Japan International Cooperation Agency

The Democratic Socialist Republic of Sri Lanka
Ministry of Plan Implementation, Ethnic Affairs and National Integration

The Master Plan Study
For
Southern Area Development
In
The Democratic Socialist Republic of Sri Lanka

Final Report

Sector Report 5
Urban and Spatial Development

February 1997

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International Development Center of Japan
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List of Reports

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Location Map

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ABBREVIATIONS

ADB	Asian Development Bank
AGA	Assistant Government Agent
CEB	Ceylon Electricity Board
CLG	Commissioner for Local Government
EPZ	Export Processing Zone
GCEC	Greater Colombo Economic Commission
GDP	Gross Domestic Product
IDA	International Development Association
JICA	Japan International Cooperation Agency
MHCPU	Ministry of Housing, Construction and Public Utilities
NHDA	National Housing Development Authority
NWSDB	National Water Supply and Drainage Board
PC	Provincial Council
RDA	Road Development Authority
SDA	Southern Development Authority
UDA	Urban Development Authority
ULA	Urban Local Authority
UNDP	United Nations Development Program

Abbreviation of Measures

Length

mm	=	millimeter
m	=	meter
km	=	kilometer

Area

ha	=	hectare
km²	=	square kilometer

Volume

l	=	lit = liter
m³	=	cubic meter
MCM	=	Mm³ = million cubic meter

Weight

mg	=	milligram
g	=	gram
kg	=	kilogram
t	=	ton = MT = metric ton

Energy

kcal	=	kilocalorie
TOE	=	tons of oil equivalent
kW	=	kilowatt
MW	=	megawatt
kWh	=	kilowatt-hour
Gwh	=	gigawatt-hour
MVA	=	megawolt-ampere
MMBFOE	=	million barrels of fuel oil equivalent

Others

%	=	percent
°C	=	degree Celsius
cap	=	capita
mil.	=	million
no.	=	number

Urban and
Spatial Development

SECTOR REPORT 5   URBAN AND SPATIAL DEVELOPMENT

CHAPTER 1   PRESENT CONDITIONS

1.1   Government Development Objectives for the Urban Sector

The government efforts in support of urban development aim to achieve two objectives. First, cities are meant to create such conditions as to provide efficient production locations for enterprises in these centers. The second government objective regarding cities is to improve the living conditions of urban residents. The latter include provision of housing as well as urban infrastructure.

The achievement of the first objective is related to the distribution of population among the regions and individual settlements within each region. Each settlement would require an efficient internal organization with appropriate location for each urban function and efficient physical linkages between them.

The Government is aware of the complete dominance by Colombo of the urban system in the Country. It has targeted growth of second tier centers to disperse economic activities from Colombo while maintaining agglomeration economies associated with growth poles. The secondary towns are targeted to receive new local and foreign investments within that framework. Further concentration in Colombo promotes more rapid growth; the Government is not prepared to prevent firms from locating in Colombo if the decentralization is associated with undue economic costs.

Improvement of living conditions in cities is targeted through a combination of measures. These include devolution of planning and control of urban growth to local administrations, strengthening urban institutions, improving the local resource availability and their concentration in key services, involving the private sector, and increasing awareness of environmental issues.

The Government has started two major projects in support of these objects. These are assisted by ADB and World Bank/IDA and provide infrastructure development in selected cities. Most large centers, including the three district centers in Southern Area, are covered by these projects. These programs address issues of local planning/ implementation capability, housing, and urban infrastructure. The whole issue of devolution and

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decentralization appears to be put on hold pending the resolution of the internal conflict. It is unlikely that major steps in devolution can be taken independent of the ongoing civil conflict.

1.2   Urbanization and Distribution of Settlements

(1)   Level and growth of urban population

The official statistical definition of urban in Sri Lanka indicates that the Country is unique, compared with other countries, regarding the level and rate of urbanization. The situation in Southern Area is the same as that of the Country.

Different definitions of urban are used in Sri Lanka. Officially, urban areas are the municipal and urban council areas and Pradisha Sabha areas that are conferred urban status. Scholarly works and planning studies tend to use a functional definition. The most common functional definition is: all places having 5,000 or more habitants, a minimum density of 39 persons per hectare, pronounced urban characteristics, and at least 75% of the adult male population employed in the non-agricultural sectors.

At present, 51 settlements are defined as urban areas under the Pradeshiya Sabha Act of 1987.   Before the enactment of this law, the number of local settlements defined as urban was 134. This law has thus re-classified many urban centers as "rural" and made statistical comparisons impossible. There are difficulties in analysis of extent of the land in urbanized areas and urban growth due to other factors as well. Disregarding statistical measurement problems,   population   density   in   urban   centers   has   not   significantly   intensified. Urbanization in Sri Lanka is not a concentration of population in the urban centers, but expansion around already urbanized areas.

The statistical information is also not updated. The last population census was conducted in 1981.   Yearly estimates of population of principal towns are available up to 1990.   These data, however, include definition problems.   The statistical definition of urban in Sri Lanka is provided by the Pradeshiya Sabha Act.   This definition is more administrative than functional.

According to the report "Urban Development Sector Project for Medium and Small Urban Centers", completed in August 1992, many areas adjacent to the Colombo metropolitan area and the municipality of Kandy which are considered as rural AGA divisions could be considered urban on the basis of a functional definition.

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The official statistics also indicate very low rates of growth in urban population: less than 1%, with few exceptions (Table 1.1). A conjecture derived from the data and field observation is that there has been little urban growth in the past decade in terms of intensification of population density and urban land use. As described in the report, except for the Greater Colombo, Galle, Kandy, Jaffna and Trincomalee, most towns are just primarily market, trading and administrative centers. Until then, and most probably up to now, little industrial development is associated with the urban development with the exception of Colombo. Therefore the growth of urban population had been closely associated with growth of the rural sector. In most centers, even this low level of growth has taken the form of over spill into areas administered as Pradeshiya Sabha.

As officially defined, 22% of the population of Sri Lanka was urbanized in 1991. This is lower than the average of all low income economies which was 27% (Table 1.2). Urban population in Sri Lanka is only one-third of the level observed in middle income economies. The situation in Sri Lanka is distinct from the rest of the world even more sharply when the changes in levels of urban growth are considered. The level of urbanization has not changed at all between 1970 and 1992 on the basis of official definition. During this period, the proportion of urban population increased by 50% in the low income countries.

This low and stagnant level of urbanization is in sharp contrast to the performance of the economy over the same period. The growth of the economy was higher than the world average during that period: GDP grew by 4.1% in 1970-80, and by 4.0% in 1980-92. These relatively high growth rates were due to performance of industry and services while agriculture grew by around 2.5% throughout the period. The low and static level of urban development does not reflect the economic performance of the non-agricultural sectors.

The blurred and confusing picture of urban growth is partly due to the inappropriate statistical definition. Urban growth around cities that occurs outside the pre-defined boundaries is not counted and as such the actual urban population is underestimated. The level of urban growth in Sri Lanka, however, is probably still very low even if accurate measurements were to be undertaken.

A separate estimate of urban population in Southern Area is provided in a special study undertaken with UNDP technical cooperation. The study adopts a functional definition of urban area and estimates the share of urban population to be 33% of the total population in 1994 in Southern Area. This larger estimate results from including suburbanization in

vicinity of large urban centers (Galle and Matara), and urban areas under the jurisdiction of Pradeshiya Sabha.

Even this alternative estimate of urban population is also low compared with that of countries at a similar level of social and economic development. The low level of urbanization has been effected by government policies which gave priority to rural development and agriculture. The ribbon type of non- agricultural development along the roads leads to urban growth outside designated urban centers.

(2)   Settlement size distribution

National system
Colombo had 17% of the urban population in Sri Lanka on the basis of the administrative definitions. The picture is very different when a functional definition is adopted. The Colombo Metropolitan area extending from Negombo in the north to Kalutara had 38% of the urban population of Sri Lanka.

The size of Colombo also determines the system of urban hierarchy. There is a wide gap between the Colombo Metropolitan area and next level urban centers: including Galle, Kandy and Jaffna.   In terms of population, the Colombo Metropolitan area, which includes six of principal towns listed in the Statistical Abstract, is more than 10 times larger than the secondary urban centers.   This is the case even if only the population of the six towns is simply added to that of the Greater Colombo and suburban growth is disregarded. Concentration of commercial and industrial activities in the Greater Colombo is also significant.   Compared to the Greater Colombo, economic activities in secondary urban centers are limited.

Settlements in the 10,000 to 50,000 size class, in contrast, appear to be well developed in Sri Lanka. There were 65 such centers in 1981 accounting for close to half of the urban population.

These analysis of settlement size distribution in Sri Lanka suggest that the Government should give priority to developing second tier centers. Colombo has a fairly high proportion of the total urban population, but this is not excessive in comparison with other countries. The population of Colombo could grow parallel to that of the overall urban population.

The national settlement development objectives are consistent with these findings. The Government has targeted selected centers to balance the concentration in Colombo. Four growth centers generally identified at the national level are Jaffna, Trincomalee, Kandy and Galle. Thus, from a national perspective, Galle has a unique role among all settlements in Southern Area.

Size distribution in the region

Unlike the national system, the settlement size distribution in Southern Area shows a continuous pattern. The largest city in the Area (Galle) had a population of 101,000 in 1995. This was followed by Matara at 72,000 and several towns around Galle with urban population of around 60,000. All three districts had a number of urban centers with population ranging from 25,000 to 50,000 (Table 1.3). In all districts, the relatively large towns accounted for over half of the total urban population in respective districts. In the region, the relatively weak link in the settlement system exists with small rural centers; there are very few settlements with a population of around 10,000.

This relative weakness in small rural centers is due to the small size of the region and the relatively short distances between large and small centers. Given reasonable levels of infrastructure, the rural population bypasses small towns and transacts in cities where there is more diversity of consumer goods and there are more competing buyers for farm output. The objective should be to promote access to relatively large centers rather than encourage the growth of small rural centers. Access here is to be understood in a very broad sense. It will include physical infrastructure such as roads. Also included is information on markets and prices, and standardization of commodities and contracts.

The relatively large sub-regional marketing centers (population of 10 to 60,000) are already well developed along the coastal road in Galle district. These centers are similarly well developed in Matara district, not only around the coast, but also inland. Due to low population density, the distance between these centers and their agricultural hinterland is relatively long in Hambantota and Moneragala districts. In these two districts, emphasis should be placed on building new roads. At the same time, infrastructure and social services in small towns (Wellawaya, Buttala, Tanamalwila, Kataragama, Sooriyawewa and Lunugamwehera) should be emphasized. The demand on this infrastructure will intensify as the land resources are developed in this area and agro processing develops.

Average urban population growth rate of 1.15% during 1970 - 1981 is lower than the corresponding national population growth rate of 1.58% in Sri Lanka. A premise derived

from inconsistent statistical data is that this slow urbanization propensity seems to have persisted until present.

The other factor which may have had an effect is the government policy and its implementation. The Government has persistently placed emphasis on the rural sector in the national policy. Government expenditures have been stretched out over the Country for welfare, education, health and development schemes. Urban to rural migration due to large scale development schemes including the Mahaweli Development Project, Kirindi Oya Development Project, and Uda Walawe Development Project might have contributed to this trend.

1.3   Regional Spatial System

(1)   Urban network in Southern Area

The centers covered by the separate study sponsored by UNDP are shown in Figure 1.1. An urban center cluster is observed in the coastal belt from Bentota to Hambantota extended to Tissamaharama which is located slightly inland. The belt contains 17 urban centers out of the selected 45 urban centers. In this area, three out of four higher class urban centers exist: Galle, Matara and Hambantota. The exception is Embilipitiya.

Another cluster is in the southwestern part of Southern Area and is delineated by Weligama at the southwest end stretching to Hungama along the coastal line up to the A17 highway. It extends along the A17 highway to the north up to Embilipitiya, forming a belt connecting Embilipitiya, Katuwana, Kirama, Hakumana Kambrupitiya, Akuressa and   Weligama. This area holds 17 urban centers. Six of these centers are located on the coastal line and 11 centers are inland.   Embilipitiya is included in this inland cluster.

In the south-east dry zone (SEDZ), urban centers are small and dispersed over the area especially in the interior areas.   Hambantota, which is located on the shore line, attains the Provincial Urban Center status and the highest class in the area.   Interior lands near the western coast accommodate scattered small urban centers as well.

(2)   Urban hierarchicalclassification in Southern Area

The hierarchical structure of urban centers has been analyzed for Southern Area.   As shown in Appendix 1, Table A.1, the UNDP sponsored study collected extensive data on existing

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facilities in 45 major urban centers. These centers are delineated by the consideration of magnitudenal effects of the center on the development of its immediate sub-region and its proper appropriation to the regional administration. This means that it treats urban centers as actual urbanized areas beyond the present official administrative boundaries since the boundaries do not reflect the real socioeconomic conditions and real activities spread far beyond the boundaries.

Using the same data with necessary correction in a different way, the existing hierarchy of urban centers has been analyzed in the following manner. The detailed data on existing urban facilities are categorized into seven classes of functions: administration, commercial and services, manufacturing, social and recreation services, health services, education, infrastructure and communication. Each facility is evaluated and classified into five levels: level 1 for the highest and level 5 for the lowest. The basis of the classification is the concept that higher hierarchy urban centers accommodate a larger number of activities at any level in the hierarchy, and contain a larger number of hierarchical classification of specialized functions employed as a base of the assessment. The nature, size, and number of facilities is delimited according to the concept. Assessment results are shown in Appendix 1, Table A.2.

Each function is classified by five levels, each corresponding to a level in the settlement hierarchy. The hierarchical level of each center is determined according to the accumulated points which consist of the inverse of each ranking of existing facility. The urban centers are ranked into five classes on the basis of these ranked functions and population. The total score is calculated by adding the inverse of each ranking. Thus, the maximum score is 8.0 and the minimum 1.6.

As shown in Tables 1.4 and 1.5, the highest ranking urban center is Galle with the maximum possible score (8.0), followed closely by Matara with 7.5. Other high ranking urban centers are Embilipitiya (3.5), Hambantota (3.33), Weligama (3.25), and Tissamaharama (2.92). There are 12 other urban centers with scores of 2.2 of more, and a further 12 urban centers with scores of over 1.95. The hierarchical structure based on this is illustrated in Figure 1.2.

