GEOGRAPHICAL PROFILE OF SRI LANKA

2.1 INTRODUCTION

Sri Lanka, an island country, lies in the Indian Ocean, just east of the southern tip of the Indian subcontinent. It is separated from the latter by the shallow waters of the Palk strait and Gulf of Mannar. It extends from $5^\circ 55'\ N$ to $9^\circ 55'\ N$ and from $79^\circ 40'\ E$ to $81^\circ 55'\ E$, with a longest north-south axis running for four hundred and thirty kilo metres and a longest east-west axis running from two hundred and twenty five kilo metres, making the island closely resembling a pearl. It spreads over an area of Sixty five thousand six hundred and ten square kilometres.

Sri Lanka has a long and rich history. The name - Sri Lanka - must have originated at a very early date, as the Ramayana, the popular epic of India, talks about the events supposed to have occurred some three thousand years ago, and widely refers to the name Sri Lanka, which is the country of king Ravana. Lanka is a Sanskrit word, meaning Sinhaladvipa, the island of Sinhali. Sinhalese are the natives of Lanka. 'Sri' is a prefix that gives the meaning of respect and regard for the word attached to it.

The Portuguese and Dutch called the island as 'Celiao' and 'Zeilan', respectively. The English and French called it as 'Ceylon' and
'Ceylan'. In Tamil it is called as 'Elankai'. Well after the Independence, in 1972, the name, Ceylon, was changed into Sri Lanka. The major languages spoken in this island nation are Sinhala and Tamil.

2.2 HISTORY

It is believed that first settlers of Sri Lanka sometime around 500 B.C were Aryans. The Sinhalese Kings, beginning with king Vijaya, ruled Sri Lanka with few interruptions, until the arrival of the Portuguese in the Sixteenth Century A.D., and the Kingdom at Kandy in the central part of Sri Lanka lasted until the Kandyan territory was ceded by its chiefs to the British sovereign in 1815.

Over two thousand years of known history, Sri Lanka was often menaced by invaders from South India, chiefly from the Kingdoms of Chola and Pandya. The greatest of Sinhalese monarchs, Parakrama Bahu the Great (1153-1186 A.D.), either successfully resisted the invaders or carried the war into the enemy's camp. Sri Lanka first came under the direct rule of a foreign power when the Chola King, Rajendra-I (1014-44 A.D.), brought the whole Island under his rule. Later, there was a Tamil Kingdom in the northern Sri Lanka, with its capital at Jaffna, in the thirteenth century and thereafter; during a part of its existence, it was a tributary to the great empire of Vijayanagar.

In general, the kings of Sri Lanka were Sinhalese, following the Buddhist faith and it was only as late as 1739 A.D. that the royal line of Sinhalese kings became extinct, giving rise to a new dynasty from
the Nayakars of South India. Buddhism appears to have been the cohesive force of the Sinhalese Kingdom, whose literature and art owe an incalculable debt to the erudition of the Buddhist priesthood and the piety of its kings. Anuradhapura, was the first capital of Sinhalese Kingdom about 450 B.C, and Polonnaruwa, its successor, was made the capital of Sri Lanka by the Cholas, probably in 1217 A.D.

The Portuguese were the first Europeans to secure a footing in Sri Lanka in 1505 AD. They ruled the coastal areas of Sri Lanka from May 29, 1597, on which day Philip-I of Portugal was proclaimed as king of Kotte, and was continued to be called so until they were expelled by the Dutch in 1658 AD.

The British conquest of Sri Lanka began in 1795-1796 when they captured the areas controlled by the Dutch. By 1815, the British had gained control of the Kandyan Kingdom. During 1817-1818 AD, the British consolidated their hold on Ceylon when they crushed the great Kandyan rebellion.

The British eliminated all restrictions on the economy. Plantation agriculture demonstrated an extraordinary resilience over the three decades from 1880 to 1910. When the pattern of the island's economy was finally established an overwhelming dominance of three crops namely tea, rubber and coconut became evident.

In the nineteenth century, Tamil workers migrated seasonally to the coffee, tea and rubber plantations. Their migration to the island
reached a maximum when their percentage to the total population of the island became more compared to that of natural increase. There was not much of mutual suspicion between the two communities, but yet effective social assimilation was not achieved.

