

# Social Studies and History

Grade 9





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# **Social Studies and History**

**Grade 9**

**Educational Publications Department**



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## THE NATIONAL ANTHEM

Sri Lanka Māthā

Apa Srī Lankā Namō Namō Namō Namō Māthā

Sundara siri barinī surāṇḍi athi sōba māna Lankā

Dhānya dhanaya neka mal palathuru piri jaya bhoomiya ramyā

Apa hata sapa siri setha sadanā jeevanayē māthā

Piliganu māna apa bhakthī pooja Namō Namō Māthā

Apa Srī Lankā Namō Namō Namō Namō Māthā

Oba vē apa vidyā

Obamaya apa sathyā

Oba vē apa shakthī

Apa hada tula bhakthī

Oba apa ālōkē

Apa gē anu prāṇē

Oba apa jeevana vē

Apa muktiya oba vē

Nava jeevana deminē nithina apa pubudu karan māthā

Gnāna veerya vadawamina rāgena yānu māna jaya bhoomi karā

Eka mavakage daru kāla bāwinā

Yamu yamu wee nopamā

Prema wadā sama bhēda dhuraradā

Namō Namō Mathā

Apa Srī Lankā Namō Namō Namō Namō Māthā



அபி வெலு එක මවකගෙ දරුවෝ  
එක නිවසෙහි වෙසෙන  
එක පාවැති එක් රැකිරස වේ  
අප කය තුළ දවන

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රத் මිනී මුතු නොව එය மன සැපனா  
கிளி கர நோம டிரனா

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ஒரு தாய் மக்கள் நாமாவோம்  
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## FOREWORD

This book is the English translation of the textbook සමාර අධ්‍යයනය හා ඉතිහාසය 9 ශ්‍රේණිය which was originally produced by the National Institute of Education and published by the Educational Publications Department.

It is noteworthy that special care has been taken to use the appropriate words and language expressions to suit the grade level of the students who will be using this book. To enhance the value and the application of this book, a glossary is presented at the end of it. It will enable the students to be familiar with the technical terms and key words used in the lessons.

I appreciate very much the contribution made by the panel of translators and editors towards compiling this book within a very short period. I am also grateful to all those who helped in this publication during its production cycle.

**S. L. Gunawardhena**

Commissioner General of Educational Publications

Educational Publications Department

Isurupaya,

Battaramulla.

08.10. 2003



## Message from the Director General

An important feature of reforms in education is designing new syllabi and preparing textbooks for our schools. This textbook has been prepared accordingly. While adhering to the national education goals and basic competencies it provides opportunities for pupil centred teaching and learning.

In using this textbook, the teacher's main responsibility is to identify the learner's likes and dislikes as well as abilities and disabilities and direct him/her towards a life-long education process through self-directed learning.

Parents and elders should take an interest in their children's education and help them whenever necessary thus providing active support to both the teacher and the child.

I am grateful to all those who contributed towards the compilation and publication of this book.

**Lakshman Jayathilaka**

Director General

National Institute of Education

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## Chapter 1

# The Geographical Background of Sri Lanka

## The Location of Sri Lanka

### Relative Location



Fig. 1.1

The location of continents on the globe with Sri Lanka at the centre

The location of Sri Lanka on the earth surface is shown in the diagram above. Note the location of Sri Lanka as an island in the Indian Ocean. The Peninsula of India is situated to the north of Sri Lanka. In this diagram you will be able to see how the Indian Peninsula and Sri Lanka are separated. India and Sri Lanka are two countries in the continent of Asia. You will be able to see that Sri Lanka is centrally located in the Indian Ocean and is surrounded by the continents of Asia in the north, Antarctica in the south, on the west by Africa and by Australia in the south-east. (The Indian Ocean can be divided into two, a western sector and an eastern sector because of the jutting out of the Indian peninsula towards the ocean and the location of Sri Lanka south of it.) This location has been an advantage to Sri Lanka in maintaining relationships with eastern and western countries from the distant past.



From the above diagram you have understood how the location of a country can be shown in terms of the oceans and land masses surrounding it. (When the location of a country is shown in this manner, it is called the '**relative location**'.)

### Specific location

Though it is possible to show the relative location of a country, it is the specific location which is considered as more scientific and precise. Here specific location means showing the location of a country in terms of **latitudes and longitudes**. It does not mean describing the location in relation to any adjoining place or a country.

By now you have identified that latitudes are imaginary lines drawn from west to east on a globe and that longitudes are such lines drawn from north to south on a globe. See figure 1.2 to determine the location of Sri Lanka in terms of latitudes and longitudes.

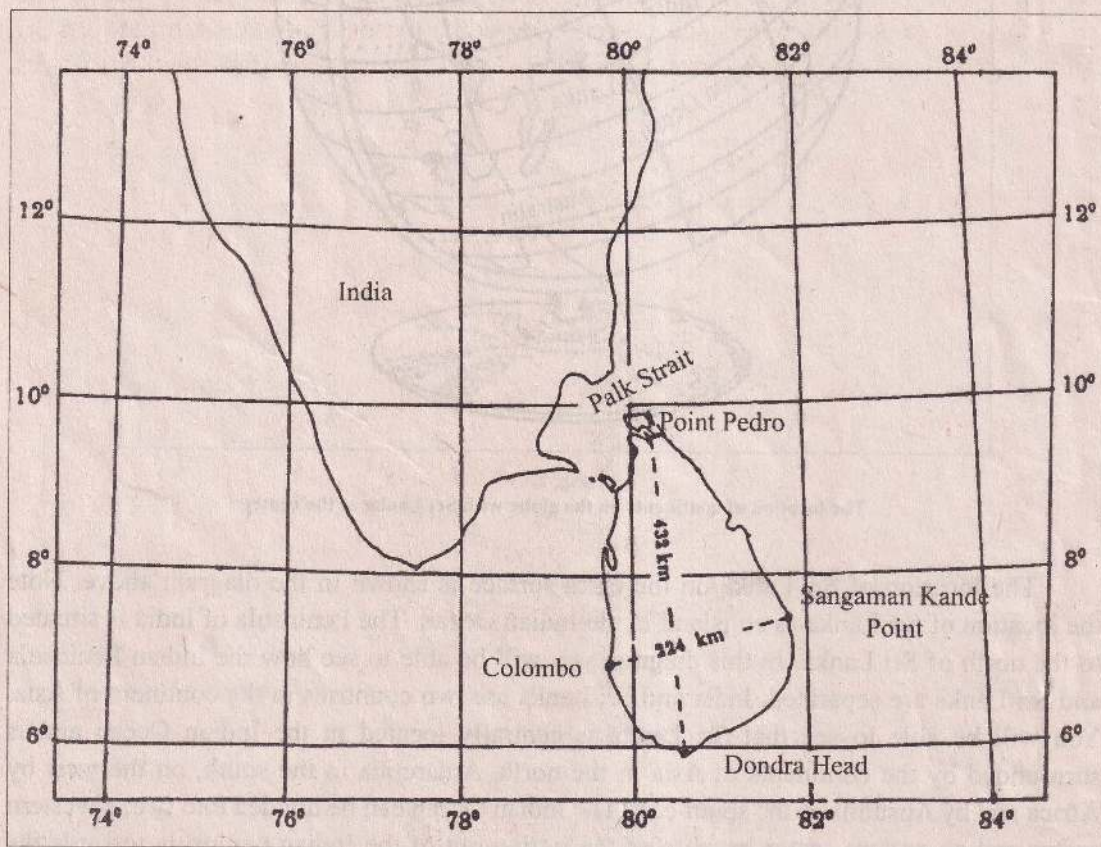


Fig. 1.2  
The latitudinal and the longitudinal location of Sri Lanka



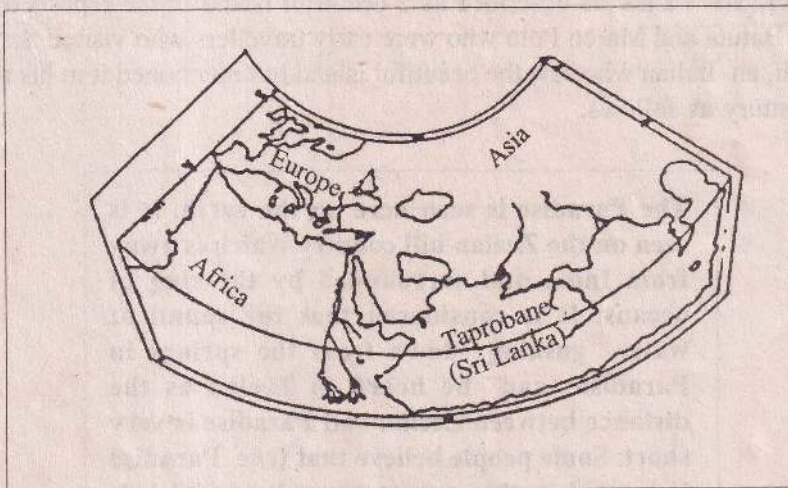
You will see in figure 1.2 that all the latitudes shown are north latitudes and all the longitudes are east longitudes.

**Sri Lanka is a country located within north latitudes and east longitudes**

Observe in which latitudes and longitudes Sri Lanka is located. Sri Lanka is located between  $5^{\circ}$  and  $6^{\circ}$  north latitudes in the south and  $9^{\circ}$  and  $10^{\circ}$  north latitudes in the north, on the west by the  $79^{\circ}$  east and  $80^{\circ}$  east longitudes and by the  $81^{\circ}$  and  $82^{\circ}$  east longitudes on the east. Accordingly, the specific location of Sri Lanka can be shown thus;

**Sri Lanka is located between  $5^{\circ}$  north latitude in the south and  $10^{\circ}$  north latitude in the north and between  $79^{\circ}$  east longitude in the west and  $82^{\circ}$  east longitude in the east.**

Study figure 1.2 again. The distance between Point Pedro and Dondra Head in Sri Lanka is 432 km. The distance between Colombo in the west and Sangaman Kanda in the east is 224 km. The maximum length and width of Sri Lanka is shown respectively. The area of Sri Lanka is about 65525 square km. Look at the narrow strait situated between Sri Lanka and India. It is the Palk Strait. The shortest distance between India and Sri Lanka is about 32 km.



**Fig. 1.3**  
**The World map of Ptolemy**

### **The influences resulting from the location of Sri Lanka**

Look at figure 1.3. It is the first map of the world believed to have been drawn by Ptolemy, a Greek national. Sri Lanka is marked as Taprobane in this map. The fact that Sri



Lanka is marked in the first world map proves that Sri Lanka has been famous in the western and eastern countries from ancient times.

In the past, various nations have used different names to refer to Sri Lanka. This also testifies that Sri Lanka was well-known in the past.

Nations	Name used
Aryans	Thambapanni
Arabs	Serendib
Greeks	Taprobane
Indians	Zelai
Chinese	Zeelan
Portuguese	Seilao
Dutch	Zeelan
British	Ceylon

Apart from these names, our island was named in accordance with the meaning such as Dharmadweepaya, the Pearl of the Indian Ocean, Rathnadweepaya and Riveira of the Indian Ocean. It also shows that many nations have shown an interest in Sri Lanka.

Moreover, Sri Lanka is described as a beautiful island in the reports of people like Fa hsien, Ibn Batuta and Marco Polo who were early travellers who visited Sri Lanka. John De Mariegnoli, an Italian who saw the beautiful island has mentioned it in his report written in the 14<sup>th</sup> century as follows:

The Paradise is seen here on the earth. It is seen on the Zeelan hill country which is away from India and surrounded by the ring of oceans. It is considered that the sound of water gushing down from the springs in Paradise can be heard in Zeelan as the distance between Zeelan and Paradise is very short. Some people believe that true Paradise is located in this mountainous land which is only second in height to Paradise (John D. Mariegnoli 14<sup>th</sup> century.)



The specific nature of the location of Sri Lanka has influenced the socio-economic, political and cultural aspects of the country.

- There were connections between Sri Lanka and India from prehistoric times. The Aryans who came from the western and eastern parts of North India formed the mainstream of the population of Sri Lanka and agriculture became the livelihood of the majority of the people.
- While Buddhism became the main religion of Sri Lanka it helped to shape the cultural pattern of Sri Lanka.
- The Tamils became a permanent community in the population as a result of the advent of Tamils from South India, getting down South Indian princesses for marriage by some kings, and also as a result of bringing soldiers from South India. This resulted in the spread of the Hindu religion, the Tamil language and customs and traditions and arts of the Tamils.
- As the traders who came from countries such as Arabia and Persia (Iran) became permanent settlers in this country, they helped in establishing their religion Islam and their customs.
- Since Sri Lanka was a centre of trade for the western and the eastern world, a number of ports which are important even today, are located in Sri Lanka.
- The Portuguese, the Dutch and the British who came to Sri Lanka subsequently established Roman Catholicism, Protestantism, the Roman Dutch Law, the plantation economy, Parliamentary system of government, surnames, words and also influenced the customs and form of dress of the people here.

The latitudinal location of Sri Lanka and its insular nature has resulted in the geographical influences as shown below:

- A uniformly high temperature prevails throughout the year because of its location in close proximity to the equator.
- As Sri Lanka is an island surrounded by the Indian Ocean, the cool ocean has an effect in lowering the high temperature.
- The convectional process occupies a prominent place in the climate of Sri Lanka because it is an island situated close to the equator.
- Monsoon winds too are a major factor influencing the climate of our country.
- The ocean currents in the Indian Ocean too influence the island.



## Activities

1. Study the following map and write down three points about the relative location of Sri Lanka.

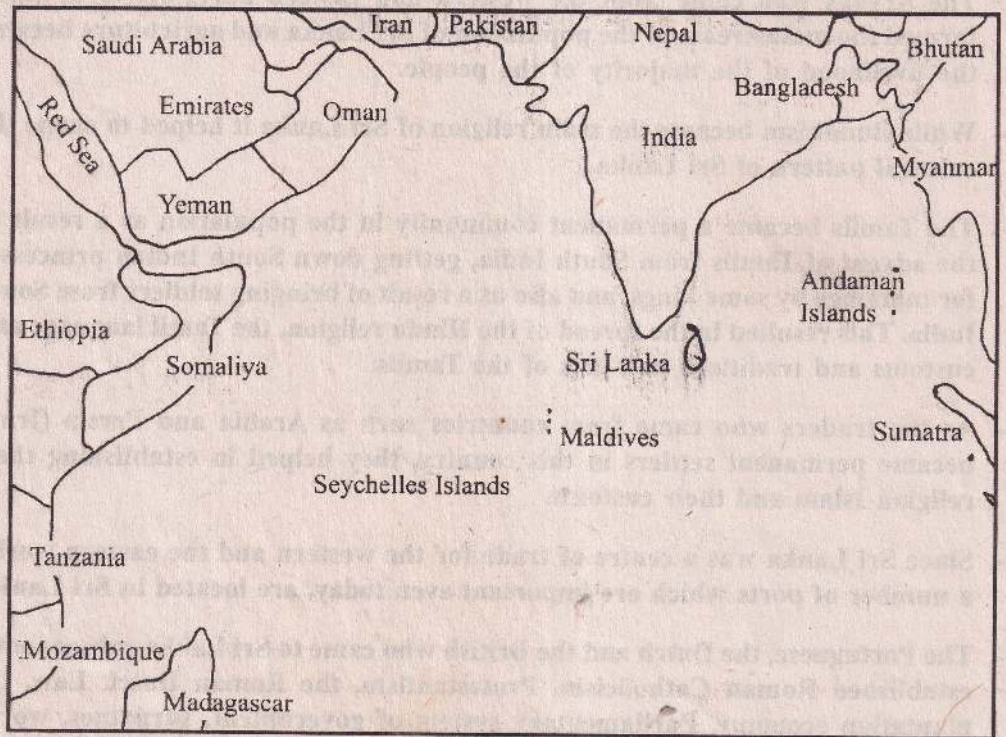


Fig. 1.4  
The relative location of Sri Lanka

2. Make a copy of figure 1.4 shown here. Mark and name Andaman Islands, Maldives, Malacca Strait, Palk Strait,  $5^{\circ}$  north latitude and  $80^{\circ}$  east longitude, (making use of an Atlas).
3. A map showing the location of Sri Lanka is given in figure 1.5. Find the correct values of AB/CD longitudes and latitudes EF/GH.

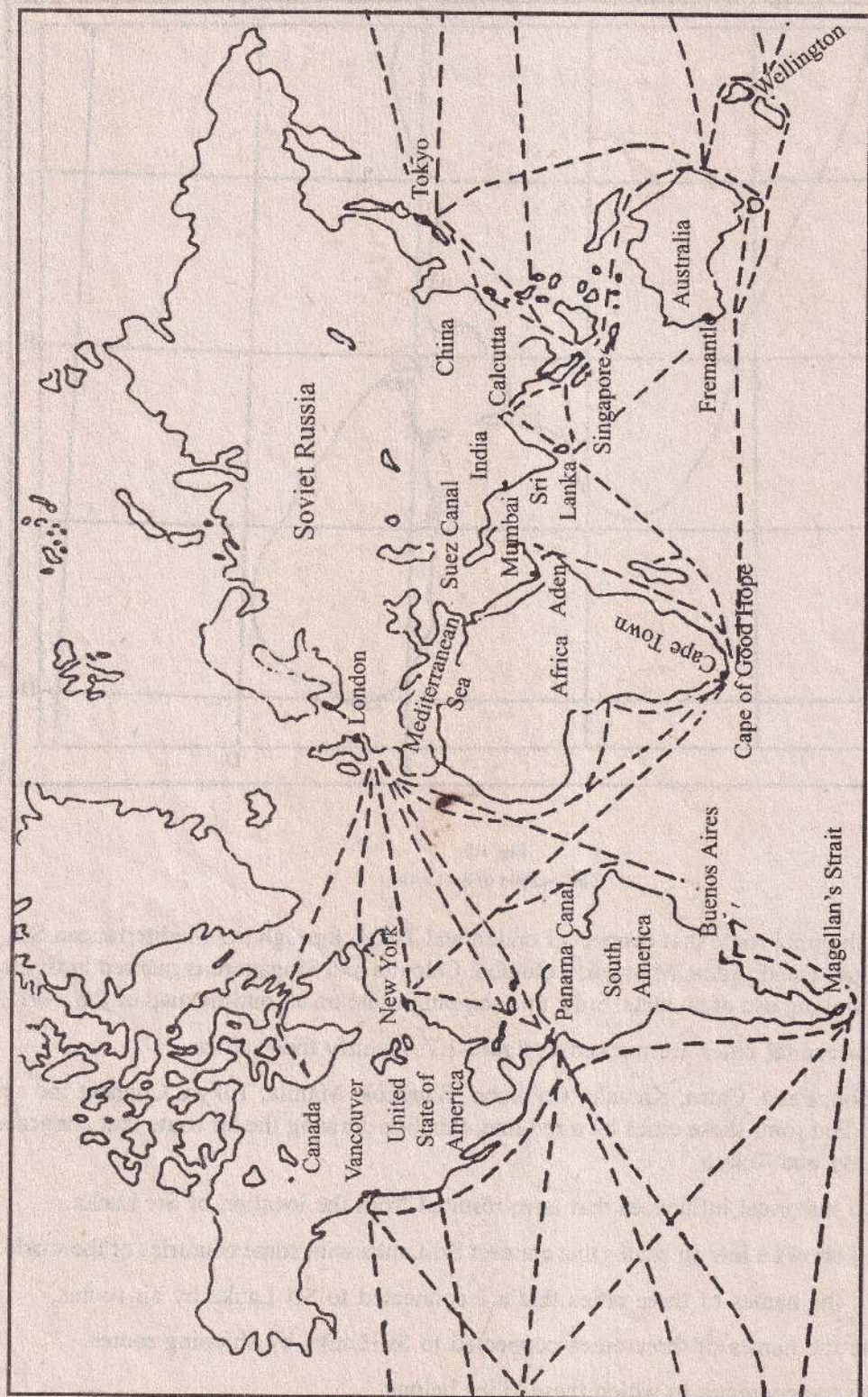




Fig. 1.5  
The location of Sri Lanka

4. i. The shipping route that connects London and Tokyo through the Mediterranean Sea, the Suez canal, Aden, Mumbai, Colombo, Calcutta and Singapore is marked in figure 1.6. Making use of an atlas, draw this shipping route on an outline map of the world.
- ii. A few capital cities are marked in figure 1.7. Identify those cities.  
London, Paris, Cairo, Karachi, Colombo, Bangkok, Manila, Tokyo. Connect the air route that joins these cities by a red line. Practice drawing the air route that connects London and Tokyo.
5. Write two historical influences that have resulted from the location of Sri Lanka.
6. Figure 1.7 shows a few air routes that connect Sri Lanka with some countries of the world.
  - i. Write the names of three cities that are connected to Sri Lanka by air routes.
  - ii. Write the names of three cities connected to Sri Lanka by shipping routes.
  - iii. Name the countries to which these cities belong.





**Fig. 1.6**  
**Shipping routes of the World**



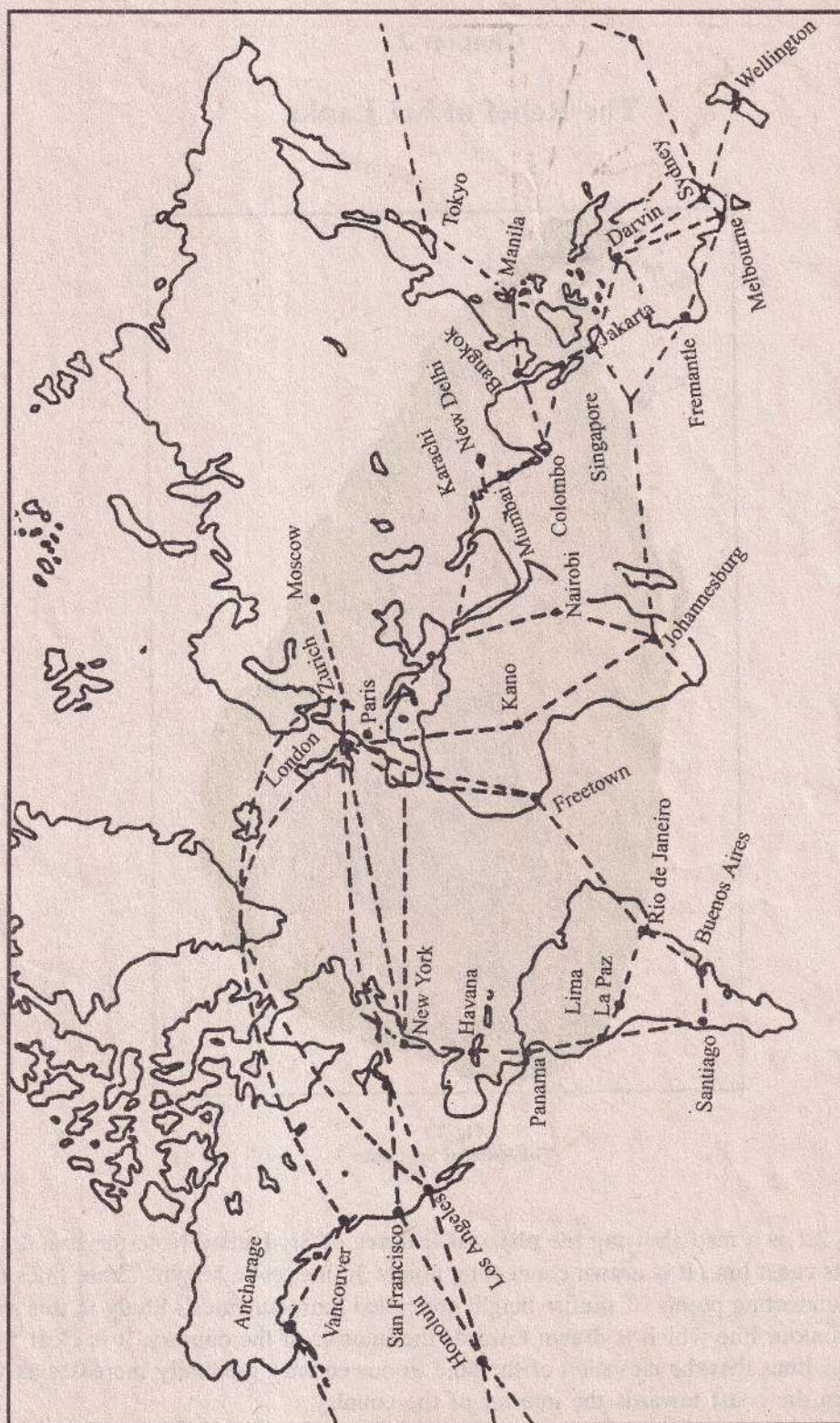


Fig. 1.7  
The main air routes of the World



## Chapter 2

### The Relief of Sri Lanka

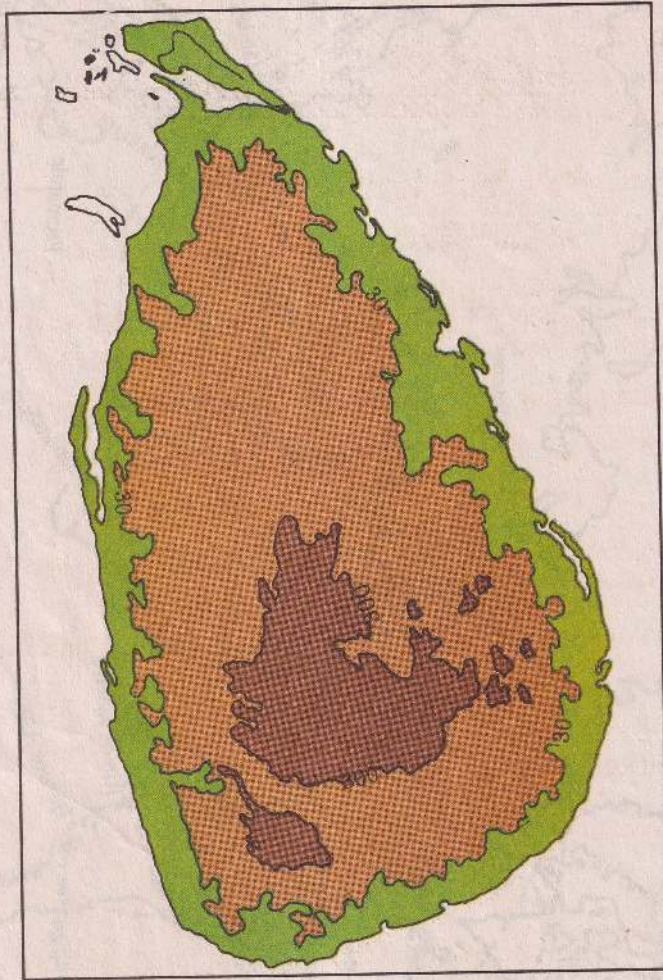
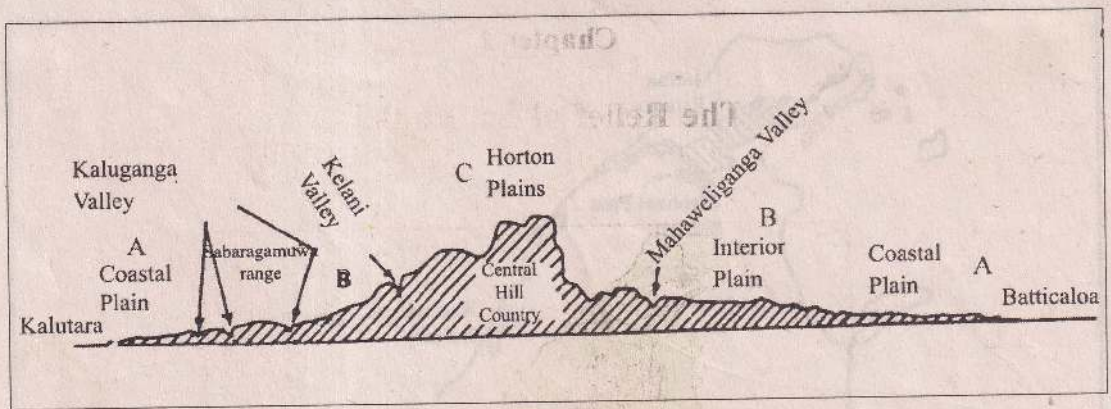


Fig. 2.1  
The Relief of Sri Lanka

Figure 2.1 is a map showing the physical features of Sri Lanka. Note the line drawn parallel to its coast line. (It is drawn connecting points 30 metres in height. These lines that are drawn connecting points of similar height are called 'contour lines') Study in this map, the 300m. contour line which is drawn towards the interior of the country. It is clear from these contour lines that the elevation of the land in our country gradually increases as you proceed from the coast towards the interior of the country.





**Fig. 2.2**  
A cross - section showing the relief zones of Sri Lanka

A sketch of a cross-section drawn along a line joining the west and the east coasts of Sri Lanka is shown in Figure 2.2. Study the three sections A, B, C as shown in it.

- A is the region up to 30 metres in height above sea level.
- B is the region which is 30 metres to 300 metres in height.
- C shows the region which is over 300 metres in height.

This diagram shows that the elevation of the land in Sri Lanka gradually increases as one proceeds to the interior of the country.

On the information presented in figures 2.1 and 2.2, Sri Lanka could be divided into three relief zones.

- \* The coastal plain
- \* The interior plain
- \* The central hill country

## The Coastal Plain

Observe the land area between the coast line and the 30 metres contour line in figure 2.1. Here you will see that the 30 metre contour line protrudes towards the interior at some places and juts out towards the coast line at other places. It is seen that the coastal plain which is about 32km wide in the north of the island becomes a narrow plain of about 3km width at some places towards the south.

There are a few special physical features in the coastal plain. These features are shown in figure 2.3.



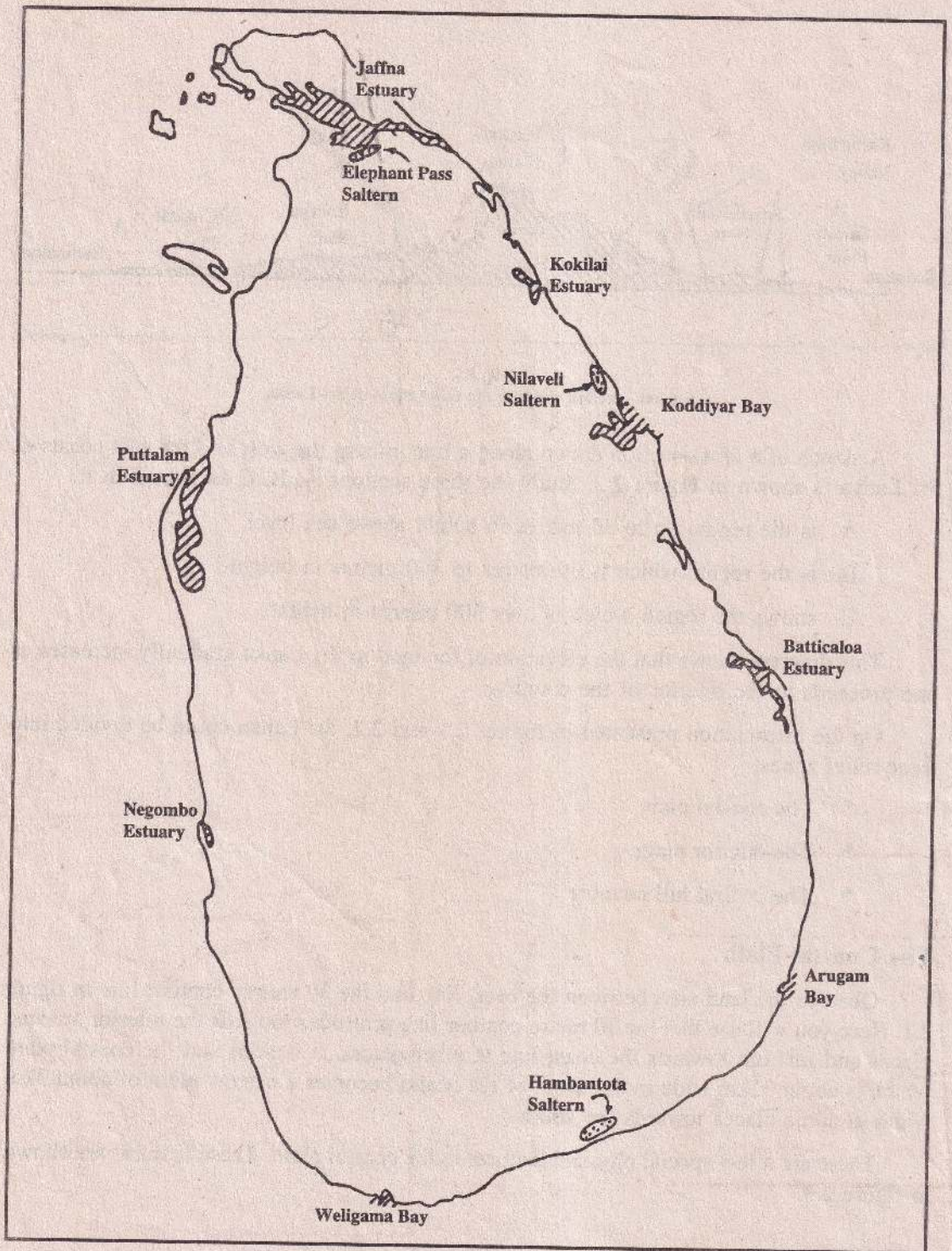


Fig. 2.3  
Coastal features of Sri Lanka I



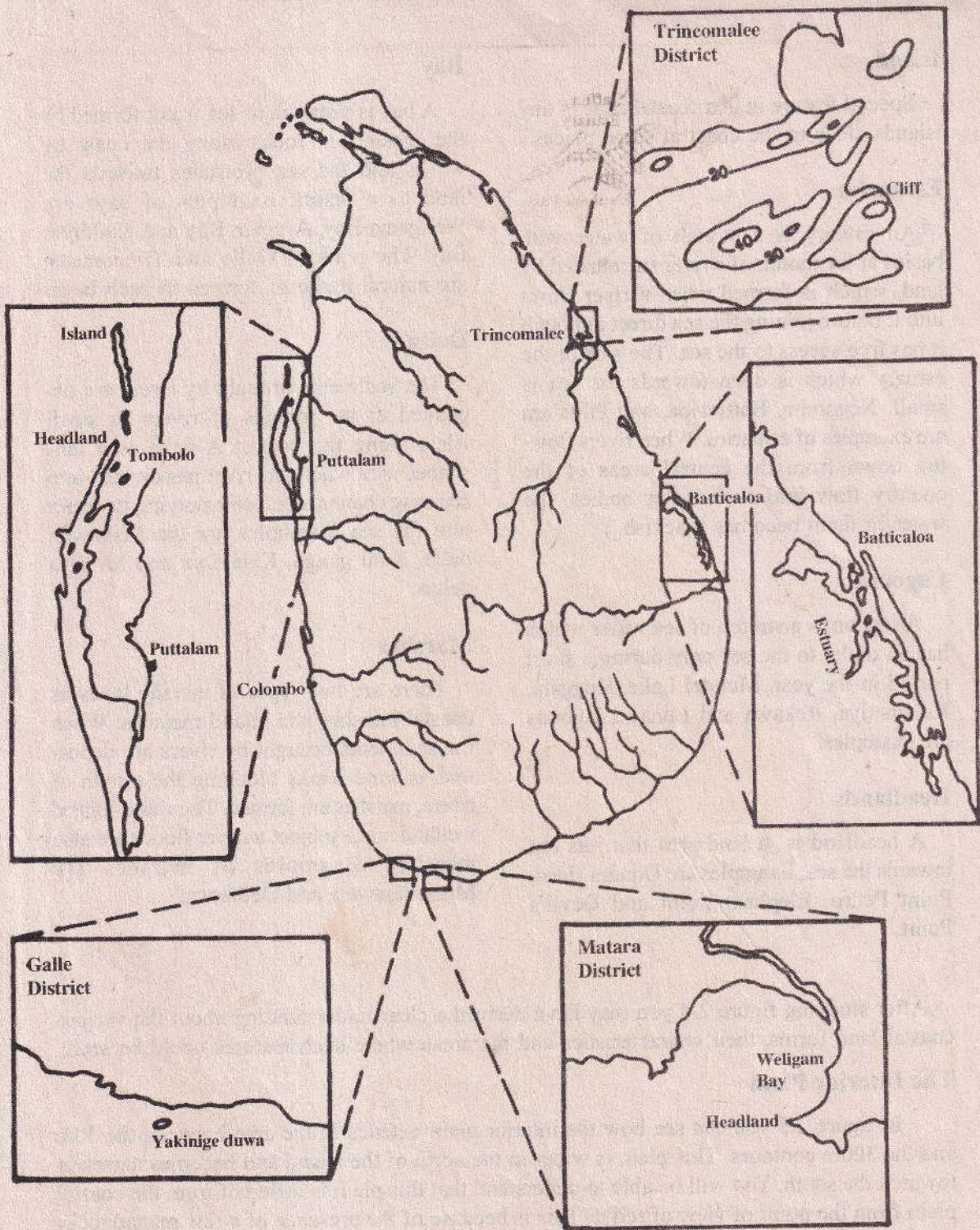


Fig. 2.4  
Coastal features of Sri Lanka II



## **Island**

Special feature in this coastal zone is tiny islands close to the coast at some places.

## **Estuaries**

(An estuary is a stretch of water with basins at the mouth of a river surrounded by land, which is formed when a river flows into it before joining the sea direct although it has free access to the sea. The side of the estuary which is open towards the sea is small. Negombo, Batticaloa, and Puttalam are examples of estuaries. When rivers flowing down from the central areas of the country flow into such water bodies, the water in them becomes brackish.)

## **Lagoons**

A lagoon is a stretch of sea water which has an outlet to the sea only during a short period in the year. Mundel Lake, Koggala, Kalametiya, Rekawa and Lunawa lagoons are examples.

## **Headlands**

A headland is a land area that juts out towards the sea. Examples are Dondra Head, Point Pedro, Elephant Point and Devil's Point.

After studying figure 2.4 you may have derived a clear understanding about the various coastal land forms, their characteristics and the areas where such features could be seen.

## **The Interior Plain**

In figure 2.5 you can see how the interior plain extends in the area between the 30m and the 300m contours. This plain is wider in the north of the island and becomes narrower towards the south. You will be able to understand that this plain is different from the coastal plain from the point of view of relief. This is because of the presence of a few monadnocks (residual hills) here and there. Apart from these residual hills another feature seen in this plain is the small ranges of hills which extend in a north-west to south-east direction. The prominent physical features of the interior plain can be identified in figure 2.5.

## **Bay**

A bay is a stretch of sea water formed by the erosion of rocks along the coast by waves and the sea protrudes towards the land as a result. Examples of bays are Weligama Bay, Arugam Bay and Koddigar Bay. The ports of Galle and Trincomalee are natural harbours formed in such bays.

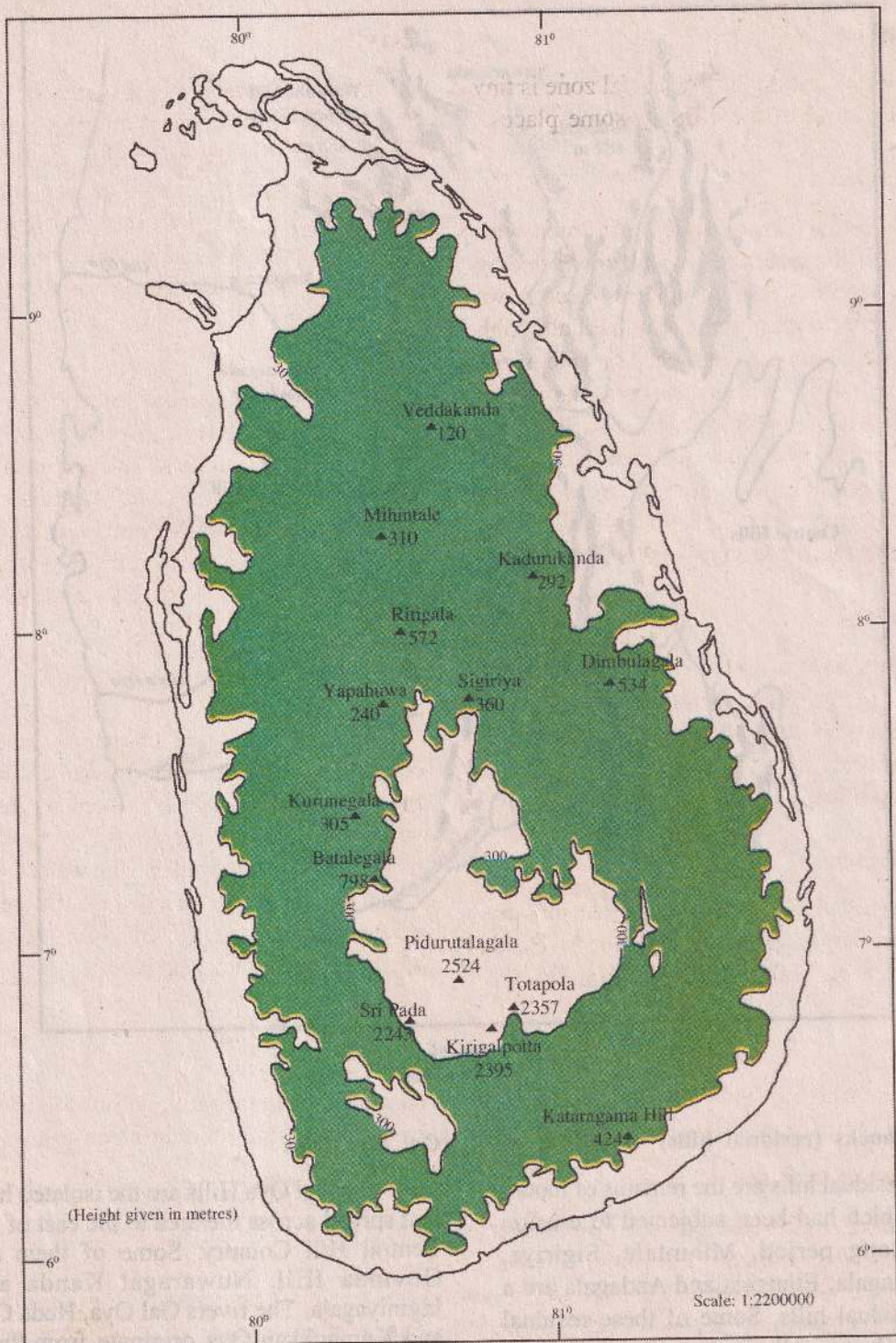
## **Delta**

The sediments brought by rivers are deposited at the mouths of rivers as small islets along the coasts. A delta is a fan-shaped area where the river has divided into separate channels before emptying its water into the sea. Examples are the Mahaweli delta, Kalu ganga, Kala Oya and Mi Oya deltas.

## **Marshes**

There are two types of marshy lands as coastal marshes and inland marshes. When the sediments brought by rivers are deposited as sand banks blocking the mouth of rivers, marshes are formed. The water-logged wetland areas subject to river floods are also marshes. Examples of marshes are Muthurajawela and Dedduwa.





**Fig 2.5**  
**The Relief of the Interior Plain**



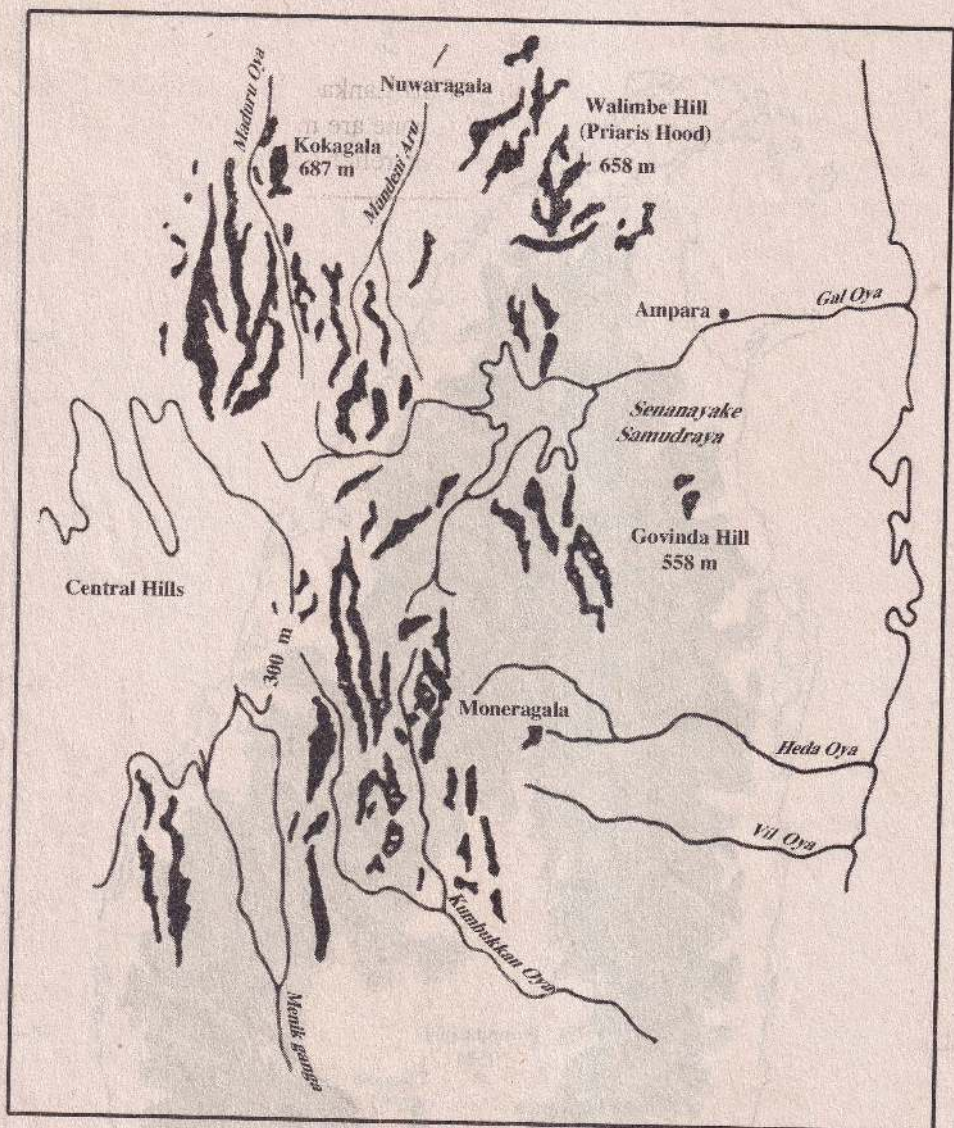


Fig. 2.6  
Gal-Oya Hills

### Monadnocks (residual hills)

Residual hills are the remains of mountains which had been subjected to erosion for a long period. Mihintale, Sigiriya, Dimbulagala, Ethugala and Andagala are a few residual hills. Some of these residual hills are historically important.

### Gal Oya Hills

The Gal Oya Hills are the isolated hills that spread across the area to the east of the Central Hill Country. Some of them are Govinda Hill, Nuwaragal Kanda and Inginiyagala. The rivers Gal Oya, Heda Oya and Kumbukkan Oya originate from these hills. The Senanayaka Samudraya (reservoir) has been built making use of the location of Inginiyagala Hill in this area.



## The Central Hill Country of Sri Lanka

Figure 2.7 shows the Central Hill Country of Sri Lanka. The general elevation of this area is over 300 metres. The special features in this zone are mountain ranges and plateaus. Therefore this region is more complex than the other relief zones.

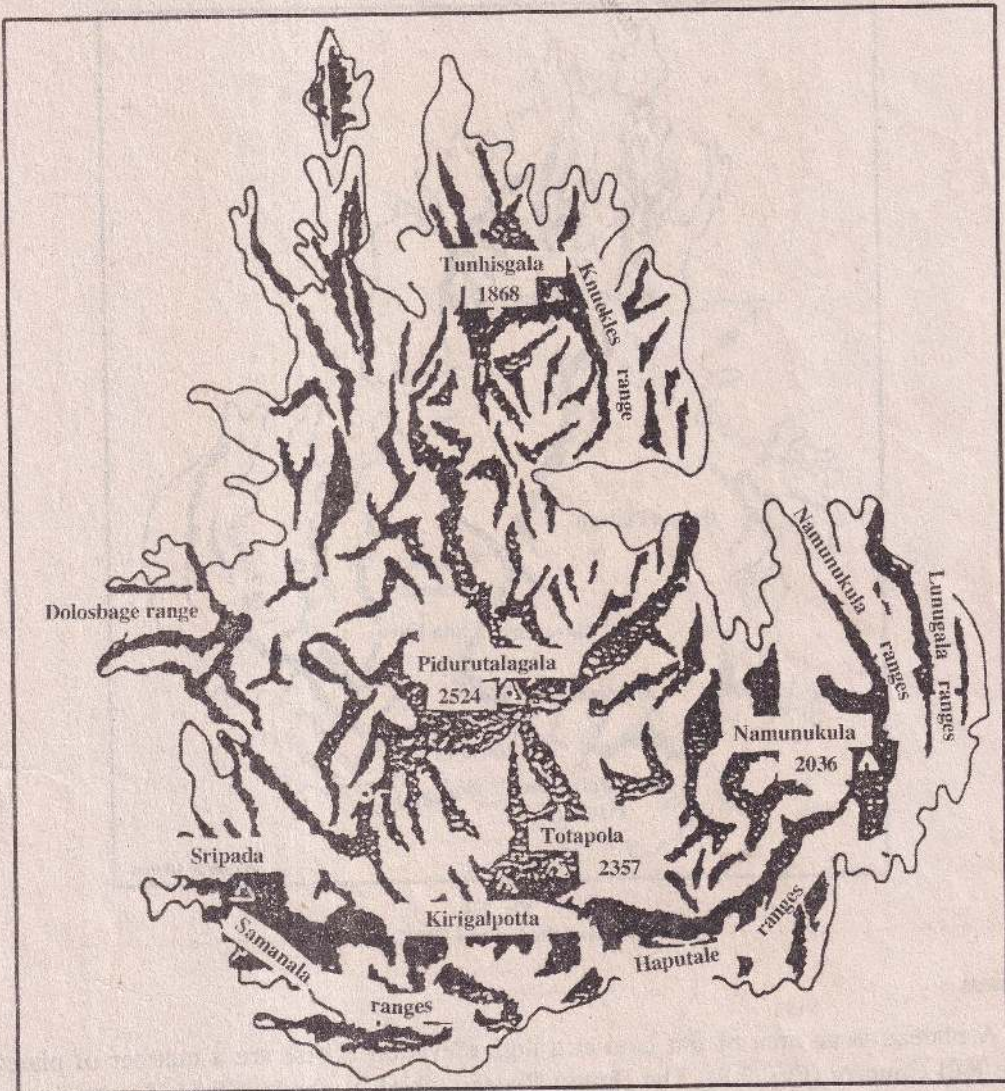


Fig. 2.7  
The mountain ranges of the Central Hill Country

### Mountain Ranges

Four mountain ranges of the Hill Country take the shape of an anchor.

On the base of the anchor the Samanala ranges are on the western side. The highest peak in these Samanala ranges is Sri Pada mountain which is 2237m in height. The Namunukula ranges are on the eastern side of the base of the anchor. The highest peak here is the Namunukula mountain which is 2035m height.



The mountains that extend from Kirigalpotta northwards up to Pidurutalagala are considered as the body of the anchor. Pidurutalagala which is the highest peak (2524m) is located in these mountain ranges.

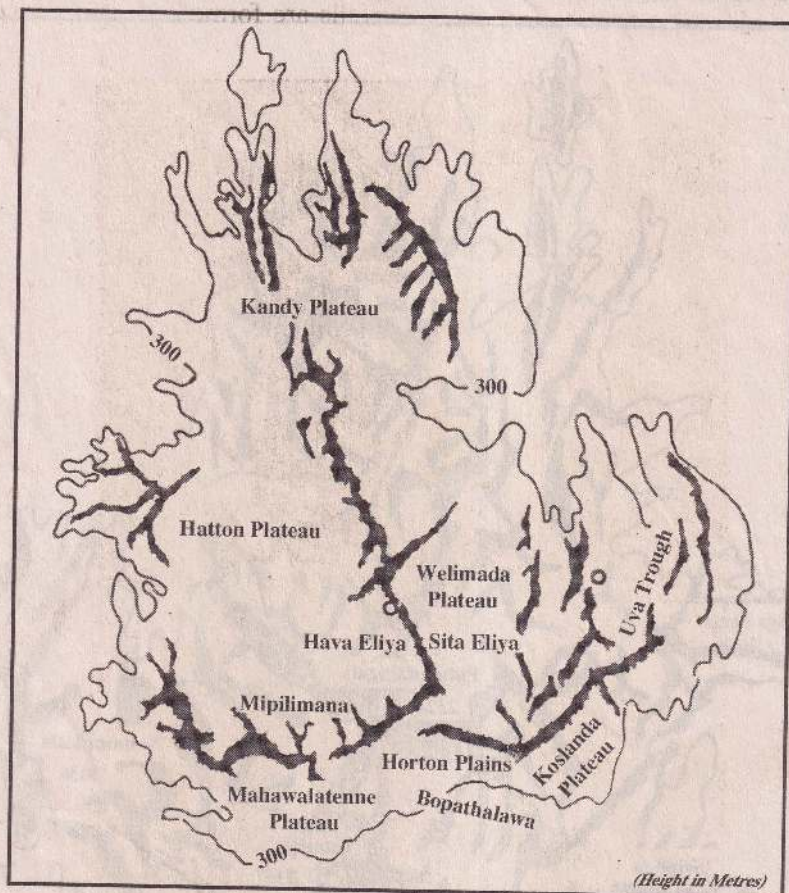


Fig. 2.8  
Plateaus of the Central Hill Country

### Plateaus

A plateau is an area of flat land at a high elevation. There are a number of plateaus in the Hill Country (Fig. 2.8). The Hatton Plateau which is about 900-1515m in elevation is bounded by the Samanala and Pidurutalagala ranges.

The Welimada plateau surrounded by the Pidurutalagala, Haputale and Namunukula mountain ranges is about 900m in elevation.

The Mahawalatenne and Koslanda plateaus are situated south of the Samanala ranges and Haputale - Namunukula mountains. Their elevation is between 300-900m. The Kandy Plateau of 600-900m in elevation is situated to the north of the Hatton and Welimada plateaus. These plateaus are situated at diverse elevations.



## Rivers

All the main rivers of Sri Lanka originate in the Central Hill Country. The four rivers Mahaweli, Walawe, Kelani and Kalu originate from the Samanala ranges. The Menik Ganga, Kirindi Oya and Kumbukkan Oya originate from the Namunukula ranges. When these rivers flow across steep slopes with hard rocks, waterfalls are formed.



Fig. 2.9  
A Waterfall

## Sabaragamu Ridges

These ridges are situated at the south-west of the Central Hill Country. These ridges are also known by other names such as the Rakwana Hills and Bulutota Hills. These ridges are separated from the Central Hills by the river valleys of Kalu and Walawe. The special feature of these ridges is that they are parallel hills running in a northwest-southeast direction. The rivers Nilwala, Gin and Bentota originate from the Rakwana Hills.



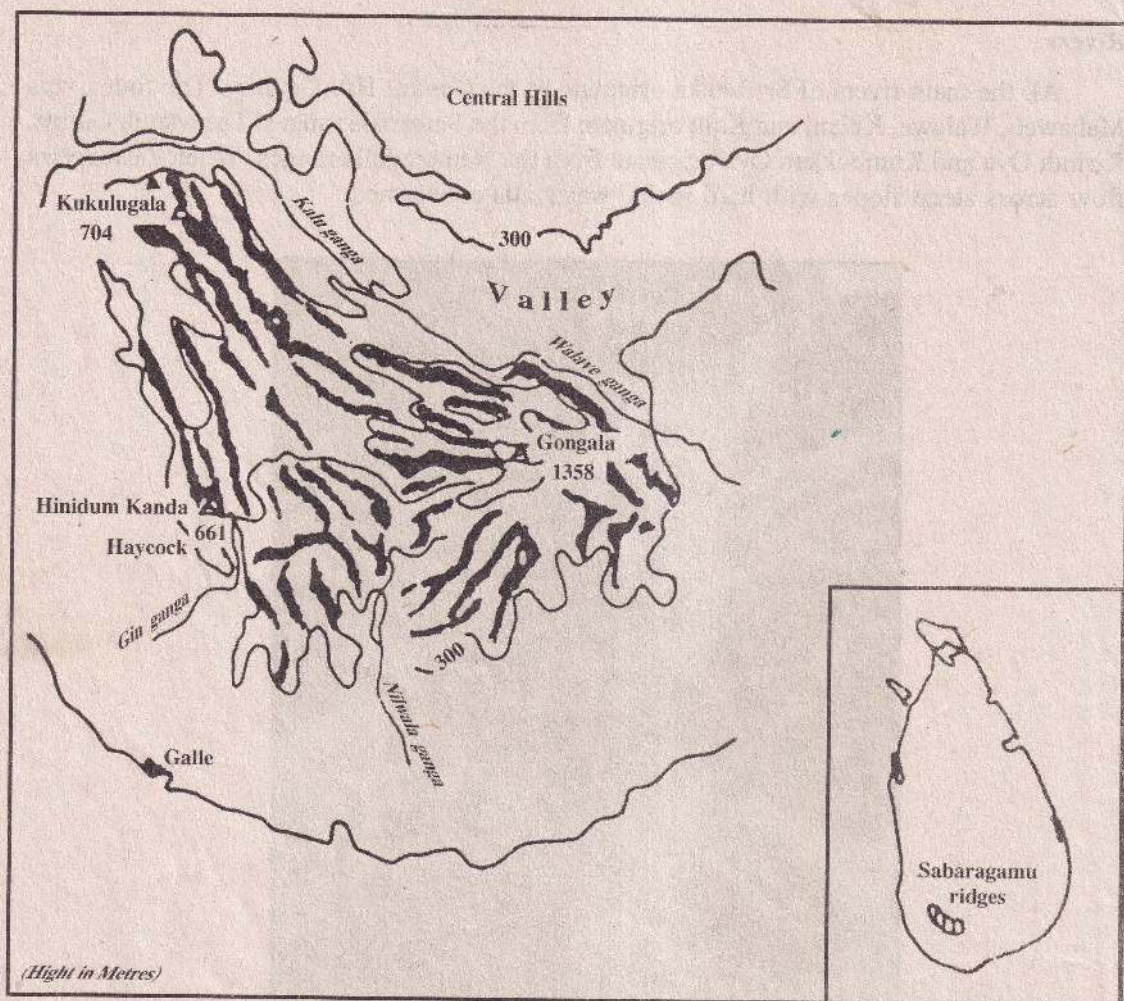


Fig. 2.10  
The Sabaragamu Ridges

### Waterfalls

See figure 2.11 which shows the waterfalls of the Central Hill Country. The areas where these waterfalls are situated are places of attraction for tourists and local visitors. They are also sources for the generation of hydro power. Therefore they have an economic value too.

