding may be supplemented by government grants, either during the construction phase, the operating phase or both.
- Issue of bonds /debenture/securities. Bonds are more long term in nature and are asset backed and they are more secured than debentures. Securities can be issued to banks, pension funds and insurance companies. In many countries municipal bonds which are issued by municipal council, or local authorities are also very common.
- Short term loans –Generally used for finance working capital needs, especially during the period of building up of operation.
- Supplier credit/ Forfaiting –This form is used in financing equipment

There are a number of different actors involved in preparing and executing these financing instruments. Some examples are commercial banks, leasing companies, mutual and other funds, investment banks, venture capitalists, retirement funds such as EPF, insurance companies etc.

Commercial banks typically offer short- to medium- term loans with terms up to about ten years while insurance companies and pension funds are potential candidates for securing long terms funds. Venture capital firms supply equity to newly established firms with limited track records, and can either focus on short-term or longer-term gains. The government could also consider the possibility of granting some form of loan guarantees (e.g. partial guarantees) especially to attract foreign capital at the initial stages.

4.2.1 Financing models which public participation be promoted

There are several models adopted for financing of urban development projects. Some of them are Privates Public partnerships, Land Value Finance (LVF), and Impact Investment Funds. In addition there can be separate funds specifically set up to finance urban infrastructure such as Urban Development Funds which can be structured using different types of financial instruments.

A brief description of the these models are given below

Project Financing – This form of financing typically consists of a combination of equity and loans. Under this model, long term loans usually will take a major share of the project cost. However the long term lender will grant the loan based on the strength of the project cash flows as it will not have any recourse other than the project assets. Projects may also need short term loans for financing of working capital which are usually funded by commercial banks. If the project involves heavy investment in equipment, supplier credit (or forfaiting) component could also be considered as a financing option.

Public-Private Partnerships (PPPs) - One of the most common models which are adopted world-wide to finance infrastructure /urban development is Public-Private Partnerships (PPPs). PPPs vary, depending on which operations are supported by the public and private partners. The partners in a PPP usually agree to share responsibilities related to implementation and/or operation and management of an infrastructure project. To be effective, a PPP need to enter into formal arrangements/legally binding contracts between partners with a clear identification of roles and responsibilities. In particular, close co-operation among the different partners - authorities, private actors, local residents - plays a key role in the success of a project. This collaboration or partnership is built on the expertise each partner can offer to meets clearly defined public needs through the appropriate allocation of resources, risks, responsibilities and rewards.

Taking examples of other countries, some of the widely applied Public-Private Partnerships models are discussed below.

- **Finance Only:** A private entity, usually a financial services company, funds a project directly or uses various mechanisms such as a long-term lease or bond issue.
- **Operation & Maintenance Contract (O & M):** A private operator, under contract, operates a publicly-owned asset for a specified term. Ownership of the asset remains with the public entity while the payments to the operator are tied to the delivery of specific performance targets. Example of performance based payments in the water sector would be the volume of water saved through leakage reduction and in road maintenance, payments to be made for repairing road damages within a certain number days instead of paying a fixed fee for repair work.

The advantages of this form are that private sector can provide improved efficiency while operational and maintenance risks can be transferred to private sector. In addition, relatively quick implementation can be expected.

- **Leasing:** Under this arrangement the government leases out public asset to a private partner for a fee for operating it, and collects revenue derived from the asset's operation. The initial capital investment is generally borne by the public authority. A typical example of this is a container terminal, where the government /public authority leases out the container infrastructure to a private partner. The private partner makes investments for operations such as cranes and warehouses, and charges users for handling containers. In this case, the private partner bears the commercial risk. These contracts are typically long enough for private partners to see returns on their investments. The advantages of this model from the government's point of view are that increased revenue can be generated from a pre- existing asset, and that increased efficiency gains can be realized through the private partner. However, regulatory oversight is needed, e.g. to prevent private operators from taking advantage of their monopoly position by overcharging consumers.
- **Design-Build-Finance-Maintain(DBFM):** The private sector designs, builds and finances an asset and provides facility management or maintenance services under a long-term agreement.