2.2.1 Constitutionalism and Nationalism

The Colebrooke Commission of 1833 initiated many for reaching reforms in Sri Lanka. Foremost among them was the establishment of a Legislative Council and an Executive Council. English was made the official language and medium of instruction in schools. Regional and communal associations were founded and proposals for constitutional reforms, passed in 1910, retained their old structure with an appointed executive and a legislature with an appointed majority.

In 1919, the Ceylon National Congress was formed by the elite of the Sinhalese and the Tamils. But within a few years it had disintegrated because of the dissension between the two ethnic groups. The relatively smooth operation of the Donoughmore constitution and the co-operation of the Sri Lankan minister during World War II made the colonial government look with favour on Ceylon's demand for self-government.

In response to pressures from Ceylonese nationalist leaders, the British in 1945 appointed the Soulbury Constitutional Commission, which drafted a constitution that gave Ceylon internal self-government, retaining some imperial safeguards in defence and external affairs.
In 1947, the remaining restrictions were removed, by the Ceylon Independence Act of 1947. Sri Lanka became an Independent dominion and a member of the Commonwealth on February 4, 1948.

2.3. PHYSICAL SETTING

2.3.1 Relief

The relief of the island is dominated by a highland massif situated in the southern central part of the island. This is surrounded by an intermediate zone consisting of upland ridges and valleys, which are separated from massif by well-defined scraps. The intermediate zone, in turn, is surrounded by an outer or lower coastal zone, except in the southwest, where the land merges directly into the sea in the form of cliffs. Elsewhere there is a coastal fringe consisting of a series of lagoons, dunes, marshes, sandbars and peninsulas. Nearly five-sixth of the country lies at an altitude of less than three hundred and thirty meters.

The land surface of Sri Lanka rises, by a series of steps, from coastal lowlands to the upcountry in the south central part of the island. Land about one thousand five hundred meters occupies a broken north-south axis and accurate east-west axis in the upcountry, this elevated land resembles an anchor with a north-south shaft. The highest point in the country is Pidurutalagala, at two thousand five hundred and twenty-four meters, and in the centre of the upcountry, where there are steep hill slopes and deeply trenched valleys of great scenic beauty,
interspersed by areas of plateau and gentler slope, Uva and Kandy basins.

The coastal lowlands are for the most part gently rolling until they near the upcountry. However, isolated rock masses, some of them large and imposing, rise from the lowlands, particularly in the eastern and north central part of the islands. The lowlands are narrowest in the west and southwest, of moderate width in the east, and of greatest extent in the north, where they are less undulating and may almost be called a plain.

2.3.2 Drainage Pattern

The drainage pattern of Sri Lanka are for the most part short and radial, rising at high or intermediate elevations and tumbling by stages to the plains. In north east area numerous minor rivers and streams cross the coastal plain. Of the more permanent rivers the Mahaweli Ganga is by far the largest. In fact in its lower reaches the Mahaweli consists of a complex of tributaries, a major channel of which, the Verugal Aru, flows northeastward and then eastward to enter the sea between Valaitoddam and Katheraveli, approximately thirty two kilometres south-southeast of Koddiyar Bay.

In the eastern parts of the island, Gal Oya, Karanda Oya, Heda Oya and Wila Oya are well known rivers. Along the southern part of the coastal plain the major rivers are the Walawe Ganga, the Kandangi
Oya, the Menik Ganga and Kumbukkan Oya. The lower course of the Walawe Ganga flows in a relatively steep sided, narrow valley.

The head-waters of the Walawe Ganga, kuda oya and Diyatalawa Oya, tributaries of the Kirindi Oya, are some of the head water tributaries of the Kumbukkan Oya. This area is characterized by a number of water falls. Among these may be mentioned Laksapana Falls on the Maskeliga Oya, Gartmore Falls on a tributary of the Battulu Oya draining Gartmore Valley, Adam’s peak falls on the Battulu Oya itself, Dotulu Ealla Falls and Dotulu Ellafalls on the Naye Ganga and Divanella and Uraella Falls on a tributary of the Walawe Ganga.

