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The Gazette of the Democratic Socialist Republic of Sri Lanka

EXTRAORDINARY

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PART I : SECTION (I) — GENERAL

Government Notifications

GAZETTING OF THE UPDATED NATIONAL PHYSICAL PLANNING POLICY AND THE PLAN - 2050 APPROVED BY THE NATIONAL PHYSICAL PLANNING COUNCIL

I, Patali Champika Ranawaka, Minister of Megapolis and Western Development, do hereby publish, the Updated National Physical Planning Policy and Plan - 2050, prepared under the Section 5(a) and (b) of the Town and Country Planning (Amendment) Act, No. 49 of 2000, and approved by the National Physical Planning Council as per Section 3 (4a) of the Act on 26.02.2019, for the information of the general public.

PATALI CHAMPIKA RANAWAKA,
Minister of Megapolis and Western Development.

Ministry of Megapolis and Western Development,
Suhurupaya,
Battaramulla,
01st June 2019.

Updated National Physical Planning Policy and Plan - 2050

BASED ON THE NATIONAL PHYSICAL PLANNING POLICY AND PLAN - 2030 APPROVED ON
03.07.2007 AND 09.11.2011

This document was prepared in accordance with Sections 5A(b) of the Town and Country Planning (Amendment) Act, No. 49 of 2000, under powers vested with Director General of National Physical Planning Department, as per



Section 4B(c) of the Act ; the plan was recommended by the Inter-Ministerial Coordinating Committee on 07.09.2017 and approved by the National Physical Planning Council chaired by His Excellency the President on 26.02.2019 as per Section 3(4a) of the Act.

Dr. JAGATH MUNASINGHE,
Director General.

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5th Floor,
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Battaramulla.

THE NATIONAL PHYSICAL PLANNING POLICY AND THE PLAN - 2050

1.0 The Vision and Goals

1.1 Background

The team engaged in the updating of the National Physical Planning Policy has followed the process set out by the Town & Country Planning Ordinance No.13 of 1946, Amended by Act No.49 of 2000. The process was also complimented with a series of studies and consultations of the experts, development agencies, stakeholders and interest groups.

1.2 Time Horizons

The Time
Horizons

The Plan has been prepared for three time horizons which can be stated in the following manner:

- 1. Short term horizon:** Five-year period (2020-25), whose state of affairs are mostly foreseeable to the planning team. The current development trends, the policies adopted by the present government and the likely outcomes of them, and the development projects that are already in progress and likely to have a major impact on the physical and social environment of the island are the key factors considered in planning for this horizon.
- 2. Medium term horizon:** Ten to fifteen-year period (2030-35), the situation of which can be foreseen with some level of certainty by the planning team. The improving quality of life and the social status, the changing state of political affairs both locally and globally, and the fast evolving technology that changes the entire development scenario of the country and the likely consequences of such changes, are the considerations for this horizon.
- 3. Long term horizon:** Twenty-five to thirty-year period (2050), the state of which is mostly beyond the sight of the present day planning thoughts. Yet the core values those need to be preserved, expectations those will remain unchanged and the objectives those need to be achieved at any cost are the considerations for the proposals at this phase.

The Vision

1.3 The Vision Statement

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நேர்த்தியான வளம் பொருந்திய திறன்மிகு நாட்டிற்கான
நிலையான தன்னிகரற்ற திட்டமிடப்பட்ட தேசம்

Mannered, Geared and Smart Nation
in a Planned, Sustained and Adored Land

1. Planned (a Built Environment that will facilitate an uncompromised growth in the economy, continuous improvements to social well-being, and the optimum utility of the physical, social, economic and environmental resources)
2. Sustained (a Development that will ensure the prolonged use of the land, ocean, water, human, wildlife and other resources of the island)
3. Adored (a Landscape whose unique physical characteristics and the socio-cultural manifestations are retained amidst new developments)
4. Mannered (Providing the ambiance appropriate for Peace and Harmony among people)
5. Geared (Providing opportunities for improved Health, Wealth (Employment,) Knowledge(Education), Skills (Training) and Power (Equity))
6. Smart (Pave the way for innovative, progressive and embraced State-of-the Art Technology and good practices).

1.4 The Broad Objective

The overall objective of the proposed plan is to provide the Government of Sri Lanka with a guide to develop a physical environment that will facilitate Sri Lanka to become a smart nation and a competitive economy of the world within the next decade and remain thereafter; ensuring the optimum and sustainable use of the available assets and infrastructure, unexplored resources and the potentials of its land and ocean space; exploiting the opportunities provided by the ongoing economic, political and technological advances around the globe; and harnessing the potentials attributed by its strategic geographic location in the Indian Ocean.

The Board
objective of the
Policy

1.5 Goals

1.5.1 Short Term Goals (2020-25)

These goals need to be accomplished within the forthcoming five-year period, in order to facilitate the achievement of the medium and long term goals.

- a. **Spatial structure**, which consists of accommodative land uses, harmoniously integrated with the natural geographic settings and an attuned distribution of human settlements with a hierarchy of service centers, connected through a widely spread road, rail and other infrastructure, *etc*, **to facilitate an unhindered growth** in the economy, by means of convenience, efficiency and safety for business and employment.
- b. **Development directives** for an integrated and well-coordinated physical development projects and programs **to promote the optimum utility** and the efficient use of the available land and other physical resources, infrastructure, and human resources; and pay high regard towards the unique landscape of the island.
- c. **Regulatory framework** for all physical developments throughout the island **to ensures the sustainable use** of the land, water, and other resources, natural eco-systems, cultural landscapes and traditions of the inhabitants.

1.5.2 Medium Term Goals (2025-30)

These goals can have a longer range and expected to be fully accomplished within the next ten-year period.

- a. **Spaces that facilitate** the **smooth transformation** of the national economy from its orientation in conventional agriculture, plantation and traditional industries, towards high-tech, knowledge and innovation based industries and increased international trade.

- b. **Development initiatives** that will promote the **timely exploration** of new opportunities and untapped resources in land, ocean locations and in inhabitants.
- c. **Physical environments** and supportive physical, social and economic infrastructure that will increase the **attraction** of investments and trade.

1.5.3 Long Term Goals (2050)

These goals can be regarded as all-time goals whose validity remains from today to a period even beyond the horizons of this Plan.

- a. **Sustainable** Use of land, water, ocean and other resources of the Island, preserving agriculture, unique indigenous industries, cultural landscapes and the practices.
- b. **Responsiveness** to the effects of climate change and natural hazards
- c. **Balanced** development across the Island that will provide for equity, equal opportunities and accessibility to resources for all.

1.6 Guiding Policies

General Policies

In order to accomplish the above goals in the desired development scenarios, and based on the findings of the background studies carried out on the existing and the foreseeable future situations, the following guiding policies have been formulated and the National Physical Plan 2050 has been prepared based on these policies.

1.6.1 Conservation of the 'Critical' and the 'Unique'

Areas for Conservation

As an economical means of providing necessary supportive systems demanded by future physical developments throughout the island, Sri Lanka can depend largely on its natural eco systems, water resources and unique landscapes. Provision of alternative engineering solutions will add heavy costs for such developments. Therefore, the strategic conservation and improvement of the existing environmental systems and physical settings is crucial for a physically as well as economically sustainable development.

At the same time, the upcoming and predicted effects of the climate change as well as the unforeseen disaster situations caused by human activities pose severe constraints for both economic and physical development of Sri Lanka unless necessary precautionary measures will be adopted at the earliest. Some critical environments such as the coastal areas and the fragile central hills are highly sensitive in this regard.

In yet another face, many of the unique and attractive landscapes of the island are the bases of the economy of such places and act as the icons of the culture and the traditions of the nation. They are increasingly subject to degradation due to neglect, over exploitation and vandalizing. The protections of the essences of such settings are important for a sustainable economic and socio-cultural development. Thus, the mandatory conservation of the critical ecosystems, fragile areas and the unique landscapes are proposed as a guiding policy for the planning of future physical developments in Sri Lanka. Similarly, cultural landscapes too should be considered as a mandatory requirement for conservation.

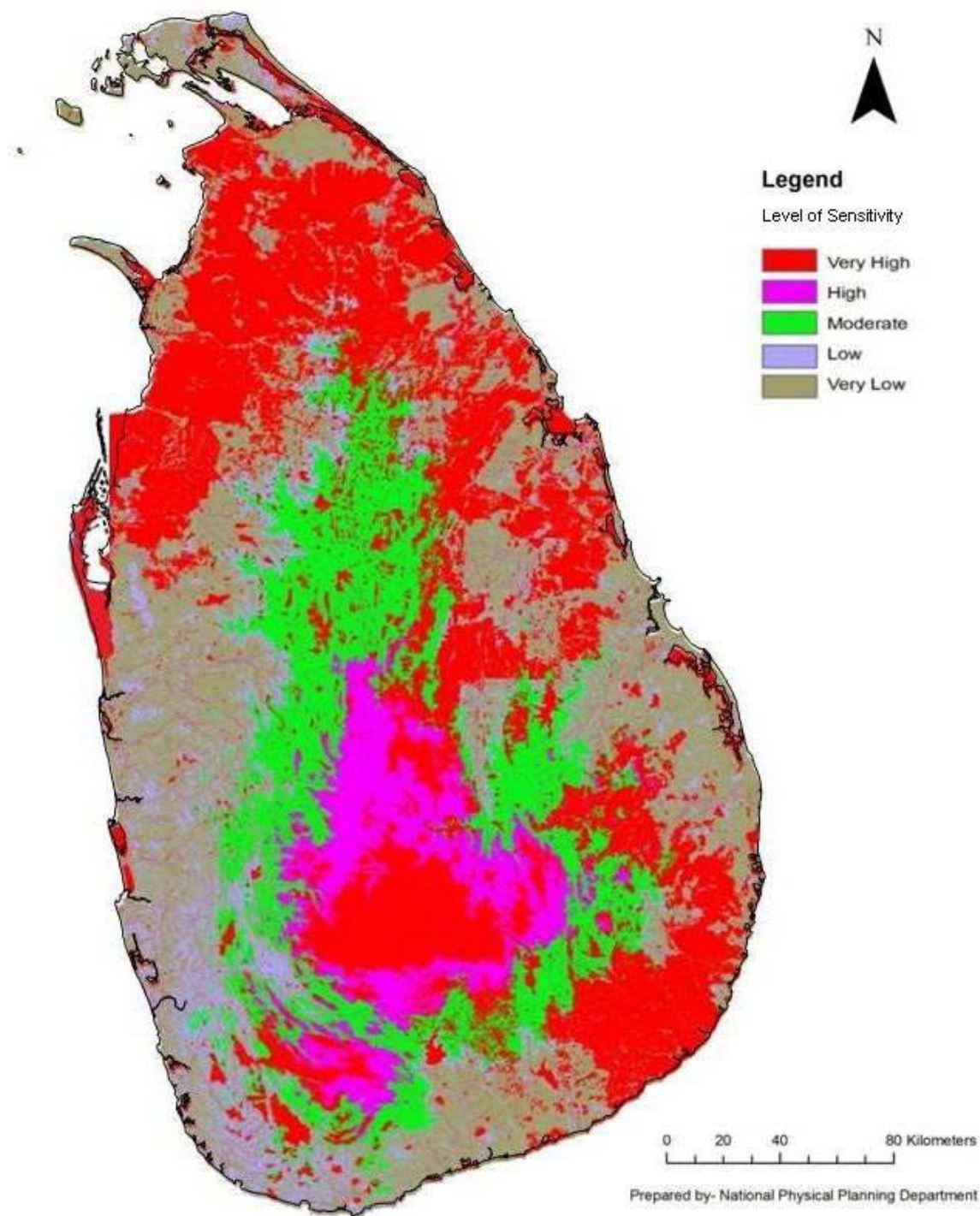
The areas those need attention in this regard are given in Figure 1.1

1.6.2 Promotion of the 'Livability' for Human

The long sustained development of a country can be expected only with a healthy nation, who enjoys a high quality of life associated with many indicators as set out by the United Nations. The quality of the physical environment that promotes 'livability' is an important factor in this regard.

Areas appropriate for human habitation

Figure 1.1: The Conservation Space (Areas need to be conserved due to sensitivity)



A livable physical environment can be achieved through several means, but the available geographic and weather conditions contribute towards most economic ways towards such. Out of many conditions conducive for human habitats, the atmospheric temperature, humidity levels, rainfall and the lands free from natural disasters and wild animal attacks can be considered as the most critical. The convenient access to land and water along with readily available physical infrastructure such as roads, transportation facilities, *etc.*, and the social infrastructure such as schools and hospitals are also regarded as conditions necessary for livability.

The livable physical environment is also meant to include the cohabitation with the natural (Flora and Fauna) which is included in consideration of cultural traits of the people.

Selection of the areas those encompass the above conditions of livability for future human settlement development is proposed as a policy for the planning of future physical developments in Sri Lanka.

The areas graded for suitability for human habitats is given in Figure 1.2

1.6.3 Exploration of the ‘Potentials’, ‘Opportunities’ and the ‘Enhancement’ of the Use

Areas with potentials

It is clear that, most of the potential resources in Sri Lanka have yet to be tapped for their full strength. One such resource is the ocean space declared as Exclusive Economic Zone that extends to more than 250,000 square kilometers into Indian Ocean. Except for fishing and a few minerals the rest of the resources embodied in it remain intact. There are many other resources associated with the ocean space such as the winds, ocean waves, likely petroleum and gas deposits, *etc.* those have not been adequately explored yet. The inland locations which have high potentials to attract tourists need to be promoted in a planned manner. Other than the popularly visited locations a vast variety of spaces still remain little known to many.

Human Resource, specially the youth in the labour force, with various skills and education levels is another resource that Sri Lanka shall consider for a sustainable development. According to demographers, if not put into effective use within the period that it yields ‘population dividend’ Sri Lanka will miss another opportunity to gain the competitive advantage that it possesses in the region. Future developments shall be supportive of such explorations.

The ever advancing technological innovations have to be incorporated to be in par with the international competitors.

In this context, in the planning of future physical developments, providing maximum opportunities for the exploration and the enhancement of potentials and untapped resources is proposed as a policy.

The areas those can be of potential in this regard are given in Figure 1.3

1.6.4 Optimization of the Utility of the ‘Available’

Areas with best utility of available resources

According to the available information, owing to the debt servicing requirements and the immediate improvements required in priority sectors within ten years, Sri Lanka will have to lead its future development with many constraints. Heavy investments on large scale infrastructure may not be healthy, unless there are compelling reasons.

In addition to such constraints, the UN Sustainable Development Goals envisages the sustainable use of infrastructure and natural resources.

Figure 1.2: The Livable Space (The areas with environments conducive for living)

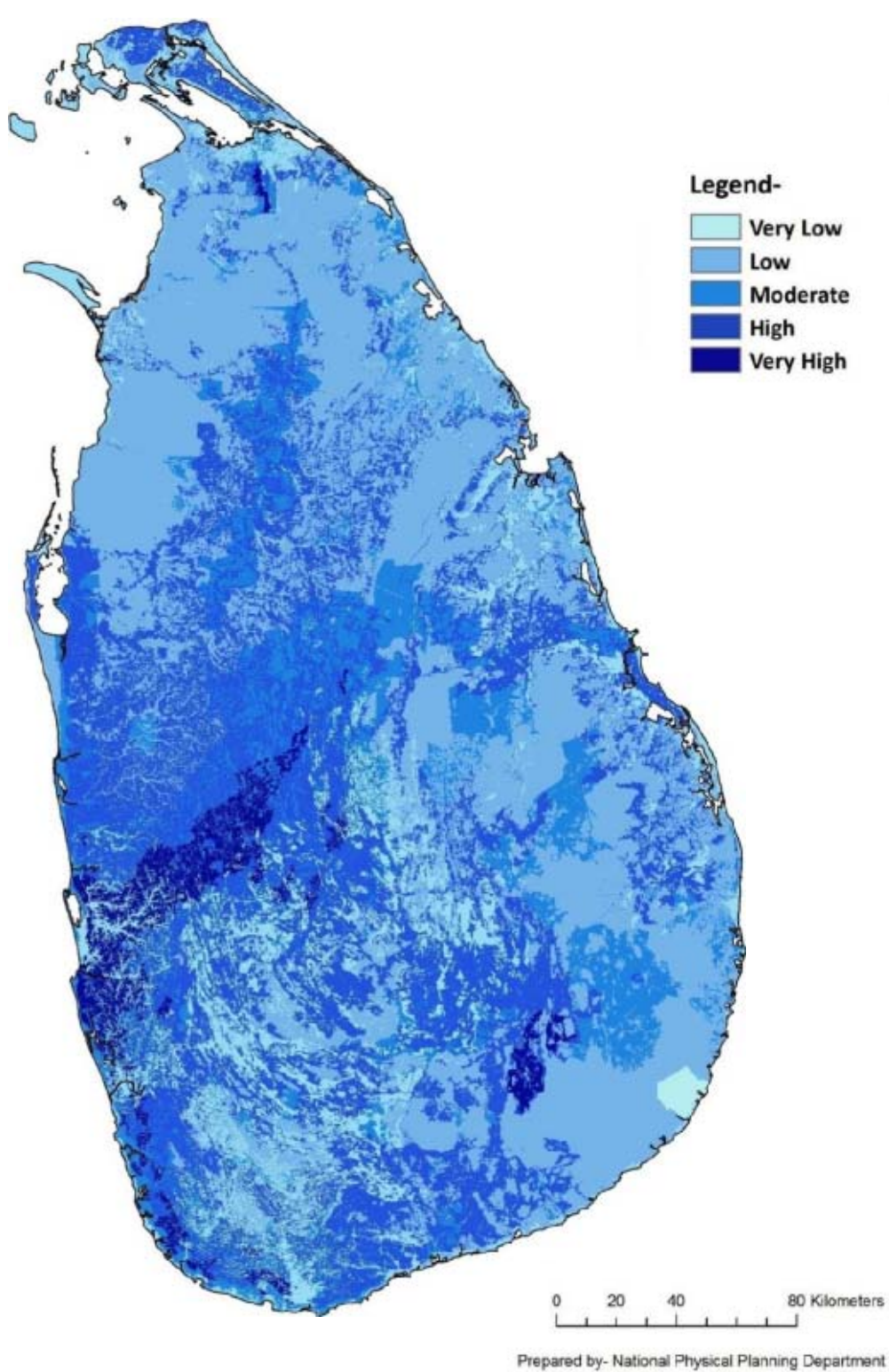
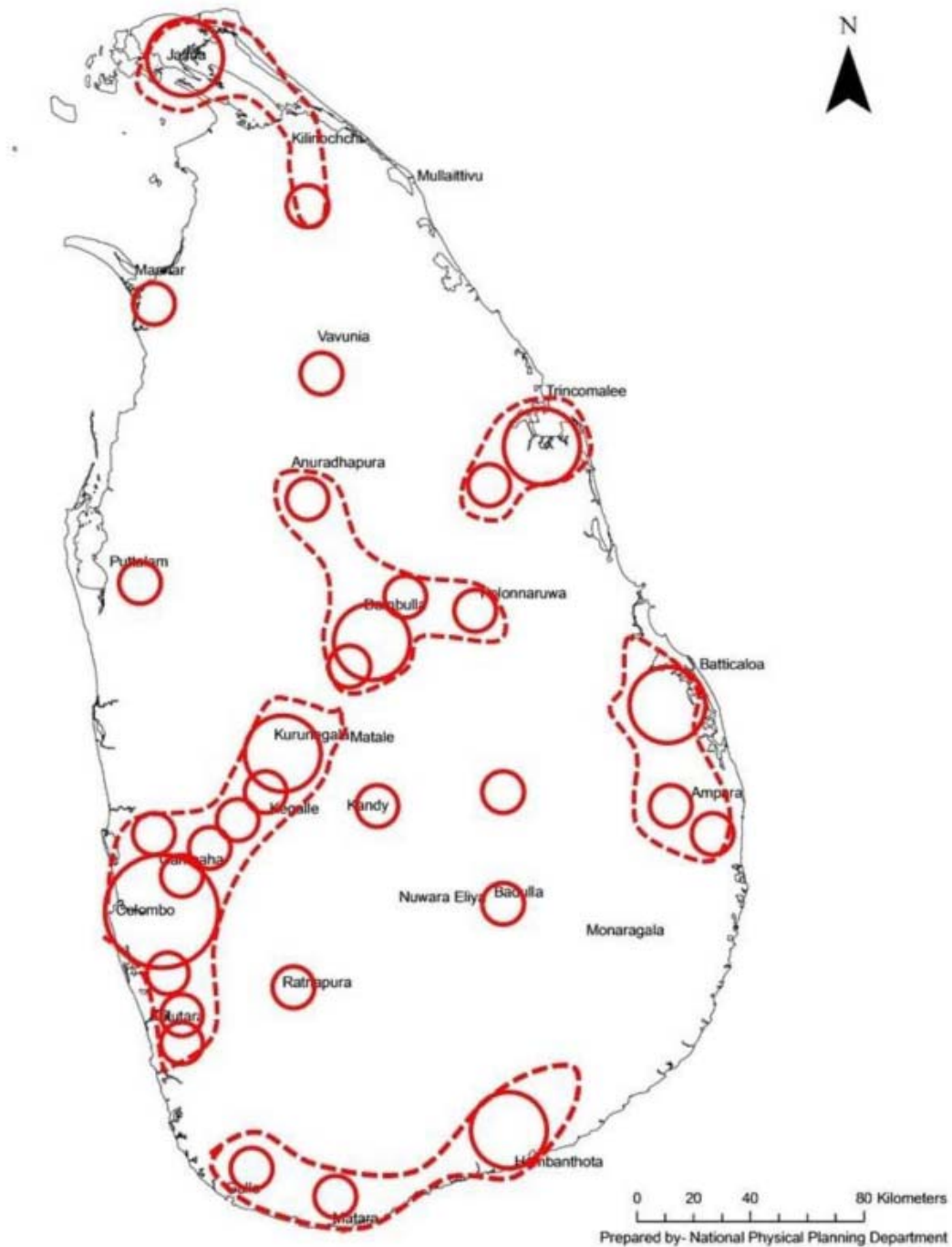