The plateaus of the Central Hill Country are of varying elevations. When the rivers which originate from the mountains flow across steep slopes or escarpments waterfalls are formed. There are a number of such waterfalls. The Aberdeen and Laxapana Falls are utilized to generate hydro power.



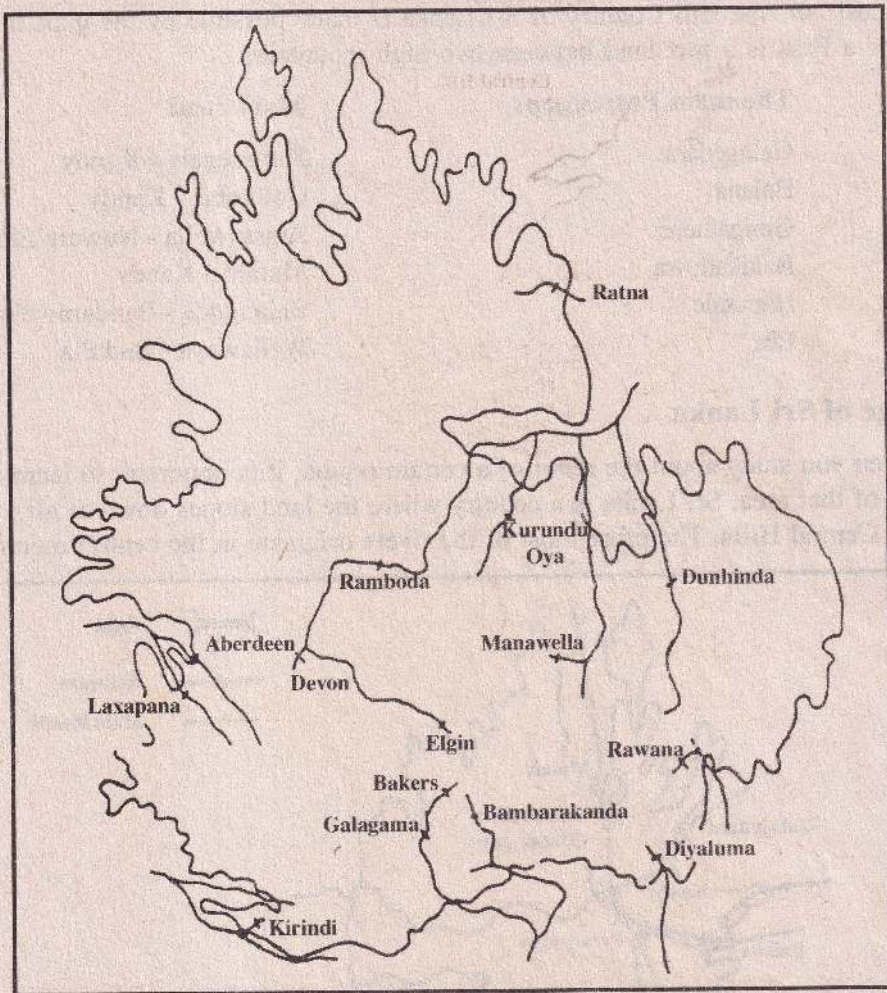


Fig. 2.11  
Waterfalls of the Central Hill Country

Waterfalls	Height in metres	The river on which falls are formed
Bambarakanda	240	Walawe Ganga
Kurundu Oya	188	Mahaweli Ganga
Diyaluma	170	Kirindi Oya
Kirindi Falls	165	Kalu Ganga
Ramboda	119	Mahaweli Ganga
Laxapana	114	Kelani Ganga
Aberdeen	90	Kelani Ganga
Devon	85	Mahaweli Ganga
Dunhinda	55.6	Mahaweli Ganga
Elgin	55.1	Mahaweli Ganga
Manawella	20	Mahaweli Ganga
Rawana Falls	07	Kirindi Oya



Access to the Hill Country of Sri Lanka is made possible by the gaps in the hills. A Gap or a Pass is a low land between two high mountains.

### The main Passes/gaps

Galagedara  
Balana  
Ginigathena  
Balakaduwa  
Haputale  
Ella

### Main road

Kurunegala - Kandy  
Colombo - Kandy  
Abyssawella - Nuwara Eliya  
Matale - Kandy  
Balangoda - Bandarawela  
Wellawaya - Badulla

## Drainage of Sri Lanka

When you study about the relief of a certain region, it is important to learn about the drainage of that area. Sri Lanka is a country where the land slopes down in all directions from the Central Hills. Therefore most of the rivers originate in the central mountains and

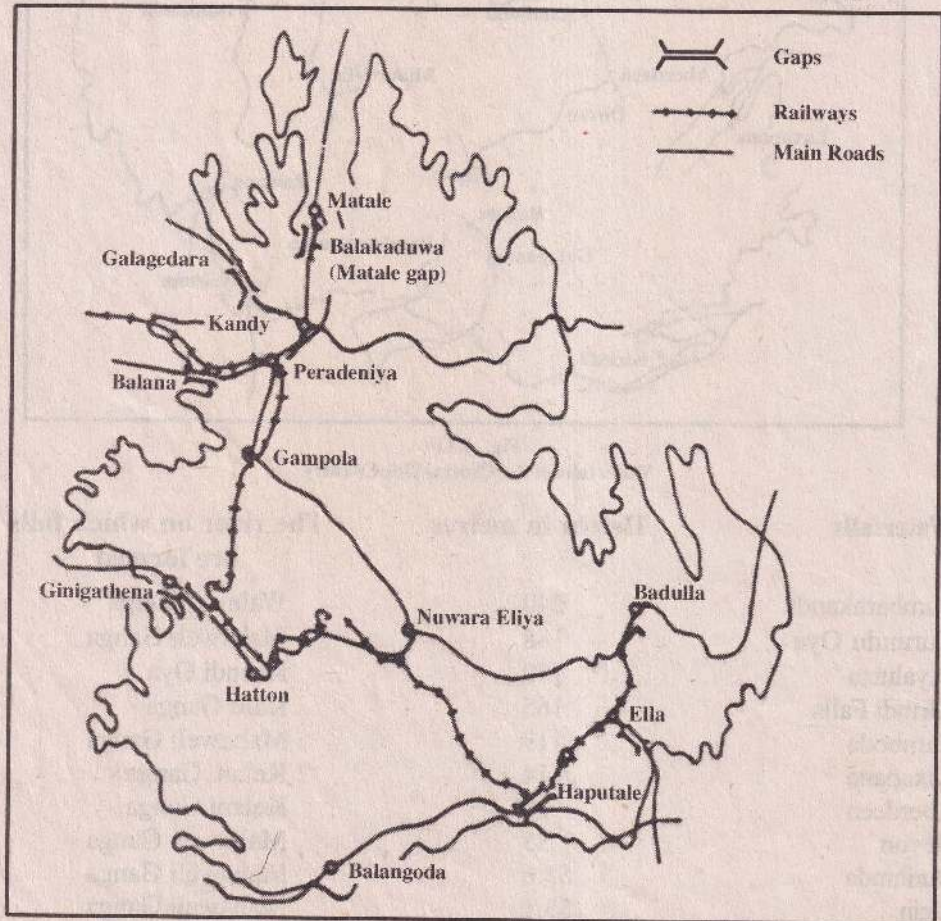


Fig. 2.12  
Mountain Passes in the Central Hill Country



flow towards the sea along all the directions. This is shown in Figure 2.13. Such a drainage pattern is called radial drainage. There are more than hundred rivers which originate in the Hill Country and flow down in all directions. In Figure 2.13 you can see 34 rivers which are considered as important.

The longest river in Sri Lanka is the Mahaweli.

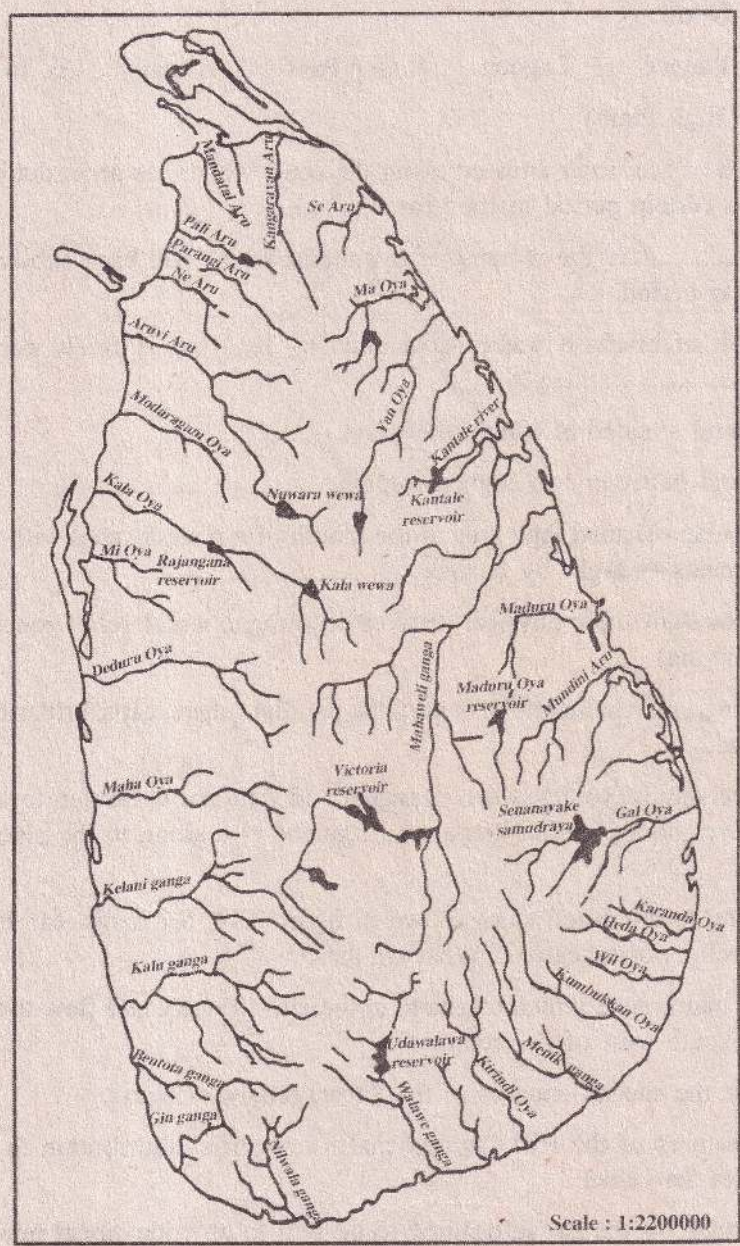


Fig. 2.13  
The rivers of Sri Lanka

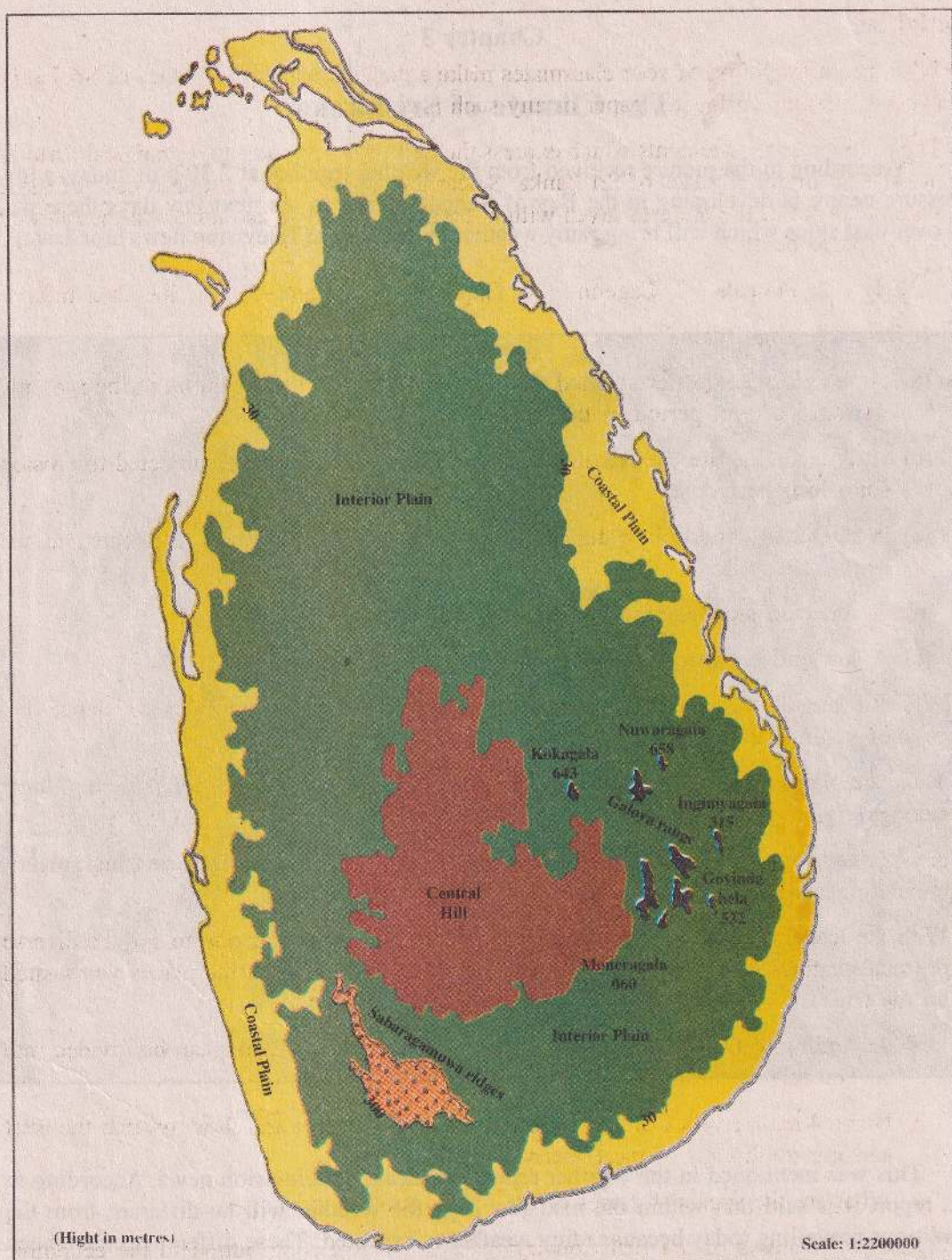


## Activities

1. With the participation of your classmates make a map showing relief zones of Sri Lanka using regifoam, cardboard, paper or any such material.
2. The following are statements which express the definitions of some topographical features in each of the relief zones of Sri Lanka. Select the feature which matches each of those statements out of the features given within brackets and write its number in the relevant blank spaces below.  
(1. Bay   2. Plateau   3. Lagoon   4. Gap/Pass   5. Estuary   6. Residual hills  
7. Delta   8. High Plain)
  - (a) A stretch of sea water situated along the coast which has an outlet to the sea only during a certain period in the year.....
  - (b) ..... are the remains of mountains which had been subjected to erosion for a long period.
  - (c) A stretch of brackish water surrounded by land but is freely connected to the sea.....
  - (d) A flat land situated at a high elevation.....
  - (e) A lowland between two high mountains .....
  - (f) A triangular - shaped land area at the mouth of a river formed with the deposition of sediments brought by a river .....
3. Make a table to show these physical features denoting to which relief zones each of them belongs (classifying)  
bay, plateau, lagoon, residual hills, waterfalls, parallel ridges, gaps, estuaries, high plains, undulating land.
4. With the leadership of your teacher arrange an educational excursion to see the diverse physical features of Sri Lanka. Prepare a magazine in relation to the places you visited on the trip.
5.
  - i. According to the relief zones shown in figure 2.14, Sri Lanka can be divided into several relief zones/regions? What are these?
  - ii. Name 4 main rivers which originate in the Hill Country and flow towards the west and the south-west of the country.
  - iii. What are the special features of the Sabaragamuwa ridges?
6. "The relief features of the Hill Country make a specific contribution to the economic development of Sri Lanka."

Prepare an article on the above heading to be sent to an educational newspaper.





**Fig. 2.14**  
**Relief Zones**



## Chapter 3

### The Climate of Sri Lanka

“According to the picture received from the weather satellite at 2.30 p.m. today, a low pressure centre is developing in the Bay of Bengal. Hence in the next few days there will be over-cast skies which will bring rainy weather to Sri Lanka (Television news broadcast)”.

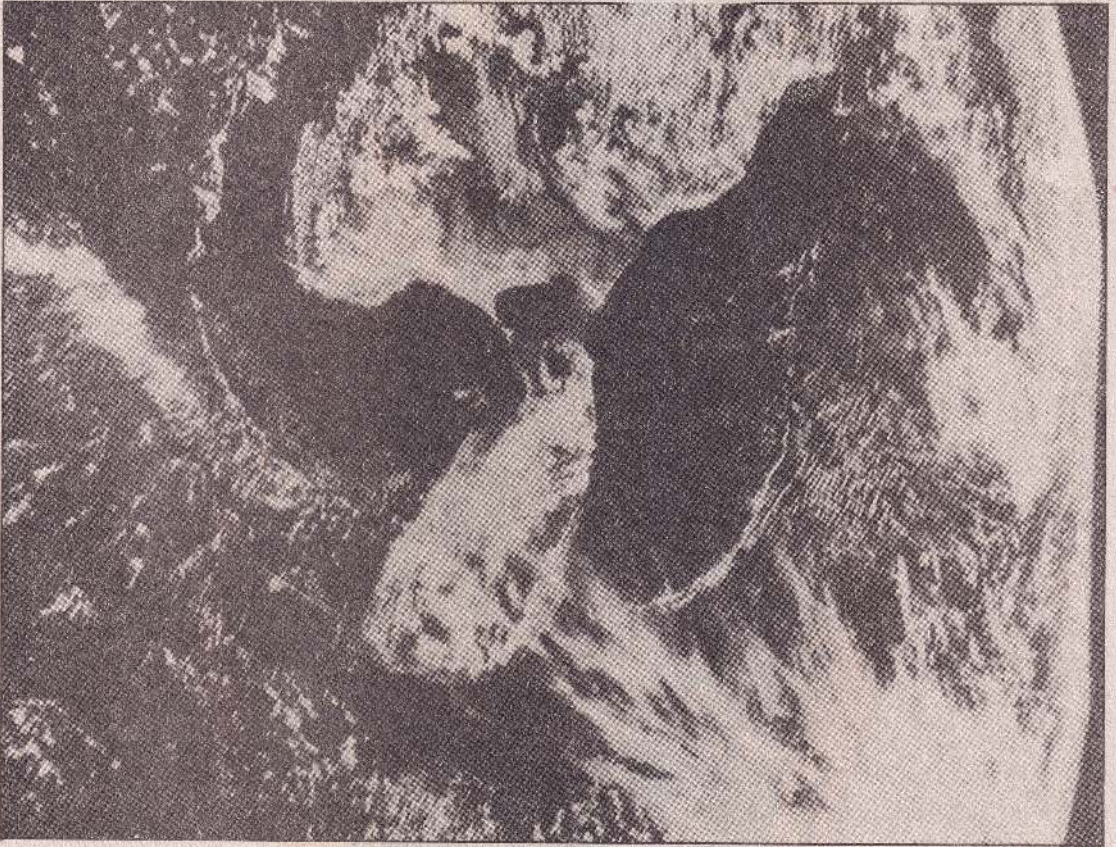


Fig. 3.1  
A satellite picture

This was mentioned in the weather report broadcast on television news. According to this report it is said that within the next few days the weather will be different from the conditions prevailing today because rainy weather is expected. These differences have been based on the daily atmospheric conditions of temperature, pressure and rainfall.

It is important to find out how the changes in weather daily or within a short period influence human activities in any region. It is necessary to have an understanding and awareness of the influences weather will have on our daily routine such as making visits,



agricultural activities, fishing and sports. It will be very useful to have a clear understanding about the weather and also the climate which is really the long term conditions of weather which have an influence on our daily life.

## Weather

Weather is defined as the conditions of the atmosphere at any time or place. What is meant by the conditions of the atmosphere are temperature, rainfall, humidity, clouds, velocity of the winds and wind direction.

On certain days there is incessant rain and we call it rainy weather. When there is bright sunshine, we call it 'a warm day'.

**Weather is the condition of the atmosphere at any time or place**

## Climate

Climate is a composite or generalization of the variety of day-to-day weather conditions observed over a long period. It is possible to come to a generalization of the conditions of climate in terms of daily weather reports collected over a long period of time.

**Climate is the generalization of various day-to-day weather conditions observed over a long period**

Climate is formed by the atmospheric temperature, rainfall, humidity, pressure and winds. They are called the **elements of climate**. Similarly it is useful for you to understand the climatic factors too.

A number of **factors** influence climate

- **latitudinal location**
- **elevation**
- **distance from the sea**
- **land and water**
- **ocean currents**
- **mountain barriers**

When speaking about climate, temperature is significant. Therefore we must have a clear understanding about temperature at the outset.

## Temperature

The earth receives heat and light mainly from the sun. The surface of the earth and its atmosphere are heated by the rays of the sun. Temperature is considered as the warm condition that occurs through this process of heating. You will feel that the temperature rises during day time and that there is a drop in the temperature at night. This is due to the influence of the sun.



## Factors that control temperature

There are a few factors that influence temperature. The first of these factors is latitudinal location.

Observe figure 3.2. You will notice that the rays of the sun fall vertically on the equatorial latitudes and obliquely on the polar areas because of the spherical nature of the earth. For example let us take two beams of rays A and B. The diagram shows that rays

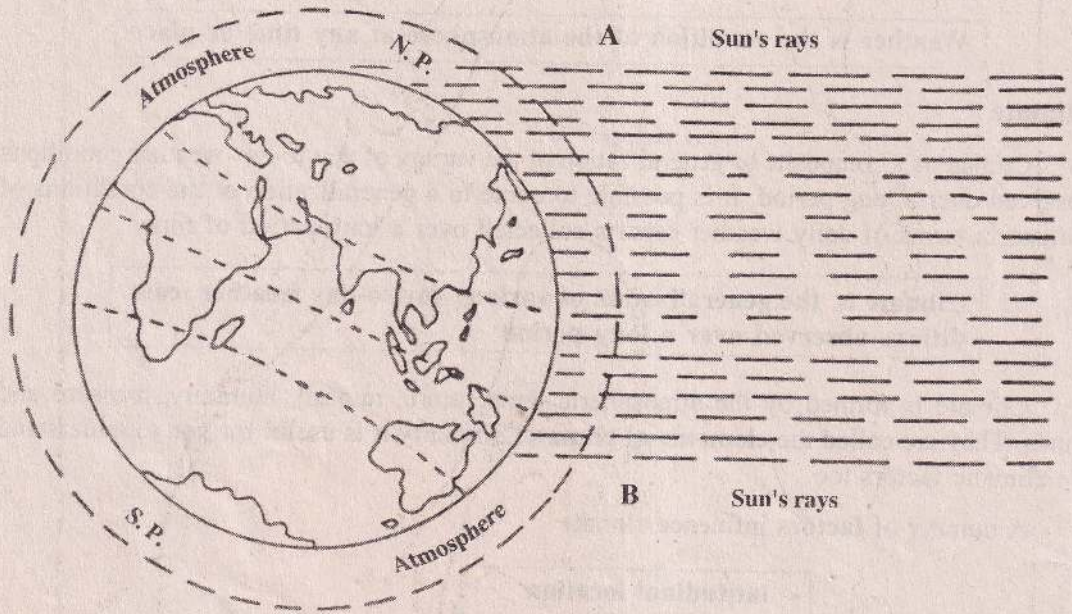


Fig. 3.2  
How the Sun's rays fall on the earth's surface

Beam B received vertically at the equatorial regions is distributed over a smaller surface in the atmosphere while rays A is distributed over a larger surface since it falls obliquely at the polar regions. In the equatorial regions the temperature is higher because the sun's rays fall vertically on these places and also since these rays have to pass through a short distance in the atmosphere. The temperature at the polar regions is low because the sun's rays fall obliquely on these regions and the rays have to pass through a longer distance in the atmosphere. Hence the rays are distributed over a larger surface. This is determined by the latitudes.

As Sri Lanka is situated between  $5^{\circ}$  and  $10^{\circ}$  north latitudes, the island receives the heat (insolation) of the sun uniformly throughout the year. Therefore, the temperature too remains uniform.



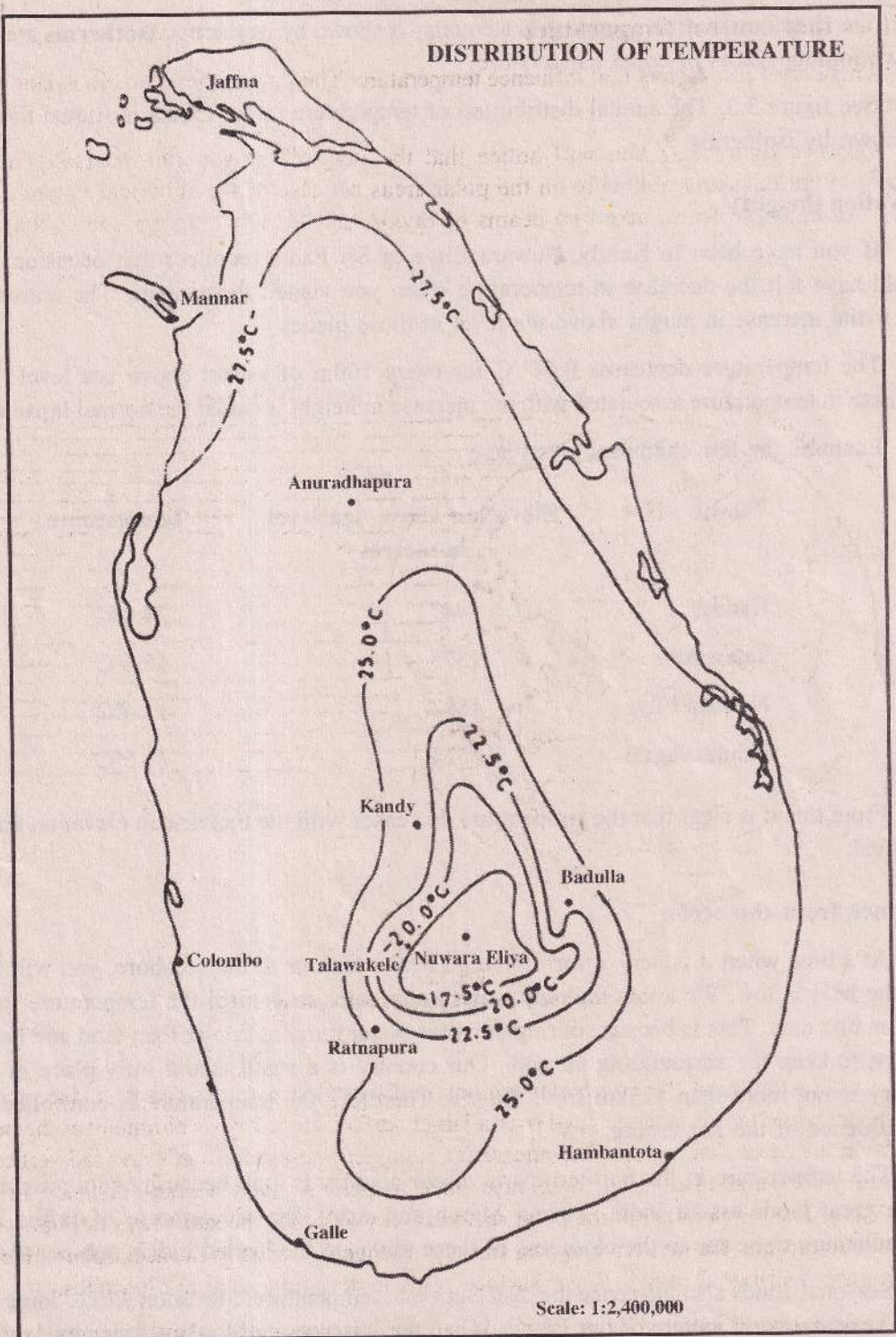


Fig. 3.3  
The distribution of temperature in Sri Lanka



The distribution of temperature in a country is shown by isotherms. **Isotherms** are lines drawn joining places of equal temperature.

See figure 3.3. The annual distribution of temperature in Sri Lanka is shown there. It is shown by isotherms.

### **Elevation (height)**

If you have been to Kandy, Nuwara Eliya or Sri Pada, recollect that occasion. You would have felt the decrease in temperature when you visited those areas. The reason for this is the increase in height above sea level in those places.

The temperature decreases  $0.64^{\circ}\text{C}$  for every 100m of ascent above sea level. This decrease in temperature associated with the increase in height is called the normal **lapse rate**.

Examine the few examples given here

<b>Town</b>	<b>Elevation above sea level in metres</b>	<b>Temperature</b>
Kandy	447	$24.4^{\circ}\text{C}$
Talawakele	1375	$18.6^{\circ}\text{C}$
Nuwara Eliya	1882	$15.4^{\circ}\text{C}$
Pidurutalagala	2524	$11.5^{\circ}\text{C}$

From this it is clear that the temperature decreases with the increase in elevation above sea level.

### **Distance from the ocean**

At a time when it is very warm if you go near a tank or to the seashore, you will feel that the heat is low. We know that any water body helps to control the temperature in its surrounding area. This is because during day time water remains cooler than land and hence it helps to keep the surrounding air cool. Our country is a small island. Any place in our country is not more than 113km from the sea. Therefore the temperature is controlled by the influence of the sea breeze.

The temperature in the northern parts of our country is high because of its proximity to the great landmass of India. During March and April, the temperature of Jaffna and Anuradhapura rises due to the closeness of these towns to the heated Indian sub-continent.

Seasonal winds also influence the distribution of temperature. Monsoon winds dominate in the seasonal wind pattern of our island. When the water-vapour laden winds blow across the land, the temperature in the areas along the path of winds decreases.



## Rainfall

The water on the surface of the earth turns into water vapour when the water gets heated due to insolation. This water vapour when carried upwards results in condensation which brings rain.

**Rainfall is the total amount of rain received at a place within a specified period of time**

Figure 3.4 shows the annual distribution of rainfall in Sri Lanka. Lines drawn joining places receiving equal amount of rainfall are called **Isohyets**.

### Annual Rainfall

Sri Lanka receives rain from three sources:

1. Convectonal rain
2. Monsoonal rain
3. Cyclonic or depression rain.

### Convectonal rain

Can you recollect a day in April when you experienced heavy rainfall in the evening with thunder and lightning? This type of rainfall is known by several names such as convectonal rain, inland rain, (goda wehi) and evening rain. Let us examine some facts about the occurance of this type of rain.

As Sri Lanka is situated close to the equator, it receives high insolation throughout the year. During the months of April and September the sun is overhead in Sri Lanka and receives more heat from the sun than during the other periods. Then the air near the surface of the earth gets heated and begins to rise. They are called convectonal air currents.

The air that has risen gets cooled and the water vapour is condensed to form clouds. These vapour laden clouds bring rain in the evenings. These are known as convectonal rain (thunder showers, evening showers).

Since Sri Lanka is situated close to the equator this process occurs throughout the year. Hence convectonal rain can occur throughout the year. This process of convectonal rainfall can be clearly seen during the months of March-April and Septemeber - October.



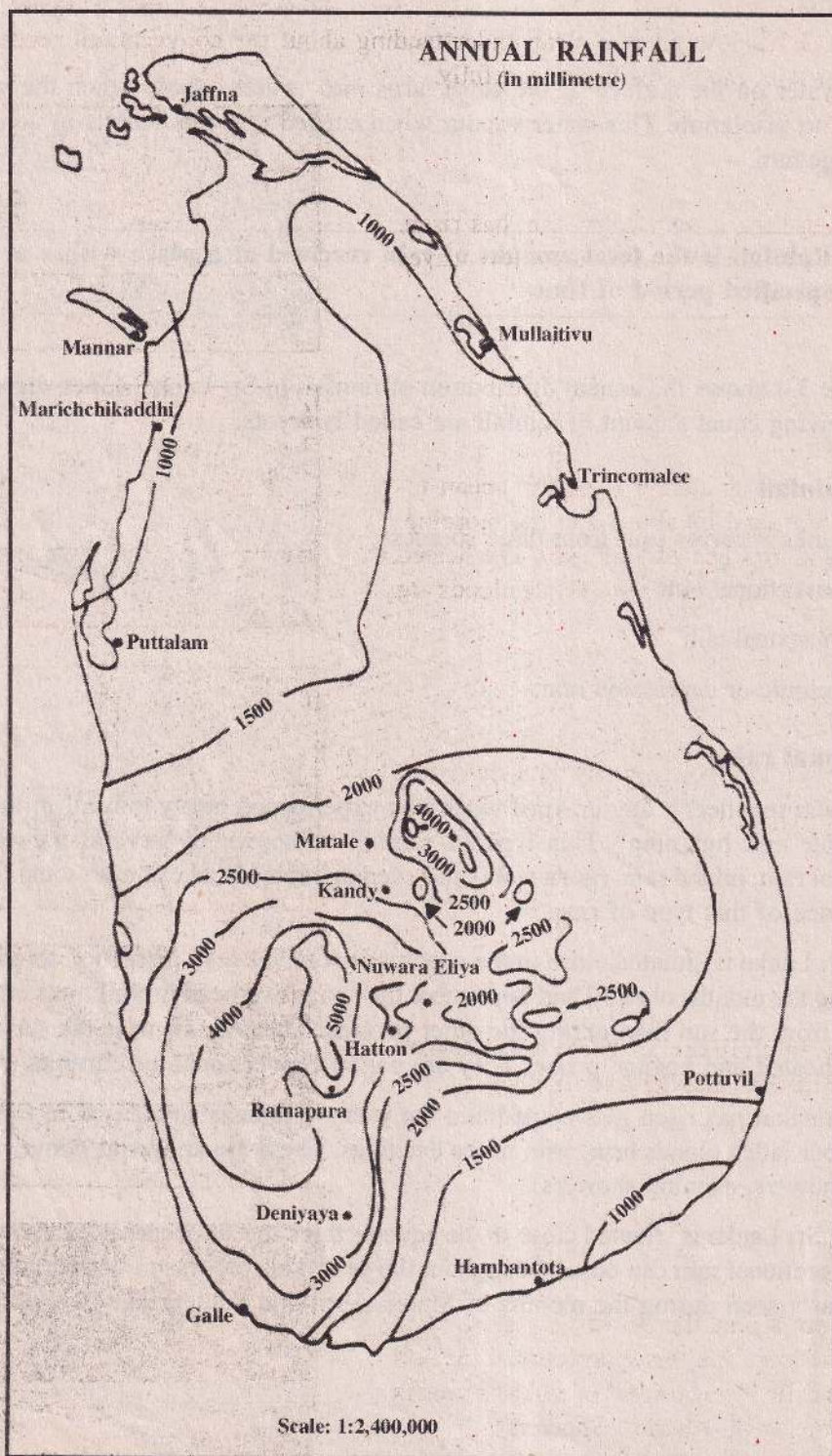


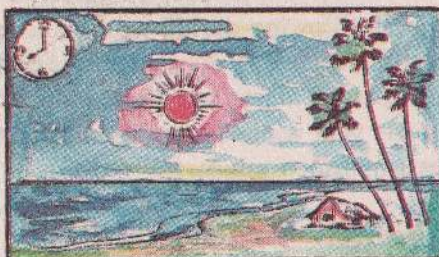
Fig. 3.4  
The annual rainfall of Sri Lanka



Figure 3.5 below gives a clear understanding about the convectional process which brings about rain. Study this figure carefully.

#### Diagram 01

Morning time is very calm. Sun has risen. There is bright sunshine. Just a few waves are formed in the ocean.



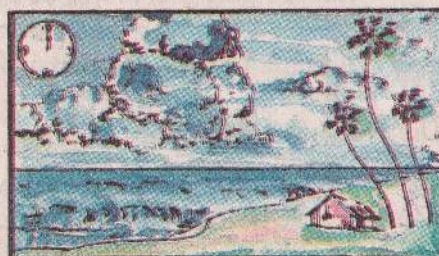
#### Diagram 02

Winds blow gradually from the ocean towards the land by about 9 in the morning. The land gets heated gradually. The heated air rises up here and there. White clouds are formed.



#### Diagram 03

By about 12 noon the sky is laden with clouds.



#### Diagram 04

Heavy rainfall occurs between 2.00-4.00 p.m. There is thunder and lightning.



#### Diagram 05

By about 8 p.m. the sky is clear again. Stars appear risen. It's this convectional rainfall that is called 'goda wehi' or inland showers or 'asani wehi' (thunder showers).

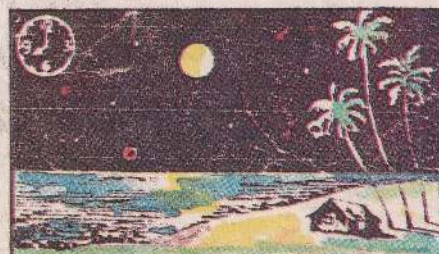


Fig. 3.5  
Occurance of Convectional Rain



## **Monsoonal rain**

The word monsoon is derived from the Arabic word meaning 'monsoon'. Monsoon means 'blowing during a particular period only'. There are two types of winds that blow across the country during specific periods of the year. Winds blow from the south west during one period. These winds are called the south west monsoon winds. During another season of the year winds blow from the north east of the island. These winds are called the north-east monsoon winds.

### **The Southwest monsoon**

Observe Figure 3.6. It shows the rainfall received in Sri Lanka from the south west monsoon.

The south west monsoon winds prevail for about four months of the year from May to September. These winds carry a lot of water vapour as they blow from the south west over a great distance across the ocean. When these winds reach the central hills they rise up and condensation occurs. These winds bring heavy rains to the western slopes of the Hill Country.

Observe figure 3.6. It will be clear from this figure that the south western part of Sri Lanka receives a rainfall of 500 mm - 2000 mm and the north-eastern and south eastern areas receive a rainfall below 250 mm annually.

### **The Northeast Monsoon**

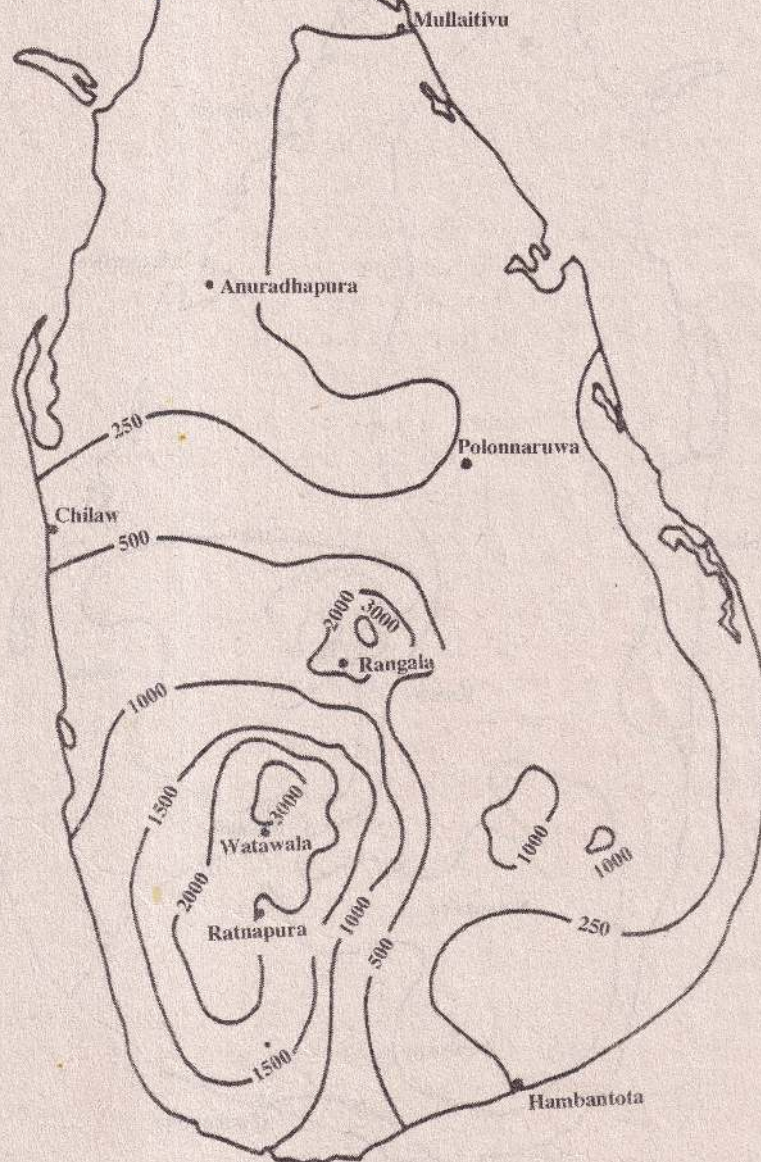
Observe figure 3.7. It shows the distribution of rainfall received from the northeast monsoon. The northeast monsoon winds blow over the island from December to February. It is clear from this (map) that this monsoon brings more rain to the northern and eastern areas of the island. Water vapour carried by these monsoonal winds is low because it originates from a cold dry area in the north of the Indian sub continent and also because these winds pass through only a short stretch of the ocean before they reach Sri Lanka. When these winds reach the eastern slopes of the Hill Country they ascend due to mountain barriers. Then the water vapour is condensed resulting in more rainfall to the north eastern area.

## **Tropical Cyclones**

Cyclones are another source of rainfall to Sri Lanka. They are also known as depressions or whirlwinds. Cyclones occur at the centre of a low pressure centre. The Bay of Bengal is one such a low pressure centre. The cyclones which originate there affect Sri Lanka. These cyclones may occur at any time of the year. But if cyclones occur associated with the north east monsoon, these gusts of winds will be strong.



**SOUTH-WEST MOSOON RAINS**  
**Mid-May to September**  
 (in millimeter)



Scale: 1:2,400,000

**Fig. 3.6**  
**The distribution of rainfall from the South-west monsoon**



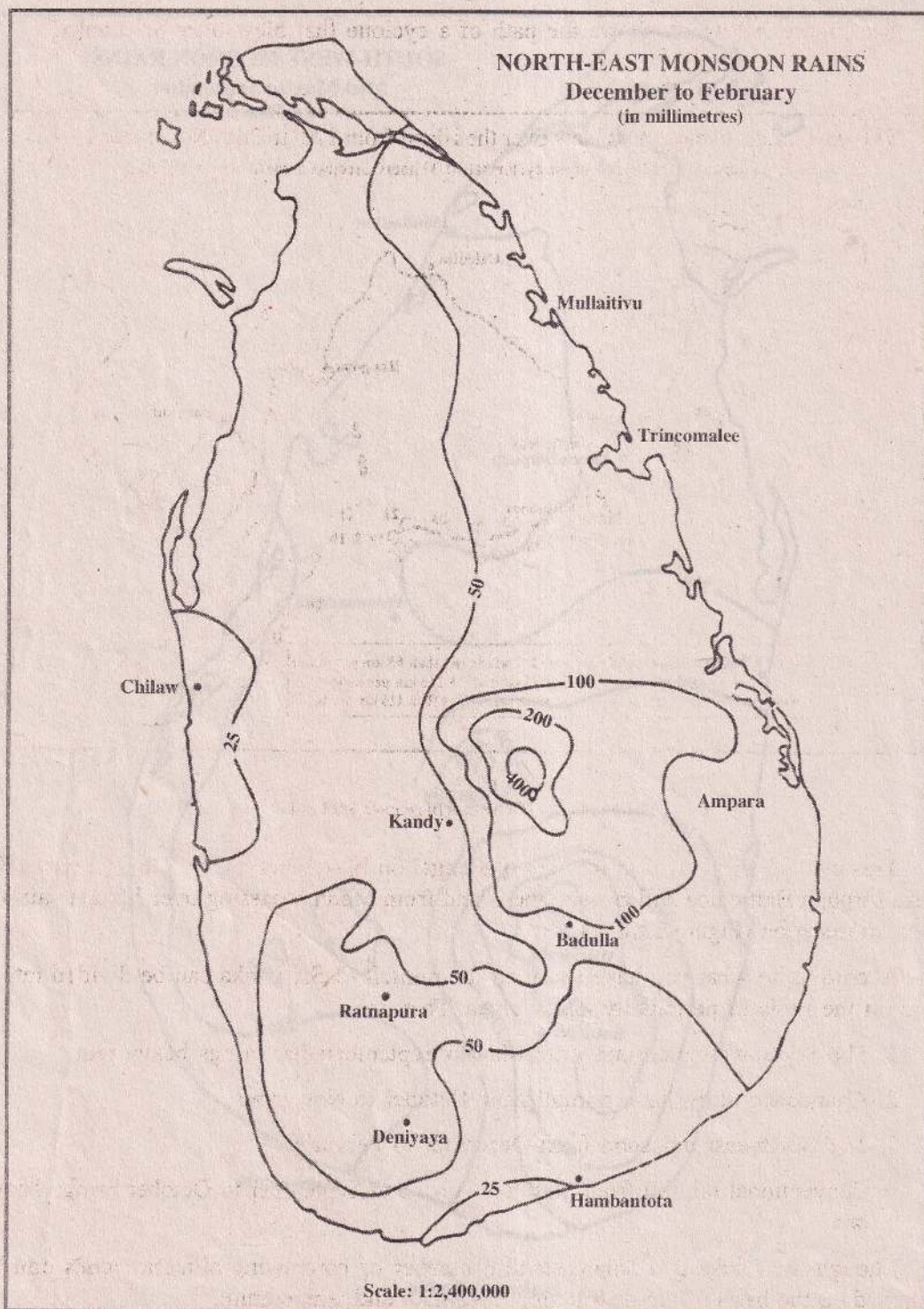
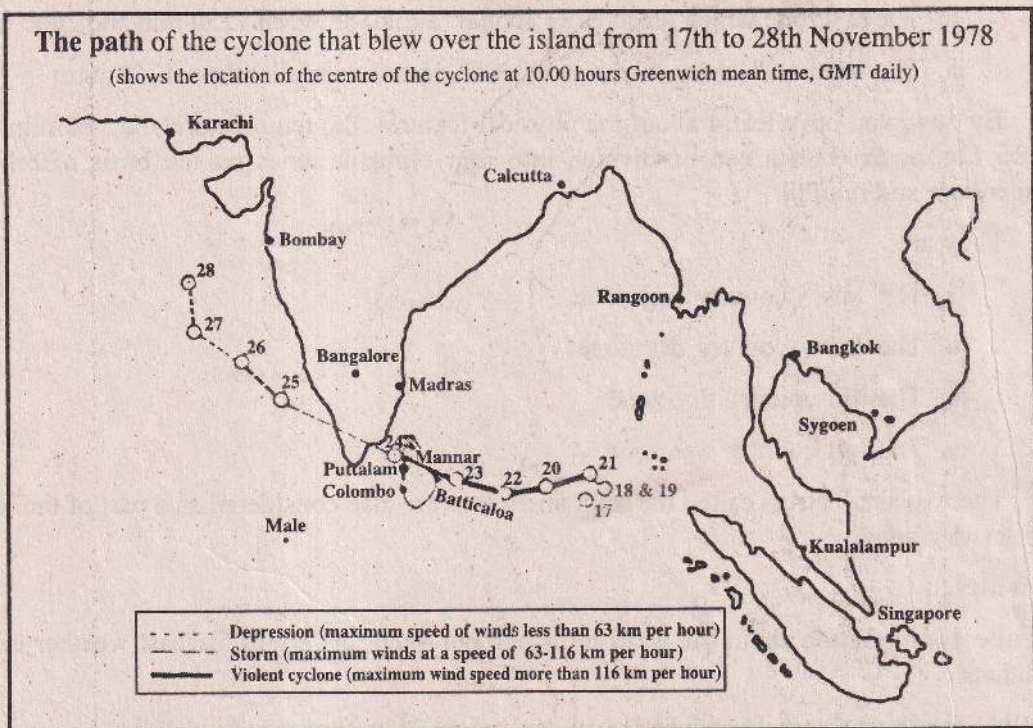


Fig. 3.7  
The distribution of rainfall from the North-east monsoon



See Figure 3.8 which shows the path of a cyclone that blew over Sri Lanka.



**Fig. 3.8**  
**The path of a cyclone that blew over Sri Lanka**

This cyclone originated in the Bay of Bengal on November 23rd 1978. It entered Sri Lanka through Batticaloa and crossed the island from Mannar passing over Matala causing severe devastation (Figure 3.8).

According to what you have learnt so far, rainfall of Sri Lanka can be divided into 4 types on the basis of periodicity and sources. They are :

1. The South-west monsoon from May to September that brings heavy rain
2. Abundance of cyclonic rainfall from October to November
3. The North-east monsoon from December to February
4. Convectional rainfall from March to April and September to October brings heavy rain

Though Sri Lanka is a small island a number of contrasting climatic zones can be identified on the basis of the distribution of rainfall and temperature.

Study the annual rainfall map of Sri Lanka shown in figure 3.4. The lines shown there are the isohyets. Three main rainfall regions can be identified in this map.



They are:

- i. The wet zone receiving an annual rainfall of over 2000 mm
- ii. The dry zone which receives an annual rainfall between 1250 mm and 2000 mm
- iii. The semi arid zones which receive an annual rainfall below 1250 mm

By now, you have learnt about the physical features, the temperature and the rainfall of Sri Lanka. Sri Lanka can be divided into four climatic zones on the basis of relief, temperature and rainfall.

They are:

- i. The low - country wet zone
- ii. The low - country dry zone
- iii. The hill country dry zone
- iv. The hill country wet zone

The two small strips called the semi arid zones are also considered as a part of the low country dry zone.

### Activities

1. Collect information about the ways by which our ancestors could forecast weather conditions.
2. What are the sources from which you can get weather forecasts today?
3. Describe how you would utilize your information about weather forecasts in your day to day activities and those of your community in the village.
4. The class teacher has given instructions to Ramani and Renuka to organize two educational tours of the Sinharaja forest and Anuradhapura. Accordingly-
  - i. What are the most suitable months for Ramani to visit the Sinharaja forest? Give reasons for her choice.
  - ii. What are the months Renuka will select to plan her trip to Anuradhapura?
5. The period between Unduwap Poya (December) and Bak Poya (April) is considered as the season for making the pilgrimage to Sri Pada  
Give reasons for the selection of these months.
6. Study the annual rainfall map of Sri Lanka and find out the average annual rainfall range in the region in which your school is situated. Give a short description about the sources from which this region receives rain.



## Chapter 4

# Natural Vegetation of Sri Lanka

### Natural Vegetation

The trees, plants and creepers that grow in any place without the intervention of man are called 'natural vegetation'. Natural vegetation is diverse ranging from small aquatic plants, grass, creepers, thorny shrubs to forests covered with large trees. Natural vegetation influences the sustenance of life (organisms). In our endeavour to obtain pure air, food, shelter, clothing and medicines, natural vegetation helps us a great deal.

Excerpts adapted from reports written by six pupils who participated in an educational tour organized by the Social Studies Association are given below. These reports contain information about natural vegetation they came across during their tour. This trip was organized to cover Anuradhapura, Puttalam, Kurunegala, Kegalle, Ratnapura, Nuwara Eliya, Bandarawela and Hambantota areas.

#### From Vajira

.....The Sinharaja forest which is named as a World Heritage is a delightful place.

- There are a lot of trees and plants.
- It has bio-diversity.
- Creepers entwined on treetops are seen as forming a canopy.

The undergrowth is thick.

- Various types of trees such as *Hora*, *Keena*, *Bedidel*, *Godapara* are seen there
- During this trip we came to know that Sinharaja Forest is the only virgin natural forest in Sri Lanka.

#### From Senaka

..... Today we went to see the Horton Plains. It is a high plain situated in the high mountain region over 1500m in height. 'Worlds End' in the Horton Plain makes an attractive scene.

- There are trees here and there in the grasslands in Horton Plains.
- They are not very tall.
- We were able to see the Elk Plain and the Baker's Falls from the Horton Plains. We saw herds of stags at the Elk Plain.

#### From Piyal

..... Today we climbed the Pidurutalagala mountain which is considered the highest mountain in Sri Lanka.

- With the elevation of the land a difference in the characteristics of the vegetation is noticed.
- The trees are short about 3m - 4m in height.
- The trees here are not thickly grown as in the Sinharaja Forest.
- Moss is abundant on the trees.

#### From Subhashini

- Today is the 12<sup>th</sup>, the third day of the tour. We visited the Kurunegala region located in the intermediate zone lying between the wet zone and the dry zone.
- Here there is no extensive forest cover distributed over a vast area.
- We saw trees that grow in the wet zone as well as in the dry zone.
- Most of the land is under cultivation.



- There are forest plantations. There are plenty of *Pihimbiya*, *Lunumidella* and *Jak* trees in them.
- We saw the Ethugala Rock in the town of Kurunegala.

#### **From Tamara**

- Today we visited the ruins of Rajarata. We saw Abhayagiri and Jetavanaramaya considered as World Heritage sites. It is difficult to imagine how this developed area would have been in the past.
- Vegetation is not so luxuriant as in the Sinharaja Forest. There is no undergrowth. Big trees are seen scattered here and there.
- There are tall bushes and short trees
- Satinwood, Milla, Halmilla and Suriyamara are some of the trees seen there.

#### **From Lucien**

This is the first time we came to a coastal region. Today we visited the Puttalam estuary.