(3) Urban conditions

Most urban centers in Southern Area are very small, though the region has the second largest city (Galle) in the Country. Development of urban centers is not in an orderly manner and

follows a typical natural pattern of urban growth, basically ribbon development along roads. The growth occurs along the roads and in concentric zones around the built up areas. This expansion in physical area has never been accompanied by a corresponding change in the boundaries of urban administrative units. There is no legal or administrative mechanism for such territorial re-definitions.

All specialized service and manufacturing activities in Sri Lank have located in Colombo. Such activities in Southern Area are confined to few relatively low level functions. Specialized service and tourism activities have similarly located in Colombo.

Infrastructure in most centers is inadequate and maintenance is poor. Local administrations lack both the technical competence and the financial resources to provide the physical and social infrastructure. Serious efforts have been initiated in recent years to devolve power to local authorities but these have not been implemented yet.

Old city centers, including Galle, Matara and Hambantota, are suffering from constraints imposed by administrative boundaries that have not changed over a long period. In these urban centers, un-utilized space for further development is limited. At the same time, population density in built up areas is still low. Encroaching urbanization around Galle and Matara is significant into areas outside the city boundaries. These are administered by respective Pradeshiya Sabha.

Most of relatively large planned industrial developments are implemented in the vicinity of large urban centers with a few exceptions: the Koggala EPZ is located near Galle city; a new cement factory is to be located in Baddegama close to Galle; a new industrial estate project is planned for a site adjacent to Hambantota city.

The picture of Embilipitiya is different. A planned large scale new town has developed alongside the old town. Roads and a water supply scheme were implemented to comply with the plan and essential public buildings including buildings for the divisional secretariat, a police station with a training school, school complex, large hospital, district court, post and telecommunication offices, etc. were built and delivered to the respective organizations. A bus stand and market facilities were prepared. Housing lots and lots for commercial and industrial uses were prepared according to the plan and were rented. In addition, an industrial estate was established within the boundary.

The Mahaweli Economic Agency which succeeded the River Valley Development Board has been managing the new town well. However, there are still thriving commercial activities and substantial residents in the old town while enough residential and commercial tracts are available in the new town. Although the new town has successfully accommodated industries within its boundaries, some industrial development is also occurring in areas adjacent to the old and new town.

Intensity of downtown land use is low even in the large urban centers in Southern Area. Commercial activities are basically conducted under traditional retail shops. Polas are still fulfilling basic needs of inhabitants in proximity areas for their livelihood. Downtown commercial areas are crowded with small retail shops without adequate parking spaces and pedestrian sidewalks and spaces. Especially the downtowns of Galle, Matara and Dickwella have formed bottlenecks on the national highway A2.

Infrastructure conditions in urban areas are generally very poor. In Galle and Matara districts, pipe-born water available only in Galle, Matara, Weligama, and Ambalangoda has water shortages in dry season; service is limited to six hours a day. No city has a centralized sewerage system covering the entire urban area. Except for Galle district, electricity supply is not sufficient. Telephone waiting applicants are common throughout the Area. Conditions of secondary roads are generally not adequate.

Under the ADB funded urban sector project, infrastructure improvement schemes are on going and/or under planning in Galle, Matara, Hambantota, Weligama, Ambalangoda and Moneragala. Schemes include downtown improvement, drainage, water supply, transportation management, and equipment supply and installation for waste disposal and sanitation. These activities are going firmly but still confined to the already defined urban areas.

Many large urban centers along the coast contain fishery harbors and related facilities, and fishermen communities. This is one of the important characteristics that should be kept in mind for development.

(4) Urban planning and land use regulation

To guide urban development in a favorable manner, urban structure planning and subsequent zoning are indispensable. These form the basis of planned urban development.

In Southern Area, land use in many of the urban centers is legally under the control of UDA. This mandates UDA to prepare urban development plans. In addition, it has control over areas within one km of the coastline for planning and control for conservation purposes. Apart from this conservation area, one municipal councils, five urban councils and nine urbanized areas under Pradeshiya Sabhas are declared as urban areas which are under UDA planning and control in association with the respective local governments. These urban centers are the municipal council of Galle, and urban councils of Matara, Hambantota, Weligama, Ambalangoda and Tangalle. The nine urbanized areas are Embilipitiya, Tissamaharama, Hikkaduwa, Moneragala, Wellawaya, Buttala, Kataragama, Sella Kataragama and Kamburupitiya. Some of these area fall within the coastal conservation area.

The actual implementation is controlled by the planning committees formed by local governments in association with UDA and other agencies. Principal members of the committee are a chairman, a secretary, a technical officer and a subject clerk of the local authority, representatives form UDA and the Road Development Authority (RDA), and a public health inspector.

Recently, UDA has prepared four-year urban development plans and draft zoning plans in cooperation with respective local authorities and Pradeshiya Sabhas. These cover one municipal council, four urban councils and three other urban centers (Galle, Matara, Hambantota, Moneragala, Weligama, Tangalle, Tissamaharama and Habaraduwa). For the other declared urban areas, UDA has provided development plan maps illustrating proposed zoning schemes. These development plans have been approved by the local planning committees and the Central Government. These documents have legal implementation powers after the approval of the Central Government.

UDA is preparing, through its regional offices in Galle and Tangalle, a regional structure plan for Southern Area. At the same time, it is coordinating and/or gathering information on development projects for the urban and regional development.

Notwithstanding these efforts of UDA and local authorities, urban/industrial development occurs haphazardly wherever infrastructure is available. This tends to be along the main roads.

1.4   Sector Institutions

(1) Administration

In Sri Lanka, the following agencies are involved in urban development: the Urban Development Authority (UDA) under the Ministry of Housing, Construction and Public Utilities (MHCPU), the urban local authorities (ULAs), the provincial councils (PCs), the urban program unit (UPU), the National Water Supply and Drainage Board (NWSDB), and the National Housing Development Authority (NHDA). UDA, established on October 1, 1978 under the UDA Act of 1978, is a statutory body under the then Ministry of Local Government. Its primary objective is to "promote integrated planning of economic, social and physical development and its implementation in Sri Lanka". The responsible Minister is empowered to declare an area which is suitable for development as an "Urban Development Area." The declared areas include 11 municipal council areas, 34 urban council areas, 21 Pradeshiya Sabha (former Town and Village Council areas) urban areas and the coastal belt zone. UDA is responsible for the preparation of development plans in all the declared areas except the areas falling under the authority of the Greater Colombo Economic Commission (GCEC).

ULAs are the municipal councils and the urban councils recognized under the Pradeshiya Sabha Act. They are responsible for the regulation and administration of all matters pertaining to public health, utility services and local roads, as well as general welfare and amenities, including drainage, sanitation, solid waste collection and disposal, and community and recreational facilities. The administrative affairs of ULAs are under the Ministry of Cooperatives, Provincial Councils and Indigenous Medicine while government revenue and capital grants to ULAs are disbursed by the provincial level Commissioners for Local Government (CLGs). Water and electricity supplies are not their responsibility with some exceptional cases.

For development planning and regulation of land use, planning committees are organized by ULAs and Pradeshiya Sabhas which contain a declared urban area. The committee consists of a chairman, a secretary and a technical officer of respective ULA or Pradeshiya Sabha, representatives from UDA and RDA, and a public health inspector. The committee approves a development plan and development applications which mean building, sub-division and other development permits. Only the chairman of UDA has the authority to approve deviations from prepared plans.

The provincial councils are primarily involved in development planning, finance, personnel management, and law and order. Pradeshiya Sabhas or village councils are under PCs. Although a provincial council has its own administrative organizations, the implementation of programs and the delivery of services are mainly executed by Pradeshiya Sabhas.

UPU was originally established in 1985 under the then Ministry of Housing and Local Government to assist the management and financial strengthening of ULAs. Through the training of ULA staff, UPU has been instrumental in increasing the collection of property taxes, limiting growth in recurrent expenditures, increasing level of service delivery and maintenance, and reducing payments arrears to NWSDB and the Ceylon Electricity Board (CEB) for water and electricity.

NWSDB was created in 1975 as a semi-autonomous agency under the then Ministry of Local Government, Housing and Construction. It is responsible for the planning, design and construction of all water supply schemes in the country. Over 70% of investment and 90% of operation in water supply and sanitation have been achieved under the NWSDB responsibility.

NHDA is the primary institution responsible for the delivery of low income shelter. It plays a major role in slum upgrading and relocation projects as well as new sites and services schemes and often assists ULA with designs and standards for schemes within ULA boundaries. NHDA can provide loans for house construction and/or improvement in the case of upgrading areas, if a ULA provides land for a project or relocation scheme.

(2) Finance

ULAs have three major revenue sources: 1) their own source which are taxes and charges, 2) revenue and capital grants from PCs, and 3) loans, most of which are from the Local Loan Development Fund.

Recurrent expenditures are financed by their own revenue sources such as taxes and charges with supplement by the revenue grants from PCs which are mainly used to reimburse local salaries and allowances. Since there is very little surplus for capital investment, capital works are financed by capital grants from PCs or by direct expenditures by PCs, line ministries, and national agencies such as CEB, NWSDB, and NHDA.

The ULAs' own revenue sources are based on their bestowed independent taxing and charging authority. The major recurrent revenue source is the assessment or property tax. Although some councils generate substantial revenue through rents and other income sources, they are exceptional. The other revenue sources such as licenses and fees for services yield small amounts.

(3) Special programs

The local government does not have the skills to prepare physical development plans (including zoning ordinances) and programs. This gap has been partially filled by preparation of physical development plans by the technical support provided from UDA.

UDA undertakes preparation of local development plans with little or no involvement of the technical staff of respective local government. This creates difficulties in implementation. Plan revisions are difficult without the local planning capability. The feedback on local conditions into plan preparation is similarly weak.

The limitations in local capability in management were addressed through a special program. An urban project unit (UPU) was created under a World Bank loan. This unit helped with property tax assessment and tax collection. It also instituted measures for collecting utility charges and other local revenues. After the completion of the World Bank supported project, the unit has become largely non-functional and is likely to be terminated. As with UDA support, the local capability has not been improved for project management while needs are met on an ad-hoc basis.

In the case of Southern Area, the recently created Southern Development Authority provides additional resources. It can support planning and development efforts at all levels. Unlike the other agencies, it has a wide development mandate and it can cooperate with the private sector as well as public agencies to undertake development projects.

The fundamental solution is to develop the local capability for both planning and management in the three local administrative forms (urban and municipal councils and Pradeshiya Sabhas). The first two suffer from inappropriate boundary definitions. They are ideally placed to guide urban growth and provide local services. In many cases, however, the functional urban area extents beyond the administrative boundaries. The redefinition of these boundaries has not historically happened. In major cities, such as Galle, no land is

reported to be available for urban expansion with all growth occurring beyond the municipal boundaries.

Without redefining the boundaries, planning for the whole functional area can be undertaken by assigning responsibility to a higher level in the administrative hierarchy. These successive layers are district governments and provincial councils. District level has limited planning and development functions. Province, in contrast, has become a key level under the Government's policy on devolution. It would thus seems to be an appropriate level for planning and possibly implementation.

Plans at district or provincial levels will be prepared for functional urban areas. These may include more than one local government. Each local government would implement the part within its own jurisdiction and will be responsible for adherence to planning guidelines and controls. This will provide short term relief under the existing political constraints. The long term objective should be to redefine physical boundaries so that functional and administrative areas coincide.

The third option is to develop a local administration system under the provincial councils. This could be pursued only if the Government has strong commitment to implement the new policy on devolution with the provincial councils playing a key role within that framework.

Under this system, planning for the functionally defined urban areas will be under the responsibility of provincial councils. The administration of these units will totally replace the existing urban and municipal councils while leaving the functions of Assistant Government Agent (AGA) unchanged. The additional services provided in the areas will be controlled by the new administration while the traditional functions continue as they are.

The functions performed under these new forms will include all urban infrastructure and urban services. Using their powers under the constitutional amendment, the provincial councils may transfer part of their revenues to these administrations. The local governments may also be empowered to levy new taxes and otherwise generate revenue of their own.

CHAPTER 2   CONSTRAINTS   TO   URBAN   DEVELOPMENT   IN SOUTHERN AREA

2.1   Expected Roles of Urban Centers

(1)   Policy bias

Traditionally, the government policy has favored a rural based development. This emphasized extension of basic services to the rural communities and discouraged migration to cities. This appears to have been successful in limiting the level of urban growth in Sri Lanka as well as Southern Area.

Within each sector, the policy has also emphasized small scale industries and services. To the extent possible, these have been encouraged to locate in rural areas and small urban centers. The resulting settlement pattern is characterized by lack of nodes and concentration. While this may have avoided many of the serious problems associated with urban slums, it has also slowed down growth.

(2)   City based growth

An urban center in general is a gathering place of people residing in or around the centers for various purposes including selling and buying, meetings, repair services, business, information collection and exchange, administration and administrative services, banking and financing, education, health care, culture, religion, entertainment, recreation, sports, etc. At the same time, it accommodates industrial and manufacturing production, and residences for people engaged in these various activities operating under its jurisdiction or other urban centers. Agglomeration of functions and population is a basic character of an urban center.

Higher degrees of agglomeration require appropriate infrastructure provision for sustaining these activities and population, and both outer and inner admissible environmental conditions. Infrastructure which provides fundamental resources such as water and electricity, transportation and telecommunication, sewerage system and waste disposal system are an indispensable property of large urban centers.

From an economic development viewpoint, an urban center is a place to accommodate growing economic sectors particularly industry and services. These economic activities require integrated higher level social infrastructure to provide access, water, energy,

telecommunication, waste disposal, sewerage, etc. An urban area, in which these infrastructure facilities could be provided economically and efficiently, is a preferable location for them.

At the same time, increasing population associated with this economic development is not only an input for economic activities but is also the beneficiary consumers/users of these outputs. Higher density population of urban areas is basically favorable for the economy by bestowing efficiency of gathering and distribution, and for environment by preventing unorganized exploitation of natural environment and by increasing efficiency in necessary treatment of wastes and sewerage.

The above development occurs both in vertical and horizontal directions along with the economic development. Synergetic effects of urban growth and social/economic development are especially evident in larger urban centers; higher level urban facilities and/or functions may emerge and grow as degree of agglomeration rises.