Figure 1.3: The The Explorative Space (Areas those provide opportunities to explore and enhance)



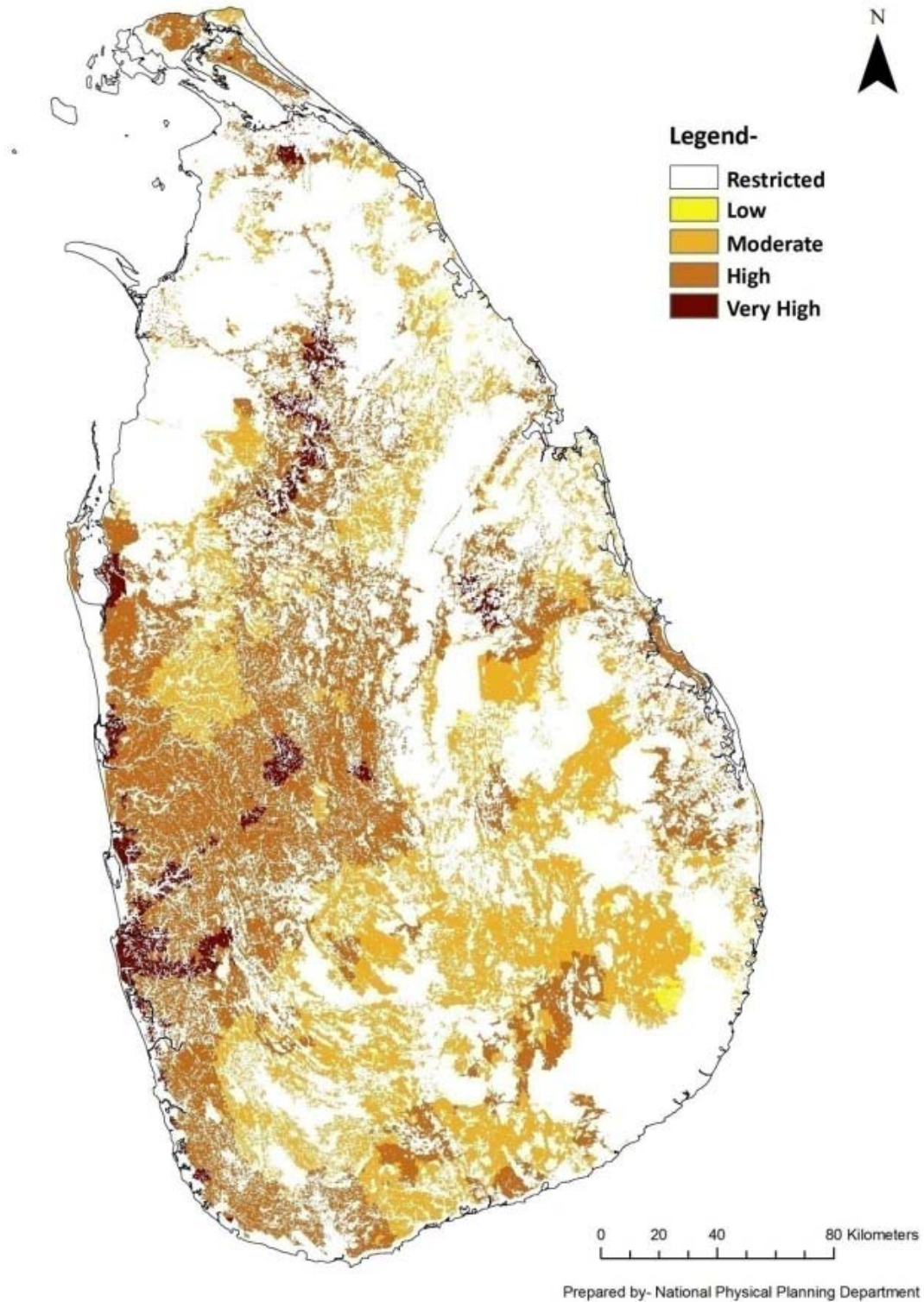
In that context, the best use of the available resources and the existing physical and social infrastructure, rather than investing on new infrastructure with an additional burden on the economy, and prioritization of the development needs, have become necessities.

However, future investments shall be directed more towards improving the quality of what is available by means of making them more productive, efficient and state of the art, rather than increasing the quantity, unless there is a real need for such. For that the emerging technology around the globe can be well embraced by Sri Lanka while adequate investments shall be allocated to promote innovations locally.

On these grounds, compulsory optimization of the utility of the available resources and the existing infrastructure in the planning of future physical developments is proposed as a guiding policy in planning.

The areas graded for the provision of the best utility in this regard are given in Figure 1.4

Figure 1.4: The Optimized and Best Utilized Space (Areas with Development Potentials)



2. The National Physical Plan 2050

2.1 The Spatial Structure

The Plan

2.1.1 The Objective underlying the proposed spatial structure is to provide (the Government of) Sri Lanka with a strategic development trajectory which will enable to achieve a well-planned and sustainably developed physical environment, pleasing and adored both by its citizens and the outsiders alike. The trajectory is formulated adhering to the four guiding policies set out in Section 1.6, and with a view towards geographically and sectorally balanced development.

2.1.2. The proposed spatial structure is given in figure 2. The spatial structure presents the most preferred scenario, among many other possibilities considered, to promote, regulate and to coordinate future physical developments, executed by different state and private sector organizations and individuals indistinct spatial entities over the three time horizons set out in the Section 1.2 above.

The overall land use pattern in the island is expected to transform into the state shown in the figure by 2050. The configuration is based on the findings of the detailed studies and in line with the guiding policies indicated in Section 1.6. Therefore, the structure proposed herein, shall be viewed as a live image of a spatial process, evolving through the effectuation of the four guiding policies in responding to the emerging demands and needs of ongoing economic and social developments, rather than a static end-state, conventionally understood by a plan of this nature.

The spatial structure is combined with sector specific strategies, mentioned in the forthcoming sub-sections. Each strategy highlights strategic development interventions in specific spatial entities that would support the envisaged pattern of growth, making the best use of the existing potentials, while demoting physical developments in locations where such developments are inappropriate due to sensitivity, safety and the need for conservation.

In the proposed scenario, a major share of physical developments is expected to be concentrated into four 'Development Corridors', two 'Metro Regions' and nine 'Main Cities', which have been identified as the most strategic locations for key investments expecting to deliver accrued benefits. The Central Fragile Area, the Coast Conservation.

Zone, and Agricultural, Eco and Forest Reserves which cover nearly a third of the land area, shall receive equal attention for conservation, and will be devoid of large scale physical development interventions. In addition to those, it also proposes the locations, most appropriate and advantageous in terms of reaching the development goals of the Government of Sri Lanka, mentioned in Section 1.5 above, for major residential developments, industrial establishments, commercial and other urban land uses.

2.1.3. The ‘Central Fragile Area’ shown in the figure 3, is the geographic entity that consists of the lands with sensitive natural ecosystems, highly vulnerable to landslides and play a crucial role in sustaining water resources. A major portion of these areas are located above 300 meters from mean sea level and cover the upper catchments of all major rivers of the island. The identified areas fall within the current administrative districts of Kandy, Nuwara Eliya, Kegalle (all areas) and Matale, Ratnapura, Monaragala, Galle, Matara, Kalutara and Colombo (identified DS Divisions). The list of Divisional Secretariat Divisions is given in the annexure 01.

The Central Fragile Area

The physical developments in these lands shall be guided with stringent regulations and comprehensive guidelines, enforced and monitored by the agencies responsible for the development and conservation of these areas. The National Building Research Organization (NBRO) has already declared this area under the title ‘Landslide Prone’ districts, and guidelines are being developed for the construction activities carried out in this area. This will partially support the conservation of geological profiles, hydro systems and the development density.

Since a major portion of the physical developments are associated with increasing urbanization trends, ‘planned urban development’ is not an option, but a necessity for all localities in this area. This is possible through the integrated Urban Development Plans prepared and implemented for all existing and emerging urban areas, declared under the provisions of the Urban Development Authority Law of 1978.

The conservation of critical land resources in these zones shall also be supported by a depopulation strategy. A larger share from the next generations (2020-2050) of the populations of these areas shall be attracted into the proposed economic development zones by means of more attractive employment opportunities, affordable housing and more beneficial and vibrant living environments.

In addition to the conservation of lands a well-organized and coordinated tree planting/re-forestation program is essential for a long term conservation of the water resources in the area. The implementation of the REDD+Sri Lanka National REDD+ Investment Framework and Action Plan (2017) will provide adequate support for this purpose.

2.1.4 The ‘Coast Conservation Zone’, shown in figure 4, includes the area for which boundaries have been delineated by the Coast Conservation Department under the provisions of the Coast Conservation Act No. 57 of 1981. Even though a large quantum of physical developments of Sri Lanka has been taking place in this zone, conservation of the lagoons, estuaries, swamps, riverine environments and other sensitive environments is important because of the eco services that they provide, the attractions they have and the economic activities associated with them. The list of Divisional Secretariat Divisions which encompasses these areas are given in the annexure 02.

The Coast Conservation Zone

The Coast Conservation Department is adequately equipped with powers to carryout conservation functions in these areas, and a national level Coast Conservation Plan is already being developed. In addition to that the Geological Surveys and Mines Bureau

Figure 3: Central Environmental Fragile Area

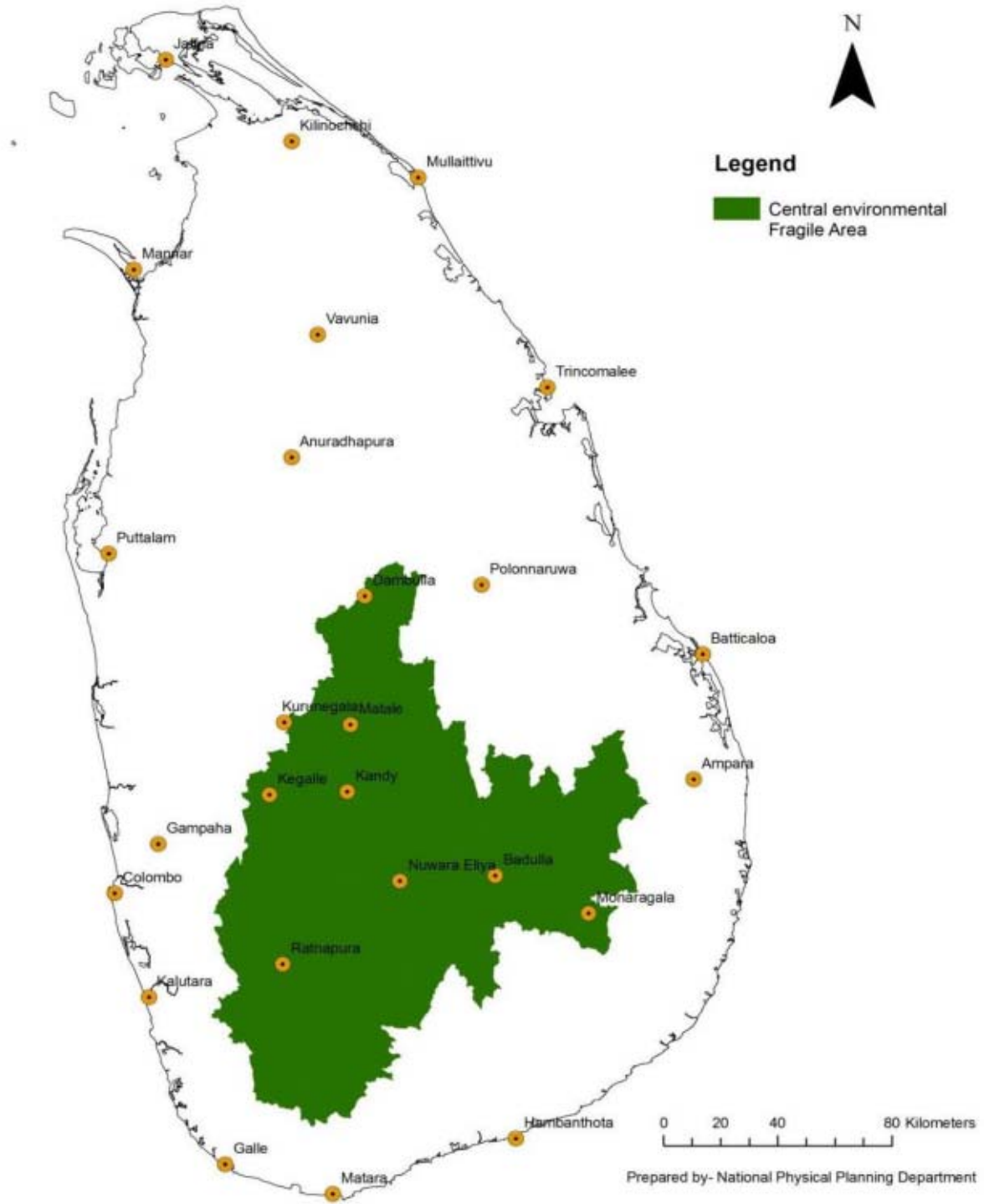


Figure 4: Coastal Conservation Zone



plays a role in controlling mining activities and the Central Environmental Authority is empowered to regulate activities that impact the coastal environmental systems, while integrated urban development plans will support to have least destructive physical developments for tourism, fisheries, recreation and port related activities. However, the existing enactments by the Coast Conservation Department, Central Environmental Authority and the Urban Development Authority shall be strictly enforced in these areas.

The Agro
Conservation
Zone

2.1.5. An ‘Agro Conservation Zone’, shown in figure 5, is the geographic entity with lands that are predominantly used for agricultural purposes, as defined by the Agrarian Services Act No. 58 of 1979 and Rubber, Coconut and any other type of Plantations which are situated away from the main urban concentrations proposed in this report.

The most important DSD division in terms of % of total land extent of different agricultural crops are shown in annexure 03. In addition, the list of enactments related to the agro conservation zone is depicted in annexure 04.

/The Water
Conservation
Zones

2.1.6. The ‘Water Conservation Zones’ shown in figure 6, include the areas those can have an impact on the long existing water cascading system, which includes Large tanks, supplementary tanks, sedimentation tanks and small scale village tanks along with their watersheds and the feeding canals, located mainly within the dry zone of the island. Even though almost all areas have these water systems, the administrative districts given in annexure 05 are of critical importance with this regard. The list of enactments related to the Water Conservation Zone are shown annexure 06

The physical developments associated with these water bodies and their water catchment areas shall be strictly regulated by the respective Divisional Secretaries, in coordination with the relevant Local Authorities.

The Forest
Conservation
Zone

2.1.7. The ‘Eco Conservation Zone’ given in figure 7, is an entity with wetlands, catchments of irrigation tanks, streams and reservoirs, and the sanctuaries declared by the Wildlife Conservation Department, under the provisions of the Fauna and Flora Protection Ordinance, No 2 of 1937, and subsequent amendments. A ‘Forest Conservation Zone’ includes any area declared as a reserved forest by the Forest Conservation Department, under the provisions of the Forest Ordinance No 16 of 1907 and its amendments. The Available Laws and Policies related to the Eco Conservation Zone are shown annexure 07

The Development
Corridors

2.1.8. A ‘Development Corridor’ is a contiguous linear geographic entity, which connects a series of major and minor agglomerations of economic activities, a variety of secondary and tertiary sector industrial developments that mutually support the sustenance of each other through forward and backward links, clusters of urban facilities that support a relatively large concentrations of people who live, work and patronize the facilities within, and benefited by interconnected networks of physical, economic and social infrastructure.