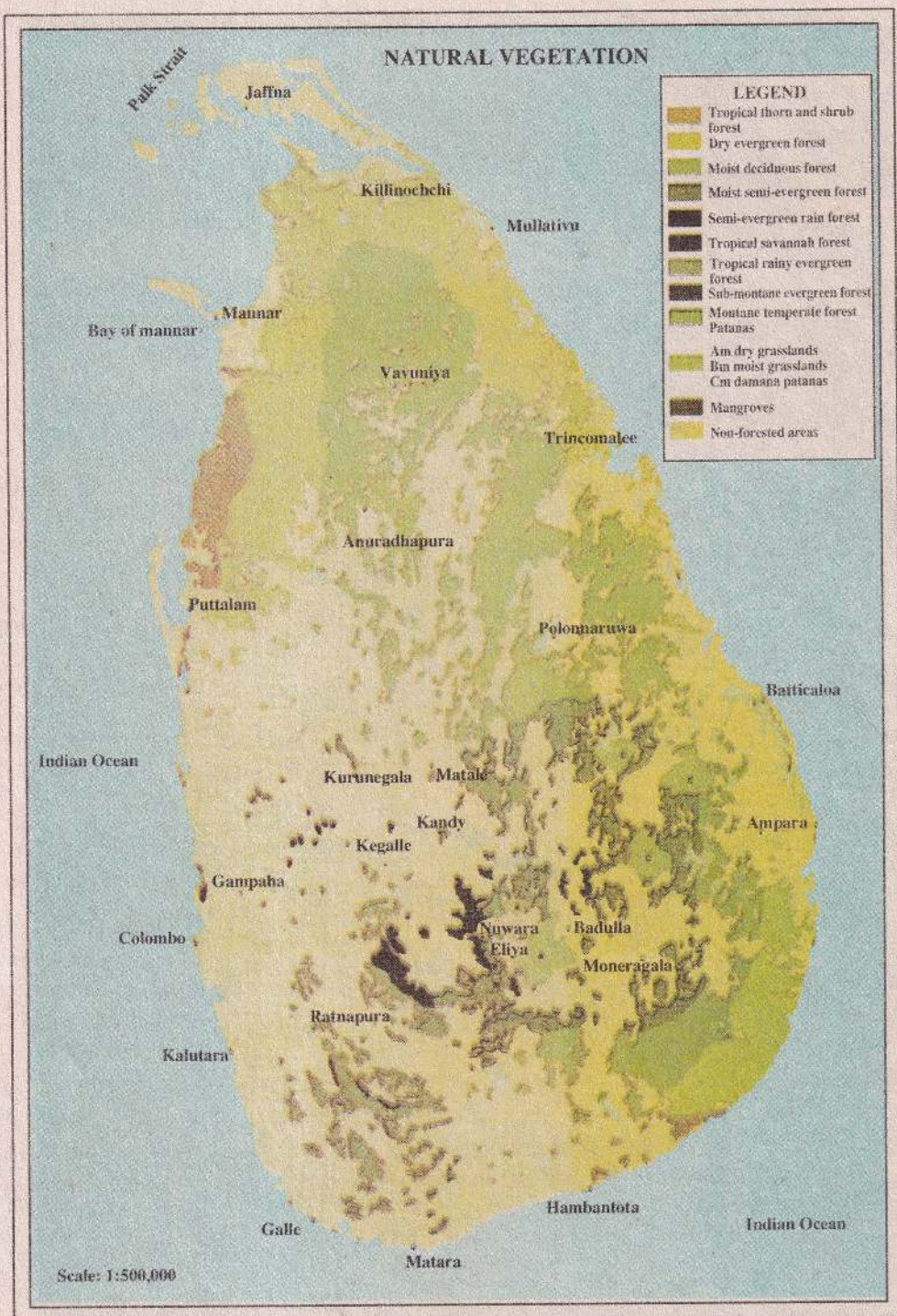
- The vegetation here is very poor. As the soil is sandy we saw some plants we have not seen before. Such trees are mangroves and cork (kerala). We came to know that these are a kind of mangrove vegetation.
- They consist of tall bushes and short trees.

Making use of the experiences you gained from the educational tour, draw your attention to the following facts in studying about natural vegetation.

- Note that the types of natural vegetation mentioned in the notes written by each of the students are different.
- You would have identified a clearcut diversity in the natural vegetation of our small island.
- The characteristics of the natural vegetation of a country differ due to the relief, climate and soils in it.

In most of the regions of Sri Lanka the characteristics of the vegetation in the particular regions depend on the climatic condition and soil. Therefore the forests that grow adapting to the diverse climatic conditions of the country in various regions differ according to the vegetation found in them. The distribution of natural vegetation in Sri Lanka has been influenced by the characteristics of its climatic zones. Make an attempt to get a clear understanding about the natural vegetation zones of Sri Lanka and their special features keeping in mind the information you have gathered in your observations during an educational tour.





**Fig. 4.1**  
**Natural Vegetation**



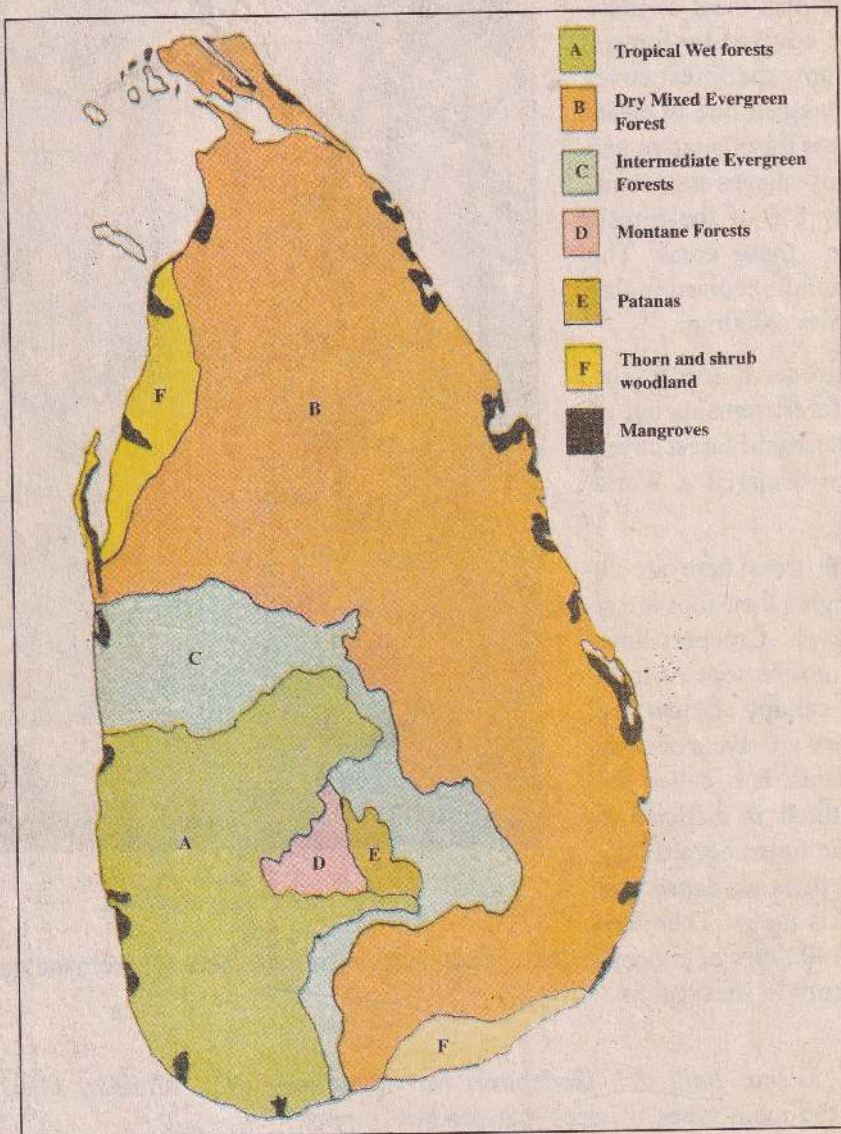


Fig. 4.2  
Sinharaja Forest



## The types of Natural Vegetation in Sri Lanka

Identify the main types of natural vegetation in Figure 4.3. They are the Tropical Wet forests or wet evergreen forests, Dry Mixed Evergreen forests, Moist montane forests, Intermediate zone forests, grasslands and mangroves.



**Fig. 4.3**  
The Natural vegetation zones of Sri Lanka

Read the next few pages for an understanding of the distribution of natural vegetation zones of Sri Lanka and their special features.



## Tropical Moist Forests/Wet Evergreen Forests

This type of forests are distributed in the low mid country and mid country wet zones.

In the past most of these areas were covered by forests. However, now the forest cover has been reduced due to clearing of forests for plantation and expansion of villages and towns. Today only 8% of the forests remain in these areas. The average rainfall received in this region is over 2000mm.

At present, only the Sinharaja forest remains out of the original natural forest cover. It has been declared a World Heritage.

As the trees here are of varying heights their tops are at different levels. Creepers have entwined into the tops of trees to form a canopy. Below the tall trees there are layers of other types of plants. It is called the undergrowth. It is difficult to approach the forest because the under growth is so dense and the ground is moist. There are about 100-140 types of endemic plants. Various types of moss, ferns (Meemana), and orchids grow in plenty in this region.

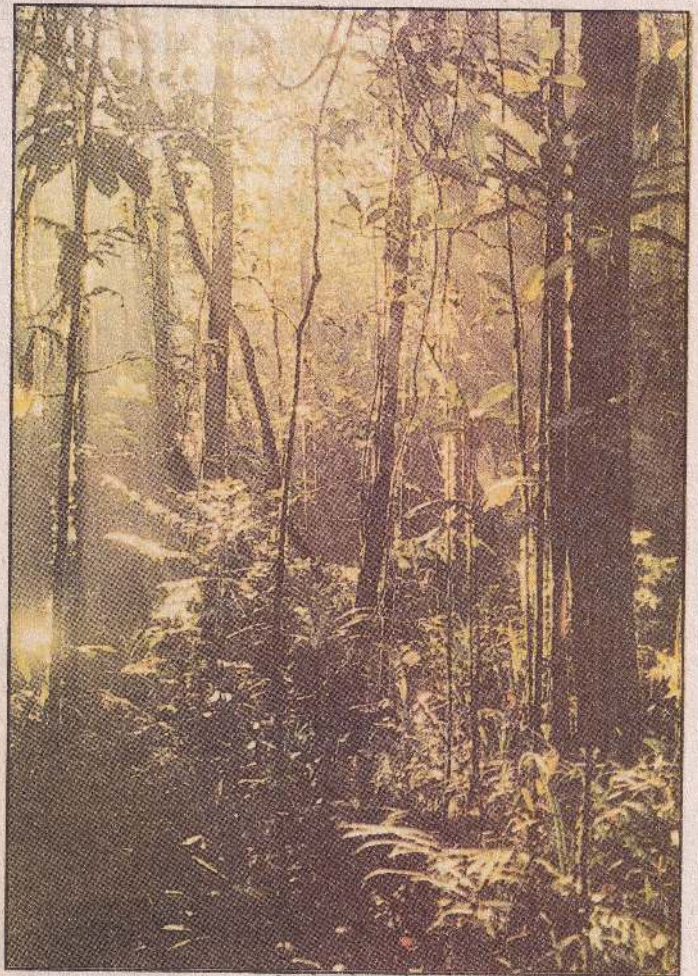


Fig. 4.4  
Moist Evergreen Forests

*Hora*, *Keena*, *Badi del*, *Godapara*, *Na* (Ironwood), *Hal*, *Midella*, *Milla* (Chaste), *Nedun* are the main types of trees that produce timber.

One notices endemic plants peculiar to Sri Lanka.

A bio-diversity is seen in these forests. For example various birds, amphibians and reptiles are found here.



## Dry Mixed Evergreen Forests

In Sri Lanka, forests are distributed extensively in the Low Country Dry zone. Here the average annual rainfall is between 1250 mm - 2000 mm. There is a long dry period from May to August. The forests do not grow densely because this region gets rainfall only during one season in the year and also due to excessive evaporation and transpiration associated with it. The trees shed their leaves during the dry season.

The average height of the trees is between 15-20 metres. The trees grow far apart. There is no undergrowth. There are bushes which grow to a height of 2-3 metres and the jungles have short trees.

These forests have trees of economic value such as *Satinwood*, *Halmilla*, *Hulanhik*, *Palu* and *Milla*. Thousands of hectares of teak have been grown in this region under forest plantation.



Fig. 4.5  
Dry Mixed Evergreen Forests



## Moist Montane Forest

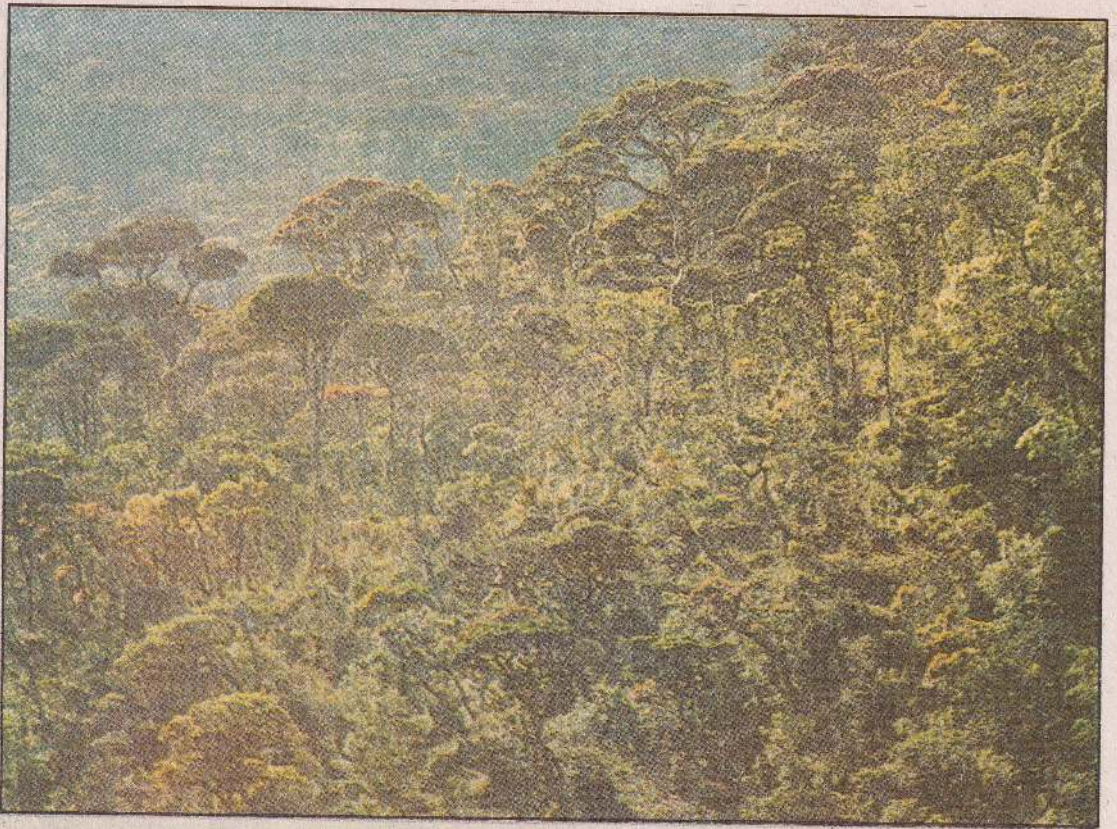


Fig. 4.6  
Moist Montane Forests

- The moist montane forests of our country are found in areas over 1200 metres in elevation in the Hill Country wet zone.
- As the elevation (altitude) increases the tropical wet forests gradually transform into montane forest. Here the average annual rainfall is over 2000mm.
- Because of the high elevation, the temperature here is between 20°C and 24°C.
- The forest cover in this region has been reduced today due to the clearing of forest for plantations such as coffee, tea and cocoa.
- With the increase in the altitude, the height of the trees gets reduced gradually. The trees are 8-10 metres high. This is because it helps the trees to resist the cold and winds.
- There are plenty of orchids, moss and lichen on the trees.
- At present these natural forests can be seen only in the Samanala and Pidurutalagala mountain ranges.



## The Intermediate Forest Zone

- This zone is on either side of the boundary that separates the wet and dry zones. Hence it is a transitional zone.
- These forests have trees that grow in the wet and dry zones.
- Most of the original forest of this type have been cleared in order to utilize the land for other purposes.
- Under afforestation plants such as *Mahogany* and *Jak* are grown in plenty here.

## Grasslands



Fig. 4.7  
Vegetation in the grasslands

Vegetation in the grasslands shows different characteristics from what you have studied so far. There are a few tall trees. Short bushes of grass cover the entire area.

There are four types of grasslands. They are patanas, talawa, damana and villu. Out of these, patanas and talawa are considered as montane grasslands.



- Patanas can be seen in the areas above 1520 metres in the wet and dry zones of the Central Hills. Examples are Horton Plains, Bopathalawa, Elk plain, Seetha Eliya, Agarapatana, Moon Plain.
- Montane dry zone patanas are found in the Uva Basin. Mana and illuk grass are special to these areas.
- Pinus and Eucalyptus have been grown on a large scale in the Patana grasslands.
- Patanas are also known as savannah. Savannah grasslands are found in Bibile, Lunugala and Ampara regions.
- The factors that have contributed to the growth of grasslands are low rainfall, availability of a thin layer of soil and the exposure to winds blown at high speed in most parts of the year.
- A feature one notices here is that trees are scattered here and there. Illuk grass is dominant. Very often forest fires occur. Trees that can resist fire such as *Aralu*, *Bulu*, *Nelli* and *Gammalu* are found in plenty.
- Damana are a type of grassland found in the Low Country Dry Zone. Trees such as woodapple and keeriya grow here and there. Villu grasslands are suitable for cattle rearing. One example of villu grassland is the Tamankaduwa region.

## Mangroves

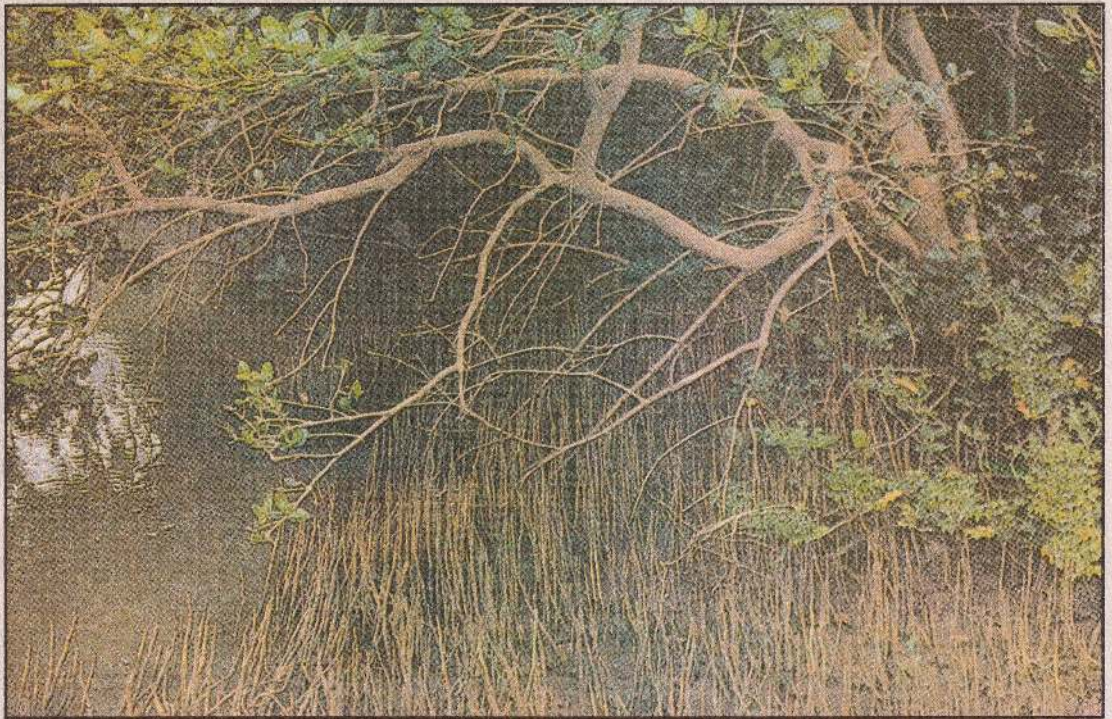


Fig. 4.8  
Mangroves with Stilt-roots



## Mangrove Plants

- Mangroves are a special type of vegetation adapted to the coastal environment.
- Mangroves are found near mouths of rivers and around lagoons in the coastal areas.
- Mangroves are spread over the mouths of rivers in areas at Jaffna, Mullaitivu, Trincomalee, Batticaloa, Pottuvil, Gintota, Negombo and Puttalam.
- The special feature of the mangrove plants is the spreading of roots above the water. There are three types of roots called prop roots, stilt roots and pneumataphores.
- Mangroves are utilized in the production of aquatic fish and to prevent the erosion of the banks of lagoons and estuaries.

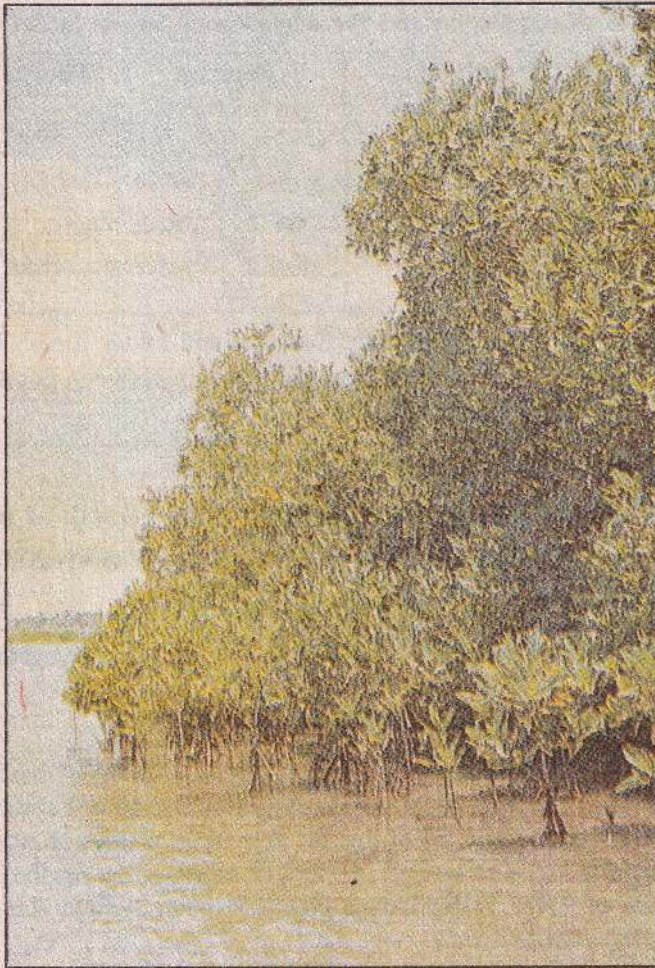


Fig. 4.9  
Mangroves



## Semi-arid Woodlands

- These Woodlands of the semi-arid zones are found in the north-western and the south-eastern regions of Sri Lanka. There should be an annual rainfall of 1000mm-1250mm and a temperature of 27°C for this type of vegetation.
- These plants are adapted to resist a long dry period of about 6 months. Leaves are scanty. These trees with pointed leaves are seen here and there in these areas. Trees such as *palu* and *weera*, plants such as *eraminiya* and *nillu*, *karamba* and *cactus* are found in plenty.

At present natural vegetation is being gradually destroyed. The table below gives information about the depletion of forests. Study it very carefully.

Table 4.1

The growth of population and the depletion of forests in Sri Lanka

Year	Population (in millions)	Forests (in hectares)	The % of forest land
1900	3.5	112	70%
1956	8.0	80	44%
1981	15.0	40	24%
1992	17.0	33	23%

According to this table you will notice that the land under forests had decreased by 1990-1992. It is also clear from it that there is a relationship between population growth and the decrease in the area under forests.

### Reasons for the destruction of forests

1. The consumption needs related to the growth of population
2. The consumption needs related to chena cultivation
3. Exploitation of forests by felling timber

Several factors have contributed to the destruction of natural vegetation.

### The consumption needs related to the growth of population

When the population of the country is increasing a large extent of land has to be utilized essentially for cultivation purposes, construction of houses and other buildings, highways and factories. Timber is utilized in large quantities for diverse consumption needs. Land covered by forests decrease rapidly when forests are cleared. Another reason for the depletion of forest cover is the launching of River Valley Development Projects such as the Mahaweli Development and the Inginiyitiya Schemes.

### Chena Cultivation

Trees that provide valuable timber are destroyed in the Dry Zone when forests are cleared for chena cultivation.



## Exploitation of Forests

Illicit felling of trees is prevalent in our country. It is also one reason for the reduction of forest cover. Hence the depletion of forest resources year by year has become one of the urgent national issues of Sri Lanka.

The depletion of forests at a rapid rate is not only a problem for Sri Lanka but also is an acute common problem for the whole world.

**Every minute an extent of 40 hectares (100 acres) of forests in the tropical zone are cut down with the use of axes and bulldozers. Each day trees in 57,600 hectares (1,144,000 acres) of forest are destroyed.**

Today every country in the world is making a special effort to conserve their natural vegetation. This is because these forests make a special contribution to the perpetuation of life. (existence of organisms).

### The uses of natural vegetation

Every individual has to make use of natural vegetation in diverse ways from birth to death. Natural vegetation is made use of in various items such as food, clothing, construction work, medicines and producing furniture etc.

The well-being and the sustenance of the eco-system in which we live depends on the existence of living and non-living components in that eco-system. Hence you will realize that natural vegetation is an essential element for the existence of life. The unfavourable results of over-exploiting such a valuable resource by man could be seen at present. Therefore, natural vegetation has to be protected from destruction.



Fig. 4.10  
The uses of natural vegetation

#### Natural vegetation helps

- to protect the environment
- to protect nature
- to obtain economic uses



### **For the sustenance of the environment natural vegetation**

- produces oxygen
- purifies impure air
- helps the existence of fauna
- enriches the soil
- prevents soil erosion
- acts as an agent which controls environmental pollution

### **For the protection of the environment**

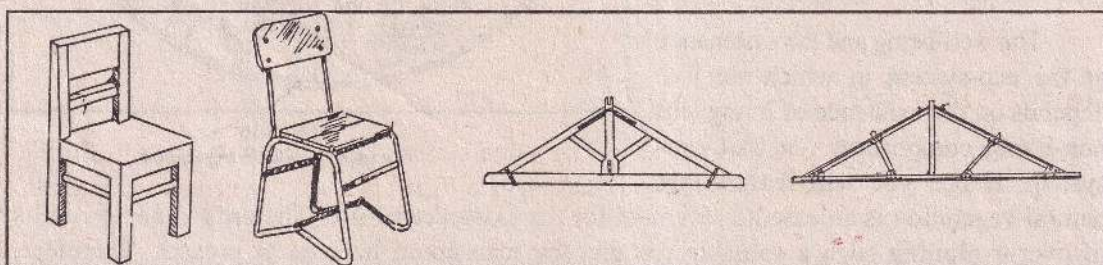
- forests rich in fauna and flora contribute to the protection of natural beauty.
- forests provide a laboratory for scientific studies.

### **Economic uses**

- provides timber for building purposes
- gives a source of energy (provides fuel)
- supplies fertilizer
- provides food, medicines and chemicals
- used in the packing industries
- utilized in the making of picture frames, wire pillars, electric lamp posts, toys, match boxes, match sticks and handles of axes and mammoties.

We are now faced with many serious problems due to the destruction of such a valuable forest resource.

About a decade ago, most of the furniture in your classroom were made of wood.



**Fig. 4.11**  
**Goods made of iron replacing wood**

At present iron is also used very often in making certain parts of these chairs and desks along with wood. The beams of the school buildings which were made of timber earlier are today made with iron bars.

Due to the rapid growth of population timber is utilized more extensively resulting in the depletion of forests.



## **The consequences of the destruction of forests**

When forests are destroyed it inhibits the removal of carbon dioxide in the biosphere in the natural way. Therefore,

- With the increase in the volume of CO<sub>2</sub> the atmosphere gets warmer.
- Rainfall is made scanty.
- Accelerates erosion of surface soils.
- Soil becomes infertile.
- Water bodies such as tanks and ponds get silted due to soil erosion.
- There may be threats of landslides
- The water level in the wells will go down owing to the lowering of underground water-table.
- Plant and animal species will be destroyed.
- May result in a shortage of food.
- Building industry will be badly affected.
- May lead to an electricity power crisis.

**In Malaysia the density of plants is about 200 and the bio-diversity is about 20 in an area of one square kilometre. In Sri Lanka the density of plants is about 150 while the bio-diversity is between 30-50 per square kilometre.**

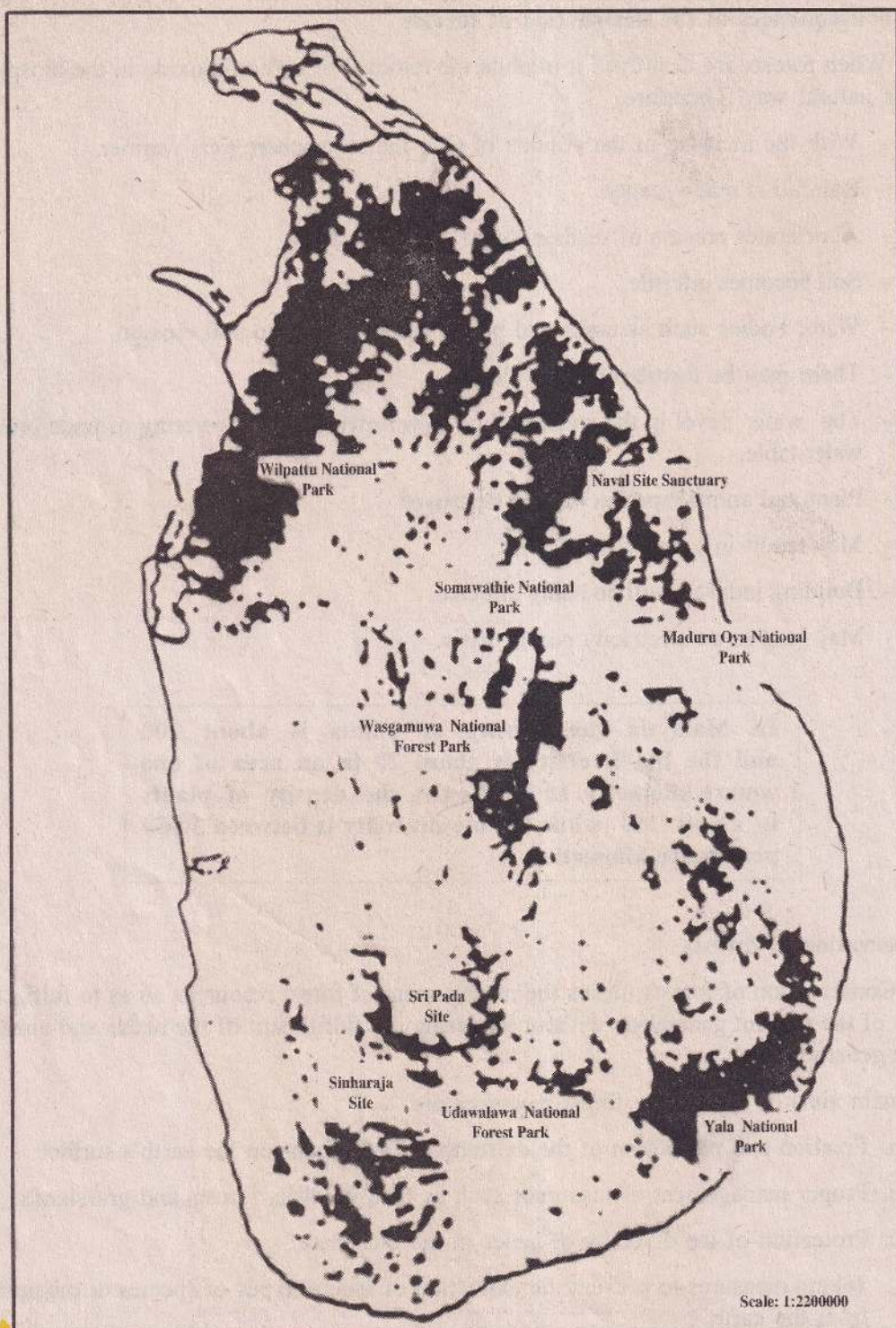
## **Conservation of forests**

Conservation of forests means the management of forest resources so as to fulfill the needs of the present generation without hindering the fulfillment of the needs and aims of future generations.

The main aims of conserving forest resources are

- i. Fixation and promotion of the existence of organisms on the earth's surface.
- ii. Proper management of resources such as fish, wildlife, forests and grasslands.
- iii. Protection of the diversity of genes in the biosphere.
- iv. Taking measures to prevent the extinction of special types of species or organisms from the earth.





**Fig. 4.12**  
**National Forest Reserves and Parks**



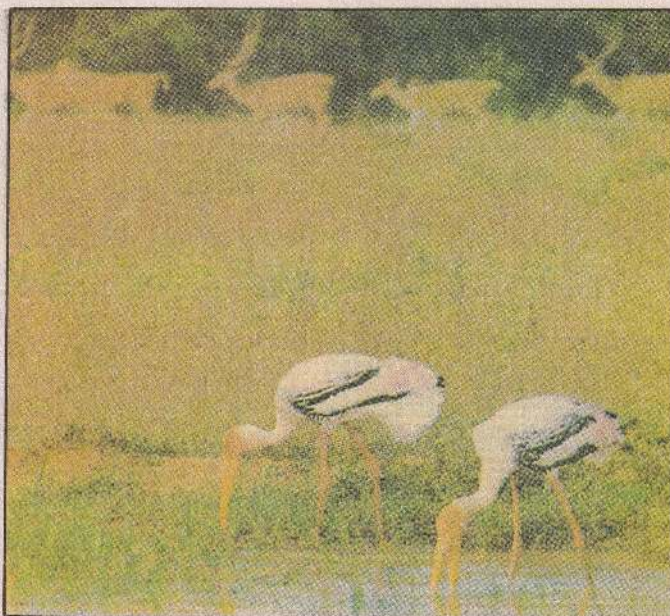


**Fig. 4.13**  
**Elephants**



**Fig. 4.14**  
**A Peacock**





**Fig. 4.15**  
**Herons**



**Fig. 4.16**  
**Brown Monkey (Macaque)**



The above pictures show various types of fauna living in the forests of Sri Lanka.

Today we are confronted with the threat of losing a lot of fanciful wild animals of great aesthetic value because of their attraction to both local and foreign tourists. Among these animals there are some species endemic to our country. Some of them are kehibella (Jay), rathu demalichcha (Red babbler), loris, spotted deer and mongoose.


It is the duty of all of us to protect our endemic animal resources.

### Activities

1. Identify natural plants found in your home garden or the school garden and make a list of them. Fill the following table with plants you mentioned.

Name of the Plant	Crop	For beauty	For food

2. Observe the relationship you can see between plants and animals found in your home garden or the school garden. Make a list of their uses and the possible damage they can cause.
3. Write an article to a children's page in a newspaper on the topic **"The need for protecting forest resources"**





## Chapter 5

### Cultivation of Food Crops in Sri Lanka



**Fig. 5.1**  
**Food Crops**

Food occupies a prominent place among our primary needs. Study the above picture. It shows some food items we consume. Identify them.

Crops cultivated for the people's day-to-day consumption come under subsistence agriculture. Rice is the staple food of the people of Sri Lanka. Hence, out of the crops that come under our subsistence agriculture, paddy cultivation occupies the foremost place.



**Fig. 5.2**  
**A stretch of paddy land**



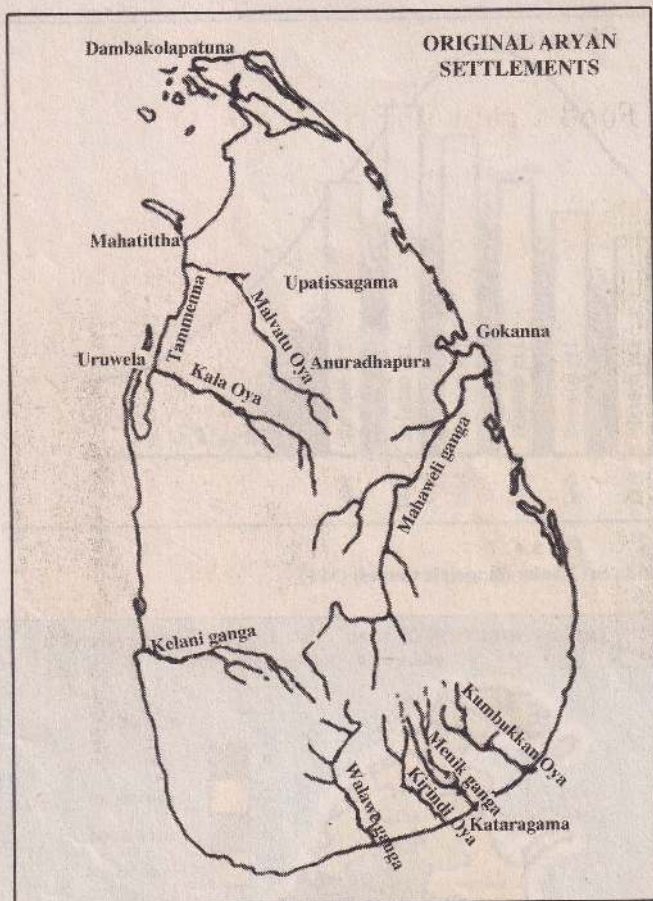


Fig. 5.3  
Aryan settlements

The Aryans headed by Vijaya who arrived in Sri Lanka around the 6<sup>th</sup> century B.C. would have established their settlements in the vicinity of rivers (Fig. 5.3), particularly making use of the climate favourable for paddy cultivation and also access to water. Accordingly, from the earliest times paddy cultivation occupied the foremost position in the economy (economic pattern) of Sri Lanka. Our ancient villages comprising paddy fields, home gardens and chenans were self-sufficient.

It was mainly to supply water to lands under paddy cultivation, that our ancient Sinhala rulers built tanks, anicuts and canals in the Dry Zone of the country.

This royal patronage helped a great deal in making our country self-sufficient in rice. However, due to foreign invasions that occurred after the 13<sup>th</sup> century, paddy cultivation declined.

Meanwhile with the movement of people to the Wet Zone of the country, paddy cultivation spread to lands and river valleys in the Wet Zone. With the passage of time the Wet Zone gradually became densely populated. As a result of the people taking to the cultivation of cash crops, with the advent of the western powers paddy cultivation lost the place it hitherto occupied in the economy.

As a result of this situation, the essential food items the people needed had to be imported. Nevertheless, the attention of the rulers came to be drawn towards the need to revive paddy cultivation in the Dry Zone in order to increase the production of local food crops. (It was towards the latter part of the 19<sup>th</sup> century under the British rule that the restoration of the overgrown and abandoned irrigation systems in the Dry Zone commenced.) This attempt made to increase paddy production by extending the development projects such as Minneriya, Padaviya, Gal Oya and Elahera continues even to date. The results of these projects can be understood clearly by studying the graph showing the annual growth of paddy production.



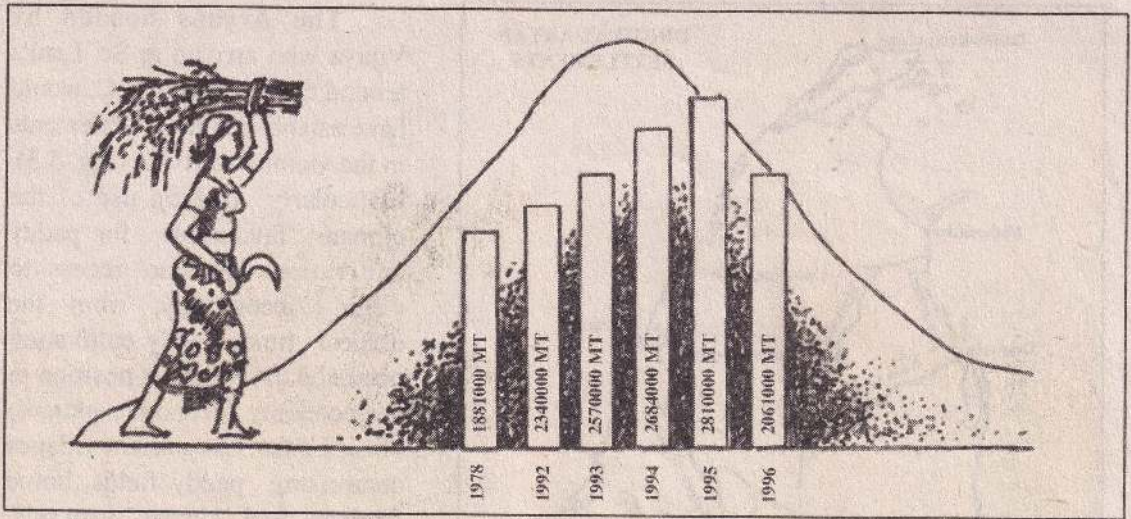


Fig. 5.4  
Paddy production in Sri Lanka (in metric tonnes) (MT)

Figure 5.5 shows the paddy cultivation areas of Sri Lanka. In almost every district of the country paddy is cultivated even on a small scale. Areas of paddy cultivation can be divided into three main sectors, namely,

- i. Low - country dry zone areas;
- ii. Low - country wet zone areas;
- iii. Highland areas

Facts extracted from a school magazine about paddy cultivation in different zones are given below:

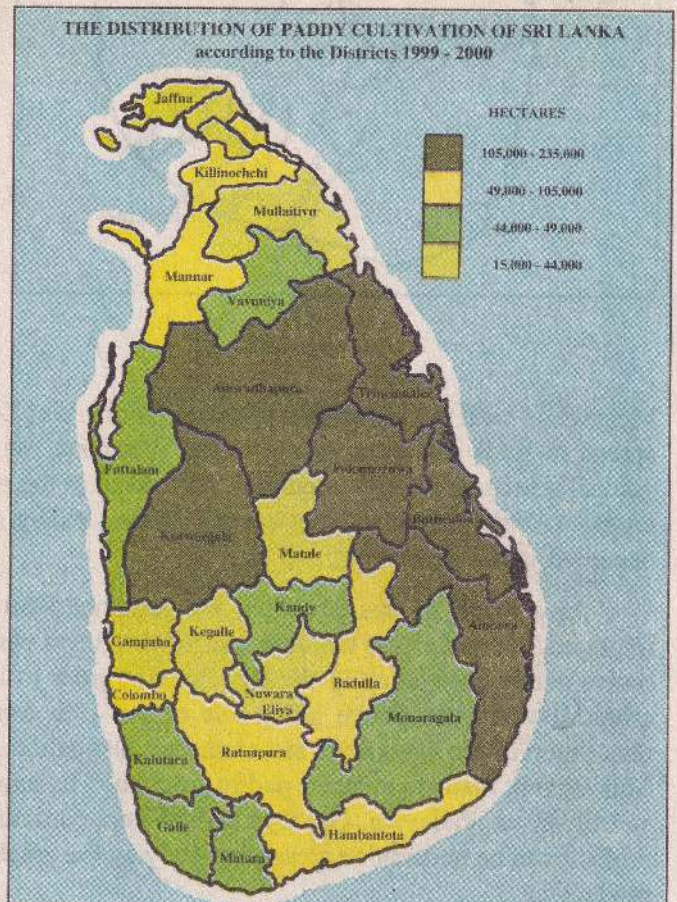


Fig. 5.5  
Paddy cultivation areas of Sri Lanka





Fig. 5.6

Paddy cultivation in Low country Dry zone lands.

The districts of Kurunegala, Anuradhapura, Batticaloa, Hambantota, Polonnaruwa, Ampara, Jaffna and Vavuniya come under the paddy cultivation areas in the Low country dry zone.



Fig. 5.7

A paddy barn

Although paddy is cultivated in these districts during both Yala (April to September) and Maha (October to March) seasons, it is during the Maha season that more land is brought under paddy cultivation. In areas where there are no irrigation facilities, cultivation is not done during the Yala season. Apart from the Yala and Maha seasons cultivation is done in these districts in between these two seasons. It is called the intermediate season.

Since rainfall in the Dry Zone is not adequate for cultivation purposes water supply to these regions has become essential.

Paddy cultivation in chenas in the Dry Zone is known as "Dry Farming". Paddy is produced mostly in the Dry Zone of Sri Lanka.





**Fig. 5.8**  
**Paddy cultivation in the Low country Wet zone**

Paddy is cultivated in the river valleys and lowland areas in the Low country wet zone. Of particular importance in this regard are the lands located on the basins of Nilwala, Gin and Bentota rivers and the lowland areas in the Colombo and Kurunegala Districts. In these areas paddy cultivation is dependent on rain water, which means the cultivation is rain-fed. Paddy is cultivated during both Yala and Maha cultivation seasons.

There are instances of the occurrence of floods due to heavy rainfall in this zone causing destruction to paddy cultivation.



**Fig. 5.9**  
**Paddy cultivation in hilly lands**



In the hilly lands paddy cultivation is mostly done in areas with an elevation of between 300m and 900m. Kandy and Badulla districts are significant here. The relief of the Hill country is not very conducive to paddy cultivation. Only the dry zone of the hill country is somewhat suitable for paddy. However, obtaining water for paddy cultivation at times, poses a problem.

In the hilly lands, paddy is cultivated in narrow plots methodically prepared like flights of steps. These plots are called terraces. About 10% of the total production of paddy in Sri Lanka comes from the hilly paddy lands.

In order to further widen your knowledge of paddy cultivation, read the following pamphlet prepared for farmers by the Agrarian Centre.

#### **For paddy cultivation**

##### **For the paddy plant to grow well, there should be**

- \* A temperature of between 21°C and 32°C
- \* A rainfall of about 1900mm
- \* Between 30% and 40% of the soil should contain clay so as to retain humidity of the soil.
- \* Of the cereal plants paddy cultivation needs the maximum amount of water.
- \* If there is an excess supply of water when the plant is small, plants tend to wither and get destroyed.
- \* If there is excess water at the harvesting time the paddy seeds tend to become chaff.

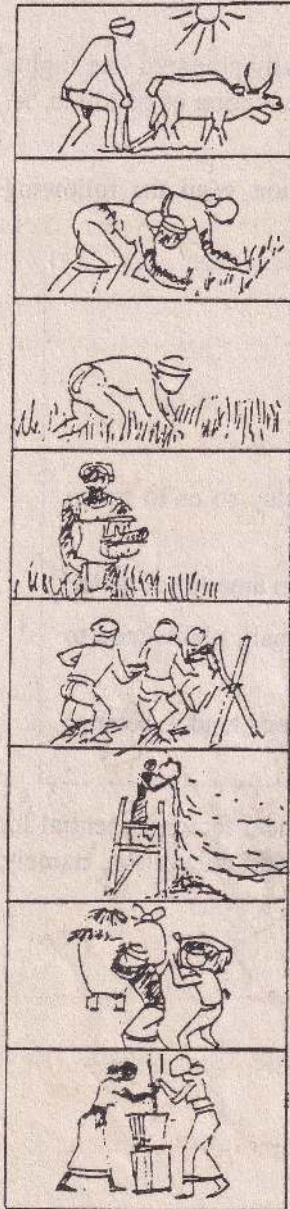
From the above pamphlet you studied about some of the physical factors essential for paddy cultivation. In Sri Lanka there are two main methods of paddy cultivation, namely, traditional methods and modern methods.



## Paddy Cultivation

### Traditional Methods

### Modern Methods



Ploughing

Planting seedlings

Weeding

Manuring

Threshing

Fanning

Carrying the harvest

Milling



Fig. 5.10  
Modern and traditional methods related to paddy cultivation



You are familiar with the system of applying modern techniques in order to obtain a bigger harvest in a comparatively short time. Instead of using tractors for ploughing, weeding, threshing, fanning and carrying the harvest, farmers use their own cattle and the traditional wooden plough. Instead of chemical fertilizer they use organic manure such as cowdung. Similarly, instead of using chemical pesticides and weedicides certain farmers use resin, margosa (seeds soaked in water), bird lime and such other material that are not harmful to the environment in order to wipe out insects. Moreover, there are also instances when methods such as the application of charms are resorted to when cultivation is destroyed by paddy pests, mice and worms etc.

Paddy cultivation requires an abundant supply of human labour. Where more human labour is essential, unity among such large crowds is also necessary for it to be carried out successfully.

Paddy cultivation is a heritage of ours, and we have a culture associated with it. Our folklore too has been enriched around paddy cultivation. The following verse confirms this.



“Straighten you backs, from morning bent,  
Remove the kerchiefs wrapped round your heads,  
Lay down the sheafs of paddy you have cut,  
Blessed by the four Guardian Deities, you may step out!”

Fig. 5.10



There are problems related to paddy cultivation that are associated with the life of the people.

- \* people's unwillingness to engage in occupations related to paddy cultivation
- \* difficulty in obtaining labour
- \* fragmentation of land
- \* scarcity of water
- \* excess of water
- \* danger from pests
- \* insufficiency of manure/fertilizer
- \* dearth of high-yielding seeds



- \* poverty and indebtedness
- \* low income received very often from paddy cultivation
- \* environmental damage

If the problems associated with paddy production are solved, Sri Lanka will not only be self-sufficient in rice, but avenues will also be opened for the export of rice. Action taken by the government towards the solution of problems that have arisen with regard to paddy cultivation are contained in the following information.

Paddy Research Centres have been established at Bombuwala, Ambalantota, Labuduwa and Batalegoda. Successful results have been obtained from research undertaken at these Research Centres.

Accordingly, several types of seeds have been developed at these Research Centres namely BW 267-3, BW 351 at Bombuwala, BG 379-2, BG 94-1 at Batalegoda and AT 303, AT 353 at Ambalantota. Use of these types of seeds have resulted in a rise in the yield per hectare.

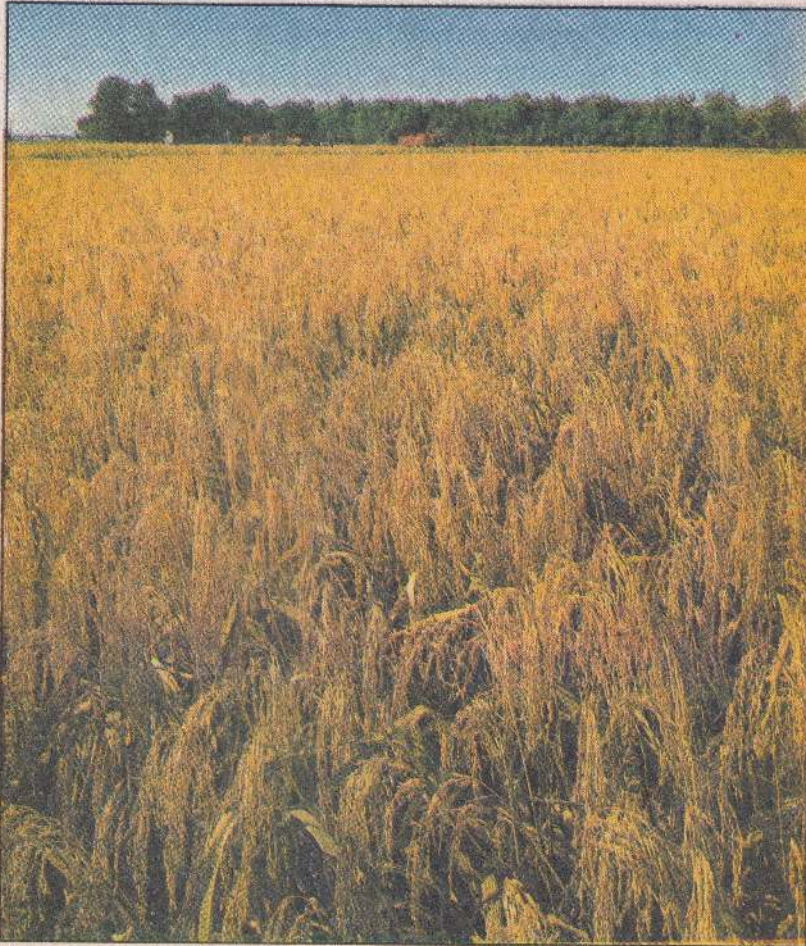


Fig. 5.11  
A rich paddy field

As was the practice in the past, today too we see new irrigation systems being built up and old irrigation works restored, for the purpose of securing water necessary for paddy cultivation. Various irrigation projects are being implemented in Sri Lanka for the development of paddy cultivation. The Gal Oya Project, Udawalawe Scheme and the Mahaweli Multi Purpose Development Scheme are some of those major irrigation and water supply schemes. These



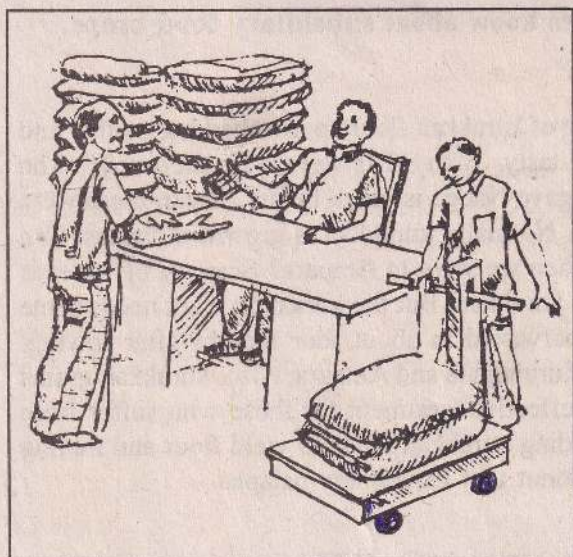


Fig. 5.12  
Purchasing paddy

schemes have helped immensely in the construction and restoration activities of irrigation works. A guaranteed price scheme for paddy is being implemented in order to facilitate the farmers in the sale of their paddy. The state has intervened by establishing paddy purchasing centres in different areas in order to help in the sale of paddy collected from various places. The Department of Agriculture has raised awareness among the farming community about the importance of using farm manure or compost manure etc. instead of chemical fertilizers for paddy cultivation.

Schemes have also been introduced to help farmers to obtain loan facilities at concessionary rates of interest, when they are short of funds to purchase agricultural inputs in time. The provision of loans by Rural Banks is an example for this. A Cultivation Insurance Scheme designed to provide compensation to farmers when their crops are destroyed by various natural disasters too has been introduced. In addition a Pension Scheme for farmers is also in operation now.

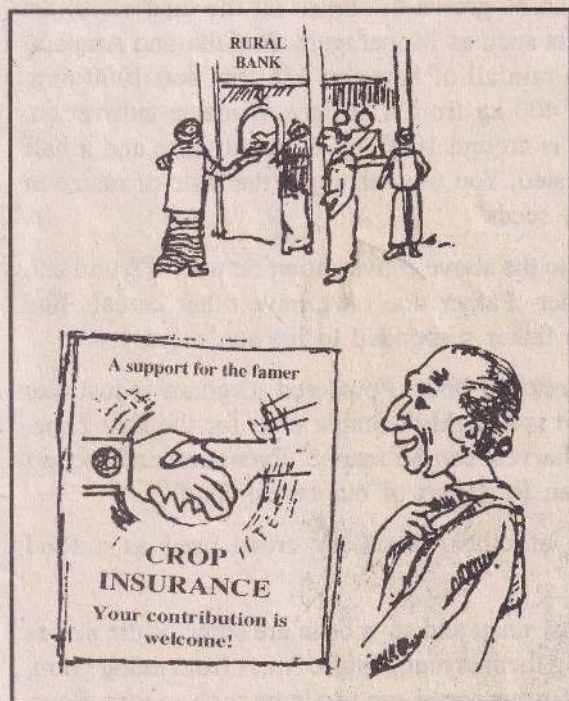


Fig. 5.13  
Rural Insurance Bank



**Apart from paddy cultivation it is useful to know about subsidiary food crops.**

### **Kurakkan**

Nadee enjoying a sweetmeat (Halapa) made of kurakkan flour approached her mother and inquired, "Mother these halapas are very tasty. With what were they prepared?" The description of kurakkan which the mother gave Nadee is given below. "Dear, these were made of kurakkan. It is a nutritious cereal. Normally kurakkan is grown in chenas. Can you remember seeing a kurakkan chena when we went to Ampara? Scarcity of water is not a serious problem for the cultivation of kurakkan. But the kurakkan plant needs some rain while it is young. The crop can be harvested in about four months after sowing. Kurakkan grows well in dry areas such as Kurunegala and Ampara. Also, kurakkan grains can be preserved for a long time. It is an effective treatment for those who suffer from diseases like diabetes. So..... it is by pounding kurakkan seeds to yield flour and mixing the flour so obtained with treacle and coconut that I made the halapas.

### **Maize**

Piyumi, a pupil in Year 9 went to the fair with her father and bought some tender pods of maize.

"Father..... These are very tasty when boiled, here you are ..... Shall we plant some maize plants in our home garden too?"

"Yes, dear ..... Let us find a well seasoned and mature pod, extract its grains and plant them. Daughter, do you know that maize can be grown in almost all the districts in Sri Lanka. It is grown predominantly in districts such as Moneragala, Badulla and Ampara. For maize to grow well there should be a rainfall of between 625 mm and 1000 mm. You know, we can obtain a yield of about 400 kg from a hectare of maize cultivation. However, in the USA the yield per hectare is around 1000 kg. In about three and a half months after sowing the yield can be harvested. You too can enjoy the taste of maize in about three four months after sowing these seeds".

Lakmal, Piyumi's brother who was listening to the above conversation between Piyumi and father posed a question and asked his father 'Father don't we have other cereals like sorghum, amu, meneri'. Let's see how the father responded to his son's query.

"Yes, dear, sorghum is a variety with outstretched pods. Powdered sorghum is just like rice flour. Since it can withstand drought, it is a highly suitable crop for the Dry Zone. About three four months after sowing, the harvest can be reaped. Even amu and meneri grow mostly in the Dry Zone. They too can form part of our cereal food".

Besides these cereals you may be aware of other subsidiary crops used as a food supplement. Pulses is one such variety.

Mung (green gram), cowpea, thora dhal, gram, undu and soya bean are some of the pulses grown in Sri Lanka. First and foremost among them is mung gram. Apart from mung gram, soya bean is also a good food supplement. Various soya bean products such as soya flour, soya milk, soya ice cream, soya string hoppers, soya sauce just to mention a few are now available in the market.



Various types of tubers (yams) such as sweet potatoes, cassava, potatoes, innala, kiriala, kukulala, coco yam and gahala are also grown in Sri Lanka. Potatoes grow in plenty in Nuwara Eliya and Jaffna Districts while all the other types of tubers grow in almost all the areas in home gardens.

### **Spices and crops used for curry flavouring**

There are a number of spices used as additives in the preparation of food. Names of a few main spices are indicated below.