In the central part of island the main stream is the Nalanda Oya draining into Nalanda shelf in south. Its headwaters rise at the south end of the plateau, where it is called the Dewilla Oya. One of the tributaries called Ambokka Ganga drains the western part. The northern part of the plateau surface is drained southward by a tributary of the Nalanda Oya.

The river in the west and northwest are the Rakwane Ganga, the Delwale Ganga, the Koswatta Ganga, the Delgoda Ganga and Wewa-Kundasale-Koslanda Ganga. All are headwaters of the Kala Ganga. The Gin Ganga and the Nilwala Ganga drain the southern part, and the Walawe Ganga, the eastern margin. In the latter case, the drainage area is relatively small and being adjacent to the dry zone, does not receive as much rainfall as the hills to the west.
2.3.3 The Coastal Plain

The coastal plain of Sri Lanka has been divided into four parts: They are the Mannar coastal plain, the Trincomalee coastal plain, the Pottuvil coastal plain, and the Bentota coastal plain.

The Mannar coastal plain extends in the west and north west of the island from the kelani Ganga at Colombo on the south, to the Jaffna lagoon on the north. It's very irregular sandy beach is developed by long-shore drifting and currents.

Della's occur along this coast, primarily where rivers flow into large lagoons. The Mannar island is the largest and is part of Adam's Bridge. Along the coast, and island from the shore, sand dunes are common. The Mannar coastal plain presents a monotonous vista of scrub jungle and low, swampy stream valleys. In addition, erosion is limited by the dense vegetation along the banks.

The Trincomalee coastal area extends in the east and the north east of the island from the Maduru Oya, at kalkudah on the south, to the Jaffna peninsula on the north. The coastal plain shoreline is very smooth and with the exception of Koddiyar Bay at Trincomalee, the channels around the islands west of Jaffna, and Jaffna lagoon, does not have any major indentations. Numerous lagoons have been in the coast and they may be due to the combined action of waves and long-shore currents, caused by the north-east monsoon. Well known lagoons are Upaar lagoon, Ullackalle lagoon, Kokkilai lagoon, Nayaru
lagoon and Nanthi kadal. At Keerimalai and Kankesanturai on the north coast of Jaffna peninsula the limestone forms low sea cliffs of the order of fifteen metres in height.

The Trincomalee coastal plain, is essentially a low, flat plain characterized by sandy wastes covered by scrub jungle in the south and palmyra palms in the north.

The Pottuvil coastal plain extends in the east, from the Maduru Oya and Kalkudah on the north, to the Kirama Oya at Tangalla on the South. The Pottuvil Coastal Plain consists of a relatively narrow rock floored, low lying strip of land, bordered on the coastal side by sand dunes and an almost continuous sand bars of varying width from one and half to two and half kilometres. The shoreline-forming bars had their surfaces modified by wind action to form sand dunes.

Along the southern part of the coastal plain, the major rivers, are the Walawe Ganga, the Kirindi Oya, the Menik Ganga, and the Kumbukkan Oya, flows directly into the sea across old lagoons silted up by the large sediment load brought down by them.

The Bentota coastal plain extends in the south west of island from the Kirama oya at Tangalla on the south, to the Kelani Ganga at Colombo on the north. This coastal plain of Sri Lanka is different from other coastal plains, and it consists almost entirely of drowned river valleys. The rivers of the Bentota coastal plain drain an area with the highest rainfall on the island and as a result, have an exceptionally
high flow. During the southwest monsoon, they frequently overflow their banks and flood the surrounding lowland.

The Bentota coastal plain consists of a complex network of low, flat, alluvium-filled, drowned valley bottoms separated by strike ridges. Near the coast, low, rounded, deeply weathered interfluves are common. Where the coastal plain extends up relatively narrow valleys, the interfluves may be steep-sided, hog-back strike ridges.

2.3.4 Soils

The soils of the wet zone, both lowland and upcountry, are classified as red-yellow podzolic. These soils are developed on a wide range of parent materials and in many differing topographical situations, and a number of sub-groups may be recognised. Red-yellow Podzolic share the relatively low fertility of many soils of the humid tropics. They do, however, support such cash crops as tea, rubber, and coconut, especially with adequate fertilizer on steeper slopes throughout the hill areas, soil tend to be of unweathered rock fragments or at least immature.