Figure 5: Agro Conservation Zone

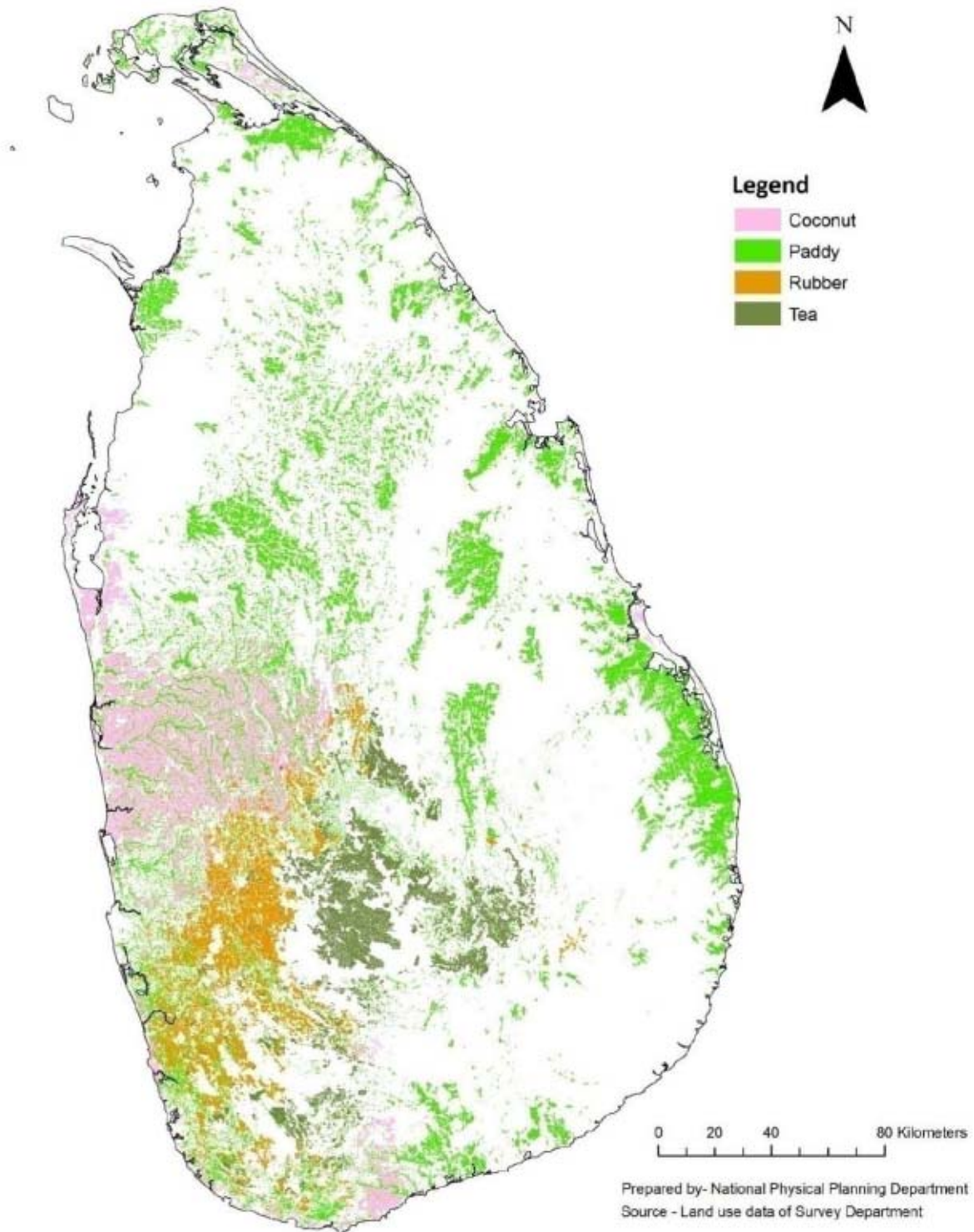


Figure 6: Water Conservation Zone

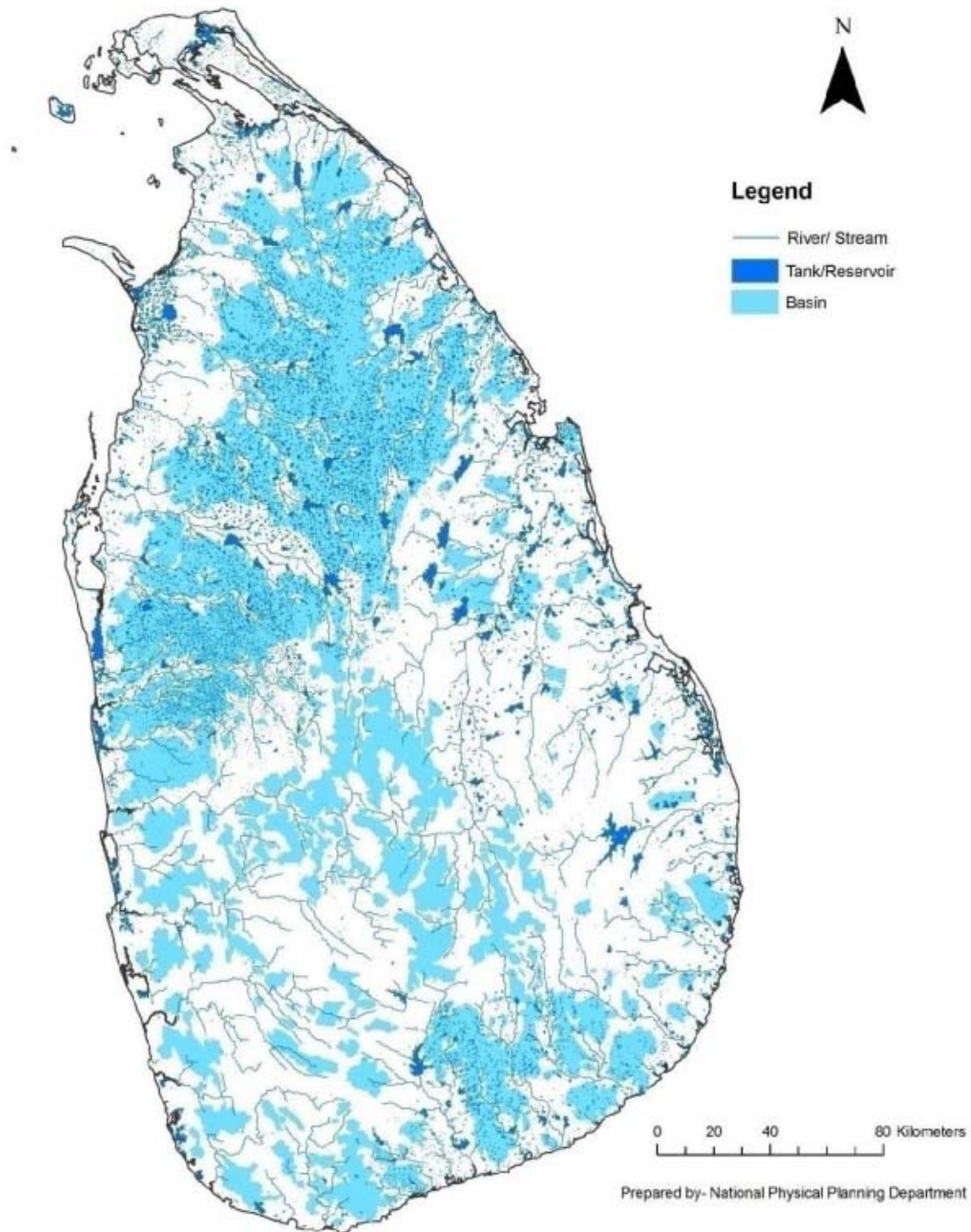
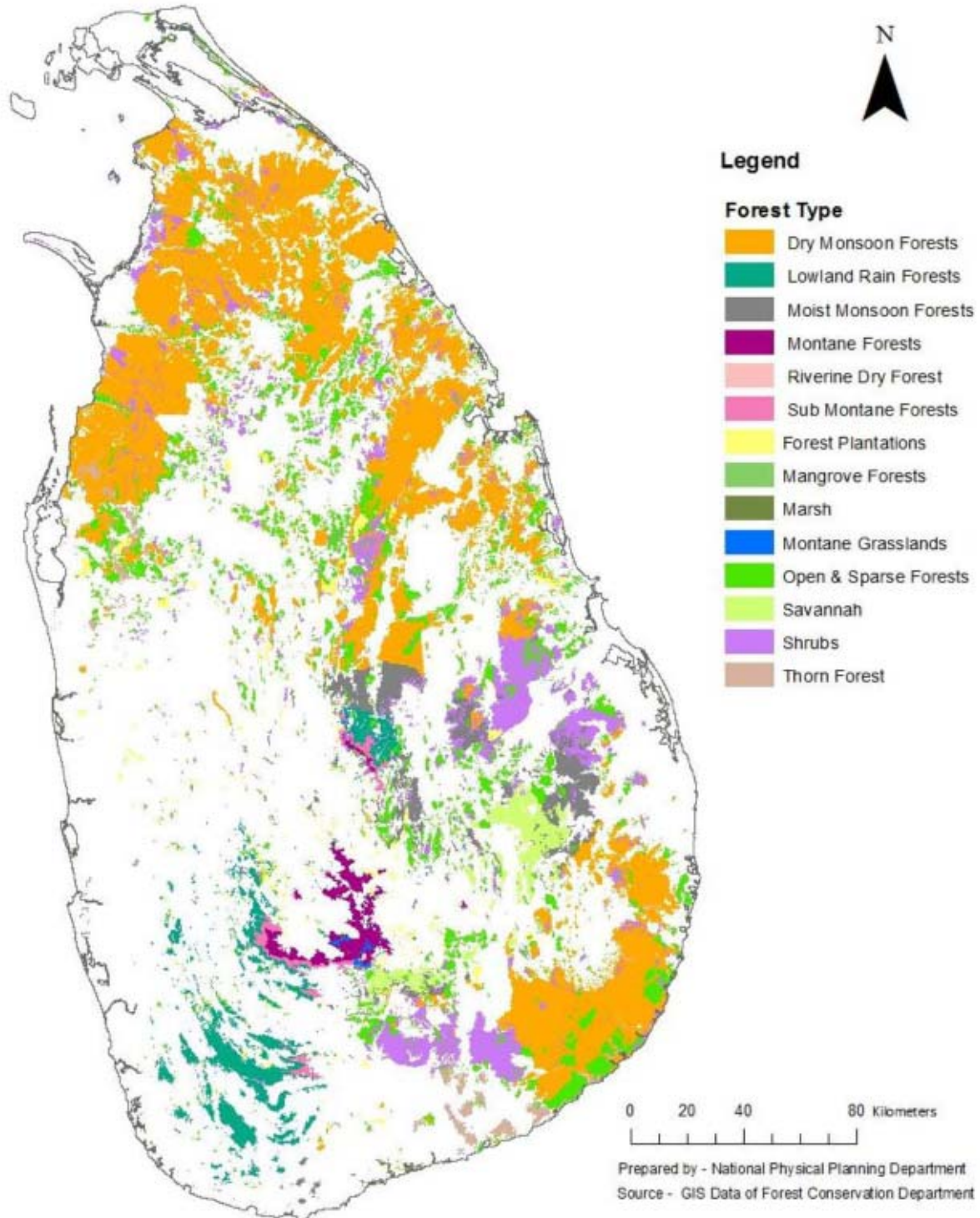


Figure 7: Eco Conservation Zone/ Forest Conservation Zones



The Development Corridors given in figure 8 are expected to make the largest contribution to the National Economy, mainly by means of value addition to both local commodities as well as import-export based global supply chains, capitalizing upon the three international ports in Colombo, Trincomalee and Hambanthota and the small ports in Oluwil and Jaffna, international airports in Katunayake, Mattala and Hingurakgoda (to be developed), the expressways and improved high speed railway links. They thus, shall be the main sources to attract investments and to provide employment opportunities.

Out of the total population in Sri Lanka in 2050, at least sixty percent (60%) is expected to be concentrated within these Development Corridors, identified within the proposed spatial structure. Such concentration is mandatory to meet the thresholds of viability for the investments on specific infrastructure and high-end urban facilities and to have the critical mass required for their sustainability.

The East-West
Development
Corridor

2.1.9 The East-West Development Corridor, is proposed between the Colombo and Trincomalee districts. In order to capitalize upon the advantages of the two major ports in Colombo and Trincomalee, the transport infrastructure and the favorable living conditions, a reasonably higher share of the future population (approximately 35-40%) of Sri Lanka shall be settled in lands that fall within the proposed East-West Development Corridor. The spatial extent of this corridor is defined approximately as the area within the first 10 kilometers (highest concentration), and 10-20 kilometers (medium concentration) and 20-30 kilometers (moderate concentration) from the proposed expressways and highways.

In this Development Corridor, the Colombo Metro region, which is the conurbation of several urban areas around Colombo, will be the largest concentration of settlements and expected to be home for around three and a half million (3,500,000) residents. The other major concentrations are proposed in five Metro Regions centering Negombo (600,000), Gampaha (700,000) Kurunegala (1,000,000), Dambulla (500,000) and Trincomalee (1,000,000), along with a series of 'Cities' in Beruwala, Kalutara-Matugama, Panadura- Horana, Mirigama-Warakapola, Polgahawela, Alawwa, Ibbagamuwa, Galewela and Kantale., whose resident populations may vary between 100,000-200,000 and 'Small Towns' which will have relatively smaller concentrations (Table 02).

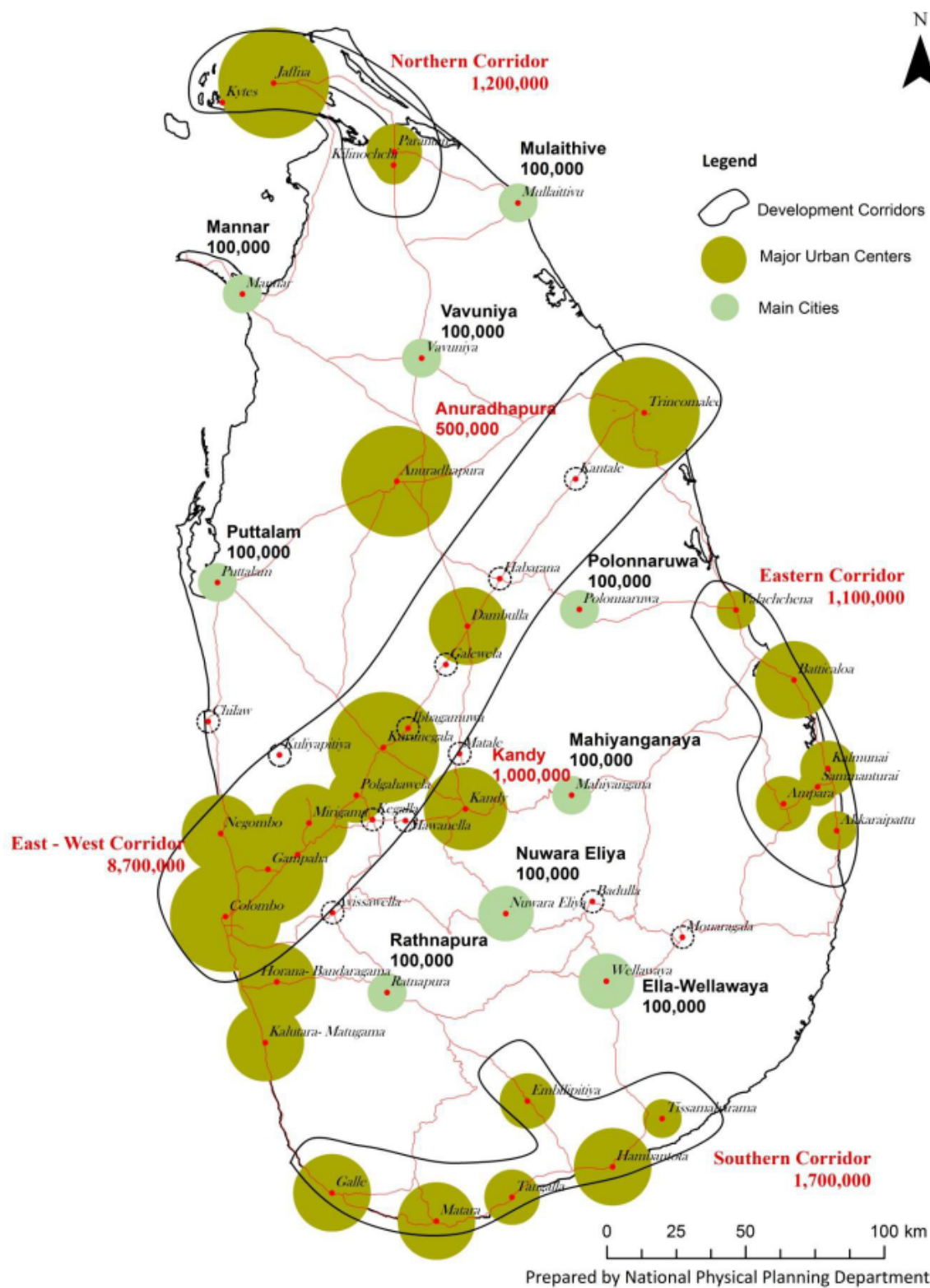
The area earmarked for this Corridor is constituted of 71 Divisional Secretary Divisions (Table 01) and 12.3% (8069 km²) of the total land extent of the country.

The Northern
Development
Corridor

2.1.10 The Northern Development Corridor, is expected to accommodate a residential population of more than a million (1,200,000). The low population growth rate experienced by this region can be increased to a moderate annual average growth rate of 1.2 percent to result in this number by 2050 (Table 02).

Jaffna Metro Region and Kilinochchi are expected to be the epi-centers of the agglomeration of this corridor. With the available restrictive environmental conditions and the possibility of providing infrastructure, Kilinochchi is expected to have a higher growth than the other areas in this corridor. This Corridor consists with 15 Divisional Secretary Divisions (Table 01) and 2.9% (1925 km²) of the total land extent of the country.

Figure 8: Proposed Urban Agglomeration Pattern - 2050



The Southern
Development
Corridor

2.1.11. The Southern Development Corridor, with the prevailing annual average rate of growth of 1.0 percent is expected to reach a residential population of more than one and a half million (1,700,000) (Table 02).

The corridor will be developed centering on the Metro Regions at Galle, Matara and Hambantota, Main Cities at Tangalle, Embilipitiya and Tissamaharama, and 'Small Towns' which will have relatively smaller populations. The existing rate of growth shall continue to reach the numbers by 2050.

The Southern Corridor consists with 32 Divisional Secretary Divisions (Table 01) and 3.4% (2221 km²) of the total land extent of the country (Table 02).

The Eastern
Development
Corridor

2.1.12 The Eastern Development Corridor, is expected to have a residential population of more than one million (1,200,000), which can be achieved with a little increase of its present rate of growth to 1.0 percent (Table 02).

Batticaloa is proposed to be developed as a Metro Region with a population of 300,000, and Valachahenai, Kalmunei, Ampara, and Akkareipattu are proposed to be the Cities with populations varying between 250,000 to 100,000, along with a set of 'Small Towns' which will have relatively smaller concentrations. This included 29 Divisional Secretary Divisions (Table 01) and 4.6% (3021 km²) of the total land extent of the country (Table 02).

Kandy Metro
Region

2.1.13. A 'Metro Region' is a geographic entity with a relatively larger agglomeration of economic activities, secondary and tertiary sector employment and a population around an urban area, characterized either by a single node or several nodes of urban facilities. Within this policy, a 'Metro Region' shall be an indication of an area with a minimum population of 500,000, and a net residential population density between 1000 - 5,000 persons per square kilometer.

Kandy Metro Region is proposed to facilitate a population of ten hundred thousand (1,000,000) (Table 02). The area identified for proposed Metro Region in Kandy presently accommodates a population of 680,000, but this is likely to grow beyond the expected number, if additional measures will not be taken to attract its future populations in to other areas.

The Kandy Metro Region consists with 8 Divisional Secretary Divisions (Table 01) and 0.7% (430 km²) of the total land extent of the country (Table 02).

Anuradhapura
Metro Region

Anuradhapura Metro Region is expected to facilitate a population of five hundred thousand (500,000) within the respective areas of its direct influence. The present population in the area identified for Anuradhapura Metro Region is 311,000, which is expected to grow at an increased annual average growth rate of 1.6% to achieve the targeted numbers (Table 02).

The Anuradhapura Metro Region consists with 8 Divisional Secretary Divisions (Table 1) and 2.5% (1670 km²) of the total land extent of the country (Table 02).