In this model, the private partner makes extensive capital investments to build or rehabilitate a public asset and maintain it. These are usually long-term projects where the private partner could recoup its investment. Revenue for the private partner can come through user fees (e.g. in toll roads), or availability payments (e.g. in healthcare). The asset is transferred back to the government at the end of the contract. The advantages would be: efficiency gains of private sector involvement, the transfer of risks (e.g. construction risk) to the private sector, reduction of use of public funds.

- **Build-Own-Operate (BOO):** The private sector finances, builds, owns and operates a facility or service in perpetuity. However, the government will continue to play a role in the project. For example in the energy sector, even after the conclusion of a project, the government would continue to buy electricity from the private company at an agreed price, making the project financially viable. In the telecom sector, private companies make the investments

for their infrastructure, with the government acting as a regulator by performing such duties as granting licenses to mobile telephone operators, and promoting competition.

- **Concession:** A private sector concessionaire undertakes investments and operates the facility for a fixed period of time after which the ownership reverts back to the public sector.

4.2.2 Dedicated Funds for Urban Development

Another form of organization that could contribute to financing of these projects is an Urban Development Fund. Such a fund could raise funds in the form of loans, grants, from various sources both local and foreign and establish a revolving pool of funds to be granted for different purposes. Project developers can also be allowed to borrow from the Fund and the interest paid by them can be used for refinancing. Such an organization can also create debts securities/ bonds.

In European countries the establishment of urban development funds investing in sustainable urban transformation is supported by a EU-wide initiative, Joint European Support for Sustainable Investment in City Areas (JESSICA¹), which assists authorities interested in setting up this type of financial instrument. However, governance of such funds is an extremely important factor especially in the Sri Lankan context, as misuse of funds and accountability of such special funds have been a contentious issue in recent times.

Land Value Finance (LVF). These tools are designed to recover the capital cost of the urban investment by capturing some or all of the increments in land value resulting from the investment. The tools are very flexible mechanisms that can be used to finance a broad range of urban development and regeneration projects. For example, tax increment financing can encourage urban investment through either fiscal incentives as tax relief or through property tax specifically earmarked for the development.

Impact Investment Funds are yet another model that is used. These are socially responsible investments that are not exclusively driven by profit, but also provide social and environmental benefits. They tend to take the form of a balanced investment portfolio over a range of projects. There are international organizations and local corporates who would be willing to make investments under their corporate social responsibility portfolio.

4.3 Methods for provision of financing models in the competitive bidding process

Some of the common procurement and financing arrangements for projects adopted by other countries are given below

Design and construct- Principal prepares a design brief that outlines the functional and key user requirements (in performance terms) for the works, which is less detailed than the design documentation required for a construct only contract. The principle then seeks tenders for completion of the detailed design and construction of the work as described in the design brief.

Design, Construct and Maintain - In this model, the contractor has maintenance obligations, which is on going in addition to design and construction. Life-cycle costs can be reduced if the contractor takes in to account the on-going maintenance obligations when designing and constructing the facility.

Alliance Contracting -Principal collaborates with one or more non-owner parties (e.g. the designer and constructor) to share the risks and responsibilities in delivering the construction phase of a project. The alliance participants share all project delivery risks. This model and supporting structures promote a positive culture based on unanimous decision making requiring all participants to find best for project solutions.

Targets for cost, schedule and other key parameters are developed jointly during the pre-construction phase.

Early Contractor Involvement - Combines the principal of Alliance Contracting model with the more traditional design and construct model. It is about the principal of engaging the contractor during the early stage of the project to develop the design. This model involves the contractor working with the principal in the project's initial stages to develop the design and a detailed project plan

Construction Management - Under this arrangement, the principal engages a construction manager (contractor or consultant) to manage construction works on its behalf. The principal manages the scoping and engages the designer directly. The principal engages the trade contractors directly, although these contracts are entered into by the construction manager as the principle's agent.