In the lowland dry zone wide areas of the northern and southern dry zone, and much of the east, there occur soils classified as 'reddish-brown earths'. Some of these soils are more fertile than most tropical soils but, partly because of their low moisture-holding capacity, are not easily cultivated.

Infertile and 'red-yellow latosols' cover the sedimentary rocks of the northwest. They retain water very poorly, have rarely been
used in traditional agriculture and will be difficult to develop. A calicic Red yellow lolosals, a variant of these soils, occurs in the Jaffna Peninsula. In the eastern dry zone there are stretches of brown earths that are leached infertile.

Minor soils in Sri Lanka include Tendzinas on crystalline limestone, and 'gurmusols' akin to black cotton soils in certain northwestern dry zone localities.

2.4 CLIMATE

2.4.1 Temperature

Sri Lanka is an island country, located close to Equator. It is only two hundred and forty kilometres wide and thus cool sea breezes moderate the heat of the low land. The hill country in the central region has a cooler climate.

The southwest monsoon prevails from May to October, and the northwest monsoon from December to March. Monsoon rainfalls are known for uncertainty and make agriculture difficult.

In Colombo for instance, the mean monthly temperature in the coolest month, December is 26°C and in the warmest month May, it is 29°C. Trincomalee has an average 31°C in May, and over 29.5°C in both April and June. Mannar and Jaffna both exceed 29.5°C in April and May and Batticaloa in June. In the central highland, temperatures fall with increasing elevation; here at one of the highest
SEASONAL RAINFALL

(FIRST INTERMONSOON SEASON)
MAR. - APR.

(a)

(SOUTH-WEST MONSOON SEASON)
MAY - SEP.

(b)

(SECOND INTERMONSOON SEASON)
OCT. - NOV.

(c)

(NORTH-EAST MONSOON SEASON)
DEC. - FEB.

(d)
town on island, Nuwara Eliya, (One thousand one hundred and eighty metres) the mean temperature in the coolest month, January, is no more than $14^\circ C$ and in the warmest month, May $17^\circ C$. The average annual temperature ranges in Sri Lanka; varies between $1.5^\circ C$ and $3.3^\circ C$ only.

## 2.4.2 Rainfall

Sri Lanka is a small island; still the distribution of rainfall is not uniform. Varying from more than two hundred inches [Five thousand millimeters] to less than four inches a year in different parts.

The whole of Sri Lanka as it stands today is divided into twenty four districts and of these twelve qualify to be considered as part of the dry zone and other part of the Sri Lanka called as wet zone. Names of dry zone areas are Puttalam, Anuradhapura, Polonnaruwa, Monaragala, Hambantota, Amparai, Batticaloa, Trincomalee, Vavuniya, Mannar, Mullaitivu and Jaffna.

Rainfall in Sri Lanka may be classified into three types as monsoonal, conventional and depressional.

**Four** rainfall seasons distinguishable in Sri Lanka are$^{15}$:

(i) March to Mid-May - First Intermonsoon Period.

(ii) Mid May to September - South West monsoon;
(iii) **October** to November - Second Intermonsoon period;

(iv) December to February - North East monsoon; and

This seasonal rhythm, combined with the salient features of Sri Lanka, explained sharply the contrasting climatic regions of the country. Thus the southwest lowlands between the hills and the sea, form the wet zone, which in the normal year receives rainfall from both monsoons, and less reliable rain during the two intermonsoon periods. February tends to be drier in most places, and there is by no means an equal division between the other months. There is usually high atmospheric humidity, on the west-facing hill slopes there is an upcountry wet zone, with temperatures increasingly moderated by altitude. Some exposed areas receive more than two hundred inches \[\text{five thousand one hundred millimetres}\] of rainfall annually.