Main Cities

2.1.14A 'Main City' is a relatively larger concentration of economic activities, urban facilities and residential population, and serves as the higher order service Centre to a reasonably larger land area. Within this policy, a 'Main City' shall be defined as an area with a minimum population of 100,000, and a net residential population density between 100 - 500 persons per square kilometer.

The following locations are proposed to be developed as independent medium scale urban facility locations with populations varying between one and two hundred thousand (100,000-200,000) (Table 02):

1. Mannar,
2. Mulaitivu,
3. Vauniya,
4. Puttalam,
5. Polonnaruwa,
6. NuwaraEliya,
7. Ratnapura,
8. Mahiyanganaya
9. Wellawaya,

These ‘**Main Cities**’, shown in figure 8, are expected to contain a larger share of the future urban growth excluded from the Development Corridors and the two Metro Regions, which otherwise will be scattered all over the island within the next 20 years. They shall collectively accommodate up to 2.6-2.7 million residents within their areas of influence. However, out of them Nuwara Eliya and Ratnapura may need to divert their excess populations into elsewhere in future due to their fragile environmental conditions.

2.1.15 Tertiary Agglomerations of around two hundred medium and small scale towns in both designated and non-designated urban areas, are expected to have less than 50,000 people in each of them, and to support the basic needs of settlements scattered in the rest of the island. Small Towns

2.1.16 The Implementation of the spatial structure shall be assured by the following actions taken by the relevant agencies:

- a. Investment on strategic projects that will generate more attractive employment and business opportunities (mainly in the manufacturing and service sector) for the next generation entering the labor force, at locations proposed by this plan.
- b. Increasing the availability of land/houses and urban infrastructure (especially water supply and public transportation) at affordable prices at locations identified for residential developments within the proposed urban agglomerations.
- c. Providing high performing social infrastructure (especially primary and secondary schools, high quality health services and recreation facilities) associated with the main urban areas proposed in this plan.

2.2 The Urban Development strategy

2.2.1 The Objective

The urban development strategy is to regulate and promote the urban areas with comprehensive development guidelines. The urban development plans prepared by the Urban Development Authority and other development agencies shall strictly take the following aspects in to consideration.

Integrated Urban
Development

2.2.1.1 Attractive and Livable Conditions

The conditions within the urban areas must be conducive for living, working and entertainment. The tropical climate conditions prevailing within most of the urban areas shall be handled with adequate sensitivity. Positive characteristics such as the bright day light, constant temperature and humidity conditions, *etc*, as well as the harsh sunny and heavy rainy weather conditions shall be responded with appropriate measures of planning and urban design in order to provide appealing and livable atmosphere.

2.2.1.2 Safe and Secure Localities

The safety from external forces such as the floods, landslides, sea erosion as well as internal issues such as the frequent road accidents, public nuisance, wide spreading epidemics, etc, shall be addressed at the planning of urban areas. Safe environments also include special attention paid to children, disabled and senior citizens. Security from theft, burglary, crimes and terrorist attacks shall be provided through both physical and non-physical measures.

2.2.1.3 Smart and Convenient Facilities

The ease of access to various information related to day to day operations, reliability of public services provided by various institutions, and the convenience of using urban facilities makes an urban area 'smart'. The advancements in information technology may assist to provide fast and reliable information through smart devices, but the delivery depends largely upon the persons and the systems in place. Even though a major contribution for such systems shall be non-physical, the physical environments shall be planned and designed to enable the commendable use of such systems, when provided with the required versatility.

2.2.1.4 Green and Sustainable Environments

The selection of the most appropriate lands, safe and reliable construction methods, saving of water both in construction and in operations, effective use of renewable energy, use of appropriate materials in optimum quantities, response to thermal conditions, use of efficient devices, *etc*, shall be made compulsory for all constructions in order to assure environmentally sustainable and 'Green' developments.

Priority on Public
Transport

2.2.2 Improved Public Transport modes that assures efficient, affordable and reliable service shall be identified as a key factor for the improvement of livability in urban areas. Therefore, strategic investment program in reorganizing mode-integration and systematizing the operations along with the state-of-the-art passenger services for the improvement of public transportation throughout the island with a special emphasis on the urban agglomerations proposed in section 2.1 shall be implemented by 2025.

Since the residential populations within most of the Metro Regions and Cities, except Colombo Metro Region, will not exceed a million, heavy investments on high tech transportation solutions for local passenger transportation may not be economically viable. In most of the urban areas, local passenger transportation needs can be best catered by improving the existing bus services until 2030. However, the operations need to be heavily regulated, buses and the waiting facilities must provide the required comfort, and smart services such as e-ticketing and information display need to be provided to make the services more efficient, cost effective and attractive to passengers.

In the proposed Development Corridors, the railway shall be given priority because it is the most economically viable and environmentally sustainable inter-city mode for both passenger and goods transportation.

Physical Quality
of Life

2.2.3 High Quality Utilities shall be provided in order to boost urban development, strategic investments. To this end the augmentation of the existing water supply projects, improvement of drainage, introduction of underground sewer, enhancement of the electricity network, and the introduction of fire services, shall be provided as priorities within the period 2020-2030 for the areas identified for the development of Metro Regions and Cities of the Development corridors, the two independent Metro Regions and the Nine Main Cities, on priority basis.

Throughout the proposed Development Corridors, improved inter-connected water supply, gas and electricity distribution networks, fed by multiple sources located at different points, shall be implemented in order to maintain an uninterrupted, consistent and regulated supply for all activities within them.

- 2.2.4 Augmented Social Infrastructure** is essential in order to enhance the attraction of the future generations of the population to those selected urban areas for residential and employment purposes the provision of high quality education, health, communication and recreation facilities is proposed.

Social Quality of Life

It is observed that almost all areas, identified to be promoted as Metro Regions and Main Cities, already have adequate education and health facilities. The immediate requirement is to invest on the improvement of the quality and the capacities of the existing facilities, rather than the establishment of new facilities. Yet, in some urban areas, the schools and hospitals located within core areas shall be relocated to alternative locations within close proximities, in order to avoid issues related to crowding, traffic congestion, user safety, *etc.*, with adequate considerations on the appropriateness of their existing locations for such facilities.

- 2.2.5 Improved Pedestrian Spaces** shall be given priority in all urban development programs to make the urban areas more attractive. Strategic interventions such as the improvement and regulation of their pedestrian environments shall be proposed in all development plans. Walking can be regarded as the best solution for most of the issues presently apparent in Sri Lankan urban areas such as traffic congestion, unauthorized parking, accidents, *etc.* As a priority measure, pedestrian friendliness shall be considered as the main objective of future urban plans, instead of the present dominance given to vehicular movement. The pedestrian areas shall be suitable for the tropical weather conditions available and appropriate designs shall be devised accordingly.

Walkable Cities

- 2.2.6 Increased and Improved Recreation Facilities** at the local level, shall be provided to cater the increasing rate of urbanizing lifestyles of the inhabitants. This is a necessity for a healthy nation and to reduce heavy costs on providing health services.

Recreation Facilities for all

The general standard is to have one hectare of open space for 1000 persons, which is hardly met in present urban development schemes. Nevertheless, provision of large extents of lands for open spaces for public recreation facilities is a challenge amidst the scarcity of land and the pressure for developments in urban areas. Yet, innovative approaches such as the opening of canal reservations, river banks, marshy areas and beach fronts along with reasonable facilities and maintenance of them will enable to overcome the difficulties in providing public open spaces. Parallel to that providing wider road spaces at neighborhood levels to be used as makeshift children play areas and gathering spaces will work as an alternative way of providing public open spaces and also to strengthen 'neighborhood' or 'lane' communities.

- 2.2.7 More Space for Physical Developments** shall be made available in order to support the intense developments in selected urban areas by means of more appropriate Floor Area Ratios (FAR), higher densities and mix developments, yet, regulated within comprehensive development guide plan required instead of the currently adopted activity based zoning, The Development Plans prepared by the Urban Development Authority for the identified Urban Areas of the said Development Corridors, Metro Regions and the Main Cities, shall consider appropriate methods based in densities and the floor area ratios demanded by the economic activities appropriate urban forms, environmental learning capacities, infrastructure availability and the populations envisaged in those locations.

Intense and Compact Cities

Wider
Opportunities

2.2.8 A wider Choice of Employment Opportunities shall be provided as a measure to generate increased number of direct and indirect employment opportunities in such locations providing lands and other infrastructure required for appropriate type of industries.

Smart Cities

2.2.9 Smart Facilities is a requirement for the improved connectivity of people and locations both locally and internationally in all urban areas. To this end high quality communication infrastructure is a requirement. The ongoing concept of Smart Cities is a progressive initiative in this regard. Owing to the rapid advancements in information technology and digital infrastructure, in near future the relative costs of providing smart facilities will be justifiable in the light of benefits such as the convenient access to information, automated public services, more transparency in governance, *etc.*, that they can provide.

In that context, fully fledged smart environments are proposed to be established along all four economic corridors, metro regions and the main cities during the period 2020-2025. This can be extended into other areas thereafter.

Green Cities

2.2.10 Green Built Environments shall be the theme of all physical developments. In order to ensure environmentally sustainable development within urban areas, the green building practices are proposed to be made essential for all physical developments, including buildings, roads, recreation facilities, *etc.* by 2020.

As general policies the following are proposed to be adopted as strategic projects in the planning and implementation of all urban developments:

1. Establishment of urban scale collective rain water harvesting facilities such as open ponds, underground reservoirs, etc at identified strategic locations, implemented by the National Water Supply and Drainage Board in coordination with Urban Development Authority and the Local Authorities.
2. Solar fields installed in the appropriately built roof tops in selected localities, implemented by the Sustainable Energy Authority and the Ceylon Electricity Board.
3. Community based waste management initiative that includes source management, sorting, collection and recycling in all condominium and neighborhood developments, implemented by the Provincial Waste Management Authorities, in coordination with the Local Authorities.
4. Minimum un-built open area requirement and space for green cover strictly regulated and maintained within urban areas as specified in respective urban development plans.
5. The Green Building certification process implemented by the Urban Development Authority be extended to all categories of developments to facilitate this initiative.
6. An island wide programme to shade main streets and major public spaces of all urban areas with trees of endemic species, implemented by the Urban Development Authority.
7. Strict implementation of Green Procurement guidelines for all projects, purchase of equipment and devices involved in urban development activities.

2.3 Transportation Development

2.3.1 The Objective

This is to act as a complimentary element to the National Transport Policy which was approved by the Cabinet of Ministers in 2009 and the same is being updated by the Ministry of Transport and Civil Aviation, the following objectives are proposed by the this plan:

Transportation
Development
Strategy

2.3.1.1 Pro-active approaches

Connectivity, accessibility and mobility are among key factors that influence the proposed land use and the settlement distribution pattern. Therefore, transportation planning should work hand in hand with land use planning, in order to expect a healthy land uses as well as sustainable transportation infrastructure development. Sustainable transportation planning which is based on the three pillars, namely: to *avoid*, to *shift* and to *improve*, shall adopt pro-active policy approaches that support not only to turn future land use and the settlement distribution in desired direction, but also support to encourage modal shift from private to public and to improve efficiency and reliability, rather than mere responses to the present demand trends, and ineffective investment on transportation infrastructure.

2.3.1.2 Optimization of the available infrastructure

Both passenger and goods transportation modes and the related infrastructure involves heavy investments, which under the current economic conditions will add to debt burden on Sri Lanka's economy for next twenty to thirty years, and therefore, optimization of the utility of the available transport infrastructure with minimum additions, is the most viable option to provide transport infrastructure.

2.3.1.3 Investment on economically feasible projects

With the fast evolving technology and the changing lifestyles of the people, the travel behavior as well as the modes of passenger and goods transportation are likely to change within the period envisaged in this plan, and therefore, in a transforming situation all investments bear some levels of risks of not providing the best utility and not yielding the expected benefits. Therefore, investment decisions for transportation developments need to follow comprehensive feasibility studies before they are turned into projects.

2.3.1.4 Selection of environmentally sustainable modes

Transportation sector is identified as one of the major contributors to Greenhouse Gas emissions in Sri Lanka. In order to comply with the permitted emission levels and for a sustainable conservation of the environment the minimization of the use of private vehicles and the promotion of the public transportation shall be the policy in future developments. Out of the available modes rail transportation shall be the first in the priority order.

2.3.1.5 Introduction of modern technology for efficiency and comfort

Even though economic viability is a concern, the safety and reliability are important in all modes of transportation. Therefore, the introduction of the state-of-the art technology available to improve the efficiency, such as the automation of vehicles, electronic ticketing, inter-modal integration, *etc.*, and the user comfort shall not be compromised at any cost in the development of both passenger and goods transportation.

2.3.1.6 Equality and Equity in investments

There shall be equal consideration on the inter-regional connectivity as well as the first and last-mile connectivity. Heavy investments on large scale infrastructure at inter-regional level transportation infrastructure, with no due regard for local and city level

transportation development will not bring in the required benefits to the nation. At the same time, due consideration shall be there for the order of priority: The Pedestrian, The Cyclist and the Motor Vehicles. It is unfortunate to note that the current road development projects pay less attention to the pedestrian and the cyclist, despite the emphasis given in the transportation policy.

2.3.2 Rail Transportation

Rail
Transportation

Out of the all transportation modes available, the rail transportation was studied to be the most economical for inter-regional goods and passenger transportation as well as for urban mass transportation. Most of the areas identified for future urban agglomerations are already accomplished with railway connections and the related facilities. Therefore, in the four Urban Corridors, railways are expected to be the most attractive among all modes in future. In order to meet such expectation, a remarkable improvement in the available rail network is essential.

The electrification of the rail between Aluthgama and Veyangoda, and Colombo and Negombo by 2025, are already proposed by the current Railway Improvement Master Plan. These projects will complement the proposed East-West Development Corridor. In order to move further, this electrified railway is proposed to be extended up to Kurunegala before 2030. The current Railway Improvement Master Plan also proposes a rail link between Kurunegala and Habarana, *via* Dambulla. This proposal is highly commendable in the light of the proposed corridor development scenario. This length, along with the available rail link from Habarana to Trincomalee shall be improved by 2030 with an electrified, high speed train service to enhance the connectivity among locations within the proposed East-West Development corridor.

In order to facilitate the developments in the Southern Development Corridor the existing rail services from Aluthgama to Matara need to be improved. As per the available proposal this service can be extended from Matara to Hambantota by 2030.

In the Northern Urban Corridor rail services shall be intensified between Kilinochchi and Kankasanthurei by 2025. If the said new connection between Kurunegala and Habarana can be supplemented with an additional connection between Habarana and Anuradhapura the existing connection with Polgahawela *via* Mahawa will be sufficient to cater to the demand until 2030 and thereafter.

In the Eastern Corridor, rail services between Valachchenai and Baticalloa need to be improved, while the existing connection with Habarana will be able to meet travel demands until 2030. In order to improve connectivity within this corridor, an extension of the same line up to Ampara *via* Kalmunei is proposed to be established by 2025.

The other sections of the available network and the services in them shall also be improved in order to facilitate inter-regional transportation needs. In addition to the available network, new railways are proposed: between Kurunegala and Kandy (by 2025), between Hambantota and Polonnaruwa, *via* Wellawaya and Mahiyangana (by 2030), with a possible link to existing line at Badulla; between Colombo and Hambantota *via* Rathnapura and Embilipitiya (by 2030); between Ampara and Wellawaya (after 2030). However, the electrification of these lines may not be an immediate requirement, owing to the heavy investments involved and the level of services expected out of them. ‘

In addition to the above developments, an augmentation of the available railway infrastructure, such as the additional lines to the existing lengths and improvements to the existing lines are essential to improve the efficiency of the railway transportation. A few projects are already under the consideration by the Department of Railways, which includes adding lines between Colombo and Ragama, Colombo and Homagama, Colombo and Moratuwa, etc.

Another area that needs immediate attention of the authorities is the improvements to the passenger services. This includes the modernization of the facilities in railway stations with comfortable facilities, better waiting areas, smart environments in them, *etc*, while, the modernization of the services in for commuters such as e-ticketing, on-line reservation, personalized services, train tracking possibilities, *etc*. Such improvements, along with the improved efficiency of the services, are likely to make a dramatic shift of passengers from road based modes to railway.

2.3.3 Road Infrastructure

It is observed that the public road length maintained by the Government, both at Central and Provincial level exceed 30,000 kilometers. In terms of road density Sri Lanka is at a reasonably higher position compared to other nations in the region. Yet, the necessary improvements and timely maintenance of these roads, specially the provincial roads, has not been at a satisfactory level. In spite of the facts that road transportation serves for more than 90% of the transportation demand, and it is the most convenient and most flexible option specially for the first and the last mile connections, maintenance of the increasing extents of road infrastructure has throughout been a costly affair to the economy. Under such circumstance, prioritization of the road infrastructure developments and the optimization of the utility of the available infrastructure are essential for an economical and sustainable road transportation strategy.

Roads
Development

Expressways are relatively more expensive developments, but can facilitate fast communication between locations. The Southern Expressway, Colombo–Katunayake Expressway, Outer Circular Highway, and the ongoing projects those connect Matara to Hambantota, and Colombo to Dambulla *via* Kurunegala will facilitate the connectivity and the speedy movements between the locations within the proposed Development Corridors.

The movement patterns and the projections expected within the future urban development, settlement distribution, industrial locations, tourism promotion and the other related developments, scenarios proposed in this Plan, indicates that the already available set of expressways and the currently implemented expressway projects, namely the Colombo-Hambantota and the Colombo-Dambulla and the last phase of the Colombo Outer Circular Highway, will be adequate to meet the large scale road infrastructure requirements until 2030. The need for further extensions to the expressways shall be assessed based on the demand patterns likely to arise after 2030. Instead, rapid improvements to railway services, as indicated in the previous section, along with highly integrated, connected and improved local bus services, and the upgrading of the existing inter-regional highway facilities will be able to adequately serve for travel demands and goods transportation until 2030, and in turn to support the proposed physical development pattern.

However, in order to improve inter-regional connectivity and to facilitate speedy access, the existing highways that connect the proposed metro regions and the main cities shall be improved and maintained on priority basis. The identified ‘priority highways’ are Hambantota-Wellawaya-Batticaloa (A2), Negombo-Puttalam (A3), Dambulla- Trincomalee (A6), Dambulla-Jaffna (A9), Kandy-Puttalam (A10), Habarana – Polonnaruwa- Batticaloa (A11), Trincomalee-Puttalam (A12), Medawachchiya-Mannar (A14) and Mankulam- Mullaitivu (A34). In these connections (and the other highways) a main problem frequently noted is the bottle-necks formed in the urban areas that they run through. The ribbon developments taking place along the highway, that becomes the ‘Main Street’ at the locations of these urban areas, often result in congestion and slowdown in main flows. This problem cannot be addressed only through road development or traffic engineering, but has to be addressed through comprehensive integrated urban development plans and pro-active urban development strategies implemented at the local level.

At the Provincial and Local levels, the upgrading, timely maintenance and the optimum use of available road spaces rather than the construction of new roads, except for compelling reasons, shall be policy for road development.

2.3.4 Aviation

Aviation

The National Civil Aviation Policy for Sri Lanka (2016) highlights ‘the future direction and positioning of Sri Lanka as a leading aviation and transport hub in the South Asian Region, transforming the country into a superior air service provider while connecting to the wider world aviation network. It also identifies that timely modernizing Air Traffic Management (ATM) and upgrading and expansion of Airport Infrastructure are critical to cater for growth in traffic and to ensure efficient use of airspace and airports.