Chillies, turmeric, cumin seed, coriander, pepper, mustard, fenugreek, cinnamon, curry leaves (bay leaves), rampe, cardamoms and cloves. In our country, red onions and big onions grow mostly in Matale and Jaffna districts. However, when the home produce is not sufficient for domestic consumption there are times when we have to import them.

### **Groundnuts, gingelly and cashew**

Gingelly, cashew and groundnuts are considered fatty foods. Groundnuts and gingelly are grown in the Dry Zone while cashew is grown in almost all the districts of Sri Lanka at least on a small scale. Cashew is a delicious food item.

### **Chena Cultivation**

Chena cultivation is a traditional form of farming in Sri Lanka coming down through the ages. Chena cultivation is a very simple form of farming. Chenas are found mostly in the Dry Zone districts.



**Fig. 5.14**  
**Guarding a chena**

Land for cultivation is prepared initially by clearing the jungle. After cultivating this cleared land for one or two seasons, the chenais are allowed to lie fallow. Then, after a few years the farmers begin cultivation on the previously abandoned lands. The jungles are cleared during the dry season. Before the commencement of the rainy spell, varieties of highland paddy, maize and cereals such as kurakkan, as well as food crops such as chillies and vegetables are sown there.



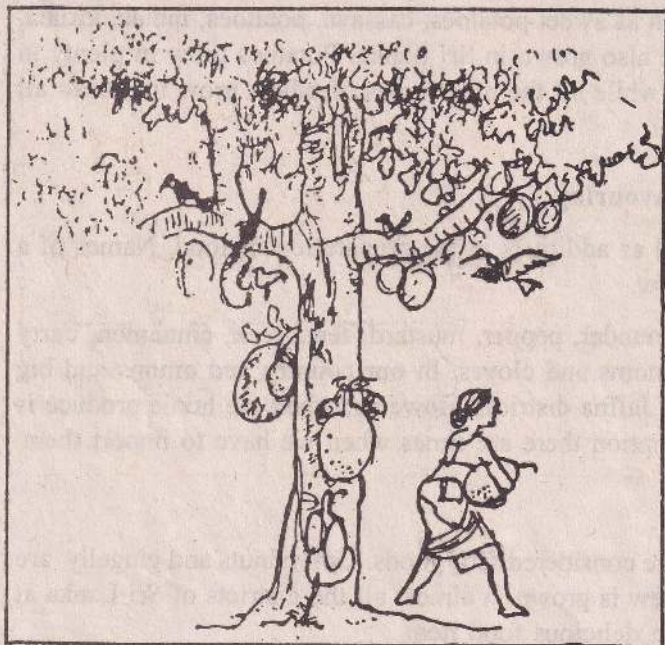


Fig. 5.15  
Jak

In order to protect the cultivated area, from wild animals, fences using logs of wood are erected round it. Although in the past the chena cultivator grew crops only for his own domestic consumption there are instances where the present day chena farmer engages in cultivation with the intention of selling his produce.

From ancient times, in old rural societies, jak occupied a prominent place in the meal. The jak tree also came to be known as the 'rice tree'. When the jak fruit is ripe, it is delicious. Boiled jak can be taken as a substitute meal for rice.

### Cultivation of vegetables and fruits

Most of the vegetables we take for food grow in any part of the country.

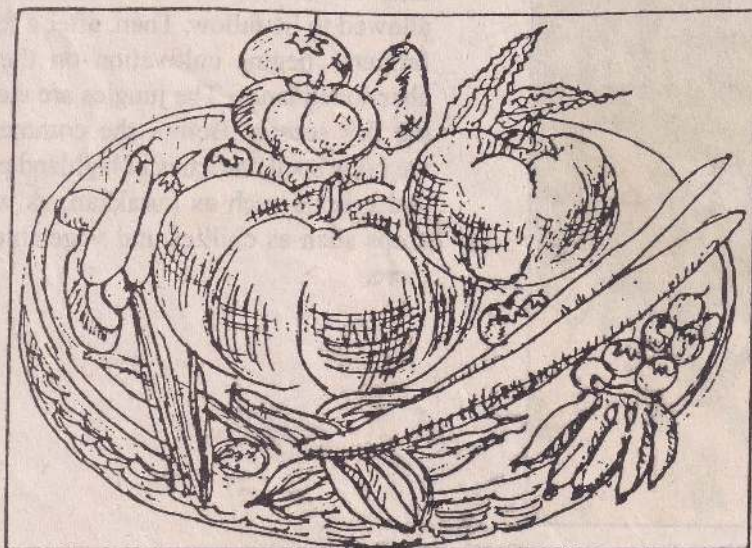


Fig. 5.16  
Dry Zone vegetables





Fig. 5.17  
Hill country Dry Zone vegetables

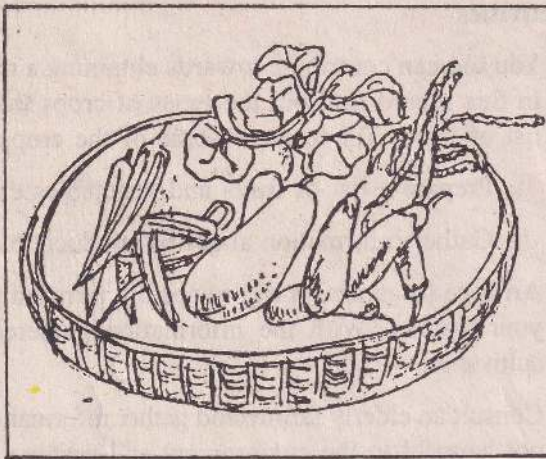


Fig. 5.18  
Wet Zone vegetables

Even though our meal is complete with vegetables, fruits are essential for it to be a balanced diet.

Read the following poem. Recollect a few verses you learnt in your early childhood about the fruits we take for food.

Veralu masan  
Pera (guava), delum (pomugranate)  
Papol (papaw) kesel (banana)  
Amba (mango) naran (mandarin)  
  
Vel dodam (passion fruit)  
Ali pera (avacados)  
Midi (grapes) rambutan  
Annasi (pineapple)  
  
Dodam (oranges) pears  
Mangosteens  
Uguressa (sweet lovi)

All these fruits are found  
Growing well in our land



## Activities

1. You too can contribute towards obtaining a nutritious meal from your own home garden. In this regard find out the types of crops that can be grown in your area and prepare a list of them. Try to grow some of the crops in the list in your home garden.
2.
  - i. Prepare a list of fruits and vegetables exported by Sri Lanka.
  - ii. Gather information about by-products based on fruits grown in Sri Lanka.
3. Arrange (organize) a trip to see the terraced paddy fields (plots) in the hill country with your teacher. With the information gathered in this trip, prepare a note on terraced cultivation.
4. Consult an elderly farmer and gather information on traditional cultivation methods that are not harmful to the environment and prepare a report containing that information.



## Chapter 6

### Plantation Crops in Sri Lanka

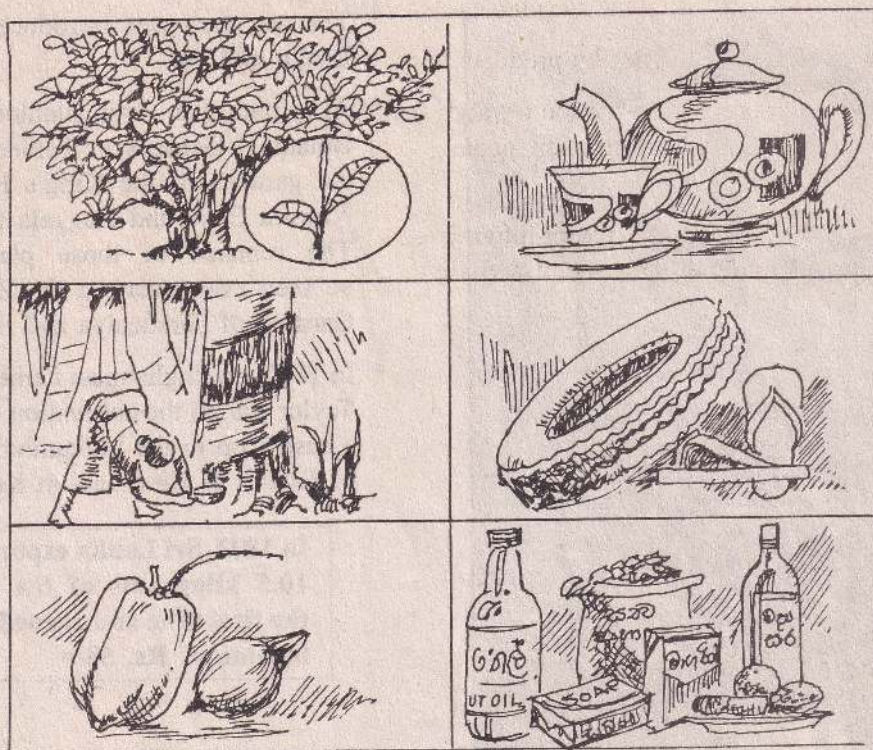


Fig. 6.1  
Products of the main plantation crops

The crops that are grown under commercial agriculture in Sri Lanka are shown on the left hand side of the diagram (Fig. 6.1). Commercial agriculture commands an important place in the economy of Sri Lanka. We earn foreign exchange by exporting tea, rubber and coconut which are the main plantation crops. Before we deal with the main plantation crops, we shall examine the beginning of plantation agriculture in our country.

Crops under plantation agriculture were not grown from early times as in the case of consumption agriculture. In our country plantation agriculture developed during the British period. At that time coffee was a popular beverage in Europe. In Sri Lanka the first coffee plantation was opened in 1833 at Gampola. This was done with the intention of obtaining a higher income by marketing coffee. Cultivation of coffee was patronized by the British rulers at the time.

However, the coffee plantations in Sri Lanka collapsed as a result of a disease (blight) that spread in the plants. Even cinchona plantations declined due to over-production, that is production (output) exceeding the demand.



## Cultivation of Tea

You may have learnt about the history of plantation crops in Sri Lanka before the introduction of the cultivation of tea. Now we shall examine the beginning of tea plantations which occupies an important place among plantation crops.



Fig. 6.2  
James Taylor

- \* The tea plant was introduced to Sri Lanka in 1839.
- \* At first tea was planted in the Botanical Gardens of Peradeniya, in the gardens of the King's House at Nuwara Eliya and Haggala Gardens. The remains of those plants can be seen even today at the Botanical Gardens of Peradeniya and Haggala.
- \* In 1867, an Englishman named James Taylor started the cultivation of tea as a cash crop in the Lulkandura Group of Estates at Hewaheta in Kandy.

**In 1873, Sri Lanka exported 10.5 kilograms of tea for the first time and earned an income of Rs. 58/=**

But by 1997, the production of tea increased up to 258 million kilograms and the income earned from it was 40425 million rupees.



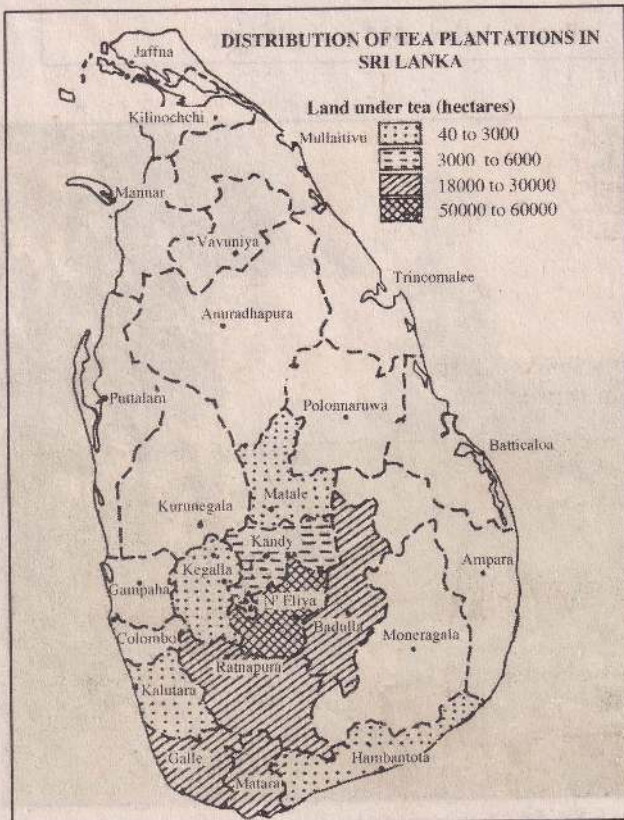
Fig. 6.3  
A Tea factory





**Fig. 6.4**  
**Processing of Tea**

By studying the map showing the distribution of tea plantations in Sri Lanka, try to get an idea about the districts where tea is grown.



**Fig. 6.5**  
**The distribution of tea cultivation**  
**in Sri Lanka**

We have already seen the beginning of the tea plant and the increase in production. It will be useful for you to know about the factors favourable for the cultivation of tea. Draw your attention to the information given in the leaflet below.



### The conditions favourable for the cultivation of tea

- \* An average temperature between 15.6°C - 27°C
- \* An annual rainfall of 1900 mm to 5460 mm
- \* Land with gentle slopes (more suitable)
- \* Loam and lateritic soils (soil with a good drainage)

Most of the favourable factors are found in the areas under cultivation of tea in Sri Lanka. As much as the physical features of Sri Lanka help to enhance her natural beauty it also has helped in classifying the types of tea grown here. This can be understood by studying the Table 6.1 below:

Table 6.1

Type of Tea	Relief on which it is grown
Udarata (upcountry) tea	Highlands over 1220 m
Mid country tea	Lands between 610 m - 1220 m in height
Low country tea	Lands below 610 m in height

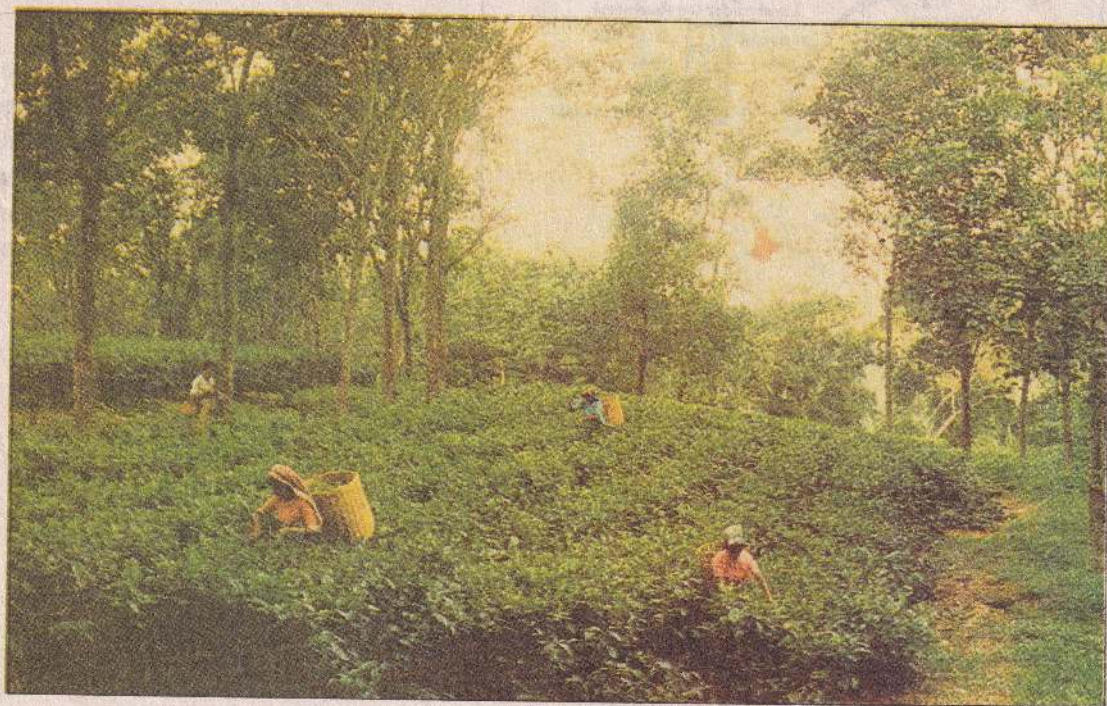
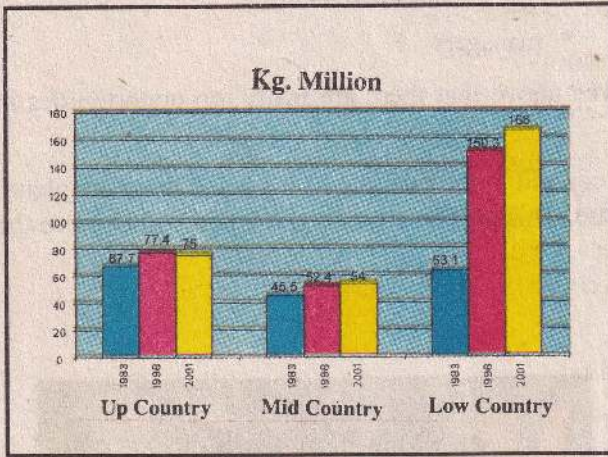


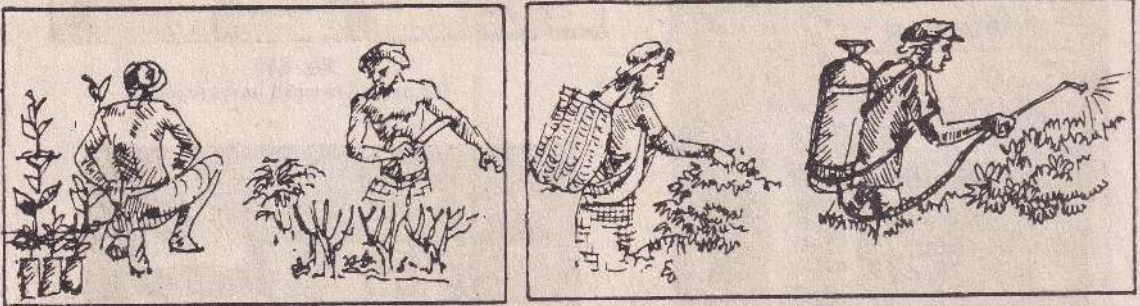
Fig. 6.6  
A Tea plantation



A prominent feature seen in figure 6.7 is the phenomenal increase in the production of low country tea. This may be the result of the efforts of tea small holders to increase their production.



**Fig. 6.7**  
Production of Tea (according to regions)



**Fig. 6.8**  
Stages of work done by labourers in a tea plantation

In the above picture (Fig. 6.8) you will notice a group of labourers engaged in various activities in a tea plantation. Several activities have to be performed by labourers in the cultivation of tea some of which are listed below.

- \* preparation of the land
- \* fixing rocky ridges and drains
- \* planting shelter trees
- \* control of nurseries
- \* shaping of plants
- \* plucking tender leaves
- \* pruning
- \* prevention of plant diseases and pest control

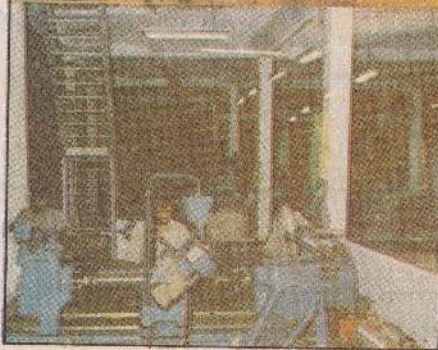
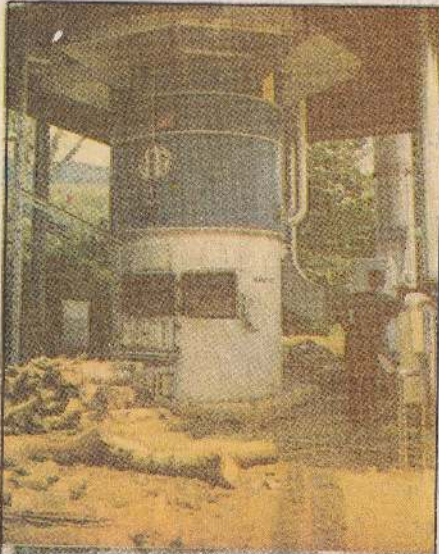


From this it is clear that a high rate of human labour is very essential in the planting of tea. A labour force is employed in various tasks mentioned above while those mentioned below are engaged in the administrative work.

- \* field officers
- \* estate superintendents
- \* overseers
- \* managers

It is clear from the information given above that there are many job opportunities in the tea industry.

A large supply of human labour is required in the planting of tea while there are plenty of job opportunities inside a tea factory too. This will be clear to you when you observe the pictures given in figure 6.9



**Fig. 6.9**

**Processes in the production of tea**



**Fig. 6.10**

**Tea packed in small boxes (chests)**

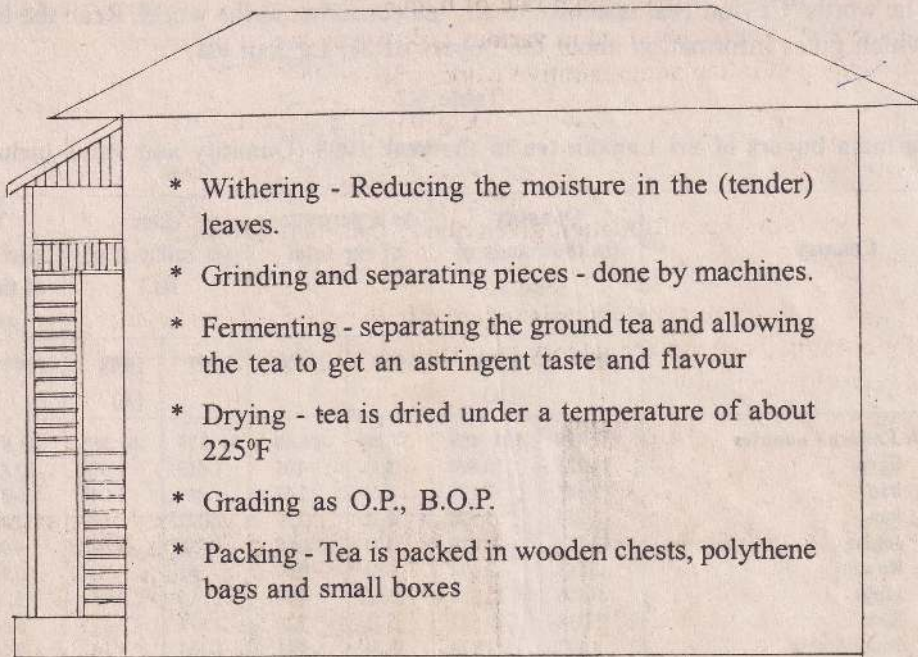


**Fig. 6.11**

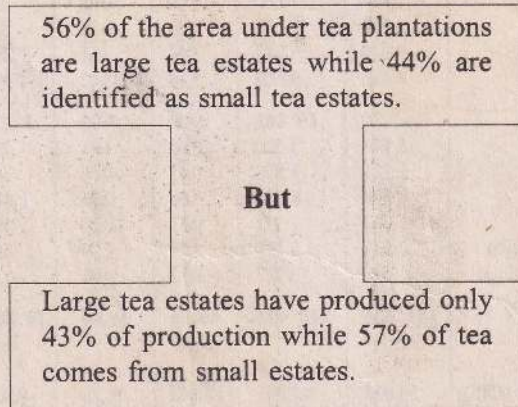
**Different types of tea products**

Lilantha and a group of his friends visited a tea factory. The estate superintendent Mr. Saram explained to them the processes involved in the production of tea from the stage of bringing plucked tender leaves to the factory up to the stage of packeting. This process is shown briefly in the diagram below. Read it (Figure 6.12).





**Fig. 6.12**  
**The different stages in the production of tea**



Having gained some knowledge about the contribution of large scale tea estates and small estates in the production of tea, you will be able to study about the trade in tea.

### **Trade in Tea**

There is a local as well as a foreign market for our tea. The British started planting tea here exclusively for the export market. The market decides the preference of the consumers of tea.



The words 'Ceylon Tea' is known to any tea consumer in the world. Read the following table which gives information about the buyers of Sri Lankan tea.

**Table 6.2**

**The main buyers of Sri Lankan tea in the year 1998 (Quantity and value included)**

Country	Quantity (in thousands of kg.)		As a percentage of the total		Value (in millions of Rs.)		The percentage of the total value	
	1997	1998 (A)	1997	1998	1997	1998 (A)	1997	1998
<b>1. Middle Eastern Countries</b>	<b>99,898</b>	<b>121 459</b>	<b>37.20</b>	<b>44.68</b>	<b>14 277</b>	<b>20 565</b>	<b>33.57</b>	<b>40.90</b>
1.01 Egypt	14 325	10 890	5.33	4.01	1 623	1 578	3.82	3.14
1.02 Iraq	3 341	7 139	1.24	2.63	369	1 047	0.87	2.08
1.03 Iran	6 224	5 520	2.32	2.03	1 042	964	2.45	1.92
1.04 Jordan	12 731	7 819	4.74	2.88	1 735	1 305	4.08	2.60
1.05 Kuwait	2 248	2 694	0.84	0.99	381	504	0.90	1.00
1.06 Libya	9 806	13 551	3.65	4.98	1 514	2 494	3.56	4.96
1.07 Syria	15 338	19 587	5.71	7.20	2 273	3 174	5.34	6.31
1.08 Saudi Arabia	8 693	11 174	3.24	4.11	1 364	2 147	3.21	4.27
1.09 United Arab Emirates	20 601	35 130	7.67	12.92	2 950	5 977	6.94	11.89
1.10 Yemen	2 021	2 320	0.75	0.85	265	360	0.62	0.72
1.11 Others	4 570	5 635	1.70	2.07	761	1 015	1.17	2.02
<b>2. European Union</b>	<b>30 465</b>	<b>30 673</b>	<b>11.34</b>	<b>11.28</b>	<b>4 857</b>	<b>6 068</b>	<b>11.42</b>	<b>12.07</b>
2.01 Federal Republic of Germany	6 506	5 900	2.42	2.17	1 098	1 098	2.58	2.18
2.02 France	2 198	1 736	0.82	0.64	373	359	0.88	0.71
2.03 Italy	1 824	1 860	0.68	0.68	273	315	0.64	0.63
2.04 Netherlands	2 252	2 061	0.84	0.76	322	352	0.76	0.70
2.05 United Kingdom	9 249	9 814	3.44	3.61	1 292	1 639	3.08	0.26
2.06 Others	8 436	9 302	3.14	3.42	1 499	2 305	3.52	0.58
<b>3. Other Industrial Countries</b>	<b>16 638</b>	<b>19 263</b>	<b>6.20</b>	<b>7.09</b>	<b>3 130</b>	<b>4 311</b>	<b>7.36</b>	<b>8.57</b>
3.01 Australia	2 571	3 300	0.96	1.21	706	1 053	1.66	2.09
3.02 Canada	1 221	1 569	0.45	0.58	212	306	0.50	0.61
3.03 Japan	8 274	8 031	3.08	2.95	1 410	1 607	3.32	3.20
3.04 New Zealand	1 093	971	0.41	0.36	194	231	0.46	0.46
3.05 United States of America	3 131	5 165	1.17	1.90	552	1 068	1.30	2.12
3.06 Others	348	227	0.13	0.08	56	46	0.13	0.09
<b>4. Other Countries</b>	<b>121 536</b>	<b>100 473</b>	<b>45.26</b>	<b>36.96</b>	<b>20 269</b>	<b>19 336</b>	<b>47.65</b>	<b>38.46</b>
4.01 Afghanistan								
4.02 Commonwealth of Independent states (CIS)	54 823	43 981	20.42	16.18	9 803	9 233	23.05	18.36
4.03 Chile	5 415	5 532	2.02	2.03	663	785	1.56	1.56
4.04 Hong Kong	3 178	3 310	1.18	1.22	534	650	1.26	1.29
4.05 Pakistan	5 190	3 196	1.93	1.18	166	457	1.57	0.91
4.06 Singapore	778	758	0.29	0.28	140	155	0.33	0.31
4.07 Turkey	34 168	29 161	12.72	10.73	5 397	5 341	12.69	10.62
4.08 Republic of South Africa	2 242	1 838	0.83	0.68	308	306	0.72	0.61
4.09 Others	14 734	12 546	5.49	4.61	2 665	2 392	0.27	4.75
<b>Total</b>	<b>268 537</b>	<b>271 868</b>	<b>100.00</b>	<b>100.00</b>	<b>42 533</b>	<b>50 280</b>	<b>100.00</b>	<b>100.00</b>

The above table shows how the export quantities of tea have increased.



**Table 6.3**  
**Tea exports of Sri Lanka**

Year	Quantity exported	Revenue (millions of Rs.)
1873	10.5 kg	—
1965	228 kgm	1 218
1975	213 kgm	1 933
1985	198 kgm	12 002
1990	216 kgm	19 823
1995	246 kgm	24 638
1996	234 kgm	32 536
1997	258 kgm	40 425
1998	272 kgm	50 280

Sri Lanka produces several types of tea for the export market. Let us see what they are and which countries prefer these types.

**Green Tea**

- \* Pakistan
- \* Japan
- \* Morocco

**Black Tea**

- \* Middle Eastern Countries

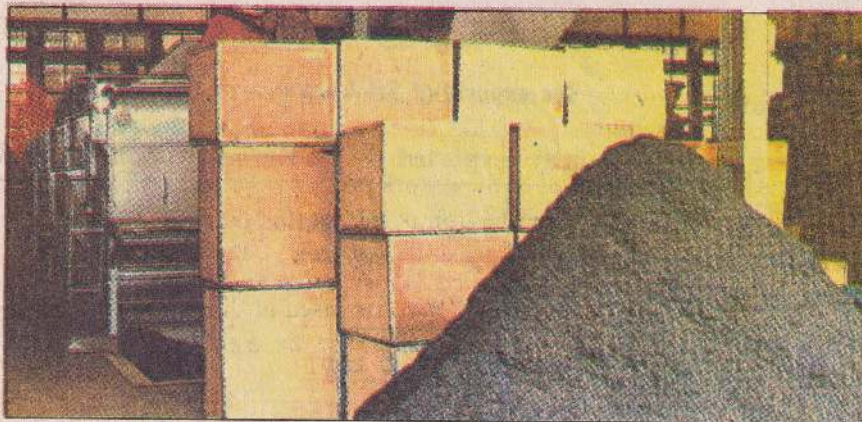
**Instant Tea**

- \* Majority of the world population

**There is a demand for our tea to be used as a raw material. Multi-national Companies like Lipton, Nestle, Coca Cola have already started producing varieties of liquid tea.**

Sri Lanka can keep up the advantageous position she enjoys in the world market by producing high quality tea. Today Sri Lanka has to face the market challenges directed from countries like India, China and Kenya. These challenges must be overcome only by producing high quality tea.





**Fig. 6.13**  
**Packing tea in wooden chests**

### **New Trends in the Production of Tea**

Using modern methods in the production of tea is a timely need. In 1873, tender tea leaves were rolled with the palms under the guidance of James Taylor. But today machinery is used in the various stages of production such as -

- \* Rolling machine called Orthodox is used in rolling the tender tea leaves
- \* E.C.P. and F. B. D. machines for withering tea
- \* Chota sieve is used in classifying different kinds of tea
- \* Polythene packing and packing in small boxes is done during grinding.

Moreover, modern tea production is also diverse.

<b>Varieties of Flavoured Tea</b>
<b>Instant Tea</b>

Apple flavoured, lemon flavoured, strawberry flavoured and pineapple flavoured.

Tea diluted in cool water and hot water, types of cordials.

Tea seeds are used in making poonac while the waste tea is used in making fertilizer.

Now you have learnt about the production of tea. It is also important for you to know about the problems faced by producers of tea. The following is an excerpt of a letter written by the Superintendent of a large scale tea estate to the Secretary of the Ministry of Plantation Industries about the problems confronted by him. Read it.



“The Secretary,

I am the Superintendent of a tea estate 600 acres in extent. This estate had been opened up about 50 years ago.

The labourers here do not attend to their work properly. Even the plucking of tea leaves is done irregularly. Hence the production is low in this estate. The cost of production is also high.

The factory is still using the machinery that was used at the time of the opening of the factory. We do not have an income to modernize the machines. We have no way of replanting by removing the old plants.....”

Now let us read an excerpt of a letter written by the proprietor of a tea small holding to the Secretary of the Ministry of Agriculture regarding the problems he is facing.

“The Secretary,

My tea estate is 6 acres in extent. Though I had to spend a lot for planting tea in my small estate, I have to wait for five to six years to get an income out of it. There is a shortage of seedlings, tea sprigs and shelter trees. I find it difficult to get labourers. As a result tea plucking gets delayed. There is a distance of about 12 miles from my estate to the group of estates which buys my tea. The leaves get crushed in transportation. To add to this I have to incur heavy expenses in transporting the leaves.

The factory that buys our tea does not pay me the guaranteed price. Sometimes there is a delay in paying the money due to me. My knowledge about planting tea is also not sufficient for the better maintenance of the tea estate. . . .”

The following are the solutions given by the Government to the problems of the Estate Superintendent and the tea small holder.

- \* Giving incentives and loans for replanting and fresh planting of tea.
- \* Supplying high quality seedlings.
- \* Providing spraying machines to spray chemicals (through Agricultural Training and Extension Centres) at a concessionary price.
- \* Establishing centres for collecting leaves.

Accordingly, you will see how the Ministry of Plantation Industries assists the estate owners to overcome their grievances.

Read the Supplementary Teachers’ Guide (6-11) “The Tea Industry in Sri Lanka” to enhance your knowledge.

## **Rubber Cultivation**

**Mike**, an American is a pen pal of Ruchini who is a student in Grade 9 at Wattagama Balika Vidyalaya. He had sent a letter to Ruchini asking her about rubber cultivation in Sri Lanka.

An excerpt of the reply written by Ruchini to Mike is given below.





**Fig. 6.14**  
**A Rubber Plantation**

“As requested by you, I am writing a bit of information regarding rubber plantations in Sri Lanka. I am also enclosing herewith a photograph of a rubber plantation in our country and also a photograph of the British National Sir Henry A. Wickham who introduced the rubber plant to our country. In 1876, Sir Henry A. Wickham started planting rubber in Brazil. The first rubber tree was planted in our country at the Henerathgoda Botanical Gardens in Gampaha.

Perhaps you may have heard that Christopher Colombus the Explorer, who having seen the natives of Hispaniola playing with balls made of rubber, had gifted a few rubber balls to Queen Isabella of Spain. Further, there is information that in 1815, the Spanish soldiers who lived in the Amazon region have used a covering made of rubber to protect themselves from rain.



**Fig. 6.15**  
**Sir Henry Wickham**

It was in 1890 that rubber cultivation started on a small scale in Sri Lanka. After 1934, the acreage under rubber cultivation increased. With the development of industries in the world there was a demand for rubber with the result that rubber cultivation expanded in Sri Lanka.



# AREAS OF RUBBER CULTIVATION IN SRI LANKA

The extent of land cultivated with rubber in each the district

District	Hectares
Colombo, Gampaha	2 222
Kalutara	46 658
Galle	19 024
Matara	7 908
Hambantota	80
Ratnapura	36 135
Kegalle	53 457
Kurunegala	3 804
Kandy	3 905
Matale	4 106
Badulla, Moneragala	3 003
	1 000 298

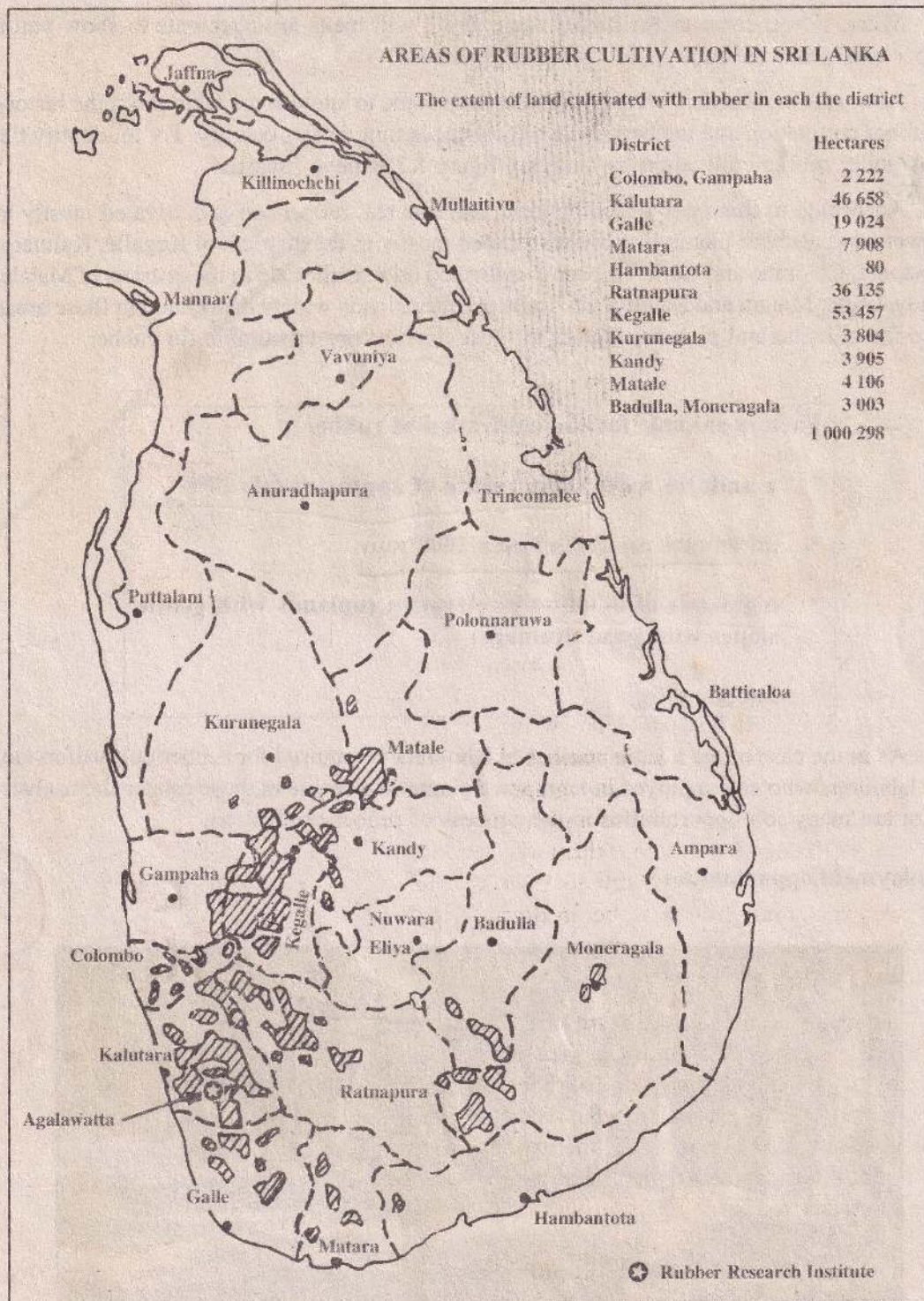


Fig. 6.16  
The distribution of rubber cultivation in Sri Lanka



**Mike,** If you come to Sri Lanka some day, I will make arrangements to show you a rubber estate and the process of producing rubber”

After reading Ruchini’s letter you must have come to know some facts about the history of rubber cultivation and the beginning of rubber planting in this country. Try to identify the areas under rubber cultivation by studying figure 6.16 above (map).

According to this map, it will be clear that like tea, rubber too is cultivated mostly in the wet zone. Rubber plantations are distributed mostly in the districts of Kegalle, Kalutara, Ratnapura, Colombo and Galle. Rubber is cultivated on a small scale in the districts of Matale, Kandy, Galle, Matara and Badulla too. Rubber cultivation is widely distributed in those areas since the climatic and physical factors in those districts are favourable for rubber.

#### **Factors suitable for the cultivation of rubber**

- \* **a uniform mean temperature of approximately 27°C**
- \* **an annual rainfall of over 2000 mm**
- \* **highlands of 0-300 m in elevation (uplands with gentle slopes with good drainage)**
- \* **laterite soils**

As in the case of tea a large number of labourers is required for rubber cultivation too. The labourers who are employed in large scale plantations reside in those estates themselves. There are many job opportunities in the process of rubber production.

#### **Employment opportunities**



**Fig. 6.17**  
**Collecting latex**





**Fig. 6.18**  
Coagulating latex

## Rubber Production

Tapping and collecting latex, coagulating the latex, drying the rubber sheets, and storing are some of the processes involved. At the end of processing rubber, the products are graded mainly as smoked rubber, sheet rubber, block rubber, crepe and concentrated latex.

Smoked rubber is produced in houses as well as in factories. Block rubber and sheet rubber are prepared in factories.

**Table 6.4**  
Rubber Production in Sri Lanka (in millions of kg)

Rubber Production	1992	1993	1994	1995	1996
Sheet Rubber	44.9	43.8	40.09	42.2	53.2
Crepe Rubber	33.5	33.3	38.4	34.9	41.5
Block Rubber and Other products	27.7	27.1	26.0	28.6	17.7

By studying the above table you will be able to get some information about the types of rubber products made over a number of years and the quantities produced in each type.



It is very essential to maintain good quality in rubber products. The Rubber Research Institute of Sri Lanka is situated at the Dartonfield Group in Agalawatta. You can identify this place in the map. A part of a sheet of instructions distributed by the Rubber Research Institute is shown below.

**In order to maintain quality in rubber products...**

- \* Prevent the addition of bacteria and other waste matter by keeping clean the coconut shells and other containers used in collecting latex.
- \* Provide facilities for quick processing of coagulation (This is to prevent the collected latex going bad if kept for a long time).
- \* Add the required amount of water and distill with a suitable filter (This prevents the collection of waste matter).
- \* Add the required amount of acid for coagulation.
- \* After adding acid mix it well and remove bubbles.
- \* Roll the rubber sheets which are prepared manually to the specified thickness and area (dimensions).
- \* After rolling eliminate water after washing well. Pack the sheets and dry them to the required condition.
- \* Store the dried rubber sheets in a moisture free place.

## **Trade in Rubber**

About 65% of the rubber produced in our country is exported as a raw material and as rubber mixed finished products. However, it is only about 4% of the supply to the world market. About 35% of the rubber products is utilized in the local industries. The biggest share of our rubber exports go to the Republic of China, Bangladesh, United Kingdom, Iraq, Japan, Korea, Pakistan, Singapore, Mexico and Germany purchase our rubber. We have also to compete with Thailand, Philippines, Malaysia and Indonesia in the international market to obtain higher prices for our rubber.

## **The Rubber-based manufacturing industries**

It is suitable to make an effort to obtain a higher income through the manufacture of finished products using rubber as a raw material by developing local industries.

About 15 young men of Matugama in the Kalutara District got together and had set up a "Yauwana Udana" organization. You will be able to get an idea about the rubber-based manufacturing industries from the topics discussed at one of its meetings. The President of the Youth Association introduced a chart showing the rubber-based products at the meeting of this association held at the Matugama Junior School on a Sunday. It was as follows.



## Items that can be manufactured from rubber

1. Rubber seeds	oil animal food
2. Concentrated latex	balloons gloves rubber belts rubber mixed mattresses casting moulds
3. Dry rubber in the form of sheet rubber, crepe rubber, block rubber	tyres toys rubber balls doormats rubber shoes slipper soles rubber hoses tubes rubberized mattresses
4. Rubber wood	furniture toys tea chests firewood

Sarath who saw this chart proposed that as they were unemployed, they can start a small rubber based industry. That proposal was seconded by Nihal and finally adopted.

Kamal, put forward an idea that they can produce toys and tea chests utilizing rubber wood since they could not afford a big investment of capital with the meagre resources their association had. Every one expressed their consent to this proposal.

From this it is clear that if there is unity among the people diverse goods could be produced making use of the raw material available in the locality. Let us now examine the main **problems related to rubber cultivation.**





**Fig. 6.19**  
**Manufacture of rubber gloves**

\* **Not following instructions and recommendations given on the cultivation of rubber**

\* **Incurring high expenses**

\* **Labour related problems**

\* **Market problems**

\* **Unfavourable weather conditions**

Adhering to the age-old traditional methods of cultivation

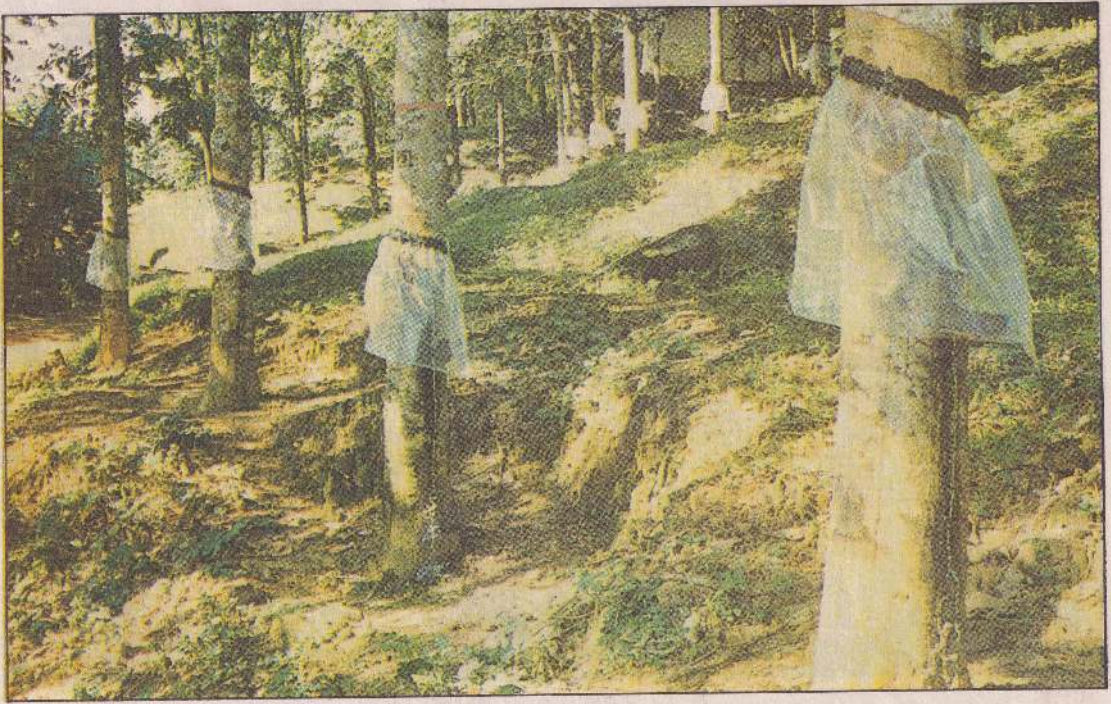
Expenditure on labour wages, transport, cost of fertilizers, control of plant diseases and insecticides

Shortage of labour

Competition from synthetic rubber (the demand for natural rubber decreases due to competition from synthetic rubber). It is impossible for Sri Lanka to make an impact on the price of rubber in the world market since the export of Sri Lankan rubber is as small a quantity as 4% of the world production of rubber.

The heavy rainfall in some regions throughout the day affects adversely the tapping of trees for latex.





**Fig. 6.20**  
**Rubber - tapping on a rainy day**

### **The steps taken by the Department of Rubber Development in solving the problems**

- \* Establishing the Rubber Research Institute.
- \* Providing subsidies from World Bank aid.
- \* Encouraging the use of fertilizers by giving subsidies.
- \* Adopting new methods of tapping latex, introducing new methods.
- \* Introducing high quality seedlings by bud grafting.
- \* Introducing new cover cropping methods such as use of hay for retaining moisture in the soils during the dry season and for protecting the soil.
- \* Since there is no opportunity of getting an income during the initial stage of planting, cultivating intercrops like pineapple plantain, passion fruit along with rubber.
- \* Covering the trunk of the tree where tapping is done, to get latex during periods of heavy rain. This will help the workers to prevent a drop in their income as they can work during rainy days too.





**Fig. 6.21**  
**Mixed cropping in a rubber estate**

### **Activities**

- \* What instructions will you give to a rubber smallholder if he asks you about the ways of improving quality in rubber production. Prepare a list of your suggestions in this regard.
- \* Name a few cottage industries which could be opened utilizing rubber as a raw material.
- \* Organize an educational trip to a rubber factory. After this visit, make a speech in your class about the production of crepe rubber and block rubber in relation to what you saw at the factory.

### **Coconut Cultivation**

Coconut occupies a special place in the day to day life of people. From ancient times we have been used to include coconut in our food preparations. Hardly any meal we consume is prepared without using coconut. Every part of the coconut tree is useful in meeting our various needs.

The coconut tree is a tropical plant belonging to the palm family. It is believed that a few coconuts would have floated along with the ocean currents and reached our shores where they began to grow. This would have been the origin of the coconut palm in our country.



## COCONUT BASED PRODUCTS



Fig. 6.22  
Coconut Products



The coconut tree has occupied an important place from very early times. The legend connected to Vijaya's arrival in Sri Lanka mentions that king-coconuts were taken as a drink those days. Between 161 B.C and 134 B.C during the reign of King Dutugemunu, the coconut tree was known as the 'great tree' (maharuk). The decorations of flowerpots with coconut flowers seen in the guard stones of the Anuradhapura period testifies to the fact that coconut flowers were used as a symbol of prosperity. Our Chronicles mention that during the reign of King Agbo II coconut was cultivated in a stretch of three yojanas (about 48 miles) from Weligama to Devinuwara.

According to this information mentioned in the Mahavamsa, it was during the reign of King Agbo II that coconut cultivation received royal patronage for the first time. On the information available about the life of common people in ancient Sri Lanka the consumption of coconut begins from the Polonnaruwa period. Before this five products of cow's milk (pasgorasa) were added to food as a flavour (to make it tasty). During the period when the Dutch ruled the maritime provinces of our country, coconut cultivation commanded an important place but it was during the British period that it received better government patronage.

**Sri Lanka occupies the fourth place in the world in the area of land under coconut cultivation and the quantity of coconut produced**

Having obtained some information regarding the history of coconut cultivation now you may make an effort to identify the physical factors that influence coconut cultivation.

#### **Physical Factors**

**It requires a temperature of between 20°C - 27°C and an annual rainfall of 2000 mm to 2500 mm. Coconut cultivation is distributed in areas below 300 m above sea level. A saline sandy soil is specially favourable for the cultivation of coconut. However any kind of soil is suitable for coconut.**

Coconut cultivation is largely distributed in the south-western lowlands of the island. However, it is within the area formed as a triangle joining Colombo, Chilaw and Kurunegala that coconut estates are distributed as plantations. Coconut is also planted in the narrow coastal strip from Colombo to Tangalle and along Batticaloa and Jaffna areas. Coconut cultivation is found in home gardens in almost every district.



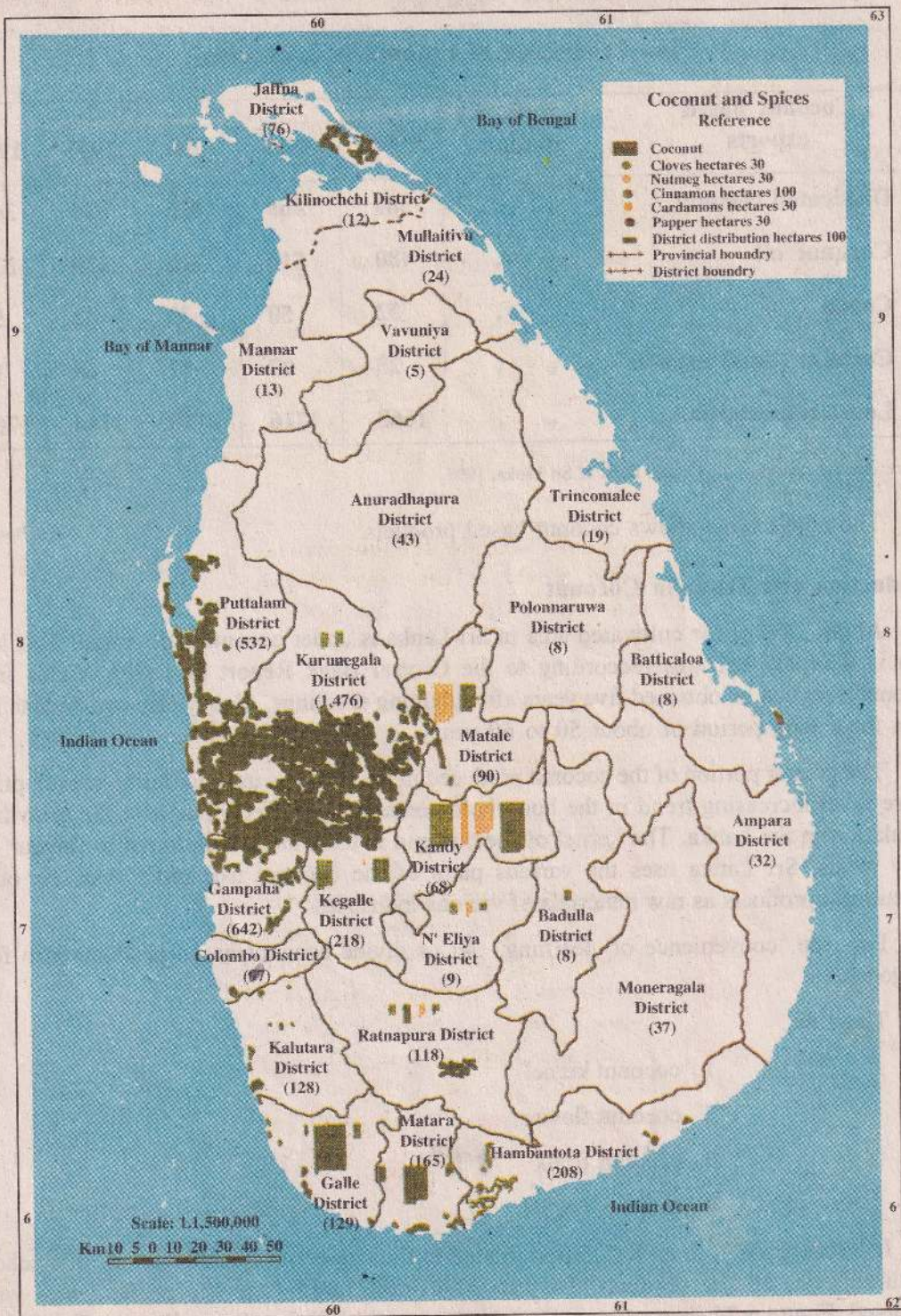


Fig. 6.23  
Distribution of coconut cultivation



Table 6.4

## The Production of Coconut in Sri Lanka

Coconut based exports	Nuts in millions	1994	1995	1996	1997	1998
Dessicated coconut	, ,	380	465	425	524	367
Coconut oil	, ,	480	516	328	289	334
Copra	, ,	32	50	39	42	52
Coconut (nuts) exports	, ,	25	27	17	18	18
Local consumption	, ,	1668	1716	1720	1744	1762

Source: Annual Report of the Central Bank of Sri Lanka, 1998

The above table shows coconut based products.

## Production and Trade in Coconut

About 28% of the cultivated area in Sri Lanka is under coconut cultivation. This land area is 4,39,000 hectares (according to the Central Bank Report of 1998). Yields from coconut trees can be obtained five years after planting seedlings. Also, yields can be obtained even for a long period of about 50 to 60 years.

The greater portion of the coconut produced in Sri Lanka is used for home consumption. There is an increasing trend in the household consumption of coconut with the growth of population in Sri Lanka. The kernel of the coconut is used in various forms to flavour our daily meals. Sri Lanka uses the various parts of the coconut tree more than the other agricultural products as raw materials of various industries.

For the convenience of learning, let us divide coconut based products into four categories.

They are

1. coconut kernel
2. coconut flower
3. coconut trunk
4. cadjans

In January 1997, at an Exhibition related to the subject of Social Studies, in a school at Kurunegala, all the products that can be manufactured from the coconut tree were displayed. Figure 6.24 shows the products that were displayed at that stall at the Exhibition.