(3) Expected roles of urban centers in area development

In the Southern Area development, urban centers in the region are expected to become development cores to facilitate industrial evolution of the region. Emphasis of development is placed on enhancement of secondary and tertiary industries which require adequate higher level social infrastructure. At the same time, population increase associated with economic development by the industrial evolution has to be accommodated in the urban centers. Therefore, development and growth of the urban centers in Southern Area are imperative for the regional development.

Furthermore, the urban centers in the region are expected to play a leading role for orderly and favorable development of the region. Urban facilities and infrastructure provision and zoning enforcement based on well prepared urban plans are desired for guiding industries and residents to preferable locations.

2.2   Constraints to Urban Growth

There is a limited level of population agglomeration in Southern Area. The proportion of urban population in Southern Area varies from 14 to 34% depending on the definition of urban adopted. Both proportions are low in comparison with the ratio of labor force employed in industry and services. This low level of urban population is partly a reflection

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of the dominance of Colombo that contains a very large share of the urban population in the Country. It is also affected by the settlement pattern in the region and delineation of urban boundaries. Local governments have had virtually no ability to lead urban growth in a spatially desirable manner. Similarly, their powers in controlling urban growth are very limited.

(1) Inability to guide development

A major prerequisite to lead development is provision of infrastructure in advance of urbanization. This poses major problems when even the existing urban households do not have access to essential infrastructure. According to the urban sector study of ADB, only 44% of households in the Galle municipal council area have access to pipe borne water supply. Though slightly better, the situation is similar in Matara and Hambantota. Central sewerage systems covering the whole urban area do not exist in any settlement, while the population rely on private latrines.

Infrastructure deficiencies seem to be even larger on the basis of data provided by the sectoral agencies. According to NWSDB, for example, only 42% of households in Southern Area had access to drinking water in 1992 (Table 2.1). The population in Southern Area with access to piped water was only 10%.

Paved urban roads with sidewalks are rare even in the central urban areas. The condition of urban roads is noted to be unsatisfactory. As a result, the urban residents build their homes along the national roads, using these roads not only for urban access but also as sidewalks.

(2) Lack of urban development controls

Controls per se are not very effective in the absence of ability to lead development and by themselves normally result in emergence of illegal settlements. Nonetheless, some degree of control has to be introduced to realize more desirable locations within a settlement, densities, type of development, and land use in general.

Urban development plans which enable land use control have been prepared only for the large centers and selected new development sites. The areas subject to these planning controls are strictly confined to areas within the municipal and urban councils boundaries,

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former town council boundaries, already urbanized areas, and limited development sites. There is no possibility to control the urban growth occurring in areas adjacent to these.

Furthermore, in Sri Lanka, the legal framework for urban control confers responsibility in the Central Government. The direct involvement of local authorities is imperative for forging local development initiatives and for effective development controls.

(3) Inappropriate forms of local government

The present poor state of infrastructure is partly a result of limited resources available for investment. It is however also heavily affected by the inappropriate administrative systems. Out of 45 larger settlements that may be considered "urban", only one (Galle) is managed as a municipal council and five have urban councils: Matara, Weligama, Ambalangoda, Hambantota, and Tangalle. All the rest are administered as Pradeshiya Sabha (earlier known as Town Council and Village Council). The latter is essentially an extension of the central/provincial government and is more suited to the needs of villages.

The distinction between urban and municipal councils is not clear. The municipal council status appears to embody extended powers and responsibilities compared with the urban status. As a first step, the Government may consider granting "municipal" status to all urban centers. The revenue base and planning capability are very weak without exception. The relationship between the provincial councils and local administrations under the devolution package needs to be specified in further detail.

The number and size of urban areas increase over time. In Sri Lanka, the Government has taken the reverse pattern in conferring the urban status. The Pradeshiya Sabha Act of 1987 reduced the number of settlements conferred urban status from 134 to 51. For each urban settlement, there has been absolutely no change in administrative boundaries over the last 35 years. There is no administrative mechanism for either redefining the settlement boundaries or administratively creating a new urban center.

As a result, many urban centers are constrained by lack of available space for further development and its spatial expansion. This is a major issue in larger urban centers including Galle, Matara and Hambantota which need an expansion in their administrative boundary with some urgency.

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Another constraint for the spatial expansion is restrictions on conversion of paddy fields to urban use. It is prohibited to convert paddy land to any other for 10 years after its termination of use as a paddy field. Physical extent of an urban area surrounded by paddy fields is virtually confined by the paddy fields. Ambalantota is a typical urban center which is delineated by sea shore and paddy fields. Embilipitiya also has expansion problems because of paddy fields.

(4) Limited funds for local infrastructure

The weak local tax base, and limited funds allocated by the Central Government for investment have created a large backlog of infrastructure needs. This is true even at the extremely limited level of urbanization observed in Southern Area. The resource requirements of physical and social infrastructure need to be met through new revenue generation and/or transfer from the Central Government under the new policy of devolution.

Although it is desirable for the local authorities to have their own revenue sources, these may only be realized in a later phase. For the time being, most of the infrastructure costs need to be met by the Central Government and/or through transfers from the Central Government. Utilization of the private sector for the infrastructure provision should be explored to supplement limited resources available in the public sector.

CHAPTER 3   URBAN DEVELOPMENT POTENTIAL AND STRATEGY

3.1   Urban Hierarchy

(1)   Strategic clustering

Some functions of larger urban centers should be selectively enhanced and the hierarchical structure of urban centers in Southern Area strengthened with clear functional division to improve the delivery of various urban services in the cost-effective way, matching local needs and resource bases.   In view of the relatively small size of the existing urban centers, clusters of urban centers are defined based on strategic considerations to enhance various urban functions in a complementary manner within and between clusters.

The following urban clusters are defined (Figure 3.1).

1.0	Galle cluster	
1.1	Urban centers within agglomeration	
	1.1.1	Habaraduwa/Koggala/Ahangama
	1.1.2	Akmeemana
1.2	Associating urban centers	
	1.2.1	Hikkaduwa/Dodanduwa
	1.2.2	Baddegama
1.3	Ambalangoda — influenced urban sub-cluster	
	1.3.1	Urban centers within agglomeration : Watugedara, Balapitiya
	1.3.2	Associating urban centers : Kosgoda, Uragasmanhandiya
2.0	Matara cluster	
2.1	Urban center within agglomeration	
	2.1.1	Weligama
2.2	Associating urban centers	
	2.2.1	Akuressa
	2.2.2	Kamburupitiya
2.3	Tangalle — influenced urban sub-cluster	
	2.3.1	Urban centers within agglomeration : Beliatta, Dickwella
3.0	Embilipitiya cluster	

(2) Characterization of urban clusters

Galle is the regional center and expected to become a national development pole and an international city. Matara is the regional sub-center and expected to serve as a regional commercial and services center including human resources development. Embilipitiya has the prospects to become a regional agro-processing and agro-services center, and a regional tourism sub-center. Hambantota and Tissamaharama together are expected to develop into another development pole and a new tourism gateway.

Prospects for these and other urban centers are summarized in Appendix 1, Table A.3, together with characterization of each according to the Urban Sector Study. Also shown are functions to be enhanced in each urban center.

The major centers where future urban growth will be channeled are described below.

Galle
The district center of Galle is the main urban center in Southern Area in terms of business and administration. Galle is the capital city of Southern province and accommodates many regional sub-offices of national agencies and a major hospital. Galle and surrounding areas and towns enjoy placement of the governmental development emphasis in industrialization

utilizing advantage of having the second largest harbor in the nation and a nearby airstrip. In addition to its food processing and indigenous light industries including jewelry making, a cement plant was installed in Galle. An Export Promotion Zone was established in Koggala 5 km west from the city center. Furthermore, industrial estate schemes and installation of an additional cement plant are planned for areas in its vicinity in Baddegama.

Galle is expected to play a central role in industrialization of Southern Area. For that purpose, intensive infrastructure investment is indispensable including rehabilitation of the existing one in Galle city area and targeted surrounding areas.

It has a heritage of Dutch colonial era, the fort town, which is a great advantage for emphasizing the historic characteristic of the city. At the same time, the fort will become a competent tourism attraction if it is rehabilitated and maintained properly.

Matara

Matara has been developed as a trade center connecting its hinterland with Colombo. Matara people are well known as business people in the Country. Its service coverage extends beyond the district boundaries. At the same time, Matara is the district capital and the administrative center of the area. It accommodates a base hospital and all the district offices of the Central Government. Existence of the Ruhunu University magnifies its popularity as an educational center.

Enhancement of its existing characteristic as a trade center, associated agro-processing industrial development as well as becoming a human resource development center seem to be a fitting strategy for Matara. Private investment should be encouraged to support tourism development and to upgrade the role of the regional trade center.

Hambantota and Tissamaharama

Hambantota is the district capital and accommodates most of the district administrative and health activities, and sub-offices of the Central Government. Its characteristic economic activity is salt industry. Fisheries is a well established economic activity as well. Potential of tourism development is high since Bundala National Park is located in its vicinity and it is bestowed with long beautiful beaches. There are some newly proposed development schemes such as an oil refinery project, a coal thermal power plant scheme, and lagoon prawn production.

Tissamaharama is a gateway town for Kataragama and the Yala National Park with several attractive archaeological sites. With the in-migration into the vicinity of the region due to the Kirindi Oya project, commercial and service needs have increased in the surrounding area. Tissamaharama has become an urban center fulfilling these needs. Relocation of the urban center is now under consideration due to its declaration as a sacred town and to allow archeological excavations on the site.

Hambantota coupled with Tissamaharama, has high potential for development. It is expected to eventually become a regional development center to lead development of Southern Area. To avoid the piecemeal development, it is essential to establish a development strategy and plan the development of Hambantota-Ambalantota to become a regional service center. Analysis of existing functions in Southern Area indicates that Hambantota district is relatively less developed in terms of educational and health facilities. The district center also does not have many administrative functions available in Galle and Matara. Hambantota is likely to have many of the new administrative agencies and social services in the region.

Embilipitiya
Embilipitiya is a rapidly developing urban center due to the evolution of the Uda Walawe development project and also based on the gem trade tradition. It has become a de-facto growth center and further growth is expected parallel to the progress of the project. Considering the present and proposed transportation network and its bordering location between the dry zone and the wet zone, Embilipitiya, together with Sooriyawewa, is an appropriate urban center to become a primary inland regional center.

Further to the necessity of planned development and investments in infrastructure and social service facilities, promotion of private agro-industry investments is desirable for the further growth of this town.

3.2   Urbanization Trend

There are two factors which suggest that all increases in the population of Southern Area should occur in cities. The increase in the rural population should be channeled into cities while the absolute size of rural population remains at the level observed in 1995. The population of many rural communities will continue to increase, but this will be balanced by graduation of some of the existing centers into full fledged urban communities.

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The first factor that suggests rapid urban growth is the expected changes in the structure of regional economy. Historically, agricultural growth rates have never exceeded 3% per annum while industry and services have grown by upto 10% per annum. People employed in industry and services live mostly in cities.

The second factor that emphasizes urban growth is the concern to reduce the disparity between farm and non-farm incomes. Agricultural incomes are only a fraction of incomes in industry and services. Given the expected agricultural growth rate of 3%, and 10% for non-agricultural sectors, the size of agricultural labor force should be reduced by enhancing agricultural productivity and increasing off-farm income opportunities.

These concerns are the basis of rural and urban population projections. The details of those projections are given in Table 1.3 and are summarized below. In the projections, fractions of employment opportunities in services and industry were assumed to be generated in rural areas, and the rest in urban centers.

Projected Population in Major Urban Centers

	Present (1995)		2005		2015	
	Total	Urban	Total	Urban	Total	Urban
Galle District	965,777	401,444	1,089,106	541,450	1,211,640	754,394
Matara District	764,387	235,297	853,133	319,697	936,262	463,386
Hambantota District	526,916	174,474	602,034	238,382	676,969	329,175
Other Districts in Southern Area						
Sub Total	1,601,052	728,146	1,986,366	960,036	2,186,014	1,383,475
Southern Area	2,660,037	887,708	3,025,295	1,225,286	3,375,043	1,726,918

Even with the fairly restrictive assumptions on the role of rural centers, only half of the total population is projected to live in cities at the end of the master plan period, year 2015. The projections also indicate that a fairly high share of the urban population will be in major centers with a small share in rural service centers if the past growth trends continue.

3.3   Regional Spatial Development

The spatial development framework for the Southern Area regional development addresses the issues of location and size of settlements in the future. This is affected by several factors. They include three basic factors: (1) distribution of settlements (points or nodes), (2)

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transportation networks (lines or areas), and (3) land use and potential (area). Distribution of water resources, access to Colombo, and available resources also affect the future pattern. Some of these are discussed below.

(1) Basic requirements of the spatial framework

Existing spatial development patterns of Southern Area are characterized by dispersed population distribution without well developed urban centers, strong physical link with Colombo mainly by the coastal road, and poor access to most areas in the agricultural hinterland. These conditions make marketing of rural products and delivery of social services difficult and costly.

Given these conditions, the following seem to be the requirements for spatial development of Southern Area: (i) to strengthen links with Colombo to expand markets and improve comparative advantage of Southern Area for location of industrial and other activities, (ii) to serve rural areas for marketing of agro products and agricultural input, and (iii) to provide social services to the population in rural areas.

(2) Components of the spatial framework

To satisfy the basic requirements outlined above, the following are conceived as components constituting the spatial framework for the Southern Area regional development (Figure 3.2): (i) establishment of two main access routes from Colombo: the Galle/Matara access and the Hambantota/Embilipitiya access; (ii) establishment of a strong inter-regional artery or intra-regional spinal road linking Galle, Matara, Embilipitiya, Tanamalwila, Wellawaya and Monaragala; (iii) establishment of a new growth center at the major cross roads between the intra-regional artery and the Hambantota/Embilipitiya access; and (iv) strengthening the links between rural areas, and the services and processing centers.

The Galle/Matara access has been much talked about in the form of the Alternative Southern Highway extending from Colombo to Galle and to reach Matara. For the long term development of the Southern Area, the Hambantota/Embilipitiya access also needs to be established.

The proposed alignment of the new intra-regional artery would improve the access to rural areas as well as the access to the southeast dry zone. Probably 90% of the rural area, except Yala National Park, would fall within one-hour time distance from this future artery.