With the increasing affluence of the Sri Lankan society, improved business environment and the development of tourism industry, there will be an upward demand for airport and aviation facilities. It is already predicted that with the increasing air traffic and passenger volumes, the carrying capacity of the existing Bandaranayake International Airport (BIA) at Katunayake will reach maximum within a short period. Therefore, plans are already underway for the expansion of landing facilities, passenger terminals and cargo handling facilities. In order to internalize the positive impacts of the increased use of the BIA, the area surrounding Katunayake airport is proposed to be developed with all facilities required for a modern Aero-City. This may be the catalyst for the proposed Negombo – Katunayake Metro Region within the East-West Development Corridor.

In addition, the Mahinda Rajapakshe International Airport (MRIA) at Mattala is a facility that cannot be neglected because of the heavy investments made on it, and the potential that it gains owing to the strategic location that Sri Lanka is positioned within the international air traffic routes. In order to get any benefit and to avoid deterioration it needs to start operations at the earliest.

These two airports will be able to support the international travel requirements in near future. Yet, if the prevalent business development trends continue more air travel demand can be expected within next ten years and a need for a third international airport will arise. In such context, complying with the envisaged pattern of the physical developments, and optimizing the available resources, out of all options available, Hingurakgoda air strip will be the best candidate to get the upgrading to an international airport. Since it is located within a close proximity to the main infrastructure proposed within the main East-West Development Corridor, Hingurakgoda airport will be able to serve all needy areas with appropriate connections.

The National Civil Aviation Policy identifies that the development of aerodromes in underserved or remote regions brings job creation, economic activity, greater connectivity and social integration to national economy. Accordingly, parallel to the development of BIA and the MRIA, the demand for domestic air travel too can be expected to increase. In order to cater to the demand, the existing domestic airports at Ratmalana, Ampara, Trincomalee, Puttalam, Palali and Anuradhapura are proposed to be developed with necessary passenger and cargo handling facilities. However, these developments need to follow comprehensive travel demand analyses and feasibility studies. The proposed infrastructure configurations - 2050 are shown in Figure 9.

2.4 Physical Infrastructure Provision

2.4.1 Objective

The utilities and services are critical for a planned development of human settlements, comfortable living and efficient functioning of economic activities. The physical infrastructure such as the pipe borne water supply, storm water drainage networks, public sewer, liquid and solid waste collection and disposal systems, *etc.*, required to provide such utilities are therefore, plays a major role in realization of the envisaged pattern of development. With that in view, the following objectives are set forth in support of the proposed spatial and settlement strategies.

Physical
Infrastructre

2.4.1.1 Convenience to the Users and Service Providers

The level of accessibility to the user to the utilities as well as the ability to reach them by the service provider are critical in successful provision of respective services. The settlement pattern makes a direct implication with this regard.

2.4.1.2 Strategic and Viable Investments

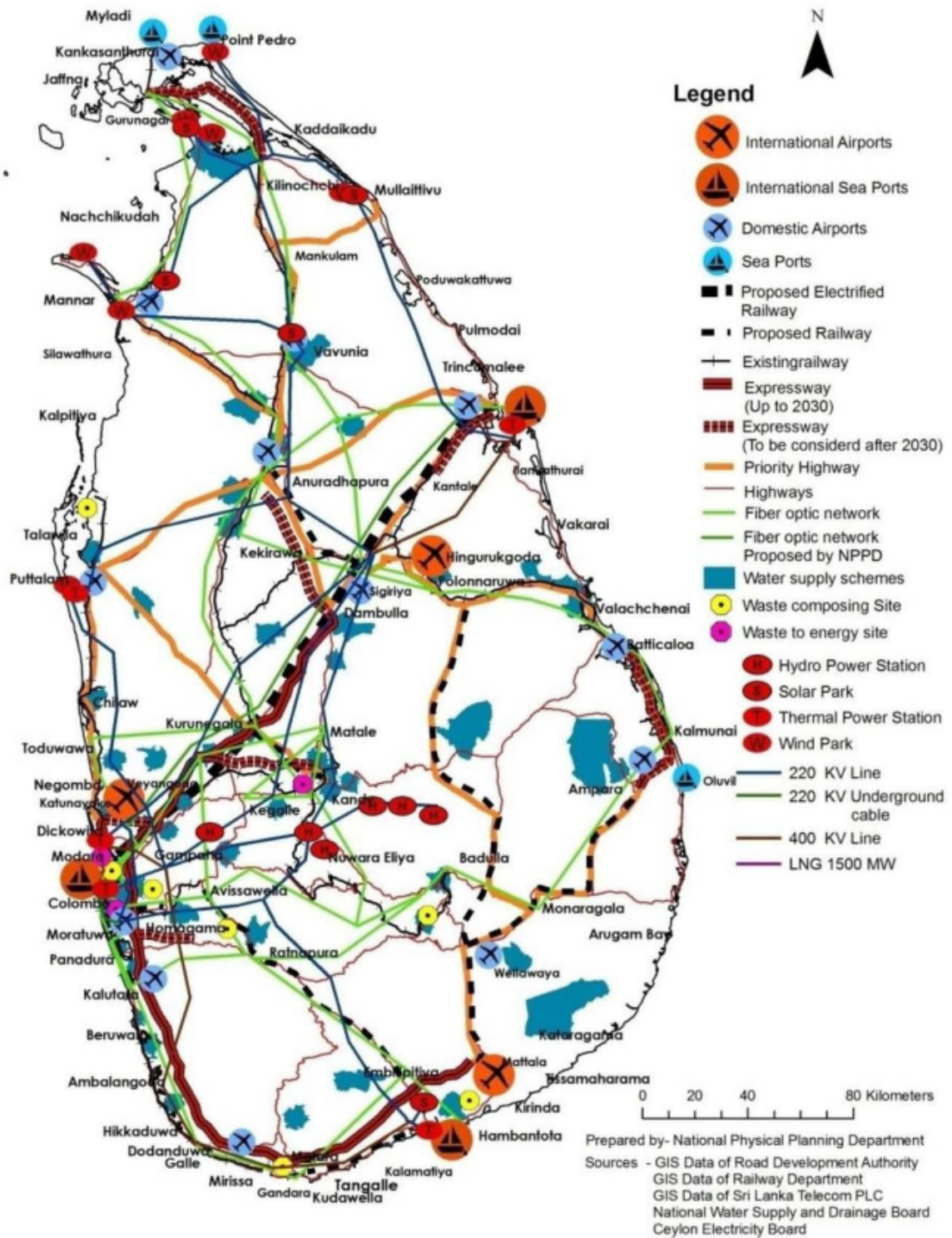
It is observed that electricity supply and road infrastructure have reached more than 95% of the populations of the island. The consistency in supply, operations and regular maintenance, augmentation of facilities are the main issues associated with them. Currently, the water supply and drainage services are fast improving in many areas. It is also noted that the new installations and augmentations of the existing infrastructure involves heavy costs and therefore, in order to best utilize the available finances, strategic projects those will bring in the best outcomes need to be identified for investments.

2.4.1.3 Optimum Utility and Environmental Sustainability

In the provision of the utilities, the service providers shall assess the priorities in terms of the threshold demands by the populations and other activities to sustain the project.

At the same time, the utilities can be a tool to guide developments into desirable directions. The environmentally sensitive areas and reserves can be best protected through non-provision of utilities.

Figure 9: Proposed Infrastructure Configuration - 2050



2.4.2 Water Supply and Drainage:

Water Supply and
Drainage

The water is a critical commodity for three purposes: the domestic and industrial uses, agriculture and irrigation, and sustainability of natural ecosystems.

The domestic and industrial demands in urban areas are presently catered by the National Water Supply and Drainage Board. A number of water supply and drainage projects are already being implemented by the National Water Supply and Drainage Board aiming to cater to targets of 2020 horizon, but most of them are at the local and regional scale. In addition to them, a National Level Water Resource Management project is essential to provide safe, sufficient and sustainable water supply for future physical developments. In such a project the following features shall be integrated:

As stated earlier, in order to assure optimum utility and the appropriate use of resources, as well as to support the proposed settlement pattern, the best option would be the networks of interconnected water supply schemes in the proposed Development Corridors. Such networking facility will support a long range service through a trans-basin diversion of water into the demand areas and thereby overcome the supply issues emerging from source inadequacy, source tapping difficulties and the seasonal fluctuations of flows at the sources. Even though reduction in rainfall is predicted, it is observed that the prudent management of the available water resources in the rivers will enable to meet the demands projected up to 2030 (and beyond) in the given development scenario with a few alternative sources.

Out of the main water sources available, Mahaweli River, Kalu Ganga River and Kelani River will be able to provide the quantity of water that is required to meet the demand generating from the main Development Corridor between Colombo and Trincomalee until 2030, with the support of an inter-connected trans-basin service network as proposed above. The demand emerging from the Southern Corridor needs to be catered to with the water available in Gin Ganaga and Nilwala Ganga Rivers in a similar trans-basin networked service.

However, new sources will have to be explored for the Northern and the Eastern urban corridors as the rivers in those areas may have scarcities to provide water to meet demands throughout. The proposed 'River for Jaffna', (Arumugam Proposal, 1965) which is under consideration by the Government of Sri Lanka, has high potential to provide the Northern Development Corridor to flourish with innumerable benefits as well as to support agro based developments in the North.

The water for agricultural purposes are managed by the Irrigation Department. It is recorded that the lands cultivated with water from major and minor irrigation schemes are over one million hectares, and out of the total food production of Sri Lanka, more than sixty-five (65%) is from these lands. In order to ensure food security, preservation of the traditional agriculture and to conserve the ecosystems associated with them, the said National Water Resource Management project shall include measures towards demand management and guiding the optimum use of water for irrigation and other agriculture related activities.

The sewerage disposal needs will have to be addressed on local basis. As per the numbers, projected in the proposed settlement distribution strategy given in Section 5.2, new underground sewers with other ancillary installations will be necessary by 2030 for main agglomerations in areas such as Sri Jayawardanapura, Kaduwela, Peliyagoda, Wattala, Kolonnawa, Maharagama, within Colombo Metro Region, and the identified core areas of Negombo, Ragama, Gampaha, Mirigama, Kurunegala, Dambulla, Trincomalee, Kinniya, Muttur, Galle, Hikkaduwa, Matara, Jaffna, Batticaloa, Kalmunei, Kandy,

Anuradhapura and Nuwara Eliya. Depending upon the future development pattern beyond 2030, further installations can be considered in Hambantota, Ampara, Puttalam, Mannar, Kilinochchi, Eravur, Rathnapura, and the areas within proposed main urban agglomerations. Such installations will enable to increase the carrying capacities of those locations, conserving sensitive natural eco-systems.

For surface water drainage multiple measures will be required both at local level and regional level. As a general policy the installation of rainwater harvesting facilities in individual developments as well as in urban neighborhoods with relatively larger scale developments shall be promoted in all built up areas, and specially in urban areas. This strategy is important because it will partially compliment the water demand, contribute to prevent flash floods caused by reduced ground assimilation in built up areas and it will enable to recharge ground water sources.

The construction of bunds at appropriate locations and forming small to medium scale cascading ponds, managed by community organizations or the respective local authorities in all river basins will be a viable solution for the management of water in the less densely built areas. The surroundings of such ponds can also be used as sites for public recreation.

2.4.3. Energy

Energy

The exiting plans pertaining to this sector such as the Long Term Generation Expansion Plan-2018-2037 (Draft) by Ceylon Electricity Board, Electricity Supply 2020 And Beyond Challenges And Recommendations published by the Public Utilities Commission of Sri Lanka, and Towards an Energy Secure Sri Lanka', Sustainable Energy Programmes 2015 – 2025, published by the Sri Lanka Sustainable Energy Authority, The Energy Sector Development Plan For A Knowledge-Based Economy 2015 - 2025 published by the Ministry of Power & Energy Sri Lanka, the Petroleum Exploration Development Plan (2017) by the Petroleum Resources Development Secretariat; , Petroleum Resources Act No. 26 of 2003; show that adequate attention has already been received by the energy sector. In conformity with the aims and objectives mentioned therein, and to meet the physical development targets of this Plan, the following spatial strategies are proposed.

The said report on 'Electricity Supply 2020 and Beyond: Challenges and Recommendation' recommends short-term, medium-term and long-term solutions to ensure long-term energy security in a sustainable manner. According to the report, the Sri Lankan power system had total installed capacity of approximately 4054 MW by end of year 2016 with a total dispatching capacity of 3538 MW. The maximum demand recorded in 2016 was 2453 MW and total generation was 14250 GWh. Generation expansion planning is a part of the process of achieving the above objectives. In order to meet the increasing demand for electrical energy and to replace the thermal plants due for decommissioning, new generating stations need to be installed as and when necessary.

Petroleum Resources Development Secretariat (PRDS) plans to move forward with a strategic oil and gas exploration and development plan prioritizing with a list of short, medium and long term Foreign Direct Investment (FDI) projects taking into consideration the emerging business models, newly introduced procurement methods, market potential and national benefits provisions, etc. with the purpose of adding extra value to the economy through capacity building of national human resources and technological advancement of the country through the participation of international Contractors/ Operators in upstream petroleum operations in Sri Lanka.

Petroleum Resources Act No. 26 of 2003 is the governing legislation for petroleum exploration and development in Sri Lanka. The Petroleum Resources Development Committee (PRDC) established under this Act is responsible for implementing the provisions of this Act, and the Petroleum Resources Development Secretariat (PRDS) is responsible for the administration and regulation of all exploration and production activities in Sri Lanka.

The larger share of the demand for both electricity and petro-based fuels will also be from the Development Corridors. With the settlement pattern, industrial developments and transportation infrastructure, proposed in the Spatial Strategy indicated in the Section 5.1 above, it can be expected that more than half (50%) of the future national demand will be concentrated to the East- West Development Corridor.

In that context, the looped continuous service network along the East-West Development Corridor, similar to what is proposed for water supply, is proposed to ensure a regular and non-interrupted provision of electricity, petroleum and gas supply which are critical for the promotion of these main development areas. In addition to the augmentation of the existing systems, new Petroleum and LNG terminals, and power generation plants at Trincomalee, and within close proximity to Colombo (Kerawalapitiya), will support the electricity, liquid fuel and gas supplies to the entire island through a continuous channel. Similar establishments at appropriate locations in the other Development Corridors shall be considered towards 2030, in order to provide necessary utilities. To accommodate these installations, the traces of proposed expressways and railways in the main Development Corridors, shall also be considered as 'Utility Corridors'.

Sri Lanka Sustainable Energy Authority 's (SLSEA) Energy Management Action Plan (2016-2020) is to achieve 20 % energy generation from renewable sources by 2020 and this is an achievable target. This may be increased to 30-40% by 2050, but whether the entire energy demand can be met with renewable sources by 2050 is debatable. Yet, since Sri Lanka has determined to meet the emission targets set out by international agreements and protocols, and also to ensure clean energy provision, roof top solar fields are proposed to be mandatory by urban development regulations in all residential, commercial and institutional developments targeting to meet minimum of 20% of the energy demanded by respective urban areas. Ground area solar fields are also proposed within close proximities to all Metropolitan areas and Main Cities.

However, a comprehensive programme is essential to be developed now to manage the waste likely to be generated from the solar uses in the near future. The promotion of CIGn installing shall be pat with side programme.

A few large scale hydro-power generation stations are proposed by the Ceylon Electricity Board in Seethawaka (Kithulgala), Broadlands (Hatton), and Malwala (Ratnapura), all within the Central Fragile Area, identified by this Plan. Since this Plan suggests a depopulation strategy for these sensitive areas, these projects can be well accommodated, subject to comprehensive studies on the impacts that they will have upon the natural environmental assets.

2.4.4. Waste Management

Efficient solid waste management schemes are essential to support the envisaged physical and economic development scenario. The areas with proposed urban agglomerations are expected to accommodate industrial, commercial, health and other service facilities, in addition to the large residential populations expected in them.

Waste
Management

The projects that are being implemented such as the Waste-to-Energy plants in Kerawalapitiya, Boralessgamuwa and Kandy, the Large Scale Sanitary Land Fills at Aruwakkalu will be taking most of the waste generated within next decade, once they will commence their operations in 2020. In that context, a centrally managed system that includes collection, transportation and disposal, supported by modern technological interventions, operated through a National Level Waste Management Authority is proposed to be established for the areas that fall within the four Development Corridors, Metro Regions and the Main Cities, by 2020.

Owing to the relatively lower volumes of solid waste expected to be generated with the ongoing promotional programmes and the lower populations expected in them, the other areas will be able to manage with the conventional recycling, composting and sanitary landfilling.

With the increasing awareness programmes on Reduction, Reduce and Reuse (3R), the generation and quantities coming into disposal may decrease, but the current socio- economic developments indicate the need to have effective policies, instruments and methodologies to handle non-conventional waste such as electronic waste, clinical waste, *etc.* The proposal for disposal of such categories of waste is beyond the scope of this Plan, but when well researched and effective disposal methods are developed, appropriate locations for facilities required to accommodate them could be identified within the spatial framework provided by this Plan.

2.5 Social Infrastructure Provision

2.5.1 Objective

Social
Infrastructure
Development

Provision of Social Infrastructure is a critical requirement for human settlement development and related economic development. Among different types of social infrastructure required for the successful implementation of the envisaged human settlement development pattern, education, health and administrative services are the most crucial for which successive governments have been paying special attention. The recent policy developments in these sectors such as 'the 'Nearest School- The Best school' (*Langama Pasela – Hondama Pasela*), 'Compulsory Secondary Education', 'Tertiary Education for all', 'Prevention of Non Communicative Diseases through Physically Active Nation', Decentralized Administration, E-Governance, *etc.*, have direct implications on the physical development of the island.

In that background, the following common objectives are set forth for the provision of education, health and administrative infrastructure.

2.5.1.1 Convenience to the Public

Similar to the physical infrastructure, the convenience to the users as well as the service providers is an important factor that needs to be considered in the selection of the locations for installation of social infrastructure facilities such as schools, hospitals, administrative offices, *etc.* In every occasion these facilities shall be planned as close as possible to main access roads, urban centres and within close proximity to each other.

2.5.1.2 Strategic Investments for Optimum Utility

It can be observed that education, health and administrative infrastructure are well distributed throughout the island. Even though the demand on education and health are concentrated to specific facilities and locations, future investment on social infrastructure shall ensure the improvement and augmentation of the existing facilities, rather than establishment of new facilities. In planning for investments, the maximum utility of the facility shall be ensured through comprehensive feasibility analysis.

2.5.1.3 Economical Operations and Sustainable Use

It is frequently stated that most of the investments in social infrastructure do not bring in credible returns to the economy. A well-organized hierarchy of the service, the locations and the coverage of communities at different levels, usually minimize the waste and enable to optimize the cost and the use. At the same time, the upcoming automated service provisions, e-learning, e-consultancy, *etc.*, can be used to provide more efficient and less costly services.

2.5.2 Education

A radical change in the education policy is necessary to overcome the current regional disparities observable in Primary and Secondary education. Education

Currently, the primary education facilities are well located covering the entire island, and within the reach of maximum 02 km even in rural areas. The same facilities in those locations can well serve the expected settlement distribution pattern with minimum additions and augmentation. Yet, the qualities of those facilities are not commendable in all locations. A vast disparity is observed between the 'popular' schools and the other schools. If the Government's 'the nearest school' policy is to become a reality, a remarkable investment on primary education infrastructure is essential within next ten years. This may include the reorganizing of school buildings, spaces for curricular and co-curricular activities, sanitary facilities, teacher accommodation facilities and utilities. In order to relieve the undue pressure built upon 'popular schools' the primary schools may have to be separated from the secondary schools at any cost.