The construction manager performs a managerial and co-ordination role (without delivery risk) and is generally paid a fee based on a percentage of the value of the works.

Managing Contractor (MC) - This approach involves the principal appointing a Managing contractor who will employ sub-contractors. Managing contractor is responsible for administering sub contracts and excepts some delivery risks

The principal and the MC generally tender or negotiate a fixed lump sum management fee. The MC may also receive incentive payments for achieving cost and schedule targets. The MC is engaged early in the process to manage the scope definition, design documentation and construction of the works. The MC sometimes performs elements of the design and/or construction and is paid for that in addition to the management fee.

4.4 Standard Bidding Documents

Use of standard bidding documents for procurement of goods, works and services would no doubt, save the time taken for preparation of bidding documents, ensures the uniformity and reduces the ambiguities. The standard bidding documents that are available for public procurement are the documents developed by the National Procurement Agency (NPA) and standard bidding documents finalized by NPA and ICTAD.

Following standard bidding documents have been prepared by the NPA.

1. Procurement of Goods Under National Shopping Procedures
2. Procurement of General Goods - National Competitive Bidding
3. Procurement of Non-Consultant Services - Trial Edition - Draft - July 1, 2007

Following standard bidding documents that can be used for procurement of civil construction works are prepared by the ICTAD/CITA with the concurrence of the NPA.

1. ICTAD/SBD/01 Standard Bidding Document - Procurement of Works
2. ICTAD/SBD/02 Standard Bidding Document - Major Contracts
3. ICTAD/SBD/03 Standard Bidding Document - Minor Contracts
4. ICTAD/SBD/04 Standard Bidding Document - Design & Build Contracts

5. Recommendations

5.1 Pre-procurement Arrangement

Sufficient institutional capacity to be ensured to complete pre-procurement arrangement with the view to ensure appropriate and timely procurement to gain VfM , while keeping the procurement process unambiguous.

5.2 Unsolicited proposals.

Existing provision for entertaining unsolicited proposals is that to put the proposal back to the competitive process and to allow other interested parties to participate in the bidding process and win the contracts on the merit of the individuals who are participating in the process. As the provision is detrimental to encourage preparation and submission of development/investment proposals in innovative nature, it is recommended to considering amendment of the provision in Part II of the Procurement Guidelines to provide preferential treatment (additional points at the evaluation process) for the proposals identified as "Innovative" when such unsolicited proposals are put back to the solicited, competitive process.

5.3 Financial Models for Procurement of Project

Advantages of different financing instruments suggested above could only be harnessed, if the financing decision is based on a proper financial analysis with careful considerations to the risk factors involved with the investment. This approach would reduce the cost of investment finance, as it is to establish the rational of cost of finance. Retaining of the services of competent chartered financial analyst in the procurement process is advisable as megapolis projects are involved with heavy finances.

5.4 Amendments to the Procurement Procedure

Amendment of existing procurement guidelines is rested with the Procurement Commission, established under the Constitution. A dialog to be initiated to introduce amendments discussed in 3.6.4 above to achieve the broader objective of reduction of multi referral points, to motivate procurement staff and to make them accountable for their actions.

5.6 Strengthening the Procurement Capacity:

As discussed under 3.6.4 building up procurement capacity with selection and employment of suitable procurement staff is a must to achieve the objectives of intended major procurements. This would drastically bring down the cost of procurement, expedite implementation and society would be able to enjoy the benefits of development projects, minimizing public criticism. In this content 'Central Procurement Unit" to handle large and complex procurement will be the best option.

Annexure – 09

Muthurajawelaeco tourism zone – Proposed Landuse

Landuse	Environmentally sensitive Zones	Hotel development zone	Educational zone
Colour code	