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The Embilipitiya area at the cross roads between the proposed intra-regional artery and the Hambantota access has several promising features for a future growth center. It is centrally located in Southern Area. As it is generally in the intermediate zone, it may benefit from both the wet and the dry zones for supply of agricultural products for processing. It would have two local market outlets of Galle/Matara and Hambantota/Ambalantota. A few promising industries have been proposed, and a new tourism area is being developed on the Walawe left bank.

(3)   Changes in location and land use conversion

Coastal conservation between Colombo and Galle and preservation of prime agricultural lands in the face of urban expansion need to receive special attention. For the former, the proposal to build an alternative road parallel to the present coastal road from Colombo to Galle need to be given serious consideration. This proposal will also help conserve prime agricultural land along the route.

Southern Area contains little prime lowland irrigated paddy land. The available land in this category needs to be carefully conserved, though the present law prohibiting paddy land conversion is unnecessarily restrictive and should be changed. The urban growth in the Area, however, should be channeled into marginal agricultural lands whenever this is possible to preserve prime agricultural lands.

(4)   Regional centers

Two factors are considered to be central in formulating a national urban growth strategy for Sri Lanka. Both are valid for Southern Area as well. These are: a) to create urban centers capable of functioning as economically viable entities, and b) to guide and coordinate economic and infrastructure development in respect of crucial urban centers.

There is an additional consideration for the development of the urban system in Southern Area.   At the moment all activities that require a minimum efficient size of over 100,000 have to locate in Colombo as there are no alternative centers.   This leads to unnecessary concentration in Colombo and probably creates diseconomies of scale.   The Master Plan aims to promote the growth of one or two large urban centers in Southern Area with a view to creating a viable alternative to Colombo.

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Galle appears as the alternative location to Colombo in Southern Area. Interestingly, it is possible to pursue an alternative strategy with Galle and Matara playing similar roles. Galle is positioned to capture export and port oriented functions. Matara, on the other hand, has a very strong hinterland and competes with Galle in most activities. A direct and efficient connection with Colombo via the Southern Highway will strengthen the relative position of Matara. It is recommended to concentrate development activities in Galle initially while Matara becomes an equally important center in the medium term.

3.4   Urban and Spatial Development Strategy

(1)   Development priority and urban hierarchy

Considering the present urban conditions and level of agglomeration of the urban enters in the Area, development priority has to be placed on the higher hierarchy urban centers. At present even the high end urban centers have not achieved a large enough size in activities and residents to enjoy resulting economies of scale and agglomeration. Up to a certain degree, higher residential densities and activity concentration reduces infrastructure costs and create positive extremalities. Many urban activities require a relatively large market within short commuting distances.

From a spatial perspective, principal urban centers located on the two access routes from Colombo to Galle and Hambantota and an intra-regional spinal road linking Galle, Matara, Embilipitiya, Tanamalwila, Wellawaya and Moneragala may enjoy primacy. Embilipitiya, which occupies the crossing position of the Hambantota access and the intra-regional artery holds priority. Hambantota and Tissamaharama are relatively less favored by their location on these two roads.

Another consideration for the development priority is the improvement of access in remote areas. As development cores for these remote areas, Moneragala and other relatively low hierarchy urban centers in strategic locations need to be strengthened.

Based on the above criteria and the analytical framework taken for the identification of the present urban hierarchy, a desirable urban hierarchy for the future is proposed. The rank of some urban centers has been selectively upgraded in accordance with the characterization and prospects indicated above. The proposed urban hierarchy is illustrated in Figure 3.3. In this future hierarchy, a few urban centers - Moneragala, Buttala, Tanamalwila and

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Sooriyawewa - along the proposed intra-regional artery are upgraded as boosting centers together with Kataragama and Morawaka.

(2)   Urban expansion

In anticipation of forthcoming urbanization and establishment of clear urban hierarchy with functional division, land use plans will be prepared/ updated in steps starting from those urban clusters and centers at higher tiers in wider context beyond the present delineation of urban centers.   Identification of subject areas for greater area urban planning will be conducted while necessary legal and administrative arrangement for their planning and zoning enforcement as well as implementation are put in place.

The plans must direct urbanization into preferable urban structures.   Principles for the planning have to include: a) intensification of urban activities and facilities, b) raising population density in urban areas, and c) creation of efficient and harmonious urban and surrounding environmental conditions.

The initial planning of a greater area urban plan and its sub-component of specific urban plans should be conducted in such a way that urban planning and administrative capacity will be enhanced for Southern Area as a whole under the initiative and support by UDA and/or the Southern Development Authority (SDA).   Such efforts will be replicated for other urban centers.

(3)   Population distribution

Practically, all of the growth in the population of Southern Area will occur in urban centers. This follows from the expected economic structure where employment in services and industry is expected to expand while the absolute number of people employed in agriculture remains unchanged.   Most of this incremental population will be channeled to the largest urban centers in Southern Area.

A few rural service centers will be chosen for support.   These will be in areas where access to alternative large centers is difficult and potentials are high for development of rural services and processing of primary agricultural products.   These centers are primarily in Moneragala district and inland part of central/eastern Hambantota district.

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(4) Urban administration

The urban population of Southern Area is considerably higher than the statistical figure of 14% based on administrative definitions. With the present system of administration, three quarters of urban inhabitants are administered through administrative forms designed for villages. Furnishing adequate definition and administrative form for the urban areas is imperative to proper urban development.

Immediate administrative restructuring, however, may face difficulty in dealing with deep rooted social structure and politics among communities in the areas partly manifested in the present administrative boundaries.

Considering the above factor the restructuring is realistically expressed at later stage of this master plan. In the meantime efforts are needed to foster social minds for mutual understanding and cooperation among communities especially within those boundaries of areas subject to greater area urban planning. The main outcome of these efforts shall be a planning process and its implementation including zoning enforcement under the greater area urban planning.

The administrative restructuring is likely to happen gradually. This would call for a review of financial status of the urban local authorities (ULAs) consisting of municipal councils and urban councils as well as their relationships with provincial councils (PCs) under the devolution policy. The financial base of ULAs should be broadened along with their jurisdictions to meet local needs.

(5) Spatial development within the regiont within the region

Development programs need to be differentiated by location within Southern Area during each phase of plan implementation. During the first phase, in Galle district and Embilipitia, the priority for infrastructure will be on the two large centers. Transport, telecommunication and urban infrastructure investments should be given priority. ure will be on the two large centers. Transport, telecommunication and urban infrastructure investments should be given priority.

In Matara district, the emphasis will be placed on improving transport links between intermediate sized settlements, including the Matara city. Independent access to Colombo will be important for the growth of this part of the Area.

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The emphasis will be on rural development in Hambantota and Moneragala districts during the first phase. Services in support of agricultural development and links between rural areas and the rural service centers are important.

The expected spatial pattern during the first phase is a concentration of population in Galle city and Embilipitia. In Matara district, the urban growth will continue to be dispersed between the major urban centers. Little urban growth is expected in the relatively less developed eastern parts of Southern Area. Rural population density will continue to increase in this part. Investments should be concentrated in selected rural settlements in Hambantota and Moneragala districts to transform these into urban service centers. Because of this change in status of some rural settlements, the size of rural population in these districts will not increase even as the population density increases.

During the second and third phases, the emphasis in Matara district should shift to support the growth of Matara city as a regional growth node. In Moneragala and Hambantota districts, the emphasis will shift to support the urban infrastructure in selected regional centers. Independent links between the city of Hambantota and Colombo will be promoted during this phase.

These priorities will tend to support the present trends in population distribution within the region. Concentration in selected centers in the western parts of Southern Area will continue throughout the plan implementation. In central and western parts, population distribution will continue to be in a dispersed pattern initially. The concentrated growth patterns will eventually be observed in the relatively less developed parts of the Area as well.

CHAPTER 4   PROPOSED   MEASURES   AND   DEVELOPMENT PROGRAMS

4.1   Projected Levels of Urban Growth

The Master Plan objectives for the development of Southern Area suggest that all of the future growth in population will occur in cities with no increase in the absolute size of rural population. The size of the rural population may even decline if the region could grow rapidly and provide sufficient non agricultural employment. The urban population will double from 887,800 in 1995 to 1.7 million in the year 2015 (Table 1.3).

In the past 10 years, the growth of settlements of different sizes has been similar. This is projected to change in the light of government objectives and the existing settlement size structure. Within Southern Area, population will be concentrated in Galle and to a degree in Matara during the early phases of Master Plan implementation. Small rural services centers in Hambantota and Moneragala districts will also receive some growth at that stage. In the medium to long-term intermediate sized centers (Tissamaharama, Hambantota, and Embilipitiya) will receive a increaing proportion of the urban growth.

Trend based levels of urban growth for the major urban centers are given in Table 1.3. These trends suggest that there will be no change in the relative share of settlements of different size classes. The major towns/cities had 84% of the urban population of the region in 1995 and they will have 83% on the basis of trend growth rates. It is suggested that these should be modified in the light of foregoing discussion. In Galle district, the urban population is projected to grow by 350,000 people between 1995-2015. It is proposed to channel all of this into the Greater Galle urban area. This will result in population of Galle exceeding 400,000 by the year 2015.

In Matara district, the projected growth in urban population is around 236,000. Matara city, Weligama, Akuressa, and Kamburupitiya should be planned as a single urban area (Greater Matara urban area) with a population of around 300,000 in the year 2015.

Urban growth in Hambantota will be more diverse. Many of the rural centers in the district will continue to grow and will have levels of services that are comparable to those of the district center.

Despite the diverse settlement pattern in Hambantota, the three district centers in the region will have over half of the regional urban population compared with 22% at present. The urban growth in Galle and Matara will be driven by industry and specialized services (including tourism). In Hambantota, services for the rural population, new administrative function, specialized services in health/education, and agro processing will take a leading role.

4.2　Projects and Programs

(1)　Greater area urban planning

Urban development plans which are the basis of infrastructure provision and enable land use controls have been prepared only for the large centers and selected new development sites. Presently these plans are prepared by UDA in Colombo, because the capability for planning does not exist in the provinces and is limited even in the Central Government. Also the domain subject to these planning are strictly confined to the areas within the municipal and urban councils boundaries, former town council boundaries, already urbanized areas, and limited development sites.

A new system of planning is needed to deal with urban areas defined functionally. This will address the issue of guiding expansion into adjoining areas and require practicing integrated greater area urban planning centered on the larger urban centers, containing specific sub-components for individual settlements. It is an instrument to guide urban development toward intensified urban activities and facilities, to allow dense population in urban area, and to create an efficient and harmonious urban center and environmental conditions around it.

Substantial participation by local governments in the process of plan preparation activities, especially for sub-components, is a key to forge orderly local urban development initiatives. The planning process is expected to foster social minds of mutual understanding and cooperation among the societies in the areas.

For realization of efficient preparation of the greater area urban planning and its implementation, delineation of the areas subject to the greater area urban planning along with instrumentation of required legal and administrative arrangements at the local level for plan preparation/ implementation are unavoidable.

Since planning process and implementation are intended to be executed based on the present organizational setting, an initiating agency must be selected first. Status of the initiating agency is a semi-planning/ implementing agency which may have budgetary power and executive status. The agency itself, however, is not necessary to have its own executing staff because as necessary it can employ/ mobilize executive capability of corresponding central and/or local agencies as well as the private sector. The Southern Development Authority (SDA), the Urban Development Authority (UDA), and the provincial councils are immediate possible candidates for the initiating agency.

The prepared plans have to be approved by the Central Government before they acquire a legal system . Arrangement is necessary to endow legal authority to a particular agency. There is a possibility to amend present urban planning and zoning power given to the Ministry administering UDA, while SDA may also be bestowed with the same authority. Actual zoning enforcement power shall be given directly to the local government.

Actual plan preparation will start only after the Government has taken the necessary steps as discussed above. In the preparation process, training of the local staff need to be emphasized. This will cover preparation of greater area urban development plans, specific urban center development plans and zoning regulations, and project implementation and monitoring.

Comprehensiveness and integrative approach are key for achieving the intended objectives. Comprehensive analyses of subject urban areas in a regional and inter-sectoral context is fundamental to establish urban functional division as well as to formulate integrated urban development projects.

A provisional list of urban centers for which greater urban area development plans may be prepared is given below:

a) The Galle greater urban area is centered on Galle municipal council including parts or whole of Habaraduwa/Ahangama, Akmeemana, and Gintota; Baddegama and Hikkaduwa/ Dodanduwa may also be included in the greater area urban plan.

b) The Matara greater urban area is centered on Matara urban council and includes areas to be affected by the new Southern Highway; Weligama, Dondra, Welipitiya, Akuressa and Kamburupitiya may be included.

c) The Hambantota greater urban area is centered on Hambantota and Tissamaharama, and covers Ambalantota, Kirinda, and Pannegamuwa; this greater area urban development plan may include relocation of Tissamaharama to a new town to be developed (Weerawila is a candidate location) for archeological and sacred purposes; Kataragama and Lunugamwehera are possible areas to be covered by the greater area urban plan.

d) The Embilipitiya greater urban area consists of Embilipitiya and its surrounding area with consideration of rapidly developing Uda Walawe Project area and northern part of the central urban growth shown in Figure 1.2; Sooriyawewa, Angunakolapelessa and Middeniya are possible areas to be covered by the greater area urban plan.

e) The Moneragala greater urban area consists Moneragala and Buttala with possibilities to include Wellawaya.

(2)   Sites and services

Limited financial resources of the local communities prevent them from building infrastructure in areas into which it may be desirable to lead development. In the absence of this, they are forced to follow private locational decisions and try to provide a minimum level of service. This has to be done even when the locations chosen are not desirable from a social viewpoint.

Development of residential areas for medium and low income families is crucial for accommodating envisaged urban population growth resulting from in-migration of excessive population from rural agricultural areas. This development aspect tends not to have proper attention in advance while economic sector's physical developments such as industrial and commercial oriented developments as well as profitable high income residential developments are given due attention.

For this purpose urban lots in locations where the local government plans propose to lead development should be supplied with appropriate infrastructure. Land will be acquired for large tracts at a time while house construction will be undertaken or organized by individuals themselves. This method provides the possibility of supplying residential sites below the market prices, because large tracts of land will be developed at a time.

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The public agencies will play a leading role. They will provide the infrastructure and assist with finance for development work. They will thus be able to guide development into areas where growth is considered desirable and gives the local agencies the possibilities to create the urban form conducive to efficient urban development.