## Coconut Based Product

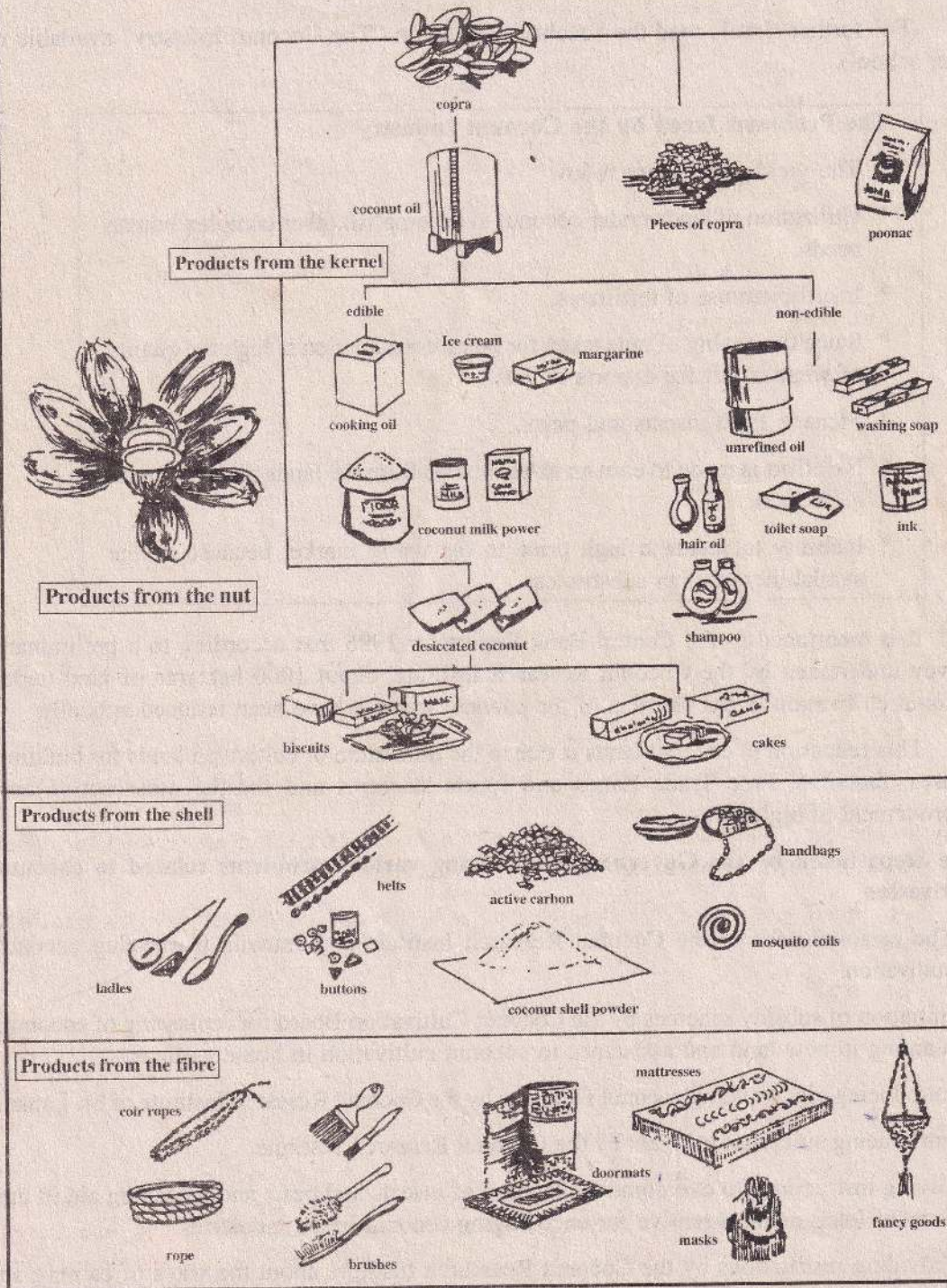


Fig. 6.24  
Coconut - based products



Countries such as Japan, Pakistan, Germany and Cyprus buy the products made using the coconut kernel.

(For further details read the Teacher's Guide on "The Coconut Industry" available in your school).

#### **The Problems faced by the Coconut Industry**

- \* The yield per hectare is low
- \* Utilization of lands under coconut to accomplish other complex human needs.
- \* Insufficient use of fertilizers.
- \* Since the quality of nuts taken for home consumption is high the quality of what is left for exports is low.
- \* Menace from insects and pests.
- \* No effort is made to earn an extra income from the lands under coconut cultivation.
- \* Inability to secure a high price in the world market because of the availability of other substitutes.

It is mentioned in the Central Bank Report for 1996 that according to a preliminary survey undertaken by the Coconut Research Institute, about 1000 hectares of land under coconut cultivation in the districts of the coconut triangle have been reduced annually.

This reduction in coconut lands is due to the utilization of cultivated lands for building houses, factories, Free Trade Zones and sports stadiums and for the construction and improvement of highways.

#### **The Steps taken by the Government in solving various problems related to coconut cultivation**

- \* The establishment of the Coconut Research Institute at Lunuwila to develop coconut cultivation.
- \* Initiation of subsidy schemes by the Coconut Cultivation Board for replanting of coconut, planting in new land and assistance to coconut cultivation in home gardens.
- \* Introducing high-yielding coconut seedlings by the Coconut Research Institute of Sri Lanka.
- \* Introducing suitable fertilizers by the Coconut Research Institute.
- \* Giving instructions to overcome the menace of insects and pests and providing aid in the form of loans as an incentive for encouraging coconut-based industries.
- \* Providing instructions by the Coconut Research Institute about the ways of earning an extra income from the lands under coconut cultivation, that is, the use of these lands to grow intercrops like pineapple, pepper and coffee and also for livestock farming.



- \* Establishment of the organization called Asian Pacific Coconut Community by the coconut-cultivating Asian Pacific countries.

Now it is clear to you that the Government has provided assistance in various forms to overcome the problems associated with coconut cultivation.



**Fig. 6.25**

**Intercropping in lands under coconut cultivation**

### **Activities**

- \* Prepare a list of any types of self-employment basing the coconut tree.
- \* Coconut tree is a 'wish-conferring' tree. Do you agree with this epithet of the coconut tree? Give your reasons?
- \* Name the insects that harm coconut cultivation. Ask the Agricultural Officer in your area about the steps that could be taken to prevent this menace and write them down.
- \* Identify 2 types of pests that can attack a coconut tree. Ask the Coconut Cultivation Board about ways of controlling them and make a note of them.
- \* Make a list of the parts of the coconut tree which can be used as fire wood in the day to day household activities.
- \* In order to increase the yields of the coconut trees in your home garden, the coconut husks are spread with the hollow side underneath round the tree about 2 feet away from the trunk. What are the reasons for doing so?



# COCONUT GROWING AREAS OF THE WORLD

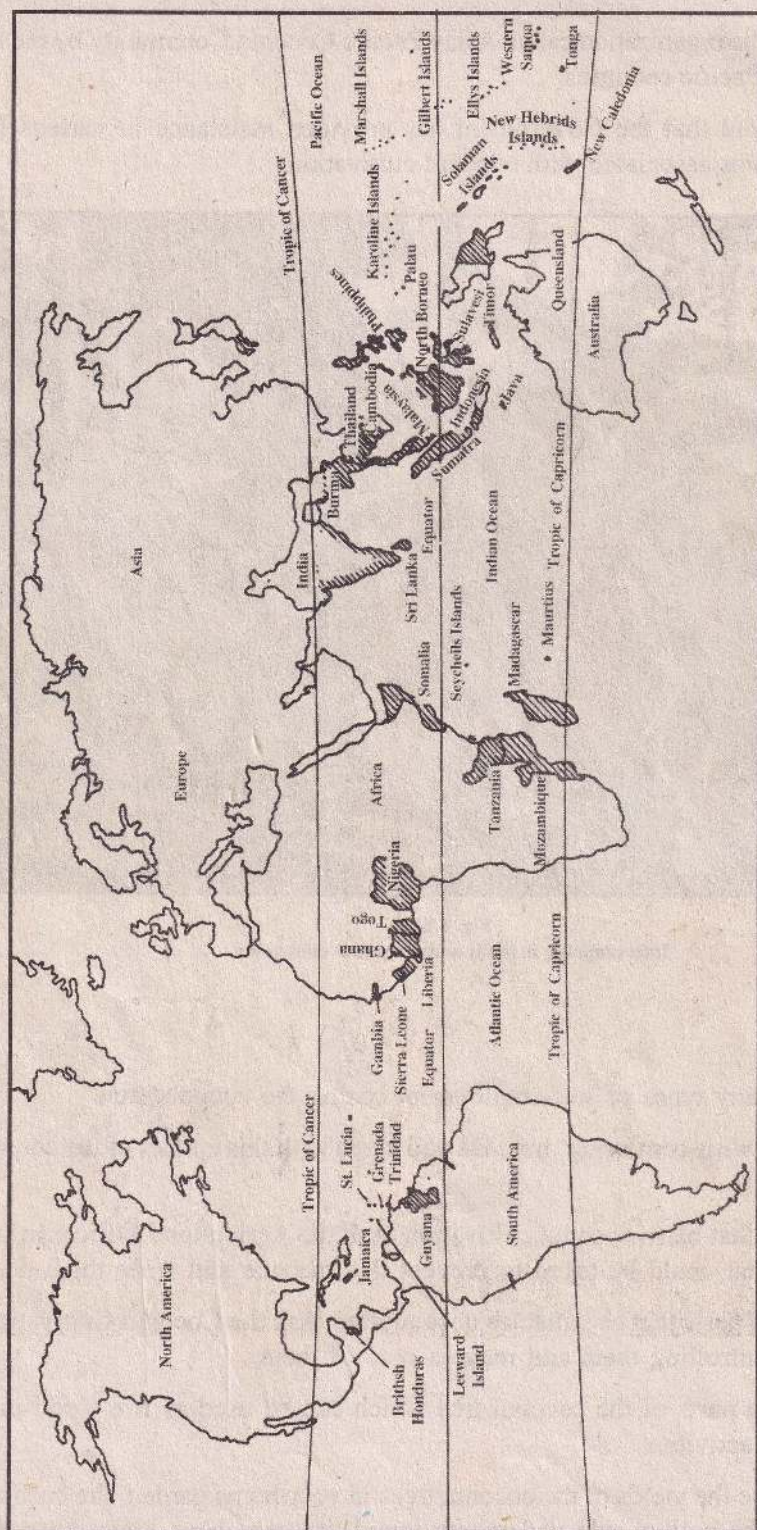


Fig. 6.26  
Coconut growing areas of the world



## Minor Export Crops

Minor export crops are those produced on a small-scale for export besides the main commercial crops of tea, rubber and coconut. Examples are coffee, cocoa, cinnamon, cardamoms, pepper, nutmeg, citronella, chillies, turmeric and pineapple. These crops are cultivated on a small scale. The Government has paid special attention to effect improvement in the cultivation of minor export crops.



Fig. 6.27  
Minor export crops



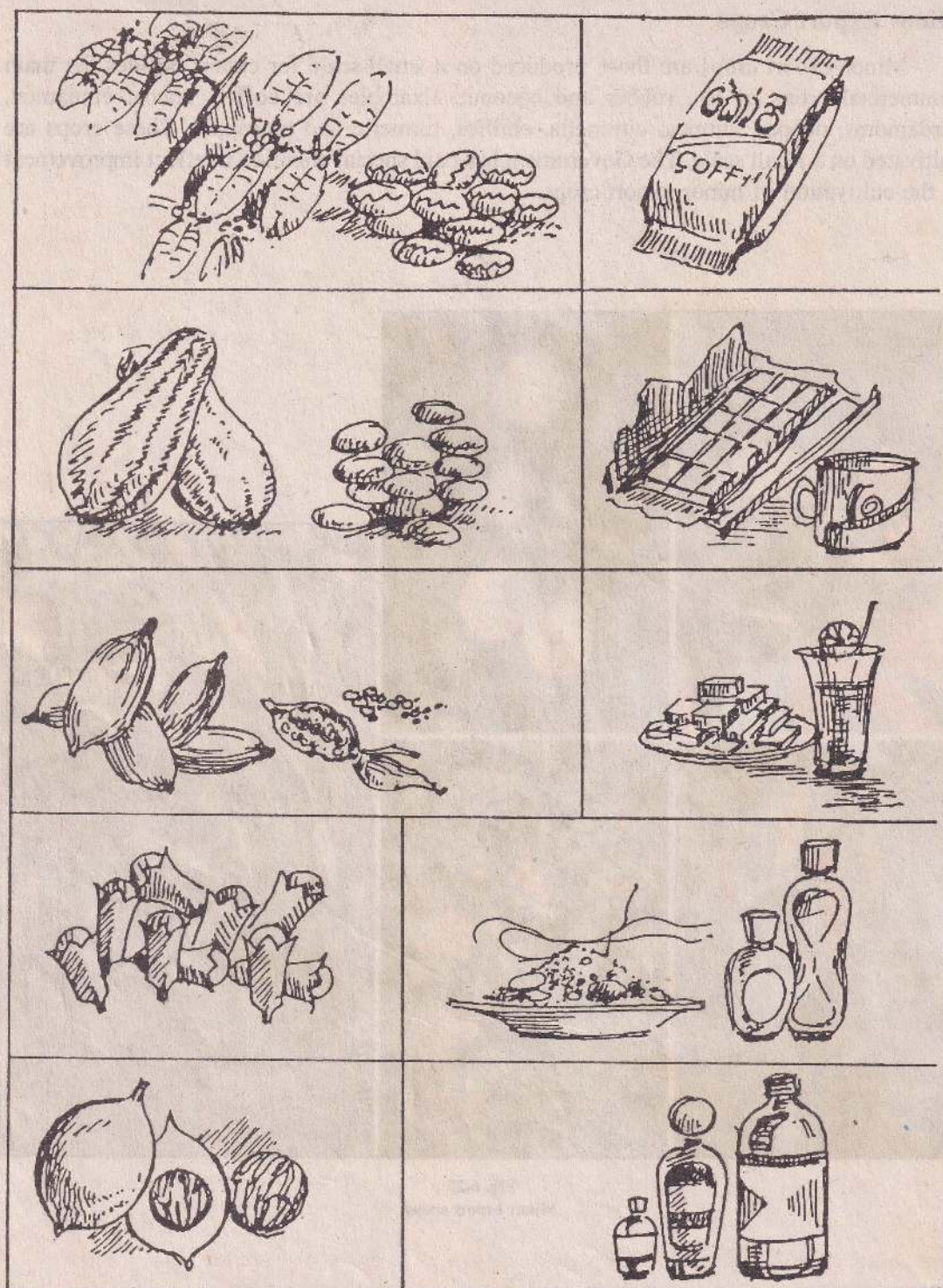


Fig. 6.28  
Products based on Minor export crops



In this regard island-wide programmes have been launched appointing Minor Export Officers to create awareness among the people at village level. Information about such a programme is mentioned below. By reading it you will be able to gather information about minor export crops.

### **Announcement**

"A programme for encouraging minor export crop producers and introducing them will be held today at 2.30 p.m. at the Sudarshana Hall. The Minor Export Crop Extension Officer will be present to give you information about this. All of you are cordially invited to participate in this programme." According to the above announcement, the meeting commenced at 2.30 p.m. The Extension Officer introduced the information by a poster showing the minor export crops before he started raising awareness among the farmers who had gathered.

**"Though Sri Lanka is a traditional exporter of spices,  
she contributes only 2% of the world spice trade"**

Next, the introductory speech about the minor export crops was delivered by the Extension Officer. Accordingly, minor export crops were introduced as agricultural commercial crops produced on a small scale for export.

He stated that in the early part of 1980 these crops held an important place in the economy of Sri Lanka and that in the year 1996, minor export crops fetched an amount of twenty two million rupees to the national income which was an increase of 24% of the contribution in the previous years.

A classification of the minor export crops as mentioned in the Report of the Central Bank of Sri Lanka was displayed on the notice board of the hall where the lecture was held. It read:

1. Spices - cardamoms, cloves, pepper, nutmeg, mace
2. Beverage yielding crops - coffee, cocoa
3. Types of evaporating oil - citronella
4. Crops grown under the crop diversification scheme - flowers, betel, vegetables, fruits.

Next the Agricultural Extension Officer referred to the history of minor export crops. These facts were included in a pamphlet that was distributed among the people who had gathered.

**\* In the past the foreign trade of Sri Lanka was confined mostly to the eastern countries.**

**\* The British in establishing their domination over this country introduced commercial agriculture in place of the subsistence economy. Thus the small landowners who were engaged in traditional agricultural pursuits introduced other crops such as coffee, cocoa and citronella in place of paddy.**



- \* In 1972, the Department of Minor Export Crop Development was established with the aim of increasing the production of minor export earnings.
- \* After nearly two decades the acreage under the cultivation of minor export crops increased and the revenue derived from them too has increased.
- \* The launching of the programme of crop diversification is a new trend in the minor export crops sector, in recent times. Under this scheme, flowers, betel, cashew nuts and ornamental fish were added to the minor export crop sector and the foreign exchange earnings from these are increasing.

The Minor Export Crop Project Officer introduced the following pamphlet to raise awareness among the crowd present about the physical factors related to the Minor Export Crop Project.

### **The Distribution of minor export crops and the related physical factors**

<b>Crop</b>	<b>Areas under cultivation</b>	<b>Physical factors necessary</b>
Cinnamon	Scattered areas along the coastal belt between Negombo and Matara and also as smallholdings in Ratnapura and Hambantota Districts.	Moist and dry flat land
Coffee	As smallholdings in Kalutara, Ratnapura, Kegalle and Gampaha Districts and as a mixed crop with other crops in home gardens.	Annual rainfall of 1700mm-2000mm, dry weather, generally hilly lands.
Cocoa	As a mono-crop as well as mixed crop in Matale and Kandy Districts.	Rainfall of over 1250 mm, undulating gentle slopes 300m to 600m above sea level, well-drained soils.
Cardamoms Cloves, Nutmeg	Grown as a home garden crop in Kandy, Kegalle, Ratnapura and Matale Districts.	Rainfall of 1500mm

A number of crops related to the Mahaweli Development Project were introduced to the minor export sector during the past years. They are crops such as gherkin, maize, babycorn, small ladies fingers, (baby okra) and sweet melons and also flowers, cashew nuts and vegetables. A subsidy scheme is also in operation for these crops.



Among the crops that have been identified to be developed under minor export crops in future are varieties of tubers, anthuriums and flowers like orchids, oil palm and castor oil. An Export Development Board has been set up with the objective of facilitating the production and providing markets for these crops.

The fluctuation of prices in the foreign markets related to these minor export crops is a hindrance to the economic development of the country. During recent years, various solutions were provided for these problems. One such step is the sale of minor export crops at the prices negotiated under international agreements. In 1991, the total export earnings from minor export crops have increased by 6%.



## The Fishing Industry of Sri Lanka

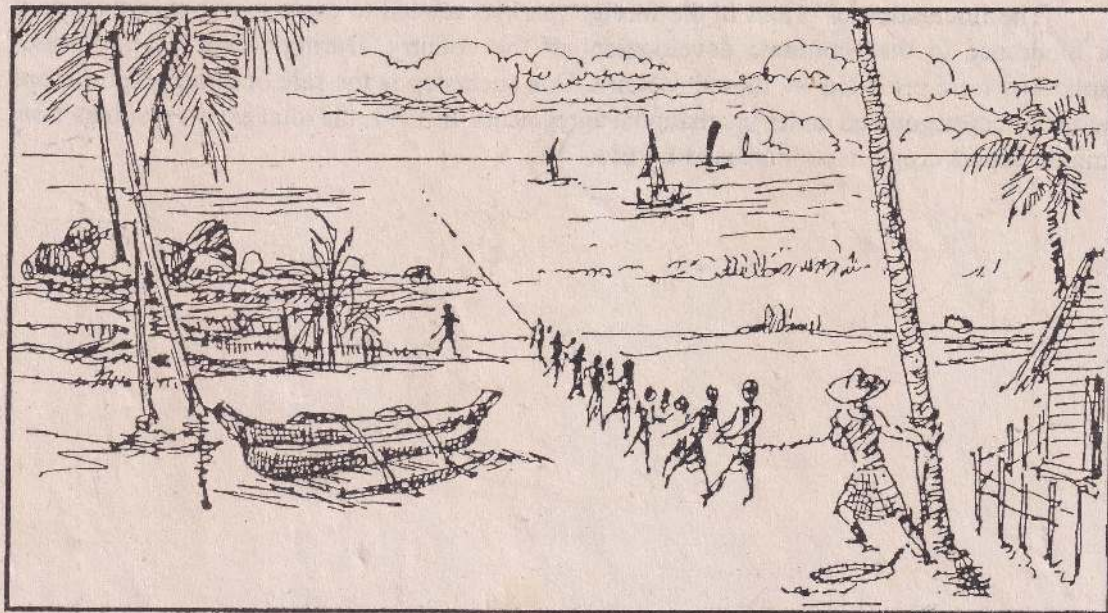


Figure 7.1

“Ho, Ho, Ho, Hoiya//  
Keeping their lives at stake  
They went fishing over the cruel waves  
To reap the resources in the sea”

When you hear a verse like this you will recollect an occasion when fishermen had gone fishing into the seas. It can be studied from the above picture.

The fishing industry occupies an important place in the economy of Sri Lanka. Factors favourable for the development of the fishing industry are found in plenty in our physical environment.

- ✦ \* Sri Lanka is an island surrounded by the ocean.
- \* A coastline 1770 km in length with bays, lagoons and harbours indented to the coast (source: National Atlas).
- \* The continental shelf which extends widely from the coast.
- \* The deep sea stretching from the continental shelf.
- \* Rivers, canals, streams, tanks and reservoirs.



Figure 7.2 is the map showing the maritime zone of Sri Lanka.

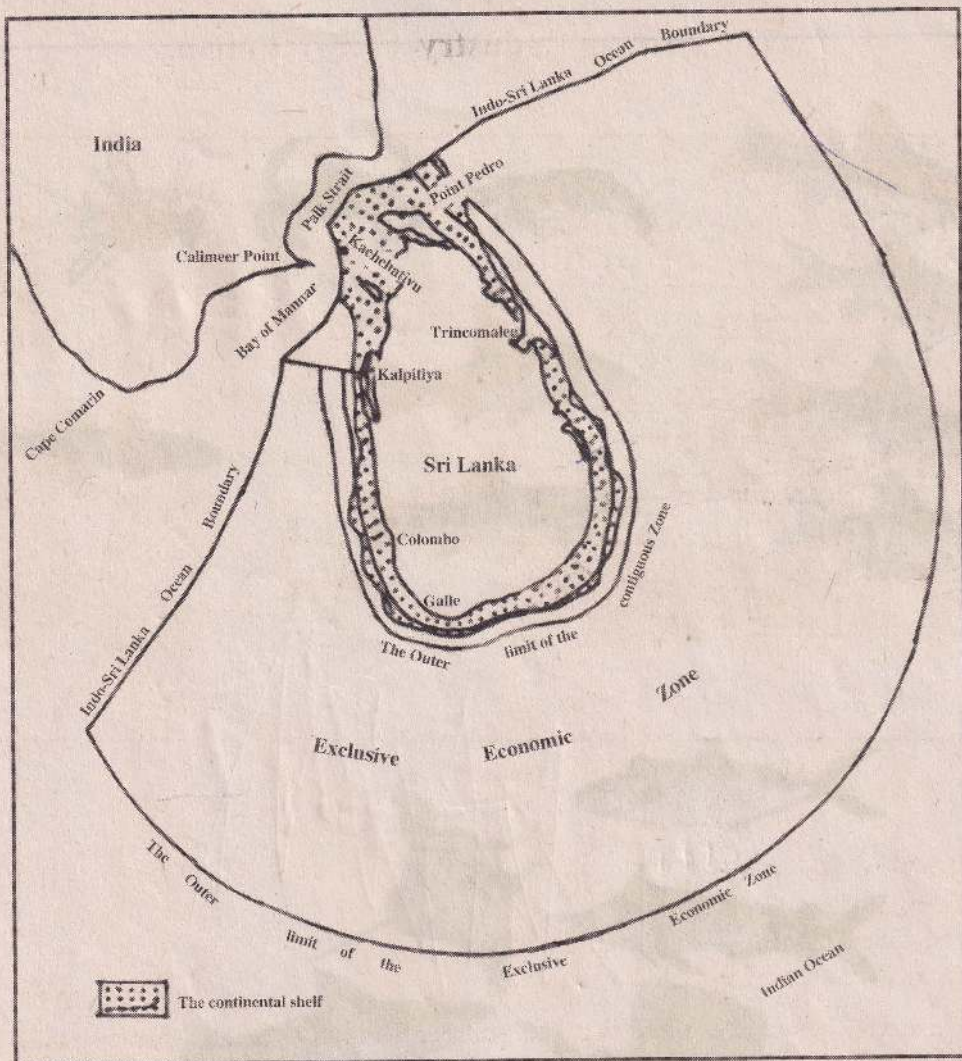


Figure 7.2  
The Maritime zones of Sri Lanka

'The Sri Lankans get most of their proteins by consuming fish'

But .....

'The production of fish contributes only 2% to the total food production of Sri Lanka'



## Different Types of the Fishing Industry of Sri Lanka

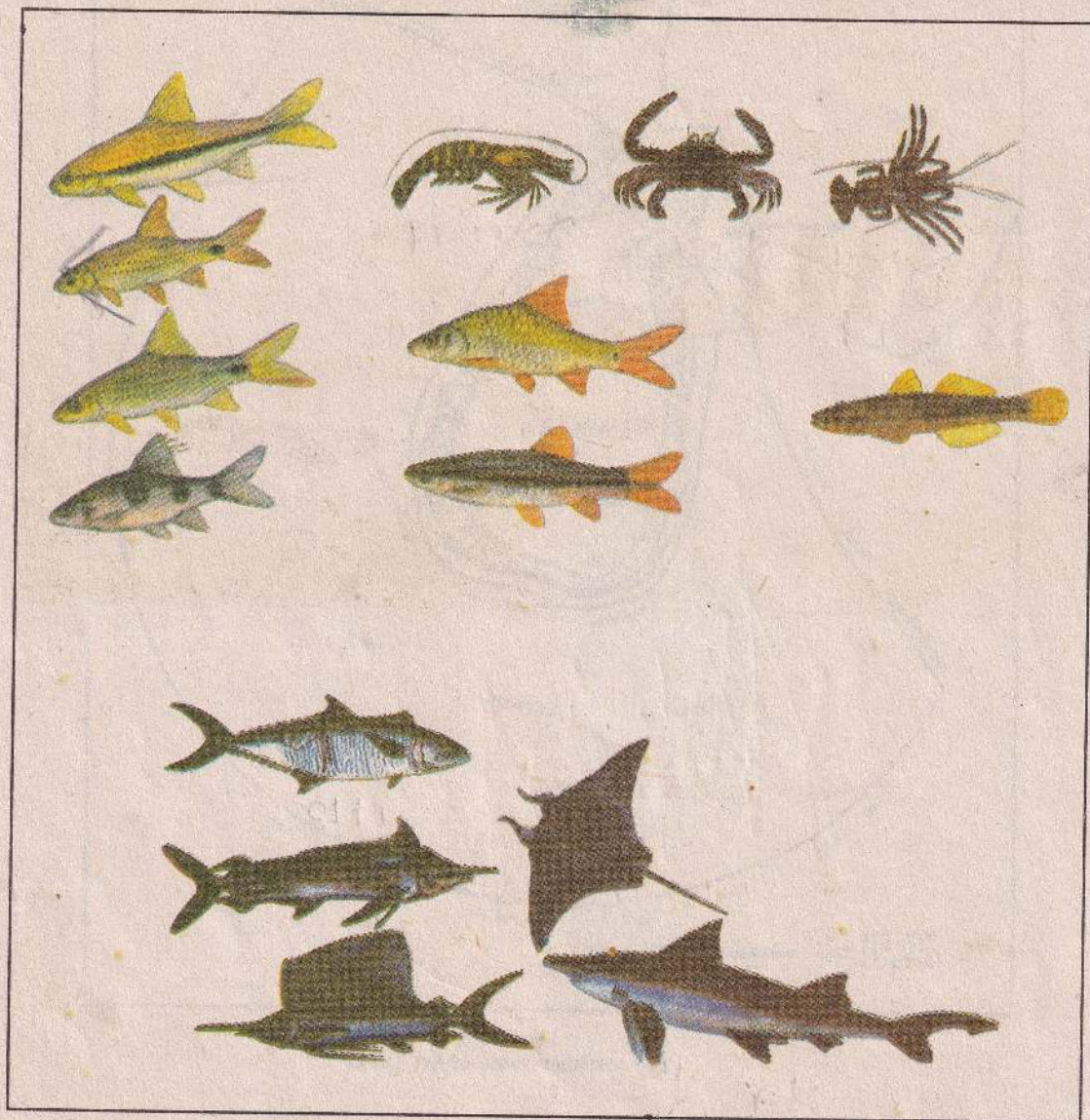


Figure 7.3  
Various kinds of fish

The above figure shows the kinds of fish caught from the sea, fresh water and brackish water bodies in Sri Lanka.

The different types of fishing (industries) are

1. Marine fisheries
2. Fresh water fisheries
3. Brackish water fisheries





**Figure 7.4**  
**Fishing vessels**

## **Marine Fishing Industry (Ocean fishing)**

The marine fishing industry has two main sectors.

1. Fishing in the shallow seas (in the continental shelf)
2. Deep sea fishing

### **1. Fishing in the shallow seas**

Fishing in the shallow seas is carried out along the coastal areas around the country. This coastal strip of the ocean known as the continental shelf extends round twenty six thousand square kilometers. Its average width is about twenty two kilometers.

The density of fish in the continental shelf is more than that in the deep sea. Therefore it is the area in the continental shelf that is more important in the production of fish in Sri Lanka.

Figures 7.5 and 7.6 show some methods of fishing in the shallow areas of the sea.

(industrial)





Figure 7.5  
Stilt-fishing

### The reasons for the abundance of fish in the shallow seas

1. In the shallow seas, sun light reaches the floor of the sea. Therefore the conditions are favourable for the rapid growth of fish food as plant plankton.
2. When the organic matter brought by rivers, streams and channels are emptied into the coastal areas of the sea it helps to increase the nutritional contents.

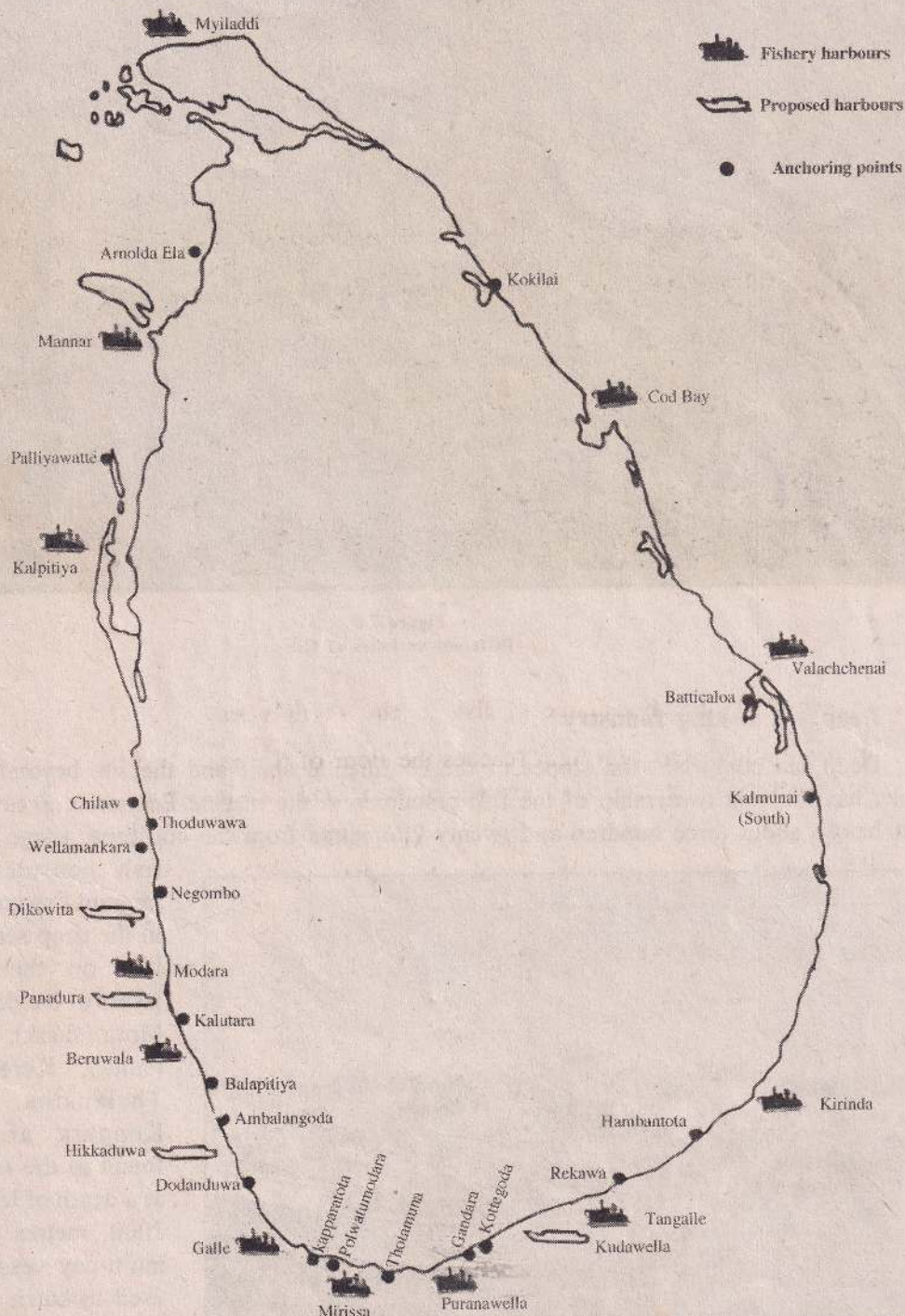


3. The fish plankton deposited at the bottom of the sea are brought to the surface waters by the action of ocean currents.

Figure 7.6  
Fishing by piercing with pointed weapons



## The main marine fisheries centres of Sri Lanka



**Figure 7.7**  
The main marine fisheries centres of Sri Lanka





Figure 7.8  
Different varieties of fish

## 2. Deep sea fishing industry

Deep sea comprises the slopes of the continental shelf and the sea beyond it. Sri Lanka has the sole ownership of the fish resources in the marine Economic Zone which stretches to about three hundred and twenty kilometres from the coastline, Large marine

fish considered as migrant fish are found in the deep sea. They live on the upper layers of the deep sea. Mora (shark), Balaya (tuna), Kelawalla, Thalapatha and Koppara are fish found in the sea area at a depth of less than 2000 metres. Large multi-day vessels are used to catch fish in these areas.



Figure 7.9  
Multi-day vessels





Figure 7.10  
Kirinda Fishery Harbour

The fishing-gear used in catching fish in these deep sea areas are floating gill nets with large holes, long lines (kelawallan maruvel) and trap fishing (maruvel pannayao).

Since sunlight does not fall directly into the bottom of the sea, plankton is scarce in the deep sea. Hence fish resources here are not so abundant as found in shallow seas.

## 82 Brackish water fishing industry

The lagoons and estuaries near the coast of Sri Lanka are filled with brackish water. Since both sea water and fresh water get mixed with the brackish water, the salinity in it fluctuates. Hence, only the organisms that can resist changing salinity live here.

A mangrove eco-system which can resist salinity is seen in areas with brackish water. Fish such as prawns, small kossa and small wekkayas who have adapted to the eco system in the brackish water live here.



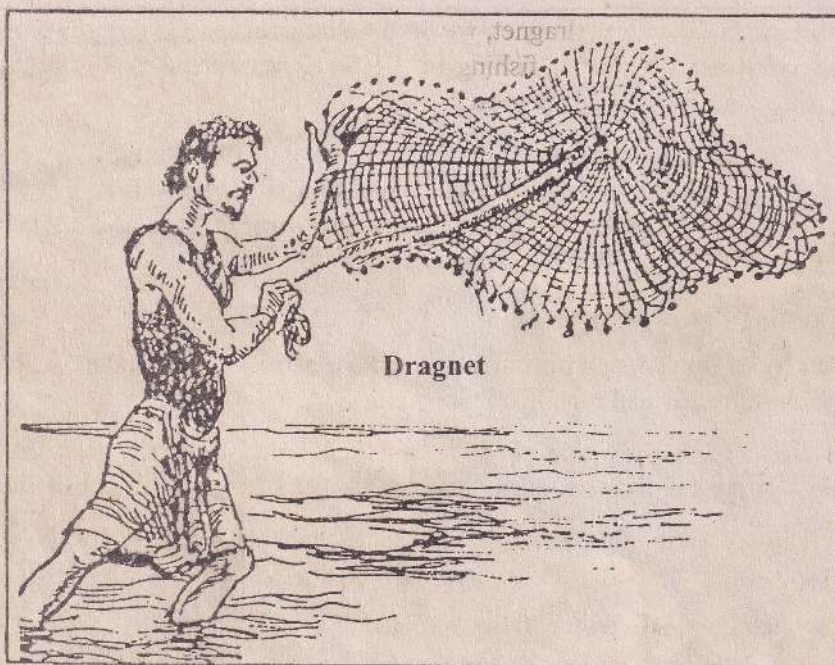


Figure 7.11  
Dragnet

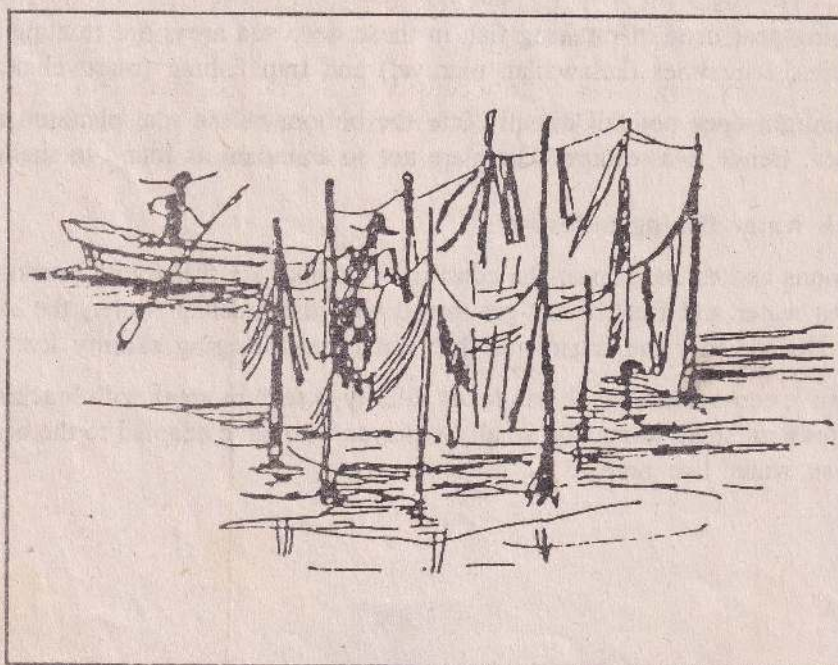


Figure 7.12  
Branches of plants used in fishing (mas athu)



Traditional methods such as dragnet, weirs (jakottu kraal) and making use of branches of plants (mas athu) are utilized in fishing in the brackish waters. Prawn culture in the lagoon areas has contributed to the growth of export earnings.

Prawn culture is expanding stretching from Chilaw to Puttalam and in the lagoons along the northern coast. Prawns, lobsters, crabs and anuguluwas are found in the lagoons such as Rekawa, Lunawa and Kalametiya and also in estuaries such as Puttalam, Chilaw and Negombo.

### **The fresh water fishing industry**

At present fresh water fishing is carried on in the natural water bodies such as rivers, streams and canals, tanks and ponds in Sri Lanka.

Fish such as lula, kanaya and magura have been bred from the past itself and at present thilapiya, gurami, grass carf and aan carf are bred under fresh water fish culture.

Fish such as koraliya, lula, godaya, hunga, magura, maspethiya, walaya, angutta, kawaiya and tambalaya are varieties of important fresh water fish.

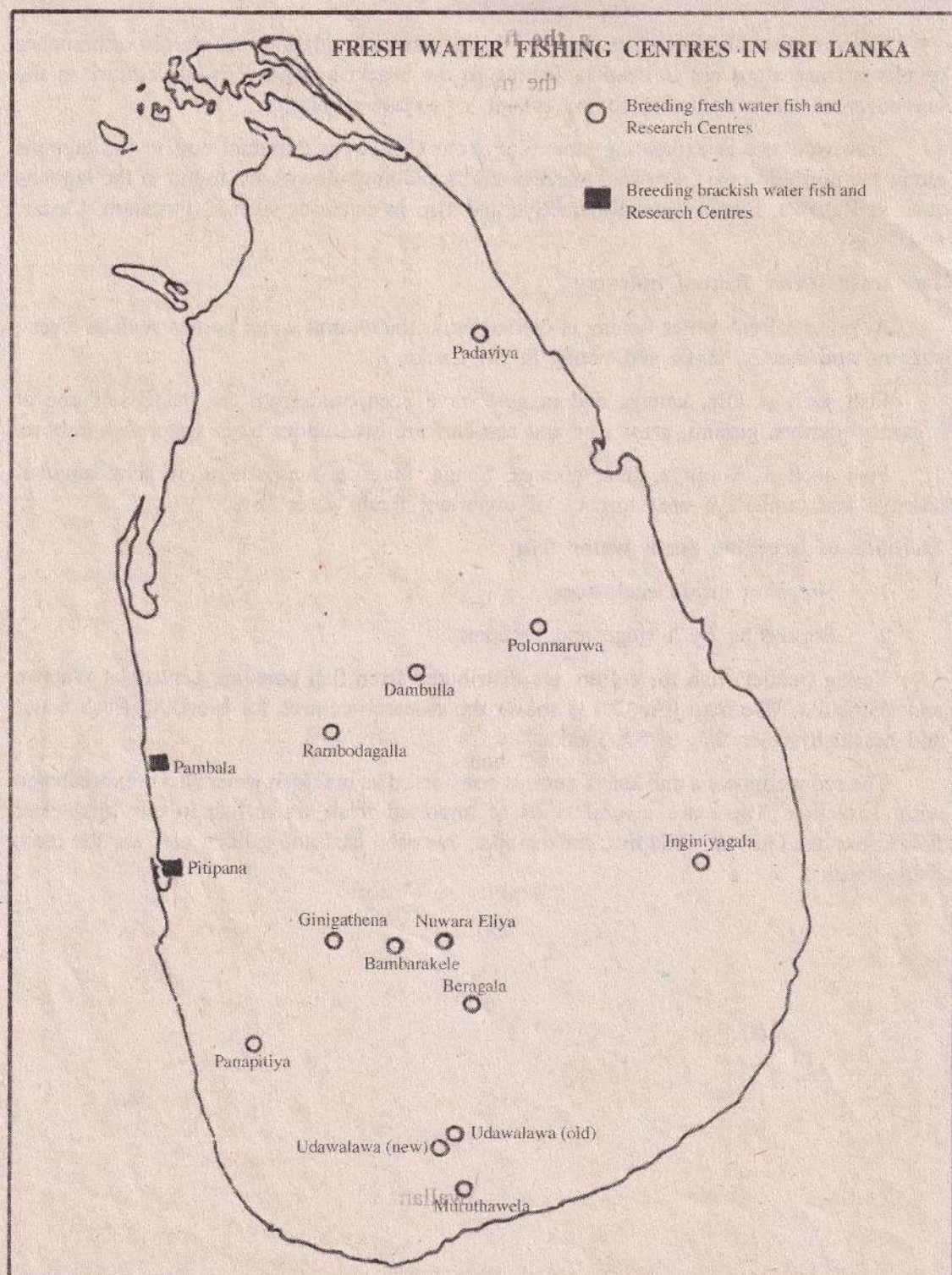
### **Methods of breeding fresh water fish**

1. Breeding inside enclosures.
2. Separating by a ridge and breeding.

Young (tender) fish for culture are distributed from fish breeding centres at Walawe and Dambulla. The map (Fig. 7.13) shows the research centres for breeding fresh water and brackish water fish in Sri Lanka.

The red weligowwa and asoka pethiya considered as brackish water fish are threatened with extinction. There are several kinds of imported fresh water fish in our freshwater fish resources. Gurami, thilapiya, mozambika, common carf and golden carf are the main fish imported.





**Figure 7.13**  
Fresh water fishing centres in Sri Lanka



## Methods and equipment used in the fishing industry

There are differences between the methods of fishing and equipment used in the past and those used at present. Try to identify those differences by reading the following dialogue.

Romel Perera of Negombo is a friend of Aron Silva who is a fisherman of Kalamatiya in the south. They met each other at the Galle ramparts after a long time.

Romel : How are you Aron after a long time?  
How goes life?

Aron : O. K. Now I find it difficult to carry on with the old industry as I am not very strong unlike those days. I eat whatever is given by my children and live a life of leisure.

Romel : I am also not that strong and active like those days. We have no knowledge about using the new fishing vessels available now. Those days when you caught prawns by using the logcraft fishing boats, rafts and dugouts (wallam), we were catching fish by baiting with the rod.

Aron : Those days you and I caught fish going by sailing boat or engine boat. We used seine nets (madal) and cast nets (visidal) and everybody enjoyed the fish we caught.

Romel : But see the difference today! You get a lot of fish into the karamal dela (gill net) as well as into the net made of rushes (light coarse). It is not like our times. You can catch plenty of fish. But my eyes turn reddish when I eat fish caught in nylon nets.

Aron : Our Marcus will not go fishing without the triple net for that matter. But unlike those days it is very costly to maintain the fishing-gear.

Romel : By and by we have reached Galle fishery harbour. Aron, look at the fleets of those large and small boats.

Try to confirm the knowledge you gained about the methods of fishing as modern and traditional methods from the above dialogue by reading the table below.

Table 7.1

### Methods of Fishing

Methods of fishing and gear	Traditional methods	Modern methods
Nets	Seine nets, cast nets (wisidal), raising nets, baiting ie using the rod and stick trapping	Gillnets, light coarse, raising nets, pulling nets, triple nets and nets with wires
Lines	Line (yoth pannaya) using branches of leaves, fishing rod and pole line	Long line fishing methods, trawling and long line spread at the bottom
Vessels	Dugouts (theppam), rafts, wallam, boats, log-rafts	Fiber-glass boats, mechanized boats, trawlers, multi-day vessels, echo- sounders, sonar, harpoons, modern fishery harbours.



Refer the Supplementary Teachers' Guide (Page 64-71) in your school to identify the different kinds of fish.

### **Be careful when you buy fish**

Kaushalya's mother and father sat down for dinner. They are involved in an argument at the table. The reason is that Piyal has had to eat fish that had gone bad (rotten fish) that night.

Piyal, Kaushalya's father left the table, went to his room and brought this small pamphlet issued by the Fisheries Training Centre, gave it to Sommie, Kaushalya's mother. Now let us read it.

#### **Fresh Fish for your lunch (meal) packet**

**When you are buying fresh fish, take into consideration the following points.**

- \* **The gills of fresh fish are red in colour and bright.**
- \* **When you feel the backbone of the fish with your finger, you will feel it hard.**
- \* **Bright scales of the fish are attached to the skin. It is difficult to take them off.**
- \* **Shining bright eyes are protruding.**

By reading this small pamphlet, you too will be able to identify fresh fish.

### **Fisheries welfare facilities**

Fisheries welfare activities are carried out as solutions to the problems confronted by those in the fishing industry.

- \* Pension Scheme for fishermen
- \* Social security benefits (insurance facilities)
- \* Death gratuities
- \* Insurance of fishing vessels and registration.

### **Exports**

Let us see how the exports of fish products contribute to increased earnings.

#### **The Exports related to fishing industry**

1. **Cod fins**
2. **Production of oyster shells and sea leeches**
3. **Codmushrooms and codliver oil**
4. **Oyster sauce**
5. **Animal food and fertilizer**
6. **Ornamental fish**



Most of these exports are produced as cottage industries and as self employment.

### **Let us make maximum use of our oceanic resources**

Sri Lanka possesses an abundance of oceanic resources. We can obtain foreign exchange too by selling them to foreign countries. We have not yet reached that target, we have even failed to meet our local needs with our fishing resources.

A considerable quantity of fish we need are imported. We import dry fish and Maldive-fish from countries such as Pakistan and the Maldives and tinned fish from countries like Japan and South Africa.



**Figure 7.14**  
**Drying Fish**

In 1964, the Fisheries Corporation was established in order to provide fish at a fixed price and also to sell fish to the consumer at a reasonable (convenient) price.

A few Fisheries Training Centres have been set up at places like Mattakkuliya, Negombo and Tangalle to provide a methodical training to the fishermen. The people of this country can easily get their protein requirements and at the same time find various job opportunities from these fish resources. But it is possible to get the maximum use from these fish resources only if they are utilized under proper management.



## Activities

1. Make a list of the various methods by which you can preserve fish.
2. Explain the meanings of the following items in relation to the methods of fishing and gear used in fishing and the fishing industry - stick trapping, line fishing, keeping fish in deepfreezers, weir (Jakottu), long line fishing, weir rush nets (To get more information ask your teacher for the Supplementary Teachers' Guide on "Management of fish resources."
3. "Fresh water fish too could be used as a solution to the protein deficiency in the diet of the Sri Lankans." Show arguments for and against this idea.
4. Write an article on 'Marine resources are the greatest endowment given to us by mother nature', to the periodical "Fisherman".
5. Visit a fish market and find out the varieties of fish available there (sea fish, fresh water fish and brackish water fish).
6. Try to identify correctly the kinds of fish known by different names.
7. Imagine that you get the opportunity of participating at a Conference on Fishing in Japan. Make notes on the following headings related to the topic, "The fisherman in Sri Lanka" to be presented at this conference.
  - i. How does the fishing industry differ from other manufacturing industries?
  - ii. Countries such as Japan and Norway are far ahead of Sri Lanka in reaping the oceanic (fish) resources.
  - iii. Steps (Action) taken by the Government of Sri Lanka to solve the problems faced by the Sri Lankan fisherman.



## Animal Husbandry in Sri Lanka



Fig. 8.1  
Domestic animals

A Sunday paper carried this report:

**“Animal husbandry in Sri Lanka is developing rapidly. Rearing of animals occupied a special place in the old rural self-sufficient economy.”**

Animal husbandry is the task of looking after animals used by man to meet his needs of food and services.

There are four basic kinds of animals which come under rearing of animals in Sri Lanka. They are cattle, goats, poultry and pigs.





Fig. 8.2  
A herd of cattle



Fig. 8.3  
A scene of a caravan



There were a few sentences like this in the information contained in that newspaper.

**"The need for improving the local production of milk has arisen in order to save the foreign exchange spent on the import of milk."**

Already we have obtained the co-operation of India which is the second largest producer of milk in Asia, in developing the dairy industry under our new development programme.

### **Kiriya Factory**

- \* The establishment of the Kiriya Factory under the agreement signed on 16th February 1996 between the Livestock Development Board (Amul) of India and 'Milco' in Sri Lanka.
- \* The objectives to be realized were to achieve self-sufficiency in milk products within 10 years, to improve the standard and the quality of products.
- \* Obtaining technology and investment from India in terms of the agreement. According to this agreement, the Kiriya-Lanka Company owns 51% of shares and the Government of Sri Lanka owns 49% of shares.
- \* The daily output of processed milk capacity is 3,00,000 litres.

Rearing of animals can be considered as a sector that has not been widely distributed among the people of Sri Lanka. However, there is evidence to show that in the past multiple tasks were performed by the animal rearing sector.

### **Cattle rearing in Sri Lanka**

To meet the daily needs in rural homes	Small dairy farms to produce milk by a few dairy cattle. For extra income, in bare lands/cooperative farms and in the lands in the Coconut Triangle.	Large herds of dairy cattle in natural grasslands example, Ambewela, Polonnaruwa, Batticaloa, Hambantota farms.	Dairy farming under the Government Research Farm and the Livestock Development Programme.
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In rural areas, some houses keep two or three dairy cattle for their day to day needs such as preparation of fields, to get manure for their farming and to obtain the milk needed for the inmates. Rural folk look after their cattle with great consideration. Usually the village farmer rears a few poultry and goats along with the cattle.



In the Coconut Triangle of Sri Lanka, small herds of cattle are reared in order to obtain an extra income and as a step towards enriching the soil of coconut lands using cattle dung as fertilizer. The Milk Producers Association of the Coconut Triangle is also one among the companies collecting milk in Sri Lanka. The Digana Milk Producers Association in Kandy is also important as one formed under the co-operative system.

When we mention about the large herds of dairy cattle reared in natural grasslands, a television programme called "Attractive Places in our country" automatically comes to our minds. This television programme described the live grasslands full of dairy cows reared in a pleasant environment in Ambawela, Horton Plains and Haputale areas of the hill country which appear like velvet covered in greenish landscape replete with natural beauty, as the most valuable resource we have.

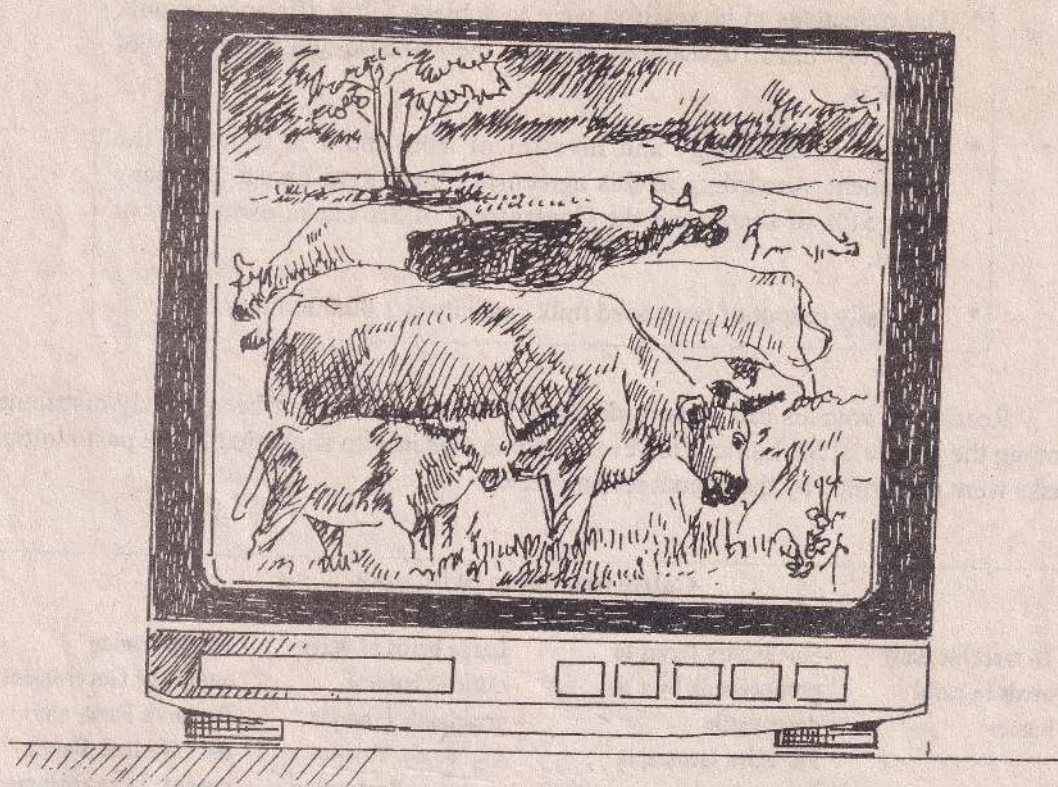


Fig. 8.4  
Grazing dairy cows

This natural environment in the hill country is full of factors favourable for the rearing of cattle. Rich extensive grasslands, pure water and temperate climatic conditions are the most favourable factors for the rearing of dairy cattle in our country.

Rearing of cattle in the areas of natural grasslands is directed mostly towards commercial purposes. In the low country, natural grasslands of Batticaloa, Polonnaruwa and Hambantota



large herds of cattle are seen grazing. In areas like Batticaloa with shallow stretches of water and extensive grasslands there are facilities for raising buffaloes. Products such as milk, curd, ghee are obtained from these herds of cattle and buffaloes. Cattle rearing is an additional source of income for farmers.

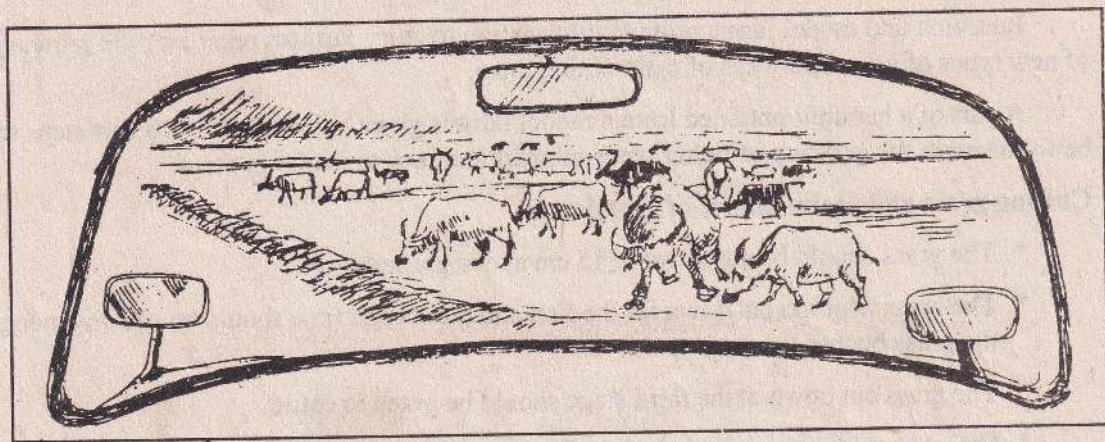


Fig. 8.5  
A herd of cattle in a Dry Zone area

When you travel in a vehicle passing areas such as Batticaloa and Hambantota, you will see herds of cattle in grasslands scattered here and there.

Areas having abundant stretches of water bodies are suitable for the raising of buffaloes because they need shallow stretches of water and water holes to lie down. Lagoons, marshes, grasslands around small tanks of the Dry Zone are favourable for them.