The Government's 'Compulsory Secondary Education' policy will be able to be effectuated with the wide spread of Secondary Schools available within close proximities to the main urban areas. It is noted that the current locations of the secondary schools are within a range of maximum fifteen (15) kilometers from all reasonably densely populated areas and thus, cover the entire island, with a satisfactory mobility of the students. Similar to the primary schools, the disparities noticeable among 'urban' and 'non-urban' schools shall be eradicated within next ten years for a better educated future generation and a fair distribution of education facilities among all schools is essential towards that end. The currently evident undue interferences from various parties into schools' matters may lead into a more sustainable use of Secondary Education.

The tertiary education is increasingly in demand. The available state universities and the non-government degree awarding institutions may need to increase their capacities to cater to the emerging demand. For the establishment of new universities and other institutions as well as for the expansion of the existing ones, the agglomerations identified within this plan are proposed. Most of the major urban areas do have universities and other tertiary education facilities, but for future establishments and extensions the location within close proximities to Mirigama, Dambulla, Mahiyangana, Wellawaya and Puttalam shall be considered, both as means to create positive externalities and thereby to boost local economies, and to get those educational institutions to be served by the readily proposed infrastructure.

Vocational training will be high in demand, provided the existence of the need for technically qualified labour force to engage in future employment opportunities. It is observed that all Metro Regions and Main Cities identified in the Section 5.2 of this report, already have Technical and Vocational Training Institutes. The facilities in those locations shall be improved to provide state-of the art vocational training for the emerging labour force.

2.5.3 Health

Health

Similar to the education infrastructure, the health sector facilities too is well covered through the entire island by maintaining a hierarchical structure and appropriately located within reasonable range of reach from all areas of the island. The quality and the state of infrastructure needs improvements for better services.

Deviating from the current administrative district based distribution, Dambulla, Embilipitiya, Mahiyangana and Wellawaya hospitals shall be upgraded to higher grade facilities (equal to General Hospital) in order to serve the envisaged settlement distribution pattern. At the same time, in addition to Colombo, four National level health establishments are proposed at Trincomalee, Anuradhapura, Matara, Ampara and Kilinochchi.

2.5.4 Administration

Administration

Administration services play a significant role in attracting people and activating urban areas. The current administrative divisions and the hierarchy can be observed as descending from the British Introduced administration structure. This may need a change within next ten years for the betterment of the proposed settlement development strategy. This Plan proposes to shift the current District Administrative functions from Matale to Dambulla, from Badulla to Wellawaya and from Jaffna to Kilinochchi respectively, in near future, in order to discourage further agglomerations in the current locations because of their low carrying capacities, and to promote attractions in the new locations.

2.6 Industrial Developments

2.6.1 The Objective

Industrial
Development

Development of manufacturing sector has been at the focus of many consecutive governments in Sri Lanka, and Industrial Development Policies have been formulated on several occasions in the past. Several institutions, Industrial Estates, Exclusive Export Processing Zones and Industrial Clusters have been formulated and are in operation. Still, under the current situation, most of them operate in isolation and a comprehensive policy to guide industrial developments is yet to be formulated. Therefore, as guiding principles to address the physical development concerns in a future industrial development policy, the following objectives are suggested:

2.6.1.1 More leverage on Knowledge Base and Value Adding

It is widely accepted that the knowledge and innovation based industries and value adding industries will be the thrust areas of future economic development in Sri Lanka. Capitalizing upon the educated high quality labour force along with the strategic geographic positioning of the island, and exploiting the opportunities provided by the technological advancements and the emerging geo-political affairs, industries associated with Information Technology, Nano Technology, Genetic Technology, Aero Technology, Bio- Medical Technology, *etc.*, and innovative value additions shall be given high priority.

2.6.1.2 Promoting Non-polluting industries

Manufacturing Industries contribute the largest share to Greenhouse gas emissions. The modern innovation based industries can lead to 'Zero Emission' status, by adopting efficient housekeeping and automation strategies.

However, Sri Lanka will not be able to totally free from heavy and lightweight manufacturing industries until 2050. Therefore, such industries shall still remain maintaining the permitted emission levels, adopting non-polluting technologies, standard industrial practices, *etc.* The manufacturing industries shall be promoted to adopt emerging concepts such as the 'systems symbiosis', 'Industrial Ecology', 'Eco-industrial parks', *etc.*, in the planning and designing of them.

2.6.1.3 Best use of the available port infrastructure

Industrial locations highly depend upon the availability of infrastructure. The large scale assembling and yard facilities, associated with imports and exports shall gain the advantages of the main sea ports in order to minimize the transportation costs and impacts on the environment. Other large scale industries shall be concentrated into designated areas for the efficient and economical provision of environmental infrastructure, integration of services to the establishments, and to avoid negative externalities resulting from them.

2.6.1.4 Preserving traditional Industries

Traditional industries and domestic industries shall be preserved and supported for long term sustenance. They need to be addressed through a separate policy strategy along with the other factors associated with them, notwithstanding the objectives of the National Physical Planning Policy.

2.6.2. Concentration within Development Corridors:

In order to ensure the settlement distribution pattern, the main employment generating major industrial developments are proposed to be concentrated within the proposed Development Corridors. The East- West Development Corridor can trigger future economic development in Sri Lanka by exposing it to numerous opportunities provided through the two sea ports located in Colombo and Trincomalee. Making best use of the available transport infrastructure, available land and the human resources, a larger share of industrial activities and thus, a large quantum of future employment opportunities can be generated within this Corridor.

With the available and proposed infrastructure and land availability, the locations identified for Manufacturing Sector industries are Horana, Ragama, Ekala, Biyagama, Katunayake, Mirigama, Alawwa, Kurunegala, Ibbagamuwa, Dambulla, and Trincomalee. These locations already have designated Industrial Estates which can be expanded to accommodate demands for manufacturing industrial establishment up to 2030.

Depending on the availability of water resources, large scale industrial developments are also proposed in other three Development Corridors, mainly associated with the sea port developments at Hambantota, Ampara and Kilinochchi.

2.6.3 Special Zones for Innovation Based Industries

The innovative industries which can be regarded as the booster of the economy of Sri Lanka are proposed to be accommodated within close proximities to the existing Universities for the mutual benefits of research and development. Colombo Tech-city project which is underway can be a catalyst for such developments in the Western region. Similar Techno-Park developments are proposed within close proximities to Kurunegala (associated with the Wayamba University), and Trincomalee (associated with the Eastern University).

Innovation
Industries

2.6.4 Processing and Value Adding Industries

Related to agriculture and non-conventional plantations, farming and fisheries development, large scale value adding industrial developments estates are proposed in Colombo- Negombo area, Mirigama, Kurunegala, Dambulla, and Trincomalee in the Main Development Corridor, Kilinochchi in the Northern Development Corridor, Embilipitiya and Hambantota in the Southern Development Corridor and Ampara in Eastern Development Corridor. In addition to them, Anuradhapura, Vauniya, Mannar, Mahiyangana and Wellawaya will be the other locations those could accommodate large scale agro based processing and value adding industrial developments.

Value Adding
Industries

Heavy Industries 2.6.5 Containing Heavy Industries closer to Ports
For heavy industries and assembling plants the vicinities of Trincomalee and Hambantota sea ports are the best identified locations. Since a majority of the high-tech, large scale industries within the foreseeable future will be based on imported materials, and they will be mostly targeting to be exported to external markets, they will naturally be benefited by locating close to ports. Heavy industries shall not be located at internal locations in order to ensure environmental conservation and to prevent other negative consequences.

Supporting the port-proximity policy, the logistics related industries will be able to thrive at locations between Colombo-Negombo area, Trincomalee - Kanthale area and Hambantota-Suriyawewa area.

2.7 Agriculture and Plantations

Agriculture and Plantations 2.7.1 Objectives
In spite of the relatively lower contribution expected from the agriculture and plantations to the future economic development of Sri Lanka, the important goals of food security, resilience to climate change effects, and the conservation of bio diversity necessitates a due regard for these sectors in the formulation of physical development planning policies. Therefore, the following strategies are proposed with the objectives of self-sufficiency in essential food items, conservation of critical environmental resources, and preserving long lived traditions and their continuity for future generations.

In a National and Sctoral Level Plan prepared for the development of Agriculture and Plantations the following shall be given due consideration:

Low Human Engagement 2.7.2 Low human engagement
In the light of food security and preservation of traditional framing culture, due consideration shall continue on this sector. However, since the population directly engaged in agriculture is expected to reduce from the present thirty percent (30%) to twenty percent (20%) by 2030, rapid modernization and technological interventions, but without compromising the traditional practices, is important. While there is a need for the formation of modern farmer communities, technology improvement, training and service proving programmes implemented by respective authorities, such activities shall be supported as part of the regional extensions of proposed Metro Regions and the Main Cities.

Effective use of land 2.7.3 Effective use of land
According to statistics, the total land extent under cultivation, both paddy farming and the highland cultivations is around one million seventy thousand (1.7 million Ha), which is close to one quarter (25%) of the total land extent. The statistics also show that cultivated lands have been increased over last decade by about 15%. This figure draws attention to two serious concerns: The first is that the additional land for agriculture is supplied essentially from forest areas and reserves, which is not a positive sign. The second is that the food production within the same period is not proportionate with the increase, and lead to the question of productivity. Therefore, a mechanism for the allocation and close monitoring of agricultural lands, effectuated at the Divisional Secretariat levels, is essential for the benefit of the entire nation.

Conservation Agriculture 2.7.4 Conservation of agricultural lands in urban areas
The agricultural lands, including paddy fields and plantations, in urban areas are increasingly demanded for physical developments. Even though agricultural uses are not economically viable in urban settings, the respective Urban Development Plans shall evaluate the non-market based benefits that they provide such as the continuity of the eco-system services, drainage, reduction of urban heat island formation and the maintenance of wind corridors, need for public open spaces, unique natural beauty of the locations, *etc.*

2.7.5 High quality plantations

Even though the conventional Tea, Rubber and Coconut plantations were the main contributors to foreign earnings, their role is gradually becoming insignificant in the light of other non-conventional exports. The current issues pertaining to Tea and Rubber Plantations such as the shortage of labour, competition emerging from other producers, sinking markets due to alternatives, etc, do not warrant Sri Lanka to continue those plantations in the same traditional phase. Instead, high quality production can only be promoted.

High Quality
Plantatons

2.7.6 Reforestation of the Central Fragile Area

Due to the environmental issues associated with high elevation Tea plantations, and also due to the need for conservation of the Central Fragile Area, this Plan proposes to transform the non-performing plantations into non-commercial forest plantations and non-conventional export-crops. It is proposed to reduce the extents of land used for Tea Plantations in the elevations above 300 meters to 01% between 2020-2050. The low country plantations may remain, but with stringent regulations to ensure the use of appropriate lands.

Reforestation of
Central Fragile
Area

2.7.7 Urban forests

The agricultural lands and the rubber plantations within the proposed Development Corridors may be demanded for alternative developments in future. Even though they will not be highly productive, they shall be thoroughly evaluated case by case in terms of their contribution to the sequestration of carbon emissions, reducing atmospheric temperature, and the aesthetically pleasing environments they provide, as against the market value of such lands, and then put into most effective uses through the Development Plan prepared for respective local areas. In general, at least sixty percent (60%) of these lands in urban environments are proposed to be preserved to meet the National Forestry improvement targets as set by the UN REDD Programme (2016).

Urgan Forests

2.7.8 Preserving Coconut plantations

The coconut plantations will need to be protected to a large extent as the demand is unlikely to sink until 2030. The fragmentation and the conversion of the estates need to be addressed with proper alternative economic measures. The current policy of approving the fragmentation of plantations less than ten acres need to be revisited in this regard.

Preserving
Coconut
Plantations

2.8 Fisheries

2.8.1 Objectives

The *Ten Year Development Policy Framework of the Fisheries and Aquatic Resources Sector 2007 – 2016*(2007) is the existing plan for fisheries sector development. It provided strategies and actions needed in support of the following sector policies in order to achieve targets.

Development of
Fisheries &
Aquatic
Resources

1. Improve the nutritional status and food security of the people by increasing the national fish production
2. Minimize post-harvest losses and improve quality and safety of fish products to acceptable standards
3. Increase employment opportunities in fisheries and related industries and improve the socio-economic status the fisher community
4. Increase foreign exchange earnings from fish products
5. Conserve the coastal and aquatic environment.

The *National Fisheries Sector Development Strategy 2010-2013* was a short term plan for fishery sector development. The areas focused in the strategy are as follows:

1. Increased annual per capita fish consumption of 21.9 kg by 2013;
2. Increased local fish production. It has been targeted to double the national fish production of the base year by 2013;
3. Established price competitiveness by means of promoting marketing;
4. Adopt measures for fisheries social development through fisheries development;
5. Implementation and management of fisheries sustainably by using novel techniques and responding to international treaties on Law of the Sea.

The period of validity of these plans have already lapsed by now, but an assessment on the accomplishments of the objectives is yet to be reviewed and a new plan is yet to be developed.

In a future plan for the development of the fisheries sector in Sri Lanka, the following items shall be given due consideration:

2.8.2. Improvements to existing infrastructure

Improvement of
Fisheries
Infrastructure

The existing coastal and off-shore fishing infrastructure including the main fisheries harbors, boat anchoring points, collection centers storage and the training facilities well covers the entire coastal region of the island. Yet, they shall have immediate and heavy improvements in order to modernize the fisheries sector as well as to uplift the quality of life of the communities engaged in fishing. New establishments can be considered only after 2030.

2.8.3 Space for post harvesting management, processing and value addition

Harvest
Management

In order to support efficient management of the fish harvest and, add value to fish harvests, necessary facilities such as the processing plants, packaging units and cold storage facilities shall be provided in major centres such as Colombo, Negombo, Beruwala, Trincomalee, Galle, Matara, Tangalle, Hambantota, Jaffna, Mannar, Mullativu, Batticaloa, Oluvil and Kalpitiya.

2.8.4 Development of the Inland fishing

Development of
Inland Fisheries

The inland fishing shall be developed with major reservoirs, but the limitations in inland fish breeding activities shall be well considered before selection of such locations.

2.9. Digital Infrastructure

2.9.1 Objective

Digital
Infrastructure

At a time that the entire world is transforming into an internet and smart era, Sri Lanka too has to equip its national, regional and local systems of planning, administration, public relations, communications, internal and international affairs with state-of-the art digital infrastructure.

While a few national level initiatives and programmes are already in place, the following are specially noted for their importance for the implementation of the National Physical Planning Policy.

2.9.2 Spatial Data Infrastructure

Spatial information is a fundamental requirement for all levels of planning, implementation monitoring and enforcement. With the advancement of technology, spatial information in digital form is in great demand for fast, reliable, precise and cost-effective applications in all type of work. Currently several state sector organizations use digital spatial information, but unfortunately these databases are designed and maintained for specific purposes by individual organizations. They are not widely shared for reasons such as the authorship, inflexibility,

bureaucracy, etc. A national level authority for collection and updating, verification and cording, dissemination and coordination of spatial information is a timely need of the nation to fast move towards all of its development goals.

The National Spatial Data Infrastructure (NSDI), initiated by the Ministry of Digital Infrastructure and implemented through Information and Communication Technology Agency (ICTA) is of great value. The NSDI will be able to provide a digital platform for a variety of spatial information, generated and updated by different institutions, for a wider range of uses for multiple tasks by different agencies, in a standard and custom made formats. It will avoid the duplication, reduce costs, increase the reliability and the uniformity of information, leading to synergy between different development programmes. Therefore, strengthening the NSDI is hereby mentioned as a priority requirement of the day.

2.9.3 Personal Data/Identity Infrastructure

Parallel to spatial information, digital personal information too has become a need of the day to formulate efficient, cost effective and accelerated service delivery to all citizens in all sectors including health, education, social welfare, banking, security, income tax and capacity building.

Personal Data
Infrastructure

The current electronic national identity card implemented by the Department of Personal Registration can be regarded as a commendable beginning, but it has to fast advance into 'digital identity process' to better serve both the public interest and the government objectives. The developed 'digital identity' may lead to a biometric data base that will be widely shared by different agencies with required confidentiality, statutory arrangements and security measures to provide medical and health services, attainment in education, defence related purposes and access to public services. Such data base, instituted, operated and maintained by the Department of Registration. Even though a high capital instrument will be required to install the system, it will drastically reduce the costs annually borne by the Government on public service delivery and increase the efficiency of the agencies.

2.10 Other Policies and Plans Available

It is observed that the following National Level Policies and Detail National Level Plans are either published or being prepared. These plans were studied at the formulation of the Guiding Policies and the preparation of this National Physical Development Plan. They are mostly in conformity with the National Physical Planning Policies, set out in the Section 03 of this report. Therefore, the following can be considered as corresponding sector specific policies or plans at the implementation of this Plan.

Available Policies
and Plans for
Development and
Conservation

2.10.1 An action Plan for Air Quality Management - Clean Air Action Plan 2025

prepared by the Resources Management Centre (AirMAC).

2.10.2 National Biodiversity Strategic Action Plan (NBSAP) 2016-2022

Produced by Biodiversity Secretariat, Ministry of Mahaweli Development and Environment, with Technical Assistance from IUCN, International Union for Conservation of Nature, Sri Lanka Country Office. (May 2016)

2.10.3 National Climate Change Policy (2012) and National Disaster Management Policy(2010)

Prepared by the National Disaster Management Plan (NDMP) - 2013-2017 by Disaster Management Centre

2.10.4 National Policy on Elephant Conservation – 2006

Prepared by Ministry of Mahaweli Development and Environment

2.10.5 The National Policy on Wild Life Conservation – 2000

Prepared by Ministry of Mahaweli Development and Environment

2.10.6 National REDD+ Investment Framework and Action Plan (NRIFAP) 2017

By REDD+Sri Lanka National REDD+ Investment Framework and Action Plan, 2017, Sri Lanka UN-REDD Programme.

2.10.7 Sri Lanka Tourism Strategic Plan (2017-2020)

Prepared by Sri Lanka Tourism Development Authority

2.10.8 National Policy on Mineral Resources

Drafted by the NASTEC with the objectives to manage and strengthen the mineral sector of Sri Lanka for its optimal potential, promote value addition to mineral resources of the country, ensure environmental management within the sustainable development framework of Sri Lanka while balancing the needs for social and economic development.

2.10.9 Telecommunication and Digital Infrastructure

Fiber optic network plan of Sri Lanka Telecom PLC

2.10.10 The National Housing Policy (Revised in January 2019)

Prepared by the Ministry of Housing, Construction and Cultural Affairs.

In addition to already published National Housing Policy, the intervention of the government agencies to provide affordable housing in suitable areas for low-income and middle - income groups in a competitive manner with the private sector is essential to achieve a good social mix in urban areas.

Policies and Plans
Need for Future
Development

2.11 Policies and Plans in Need

At the same time, it is also observed that the following areas need National Level Policies and Plans in order to support the development envisaged in this Plan.