The organization form envisions that the developers may get land owned by the Government for free. Additionally, land developers will receive assistance in providing the infrastructure from the local government. The savings resulted from the economies of scale in developing large tracts of land shall be passed on to the purchasers. Thus developed urban lots, ready for construction, are supplied at a price considerably below those prevailing under the free market conditions.

The public gain from the development is the creation of an urban form conducive to development and easy to control for environmental reasons. The large scale home ownership that results from such projects contributes to political stability by giving the majority of people a reason to protect the existing order.

This method could be applied to other developments such as downtown renewal and industrial estate development as well. In all cases, the initiative and control of projects should remain with the private sector.

Judging from the state of existing services, it would seem that water, sewerage, and local transport would receive priority. Yet, recent projects prepared for external financing concentrate on flood protection and drainage for the urban areas. Solid waste disposal, developing and maintaining central markets (Pola) and fire protection are the other essential urban services. Telecommunication and power will remain with specialized line agencies of the Central Government.

It is critical to clarify the responsibilities for essential urban services and funding sources. At presents, some of these are provided by the local authorities and others by the line agencies of the Central Government. A good example of this is the National Water Supply and Drainage Board which is providing services to some centers. In other cases, these services are provided by the local government themselves.

It would pay the local government to postpone undertaking these investments even when the need is acute, as long as the possibility of these being provided by the line agencies of Central Government exists. The line agencies, in turn, may postpone the services provision

for many years due to limitation of resources. The responsibility for services should be assigned to a single agency or to the local government without overlapping jurisdiction. There should also not be any difference in payments for these services depending on the sources of funding: local government paying the full cost when they provide the services, and grant financing when provided by the central government agencies.

(3) Urban administration

The present forms of urban administration are inappropriate for the needs of urban settlements and their surrounding areas. For instance, Embilipitiya, one of the most dynamic growth centers in Southern Area, is administered at present as a Pradeshia Sabha which is the traditional administrative form for a village. The legal changes introduced in 1987 seem to have reduced the capability for efficient urban administration and has actually limited the degree of local control over the local development. Lack of adjustment in administrative boundaries has aggravated administrative problems and increased the cost of basic services and infrastructure.

Recommendations for an appropriate planning and management system can not be made without an analysis of powers and responsibilities under different administrative forms, including the present systems. The expected evolution of these under the administrative reforms prepared by the Government also needs to be taken into account. Mainly due to the expected changes in the national context, urban development initiative has not been alive in most of urban centers. The region's stagnant economic conditions for the past decade have also reduced the urgency for change.

Appropriate institutions and capacity need to be built in local governments to accommodate orderly local urban development initiatives and to enable local government's planning/ control and implementation capability. Prior to this, the legal and administrative powers of the different urban administration forms in Sri Lanka need to be studied. Analyses should include the structure and level of revenues and compare these with the respective responsibilities assigned to each type of local government. Mechanism for re-defining urban administrative boundaries to maintain conformity with functional changes also need to be identified. A study proposed by the Master Plan should address issues at the national level. The recommendations will be valid for the whole country and are expected to be adopted at that level.

(4) Local projects and programs

Special development programs are proposed to deal with some of the major problems observed in urban areas. The proposed programs call for adoption of a comprehensive approach to planning urban functional areas, and development of urban infrastructure. Two special programs are proposed for Galle. These are summarized below.

Integrated urban development planning.

It is recommended to initiate a practice of integrated greater area urban planning centered on the larger urban centers to guide expansion into adjoining areas. These plans will include sub-components for settlements which are a functional part of the larger town. For realization of efficient preparation of the greater area urban planning and its implementation, delineation of the areas subject to the wide area urban planning along with instrumentation of required legal and administrative arrangements at the local level for plan preparation/ implementation are recommended.

There will be two components of this project. At the first phase of the first project, it is recommended to start a major study. Consultants will review the existing legal and administrative framework for efficient preparation and implementation of local development plans in Sri Lanka and will make recommendations for improvement. At the same time, they will delineate the subject areas for the greater area urban planning in the region and characterise each delineated urban system. They will define functional division of urban centers within the system based on these comprehensive analyses.

They will make proposals, as necessary, on the legal changes needed, administrative arrangements at the central and local level for plan preparation/implementation, and will detail the manpower requirements to undertake these tasks. These analysis will pay special attention to the system of provincial councils introduced under the administrative legal framework after the constitutional change on devolution.

At the second stage, the consultants will work with the staff of local administrations to prepare development plans in the light of area designation and national level changes. These national level changes must address the issues identified during the first stage.

Development of urban sites and services

Limited financial resources of the local communities prevent them from building infrastructure in areas where it is desirable to lead development. They are thus forced to

follow private locational decisions and try to provide a minimum level of service. This has to be done even when the locations chosen are not desirable from a social viewpoint.

The proposed project will create developed urban lots in locations where the local government proposes to lead development. Land will be acquired for large tracts at a time. The project will create the capacity to perform tasks that are undertaken in developed capitalist countries by real state development companies. One major difference will be the provision of developed urban sites while house construction is undertaken or organised by individuals themselves. In some cases, this involve construction in stages with the family expanding its residential quarters as its financial situation throughout the demographic cycle.

For the individual households, the project will provide the possibility of acquiring a site below the market prices. The public gain from the project is the creation of an urban form conducive to development and easy to control for environmental reasons. The large scale home ownership that results from such projects contributes to political stability by giving the majority of people a reason to protect the existing order.

Improvements in urban administration.
The present forms of urban administration are inappropriate for the needs of urban areas in Sri Lanka .The legal changes introduced in 1987 seem to have reduced the capability for efficient urban administration and has actually limited the degree of local control over the local development.

Recommendations for an appropriate system can not be made without an analysis of powers and responsibilities under different administrative forms, including the three present systems. The expected evolution of these under the administrative reforms prepared by the Government also needs to be taken into account.

The project will analyze the legal and administrative powers of the different urban administration forms in Sri Lanka: municipal and urban council, and Pradeshiya Sabhas. For each, it will analyze the structure and level of revenues. These will be compared with the responsibilities assigned to each. The project will detail the tasks to be undertaken at each administrative level and will asses the required capability to undertake these tasks efficiently. The recommendations will be valid for the whole country and are expected to be adopted for the whole Country.

Development program for Galle

There are two components of this project. The first is the redevelopment of downtown Galle. This includes relocation of the Galle railway station to reduce the trip time between Colombo and Matara by enabling trains an uninterrupted trip at the Galle station. Subsequent replacement of the bus stand, located beside the current railway station, is imperative for the convenience of railway travellers when the station is relocated.

Together with the development of vicinity area of the new railway station and bus stand, re-development of the old station and bus stand and surroundings as an integrated downtown up-grading project is recommended. Provision of high grade infrastructure and services such as water supply and sewerage, electricity supply, telecommunication, waste disposal, etc. by the Government is imperative. The construction of individual buildings, including some public facilities, can be undertaken by the private sector.

Since the project creates completely new focal point of the Galle city and vicinity area as well as the region, the ongoing work to prepare a structure plan of the Galle and vicinity area should not be finalized prior to initiation of this project.

Preservation of the Fort, which contains buildings and structures constructed during the Dutch colonial era, is the other project component. It is suggested that the Fort should be upgraded through a project of historic preservation with rehabilitation and restoration while promoting commercial and cultural activities.

The project intends to preserve the historical appearance while providing all modern amenities and facilities demanded by tourists and residents alike. The project includes improvement of the water supply and sewerage system, power distribution system, and telecommunication system with multipurpose underground conduit system which contains all the pipes and lines as well as the historic preservation component with entertainment/cultural promotion. Construction of the multiple underground conduit at the time of restoration of the stone pavement will provide vitality to the historic town.

Table 1.1 Estimated Mid-Year Population of Principal Towns 1981-1990

(unit: 1,000)

Principal Town	1981	1982	1983	1984	1985	1986	1987	1988	1989*	1990*	Growth Rate 1981-1990 (% p.a.)
Colombo	590	594	596	597	601	605	509	614	612	615	0.46%
Dehiwala/Mt Lavinia	174	175	177	179	179	66	66	67	64	64	-10.52%
Negombo	61	62	63	64	65	66	66	67	64	64	0.53%
Moratuwa	135	136	136	136	136	136	136	136	166	170	2.59%
Kotte	101	101	101	100	100	102	104	106	108	109	0.85%
Kalutara	32	33	33	34	34	34	35	35	34	34	0.68%
Kandy	98	99	100	101	101	102	103	104	103	104	0.66%
Matale	31	32	33	34	34	34	35	35	34	34	1.03%
Nuwara Eliya	21	21	22	23	24	24	25	25	25	26	2.40%
Galle	77	78	79	80	80	80	80	80	83	84	0.97%
Matara	39	40	41	45	50	56	62	67	41	41	0.56%
Hambantota	9	10	11	12	13	14	14	15	11	11	2.25%
Jaffna	118	119	120	121	123	124	126	127	128	129	1.00%
Mannar	14	14	15	16	17	17	18	18	18	19	3.45%
Vavuniya	19	19	20	20	21	21	21	21	21	21	1.12%
Batticaloa	43	44	45	46	47	48	48	49	50	51	1.91%
Trincomalee	45	47	49	50	52	53	53	54	49	50	1.18%
Kurunegala	26	29	35	38	42	43	48	51	28	28	0.83%
Puttalam	22	23	24	24	25	27	28	29	26	27	2.30%
Chilaw	21	21	22	22	22	23	23	24	25	26	2.40%
Anuradhapura	36	37	37	38	38	38	38	38	37	37	0.30%
Badulla	33	34	36	39	41	44	47	50	32	32	-0.34%
Ratnapura	38	38	38	38	38	38	42	46	45	46	2.15%
Kegalle	16	17	17	17	17	17	17	18	18	18	1.32%

Source: Registar General's Department
* Provisional

Table 1.2 The Level and Growth of Urban Population

	Urban Population (Population as % of Total)		Average Annual Growth Rate (%)		Capital City (Capital as % of Total Urban)
	1970	1992	1970-80	1980-92	
Sri-Lanka	22	22	1.5	1.1	17
Low Income Economies*	18	27	3.7	4.1	12
Middle Income Economies	46	62	3.7	3.2	26
Upper Middle Income Economies	54	72	3.9	3.0	22
Selected Countries :					
Malaysia	27	45	5.0	4.8	22
Thailand	13	23	5.3	4.5	57
Korea	41	74	5.3	3.4	36
Philippinies	33	44	3.8	3.8	32
Japan	71	77	1.8	0.7	43

*Include China and India
Source: World Development Report, 1994, Table 31

Table 1.3 Present and Projected Population in Southern Area

	Present (1995) Population		2005 Population		2015 Population	
	Total	Urban	Total	Urban	Total	Urban
Galle District	965,777	401,444	1,089,106	541,480	1,211,640	754,394
Galle	101,379	101,379	157,439	157,439	244,497	244,497
Habaraduwa	97,834	61,800	119,259	83,054	138,405	111,618
Hikkaduwa	96,622	59,327	104,637	68,851	107,818	79,905
Ambalangoda	69,714	32,399	78,546	43,542	86,763	58,516
Balapitiya	62,168	32,811	67,324	42,628	69,372	55,382
Akmimana	59,153	26,265	65,342	35,298	72,178	47,438
Matara District	764,387	235,297	853,133	319,697	938,262	463,386
Matara	122,681	71,760	164,872	106,522	215,205	157,235
Weligama	66,682	38,625	77,388	51,909	85,484	69,761
Kotapala	60,342	29,408	66,655	40,238	71,470	55,055
Kamburupitiya	60,131	28,050	66,422	34,193	69,819	41,681
Akuressa	70,913	24,600	70,913	31,490	73,801	40,310
Dikwella	50,053	17,681	52,091	22,633	53,675	28,972
Pasgoda	56,060	12,360	60,710	16,611	64,453	22,324
Hambantota District	526,916	174,474	602,034	238,382	676,696	329,175
Tissamaharama	66,399	31,304	84,997	46,338	108,803	68,591
Hambantota	46,329	26,000	59,886	38,486	76,659	56,969
Tangalle	69,543	26,108	77,582	33,041	84,017	41,815
Ambalantota	57,991	20,600	64,058	27,685	70,760	37,206
Beliatta	50,382	22,550	55,654	28,866	60,270	36,951
Weeraketiya	53,029	12,338	56,495	16,289	57,811	21,505
Katuwana	60,294	12,864	64,235	16,467	65,731	21,079
Sooriyawewa	33,937	10,350	44,297	14,600	55,607	20,594
Moneragala District	239,593	42,008	281,352	62,113	320,629	91,991
Moneragala	39,449	14,212	50,008	22,071	62,165	34,275
Ratnapura District	156,746	34,485	192,106	53,554	217,690	86,958
Embilipitiya	118,661	34,485	151,896	53,554	179,786	83,168
Ampara District	6,618		7,563		10,125	1,013
Southern Area	2,660,037	887,708	3,025,294	1,215,226	3,375,042	1,726,917
Sub Total	1,569,746	747,276	1,860,706	1,031,805	2,174,549	1,434,847

Source: Data from the 1971 and 1981 census and 1994 demographic survey
Extrapolated to 1995 on the basis of past growth.