In the low land dry zone, there is a marked, but not completely reliable maximum rainfall during the northeast monsoon, especially from October through January, but a searing drought during the southwest monsoon, from June to September. In the intermonsoon periods rain is not reliable. Mean annual rainfall in the dry zone tends to be less in the wet zone, generally below Seventy five inches \[\text{nineteen thousand millimetres}\] and below fifty inches \[\text{one thousand three hundred millimetres}\] along the northwest and southwest coast\(^16\). Nevertheless, the lowland dry zone has a mean annual rainfall well above the limit of aridity. However, its dry season does bring in seasonal aridity and low humidity.
In the eastern hills and Uva basin there is an upcountry dry zone, with a seasonal rhythm similar to that of the low land dry zone.

2.5 HUMAN RESPONSES (RESOURCES)

2.5.1 Settlement in Sri Lanka

Sinhalese settlements were largely concentrated in the dry zone, especially in the region round Anuradhapura and later Polonnaruwa. They developed around water bodies. The waterbodies were used for the cultivation of rice. Thus a series of settlements around the waterbodies especially tank and rivers developed in course of time. The preponderance of place name sending in 'wewa' and 'kulam' may indicate this. After Tamil invasion the kings over Jaffna and north, forced the settlement in the wet zone and in the lower hills, especially around Kandy.

After the invasion of the Portuguese, and Dutch, the settlement pattern of the island, got modified. Trading settlements like Colombo, Mannar, Jaffna and Batticaloa developed and they formed the urban forces. The British helped to form plantation settlements in the hilly area of Sri Lanka, and this brought about the estate work settlements in the western and south western part of Sri Lanka.

2.5.2 Transport

The transport assets of any country reflects its historical, physical, environmental and economic aspects. Sri Lanka has a good road system. The surface roads are in the western lowland, the
southern central highlands, and in the Jaffna Peninsula in the north. There used to be a ferry service too from Mannar island to Pamban Island, India.

The railways serve the flat, low country, the central hill areas, and the Kelani valley in the southwest. The railway has a total rolling stock of two hundred and sixty four locomotives, two thousand three hundred and thirty one carriages and five thousand one hundred and thirty four wagons. The railway network has a total route of One thousand four hundred and fifty three kilometers.  

Colombo is the principal port. Location wise, Colombo is of overwhelming importance as it lies on the main shipping lines to the Far East and Australia. It is also the centre of the country’s economic activity. Other ports are Trincomalee on the East Coast and Galle on the south coast. Galle handles the overflow of commercial shipping from Colombo. Trincomalee is one of the finest and largest harbour in the world. It was formerly a British naval base and now handles some of the island’s export trade.

There is an International Airport at Colombo. Air Ceylon maintains both international and domestic services.

2.5.3 General Population Characteristics

The population of Sri Lanka was 14,988,000 in 1981. In 1971 the population was 12,711,143. It was estimated at 17.0 million as of
mid 1990. The annual growth rate during 1981-89 was 1.4 percent and was estimated at 1.1 percent in 1990 Sri Lanka ranks ninety Sixth in the world in this respect.\(^1\) Sri Lanka ranks forty sixth in the world in the size of the population.

By 1980, the population density was more than five hundred and eighty persons for two hundred and twenty per square kilometre.\(^2\) About seventy percent of the people live in the island's western area [the so called 'wet zone'], which accounts for about three quarters of the cultivated lands and most of the country's industries. The dry zone area of the north, north centre, east and southeast are more sparsely populated. A state-sponsored colonisation of land in the Northern, Central and Eastern district has resulted in a slight increase in population in these areas. Since 1950 the net flow of migration has been outward. Following an agreement with the government of India 5,25,000 Indian Tamils were repatriated back to India.

The population growth is slow. The growth rate during 1946 was 1.7 percent; after 17 years, in 1973 the growth rate was 2.0 percent; and in 1989 it came down to 1.2 percent. The birth rate in 1946 was 37.4 percent, 27.9 percent in 1973 and it reduced during 1989 to 21.3 percent. The birth rate is slightly above. It still outstrips the death rate in Sri Lanka.

Since 1977 the government had a stronger commitment to population control. Family planning services have been integrated with
maternal and child care services to form the national family health system\textsuperscript{21}. And the legal age for marriage has been raised to eighteen for women and twenty one for men.

The educational system was given high priority by the government after Independence. Primary school is effectively universal. In 1988 secondary school enrollment was 71 percent and 4 percent of the eligible population was receiving higher education.