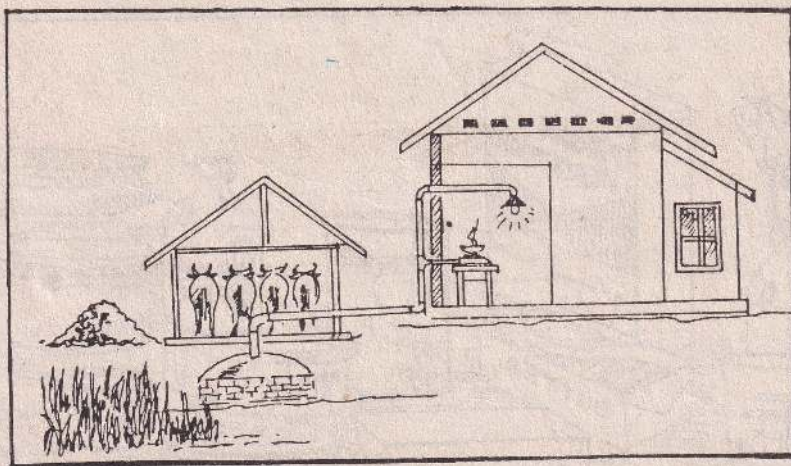


Fig. 8.6  
A Bio gas unit

In our country, there are model and research farms run by the Government where herds of cattle are reared for purposes of agricultural and livestock development. Model and



research farms like those at Walpita, Kananwila and Ambewela carry out the functions of training and research work related to animal husbandry, improving animal species, promoting new scientific knowledge in animal husbandry and providing veterinary facilities. A cattle owner can generate electricity for his house by setting up a 'bio-gas unit' using the cow dung obtained from his herd.

Research and model farms provide information to dairy farmers regarding the growing of new types of grass and ways of maintaining them.

A part of a handbill obtained from a model farm is given below. It shows a few steps to be followed in the growing of richer types of grass and how to maintain them.

### Cutting grass and maintenance of grasslands

- \* The grass should be cut down to 15 cm above ground level.
- \* The grass which is cut down for the first and the second time should be strewn among the grass bushes themselves.
- \* The grass cut down at the third stage should be given to cattle
- \* Grass should be cut down before flowering starts. Since flowering occurs between 4-6 weeks after planting, grass should be cut before that. Then the grass will contain more nutrients.
- \* If there is extra grass remaining, it could be made use of for making silos or making hay.

The primary objective of livestock farming in Sri Lanka is the production of milk while obtaining fertilizers from cattle and using them as beasts of burden are also important.

### Milk and milk products which you can obtain from the market



**Fig. 8.7**  
**Milk Products**



## Problems related to cattle rearing and solutions

### Problems

The main obstacle for the development of dairy farms in this country is the lack of good species for breeding.

### Solutions

- \* Importing dairy cattle for breeding purposes
- \* Breeding new species by research through artificial syringes
- \* Breeding hybrid types using local and foreign animals

## The Livestock Development Programme of the Government

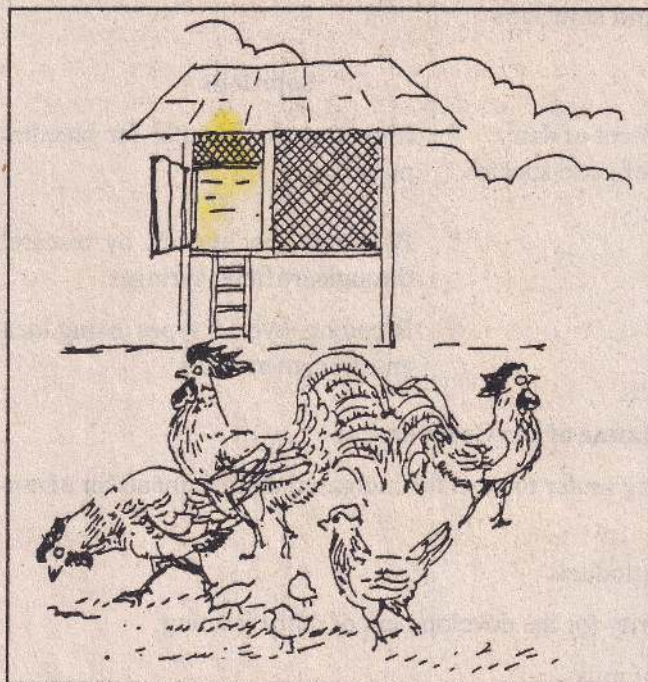
- \* Improving the livestock rearing sector to meet the increased daily demand for animal products.
- \* Reducing the import of milk products
- \* Establishing a separate authority for the development of dairy farming.
- \* Increasing the consumption of milk.
- \* Soliciting the participation of the private sector in the livestock development programme currently launched by the Government.
- \* Providing inputs to small farmers.
- \* Implementing projects for breeding local cattle and buffaloes under the Ministry of Livestock Development and Infrastructure Development.

At present, an effort is being made to draw the attention of private organizations to make large scale investment in the development of livestock and marketing. Foreign investors have entered into agreements to buy the local fresh milk for the production of powdered milk. The milk bought from the producers of milk has to be transported to refrigerated storage areas within a period of less than one hour to prevent the action of bacteria in the milk.

It has been permitted to import bowzers free of customs duties to transport milk. At present the companies which purchase milk are Milco, Sri Lanka Nestle, Kotmale, Nelfarms and Milk Companies in the Coconut Triangle.

At present, pasteurized milk and sterilized milk could be bought in the market. In the production of this milk, it is heated under a temperature of 140°C. Then it is flavoured with vanilla, strawberry, banana or chocolate.





**Fig. 8.8**  
**Poultry keeping**

## **Poultry Farming**

In many areas in Sri Lanka poultry farming has been carried on in the home gardens from the past. It was a source of extra income for the households. It has developed on a commercial scale only in recent times.

At present poultry farming is encouraged in the diversification of the rural economy under the extension of various sectors in the field of animal husbandry.

The private sector is taking a keen interest in poultry keeping. In Sri Lanka, an improvement in poultry keeping is seen in areas close to towns specially in the Western Province. Since it does not need so much space as cattle rearing, a large number of people get the opportunity of poultry keeping.

### **Poultry Farming**

- \* A short-term investment
- \* Accrual of quick benefits
- \* Requires only a small space
- \* Market for the products is expanding day by day
- \* Could be engaged in as a self-employment.

### **Some aspects that need to be considered**

- \* Poultry keeping is not suitable to be carried on in close proximity to areas where people live
- \* Obtaining birds related to the objective of production
- \* Protection of the chicks from disease
- \* Preparing the enclosures with sufficient space for the number of birds reared
- \* Protecting the birds



Chicken and eggs are sold in poultry farms carried out on a commercial basis. The companies provide employment to a large number of people under their divisions as rearing birds, marketing the products and distribution. Selected species of poultry are reared separately for chicken and eggs.

Poultry keeping is more suited to developing countries like Sri Lanka for the following reasons.

- \* The availability of a challenging, competitive and open marketing environment
- \* Being a country with an economy based on agriculture
- \* A business which can be opened with a low financial investment
- \* Accrual of benefits within a short time
- \* Needs a small space
- \* Being an industry suitable for rural development
- \* A source of self-employment
- \* Possibility of obtaining the necessary financial facilities from Banks

**In poultry farming though there is a longstanding experience in the production of eggs, if the environmental conditions are not favourable, it is not possible to get the expected products from them.**

Research has revealed that a hen of the best species can lay about 300 eggs per year.

#### **Steps that can be taken to improve the poultry industry.**

- \* Providing inputs to the small farm owners engaged in poultry keeping
- \* Regularizing marketing management
- \* Providing loan facilities
- \* Creating awareness among the producers through scientific methods
- \* Prevention of animal epidemics and diseases through veterinary medical services
- \* Supplying poultry food at concessionary prices
- \* Supplying of high breed types of chicks



## Rearing of goats

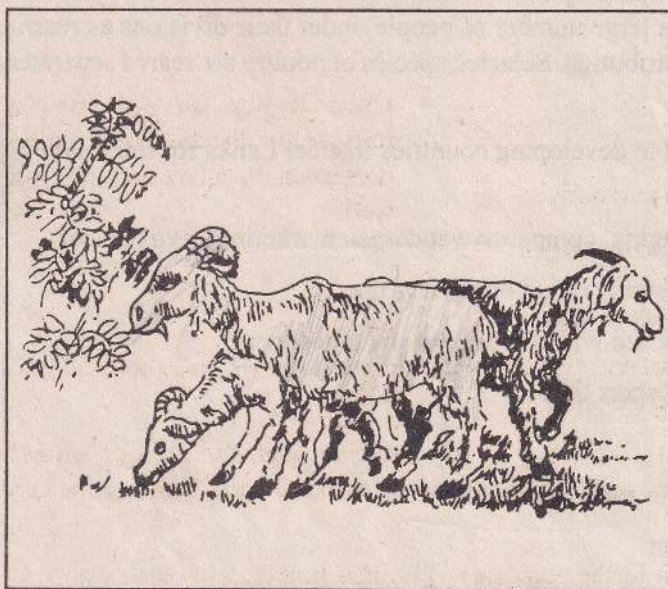


Fig. 8.9  
Goat rearing

The goat is an animal that can easily live in arid environments. Areas around Mannar, Chilaw and Hambantota are more suited for goat farming because of the dry weather conditions prevalent there. Goats are reared mainly for meat (mutton) and milk. In Sri Lanka rearing of goats can be done both in the wet and the dry zones.

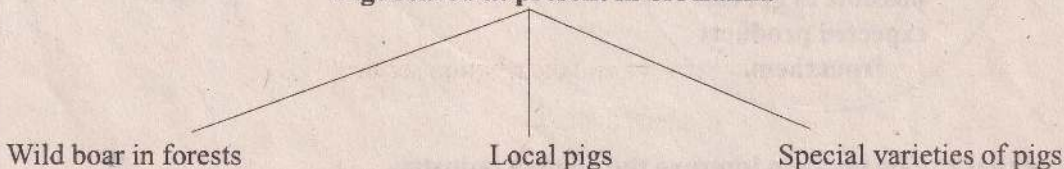
In the villages, a few goats are reared mainly for milk. In the Muslim villages both milk and mutton are important. Goat milk is useful as a nutritious food. Mutton is expensive. Goats can be reared in any part of Sri Lanka. Goats like to eat jak

leaves and other leaves with sap. Goats are reared in small herds in areas of Muslim settlements.

## Pig Farming

Pig farming does not require an environmental cleanliness as for cattle and poultry farming. Pigs are reared mainly for meat.

### Pigs reared at present in Sri Lanka



Pigs are reared in the home gardens in a few areas along the western coast. The herds of wild boar living in the forests in the interior of the country, often destroy cultivation. It is not suitable to run piggeries in close proximity to human settlements because of the environmental problems associated with the accumulation of waste matter from piggeries. The demand for pork in the market is low and the price too is low.



## **The annual output of farm products in Sri Lanka....**

(Central Bank Report 1998)

- \* 256 million litres of milk
- \* 876 millions of eggs
- \* 38,000 metric tons of chicken
- \* 12,000 metric tons of mutton and pork

Total value is 12,000 million Rupees.

Even if you do not have a refrigerator, the daily milk can be preserved for a day by boiling it well.

## **Employment in livestock and dairy farming**

There are about 250,000 farmers engaged in the production of milk and about 50,000 engaged in the production of eggs and chicken.

Diversifying the country's rural economy in the future through the field of animal husbandry occupies an important place in the economic development effort. These steps can be followed in this regard.....

- \* Giving a commercial outlook to the activities of animal husbandry which caters to home consumption at present
- \* Improving the animal products
- \* Making the private sector to participate more in the areas of processing and marketing
- \* Establishment of a separate authority for dairy development
- \* Making the private sector actively participate in the supply of inputs, supply and marketing to small farmers
- \* Identifying sources of investment for such strategies
- \* Providing the assistance of the National Livestock Development Board and the Livestock Research Institute
- \* Expansion of veterinary services and distribution services
- \* Initiating pilot projects in selected areas
- \* Increasing the number of livestock farms for training and research work
- \* Promoting new scientific knowledge about animal husbandry
- \* Improving the quality of the animal breed in the country
- \* Providing animal food at cheaper prices
- \* Taking steps to provide sufficient financial assistance and credit facilities conveniently



## Activities

### Select and write the correct answers to questions 1 and 2

1. It is the country which is regarded as the second largest milk producing country in Asia which provides financial aid to the milk producing industry of Sri Lanka. What is that country?

(Australia, Canada, India, Newzealand)

2. In Sri Lanka, there are two districts where herds of cattle are seen grazing in the scattered lowland grasslands. They are

1. Kegalle, Hambantota
2. Polonnaruwa, Gampaha
3. Kalutara, Gampaha
4. Hambantota, Polonnaruwa.

3. Is there an alternative method which can be adopted by the labourers living in an animal farm for cooking and lighting their houses without the use of mechanical apparatus. What is that? Describe how you can operate it.

4. Nihal, who had to finish his schooling in Grade 9, is a hardworking person. He hopes to start a poultry farm as a self - employment venture. He hopes to follow the course of action mentioned below to make a success of his job. In order to arrange these steps in the correct order, select the relevant matching letters.

- (a) Obtaining a bank loan
- (b) Selecting a suitable land
- (c) Start advertising
- (d) Getting familiar about animal husbandry
- (e) Buying a motor cycle for transporting
- (f) Looking for market possibilities

5. Though Cyril lived at Matale, he was getting a transfer to his home town at the end of next month. He borrowed the lorry from his friend Jagath to transport all his household items and other belongings. He has a dog, a cat, a milk cow and flower pots too. He has made preparations to transport all these to Anuradhapura next month in the lorry. He got the driving license and all the documents related to the lorry.

Has Cyril obtained all the necessary documents required for the transport of his belongings? Is there a possibility for him to face a legal issue on his way? If so, what other actions should be taken in preparation for the trip? Explain.



## Chapter 9

### The Natural Resources of Sri Lanka



**Fig. 9.1**  
**A Forest**



**Fig. 9.2**  
**A Waterfall**





**Fig. 9.3**  
**A Sea Beach**

## **Natural Resources**

The above pictures show many things that contribute to the existence of life. Try to identify the living and non - living parts and also their inter-relationship. This book that you are reading is produced from wood pulp. The wood required to make your chair and the desk were taken from trees. To make your pencil wood taken from the trees and graphite mined from the earth are used. Thus the resources required to produce food and beverages, clothes and medicines which are necessities for the existence of man and other living organisms are provided by the natural environment. We shall call them 'natural resources' since they are obtained from the natural environment. Air, water, land, solar energy, vegetation, animals (flora and fauna) and minerals are some examples of natural resources.

Today it is a common sight that man is want only engaged in exploitation of natural resources on which depends the existence of life on earth. Thus, the depletion of these resources is causing many problems for the existence of life on earth. You who will be taking over the responsibility of future society should have a clear understanding about these problems. Also you should know how to make use of these resources economically.

There are two types of natural resources. They are living resources and non - living resources. Living resources are those with life. These resources can be regenerated. Under natural conditions they can be renewed. The renewable resources of Sri Lanka are forests, grasslands, mangroves, coral reefs, wild life and aquatic organisms. These resources have the capacity to regenerate their species. Forests are the most important of the renewable resources.



There are three main types of non - living resources-

1. Permanent non - living resources - solar energy, winds, tides
2. Renewable resources - soil, water
3. Non-renewable resources - fossil fuel, alloy minerals, non metallic minerals.

In Sri Lanka there are plenty of non-living resources. Examples are land, soil, clay, graphite, mineral sands, phosphate, gems, limestone, sand and granite. Unlike the renewable resources, these cannot be renewed.

## **Renewable Resources**

### **Forests**

Forests are a unique eco-system in our country. Figure 9.1 is a photograph of the Sinharaja forest. This forest is one of our most valuable resources. You are already aware that the Sinharaja has been declared a 'World heritage'.

Forests can be classified on the basis of the climate of Sri Lanka and the nature of the soils. With the increase of population in the country forests resources are depleted annually as they are rapidly cleared for the construction of houses and buildings, roads, play grounds and other large scale development schemes.

The natural forest cover in Sri Lanka has gradually decreased. The forest cover which was 84% of the land area in 1881 was reduced to 24% in 1992. The destruction of natural forests on a large scale has been going on for a number of years. During the last three decades, the clearing of forests accelerated with the expansion of development programmes. However, the illicit felling of trees is a more serious problem. Sri Lanka is facing various environmental problems as a result of the clearing of forests in this manner.

#### **The results of the destruction of forests**

- \* **Erosion**
- \* **Land slides**
- \* **Reduction in the depth of rivers causing floods**
- \* **Water shortage**
- \* **Drying of springs**
- \* **Reduction in the generation of hydro-electricity**

### **Grasslands**

There are two types of grasslands in Sri Lanka. They are patanas and talawa. Dry patana grasslands are distributed in the Uva Basin. These are utilized for grazing cattle. Horton Plains has wet patana grasslands. In the talawa (savanna) grasslands trees are scattered here and



there. These are found in Ampara, Bibile and Lunugala regions. The grasslands found in the flood plains of the Mahaweli and the areas which often get inundated in the dry zone are known as villu grasslands. These are suitable for cattle rearing. The villu grasslands of Tamankaduwa can be cited as an example. Grasslands are considered an important natural resource because these lands contain various nutrients and also because they are a haven for a variety of migrant as well as endemic birds. Several types of plants and species of grass are found in these areas.

### **Mangroves**

Having learnt about the forest resources and grasslands of Sri Lanka you will now be able to learn about another equally important natural resource. They are a special plant community found in the coastal areas around estuaries and lagoons of Sri Lanka. They are known as mangroves. Examine figure 9.4 (map) which shows their distribution. Mangroves are most widely distributed at the mouth of the Kala Oya in the Puttalam District. Mangroves which are densely grown are scattered in the lagoons in the south western, southern and the eastern areas.

The mangroves plant community is very useful to man. From very early times coastal dwellers utilized mangroves to meet most of their requirements. Some of them are for fishing prawns and crabs, utilizing them for wood and firewood and making traps for fish and using the branches to catch fish. They are used in painting fishing nets and as a medicine for slight cuts. Apart from these, mangroves help in preventing erosion of the banks of lagoons and estuaries. The mangrove ecosystem is an outdoor laboratory for those who study biology because there is plant and animal diversity in them. Now you will realize what a valuable resource mangroves are. Therefore it is your duty to prevent the destruction of these mangrove resources.

### **Sea grasslands**

Sea grass is a type of plant that grows in saline water. They contain roots, flowers and seeds. They grow densely along the coast in covered shallow waters in lagoons and mouths of rivers. They are abundantly grown in the coastal strip extending from the Dutch Bay to the western end of the Jaffna peninsula. They are also found in the estuaries and lagoons of Kokilai, Puttalam, Negombo, Mawella and Koggala. There are 12 varieties of main sea grasses in Sri Lanka. They provide shelter for a large number of fish while they serve to accumulate sediments and nutrients.



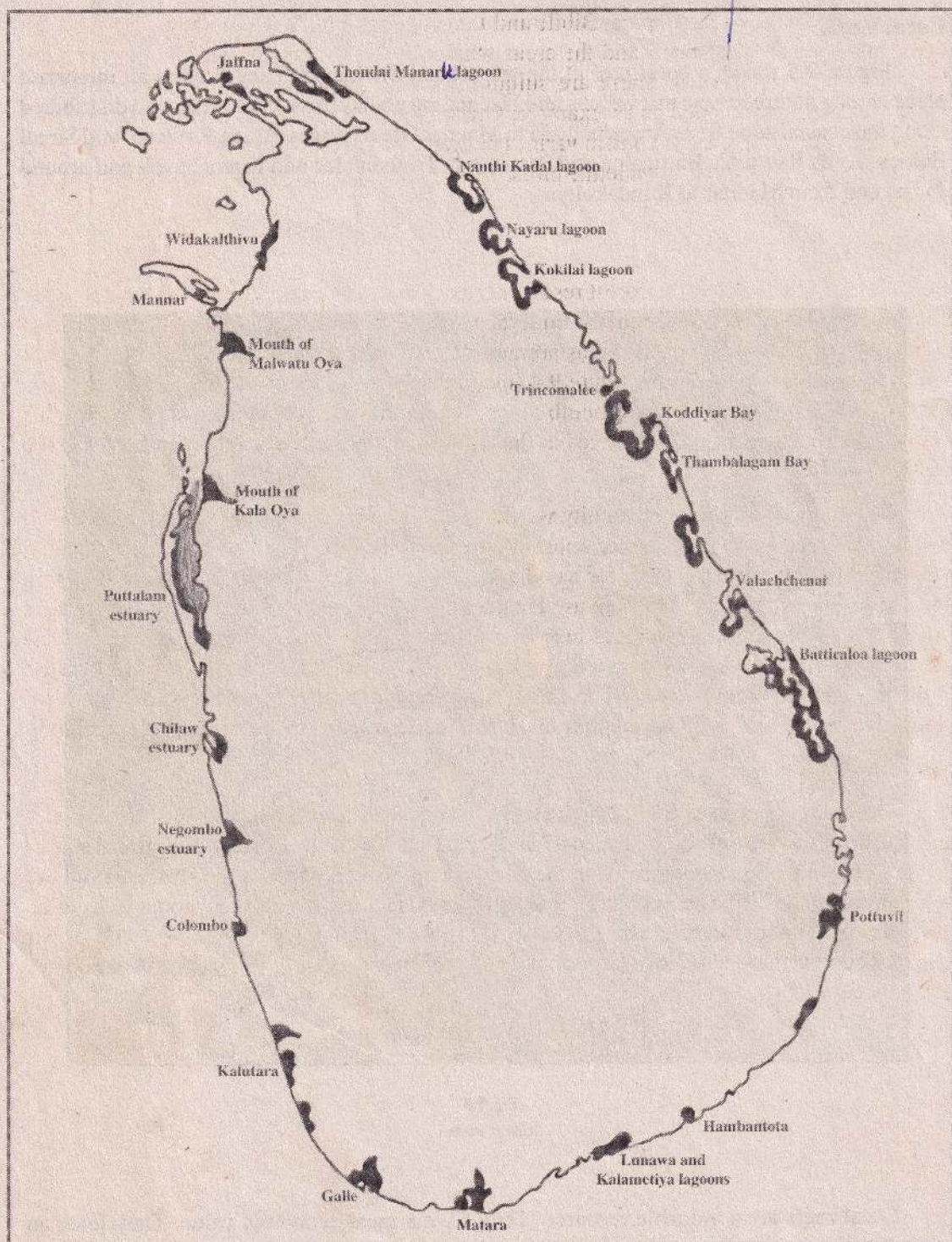


Fig. 9.4  
Distribution of mangroves



## Coral Reefs

Figure 9.5 shows a coral reef in the sea around Sri Lanka. They occupy an important place among nature's most marvellous and fascinating phenomena. Coral reefs are distributed along the coastal zone from Ambalangoda to Matara, Great Basses (Maha Rawana) and Small Basses (Kuda Rawana), Batticaloa and Pasikudah, Trincomalee and Kuchchaveli and around Jaffna and from Mannar to Kandakuliya.



Fig. 9.5  
Coral reefs

Coral reefs are a valuable resource. They have a great economic value. They fetch an income to the country because tourists come in large numbers to see them as they are attracted by both local and foreign tourists. Coral reefs provide shelter to fish. According to modern Medical Science, pieces of coral are used in transplanting bones in the human body.



Corals also provide limestone needed in the building industry. They control coastal erosion by acting as a barrier to the rough waves of the sea which rush to the coast. Thus coral reefs rank high in recreative, educational and research fields.

Having learnt about the distribution of coral reefs and their importance, it is also important that you know about the factors which influence the destruction of this resource. It is because they have to be protected for future needs. Coral reefs can be easily destroyed.

## **Non-Living Resources**

The following is a summary of a discussion on "non - living resources" presented by the speakers who participated at a conference on the preservation of the environment in a certain school. By studying this you will be able to gather information about water, soil, air and mineral resources.

### **Water**

Here is the summary of the speech on 'water' presented by Janaka.

"At this conference, I am going to speak about water which is one of the most important physical resources needed for the sustenance of life.

We can identify several sources which provide water to Sri Lanka. They are rainfall, springs, rivers, streams, brooks, wells and ponds. We use water for various day to day activities. Most important among them are for drinking, bathing, cleaning, agricultural activities, industrial activities, generation of electricity, transport and water sports.

From recent times, poisonous matter is being added to water through agricultural and transport activities. Hence water pollution is caused particularly by the polluted material seeping into water from the land.

Therefore, it has become difficult to get pure drinking water. People have turned victims of various dangerous diseases because of impure water. It has resulted in unpleasant odours polluting the environment. Another more dangerous development is currently taking place. Wanton clearing of forests in the country has resulted in the decrease of rainfall and depletion of water in rivers, channels and streams.

I am requesting all of you to draw your attention to these points and join us in the preservation of water."

### **Soil**

The summary of the ideas put forward by Nirupa on 'soil' is given below.

"I am presenting some facts about another important physical resource. Soil can be described as another resource equally important as water. It takes about 1000 years for the formation of soils to a thickness of about 50mm after the decaying of the bed rock. The layer of soils on the surface of the earth is very important for the growth of forests as well as for agricultural products including food crops. However, as mentioned earlier, the surface layer of soils has been washed off with the clearing of forests. Moreover pesticides and other poisonous chemicals are added to the soils due to various human activities. It has also resulted in the deterioration of microorganisms in the soil which do a useful service to the environment. Hence on this occasion I beg of you to contribute to protect the soil."



## **Air**

This is how Upul brought out facts regarding 'air'.

"I am speaking about 'air' which is one of the physical resources essential for the sustenance of life. A person can live without food or water for a few days. However, he can live without air only for a few minutes. Oxygen is specially important in the process of respiration. Likewise, carbondioxide which is a component of the atmosphere is a necessity for photosynthesis which is the food production process in the biological world. Air can be defined as a mixture of gases spread throughout the atmosphere. Air is composed of 78% nitrogen and 21% oxygen.

However, from recent times the amount of carbondioxide in the air which had been 0.03% has been increasing. Also the increase in methane, nitrogen oxide and chlorofluro carbon (CFCs) which have a harmful effect on life has become a serious issue. This is the result of atmoic explosions, atomic radiation, waste matter diverted from factories and houses and the smoke emitted from motor vehicles. Therefore the depletion of the ozone layer which has resulted in the warming of the atmosphere and the occurrence of acid rains have resulted in environmental pollution. Therefore, I am making a request from all of you to join in keeping the atmosphere clean".

## **Gems**

Krishani gave a speech on 'gems' as follows.

"In the past Sri Lanka was called 'Ratnadeepa' (island of gems) because of the valuable gem resources available here. Like in those days at present too we earn a fair amount of foreign exchange from the sale of gems in international trade in the international market while it serves as a source of employment to a considerable number of people in this country. Ratnapura, Eheliyagoda, Kuruwita, Nivitigala, Rakwana, Okkampitiya, Elahera and the area round Menik Ganga are famous for the gem industry. Countries such as Japan, Hongkong, Switzerland, Kuwait, Dubai, Saudi Arabia, Singapore and the United States of America buy gems from us. But environmental problems have cropped up due to unplanned digging of mines and the existance of abandoned gem pits. Environmental problems like soil erosion have set in as a result of felling trees for gem pits, addition of clay and mud into the rivers and streams when the gem-bearing veins are washed off in the water. Sedimentation occurs when the water in the gem-pits is drained into water bodies and through the unstable 'soil hills' which are collected round the gem pits. The illicit gemminers in particular deposit the soil dug from the gem mines. I am requesting you to protect the environment from such environmental hazards."

## **Sand**

Ideas expressed by Wimal about 'sand' are as follows.

"I intend to put forward a few facts regarding sand which is an important mineral in construction work. Sand brought by rivers is useful in the formation of the sea coast. Sand mined from the rivers is used in various construction activities. In recent times, there arose a



great demand for sand with the developments in the field of construction. Hence there was wanton sand mining from rivers and streams. This resulted in an inadequacy of sand for coastal formation while at the same time, river banks weakened and disintegrated in to the water. These sediments carried by the rivers were often deposited on the coral reefs resulting in their destruction. Moreover, due to uncontrolled sand mining from the Kelani River, the beds of the river were deepened below sea level causing the flow of sea water into the interior of the land making paddy cultivation impossible. Therefore we should try our best to minimize such problems."

### **Limestones**

Next Piyal gave his ideas on 'limestones' as follows.

"Limestones are another important resource in our country. Sedimentary limestones are seen in the regions north of a line drawn joining Puttalam and Mullaitivu. There are also other types of limestones. Dolomite limestones are found in some regions in Badulla, Welimada, Kandy, Nalanda and Balangoda. In the south - western coastal area another type of limestone called corals are found. They are baked in kilns and used in the construction of buildings.

The Department of Coast Conservation has taken steps to prevent the uncontrolled mining of these coral limestones. However, as the people who are engaged in this industry are still doing illicit mining, coastal erosion has become acute in those areas. Therefore, I urge all of you to join in the conservation of the environment related to this type of mining."

### **Mineral Sands**

Prasanna expressed his ideas about 'mineral sands' as follows.

"I hope to present some facts about an important mineral resource which is utilized as an industrial raw material. Among such mineral sands, **silica** which is used in manufacturing glass and which is distributed in the areas of Marawila, Naththandiya is important. It is also found in some areas in Ekala, Ampara and Vallipuram.

**Ilmenite** is found along the coastal strip of Pulmudai. The metal produced from titanium which is found in ilmenite is used in the manufacture of aeroplanes, spacecraft and also to produce ink. Rutile is used in the manufacture of ceramic ware and zircon for metal castings. There are two types of radio active mineral sands namely monazite and thorianite which contain uranium and thorium. These two types are found at Kaikawala and Polkotuwa. These minerals are exported to Japan and European countries.



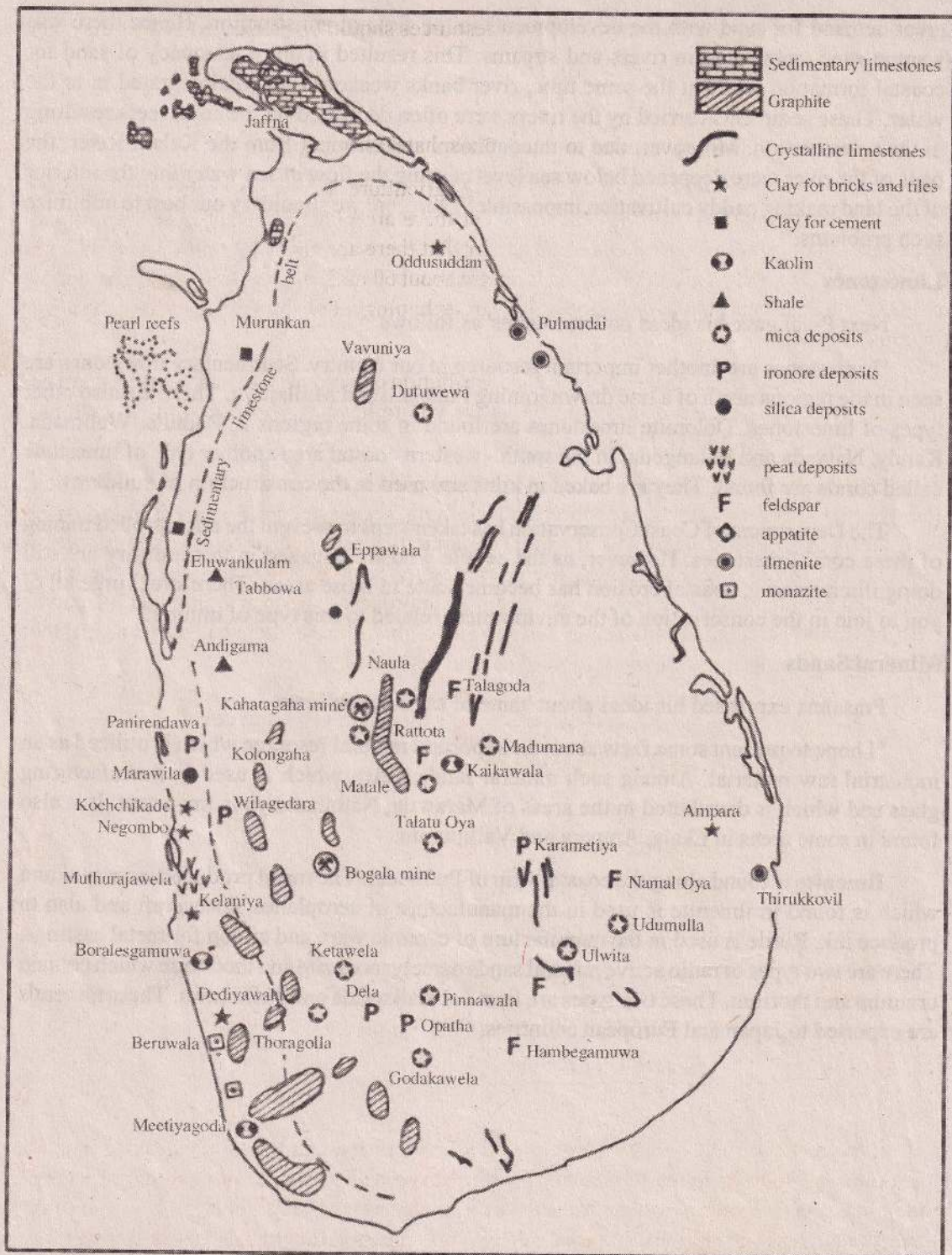


Fig. 9.6  
Distribution of mineral resources in Sri Lanka



I wish to mention here that these limited resources should be conserved so that they can be used by future generations."

## **Phosphate**

The ideas put forward by Sirimal about 'phosphate' are given below:

"Use of fertilizers is necessary in improving agriculture. We spend a substantial amount of foreign exchange on fertilizers annually. Yet there are phosphate (apatite) deposits at Eppawala. Though it had been mentioned earlier that there are about 30 million tons of high quality phosphate, now it is estimated that there are about 60 million more tons. As it is intended to utilize this resource gainfully applying foreign technology, I wish to mention here the need for conserving it."

Having a clear understanding about the distribution of several types of natural resources and their uses in Sri Lanka it is also essential for you to have an idea about the interaction between natural resources and man.

Renewable and non-renewable resources help in diverse ways for the sustenance of all living beings including man. Man obtains food, clothing, shelter, medicines and drinking water from his environment while plant and animal community also get the resources necessary for their existence from the environment. Air is a necessity common for everyone. All the other living beings except man use these resources in an appropriate manner. Man utilizes natural resources in the most unlimited manner. On account of this situation man has begun to feel the harmful effects of unlimited exploitation of natural resources.

### **The consequences of unlimited utilization of resources**

- **Scarcity of drinking water**
- **Soil erosion**
- **Coastal erosion**
- **Intrusion of brine into rivers**
- **Air pollution**
- **Depletion of bio-diversity**
- **Warming of the atmosphere**
- **Shortage of timber**

In the development process conflict arises between man and resources. Since man is over-utilizing resources, the environmental balance has been disturbed leading to adverse results. The natural resources are not for the exclusive use of the present generation. The future generations too have the right to utilize them. While meeting the present needs through the resources available today, we should save some of these for use by the future generation too. Resources should be utilized economically.



Though some rivers have been dammed and the water diverted to other regions to open up new development schemes, sometimes it has not been possible to obtain the maximum use of land resources in those regions. Problems crop up when the inter relationship between eco-systems are disintegrated due to the rapid changes that are taking place at present. Hence it is your duty to determine to act wisely and think of the future in the utilization of resources.

The Geological Survey and Mines Department had organized an exhibition. The attention of two children who went to see the exhibition accompanied by their parents was drawn to a diagram on a board at the entrance to a stall at this exhibition. It read thus.

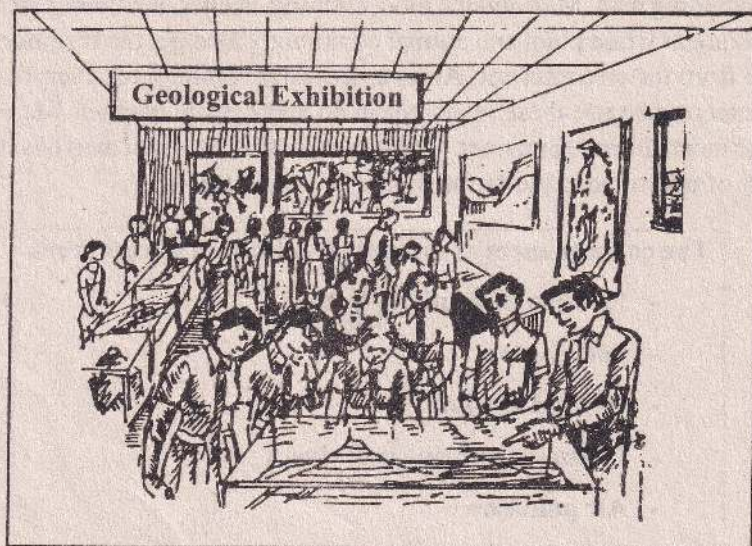


Fig. 9.7  
An exhibition

**Land is the most important natural resource in any country. The land belonging to a country directly influences its development. If a country has desert areas it is not suitable for agriculture and hence it will be devoid of settlements. If the land is stony and rocky it is difficult to develop such land too. This type of land cannot be utilized for any productive activity. If any region has volcanoes and is prone to landslides such regions too are not utilized for human activities.**



## Activities

1. Make a list of the natural resources found in your area.
2. What are the environmental problems that have arisen recently in relation to those resources?
3. What suggestions can you make to overcome those problems?
4. Try to carry out one of those suggestions in your area with the help of the elders.
5. Publish a report of any such programme you have carried out in the wall newspaper of your school.



## Chapter 10

### Population of Sri Lanka

The following is a quotation from the Central Bank report of 1996 about the population of Sri Lanka.

‘Sri Lanka is one of the few Asiatic countries that has reached a highly developed stage in demographic evolution within a very short period, and with a relatively low per capita income level’.

As a student of the population of Sri Lanka, it is important for you to grasp the meaning of this statement properly.

There are 4 stages in the demographic evolution of population. They are shown in Figure 10.1 below.

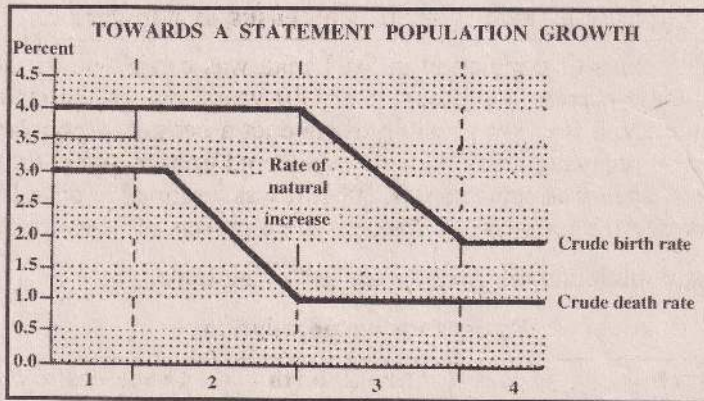


Fig. 10.1  
Various stages of population growth

In the first stage the addition to the population is low. The reason for this is that at this stage the number of births as well as deaths remain at a high level. Here you will notice that there exists a crude birth rate of 4% and a crude death rate 3%. However we constantly attempt to delay the incidence of death as much as possible to prolong the life span. Towards this end we have been able to adopt advanced medical facilities and other attendant factors.

At stage 4 in the above diagram the addition to the population is less (reduced), the reason being that the number of births as well as the number of deaths stay at a low level. The rise in life expectancy and the gradual decrease in still births (infant mortality) as a result of the attempts made possible by resorting to various methods has been the cause of this.

The Central Bank Report quoted above indicated that Sri Lanka has reached stage 4 of the stages represented in Figure 10.1. This means that Sri Lanka has reached a satisfactory stage with regard to population growth.



Let us now examine the factors that influence the change in a country's population.

**There are three factors that influence the change in a country's population. They are births, deaths and migration.**

**Births - deaths = natural increase**

**Immigration - emigration = net migration**

**Births - deaths + net migration = rate of population growth**

The population of a country grows through natural increase and migration.

The main reason for the growth of population of Sri Lanka between 1871 and 1946 was **net migration**.

It was **natural increase** that has influenced population growth since 1946. Information about the population of a country can be obtained from a census of population.

**In a particular country, the entire process of the collection of data on population at a given date or time, processing them and publishing them is termed a census of population.**

The first ever census of population in Sri Lanka was carried out in 1871. Thereafter although censuses were carried out almost every 10 years, due to the state of unrest that prevailed in the country, it was not possible to conduct a census of population after 1981. Hence, information on population for each year is gathered from mid-year estimates. A census of population of Sri Lanka was conducted in 2001. It was confined to only 18 districts while the total population for the remaining 7 districts were presented as estimated.

Basic data on population are given in the following table.

**Basic data on population**

Year	Population (in million)	Annual growth rate	Crude birth rate (per thousand)	Crude death rate (per thousand)	Life expectancy at birth (years)
1871	2.4	0.9	28.5	19.4	40.0
1931	5.3	1.7	37.4	22.1	41.1
1946	6.6	1.5	35.4	14.3	42.2
1953	8.0	2.8	48.0	10.4	58.2
1963	10.6	2.7	34.1	8.5	61.7
1971	12.7	2.2	30.4	7.7	65.5
1981	14.8	1.7	28.2	5.9	69.9
1991	17.2	1.5	20.6	5.5	72.5
1995	18.1	1.4	18.9	5.8	—
1996	18.3	1.0	18.6	6.5	—
1997	18.5	1.3	17.9	6.1	—
2000	19.4	1.1	—	—	—
2001	18.0	1.1	—	—	—

**Table 10.1**

Sources: Department of Census & Statistics; Registrar General's Department; Central Bank Annual Report 1998



Study these data thoroughly. Following are some of the conclusions that can be derived from them:

- \* Although it took 50 years for the population that existed in 1871 to double it has taken only about 32 years for the population that existed in 1931 to double.
- \* Although the growth rate of population was at its highest in 1953, it has dropped gradually to 1.1 percent by 1996.
- \* Birth rate as well as the death rate have dropped gradually.
- \* Life expectancy has risen gradually.

Even though the rate of population growth has dropped to 1.1% the population has increased gradually. About 550 persons add to the population daily. Thus the congestion in modes of public transport, hospitals, schools and highways increases gradually (day by day).

Study the above table and comprehend how the density of population has increased consequent to the rise in population in this manner.



Fig. 10.2  
Traffic congestion



## Composition of the Population

The composition of the population of Sri Lanka can be expressed in various ways as follows:

- \* Distribution by sex (male/female)
- \* Race
- \* Religion
- \* Urban/Rural

### Distribution by sex

Looking at the composition of the population of Sri Lanka it appears that the totals of males and females are approximately equal. This means that for every 100 males of the population there are nearly 100 females. It is said that this is an important characteristic when taking social development into consideration. This suggests that infants are taken care of without any sex discrimination.

It appears that both boys and girls seek education. Moreover, it can also be surmised that the majority of children who remain at the level of higher education are females. It can also be seen that women are not engaged in certain types of work. Providing opportunities to all the people of the country to develop their capabilities and skills without any sex discrimination, will be beneficial to the country. More attention than what obtains now should be paid to the health of womenfolk while it appears that the age old attitudes about the role of females too should change. Women who get a better training and education can involve themselves in the development effort of the country.

The distribution of the population in 1996 by sex was as follows:

Females - 9084000 (49.5%)

Males - 9253000 (50.5%)

Study the distribution of the population of Sri Lanka by ethnicity and religion from the following circular graphs.

#### Distribution by race (ethnicity)

1981

Sinhalese	74.0%
Sri Lankan Tamils	12.7%
Indian Tamils	5.5%
Muslim	7.0%
Others	0.8%

#### Distribution by religion

1981

Buddhist	69.3%
Hindu	15.5%
Christian	7.5%
Islam	7.6%
Others	0.1%



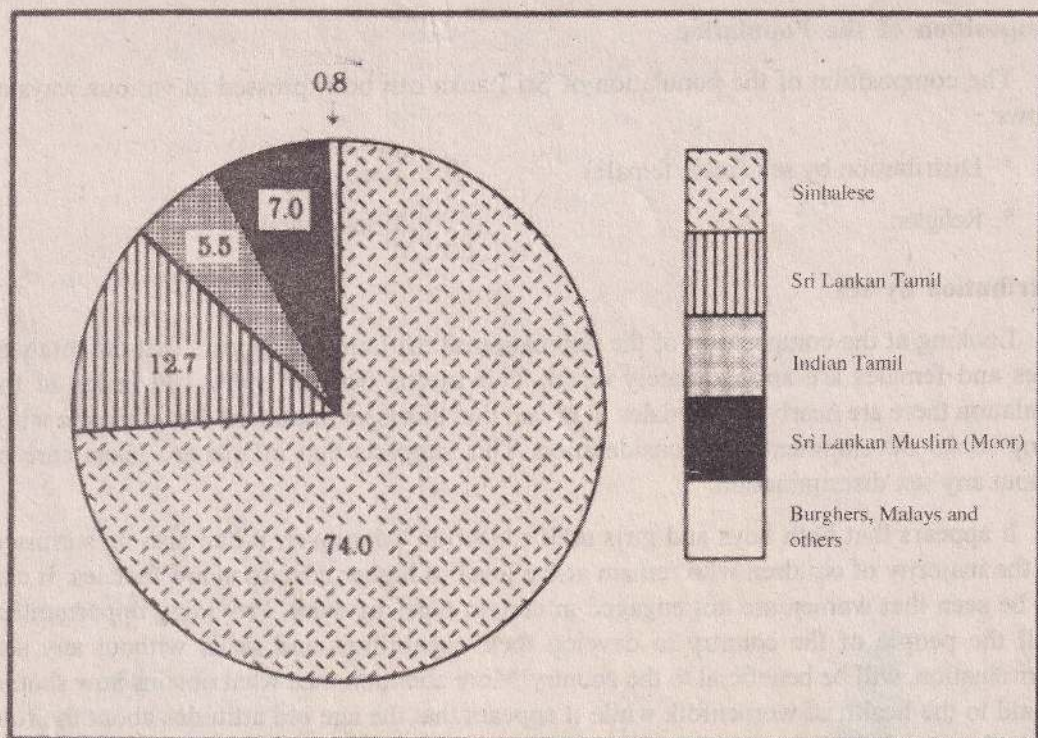


Fig. 10.3  
Composition of the population of Sri Lanka by race (ethnicity) 1981

### Urban/Rural

Even though an increase in the urban as well as in the rural population is seen with the increase in the country's population, it appears that the respective percentages of these two sectors of the population remain at the same level that prevailed earlier. Regional development in various spheres such as health, education and industry would have been the cause for this.

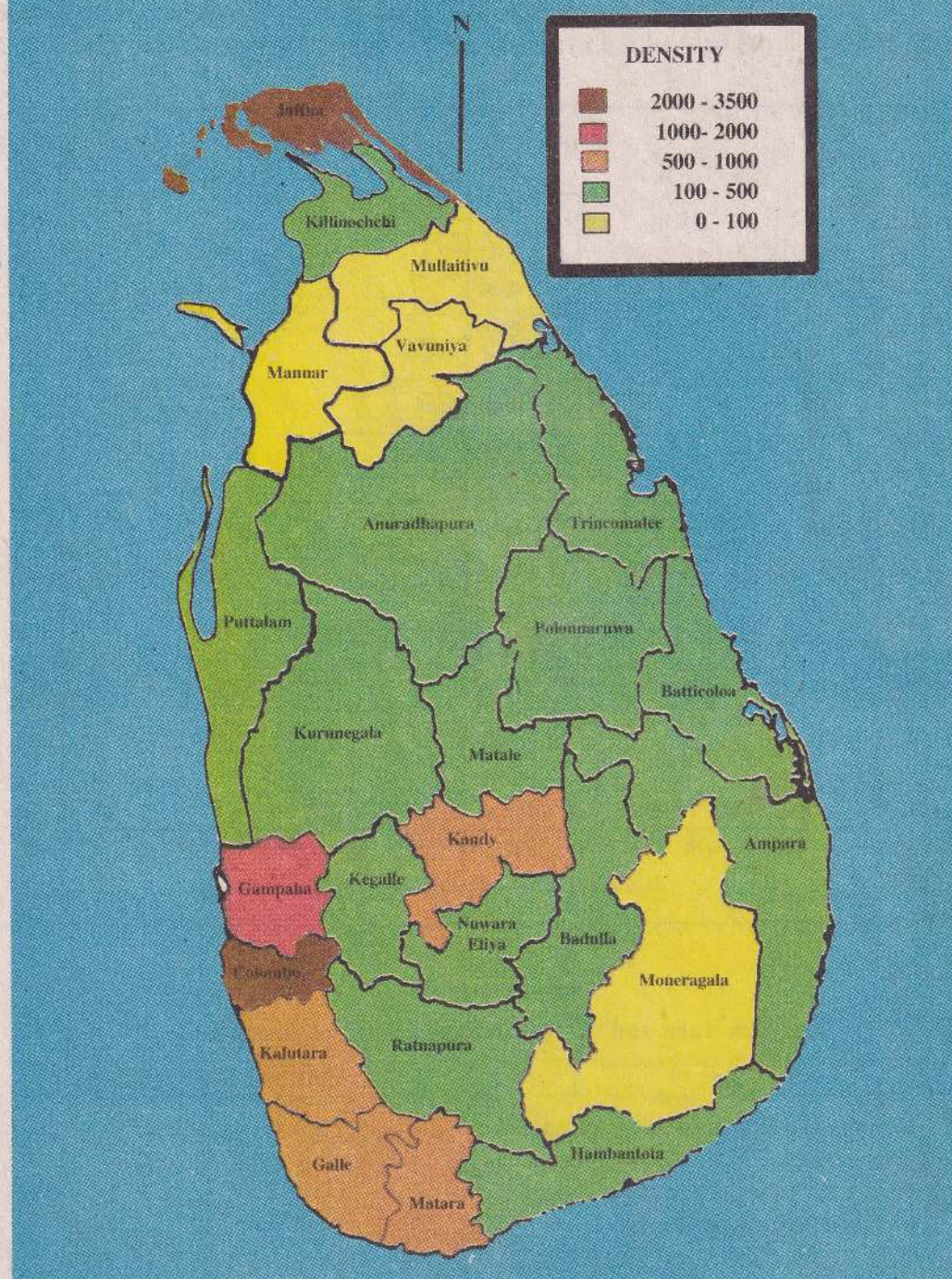
### Population density and distribution

Rural	78%
Urban	22%

The density and distribution of the population of Sri Lanka are depicted in figure 10.4. In 1989 the density of population was 260 per square kilometer. But the distribution of population does not take place in a uniform manner throughout the country. Even though one can indicate the density in a particular district as such and such, one may notice differences in the distribution within the district itself. For example, although the density of population in Colombo district was 3033 in 1966, the distribution is not uniform within the city of Colombo and near the district boundaries. According to the data obtained from the census of 2001 and the estimated population data the average density of population in Sri Lanka stood at 299.



# DENSITY OF POPULATION - 2001



**Fig. 10.4**  
Density of Population



# Age Structure

The age structure of a population can be shown in the form of a pyramid. In this pyramid females and males are indicated separately. Population is shown in ascending order from the column at the base of the pyramid upto the column at the top. See figure 10.5.

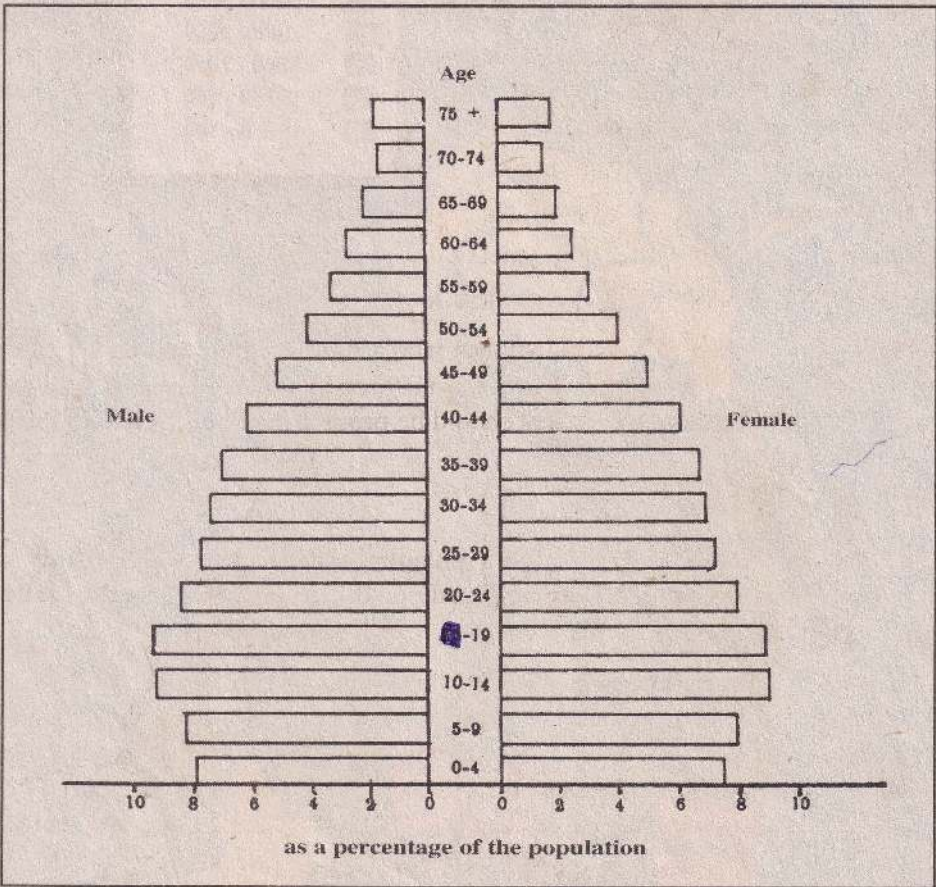


Fig. 10.5  
The population pyramid

Age structure and the percentage (ratio) of dependents

Age	1981	1991	2001
Below 14 years (dependent minors)	35.2	31.2	25.7
Between 15 - 63 (Labour force)	60.5	63.4	67.6
Above 65 years (Dependent elders)	4.3	5.4	6.7
Percentage of dependents	65.2	57.7	47.9

Table 10.2

Data for 1981 are extracted from the census of population held in that year. The remaining data are projected figures.  
Source: (Centre for Population and Information)



Several facts are clear from the above table:

- \* The percentage of dependent minors is gradually decreasing.
- \* The labour force is gradually increasing.
- \* The percentage of dependant elders is gradually increasing.

The overall result of these trends is the gradual decrease in the ratio (percentage) of dependents. Even though statistically this indicates a reduction in the ratio of dependents, the actual number of dependents is much more. There are several reasons for this. Of them the most important reasons are as follows:

- \* Inclusion of a large number of persons engaged in learning.
- \* Presence of a large number of unemployed persons among the labour force.
- \* Inclusion of a large number of women as domestic servants among the labour force.
- \* Inclusion of a section of the pensioners too in the labour force.

It is evident that, since life expectancy has increased gradually the number of elderly persons is also increasing gradually. When the number of elderly persons in a country increases, consider the type of services that should be provided to enable them to fulfil their requirements.

### **Population and the Quality of Life**

So far you studied the nature of the population of Sri Lanka. The quality of the population is much more important than the actual population figures. A healthy, active and a contented population is an asset for a country.

It is very important that a country maintains a population that is sustainable within its resources. Meanwhile, as the population of a country increases, the people will have to think of the various situations they will have to face when living with this increased population and also to develop behaviour patterns to suit the circumstances that will arise.

#### **Quality of life**

**The quality of life is not a completely measurable concept.**

It differs from person to person, country to country, society to society and time to time. The factors that influence the quality of life initially are the basic necessities as food, clothing, shelter, education, health facilities. The fulfillment of these requirements is necessary for the improvement of the quality of life. Factors such as psychological, aesthetic and spiritual qualities cannot be measured. Thus factors such as simplicity, values, religions, morality, security, mental satisfaction and the nature of the environment, influence the quality of life. Although an improvement in the economic status is essential to achieve a high quality of life, it is not possible to achieve it through such an improvement alone. In households that do not have a sound financial standing as well as in simple societies there can be certain advanced characteristics in the quality of life.



In future you will have to work with various types of people in the street, in the market place, in public transport, in the playground and at places of worship. In those circumstances you will have to inculcate qualities such as human compassion, consideration for others, sharing, patience and self-discipline.