Table 1.4   Present Urban Hierarchy

Rank	No.	Name	Final Rank	Point	Population	Administration	Commercial & Services	Manufacturing	Soc & Reer Service	Health Service	Education	Infra & Comm
1	11	Galle	1	8.00	1	1	1	1	1	1	1	1
2	22	Matara	1	7.50	2	1	1	1	1	1	1	1
3	45	Embilipitiya	2	3.50	3	3	2	2	2	2	3	2
4	34	Hambantota	2	3.33	3	2	2	3	2	3	3	2
5	21	Weligama	2	3.25	3	4	2	3	2	3	2	2
6	38	Tissamaharama	2	2.92	3	4	2	4	2	3	4	2
7	24	Tangalle	3	2.78	4	2	3	4	4	5	2	2
8	23	Dickwella	3	2.70	4	4	2	3	3	3	5	2
9	42	Wellawaya	3	2.70	5	3	3	4	2	2	4	3
10	14	Habaraduwa/ A'gama	3	2.67	2	4	3	3	3	4	3	3
11	43	Moneragala	3	2.62	4	2	3	3	3	3	3	5
12	7	Ambalangoda	3	2.45	3	4	4	4	2	5	3	3
13	3	Elpitiya	3	2.37	3	3	3	5	3	3	4	4
14	25	Beliatta	3	2.33	3	4	3	4	3	4	4	3
15	26	Walasmulla	3	2.32	5	3	3	3	3	4	3	5
16	8	Watugedara	3	2.28	5	4	4	2	4	3	4	4
17	9	Hikkaduwa	3	2.28	3	4	3	4	3	5	4	3
18	15	Akuressa	3	2.23	3	5	3	3	4	4	5	3
19	20	Kamburupitiya	4	2.17	3	4	3	4	4	4	4	4
20	18	Hakmana	4	2.15	4	4	4	5	5	3	3	3
21	12	Akmeemana	4	2.12	3	4	4	3	5	4	4	4
22	36	Ambalantota	4	2.12	4	4	3	4	3	5	4	4
23	31	Sooriyawewa	4	2.10	5	4	3	3	5	3	4	5
24	16	Morawaka	4	2.07	4	4	4	3	5	3	4	5
25	29	Angunakolapellessa	4	2.07	5	4	3	4	4	3	4	5
26	1	Bentota	4	2.03	4	4	4	4	3	5	4	4
27	10	Dodanduwa	4	2.02	4	5	5	4	3	4	5	3
28	33	Weeraketiya	4	1.98	5	4	4	4	4	5	3	4
29	40	Buttala	4	1.98	5	4	3	4	4	5	4	4
30	5	Kosgoda	4	1.97	5	5	5	3	3	5	4	4
31	6	Balapitiya	5	1.93	4	5	4	5	4	5	4	3
32	17	Deniyaya	5	1.93	4	3	4	5	4	5	4	5
33	28	Katuwana	5	1.93	5	5	4	3	4	4	4	5
34	37	Middeniya	5	1.93	5	4	3	4	5	4	4	5
35	39	Kataragama	5	1.93	5	4	4	5	3	4	5	4
36	35	Lunugamwehera	5	1.90	5	4	4	4	4	4	5	4
37	4	Badddegama	5	1.83	4	3	5	4	5	5	5	5
38	2	Uragasmanhandiya	5	1.80	4	5	4	4	4	5	5	5
39	13	Neluwa	5	1.80	5	4	5	4	5	4	5	4
40	27	Kirama	5	1.70	5	5	5	4	5	4	5	5
41	30	Hungama	5	1.70	5	5	4	4	5	5	5	5
42	41	Tanamalwila	5	1.70	5	5	4	5	5	4	5	5
43	44	Siyambalanduwa	5	1.70	5	5	5	4	5	5	4	5
44	19	Urubokka	5	1.65	4	5	5	5	5	5	5	5
45	32	Ranna	5	1.65	5	5	5	5	5	5	5	4

Table 1.5   Functional Ranks and Points of Urban Centers

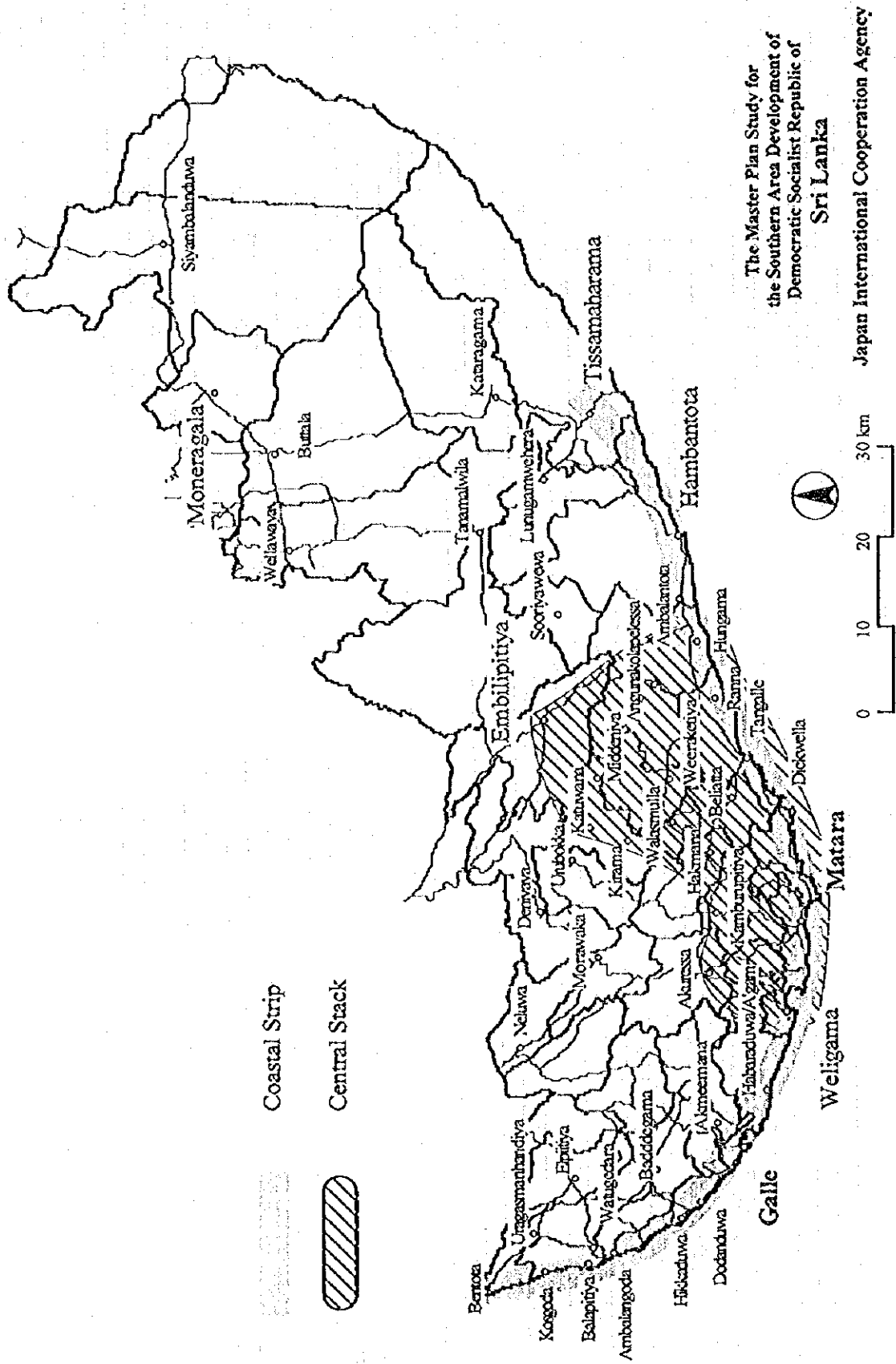| District	#	Name	Population	Population Num.	Administration	Administration Pt	Commercial	Commercial Point	Manufacturing	Manufacturing Point	Soc & Recr Service	Soc & Recr Service Point	Health Service	Health Point	Education	Education Point	Infra & Comm	Infra & Comm Point
Galle	1	Bentota	4	19,500	4	0.9500	4	2.4833	4	1.9333	3	3.0000	5	0.6667	4	1.0333	4	0.9500
	2	Urapasmanhandiya	4	12,500	5	0.7000	4	2.3833	4	2.6500	4	0.7500	5	0.3333	5	0.5833	5	0.7833
	3	Elpitiya	3	22,000	3	2.3333	3	3.4167	5	0.9000	3	1.8333	3	1.3333	4	1.3667	4	1.2833
	4	Baddegama	4	18,750	3	2.0333	5	1.5167	4	1.9833	5	0.0000	5	0.3333	5	0.6667	5	0.4500
	5	Kosgoda	5	7,500	5	0.4500	5	1.6333	3	3.2833	3	1.7500	5	0.6667	4	1.3667	4	1.2333
	6	Getapitya	4	17,475	5	0.5000	4	2.1000	5	1.0500	4	1.5000	5	0.6333	4	1.4167	3	1.5667
	7	Ambalangoda	3	31,455	4	1.4500	4	2.6500	4	2.2667	2	3.9167	5	0.0000	3	2.3333	3	2.3667
	8	Wanigedara	5	6,990	4	1.3333	4	2.6167	2	4.9167	3	1.0000	3	1.5000	4	1.3333	3	1.4000
	9	Hikkaduwa	3	46,760	4	1.0333	3	3.7500	4	2.2167	3	2.2500	5	0.3333	4	0.8333	3	1.7833
	10	Dodanduwa	4	11,690	5	0.2500	5	1.7000	4	1.7333	3	3.0000	4	0.8333	5	0.5833	3	1.6667
	11	Galle	1	102,000	1	10.2833	1	16.3333	1	17.1667	1	13.2500	1	9.3333	1	8.5000	1	7.2500
	12	Akmeemana	3	25,500	4	1.2833	4	2.3167	3	3.7333	5	0.0000	4	0.8333	4	1.7500	4	1.2000
	13	Neluwa	5	7,700	4	1.4500	5	1.4000	4	1.8167	5	0.5000	5	0.8333	5	0.6667	4	1.0833
	14	Habaraduwa/A'pama	2	60,000	4	1.0333	3	4.6667	4	3.2833	4	3.2500	4	0.8333	5	2.1667	3	2.2833
	15	Akuressa	3	24,000	5	0.7000	3	5.2833	3	3.8333	4	1.1667	5	0.8333	5	0.5333	3	2.3667
	16	Morawaka	4	10,500	4	1.0333	4	3.1667	3	3.1167	3	0.2500	4	1.5000	4	1.5000	5	0.4500
Matara	17	Deniyaya	4	18,000	3	2.0333	4	2.5000	5	1.1500	5	1.4167	5	0.0000	4	1.1667	4	0.7833
	18	Hakmana	4	12,500	4	1.0333	4	3.1667	5	1.1500	4	0.3333	3	1.3333	3	2.0833	3	2.0000
	19	Urubokka	4	12,000	5	0.2500	3	1.6833	5	1.2833	5	0.5000	5	0.0000	5	0.5333	5	0.4500
	20	Kamburupitiya	3	27,500	4	1.4500	3	3.6167	5	2.0833	3	1.5000	4	0.8333	4	1.8667	4	1.3667
	21	Weligama	3	37,500	4	1.5333	2	5.9167	3	3.0833	2	4.7500	3	1.6667	2	3.9167	2	2.7000
	22	Matara	2	69,000	1	7.9500	1	13.0833	1	10.6667	1	11.0833	1	5.8333	1	6.3333	1	9.7500
	23	Dickwella	4	17,250	4	1.0333	2	6.2000	3	3.0667	3	3.4167	3	1.8333	3	0.7000	2	2.7833
Hambantota	24	Tangalle	4	19,500	2	3.4500	3	3.7500	4	2.5833	4	1.5833	5	0.5000	2	3.1667	2	3.2833
	25	Beliatta	3	22,000	4	1.2833	3	3.8167	4	2.7500	3	1.8333	4	1.0000	4	1.0333	3	1.7833
	26	Walasmulla	5	7,600	3	1.7833	3	3.7833	3	3.9167	3	1.8333	4	1.0000	4	2.5333	5	0.4500
	27	Kirama	5	2,250	5	0.0000	5	1.3000	4	2.0000	4	0.3333	4	0.8333	5	0.5833	4	0.4000
	28	Katuwana	5	3,000	4	0.7000	4	2.9167	4	3.5000	5	0.8333	4	0.8333	5	1.2000	5	0.7333
	29	Angunakolapelessa	5	10,000	4	1.3667	3	4.3167	3	2.4167	4	1.3333	3	1.3333	4	0.9167	3	0.7333
	30	Hungama	5	2,000	5	0.4500	4	3.1000	4	1.7667	4	0.5000	5	0.3333	5	0.5333	5	0.7833
	31	Sooriyawewa	5	10,000	4	1.1167	3	3.7500	4	3.4167	5	0.0000	3	1.8333	4	1.3667	5	0.7333
	32	Ranna	5	6,000	5	0.0000	3	1.3333	5	1.3667	5	0.5000	5	0.3333	5	0.2500	4	0.8667
	33	Weeraketiya	5	4,400	4	1.4500	2	2.9833	4	2.2500	4	0.8333	3	0.6667	3	2.5333	2	1.1167
	34	Hambentota	3	25,000	2	4.7833	2	5.8667	3	3.6167	3	5.9167	3	1.3333	3	2.4167	2	4.7833
	35	Lunugamwehera	5	2,000	4	1.2000	4	2.1333	4	1.6500	4	0.8333	4	0.8333	5	0.2500	3	1.0833
	36	Ambalantota	4	18,000	4	0.9500	3	4.9167	4	2.8333	5	2.0833	5	0.3333	4	1.5333	4	0.8667
Moneragala	37	Middeniya	5	7,300	4	0.9500	3	3.4167	4	2.0667	5	0.0000	5	0.8333	4	1.0333	5	0.7833
	38	Tissamaharama	3	30,100	4	0.9500	2	6.0833	4	2.6167	2	4.7500	3	1.8333	3	1.5833	2	3.2000
	39	Kataragama	5	5,500	4	1.0333	4	3.4500	5	0.8000	5	0.5833	5	0.0000	5	0.2500	4	1.1167
	40	Buttala	5	8,500	5	0.7000	4	2.4000	4	1.9000	5	0.0000	5	0.0000	5	0.2000	5	0.5833
	41	Tanamalwila	5	3,500	3	2.3667	3	4.5833	5	1.2333	4	4.4167	4	1.1667	4	1.5333	3	1.7000
	42	Wellaweya	5	8,800	2	5.3333	3	4.1667	4	2.6500	2	2.4167	2	2.8333	5	0.8667	5	0.5833
	43	Moneragala	4	13,600	5	0.7833	5	1.6000	4	3.8333	3	0.3333	3	1.8333	3	2.5000	3	1.7000
	44	Siyambalanduwa	5	2,500	5	2.5333	5	5.7833	2	6.6667	5	4.0833	5	0.0000	4	1.2000	5	0.4500
Ratnapura	45	Embilipitiya	3	33,000	3	2.5333	2	5.7833	2	6.6667	2	4.0833	2	3.6667	3	2.1667	2	2.9167

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Table 2.1 Water Supply Coverage in Southern Area in 1992