2.11.1 Ocean Resources Development and Marine Pollution Prevention

It is noted that most of the resources that will benefit Sri Lanka's economic development are in the ocean space and in order to effectively and sustainably use them a National Policy and a Plan is a requirement.

At the same time, their reliability depends upon the long term sustenance of such resources. The marine pollution due to shipping related activities, illegal fishing methods, coastal pollution, disposal of land based waste, mining, etc. is a major threat to their long existence and sustainable use. The need for a Marine Pollution Prevention Policy is highlighted in this context.

2.11.2 Labour Resource Development

The human resource is one of the critical components for the National Development of any nation. Yet, it is noted that the use of human resources is not effectively managed. While there is a serious labour shortage in all categories of a few high-paying sectors (eg: Construction, Manufacturing, Electronics, Information Technology, etc), there is an equally serious excess labour in informal activities (eg: Three Wheeler operations, street vending, etc). This clearly shows a timely need for a National Level Human Resource Development Policy and a Plan, integrated with the Education Development Plan.

3.0 The Implementation Strategy

Implementations

3.1 The Objective

As stated in Chapter 01 of this report, the main objective of the National Physical Planning Policy is to provide a broad national level guidance for all development agencies for the planning and execution of development activities, which will have direct impacts upon the physical environment of Sri Lanka and to establish facilities, amenities and service related infrastructure incidental upon the development of the physical environment.

This National Physical Plan is the development framework derived out of the said National Physical Planning Policy. Since what the Plan provides is a broad-brush spatial framework, its implementation needs both technical arrangement as well as procedural arrangement. The following are the strategies proposed under each of them.

3.2 The Technical Arrangement

3.2.1 Detail Regional Development Plans

The main National Physical Plan shall be translated into detail Regional Development Plans those are formulated either for Provinces or Specially Designated Regions, under the provisions of the Town & Country Planning Ordinance (Amended Act 2000). The following are proposed as priority Plans:

Regional
Development
Plans

1. The East-West Development Corridor Region Development Plan
2. The Northern Development Corridor Region Development Plan
3. The Southern Development Corridor Regions Development Plan
4. The Eastern Development Corridor Region Development Plan,
5. The Greater Kandy Region Development Plan
6. The Greater Anuradhapura Region Development Plan
7. The Nine Main City Regions Development Plans
8. The Central Fragile Area and Sensitive Area Conservation Plan
9. Forest, Wildlife and Bio-diversity conservation Plan
10. The Water Cascading System Rehabilitation Plan

The above Plans shall be developed either by the National Physical Planning Department or the Urban Development Authority, who are the agencies vested with powers for the purpose and have the capacity to prepare Development Plans, in the present day context. If any other agency undertakes to prepare such plans both the National Physical Planning Department and the Urban Development Authority shall be integrated into the Plan Preparation Process, in order to ensure a smooth flow of work, high level of conformity and minimum deviations.

Since most of the areas earmarked for the above regions cut across different administrative Provinces of Sri Lanka a high level coordination among provincial administrative and political authorities is essential for the preparation and implementation of these plans. The NPPD is hereby proposed to be given the authority to coordinate this activity.

3.2.2 Detail Local Development Plans

The Local Area Development Plans are currently prepared by the Urban Development Authority under the provisions of the Urban Development Authority Law of 1978 and subsequent amendments or the National Physical Planning Department under the Provisions of the Town & Country Planning Ordinance (Amended Act 2000) or the development agencies authorized to formulate such plans. The Development Projects are designed and executed by sector specific development agencies as per the provisions of the respective legislations.

Local
Development
Plans

Hereby it is proposed that all of the above mentioned Development Plans and Projects shall strictly adhere to the framework set out by this National Physical Plan, and if there will be any deviation required for compelling reason, such deviation shall be subject to the review by the Inter-Ministerial Coordination Committee (stated in Section 2.3.3 below) and approved by the National Physical Planning Council (stated in Section 6.3.1 below).

Local
Development
Plans

3.2.3 Amendments to the Policy and the Plan

A full scale review of the National Physical Planning Policy and the Plan proposed herein is a requirement at the end of ten years (in 2028), in order to assess the level of implementation, its achievements and the needy amendments.

The process involved in the amendment is given in the Section 01 of this report.

The review shall be initiated by the National Physical Planning Department under the guidance of the Technical Advisory Committee, appointed for purpose, and with the collaboration of all stakeholders. In doing that the four main guiding policies mentioned in section 03 of this report in order to guide all physical planning and development activities shall continue as the core elements, while there shall be many timely integrations for the betterment of the policy and the plan.

3.3 The Procedural Arrangement

National Physical
Planning Council

3.3.1 Annual Progress Reviews by the National Physical Planning Council chaired by the Head of the State.

Section 3 (1) of the Town & Country Planning Ordinance (Amendment Act 2000), provides for the establishment of the 'National Physical Planning Council' as the supreme body to direct the preparation and the implementation a National Physical Planning Policy and the Plan. By providing the 'Head of the State' to be the Chairman of the Council and nominating the Secretaries of relevant key Ministries and the Chief Ministers of the Provinces to the said Council, the National Physical Planning Policy and the Plan has been provided with the required legitimacy and the supremacy.

The successful implementation and the monitoring of the Plan needs annual (or mere frequent) review of the progress for its achievements by the Inter-Ministerial Coordination Committee (stated in Section 6.3.3), submitted for the approval of the Council. Such reviews and the feedback by the Committee, submitted to the Council and the necessary directives by the Council will enable to initiate corrective measures and the needy regular updates to the Plan by the National Physical Planning Department.

National Planning
Department

3.3.2 Undertaking by the National Planning Department to prioritize the fund allocation for developments in line with this Plan.

The formulation and the implementation of the National and Regional Level projects depends very much upon the funds received from the Government Treasury. Within the current arrangement, the annual budgetary allocations as well as the foreign aids for projects and programmes are channeled through the approvals of the National Planning Department. In that context, the National Planning Department has the most control upon the effectuation of the National Physical Planning Policy and the implementation of the Plan set out in this report.

The National Planning Department is suggested to be a key undertaker of the Plan, with the National Physical Planning Department.

Direct investments by the private contributions are usually reviewed through respective Development Agencies such as the Urban Development Authority, Forest Conservation Department, Local Authorities, Coast Conservation Department, Agrarian Services Department, Lands Commissioners Department, Road Development Authority and the Central Environmental Authority. Therefore, in order to assure compliance of such projects to the National Physical Plan these organizations shall be made key stakeholders of the National Physical Planning Policy.

3.3.3 Annual Meetings of the Inter Ministerial Coordination Committee for continuity and consistence.

The establishment of an Inter-Ministerial Coordination Committee, provided in the said Town & Country Planning Ordinance (Amendment Act 2000), with the objective stated in the Section 4 A (1). As per the provision the Annual (or more frequent) meetings of this Committee will be essential to exchange views and comments between development agencies on the upcoming needs and the newly emerging requirements of those agencies, as well as the needy and timely updates to the National Physical Plan.

Inter-Ministrial
Coordination
Committee

The recommendations made by this Committee from time to time shall be internally reviewed by the Technical Advisory Committee (TAC, as appointed under the provisions of Section 5 C of the said Act of 2000) and presented for the approval by the National Physical Planning Council.

3.3.4 Development of the Capacities of the Implementation Units of the Provincial Councils and the Local Authorities

As stated earlier, the implementation of the National Physical Plan has to be implemented through the National, Regional and Local Level Plans, prepared by different agencies. While the National level organizations such as the Urban Development Authority, Central Environmental Authority and the Road Development Authority possess the required technical capabilities and financial capacities to undertake such implementations, the Provincial Councils and the Local Authorities currently do not have such capabilities. This is crucial because most of the 'un-coordinated', 'unplanned' and 'ad-hoc' developments are presently taking place all over the island, threatening to the environmental sustainability, leading to the questions of economic feasibility and against wider social acceptability, either with the blessings of the Provincial Councils and the Local Authority Councils or without their knowledge.

Provincial and
Local
Governments

The main reason behind this disjointed implementation is the absence of planning environments and the technically qualified staff to engage in them, in the agencies at those levels to read, comprehend and to convince the administrative and political authorities in them on the planning policies and the plans.

In order to overcome this obstacle and strengthen these two levels, it is proposed to appoint qualified 'Town Planners' at the Provincial Councils and the Local Authorities, assigned with the task of translating the National Level Planning Policies into Local level Projects and Programs as well as to integrate the Local Level requirements into National Level Plans and Policies. The Local Authorities and the Provincial Councils may assess the requirements to establish enabling planning environments in them with the support of the relevant Ministry.

3.3.5 Establishment of the caretaker and whistle-blower group to ensure consistency.

In addition to the formal procedural measures stated above, a 'Caretaker Group' of the National Physical Plan is proposed with the objective of providing community engagement for the implementation of the Plan. The Group may be established through formal means, but act as an open informal association of the interested parties including Non-Governmental Organizations, Student Associations, Media Organizations and other Volunteers.

Vigilant Groups

The Caretakers will have frequent dialogues with the National Physical Planning Department, National Planning Department and other relevant organizations on any observations and objections on deviations and improvements to the Policy and the Plan. The Group shall be empowered to blow whistles at any occasion when they observe major deviations from the Plan and anything inconsistent with the Policy.

Table 01: Divisional Secretary Divisions (DSD) coming under the Proposed Development Corridors

<i>Development Corridor/Metro Regions/Main City</i>		<i>DS Divisions</i>	
		<i>DSD falls within the immediate zone of the Corridor (within 10 Km)</i>	<i>DSD falls within the Periphery zone of the Corridor (within 10 - 20 Km)</i>
East West Corridor			
1	Colombo Metro Region	Colombo, Thimbirigasyaya, Sri Jayawardhanapura Kotte, Dehiwala, Maharagama , Kolonna, Kelaniya, Ratnmalana, Moratuwa, Kesbewa, Biyagama, Mahara,	Homagama, Wattala, Ja – Ela, Kaduwela,
2	Negombo Katunayaka Metro Region	Katana, Negombo , Wennappuwa	
3	Gampaha Metro Region	Gampaha,	Minuwangoda, Divulapitiya, Attanagalla, Dompe
4	Mirigama - Warakapola	Meerigama, Warakapola, Narammala	Ruwanwella, Galigamuwa, Pannala
5	Kurunegala Metro Region	Kurunegala, Mallawapitiya, Mawathagama, Maspotha, Weerambugedara, Ibbagamuwa, Rideegamuwa	Bamunakotuwa, Ganewatta, Pallepola, Yatwatta, Matale,
6	Polgahawela - Alawwa	Polgahawela, Alawwa	Narammala, Rabukkana, Kuliapitiya East, Kegalle
7	Dambulla Metro Region	Dambulla, Galewela, Palugaswewa,	Polpithigama, Kekirawa, Palagala,
8			Hingurakgoda, Medirigiriya
9	Trincomalee Metro Region	Kanthale, Kinniya, Thambalagamuwa, Trincomalee Town & Gravets,	Kuchchaveli, Morawewa, Muttur,
10	Kalutara - Beruwala	Kalutara, Beruwala	Mathugama, Dodangoda, Millaniya
11	Panadura - Horana	Panadura, Bandaragama,	Horana
Northern Corridor			
12	Jaffna Metro region	Jaffna, Nallur, Thenmaradchi, Pachchilaipalli,	Valikamam North, Valikamam South, Valikamam South-West, Valikamam West, Island South, Karainagar, Karaveddy, Kayts, Kopay Vadamaradchy East, Vadamaradchy North,
13	Paranthan	Kandavalai	
14	Killinochchi	Karachchi	Part of Oddusudan DSD

Table 01: Divisional Secretary Divisions (DSD) coming under the Proposed Development Corridors

<i>Development Corridor/Metro Regions/Main City</i>		<i>DS Divisions</i>	
		<i>DSD falls within the immediate zone of the Corridor (within 10 Km)</i>	<i>DSD falls within the Periphery zone of the Corridor (within 10 - 20 Km)</i>
	Southern Corridor		
15	Galle Metro Region	Akmeemana, Galle Four Gravets, Habaraduwa, Weligama, Imaduwa, Bope-Poddala,	Hikkaduwa, Yakkalamulla
16	Matara Metro Region	Devinuwara, Dickwella, Matara Four Gravets, Welipitiya, Malimbada, Thihagoda	Part of Akuresa, Athuraliya, Kamburupitiya, Kirinnda-Phulwella
17	Tangalle - Beliatta	Beliatta, Tangalle	Hakmana, Weeraketiya, Okewela
18	Embilipitiya metro Region	Embilipitiya	Sewanagala
19	Hambanthota Metro Region	Ambalantota, Hambantota, Sooriyawewa	Agunukolapeles, Lunugamvehera
20	Thissamaharama - Kataragama	Part of Katharagama and Tissamaharama	
	Eastern Corridor		
22	Batticaloa Metro Region	Eravur Town, Kattankudy, Manmunai North, Manmunai P. (Araipattai),	Manmunai West, EravurPattu,
23	Kalmunei Metro Region	Kalmunai Muslim, Kalmunai Tamil, Karaitheevu, Manmunai S. and Eruvilpattu, Sainthamarathu	Navithanveli, Porativu Pattu,
24	Ampara Metro Region	Ampara,	Part of Uhana
25	samanthurei	Ninthavur, Samanthurai	
26	Akkareipattu	Addalachchenai , Akkareipattu	
27	Valachchena	Koralai Pattu (Valach.),Korale Pattu West	Koralai Pattu Central, Koralai Pattu South
28	Other areas	Eragama, Manmunai.S,	Alayadiwembu, Thirukkivil
	Metro Regions		
29	Kandy	Kandy, Kundasale , Harispattuwa, Pathadumbara	Udunuwara , Yatinuwara , Akurana, Part of Pahathaahewaheta

Table 01: Divisional Secretary Divisions (DSD) coming under the Proposed Development Corridors

<i>Development Corridor/Metro Regions/Main City</i>		<i>DS Divisions</i>	
		<i>DSD falls within the immediate zone of the Corridor (within 10 Km)</i>	<i>DSD falls within the Periphery zone of the Corridor (within 10 - 20 Km)</i>
30	Anuradhapura	Nuwaragampalatha East, part of Mihinthale & Nuwaragampalatha Central , Nochchadoowa	Rambewewa, Thalawa, Thirappane, part of Mihinthale & Nuwaragampalatha Central
Main Cities			
31	Mahiyanganaya	Part of Mahiyanganaya DS & Minipe DS	
32	Mulaithive	Maritimepattu	Welioya
33	Mannar	Mannar	
34	NuwaraEliya	Part of Nuwara Eliya DS (including MC area)	
35	Polonnaruwa	Part of Thamankaduwa DS	
36	Puttalam	Puttalam	
37	Rathnapura	Part of Rathnapura DS & Elapatha DS	
38	Vavuniya	Part of Vavuniya DS & Vavuniya South DS	
39	Wellawaya	Ella, part of Wellawaya DS	

Table 02: Proposed Urban Agglomeration Pattern - 2050

	<i>Metro Region/City/Town</i>	<i>Approx. Area (Sq.km)</i>	<i>Present Population - (2012)</i>	<i>Present Annual Growth Rate</i>	<i>Expected Population (2050)</i>	<i>Expected Annual Growth Rate</i>
East West Corridor						
1	Colombo Metro Region	740	3,039,917	0.5	3,500,000	0.4
2	Negombo-Katunayaka Metro Region	180	445,538	0.2	600,000	0.6
3	Gampaha- Weyangoda Metro Region	230	375,998	1.7	600,000	2.0
4	Kurunegala-Metro Region	1,163	517,271	1.4	1,000,000	2.5
5	Dambulla-Metro Region	1,873	326,663	1.4	500,000	1.4
6	Trincomalee Metro Region	2,595	371,882	1.7	700,000	2.3
7	Kalutara - Beruwala	149	323,732	1.3	500,000	1.4
8	Panadura - Horana	218	403,054	1.8	500,000	0.6
9	Mirigama - Warakapola	390	277,163	1.1	400,000	1.2
10	Polgahawela - Alawwa	231	128,823	1.0	200,000	1.5
11	Other Areas	300	180,000	2.0	200,000	0.3
		8069	6,390,041		8,700,000	
Northern Corridor						
1	Jaffna Metro region	1,152	619,000		1,000,000	1.6
2	Paranthan	250	27,170		50,000	2.2
3	Killinochchi	523	71,359		150,000	2.9
		1925	717,529		1,200,000	
Southern Corridor						
1	Galle Metro Region	141	241,305	0.6	300,000	0.6
2	Matara Metro Region	261	282,501	0.7	400,000	1.1
3	Hambanthota Metro Region	749	173,309	1.8	300,000	1.9
4	Embilipitiya metro Region	383	133,600	1.3	200,000	1.3
5	Tangalle - Beliatta	258	128,499	1.2	200,000	1.5
6	Thissamaharama- Kataragama	295	86,826	1.2	100,000	0.4
7	Other Areas	134	167,264	1.3	200,000	0.5
		2221	1,213,304		1,700,000	
Eastern Corridor						
1	Batticaloa Metro Region	977	261,244	0.9	300,000	0.4
2	Kalmunei Metro Region	320	236,422	-1.7	250,000	0.2
3	Ampara Metro Region	497	75,000	0.7	150,000	2.6
4	Samanthurei	138	76,135	0.0	100,000	0.8
5	Akkareipattu	62	70,959	0.0	100,000	1.1
6	Valachchena	453	78,634	-4.9	100,000	0.3
7	Other Areas	574	82,397	-3.3	100,000	0.6
		3021	880,791		1,100,000	

Table 02: Proposed Urban Agglomeration Pattern - 2050

<i>Metro Region/City/Town</i>	<i>Approx. Area (Sq.km)</i>	<i>Present Population - (2012)</i>	<i>Present Annual Growth Rate</i>	<i>Expected Population (2050)</i>	<i>Expected Annual Growth Rate</i>
Metro Regions					
1 Kandy	430	758,863	0.9	1,000,000	0.8
2 Anuradhapura	1,670	311,798	1.4	500,000	1.6
Main Cities					
1 Mahiyanganaya	297	70,025	0.5	100,000	1.1
2 Mulaithive	785	62,000		100,000	1.6
3 Mannar	220	68,184		100,000	1.2
4 NuwaraEliya	163	92,695	0.2	100,000	0.2
5 Polonnaruwa	229	80,448	0.6	100,000	0.6
6 Puttalam	182	82,443	1.6	100,000	0.6
7 Rathnapura	131	106,861	0.8	100,000	-0.2
8 Vavuniya	300	75,000		100,000	0.9
9 Wellawaya	271	71,563	1.0	100,000	1.2
10 Other Towns	5918	2540736	1.3	3,000,000	0.5
Total				18,100,000	1.0

Annexure 1: The list of Divisional Secretariat Divisions coming under the Central Fragile Area

	<i>Province</i>	<i>District</i>	<i>DSD</i>	<i>Land Extent (km 2)</i>
1	Uva	Badulla	Badulla	49.29
2			Bandarawela	70.06
3			Ella	109.37
4			Haldummulla	415
5			Hali Ela	170.14
6			Haputhale	70.33
7			Kandaketiya	152.62
8			Lunugala	141.81
9			Meegahakiwula	108.72
10			Passara	137.28
11			Rideemaliyadda	135.92
12			Soranathota	438.28
13			Uva Paranagama	80.89
14			Welimada	193.9
15		Moneragala	Badalkumbura	235.99
16			Bibile	483.52
17			Madulla	722.52

Annexure 1: The list of Divisional Secretariat Divisions coming under the Central Fragile Area