**Table 10.3**  
**Population data of Sri Lanka 1971/1998**

Province/ District	Area Sq.km.	Estimated Population for 1998 (000)	Estimated Population for 1997 (000)	Crude Birth rate 1996	Crude Death rate 1996	Natural Growth rate 1996 %	Infant mortality rate 1995
Sri Lanka	65609.8	18758	18547	18.6	6.5	1.2	16.5
<b>Western Province</b>		<b>5011</b>	<b>4954</b>	<b>20.3</b>	<b>8.0</b>	<b>1.2</b>	<b>16.8</b>
Colombo Dis.	698.7	2179	2154	26.1	9.6	1.7	21.3
Gampaha Dis.	1386.6	1823	1802	14.9	6.8	0.8	8.7
Kalutara Dis.	1597.6	1009	998	16.4	6.4	1.0	13.4
<b>Central Province</b>		<b>2493</b>	<b>2465</b>	<b>19.9</b>	<b>7.4</b>	<b>1.3</b>	<b>21.7</b>
Kandy Dis.	1939.5	1317	1302	21.0	8.0	1.3	24.0
Matale Dis.	1993.3	455	450	18.2	6.1	1.2	10.9
Nuwara Eliya Dis.	1741.2	721	713	18.8	6.9	1.2	23.5
<b>Southern Province</b>		<b>2401</b>	<b>2374</b>	<b>17.6</b>	<b>6.8</b>	<b>1.1</b>	<b>16.9</b>
Galle Dis.	1651.6	1030	1018	18.3	7.0	1.1	18.3
Matara Dis.	1282.5	814	805	19.2	7.2	1.2	21.0
Hambantota Dis.	2609.3	557	551	13.6	5.7	0.8	4.9
<b>Northern Province</b>		<b>1349</b>	<b>1334</b>	<b>14.4</b>	<b>4.5</b>	<b>1.0</b>	<b>5.6</b>
Jaffna Dis.	1025.3	882	872	7.9	3.7	0.4	5.6
Mannar Dis.	1996.2	140	138	14.5	2.6	1.2	6.8
Vavuniya Dis.	1996.9	118	117	26.8	6.3	2.1	5.2
Mullaitivu Dis.	2616.9	99	98	38.3	9.0	2.9	2.3
Killinochchi Dis.	1279.3	110	109	31.2	6.7	2.5	7.8
<b>Eastern Province</b>		<b>1283</b>	<b>1268</b>	<b>23.1</b>	<b>4.3</b>	<b>1.9</b>	<b>6.1</b>
Batticaloa Dis.	2854.3	442	437	25.7	4.7	2.1	7.5
Amparai Dis.	4414.9	511	505	21.6	4.6	1.7	4.0
Trincomalee Dis.	2726.8	330	326	22.1	3.5	1.9	7.0



Province/ District	Area Sq.km.	Estimated Population for 1998 (000)	Estimated Population for 1997 (000)	Crude Birth rate 1996	Crude Death rate 1996	Natural Growth rate 1996 %	Infant mortality 1995
<b>North Western</b>							
<b>Province</b>		<b>2130</b>	<b>2106</b>	<b>16.6</b>	<b>5.8</b>	<b>1.1</b>	<b>17.5</b>
Kurunegala Dis.	4815.8	1482	1465	15.2	5.7	1.0	16.6
Puttalam Dis.	3072.4	648	641	20.0	5.9	1.4	19.1
<b>North Central</b>							
<b>Province</b>		<b>1085</b>	<b>1073</b>	<b>18.2</b>	<b>6.4</b>	<b>1.2</b>	<b>23.9</b>
Anuradhapura Dis.	7179.3	730	722	19.2	6.3	1.3	28.0
Polonnaruwa Dis.	3293.2	355	351	15.9	6.5	0.9	13.2
<b>Uva Province</b>							
		<b>1204</b>	<b>1191</b>	<b>20.9</b>	<b>5.5</b>	<b>1.5</b>	<b>14.7</b>
Badulla Dis.	2861.3	810	801	22.0	6.0	1.6	18.6
Moneragala Dis.	5638.7	394	390	18.7	4.6	1.4	5.0
<b>Sabaragamuwa</b>							
<b>Province</b>		<b>1802</b>	<b>1782</b>	<b>14.9</b>	<b>5.7</b>	<b>0.9</b>	<b>20.5</b>
Ratnapura Dis.	3275.4	991	980	17.0	5.3	1.2	23.7
Kegalle Dis.	1692.8	811	802	12.1	6.2	0.6	14.1

Source: Population Information Centre



## Activities

Use the data in table 10.3 to do the activities 1–3.

1. Out of the data indicated there select the data pertaining to the district where your school is located.
  - (a) Compare that data with those pertaining to your province.
  - (b) Compare that data with those for the whole of Sri Lanka. What are the conclusions you can arrive at from this comparison.
2. Given below is an equation applied to reckon the time required for the population of a country or a region to double.

$$\frac{70}{\text{Natural growth rate}} = \text{Time taken for the population to double}$$

According to this equation, the time taken for the population of 1996 to double is approximately 58 years.

$$\text{i.e. } \frac{70}{1.2} = 58 \text{ (app.)}$$

Applying the above equation, calculate the time required for the population of the locality of your school in 1996 to double.

3. Find the time required to double the population of the districts (according to the natural growth rate figures for 1996.)

Mullaitivu

Kegalle

Puttalam

4. Given below are a few factors that reveal information on the relationship between population and the quality of life. Classify them under the categories 'measurable' and 'non-measurable'.
  - i. Compassion, food, shelter, kindness, employment, education, security, welfare services, energy, consumption, simplicity, aesthetic, evaluation, amount of income, values, mutual help.
  - ii. Describe how the above factors influence quality of life.
5. Describe the services that should be provided to satisfy the need of a country's elderly population, when this population is on the increase.



## Chapter 11

### Industries of Sri Lanka

The process of manufacturing tools (equipment) and goods for the purpose of fulfilling man's requirements easily and without delay dates back from the origin of human history. Man has now familiarized himself with the task of producing various goods utilizing the different resources obtained from his environment.

Producing goods utilizing a particular raw material engaging human labour and using machinery can be called an industrial process.

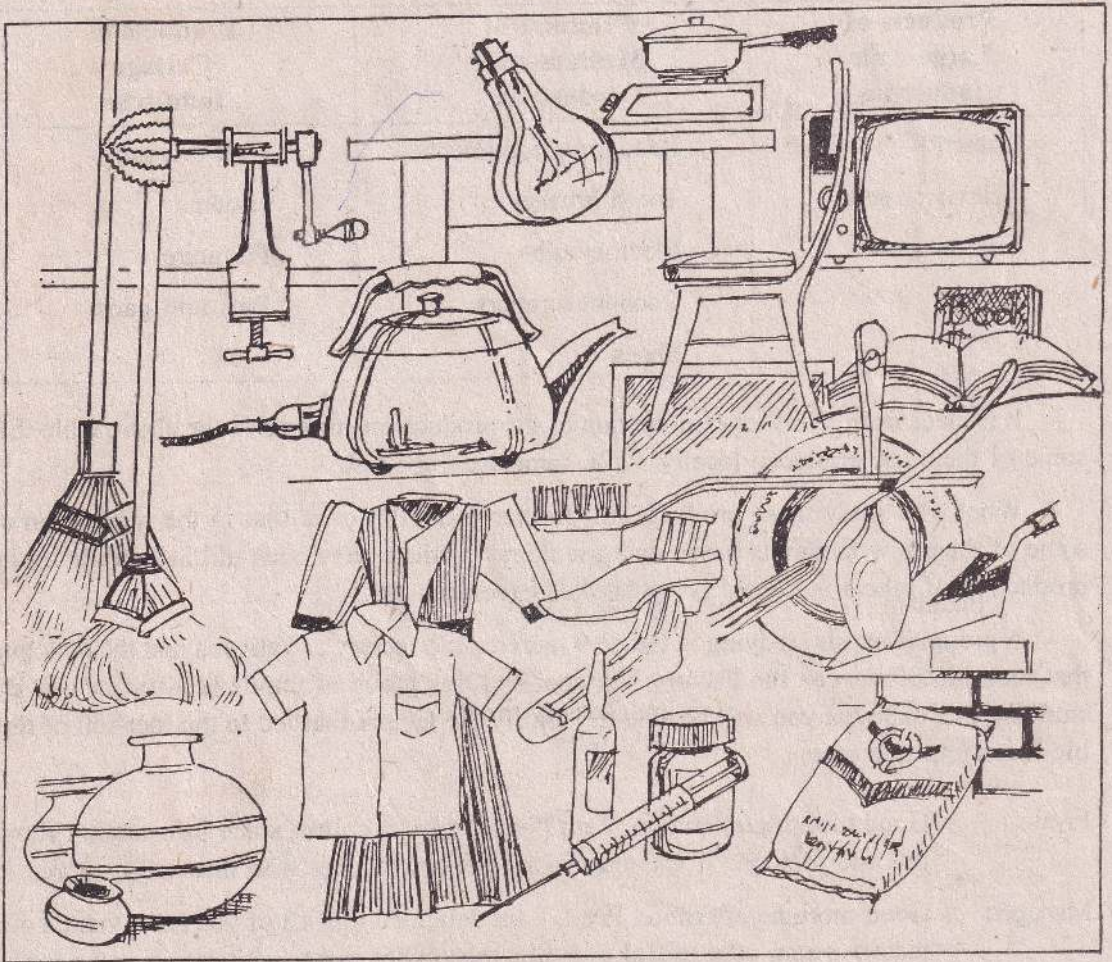


Fig. 11.1  
Industrial Products

The picture above shows a number of goods that are essential for our day-to-day life.



From the time you got up from your sleep at dawn until you get off for school, you may have used some of the products shown in the above picture.

**Raw-material, capital, labour, land, machinery and fuel are used in order to produce these goods. Some of those goods are items produced at homes or cottages while others are products of medium-scale factories or large-scale factories.**

Observe figure 11.1. You will be able to identify the items there as products of large-scale industries, medium-scale industries and cottage industries.

<b>Products of Large-scale Industries</b>	<b>Products of Medium-scale Industries</b>	<b>Products of Cottage Industries</b>
Cement	Ready-made garments	Ekel-brooms
Television sets	Tooth brushes	Brooms
Ceramicware	Electric bulbs	Furniture
	Coconut scrapers	Pots and pans
	Shoes	

It is clear from a further examination of the products mentioned in the above table that some of them are produced locally while some are imported.

When you study these products still further you will notice that in the production of some of them raw-materials based on agricultural produce have been utilized, while in the production of others industrial raw-materials have been used.

A group of pupils studying in Grade 9 toured a tile factory at Yatiyana and the dialogue that took place between the Factory Manager and this group of pupils is given below. By studying this dialogue you will be able to identify the factors that led to the location of this tile factory in that area.

Piyal : Good morning/afternoon, I am Piyal. I like to collect some information about this tile factory. It was our Social Studies teacher who directed us here.

Manager: Good morning/afternoon Piyal. I am delighted that all of you have visited our factory on an educational tour like this. What is the information you need? I will help you.

Piyal: Besides tiles, what are the other products of this factory?

Manager: Tiles are our main products. Apart from that there are other by-products.



Piyal: What are they?

Manager: Clay stoves.

Piyal: Well, what are the raw-materials you use for these products? From where do you obtain them?

Manager: The main raw-material is brown clay. It is a mineral available in plenty in this area around the Nilwala valley.

Piyal: Was it due to that reason that the tile factory was located here?

Manager: Yes, it was one of the main reasons. It is not difficult to use trucks and transport clay from the neighbouring areas.

Piyal: Are there any other reasons for locating this factory here?

Manager: Of course! Regional development is one policy of the government. Decentralization of industries throughout the country too is another policy. An industry is located at a site which will be able to bring about the maximum economic benefits. Any number of labourers required for a factory can be found from this area itself. The availability of cheap labour helps in minimizing the cost of production. Only then can the products be offered to the market at a low price. Moreover, the government was keen on decentralizing industries throughout the country for regional development.

At this stage others too join the conversation.

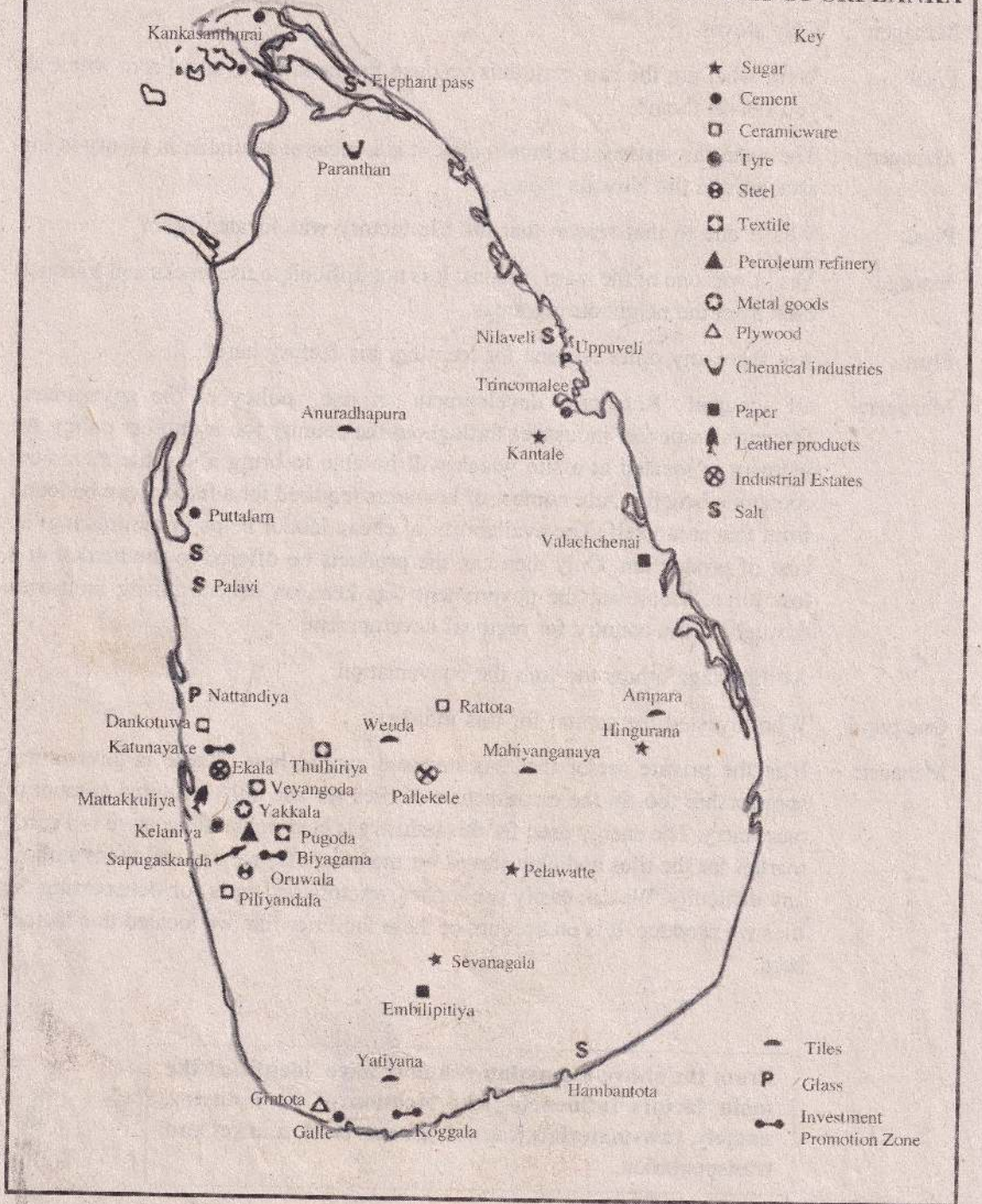
One pupil: Who invested the capital for this industry.

Manager: It is the private sector that has invested capital here. There is government sponsorship too. In the manufacture of tiles we use only a limited amount of machinery. The energy used for this industry is electricity. Since there is a ready market for the tiles and clay stoves we manufacture, we can sell them without any difficulty. We can easily use lorries, tractors and carts for transporting the tiles we produce. It is on account of these facilities that we located this factory here.

**From the above discussion you may have identified the main factors influencing the location of an industry, namely, raw-materials, capital, labour, land, market and transportation.**



# THE DISTRIBUTION OF THE MAIN INDUSTRIES OF SRI LANKA



**Fig. 11.2**  
Distribution of the main industries of Sri Lanka



Figure 11.2 shows the distribution of industries in Sri Lanka. By studying it you will be able to identify some of the main industries of Sri Lanka. They are sugar, cement, ceramicware, tyres and tubes, steel, textiles, metal goods, chemical industries, leather products, gems, paper, salt, tiles and glass.

Note with the help of the map how different industries are located in various places of the country. Similarly you will notice that most of these industries are concentrated in the Western Province of Sri Lanka.

Certain industries of Sri Lanka have been established as joint ventures of the private and state sectors, some under the co-operative sector, while Investment Promotion Zones in particular have been established with the assistance of foreign investors and companies.

Manufacturing industries of Sri Lanka including those indicated in the map (Fig. 11.2) can be classified as large-scale industries, medium and small-scale industries and cottage industries.

### **Large Scale Industries**

Manufacturing of large bulks of goods using machinery, a large quantity of raw materials and a large amount of capital is called a large-scale industry. Examples are cement, iron and steel, tyres and tubes.



**Fig. 11.3**  
A large scale factory



### **Medium and Small Scale Industries**

These industries do not require a large amount of capital as needed for large-scale industries. However small scale machinery are used here while bulk production also takes place. Production of electrical appliances, hardware items, plastic goods, biscuits and mineral waters are examples. Out of these industries, over 60% are located in the Gampaha and Colombo districts. The main reason for their concentration in these two districts is the availability of factors such as labour and markets there. Moreover, nearly 88% of all the workers engaged in these two types of industries are attached to those industries in these two districts.

### **Cottage Industries**

Cottage industries are a type of very small scale industries. They are carried out in small factories or households. Mostly human labour is used for these industries and there are instances where small manually operated machines or electrically operated simple machines are also used. Crocheting of pillow lace, spinning of coir yarm, manufacture of hand loom textiles can be cited as examples.



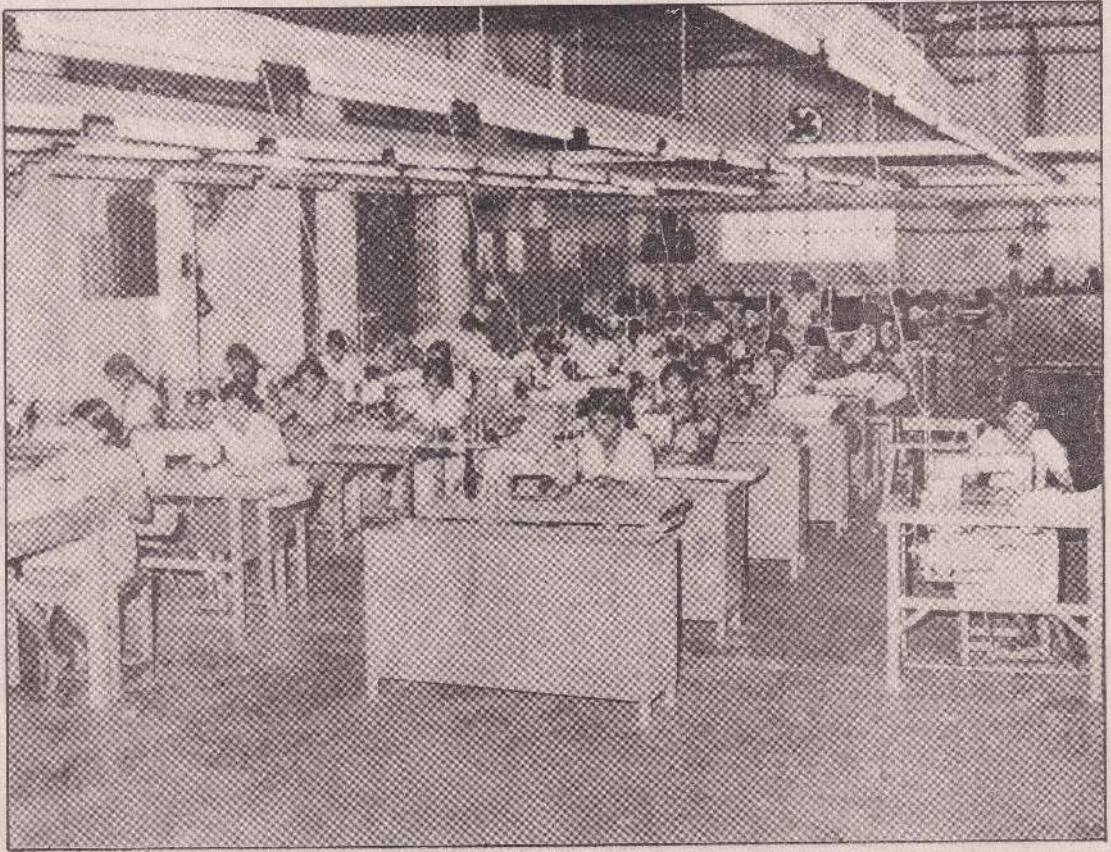
**Fig. 11.4**  
**A cottage industry**



## Export Processing Industries

Under the Free Trade Zone programme that was added to the industrial sphere of Sri Lanka in 1978, export processing industries were started. Those industries were initiated to serve several purposes, namely,

- \* to obtain technical know-how
- \* opening new employment opportunities
- \* earning foreign exchange
- \* developing a foreign (export) market.

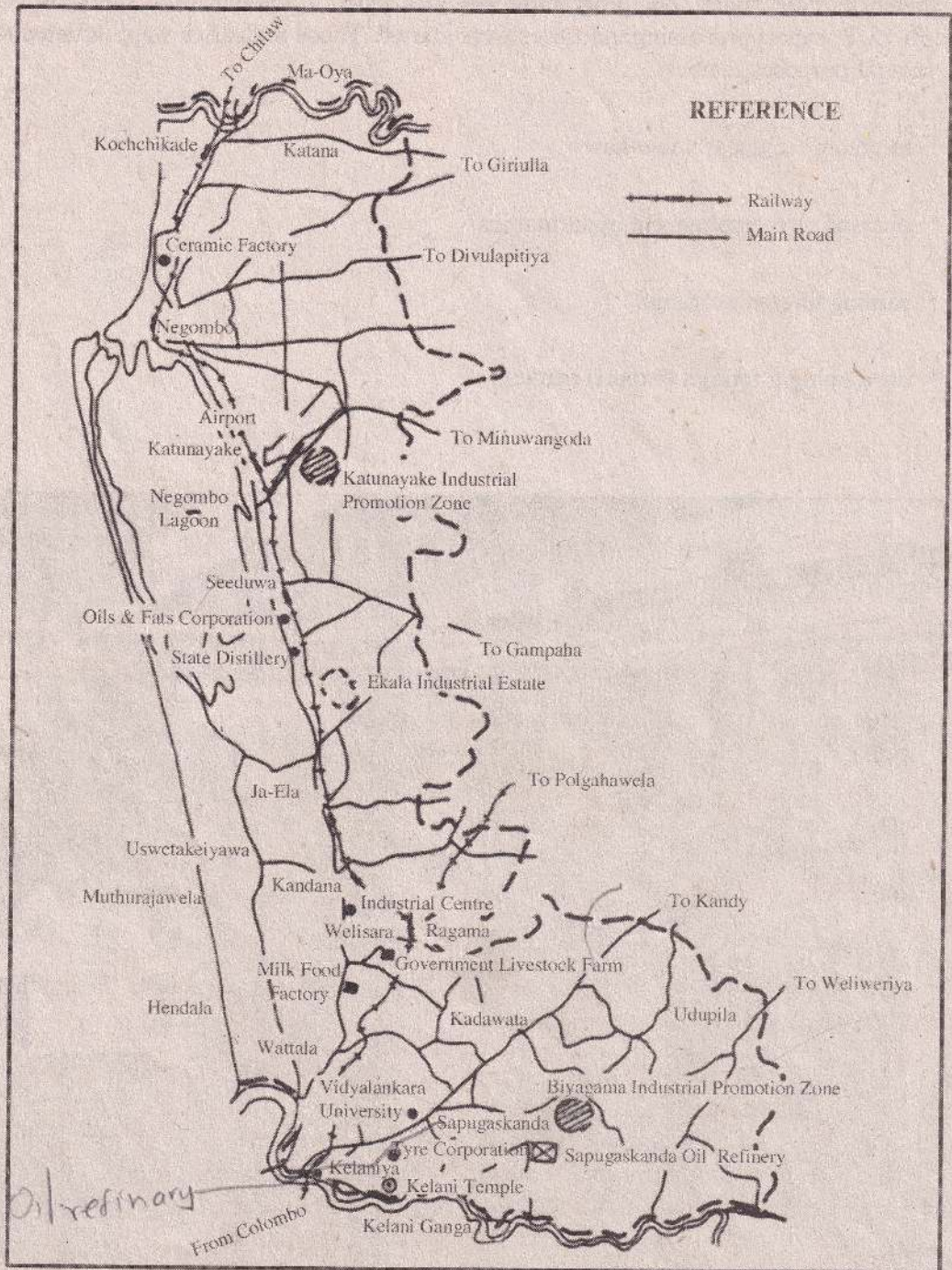


**Fig. 11.5**

A textile (garment) factory in Katunayake Free Trade Zone (FTZ)



Study the map showing the location of Investment Promotion Zones of Sri Lanka.



**Fig. 11.6**  
Investment Promotion Zones at Katunayake and Biyagama



## **Export Processing Zones**

The first Export Processing Zone in Sri Lanka was established in 1978 at Katunayake. It is situated in close proximity to the Katunayake International Airport about 29km from Colombo harbour. The second Export Processing Zone was established in 1986 on a land of 180 hectares at Biyagama 24km north - east of Colombo harbour, while the third Export Processing Zone was established in 1991 at Koggala in the Southern Province. The Koggala Export Processing Zone situated 16km from Galle harbour covers an area of 180 hectares.

A large number of foreign countries have embarked on investment in the Export Processing Zones of Sri Lanka. South Korea has become the largest foreign investor. South Korea is interested in ventures such as textiles, shoes, soft toys, ceramicware, rubber products and construction of office and housing complexes.

### **Advantages expected from Investment Promotion Zones**

- \* availability of employment opportunities for the unemployed youth.
- \* deriving the maximum benefit from local resources.
- \* facilitating the inflow of foreign capital for investment.
- \* possibility of gaining vocational training within a short period, by working with foreigners.
- \* gaining a knowledge in the production of goods to suit the needs of foreign markets.
- \* development of infrastructure facilities in the vicinity of the zones.

### **Disadvantages of Investment Promotion Zones**

- \* since foreign investors aim at maximizing their profits by investing capital, problems regarding labour exploitation can crop up.
- \* decline of local industries
- \* environmental pollution
- \* social problems that can arise around investment promotion zones

**Industrial Estate Projects** are a recent innovation in the industrial sphere. A note that appeared in a magazine on this is given below:

The objective of the Industrial Estate Projects is to locate industries in areas that currently lack industries and to provide employment opportunities for the unemployed youth. Already an industrial estate has been established in Seethawaka and the infrastructure facilities essential for the industries there such as highways, electricity supply, telephone facilities have been developed.



A centre for labour training and a laboratory too have been established, while it was expected to start 70 industrial units.

**Table 11.1**  
**Industrial Estates**

<b>District</b>	<b>Industrial Estates</b>	<b>Employment opportunities provided</b>
Matara	Udukawa	1250
Hambantota	Bata-atha	1500
Puttalam	Dankotuwa	3500
Gampaha	Minuwangoda	1750
Galle	Karadeniya	2000
Matale	Madawala (Stage I)	1500

**Industrial Estates**

**Problems associated with industrialization**

A group of school children have conducted a survey of the environmental problems it would create based on a study of a factory situated in a river valley. The findings of that survey are indicated below:

1. Emission of smoke to the atmosphere from the factory in a manner not conforming to the set standards.
2. It has been noticed that certain workers have been subjected to hearing defects as a result of the heavy noise coming from the machines as they were not wearing ear-coverings inside the factory.
3. Release of waste matter from factories and water mixed with chemicals harmful to life, into the nearby water courses without taking any precautionary measures.
4. Population growth and overcrowded houses in the area around the factory.

**Other problems related to industries**

- \* Scarcity of capital.
- \* Problems related in obtaining fuel.
- \* Scarcity of industrial and mineral raw-materials.
- \* Difficulty in obtaining skilled labour necessary for the factories.
- \* Preference for foreign goods more than for domestic products.

(For further information read the pamphlets on 'Energy' your school has received from the Energy Conservation Fund).

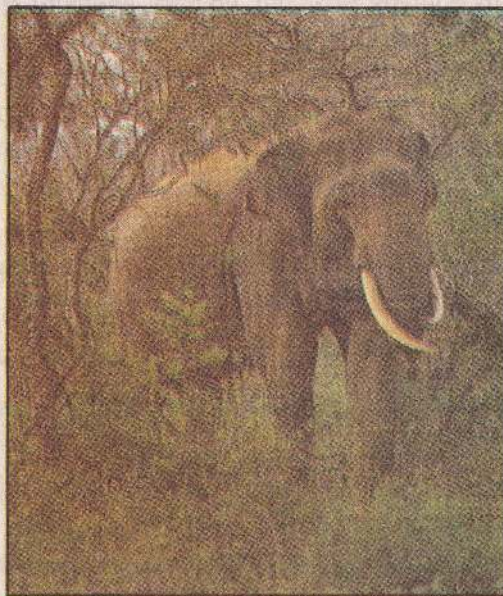




**Fig. 11.7**  
A waterfall



**Fig. 11.8**  
Sea-beach



**Fig. 11.9**  
Elephants





**Fig. 11.10**  
**Deer**



**Fig. 11.11**  
**Sigiriya**

There is evidence to show that from ancient times foreigners who were attracted by various resources of Sri Lanka have visited this country.

The above photographs show four main attractions which have led to tourist arrivals in recent times. There are attractive waterfalls, sea-beaches, wildlife and historical heritages which highlight the natural beauty of Sri Lanka.

Many tourists visit this country annually from regions like Western Europe, North America and Australia. The tourist industry is one of the main sources of foreign exchange earnings. This generates employment opportunities too. Further, the tourist industry has a bearing on the development of the handicraft sector. Hotel schools have been established at several places in the island in order to train personnel necessary for the tourist industry.

### **Activities**

1. Make a list of industries that can be started with the resources available in plenty in your locality.
2. Make a list of industries that can be started using local agricultural produce.
3. Gather information on cottage industries that can be used in the development of the self-employment sector.
4. Organize an educational tour to visit a factory in the neighbourhood of your school. Prepare a report on the factors that have influenced the location of the industry there, including information about the environmental problems that have arisen in association with it.



### Shift of Kingdoms after Polonnaruwa

You have already learnt that Anuradhapura remained the first capital of Sri Lanka for nearly 13 centuries. After the Anuradhapura kingdom Polonnaruwa became the capital of the Sinhala nation. Magha's invasion is regarded as the immediate cause for the abandonment of Polonnaruwa and the establishment of kingdoms in the south western part of the country.

A few pages from the tour handbook prepared by the teacher before the Grade 9 pupils of Rajarata Vidyalaya set off on a visit to see the ancient kingdoms of Dambadeniya, Yapahuwa, Kurunegala, Gampola and Kotte are copied below:

#### **The Dambadeniya Kingdom (1232 - 1272 A.C.)**

It was King Vijayabahu III who chose Dambadeniya as his kingdom after Polonnaruwa. Dambadeniya being somewhat secure and a safe place would have been the reason for its choice. This ruler was responsible for bringing the Holy Tooth Relic and the Bowl Relic which had been kept hidden for safety at Kotmale and depositing it at the Temple of the Tooth built at Beligala, constructing a monastery by the name Vijayasundararamaya in Dambadeniya and the restoration of a number of temples such as Kelaniya temple and the Attanagalla temple.



Fig. 12.1  
Yapahuwa



## **Parakramabahu II (1236-1270 A.C.)**

After king Vijayabahu III it was his son Parakramabahu II who became the ruler at Dambadeniya. While this ruler was organizing the army to save the country from Magha of Kalinga who was at Polonnaruwa he had to face another attack. It was the invasion of southern Sri Lanka in 1247 by the Javaka king Chandrabhanu who came from Tamulinga. King Parakramabahu II detailed his nephew Virabahu to suppress this invasion. Thereafter with the assistance of the Pandyan emperor he defeated Magha in 1255 A.C. There was a second invasion by Chandrabhanu in 1261. This too was quelled, again with the assistance of the Pandyan Emperor.

Compiling the Dambadeni Kathikawata (Dambadeniya Edict) written about the disciplinary rules for the priesthood, holding the Higher Ordination ceremony annually and the establishment of forest monasteries by getting down foreign virtuous and disciplined monks are the religious services rendered by this ruler. He who was honoured with the title Kalikala Sahitya Sarvajna Panditha wrote Vishuddhi Marga Sannaya and Kawsilumina.

After the death of king Parakramabahu II, it was his eldest son Vijayabahu IV (1270-1272 A.C.) who ascended the throne of Dambadeniya. Under Vijayabahu IV the peace and unity which Parakramabahu II restored with great effort and dedication was destroyed. Consequent to a conspiracy initiated by a general named Mitta, Vijayabahu IV died and his reign lasted only 2 years.

For the Sinhalese of Rajarata who were seeking sanctuary after Magha's invasion, Yapahuwa was a secure place. Yapahuwa which was a natural rock was turned into a fortress by General "Subha". Hence it is also known as "Subha Pabbata", the "rock of Subha". It is mentioned in historical sources that General Subha built a fortress at the top of Yapahuwa rock and from there mustered forces against Magha. However it was king Bhuwanekabahu I who made Yapahuwa his kingdom.

## **Bhuvanekabahu I (1272-1284 AC)**

After king Vijayabahu IV, his brother Bhuvanekabahu I became king. After Bhuvanekabahu ascended the throne the Chieftains of Vanni revolted. However, he was able to quell these revolts.

- \* Yapahuwa was made the kingdom since it was a place that provided natural security.
- \* Building the royal palace and the Temple of the Tooth at the summit of the rock.
- \* Quelling the revolts staged by the Vanni chieftains.
- \* Holding the annual Higher Ordination ceremony.
- \* King Bhuvanekabahu I being the only king who ruled from Yapahuwa.

Turn to figure 12.1 and observe the gateway to the Yapahuwa fortress. The rock carvings there reflect the artistic talents of our ancestors. The moat and the rampart at Yapahuwa remain even to this day.



After the death of King Bhuvanekabahu I in 1284 Aryachakravarthi, a minister of the Pandya king Kulasekera, arrived here with a gigantic army, plundered the Tooth Relic and Bowl Relic and returned to the Pandyan country. About one year after this plunder there was a state of anarchy for about one year. This marked the end of the Yapahuwa kingdom.

### **The Kurunegala Kingdom - King Bhuvanekabahu II**

King Parakramabahu II recovered the Tooth Relic from the Pandyan King who had plundered it from Yapahuwa and reigned for a short period from the earlier capital of Polonnaruwa, before his step-brother Bhuvanekabahu II usurped the throne from him. King Bhuvanekabahu II (1293-1302) became the first ruler who reigned from the Kurunegala Kingdom.

### **Service rendered by King Parakramabahu IV**

After King Bhuvanekabahu II his son Parakramabahu IV (1302-1326) ascended the throne at Kurunegala. He is regarded as one of the great rulers of Sri Lanka. His services are as follows:

- \* Constructing a Relic chamber and depositing the Holy Tooth Relic in it.
- \* Assigning land grants for its maintenance.
- \* Extending royal patronage to several famous pirivenas  
e.g. Vijayaba Pirivena of Totagamuwa, Asgiri Senasanaya (monastery) of Kandy, Sri Ghanananda Pirivena of Vidagama.
- \* Translation of Buddhist Pali texts into Sinhala  
e.g. Pansiya Panas Jataka Potha.
- \* Extending patronage to the writing of books  
such as Dalada Siritha, Sinhala Bodhi Vansaya, Anagatha Vansaya.

Venerable Sri Parakramabahu Vilgammule Sangharaja was one of the erudite scholars who was engaged in the service of the dispensation of the Buddha (Buddha Sasana) with the patronage of this ruler.

The reign of King Parakramabahu IV comes to an end as a result of a revolt staged by one Bodhi Mapa. After him the Kurunegala Kingdom shifted to Gampola.

### **The Gampola Kingdom**

The reasons for shifting the capital from Kurunegala to Gampola are not clear. The first ruler of the Gampola Kingdom was Bhuvanekabahu IV (1341-1351 A.C.) Although this king was known by an epithet Trisinaladhisvara (The Sovereign of Trisinhala) he does not seem to have had sway over the whole of Sri Lanka.





**Fig. 12.2**  
**Lankatilaka Temple**

### **Service rendered by King Bhuvanekabahu IV**

Constructing the Lankatilaka temple and the Gadaladeniya temple in the vicinity of Kandy (Mahanuwara), effecting a reorganization of the priesthood with the initiative of the Chief Minister Senalankadhikara.

After Bhuvanekabahu IV, a prince named Vikramabahu, revolted against the king with the assistance of one Nissanka Alagakkonara, usurped the throne and ruled under the name Vikramabahu III. He who reigned for 17 years from 1357 to 1374 A.C. was a versatile ruler. Arya Chakravarti, the regional ruler of Jaffna in the north and King Vikramabahu III of Gampola showed an interest in trade in the south-west of Sri Lanka. By this time, the political affairs of the Gampola kingdom were directed by Praburaja Alagakkonara.

Alagakkonara the benefactor (advisor) of Gampola kings, established the fortress of Kotte which was a secure marshy land bounded by the lake Diyawanna on three sides, as a suitable and safe centre in order to face the challenge of Aryachakravarti whose power had spread in the south and also to control trade on the western coast.



### Characteristic features of the Gampola period

- \* A development of the Dispensation of the Buddha sasana, regularization of the community of monks by bringing about two reorganization of the priesthood.
- \* The rise of popular religious institutions such as Gadaladeniya temple, Lankathilaka temple and the Embekke devale.
- \* Four celebrated monks, namely Ven. Wilgammula, Ven. Dewanagala Wanaratana, Ven. Seelavamsa Dharmakeerti and Ven. Jayabahu Devarakkhita were engaged in religious activities during this period.
- \* The writing of a number of popular literary works such as Mayura Sandesa, Tisara Sandesa, Vimukti Sangrahaya, Elu Attanagalu Vamsaya, Saddharmalankaraya and Nikaya Sangrahaya.

### The Kotte Kingdom

After completing the tour of Gampola this group of pupils organized a tour on a subsequent day, to visit the kingdom of Kotte. First they arrived at the Parliamentary Complex in Sri Jayawardhanapura. After seeing the Parliament surrounded on three sides by Diyawanna Oya, they developed an interest in seeing the grandeur of the old Kotte kingdom, and in order to gather further information about this kingdom they made way to Sri Perakumba Pirivena. There they met the Chief Incumbent (Head Priest) who took them round to show the ruins of the old rampart. After that this priest enlightened them further on the old Kotte kingdom and a summary of the detailed information given by him as prepared by these pupils is given below.

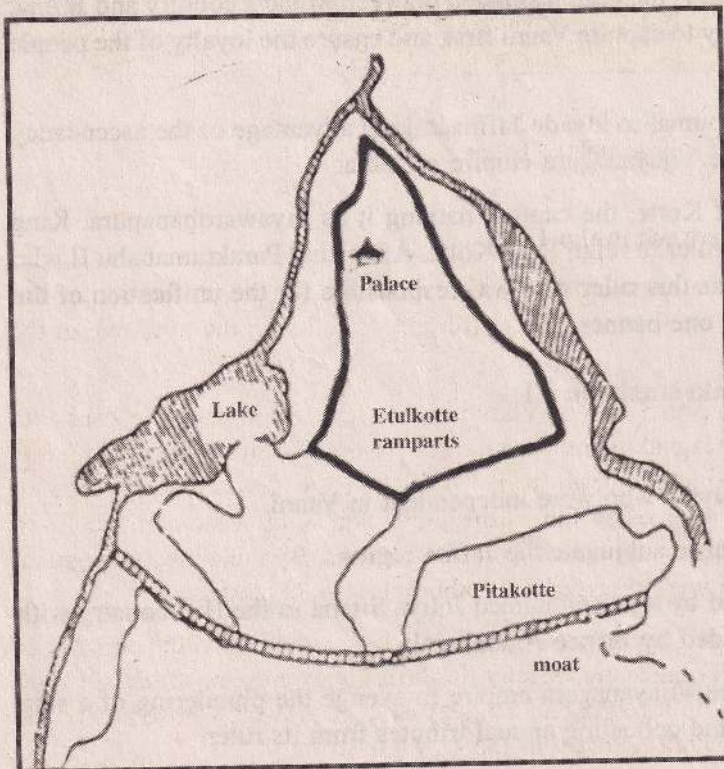


Fig. 12.3  
The Kotte Kingdom



## **The Origin of the Kotte Kingdom**

While Aryachakravarthi who was holding sway in the north had captured the western coastal strip, Alagakkonara, the Chief Minister of King Bhuvanekabahu V, established the fortress of Kotte surrounded by Diyawanna Oya, as a secure place suitable to control the trade in the western coastal areas of the island.

### **King Parakramabahu VI (1412 - 1467 A.C.)**

The reign of this ruler was the last prosperous period in the history of Sri Lanka. Today the capital of the country is Jayawardhanapura Kotte. The capital of king Parakramabahu VI at that time too was Jayawardhanapura Kotte.

#### **Political activities**

- \* After ascending the throne from Raigama in 1412 A. C. King Parakramabahu VI established the Kotte Kingdom in 1415.
  - \* Since Kotte was in close proximity to Colombo harbour, it facilitated trade.
  - \* This ruler further developed the fortress of Kotte and built the royal palace there.
  - \* Attempt made to unify the country.
1. Since Aryachakravarti was powerful in the north, Vanni was conquered before capturing Jaffna. Vanni is the region situated between Malaya country and Jaffna. Hence it was necessary to capture Vanni first, and ensure the loyalty of the people there.
  2. Employing Prince Sapumal to invade Jaffna, taking advantage of the ascendancy of a weak ruler to the Vijayanagara empire of India.

He declared the fortress of Kotte, the capital, naming it as Jayawardhanapura. King Parakramabahu VI was the first ruler to reign from Kotte. After king Parakramabahu II who reigned from Dambadeniya it was this ruler who was responsible for the unification of the whole country bringing it under one banner.

#### **Service rendered by King Parakramabahu VI**

##### **i. Unification of Sri Lanka**

- \* Subjugation of the Vanniyars who were independent in Vanni.
- \* Engaging Prince Sapumal to subjugate the Jaffna region.
- \* Quelling a revolt initiated by a person named Jotiya Sitana in the Hill country with the help of an army headed by Prince Ambulugala.
- \* Invading a sea port in the Vijayanagara empire to avenge the plundering of a ship belonging to Sri Lanka and collecting annual tributes from its ruler.



## ii. Literary and religious revival

- \* The emergence of a number of erudite scholars namely, Ven. Totagamuwa Sri Rahula, Ven. Wettewe, Ven. Vidagama
- \* The Kotte period is significant as a golden era of Sinhala Literature on account of the compilation during this period of a large number of literary works such as the Sandesa poems, Kokila, Paravi, Gira and Selalihini Sandesa, verse books such as Loveda Sangarawa, Buduguna Alankaraya, Guttilaya, Kavya Sekaraya and Perakumba Siritha, prose books such as Saddharmalankaraya.
- \* The emergence of a number of institutions of learning such as Padmavathi Pirivena of Keragala, Vijayaba Pirivena of Totagamuwa, Irugal Kulatilaka Pirivena of Devinuware and Sunethradevi Pirivena of Pepiliyana.
- \* Ushering in an era of literary renaissance with royal patronage.
- \* Construction of the Temple of the Tooth in Kotte.
- \* Restoration of the Kelaniya temple.
- \* Extending patronage to Hinduism. For example, it is recorded that there existed an Ishwara Kovil in Kotte and a Dewala at Kataragama.
- \* Compiling of medical books, e.g. Vaidya Chintamani, Yogaratnakaraya.

**Table 12.1**  
**Kingdoms in the South West**

### 1. The Dambadeniya Kingdom A. C.

Vijayabahu III	1232-1236	Selecting Dambadeniya as a kingdom. Construction of a Temple of the Tooth at Beligala to deposit the Tooth Relic.
Parakramabahu II	1236 - 1270	Unification of the country except the northern region.  Suppression of the invasions of Sri Lanka by a Javaka king named Chandrabhanu. Reorganization of the Sangha (priesthood) and drawing up a katikavata, a code of disciplinary rules for the priesthood (monks). writing of Gi (verse) book Kavisilumina.
Vijayabahu IV	1270 - 1272	He could reign only for two years. Owing to a conspiracy within the palace, he died after 2 years of rule.



## 2. The Yapahuwa Kingdom

Bhuvanekabahu I	1272 - 1284	He worked for the upliftment of the Dispensation of the Buddha (Buddha Sasana) through activities such as holding Higher Ordination ceremonies. In 1284, Arya Chakravarti, a Minister of the Pandya king, invaded Sri Lanka, attacked Yapahuwa and carried away the Tooth Relic.
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## 3. The Kurunegala Kingdom

Parakramabahu III	1287 - 1293	He recovered the Holy Tooth Relic and worked for the upliftment of the Dispensation (Sasana) reigning from Polonnaruwa for sometime.
Parakramabahu IV	1302 - 1326	Venerating the Tooth Relic and performing rituals associated with it.  Extending patronage to Pirivenas and bestowing land grants for their maintenance. Origin of the city of Kandy (Mahanuwara - Siriwardhanapura). Origin of the Asgiriya Monastery, Development of literature.

(Information on Vanni Bhuvanekabahu and Saulu Vijayabahu who are said to have reigned towards the end of the Kurunegala Period is scanty.)

## 4. The Gampola Kingdom

Bhuvanekabahu IV	1341 - 1351	Built Lankatilaka and Gadaladeniya temples. Reformation of the priesthood.
Vikramabahu III	1357 - 1374	Nissanka Alagakkonara became more powerful. Alagakkonara's campaign to suppress the power of Aryachakravarti in the north. The construction of the fortress of Kotte.
Bhuvanekabahu V	1372 - 1408	Suppression of the tax collectors of Aryachakravarti.



## 5. The Kotte kingdom

Parakramabahu VI	1412 - 1467	Unification of the whole island including Jaffna and Hill country.  Development of literary activities. Extending patronage to Pirivenas.
Jayabahu II	1467 - 1469	
Bhuvanekabahu VI	1470 - 1478	
Parakramabahu VII	1478 - 1484	
Parakramabahu VIII (Veera Parakramabahu)	1484 - 1508	He was the king of Kotte when the Portuguese Arrived in Sri Lanka.  Entering into a trade treaty with the Portuguese.

(Source - History of Ceylon, University of Ceylon, Peradeniya, Sri Lanka)

### Provincial Kingdom of Jaffna

These pupils who were on an educational tour had a discussion with the Incumbent of Perakumba Pirivena. The monk narrated to them the history of the Jaffna Kingdom in the 13<sup>th</sup> century. The following is a summary of what the monk revealed.

- \* There is no clear evidence about the existence of a Tamil kingdom in Jaffna prior to the 13<sup>th</sup> century.
- \* After Magha's invasion, the Sinhalese population in Polonnaruwa migrated to the South-West.
- \* The beginning of a regional kingdom in the north coincided with this drift.
- \* The Dravidian Vanniyars became powerful in the eastern areas.
- \* Since the invasion of Sri Lanka by the Pandyan Minister Aryachakravarti, Tamil power in Jaffna was further strengthened.
- \* The Aryachakravarti dynasty becomes powerful in Jaffna.
- \* Finally, King Parakramabahu VI sent Prince Sapumal to Jaffna to subjugate it, and with his triumph over Aryachakravarti, Sri Lanka was unified by King Parakramabahu VI under one banner.



## Activities

1. Prepare a list under the captions, kingdoms, names of rulers, period of reign, service rendered by each ruler.
2. Following are the titles of a few books written during the period from the Dambadeniya Kingdom to that of the Kotte Kingdom. Write the names of the authors of each of them on the dotted space provided against each title.

- \* Loveda Sangarawa .....
- \* Bhakthi Shatakaya .....
- \* Dalada Siritha .....
- \* Kavya Sekharaya .....
- \* Kav Silumina .....

3. Prepare a table about the Dambadeniya, Kurunegala, Yapahuwa, Gampola and Kotte Kingdoms using the following format:

1. Location of the kingdom (district/closes river)
2. The protected characteristic that formed the basis for selection (a mound, a place surrounded by ranges of hills, a place protected by a river, moat or water course etc)
3. The duration of the kingdom
4. The founder ruler.

4. It appears that local and foreign tourists are interested in visiting places like Gadaladeniya, Lankatilaka and Embekke. What reasons can be adduced for this interest?



## Chapter 13

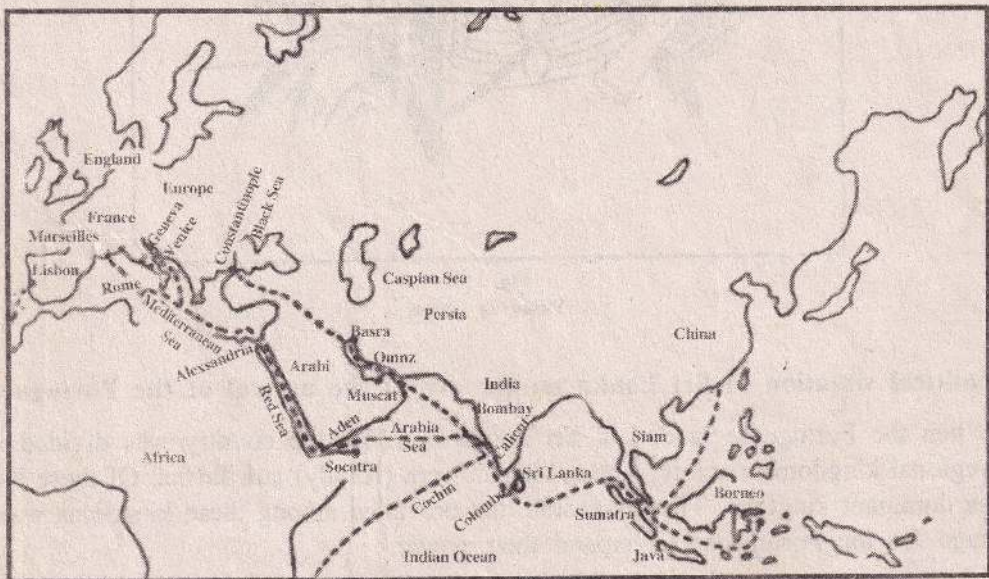
### Sri Lanka since 1500 A.C.

#### Arrival of the Portuguese

**“Your majesty, a strange race of people who eat hunks of stone and drink blood have arrived in Colombo. They give any amount of pieces of silver for one fish or one lime. They don jackets and hats made of iron. The report of their cannon spreads even beyond the rock of Yugandhara”.**

You may be desirous of knowing how the Sinhalese in Colombo reported the landing of the Portuguese in Colombo port to the king of Kotte. It is mentioned in the Sinhalese Chronicle Rajavaliya in the manner quoted above. According to this description the Portuguese were the first western power to have come to Sri Lanka.

The immediate cause for western powers to come to the East was the deadlock created about the transport of the essential items these powers had bought from the East. It was due to the blockage of land routes with the fall of Constantinople to the Turks in 1453. Study figure 13.1 (map) below and note the situation of the town of Constantinople. Its present name is ‘Istanbul’. Constantinople was an important hub of the east-west trade route.



**Fig. 13.1**  
**East-west trade routes**



Owing to the fall of the city of Constantinople to Turks, the Western nations had to find a new sea route to the East. Portugal and Spain were the pioneers in this venture. A Portuguese prince named Henry who showed a keen interest in navigation came to be known as Henry, the Navigator. As a result of the voyages of discovery undertaken by Henry, the Navigator, Vasco da Gama landed on the Malabar Coast of India on 20th May 1498. It was Vasco da Gama (portrayed in Fig. 13.2) who declared that 'We came in search of Christians and spices'. Seven years after that Lourenso de Almeida came to the Galle harbour of Sri Lanka with several navigators.



Fig. 13.2  
Vasco da Gama

### **The political situation in Sri Lanka on the eve of the arrival of the Portuguese**

When the Portuguese landed in Sri Lanka in 1505, the country was divided into three regional kingdoms, namely, Kotte, Mahanuwara (Kandy) and Jaffna. Of these Kotte was the dominant kingdom. The dissension that prevailed among these kingdoms was an advantage for the Portuguese to expand their power.

At the time of the arrival of the Portuguese here, the trade in the Colombo port was controlled by Muslim traders. The Portuguese after arriving here first developed relationships with the kingdom of Kotte. A group of representatives of the Portuguese



was taken before the king of Kotte. In order to give the impression that Kotte is situated far away from Colombo, the Portuguese were led to the royal place in a circuitous route. On account of this long circuitous route the Portuguese were compelled to take the saying "as the Portuguese went to Kotte" (Parangiya Kotte giya vagey) came to be coined.

### **Portuguese relations with the kingdom of Kotte**

At the time the Portuguese arrived in Sri Lanka, the Kotte kingdom had been nominally recognised as the dominant kingdom. The ruler of Kotte was Parakramabahu VIII alias Vira Parakramabahu. There was a treaty between this ruler and the Portuguese. The main conditions therein were as follows:

- (i) The king should supply 400 bahars of cinnamon annually to the Portuguese.
- (ii) The Portuguese in return should protect the coast of the country for the king.

The Muslims realizing the imminent threat to them from the Portuguese initiated an anti Portuguese campaign with foreign assistance. The Portuguese chose Goa on the western coast of India as their centre of overseas administration.

#### **Spoiling of Vijayabahu (Vijayaba Kollaya)**

The assassination of King Vijayabahu VII, the King of Kotte by his three heir apparent sons in 1521, and the three sons plundering the kingdom and dividing it into three units and sharing the kingship among themselves is known as 'The Spoiling of Vijayabahu' or 'Vijayaba Kollaya'. The three units thus created were the kingdoms of Sitavaka, Kotte and Raigama. The eldest son Bhuvanekabahu got Kotte kingdom while Mayadunne got the Sitavaka principality and Raigam Bandara, the Raigama principality.

Study the following dialogue quoted from an educational television programme on Vijayaba Kollaya (spoiling of Vijayabahu) or the partition of Kotte.

**Varuni:** How is Vijayaba Kollaya regarded a decisive factor in the annals of Sri Lanka?

**Rohana:** If not for this event, the Kotte kingdom would not have been divided into three units.

**Priyanka:** It was this partition that weakened the kingdom.

**Samanthi:** In the encounter between Bhuvanakabahu and Mayadunne, King Bhuvanekabahu obtained the help of the Portuguese in order to face Mayadunne's onslaughts.

### **Portuguese capture power in Kotte**

Mayadunne excelled king Bhuvanekabahu in war strategy. Therefore, in order to safeguard the kingdom of Kotte Bhuvanekabahu solicited Portuguese help. Thus, the Portuguese who came for trade became the guardians of Kotte kingdom. After this Mayadunne sought the assistance of the Zamorin, the ruler of Calicut on the western coast



of India. Thereupon King Bhuvanekabahu sought Portuguese help in order to safeguard the kingdom of Kotte. Thus Bhuvanekabahu was compelled to pay tribute to the Portuguese. However, he was not prepared to be a puppet in the hands of the Portuguese.

It is recorded that since Mayadunne was not satisfied with only the kingdom of Sitavaka, for the first time there was a fierce battle between Bhuvanekabahu and Mayadunne in 1537. After the death of Raigam Bandara in 1538 Mayadunne annexed the principality of Raigama too to Sitavaka. Since Bhuvanekabahu had no son to succeed him after his death, he named his grandson Prince Dharmapala as his heir apparent. He did not stop at that. He entrusted to the Portuguese the education of Prince Dharmapala and also the task of guiding him as the future ruler. In 1557 Prince Dharmapala embraced Catholicism. Since the king was dead by that time the young Prince Dharmapala became a mere puppet in the hands of the Portuguese.

**The teacher taking Social Studies and History in Grade 9 asked her pupils to list the various stages of the rise of the Sitavaka kingdom. The ideas expressed by the pupils were put down on the blackboard by the teacher in the following order:**

- \* the Buddhist monks and the elite of Kotte moved to the Sitavaka kingdom and settled down there.**
- \* The Tooth Relic was taken to the Sitavaka kingdom.**
- \* As a result of the prolonged wars by Mayadunne and his son Rajasinhe I with the kingdom of Kotte, a large part of the territory of Kotte was annexed to the kingdom of Sitavaka.**
- \* The triumph of Rajasinha I of Sitavaka in the Battle of Mulleriyawa in 1562.**
- \* Subjugation of the Kandyan kingdom by Rajasinha I in 1582.**

Asked by the teacher to mention a few facts that speak for the greatness of Mayadunne, one girl in the class gave the following account.

### **The greatness of Mayadunne**

With regard to skilfulness, Mayadunne was a more efficient ruler than King Bhuvanekabahu of Kotte. The Sitavaka kingdom which originated as a small principality in 1521 rose to the position of the strongest kingdom of the island by the time of Mayadunne's death in 1580. The policy followed by King Mayadunne for safeguarding his kingdom and for the protection of the indigenous population contributed in no small measure to his greatness. After Mayadunne, his son Tikiri alias Rajasinghe I ascended the throne of Sitavaka. It is justifiable to assume that it was King Mayadunne who prepared the background for King Rajasinhe I's military prowess.