District	Total Population	Population served by piped scheme	%	Population served by TW etc.	%	Population served by projected dug wells	%	Population served by unprotected sources	%	Total coverage (Population)	%
Galle	651,554	23,230	4	6,402	1	239,812	37	382,110	59	269,444	41
Matara	436,245	37,299	9	1,493	0.3	119,062	27	278,391	64	157,854	36
Hambantota	382,658	84,337	22	26,362	7	100,493	26	171,466	45	211,192	55
Monaragala	217,107	15,665	7	31,697	15	26,979	12	142,776	66	74,341	34
Ratnapura	161,000	21,035	13	22,706	14	21,740	14	95,518	59	65,481	41
Total	1,848,564	181,566	10	88,660	5	508,086	27	1,070,261	58	778,312	42

TW : tube well

Source: NSWDB Survey of 1992

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Figure 1.1 Present Urban Network

Coastal Strip

Central Stack

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30 km
20
10
0

Moneragala

Siyambalanduwa

Butala

Kataragama

Wellawaya

Tanamalwila

Tissamaharama

Embilipitiya

Sooriyawewa
Lunugamwehera

Hambantota

Neluwa

Unapuiya/Agam

Denyaya

Morawaka

Angunakolapelessa

Middeniya

Ambalantota

Hungama

Katuwana

Kirama

Ranna

Walasmulla

Weerakeniya

Beliatta

Tangalle

Akuressa

Hakmana

Akurubunpitiya

Dickwella

Habaraduwa/Agam

Galle

Weligama

Matara

Epitiya

Watugedara

Baddegama

Akmeemana

Koggala

Balapitiya

Ambalangoda

Hikkaduwa

Dodanduwa

Unagasmanhandiya

Bentota

Figure 1.2   Existing Hierarchical Structure of Urban Centers

Present Hierarchical Order

First Order

Second Order

Third Order

Forth Order

Fifth Order

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the Southern Area Development of
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Sri Lanka

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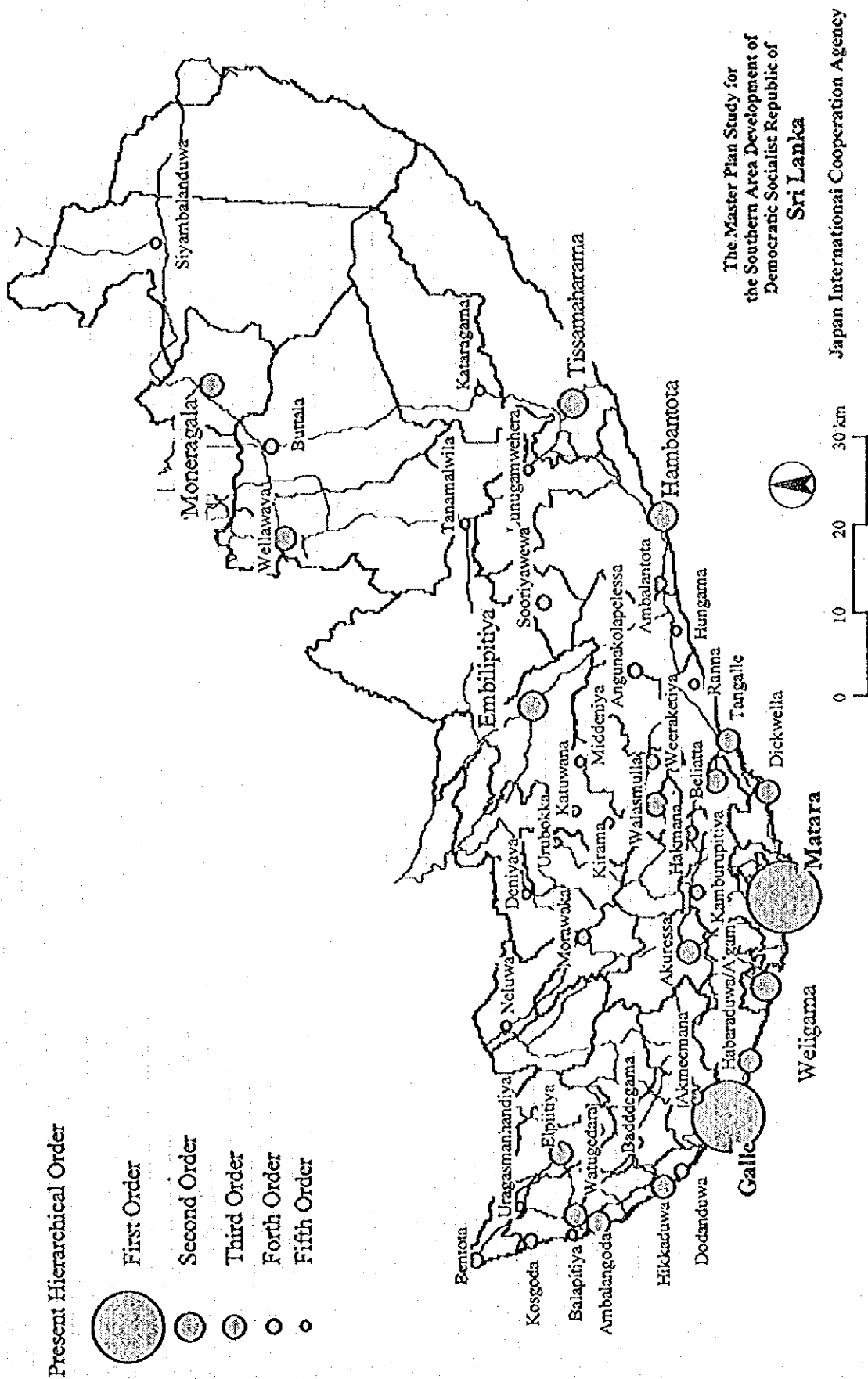
Figure 3.1   Strategic Urban Clusters

Present Hierarchical Order

First Order
Second Order
Third Order
Forth Order
Fifth Order

Core Centers/Agglomeration
Associating Urban Centers
Influencial Areas

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Sri Lanka

Japan International Cooperation Agency

0   10   20   30 km

48
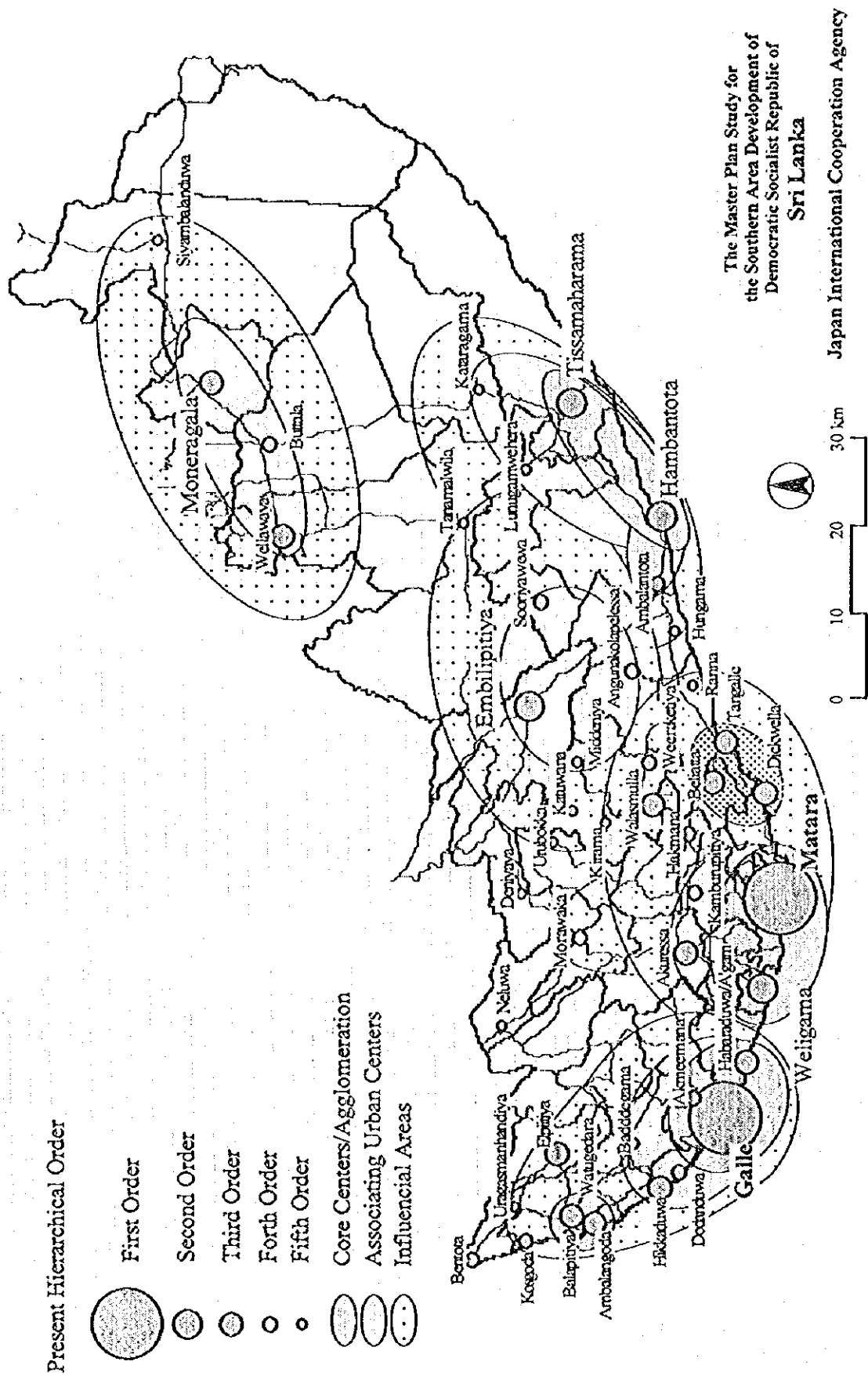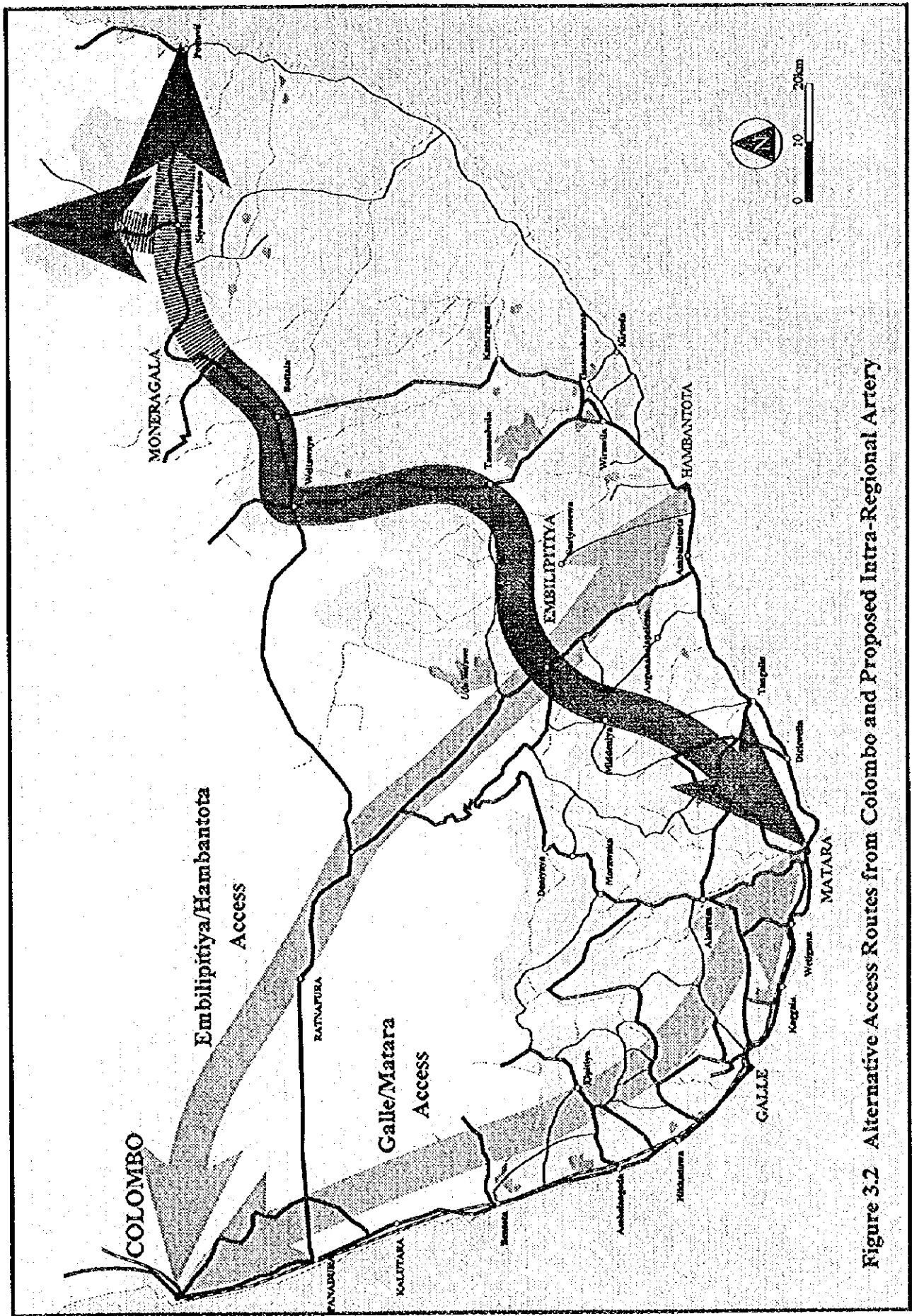
Figure 3.2   Alternative Access Routes from Colombo and Proposed Intra-Regional Artery