	<i>Province</i>	<i>District</i>	<i>DSD</i>	<i>Land Extent (km 2)</i>
18	Southern	Galle	Medagama	241.14
19			Moneragala	292.54
20			Neluwa	152.29
21			Thawalama	174.15
22		Matara	Kotapola	179.33
23			Pasgoda	153.94
24			Pitabeddara	136.56
25	Western	Kalutara	Palindanuwara	283.23
26	Central	Kandy	Akurana	30.32
27			Delthota	51.17
28			Doluwa	100.17
29			Ganga Ihala Korale	88.92
30			Kandy Four Gravets & Gangawata Korale	50.07
31			Harispattuwa	64.96
32			Hatharaliyadda	58.69
33			Kundasale	80.82
34			Medadumbara	190.35
35			Minipe	249.28
36			Panwila	91.95
37			Pasbage Korale	121.9
38			Pathadumbara	48.96
39			Pathahewaheta	83.5
40			Poojapitiya	58.34
41			Thumpane	49.93
42			Udadumbara	90.6
43			Udawalpala	277.07
44			Udunuwara	67.23
45			Yatinuwara	69.79
46		Matale	Ambanganga Korallaya	55.38
47			Dambulla	455.13
48			Galewela	198.6
49			Laggala - Pallegama	373.84
50			Matale	72.9
51			Naula	285.17
52			Pallepola	81.54
53			Rattota	105.23
54			Ukuwela	77.91
55			Yatawatta	65.62
56		Nuwara Eliya	Ambagamuwa	487.91
57			Hanguranketha	228.62
58			Kothmale	223.72

Annexure 1: The list of Divisional Secretariat Divisions coming under the Central Fragile Area

	<i>Province</i>	<i>District</i>	<i>DSD</i>	<i>Land Extent (km²)</i>
59	Sabaragamuwa	Kegalle	Nuwara Eliya	483.57
60			Walapana	321.52
61			Aranayaka	124.42
62			Bulathkohupitiya	127.25
63			Dehiowita	193.24
64			Deraniyagala	222.08
65			Galigamuwa	127.5
66			Kegalle	109.06
67			Mawanella	114.9
68			Rambukkana	130.33
69			Yatiantota	178.07
70		Rathnapura	Ayagama	157.69
71			Balangoda	274.16
72			Ehaliyagoda	141.93
73			Elapatha	86.85
74			Godakawela	155.75
75			Imbulpe	255.26
76			Kahawatta	102.68
77			Kalawana	384.75
78			Kiriella	79.57
79			Kolonna	183.03
80			Kuruwita	174.67
81			Nivithigala	157.91
82			Opanayake	75.88
86			Pelmadulla	144.84
84			Ratnapura	326.79
85			Weligepola	203.53
86	North Western	Kurunegala	Mawathagama	109.62
87			Rideegama	222.54

Annexure 2: The list of Divisional Secretariat Divisions and other information coming under the Coast Conservation Zone

<i>District</i>	<i>DS Divisions</i>	<i>No. of GNDs</i>	<i>Area within a limit of 300 meters landward (km²)</i>
Colombo	Colombo	9	2.89
	Thimbirigasyaya	6	2.01
	Dehiwala - Mount Laviniya	2	0.45

Annexure 2: The list of Divisional Secretariat Divisions and other information coming under the Coast Conservation Zone

<i>District</i>	<i>DS Divisions</i>	<i>No. of GNDs</i>	<i>Area within a limit of 300 meters landward (km²)</i>
	Moratuwa	15	3.18
	Rathmalana	4	1.49
Gampaha	Negambo	27	11.03
	Wattala	6	5.61
	Katana	10	9.2
Kalutara	Panadura	13	2.46
	Kalutara	12	3.83
	Beruwala	18	4.08
Galle	Benthota	10	3.24
	Balapitiya	13	3.99
	Hikkaduwa	43	7.45
	Galle	15	3.7
	Habaraduwa	24	6.04
	Ambalangoda	7	0.63
Matara	Devinuwara	16	2.98
	Dikwella	17	4.22
	Weligama	19	5.84
	Matara	10	2.87
Hambanthota	Tissamaharama	3	19.22
	Hambanthota	10	10.31
	Ambalathota	8	3.46
	Tangalle	20	9.3
Mannar	Mantai west	11	11.95
	Mannar	31	28.63
	Nanaddan	7	6.94
	Musali	6	8.98
Puttalam	Vanathavillu	9	20.75
	Kalpitiya	32	45.86
	Puttalam	11	6.47
	Mundala	11	7.35
	Arachchikattuwa	6	4.3
	Chilaw	8	2.92
	Mahawewa	10	3.77
	Nattandiya	6	1.75
	Wennappuwa	10	2.9
Jaffna	Pointpedro	17	6.16
	Kopai	11	11.07
	Tellippalai	7	3.95

Annexure 2: The list of Divisional Secretariat Divisions and other information coming under the Coast Conservation Zone

<i>District</i>	<i>DS Divisions</i>	<i>No. of GNDs</i>	<i>Area within a limit of 300 meters landward (km²)</i>
	Chankanai	9	5.97
	Maruthankerny	16	33.85
	Chavakachcheri	22	23.72
	Nallur	15	6.17
	Kaytes	20	16.88
	Velanai	38	35.18
	Sandilipay	8	3.21
	Delft	6	33.21
Kilinochchi	Pachchilaipallai	3	14.53
	Pooneryn	7	45.35
	Kandavalai	5	15.49
Mullaitivu	Maritime pattu	5	29.88
Ampara	Kalmunai	28	2.16
	Karativu	5	0.89
	Nainativu	10	2.19
	Attalachena	9	2.01
	Akkaraipattu	6	1.09
	Alayadivembu	1	0.67
	Thirukkivil	11	5.3
	Potuvil	20	8.68
	Lahugala	5	18.1
	Sainthamaruthu	8	0.36
Batticaloa	Koralai pattu north	18	31.18
	Koralai pattu	7	5.22
	Eravur pattu	22	7.21
	Manmunai north	25	13.63
	Kattankudi	8	1.23
	Manmunai pattu	18	6.51
	Manmunai south & eruvil	49	14.91
Trincomalee	Trincomalee town & gravets	22	22.33
	Thampalagamuwa	2	1.47
	Muttur	10	13.24
	Kinniya	9	4.58
	Verugal eachchalampattu	3	8.35
	Kuchchaveli	21	38.18

Sri Lanka's coastal zone is defined in the Coast Conservation Act as the area lying within a limit of **300 meters** landward of the mean high water line and in the case of rivers, streams, lagoons or any other body of water connected to the sea, either permanently or periodically, the landward boundary shall extend to a limit of 2 kilometers perpendicular to the strait baseline drawn between the natural entrance points thereof and shall include waters of such water bodies

Annexure 03: The most important Paddy DSDs in terms of % of total land extent

<i>DSD Name</i>	<i>District</i>	<i>% of Paddy land extent</i>
Ampara	Ampara	20
Medawachchiya	Anuradhapura	20
Wattala	Gampaha	20
Mahara	Gampaha	20
Kopai	Jaffna	20
Beruwala	Kalutara	20
Minipe	Kandy	20
Ambanpola	Kurunegala	20
Ganewattaa	Kurunegala	20
Wariyapola	Kurunegala	20
Kobeigane	Kurunegala	20
Weerambagedara	Kurunegala	20
Kekirawa	Anuradhapura	21
Ambalangoda	Galle	21
Kelaniya	Gampaha	21
Katupotha	Kurunegala	21
Maritime pattu	Mullaitivu	21
Dehiattakandiya	Ampara	22
Kahatagasdigiliya	Anuradhapura	22
Welivitiya-divithura	Galle	22
Ja-ela	Gampaha	22
Velanai	Jaffna	22
Karachchi	Kilinochchi	22
Galgamuwa	Kurunegala	22
Maspotha	Kurunegala	22
Kamburupitiya	Matara	22
Kalmunai	Ampara	23
Palagala	Anuradhapura	23
Giribawa	Kurunegala	23
Polpithigama	Kurunegala	23
Ibbagamuwa	Kurunegala	23
Polgahawela	Kurunegala	23
Matara	Matara	23
Homagama	Colombo	24

<i>DSD Name</i>	<i>District</i>	<i>% of Paddy land extent</i>
Baddegama	Galle	27
Bope-poddala	Galle	27
Karaveddy	Jaffna	27
Velanai	Jaffna	27
Rambewa	Anuradhapura	28
Kaytes	Jaffna	28
Malimbada	Matara	28
Eravur pattu	Batticaloa	29
Gampaha	Gampaha	29
Kalutara	Kalutara	29
Nikaweratiya	Kurunegala	29
Kinniya	Trincomalee	29
Chankanai	Jaffna	30
Kaytes	Jaffna	30
Ambalanthota	Hambanthota	31
Millaniya	Kalutara	31
Vavuniya south	Vavuniya	31
Galnewa	Anuradhapura	32
Koralai pattu west	Batticaloa	32
Benthota	Galle	33
Velanai	Jaffna	33
Muttur	Trincomalee	33
Nachchaduwa	Anuradhapura	35
Nanaddan	Mannar	35
Padawi sripura	Trincomalee	36
Angunukolapelessa	Hambanthota	37
Maritime pattu	Mullaitivu	37
Maritime pattu	Mullaitivu	38
Talawa	Anuradhapura	39
manmunai west	Batticaloa	41
Karaveddy	Jaffna	41
Rajanganaya	Anuradhapura	45
Akkaraipattu	Ampara	46
Mannar	Mannar	48

Annexure 03: The most important Paddy DSDs in terms of % of total land extent

<i>DSD Name</i>	<i>District</i>	<i>% of Paddy land extent</i>
Kaytes	Jaffna	24
Chavakachcheri	Jaffna	24
Mathugama	Kalutara	24
Mahawa	Kurunegala	24
Panduwasnuwara	Kurunegala	24
Weligama	Matara	24
Kesbewa	Colombo	25
Sandilippai	Jaffna	25
Ehetuwewa	Kurunegala	25
Thirukkivil	Ampara	26
Galenbindunuwewa	Anuradhapura	26
Bandaragama	Kalutara	26
Lankapura	Polonnaruwa	26
Ipalogama	Anuradhapura	27

<i>DSD Name</i>	<i>District</i>	<i>% of Paddy land extent</i>
Thihagoda	Matara	48
Kandavalai	Kilinochchi	49
Manmunai South West	Batticaloa	51
Attalachena	Ampara	54
Thambuththegama	Anuradhapura	54
Sammanturai	Ampara	64
Karativu	Ampara	64
Alayadivembu	Ampara	66
Porativu pattu	Batticaloa	69
Maritime pattu	Mullaitivu	72
Nainativu	Ampara	73
Manmunai north	Batticaloa	78
Karaveddy	Jaffna	96

Annexure 03: The most important Rubber DSDs in terms of % of total land extent

<i>DSD Name</i>	<i>District</i>	<i>% of Rubber land extent</i>
Millaniya	Kalutara	16
Mawathagama	Kurunegala	16
Malimbada	Matara	16
Homagama	Colombo	17
Yakkalamulla	Galle	17
Yatawatta	Matale	17
Welivitiya-divithura	Galle	18
Aranayake	Kegalle	20
Beruwala	Kalutara	22
Ambanganga	Matale	23
Ayagama	Ratnapura	24
Pelmadulla	Ratnapura	24
Nagoda	Galle	25
Matale	Matale	27
Elpitiya	Galle	28
Walallawita	Kalutara	28
Nivithigala	Ratnapura	28
Mawanella	Kegalle	29
Agalawatta	Kalutara	30
Tumpane	Kandy	30
Horana	Kalutara	31
Kegalle	Kegalle	31

<i>DSD Name</i>	<i>District</i>	<i>% of Rubber land extent</i>
Warakapola	Kegalle	35
Bulathsinhala	Kalutara	37
Madurawela	Kalutara	37
Galigamuwa	Kegalle	40
Bandaragama	Kalutara	42
Elapatha	Ratnapura	42
Yatiantota	Kegalle	43
Kiriella	Ratnapura	43
Kuruwita	Ratnapura	44
Mathugama	Kalutara	45
Bulathkohupitiya	Kegalle	45
Palinda nuwara	Kalutara	46
Deraniyagala	Kegalle	49
Dodangoda	Kalutara	54
Padukka	Colombo	55
Hanwella	Colombo	56
Ruwanwella	Kegalle	58
Eheliyagoda	Ratnapura	60
Dehiowita	Kegalle	72

Annexure 03: The most important Tea DSDs in terms of % of total land extent

<i>DSD Name</i>	<i>District</i>	<i>% of Tea land extent</i>
Akmeemana	Galle	10
Uda dumbara	Kandy	10
Akurana	Kandy	10
Imbulpe	Ratnapura	10
Godakawela	Ratnapura	11
Bulathkohupitiya	Kegalle	12
Athuraliya	Matara	12
Baddegama	Galle	13
Pelmadulla	Ratnapura	13
Welimada	Badulla	14
Pujapitiya	Kandy	14
Mulatiyana	Matara	16
Ambanganga	Matale	18
Pasgoda	Matara	18
Hanguranketha	Nuwaraeliya	19
Tawalama	Galle	20
Soranathota	Badulla	21
Patha hewaheta	Kandy	22
Udunuwara	Kandy	22
Uva paranagama	Badulla	23
Meda dumbara	Kandy	23
Yatinuwara	Kandy	23
Walapane	Nuwaraeliya	23
Kahawatta	Ratnapura	23
Kotapola	Matara	25
Passara	Badulla	27
Ukuwela	Matale	29
Pitabeddara	Matara	30
Raththota	Matale	32
Ella	Badulla	37
Bandarawela	Badulla	37
Nuwaraeliya	Nuwaraeliya	40
Pasbage korale	Kandy	41
Badulla	Badulla	43
Hali-ela	Badulla	44
Haputale	Badulla	45
Ambangamuwa korale	Nuwaraeliya	46
Ganga ihala korale	Kandy	47
Kotmale	Nuwaraeliya	48
Doluwa	Kandy	52
Uda palatha	Kandy	54
Panwila	Kandy	61
Delthota	Kandy	65

Annexure 03: The most important Coconut DSDs in terms of % of total land extent

<i>DSD Name</i>	<i>District</i>	<i>% of Tea land extent</i>
Kelaniya	Gampaha	10
Panadura	Kalutara	10
Verugal eachchalampattu	Trincomalee	10
Manmunai north	Batticaloa	11
Homagama	Colombo	11
Kegalle	Kegalle	11
Nikaweratiya	Kurunegala	12
Godakawela	Ratnapura	12
Ja-ela	Gampaha	13
Mahara	Gampaha	14
Galigamuwa	Kegalle	14
Matara	Matara	14
Benthota	Galle	15
Mahawa	Kurunegala	15
Warakapola	Kegalle	16
Habaraduwa	Galle	17
Minuwangoda	Gampaha	17
Wattala	Gampaha	17
Kirinda-puhulwella	Matara	17
Bope-poddala	Galle	18
Pallepola	Matale	18
Rasnayakapura	Kurunegala	20
Devinuwara	Matara	20
Kattankudi	Batticaloa	22
Hikkaduwa	Galle	22
Katuwana	Hambanthota	22
Kalutara	Kalutara	22
Tangalle	Hambanthota	23
Galle	Galle	26
Dompe	Gampaha	26
Weligama	Matara	26
Pachchilaipallai	Kilinochchi	27
Attanagalla	Gampaha	28
Weeraketiya	Hambanthota	28
Biyagama	Gampaha	29
Beruwala	Kalutara	32
Kalpitiya	Puttalam	33
Puttalam	Puttalam	33
Okewela	Hambanthota	34
Meerigama	Gampaha	36
Kalpitiya	Puttalam	37
Mundala	Puttalam	37

Annexure 03: The most important Coconut DSDs in terms of % of total land extent (Contd.)

<i>DSD Name</i>	<i>District</i>	<i>% of Tea land extent</i>
Ibbagamuwa	Kurunegala	38
Pallama	Puttalam	39
Dikwella	Matara	41
Ridigama	Kurunegala	42
Polgahawela	Kurunegala	43
Ganewattaa	Kurunegala	47
Mawathagama	Kurunegala	47
Rambukkana	Kegalle	50
Kurunegala	Kurunegala	50
Arachchikattuwa	Puttalam	50
Chilaw	Puttalam	50
Negambo	Gampaha	51
Kobeigane	Kurunegala	51
Wennappuwa	Puttalam	52
Mahawewa	Puttalam	54
Alawwa	Kurunegala	55
Maspotha	Kurunegala	58
Nattandiya	Puttalam	59
Wariyapola	Kurunegala	60
Panduwasnuwara	Kurunegala	60
Pannala	Kurunegala	61
Divulapitiya	Gampaha	62
Katana	Gampaha	62
Katupotha	Kurunegala	62
Mallawapitiya	Kurunegala	63
Beliatta	Hambanthota	65
Bingiriya	Kurunegala	65
Narammala	Kurunegala	66
Dankotuwa	Puttalam	66
Negambo	Gampaha	67
Weerambagedara	Kurunegala	67
Mundala	Puttalam	67
Kuliyapitiya east	Kurunegala	68
Madampe	Puttalam	68
Kuliyapitiya west	Kurunegala	69
Udubaddawa	Kurunegala	77
Kaytes	Jaffna	88
Koralai pattu north	Batticaloa	92

Annexure 04: The list of enactments related to the agro conservation zone .

Seed Act No 22 of 2003
Plant Protection Act, No.35 of 1999
Soil Conservation Act, No 25 of 1951 Seed Act
Soil Conservation Act, No. 24 of 1996
Control of Pesticides (Amendment) Act No. 6 of 1994

Annexure 5: The District and number of DSDs coming under the Water Conservation Zone

<i>District</i>	<i>No. of DSDs</i>
Ampara	12
Anuradhapura	22
Badulla	14
Batticaloa	07
Colombo	07
Galle	17
Gampaha	13
Hambanthota	11
Jaffna	04
Kalutara	12
Kandy	19
Kegalle	11
Kilinochchi	04
Kurunegala	29
Mannar	06
Matale	11
Matara	14
Monaragala	11
Mullaitivu	07
Nuwaraeliya	05
Polonnaruwa	07
Puttalam	15
Ratnapura	17
Trincomalee	11
Vavuniya	07

Annexure 06: The list enactments related to the Water Conservation Zone

State Land Ordinance

Land Development Ordinance Irrigation Ordinance

Agrarian Development Act

Water Resource Development Act Forest Ordinance

Wildlife Conservation Act

National Water Supply and Drainage Board Act Soil Conservation Act

Disaster Management Act Coastal Conservation Act

Urban Development Authority Act

Land Reform Law

Acts pertaining to plantation crops including Tea/ Rubber/Coconut Mahaweli Authority Act

Annexure 07 - Policies related to the Eco Conservation Zone

Forest

National Forestry Policy – 1995

Wildlife

The National Policy on Wild Life Conservation - 2000 National Policy on Elephant Conservation – 2006

Biodiversity

National Biodiversity Strategic Action Plan 2016-2022

Fishery

The National Fisheries and Aquatic Resources Policy (2006) Coastal zone and coastal resource management plan - 2016

Air resources

National Air Quality Management Policy – 2000

Environment

National Environment Policy – 2003 National Policy on Wetlands – 2005

Mineral

National Policy on Sand as a Resource for the Construction Industry – 2006 Draft national policy on mineral resources - 2017

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