Figure 3.3   Possible Future Hierarchy of Urban Centers
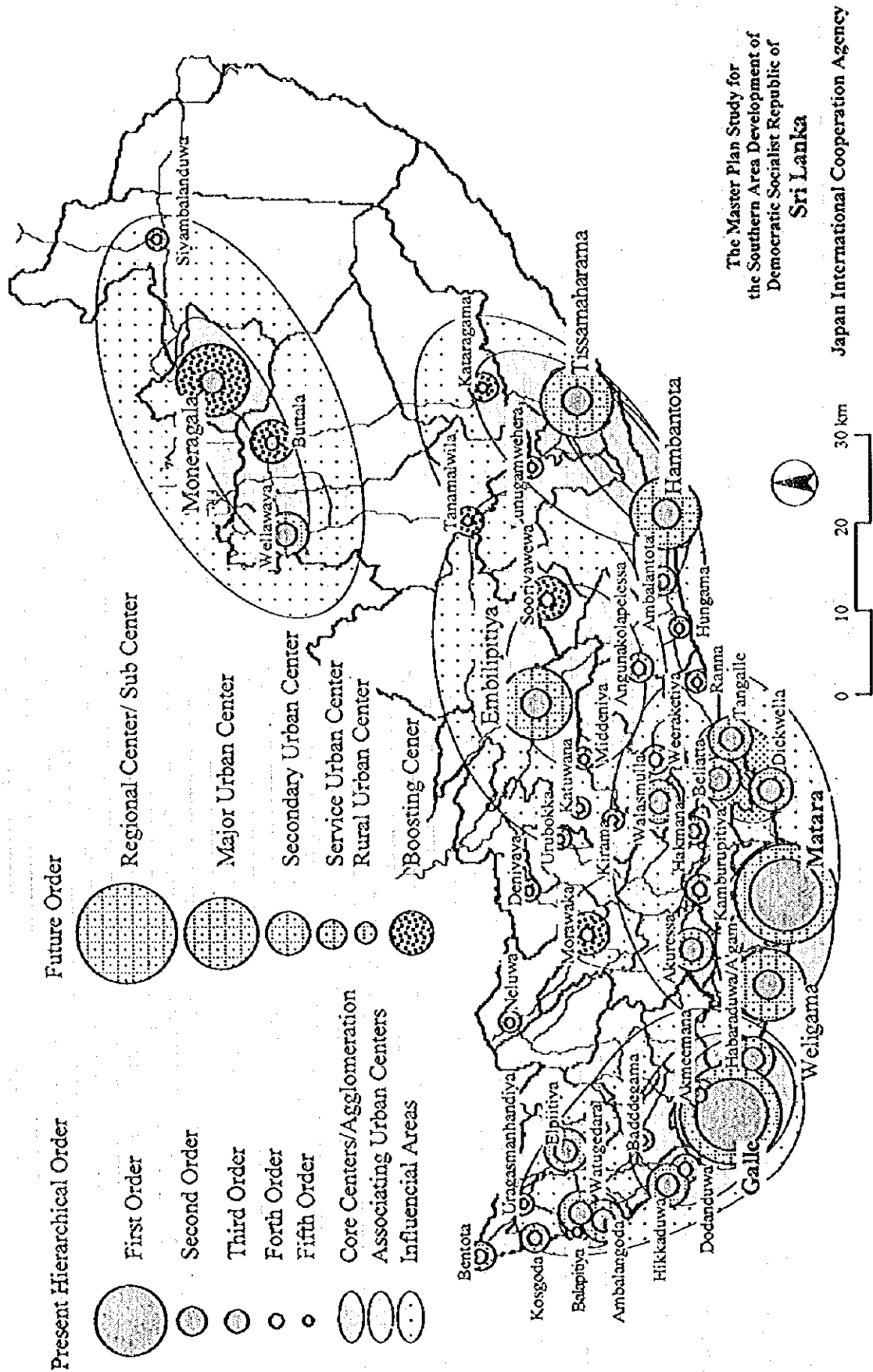
Appendix 1 - Results of Analysis of Urban Hierarchy in Southern Area

Table A.1   Number of Urban Facilities by Functions (1/3)

Appendix 1. Table A.1 Number of Urban Facilities by Functions (2/3)

Appendix 1.   Table A.1 Number of Urban Facilities by Functions (3/3)

Urban Facility Assessment

Urban Facility Assessment

Appendix 1, Table A.3 (1/4)

Urban Cluster and Proposed Enhancement

No.	Name	Final Rank	Proposed Rank	Population	Administration	Commercial	Manufacturing	Soc & Rec Service	Health Service	Education	Infra & Comm	Present Characteristics (from Urban Center Study)	Prospective	Functions to be Enhanced
	Galle Urban System													
11	Galle	1	A	1	1	1	1	1	1	1	1	Regional Center	National Development Pole/ International City	Administrative and professional services required for international business. Quality residential areas and services for foreign resident staff and families. Recreational and tourism attractions and facilities for foreigners. Convenient access to Colombo and the international airport
14	Habaraduwa/A'gama	3	C	2	4	3	3	3	4	3	3	Fastly developing urban agglomeration & IPZ, Tourism, Air strip	National Development Pole/ International City Regional Center	Export/import related admin and professional services: Quality residential areas: International level recreational and tourism attractions and facilities: Convenient access to Colombo and the International airport
12	Akmeemana	4	D	3	4	4	3	5	4	4	4	Developing center & Providing services to immediate areas.	Export oriented industrial center Merging into Galle	Service facilities supporting export oriented industries Quality accommodation facilities for foreign visitors
9	Hikkaduwa	3	C	3	4	3	4	3	5	4	3	Tourism	International tourism/resort	Environmental conservation facilities and institutional arrangement
10	Dodanduwa	4	C	4	5	5	4	3	4	5	3	Tourism	International tourism/resort	Environmental conservation facilities and institutional arrangement
4	Baddegama	5	E	4	3	5	4	5	5	5	5	Fastly developing urban area & Providing services to vast agric. hinterland	Supporting urban center of Galle	
7	Ambalangoda	3	C	3	4	4	4	3	5	3	3	Handicraft and traditional culture	Strategic supporting urban agglomeration to Galle	Handicrafts center and human resource development: Health services:
8	Warugedara	3	C	5	4	4	2	4	3	4	4		Strategic supporting urban agglomeration to Galle	
6	Balapitiya	5	E	4	5	5	5	5	5	5	3		Strategic supporting urban agglomeration to Galle	

No.	Name	Final Rank	Proposed Rank	Population	Administration	Commercial	Manufacturing	Soc & Rec Service	Health Service	Education	Info & Comm	Present Characteristics (from Urban Center Study)	Prospective	Functions to be Enhanced
	Matara Urban System											Regional Sub Center		Transportation hub facilities. Human resources development institutions. Large scale/modern commercial activities and facilities. Recreational facilities attractive to Sri Lankan. Residential areas and accommodation facilities for students/learners
22	Matara	1	A	2	1	1	1	1	1	1	1	Large urban center with commercial activities	Regional Sub Center/ Regional Commercial & Service Center/ Human Resources Development Center	Transportation hub facilities: Human resources development institutions: Large scale/modern commercial activities and facilities: Recreational facilities attractive to Sri Lankan: Residential areas and accommodation facilities for students/learners
21	Weligama	2	B	3	4	2	3	2	3	2	2	Large urban center retaining handicraft businesses	Handicrafts center and Tourism resort	Handicraft teaching institute: Recreational facilities attractive to Sri Lankan as well as foreign tourist.
15	Akuressa	3	C	3	5	3	3	4	4	5	3	Old center without outgrowing development & Location wise important	Sub commercial center	
20	Kamburupitiya	4	D	3	4	3	4	4	4	4	4	Fastly growing urban center & Providing basic services to a large number of inhabitants		
24	Tangalle	3	C	4	2	3	4	4	5	2	2	Growing urban center & Commercial; Tourism	Strategic supporting agglomeration to Matara/ Tourism and administrative sub center	Tourism facilities: Commercial activities: Health services: Social and recreational services
25	Beliatta	3	B	3	4	3	4	3	4	4	3	5th largest urban center & Commercial	Strategic supporting agglomeration to Matara	Health and educational services: Administrative services
23	Dickwella	3	C	4	4	2	3	3	3	5	2	Commercial oriented urban center & Commercial, Fisheries and Industrial Processing; Tourism & Large scale agricultural base	Strategic supporting agglomeration to Matara/ Commercial sub center	Educational services: Manufacturing services
	Embilipitiya Urban System											Emerging Development Center	Regional Agro-Industry & Agro-Service Center/ Regional Tourism Sub Center	Supporting services and facilities for agro-industries. Supporting services and facilities for farmers. Recreational facilities for farmers, and agro-industrial workers. Residential areas for agro-industrial workers and management. International level tourism facilities.
45	Embilipitiya	2	B	3	3	2	2	2	3	3	2	Very large national level urban center & Not upgraded to a urban or municipal council state.	Regional Agro-Industry & Agro-Service Center/ Regional Tourism Sub Center	Higher administrative and educational services: Human resource development and research institutes for agro-industries and agriculture: Professional services for agro-industries: Middle/low income residential area: High grade tourism facilities
31	Sooriyawewa	4	B	5	4	3	5	3	4	4	5	Fastly developing urban center & Walawe scheme related	Rural Development Center/To be boosted	
29	Angunakolapellessa	4	D	5	4	3	4	4	4	4	5	Fastly developing urban center & Walawe scheme related		Higher administrative and educational services: Social and recreational facilities: Agricultural extension services: Agro-industries
37	Middeniya	5	E	5	4	3	4	5	4	4	5	Large scale commercial activities is located & Commercial		

Urban Cluster and Proposed Enhancement

No.	Name	Final Rank	Proposed Rank	Population	Administration	Commercial	Manufacturing	Soc & Rect Service	Health Service	Education	Infra & Comm	Present Characteristics (from Urban Center Study)	Prospective	Functions to be Enhanced
	Hambantota/Tissamaharama Urban System											Peripheral urban centers, Fishery, Salt and Tourism	Peripheral Development Pole/ New Tourism Gateway	Agro- and fishery industries; International tourism facilities: Airport: Human resource development and research institutes: Educational and health services: Manufacturing services
34	Hambantota	2	B	3	2	2	3	2	3	3	2	Large scale urban center	Peripheral Development Pole	Agro- and fishery industries: International tourism facilities: Human resource development and research institutes: Educational and health services: Manufacturing services
38	Tissamaharama	2	B	3	4	2	4	2	3	4	2	3rd highest urban center in the district & Subject to relocation due to archeological excavation	New Tourism Gateway/ Historical tourism attractions.	Administrative services: Educational and health services: Airport: International tourism facilities: Archeological tourism attractions
36	Ambalantota	4	D	4	4	3	4	3	5	4	4	Rapidly growing processing center & Processing & Located admist of Walawe scheme	Close association with Hambantota	Agro-industries
39	Katargama	5	D	5	4	4	5	3	4	5	4	Most of urban services are available & Providing services to inhabitants commuting to sacred area	Religious Tourism Attractions/ To be boosted	Tourism facilities: Manufacturing services: Educational services
35	Lunugamwehera	5	E	5	4	4	4	4	4	5	4	Newly planned urban center & Most of required functions are located	Peripheral industrial center	Manufacturing industries: Educational services
	Monaragala Urban System											Peripheral Urban Center	Peripheral Agricultural Development Center/ Potential Tourism Gateway	Agricultural services and research institutes: Educational services: Agro-industries: Tourism facilities
43	Monaragala	3	B	4	2	3	3	3	3	3	5	Capital of the district	Peripheral Agricultural Development Center/ Potential Tourism Gateway/ To be boosted	Agricultural services and research institutes: Educational services: Agro-industries: Tourism facilities
40	Buttala	4	D	5	4	3	4	5	5	3	4	Most of functions are higher order functions & Expanded in GAM UDAWA Scheme	Tourism/ Agro-industries/ To be boosted	Health services: Educational services: Social and recreational services: Tourism facilities: Agro-industries
42	Wellawaya	3	C	5	3	3	4	2	2	4	3	Developing urban center & Providing services not only for the district but for adjacent district	Tourism/ Agro-industries/ Rural Trading Center	Educational services: Tourism facilities: Trading services

Appendix 1, Table A.3 (4/4)   Urban Cluster and Proposed Enhancement

No.	Name	Final Rank	Proposed Rank	Population	Administration	Commercial	Manufacturing	Soc & Rec Service	Health Service	Education	Infra & Comm	Present Characteristics (from Urban Center Study)	Prospective	Functions to be Enhanced
Independent Urban Centers														
1	Bentota	4	D	4	4	4	4	3	5	4	4	Fast developing center & Tourism & include Aluthagama	International Tourism/Resort but it is Aluthagama's extension as a urban center	
3	Elpitiya	3	B	3	3	3	5	3	3	4	4	Growing urban center & Providing services to depressed agric. areas		Manufacturing services; Educational services
5	Kosgoda	4	E	5	5	5	3	3	5	4	4	Center core is not developed		
2	Uragasmanhandiya	5	E	4	4	4	4	4	4	5	5	Service center to agric. areas		
13	Neluwa	5	E	5	4	5	4	5	4	5	4	Upgrade of service facilities required & Service center		
18	Hakmana	4	D	4	4	4	5	5	3	3	3	Urban functions located in an adhoc manner & Providing services to immediate agric. hinterland		
16	Morawaka	4	C	4	4	4	3	5	3	4	5	Providing services to vast agric. hinterland	Rural Development Center/ To be boosted	Social and recreational services for farmers; Transportation facilities; Administration services; Commercial activities
17	Deniyaya	5	E	4	3	4	5	4	5	4	5	Growing urban center & Northern boundary of MATARA		
19	Urubokka	5	E	4	5	5	5	5	5	5	5	Medium scale urban center & Providing services to agric. hinterland		
26	Walasmulla	3	C	5	5	3	3	3	4	3	5	Growing population and function & Function are spread in a vast area		
28	Katuwana	5	E	5	5	4	3	4	4	4	5	Remote urban center, potential development center & Urban activities are concentrated		
33	Weeraketiya	4	E	5	4	4	4	4	5	3	4	Most of the higher order functions are located & Providing services to a large agric. hinterland		
27	Kirama	5	E	5	5	5	4	5	4	5	5	Emerging medium size urban center		
30	Hungama	5	E	5	5	4	4	5	5	5	5	Potential development center in agric. area		
32	Ranna	5	E	5	5	5	5	5	5	5	4	Large number of urban functions are located & Potentials for more advanced position		
41	Tanamalwila	5	D	5	5	4	5	5	4	5	5	Medium size urban center & Providing services to hinterland & Located admixt of highly undeveloped area	Rural Development Center/To be boosted	Social and recreational services for farmers; Transportation facilities; Administration services; Commercial activities; Manufacturing services
44	Siyambalanduwa	5	E	5	5	5	4	5	5	4	5	Potential for development & Provision of services to a larger area intended		

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