## **The Kotte kingdom becomes a Portuguese possession**

Read the following account in order to understand how the Kotte kingdom came under the Portuguese. In 1587, King Dharmapala bestowed through a deed of gift the ownership of the kingdom of Kotte after his death to the Portuguese. After the death of King Dharmapala in 1597, the Portuguese became the lawful rulers of the Kotte Kingdom.

Two days after the death of King Dharmapala, Don Jeronimo de Azavedo the Portuguese Captain General in Sri Lanka summoned the Sinhalese nobles to Malwana. At this assembly, an agreement between the Sinhalese and the Portuguese known as the 'Malwana Convention' was reached in terms of the deed of gift donated by King Dharmapala. By this convention, the Sinhalese expressed their willingness to be ruled according to the traditional laws and customs of the land.

## **Fall of the Kingdom of Sitavaka**

The causes for the fall of the Kingdom of Sitavaka can be stated as follows:

- \* Due to the short-sighted policy of Rajasinhe I, the ruler of Sitavaka, which was a powerful kingdom during the time of Mayadunne, the people of the hill country were antagonized and rose against him.
- \* Strengthening of the Kandyan kingdom under the leadership of King Vimaladharma suriya I.
- \* To get over the mental stress caused by the instigation to assassinate his father, King Rajasinhe I embraced Hinduism (Saivism) and followed an anti - Buddhist policy.
- \* Decline of the economy of the Sitavaka Kingdom on account of the constant involvement in wars.
- \* Even though there were no long term effects in the political and economic spheres during Portuguese rule, there were social and cultural influences in the maritime areas of Sri Lanka.
- \* Several royal princes who were eligible to be future leaders of the country were slain by King Rajasinhe I.

## **The Portuguese and the Kandyan Kingdom**

Let us now examine how the Portugues got involved in the affairs of the Kandyan Kingdom. The ascendancy of Konappu Bandara to the throne of Kandy as Vimaladharma suriya I marked the dawn of a new era. His giving up the Catholic faith and re-embracing Buddhisam and marrying Princess Kusumasena Devi the legitimate heiress to the throne of Kandy who had been baptized by the Portuguese as Dona Catherina, helped a great deal in establishing his kingship. The Portuguese were furious about this situation. Therefore they wanted to oust Vimaladharماسuriya and somehow regain the Kandyan Kingdom. Although sporadic attacks were aimed at the Kandyan Kingdom, the Portuguese



were unable to subjugate Kandy. After the death of King Vimaladharmasuriya I in 1604, King Senerat became the ruler of Kandy.

#### Wars between the Sinhalese rulers and the Portuguese

Year	Name of Portuguese Captain General/ Commander who led the battle	Battlefield	Name of the Sinhalese ruler who led the battle	Results
1562	Aponso Pereira de Lazarda	Mulleriyawa	Prince Rajasinhe under Mayadunne	Portuguese defeated
1594	Pero Lopes de Souza	Danture	Vimaladharmasuriya I	Portuguese defeated
1602	Don Jeronimo de Azavedo	Balana	Vimaladharmasuriya I	Portuguese defeated
1630	Constantine de Saa	Randeniwala	Prince Rajasinhe under King Senerat	Portuguese defeated
1638	Diogo de Mello de Castro	Gannoruwa	Rajasinhe II	Portuguese defeated

#### Influence of Portuguese rule

The ideas contained in an article on "The influence of Portuguese rule" written for a class wall newspaper by the Grade 9 pupils studying Social Studies and History at Araliyagama Maha Vidyalaya were as follows:

- \* During the period of Portuguese rule even though there were no long term political-economic influences, there were social and cultural influences in the maritime regions of Sri Lanka.
- \* It was the Portuguese who introduced Roman Catholicism to our country. This religion spread among the people in the coastal areas. Incentives such as the bestowal of honorific titles and the granting of tax concessions were offered to those who embraced Catholicism. Franciscan Friars arrived here for the propagation of their religion.
- \* Marriage was recognized as a legal bond only after the introduction of Catholicism to this country. It is mentioned in Robert Knox's book "An Historical Relation of the island of Ceylon" that the matrimonial relations prevalent at that time were very loose and could be given up at any time.
- \* Parish schools were opened in the premises of churches to educate the people. Subjects like Reading, Writing and Music were taught in these schools.
- \* During the Portuguese era there were changes in architectural features too.



- \* The Kaffrinna and the Baila forms of music are a legacy we have received from the Portuguese. Depicting the various episodes in the life of Jesus Christ in the form of stage plays too was introduced by the Portuguese. This was probably due to the fact that music associated with singing and dancing received more prominence from Christianity than from Buddhism.
- \* Sri Lankans have adopted names such as Silva, Perera, Fonseka, Aponsu, Salgado, Boteju, Rodrigo, Juan and Seeman. These are Portuguese names.
- \* A large number of Portuguese words have found their place in the Sinhalese vocabulary. Words such as sapattu (shoes), bottam (button), gavun (frock), saya (skirt), kabakuruttu (jacket) and words used for furniture such as almari (cupboard), mesa (table), banku (bench), kanappu (stool) are those borrowed from Portuguese. Words relating to the Christian religion such as meesama (mission), kurusaya (cross), Boutisma (baptism) and bensaru too are borrowed from Portuguese.

Descendents of the Portuguese can be seen in places like Puttalam and Batticaloa even to this day. The indigenous people are supposed to have got used to eating beef and taking liquor only after the coming of the Portuguese. It is mentioned in Robert Knox's book cited above, that the Kandyans detested both these habits.

### Activities

1. Due to Portuguese influence a vast number of words came to be added to the Sinhala vocabulary. Arrange such words you know and enter them in the table below under each category.

#### Sample

Food and beverages	Furniture	Clothing	Law and administration	Names
Achcharu	Almari	Kamisa	Peraḱadoru	Perera
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....



## The Dutch

**"The fortress of Galle is named as one of the World Heritage sites"**

-Translation of a Newspaper headline

The above is the translation of a headline that appeared in a Sri Lankan newspaper, regarding one of the six places identified in Sri Lanka as great monuments of cultural value and named so by UNESCO, the United Nations Educational Scientific and Cultural Organization. The fortress of Galle or Galle Fort is highly acclaimed internationally as a cultural monument. Now let us turn to a study of the rule of the maritime provinces of Sri Lanka by the Dutch who built this fortress.

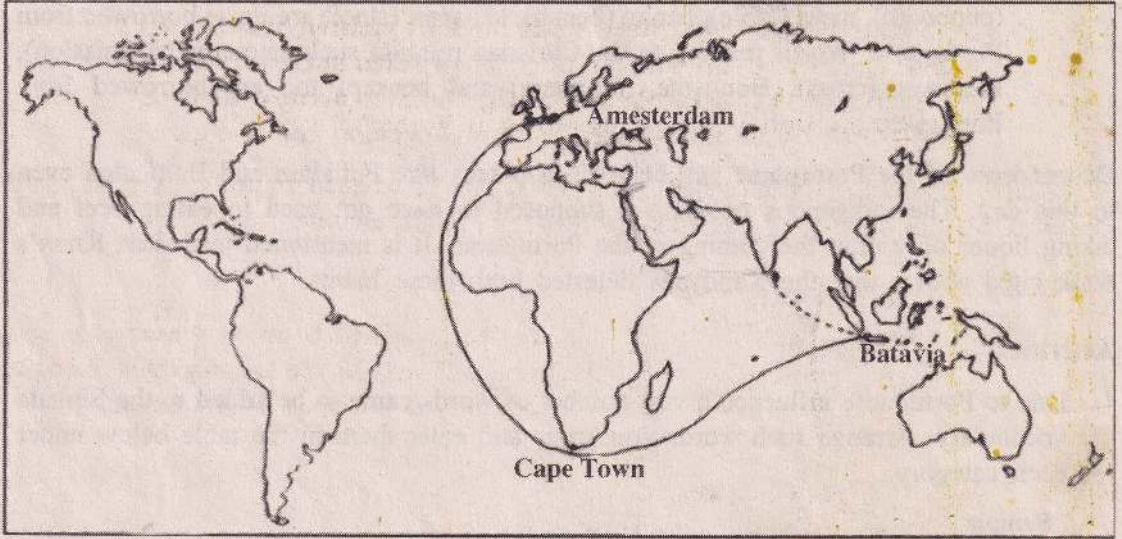


Fig. 13.3

The east bound naval route of the Dutch

The Dutch or the Hollanders are people living in modern Netherlands, a land of low lying plains (below sea level) in the Northern European plains, and who were engaged in naval activities contemporaneously with the Portuguese. Arriving in the East they established the Dutch East India Company at Batavia in Java and engaged in trade in the East concentrating on the area stretching from Amsterdam, the capital of their homeland to Batavia. This is how they maintained trade relations with India and Sri Lanka. Figure 13.3 (map) above shows the east bound naval route of the Dutch.

The Galle fortress was named a great monument as mentioned above because it had been constructed by the Dutch in an extraordinary manner.

As a result of the enthusiasm shown by the Dutch to capture the low country areas so far held by the Portuguese, they were able to subjugate not only Galle but also the maritime areas such as Batticaloa, Trincomalee and Negombo. This is described in the following quotation from the Mahavamsa.



Since there is constant strife due to the presence of the Portuguese in Sri Lanka, King Rajasinghe wished to banish them altogether and solicited the assistance of the Dutch to accomplish this task. The Dutch sent their envoys to Kandy. Thereafter, to assist the king to drive away the Portuguese from the shores of Sri Lanka, the two parties agreed that a Dutch fleet be sent and that the entire cost of the operation be borne by the king, and consequently the two parties entered into a treaty (alliance).....

In terms of the above treaty the head of the Dutch naval unit, Admiral Westerwold came to Sri Lanka and first captured Batticaloa. Next he stormed the Trincomalee Fort. The fifty Portuguese soldiers who were inside the Fort resisted bravely and valiantly. After twenty three of their fellows died in the encounter the Portuguese capitulated allowing the Dutch to occupy the Fort. In 1640, the Dutch themselves captured Negombo and Galle too.

The above description explains how King Rajasinghe II wrested control of the maritime areas of Sri Lanka which were hitherto held by the Portuguese.



Figure 13.4  
King Rajasinghe II

By the treaty signed between Westerwold and Rajasinghe II in 1638, the Dutch gained the right of trade in the lowlands of Sri Lanka.



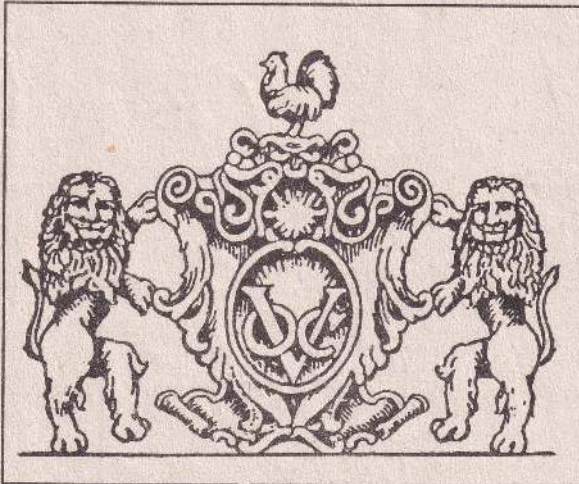
The English translation of another quotation from an appendix of the illustrated Sinhala Mahavamsa compiled in 1922 by Mr. D. H. S. Abeyratne, the author of Jinarajavamsa is given below:

“The Dutch who were popularly known as Hollanders, are a people of a fairly small country situated to the north of the European continent. They are an enthusiastic and persevering people with a keen interest in trade, famous from ancient times for their ability in navigation. Earlier they had a practice of visiting Portugal to obtain cinnamon, pepper and spices grown in Sri Lanka, but the king of Portugal had prohibited his subjects from carrying on private trade with the Dutch. On account of this development, from the latter part of the 16th century the Dutch traders formed a company and with the idea of selling goods produced in Holland and taking foreign goods to Holland for trade at home, started sending ships to countries in the East”.

According to the above account the Netherlands is a small country in the northern part of Europe. It is clear that the Dutch came to the East because the antagonism of the Portuguese dealt a blow to their trading power.

#### Reasons why the Dutch came to the East

- \* Objective of obtaining the trading power in the East.
- \* Spread of Protestant Christianity in the East.



In terms of the alliance with King Rajasinghe II the Dutch garrisoned the fortress until the king settled their war expenses. This illustration (Figure 13.5) shows the Dutch Coat-of-Arms at the Galle Fortress (Fort).

Figure 13.5

The Dutch Coat-of-Arms at the Galle Fortress (Fort)



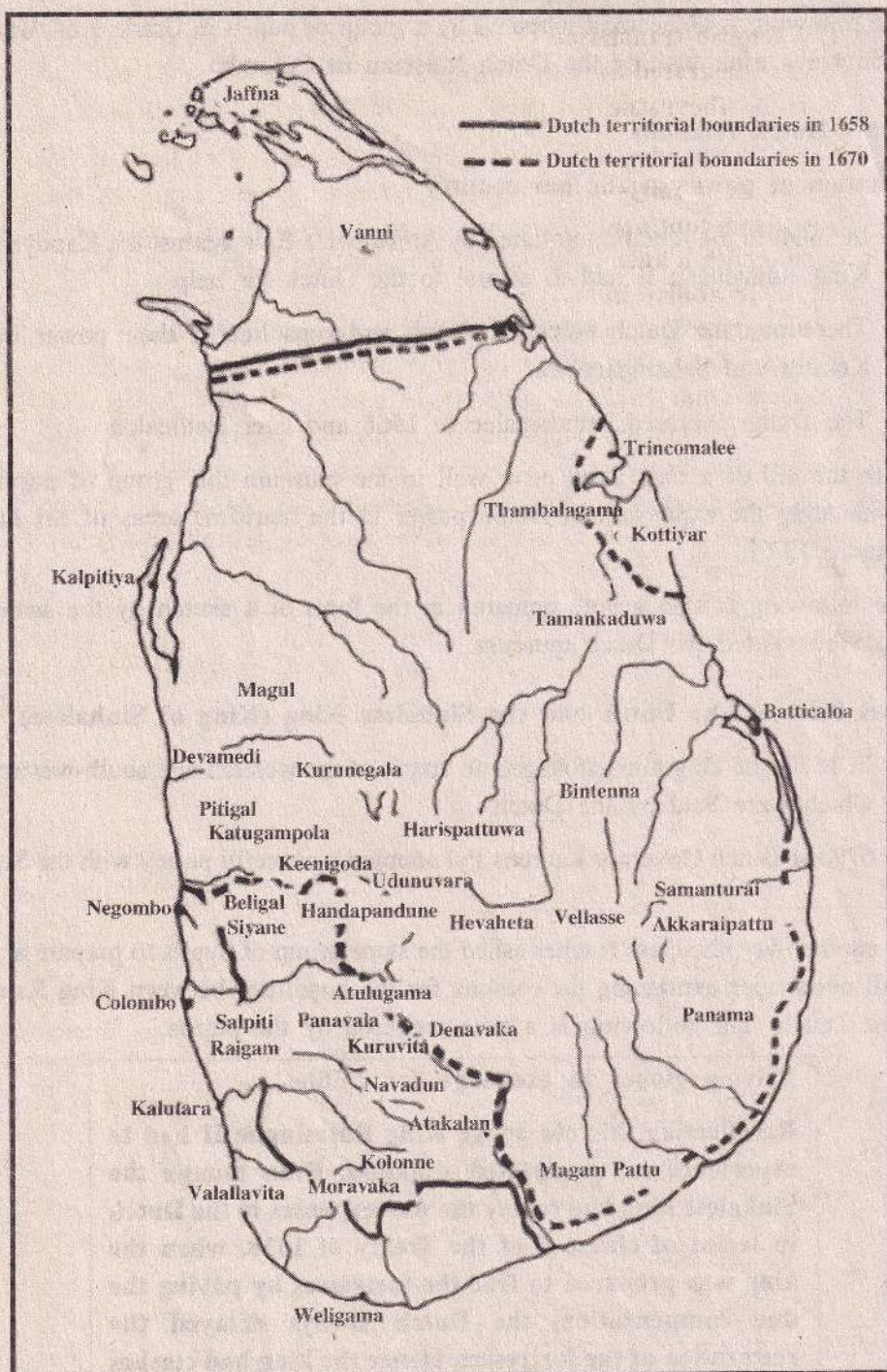


Figure 13.6  
Territorial expansion of the Dutch



The following is an account prepared by a group of pupils in Grade 9 of Arliyagama Maha Vidyalaya after visiting the Dutch Museum in Colombo.

### **Kandyan - Dutch relations**

#### **Consolidation of power in the low-country**

- \* In 1664, in the rebellion initiated by Ambanwela Rala against the Kandyan Court, King Rajasinghe II had to appeal to the Dutch for help.
- \* Thereupon the Dutch helped the king and consolidated their power in Seven Korales and Sabaragamuwa.
- \* The Dutch captured Trincomalee in 1668 and later Batticaloa.

With the aid of a map hung on a wall in the museum this group of pupils drew a map indicating the expansion of Dutch power in the maritime areas of Sri Lanka in 1658 (Figure 13.6).

The following is also a note prepared in the form of a sketch by the same group of pupils who visited the Dutch museum.

#### **Hostilities between the Dutch and the Sinhalese King (King of Sinhalese)**

- \* In 1670, the king himself staged an attack of the western and south-western areas which were held by the Dutch.

In 1679 the Dutch Governor Laurens Pyl adopted a peaceful policy with the Sinhalese king.

On another day, the class teacher asked the same group of pupils to prepare an article for a wall newspaper explaining the reasons for the hostilities between King Rajasinghe II and the Dutch. The following is a note prepared by the pupils.

#### **'Giving ginger in exchange for chillies'**

Recollecting this old adage King Rajasinghe II had to experience an unexpected situation. Even though the Sinhalese king had to pay the war expenses to the Dutch in terms of clause 3 of the Treaty of 1638, when the king was prepared to free the fortresses by paying the due compensation, the Dutch always delayed the restoration of the fortresses. Hence the king had clashes with the Dutch as explained above.

After the death of King Rajasinghe II in 1687, his son ascended the throne under the name Vimaladharma Suriya.



As instructed by the teacher, another group of pupils prepared a summary of the nature of the relationship between the Dutch and the Sinhalese king. It read thus:

- \* **King Rajasinghe II who was against the Dutch policy of closing the sea ports and obstructing the trade of the hill country, clashed with the Dutch.**
- \* **During the reign of King Vira Parakrama Narendrasinhe too these hostilities continued. After the death of this last Sinhalese king Vira Parakrama Narendrasinhe, the first ruler of the Nayakkar Dynasty, Sri Vijaya Rajasinha ascended the throne.**
- \* **The Dutch Governor at this time Van Imhoff revives the peaceful policy with the king of Kandy.**
- \* **In 1747, during the reign of King Kirthi Sri Rajasinha the cordial relationship the king had with the Dutch is strained again. The English envoy John Pybus meets the king of Kandy.**
- \* **The Dutch who were disturbed by this, entered into a treaty with the Sinhalese king in 1766.**

#### **Treaty of 1766**

- \* Consolidation of the Dutch ownership of Jaffna patam, Hettikulam pattu, Mannar, Kalpitiya, land between Colombo Dissavany and Galu Korale and Trincomalee.
- \* A strip of the sea board one gavva in width from Kammala in the Maha Oya estuary to Jaffna patam and from Kammala to Valaveganga passed on to the Dutch.
- \* The Dutch received the free trade right of the hill country (Kandy) and the low country areas.
- \* The king of Kandy received the right to collect salt from the salterns (levayas) in the low country.
- \* The Sinhalese king (Kandy) was granted the sovereignty over the hill country.

The maritime areas of jurisdiction that came under the Dutch after the Treaty of 1766 are shown in figure 13.7 (map).

#### **The Administrative Policy of the Dutch**

##### **Political**

- \* Peaceful policy
- \* Waging war only when war is deemed absolutely necessary, for example, the policy of aggression followed since 1760.



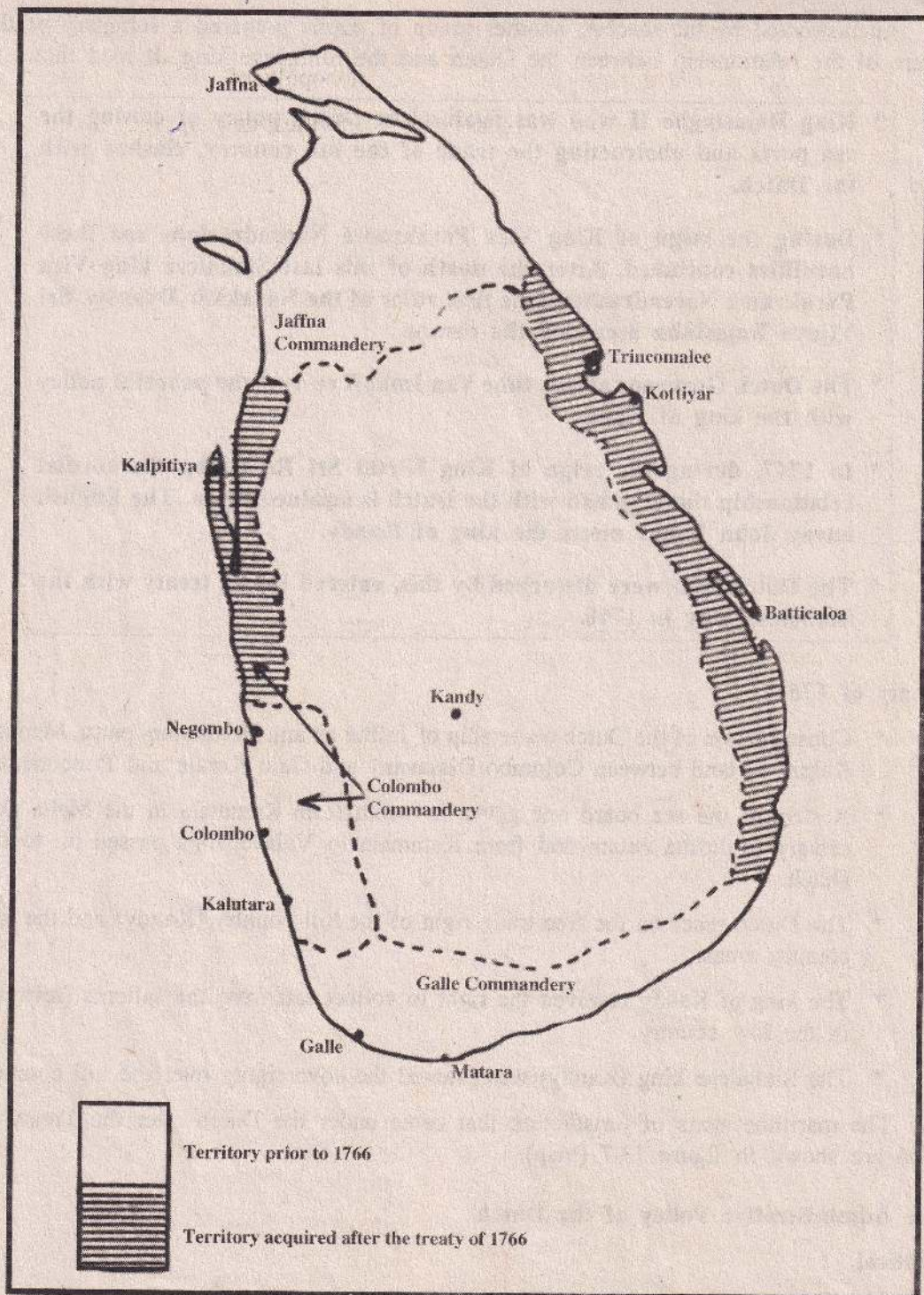


Fig. 13.7 (map)  
Dutch territorial expansion



## **Economic**

- \* Deriving the maximum profit from trade, e.g. monopoly of cinnamon trade.

Development of paddy cultivation and irrigation activities; development of carpentry and textile industry.

## **Religious**

- \* Attempts made to spread Christian Protestantism.
- \* Development of education through missionary services, anti-Catholic policy.

## **Effects of Dutch rule**

- \* Introduction of the Roman-Dutch Law to Sri Lanka.
- \* Compilation of the 'Thesavalamai', the Tamil Treatise on Law.
- \* Establishment of Courts of Law by the names 'Landraad' and 'Civilraad' naming the Supreme Court as 'Raad van Justitie'.
- \* Introduction of Dutch architecture to Sri Lanka.
- \* Addition of Dutch customs and manners, proper names and words denoting food items to the Sinhalese culture.
- \* Introduction of printing to this country.
- \* Beginning of coffee plantation as a home-garden crop.
- \* Origin of a Dutch-Burgher community in this country.



## Activities

1. Make a list of Dutch words added to the Sinhalese vocabulary.
2. Prepare a speech to be delivered at the School Literary Association on the topic "Like giving ginger in exchange for chillies."
3. With the assistance of your class teacher organize an educational tour to visit the Dutch Museum situated in Pettah, Colombo.
4. Complete the following table.

Beneficial results of Dutch Rule	Harmful results of Dutch Rule
1.	
2.	
3.	
4.	
5.	

5. Collect a picture/photograph of a Dutch fortress in Sri Lanka and pictures of Dutch coins and prepare a field book (scrap book) with them.
6. Due to the Dutch influence on Sri Lanka a large number of words have been added to the Sinhalese language and various aspects of public life. Arrange such words you know under the following heads, to form a table:

Food/beverages	Furniture	Architecture	Dress	Proper names
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....



## Chapter 14

### Sri Lanka and the British

Of the Europeans who came to Sri Lanka, the British too effected various changes in the political, social and economic spheres in this country. Although only a few maritime areas of the country came under the Portuguese and the Dutch rule, by 1815 the British captured the whole of Sri Lanka.

The pupils of Grade 9 at Kurundulanda Vidyalaya launched a project in order to gather information about the coming of the British to the East, expansion of their power in Sri Lanka, and the various changes that took place in this country as a result of the British rule. For the purpose of this project the class was divided into 5 groups as follows:

1. Group I was assigned the task of gathering information on how the British captured Sri Lanka.
  2. Group II was asked to gather information about the rebellions that took place in 1818 and 1848.
  3. Group III was placed in charge of collecting information on constitutional reforms.
  4. Group IV was assigned the task of gathering information about the economic and social changes that took place under British rule.
  5. Group V was entrusted with gathering information about the social changes and agitation campaigns and movements for independence.
- 1. Group I** which was assigned the task of gathering information on how the British captured Sri Lanka, extracted the following quotation from the Kandyan Convention signed in 1815 at the Audience Hall in Kandy and presented it. Its English rendering reads as follows:

“Twelve days after capturing the Sinhalese King and taking him prisoner, a glamorous audience with all pomp and pageantry was held at the Audience Hall in Kandy. At this audience the Governor represented the monarch of England while the Sinhalese nobility represented the people of Sri Lanka. At first the British Governor assumed the seat arranged for him at the upper end of the Audience Hall. Next to enter the Hall was Ehelepola Nilame the Chief Adigar who came alone. Then the Governor welcomed the Chief Adigar with all respect and compassion and got him seated to his (the Governor's) right. Next came Molligoda the Second Adigar flanked by the Dissavas of various regions and the other senior Chiefs. Thereafter a Convention consisting of eleven clauses was read in English and Sinhalese. Next the British flag was hoisted (Illustrated Sinhalese Mahavamsa - Appendix - Translation - 1922)

The British started the campaign for gaining control of the trade in the East in 1600 with the founding of the British East India Company.



- \* Queen Elizabeth I of England granted permission to the company to obtain the monopoly of trade in the East.
- \* With the permission obtained from the Moghal Emperor in 1625, the English got the opportunity of establishing trade centres in Western and Eastern India.

It is clear from the above that the main objective of the expansion of British power in the East was to reap economic benefits from the East through trade. The Trincomalee harbour of Sri Lanka is a natural harbour where a large number of ships can be anchored during monsoons. Since the French too were trying to gain possession of this harbour, the English who realized that it was essential for them to first seize the maritime areas of Sri Lanka which were under the Dutch rule at the time took immediate action in order to prevent the French attempts on Trincomalee.

- \* August 1795-the capture of Trincomalee. Siege of Jaffna, Mannar and Kalpitiya.
- \* January 1796-the capture of Colombo.
- \* February 1796 - the English obtained the legitimate ownership of the maritime provinces from the Dutch.

The English ruled the maritime provinces of Sri Lanka in three stages and in three ways.

#### **Rule of the Maritime Provinces by the English East India Company (1796-1798)**

1. Dividing the maritime provinces into three main divisions and the appointment of a British Officer to each of the divisions. The offices of these officers were called Kachcheris.
2. For the collection of revenue he was assisted by a controller of revenue. A group of Madras officials known as aumilders (renters) were engaged.

During this period since the aumilders (Madras renters) extorted taxes by harassing the people, the Sinhalese revolted against their system of collecting taxes. One solution for this situation was the appointment of local officials and the restoration of land judicature system that prevailed under the Dutch rule.

#### **Era of Dual Control (1798-1802)**

Dual Control is the rule carried on jointly by the English East India company and the British Government.

In 1798, the British Government appointed Frederick North (1798-1805) as the first Governor of Sri Lanka.

The system of dual rule failed since there was no mutual co-operation or rapport between the Governor's officers and the officials of the East India Company.



## Administration by the British Government alone (from 1802)

The maritime provinces of Sri Lanka which were possessions of the British became a colony under the British Crown (Crown Colony) in 1802.

Fredrick North's attempt was to subdue the Kandyan Kingdom. For this purpose he conducted an invasion to Kandy, but it failed. He established a few Departments to conduct the administration of the government. The Survey Department, Public Works Department and the Postal Department are some of them.

Hitherto the Kandyan Kingdom remained an independent territory. Its last ruler was King Sri Vikrama Rajasinghe. The first Adigar of Sri Vikrama in the Kandyan Kingdom was Pilimatalawa and the second Adigar was Molligoda. These two were hostile to each other. The antagonism between these two Chief Adigars and the discontent of the nobles (chiefs) and the Buddhist clergy with the King, were favourable to the English.



Fig. 14.1  
Governor North

### Causes for the decline of the Kandyan Kingdom (Udarata)

- \* Displeasure of leaders like Ehelepola with the Kandyan King and riots initiated in the Sabaragamuwa area.



- \* After the rebellion was quelled, the king massacred the families of Ehelepola and of other Chiefs who were involved in it.
- \* The displeasure of the Buddhist clergy was stirred with the assassination of monks like Moratorta Kuda Unnanse.
- \* Displeasure of the common people due to severe harassment.

Accordingly it was easy for the English to defeat the king who had been deserted by the wrath of the Buddhist clergy, the Chiefs and the common people. Although the king fled for his life and hid himself, he with his consorts were captured by the Chief Ekneligoda Mohottala with the help of the people of Sabaragamuwa while they were in the house of Udupitiyegedera Appurala Arachchi in the village of Bomure, a place close to Meda Mahanuwara. Thereafter the king was banished to Vellore in the State of Madras.

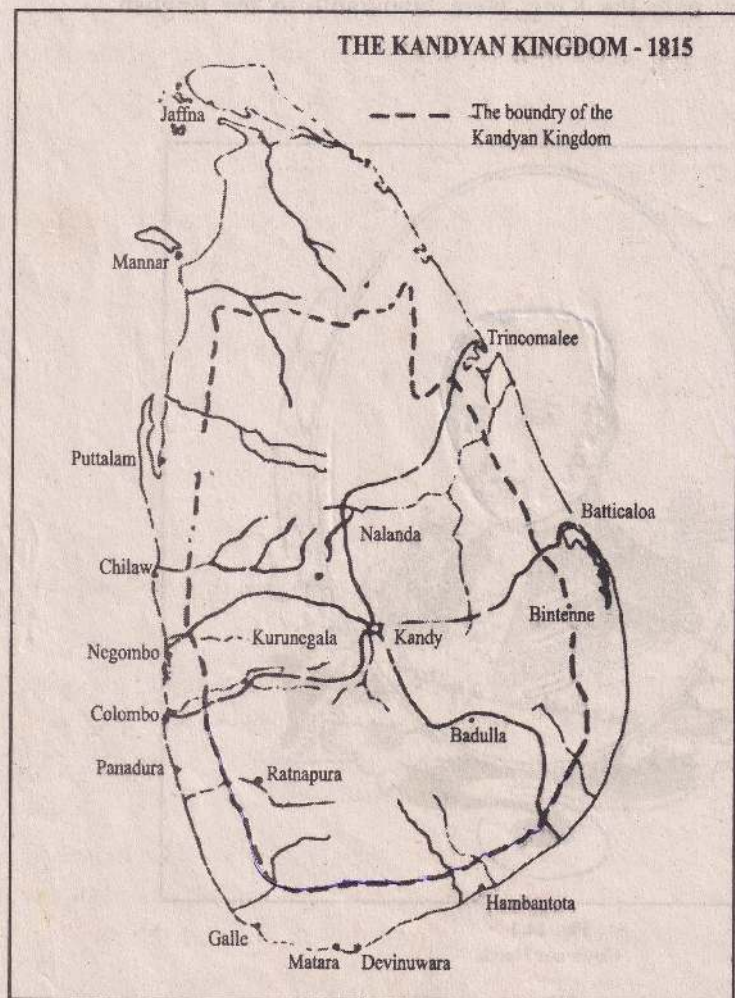


Fig. 14.2  
The Kandyan Kingdom - 1815

On the 2nd of March 1815, the British Governor Robert Brownrigg and the Kandyan Chiefs who assembled at the Audience Hall in Kandy entered into a Convention.

Immediately prior to signing this convention the English flag was hoisted but Venerable Sumangala came forward at this juncture and declared, "Until the convention is signed, you fellows will not be allowed to hoist your flag" and pulled down the English flag, hoisted the Sinhala flag and made it swing in front of the Audience Hall.

Here the Governor Robert Brownrigg signed the convention on behalf of King George III of England. Since then the Kandyan Kingdom that existed as an independent territory came under the British crown.



## **Sir Thomas Maitland**

Thomas Maitland who succeeded North as Governor (1805- 1812) tried to work in co-operation with the Kandyan Kingdom during his regime. However, since King Sri Vikrama Rajasingha who was the King of Kandy then did not show any inclination for such relationships, Maitland's attempt failed.

One important reform measure of Maitland was judicial and legal reform. In 1810 he introduced the system of 'trial by jury' to Sri Lanka. Robert Brownrigg (1812-1820) succeeded Maitland as Governor. The most important stage of the expansion of British power was the annexation of the Kandyan Kingdom of the last independent territory of Sri Lanka to the British crown. It was Governor Robert Brownrigg who signed the Kandyan Convention on behalf of the English Government. After the Kandyan Convention and the subsequent proclamation to that effect, Brownrigg started the administration of both the low country and the up-country (maritime and Kandyan Provinces) as one state under the English crown.

### **Attempts made by the Sinhalese to be rid of the British rule**

**2. Group II** was assigned the task of gathering information about the rebellions for freedom that occurred in 1815 and 1848. The facts they gathered are as follows:

#### **Struggle for Freedom - 1818**

Reasons for the struggle for freedom.

- \* Disregarding the terms of the convention.
- \* Loss of the privileges hitherto enjoyed by the Chiefs.
- \* Disregard for the Buddhist clergy.
- \* Displeasure at the appointment of a separate post of Muslim Muhandiram or headmen for the Muslims of Vellassa.

As a struggle for freedom this uprising started in Vellassa. It was Keppetipola who led it. The British who succeeded in quelling it, beheaded its leaders Keppetipola and Madugalle Dissavas. Further, they destroyed all the fertile paddy lands of Vellassa and murdered thousands of people in this region.

With the experience the English gained in quelling the struggle for freedom launched in 1818, Governor Brownrigg realized that the isolation of the Kandyan region from the rest of the country should be remedied. An important step in this regard was the building up of a new system of roads connecting Colombo and the Kandyan areas.



## **Struggle for Freedom - 1848**

### **Reasons for the struggle for freedom.**

- \* Ignoring the interests of the local population.
- \* Arbitrary administration of Governor Viscount Torrington.
- \* The imposition of several taxes which were an unbearable burden on the people, since the economy of the country had declined. Tax on dogs can be cited as an example.
- \* Decline of local industries owing to the importation of goods from England (influx of imports from England.)
- \* Since the Government acquired land for itself to open plantations, the peasants were deprived of their fertile paddy lands.

This rebellion was strongest in Matale and Kurunegala areas. There this struggle spread under the leadership of Puran Appu, Gongale Goda Banda and Kudapola Unnanse, a monk. However, the English suppressed this struggle in a stern manner.

**3. Group III** which was to gather facts about constitutional reforms presented their findings thus:

### **From a Monarchy to a System of Representative Government**

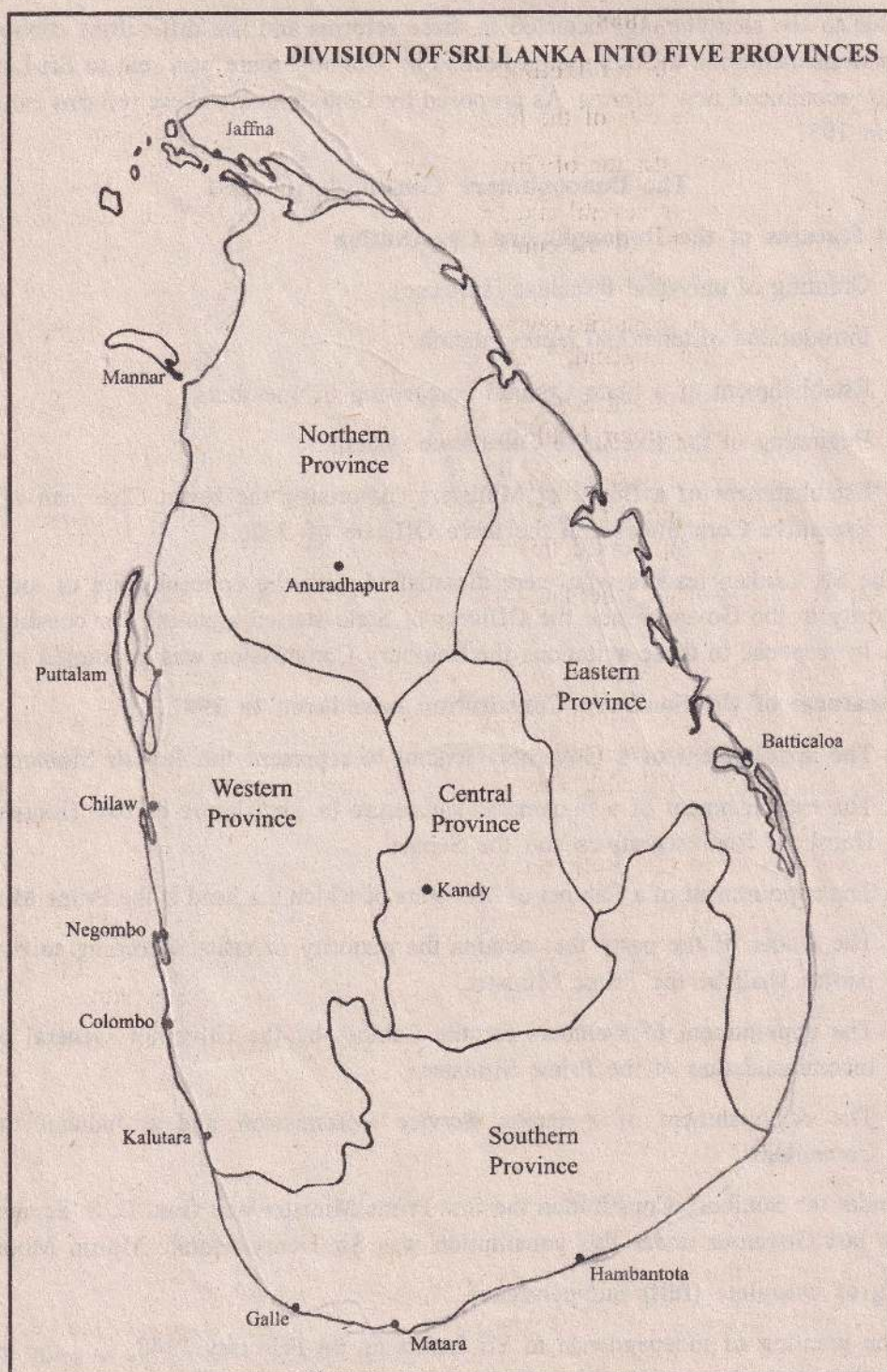
Since the expenditure of the Government of Sri Lanka exceeded its revenue, a commission to investigate into this situation headed by Colebrooke and Cameron was appointed and sent to Sri Lanka. The constitutional reforms submitted by these Commissioners were as follows:

#### **Colebrooke Constitutional Reforms of 1833**

- \* Discontinuance of the old administrative divisions and the division of the entire island into five provinces thereby bringing about a unification of administration.
- \* Abolition of the trade monopoly hitherto held by the Government.
- \* Confiscation of all land for which no clear and proper claim could be established, and selling them to British businessmen at a low price.
- \* Establishment of two bodies to be named as the Legislative Council and the Executive Council.
- \* Abolition of Rajakariya or compulsory service.
- \* The establishment of the Supreme Court as the supreme authority for all judicial matters of the island.

Since the introduction of the Colebrooke Reforms the membership of the Legislative and Executive Councils gradually increased and evolved undergoing minor amendments. Consequent to these amendments, the number of official and unofficial members of the Legislature increased, and provision was made to elect the unofficial members through a system of limited voting.





**Fig. 14.3**  
**Division of Sri Lanka into five Provinces**



Due to the shortcomings detected in these reforms and the difficulties encountered in their implementation a Commission headed by Donoughmore was sent to Sri Lanka in order to recommend new reforms. As proposed by Donoughmore these reforms came into effect in 1931.

### **The Donoughmore Constitution - 1931**

#### **Special features of the Donoughmore Constitution**

- \* Granting of universal franchise (suffrage).
- \* Introduction of territorial representation.
- \* Establishment of a State Council comprising 61 members.
- \* Beginning of the Executive Committee system.
- \* Establishment of a Board of Ministers comprising the seven Chairman of the Executive Committees and the three Officers of State.

The Sri Lankan leaders who were dissatisfied with the concentration of too much of authority in the Governor and the Officers of State started agitating for constitutional reform. In response to these agitations the Soulbury Commission was appointed in 1944.

#### **Main features of the Soulbury Constitution introduced in 1947**

1. The appointment of a Governor General to represent the British Monarch.
2. The establishment of a bi-cameral legislature (a Legislature of two Houses), the House of Representatives and the Senate.
3. The appointment of a Cabinet of Ministers of which the head is the Prime Minister.
4. The leader of the party that obtains the majority of seats according to political parties shall be the Prime Minister.
5. The appointment of members for the Cabinet by the Governor General on the recommendation of the Prime Minister.
6. The establishment of a Public Service Commission and a Judicial Service Commission.

Under the Soulbury Constitution the first Prime Minister was Hon. D. S. Senanayake and the last Governor under this constitution was Sir Henry Monke Mason Moore.

#### **Gaining of complete (full) independence**

The granting of independence to Sri Lanka on 04 February 1948, saw the end of British rule over the country that prevailed for almost one and a half centuries. After gaining independence Sri Lanka became a Dominion with full responsible governmental power and a member of the British Commonwealth of Nations.



#### 4. The information gathered by Group IV are as follows:

##### **Economic and social changes that occurred under the British rule**

- \* Agricultural development
- \* Improvement of transport and communications
- \* Improvement of health and education

By the second half of the nineteenth century, the English Government realized that agriculture which had been neglected so far should be developed. During the first World War rice had to be imported. Hence, the English felt it necessary to effect certain amendments to the agricultural policy of the country.

In this regard the primary attention of British rulers was directed towards the restoration of irrigation works. Governor Sri Henry Ward (1855-1860) who took the initiative in this, took steps to restore Irakkamam Tank and Ampara Tank in the Eastern Province, Kirama and Urubokka tanks in the Southern Province, and minor tanks in Matale and the Uva Province as well as some canals.

Governor William Gregory (1872-1877) too is another important personality with regard to the restoration of irrigation works. He restored several major tanks such as Basavakkulama, Kantale tank and Galgamuwa tank.

Governor Sir Arthur Gordon (1883-1890) restored the Jaya Ganga or Yodha Ela which irrigates the area from Kalawewa to Anuradhapura. He also repaired several minor irrigation works in Uva and Sabaragamuwa.

The establishment of the Irrigation Department in the year 1900 by Governor West Ridgeway pursuant to the keen interest in irrigation works shown by the British can be mentioned as a significant step taken towards the agricultural development of the country. Establishment of agricultural settlements in the Dry Zone and the village expansion projects are some of the Development Programmes undertaken during this period.

The development of transport and communication systems can be cited as another aspect related to economic development that occurred under the British. In the early years of British rule there were only a few main roads in Sri Lanka. They built several trunk roads with the objectives of ending the isolation of the hill country and maintaining communication links between towns such as Trincomalee, Kandy and Colombo.



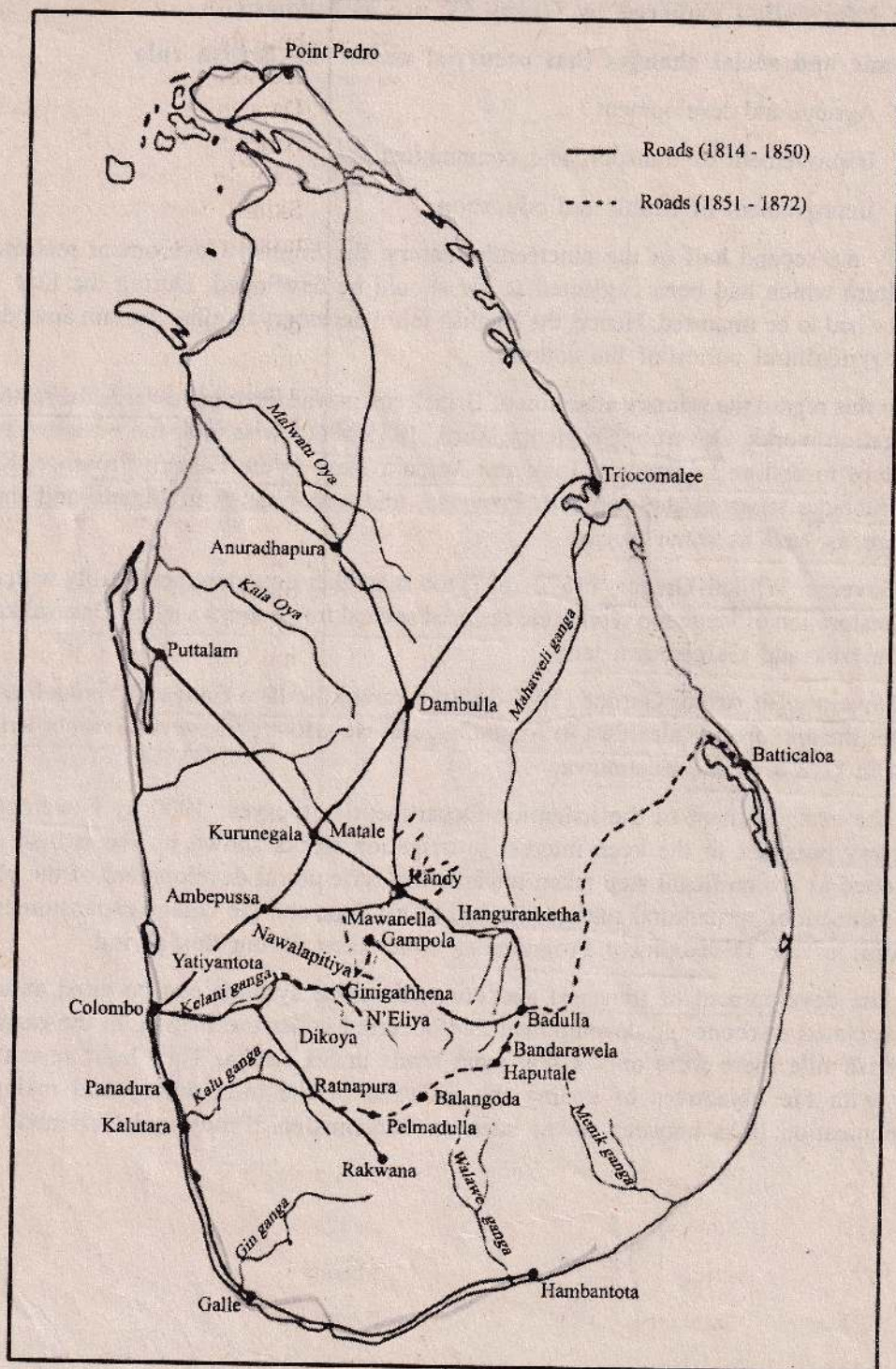


Fig. 14.4  
Main roads of Sri Lanka



Governor Edward Barnes built the Colombo - Kandy road, Kurunegala - Kandy road, Dambulla - Kandy road and Ambepussa - Dambulla road. Captain Dawson and Major Skinner were the pioneers in this task of road construction.

Another important development in the field of transport was the construction of a railway network. Transportation by means of bullock carts, the only mode of transport at the time was not sufficient to meet the demand for such facilities that arose with the expansion of plantation agriculture in the 1850's. It was neither a quick mode of transport. Hence, it was Governor Henry Ward who took the initial steps in the construction of railways in Sri Lanka.

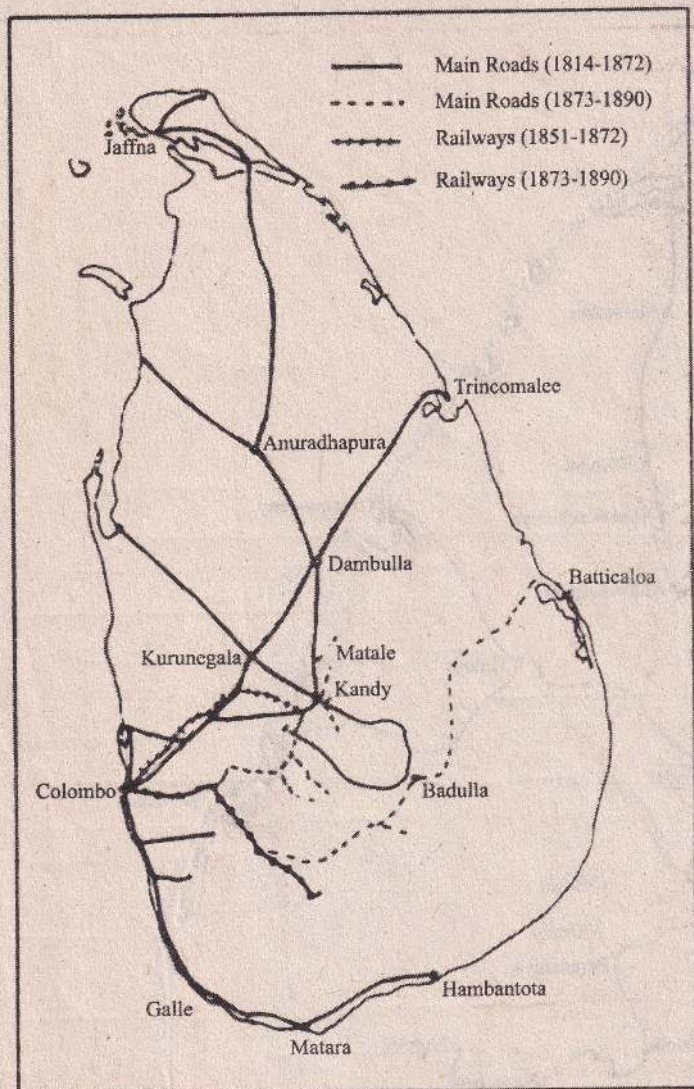


Fig. 14.5  
Main roads and railways of Sri Lanka by year 1890

1863	Colombo	-	Kandy line
1871	Peradeniya	-	Bandarawela
1899	Nawalapitiya	-	Bandarawela
1899	Kandy	-	Matale
1877	Colombo	-	Panadura
1905	Colombo	-	Matara
1905	Polgahawela	-	Jaffna (extension upto Jaffna)



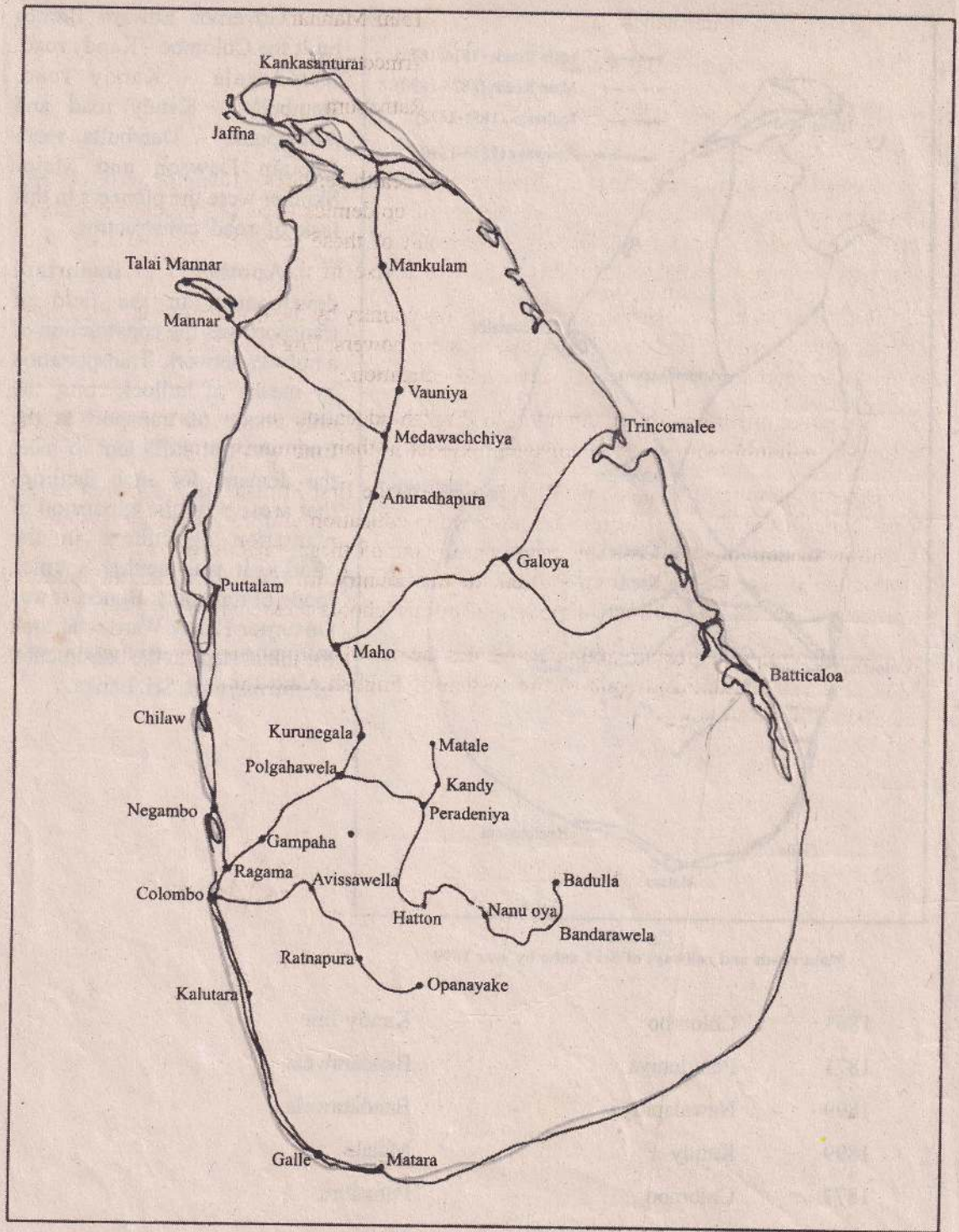


Fig. 14.6  
Railways of Sri Lanka



1905	Medawachchiya	-	Talai Mannar
	Maho - Batticaloa	-	Trincomalee
1912	Kelani Valley line	-	Ratnapura

Since 1931, there was a vast improvement in health services. Hospitals were opened in rural areas and campaigns for the prevention of epidemics such as cholera, dysentery, tuberculosis and malaria were launched. As a result of these services, the mortality rates of infants and mothers declined while there was a rise in the growth of population.

While the education systems introduced to this country by the Portuguese and the Dutch were further adjusted to suit the needs of the Western powers, English education in particular was given special consideration over vernacular education.

The government paid more attention to English education for the purpose of training the local population who could be engaged to assist in their administration.

During the time of Hon. C. W. W. Kannangara, the first Minister of Education in the State Council of 1931, steps were taken to develop education and transform the system of education to suit local needs. The most significant of these various measures was the introduction of the free education system to this country in 1945. In order to promote secondary education in the English medium Central Schools were started in 1944.

Another important feature of this period was the rise of an English educated middle class of the local population as a result of the system of English education.



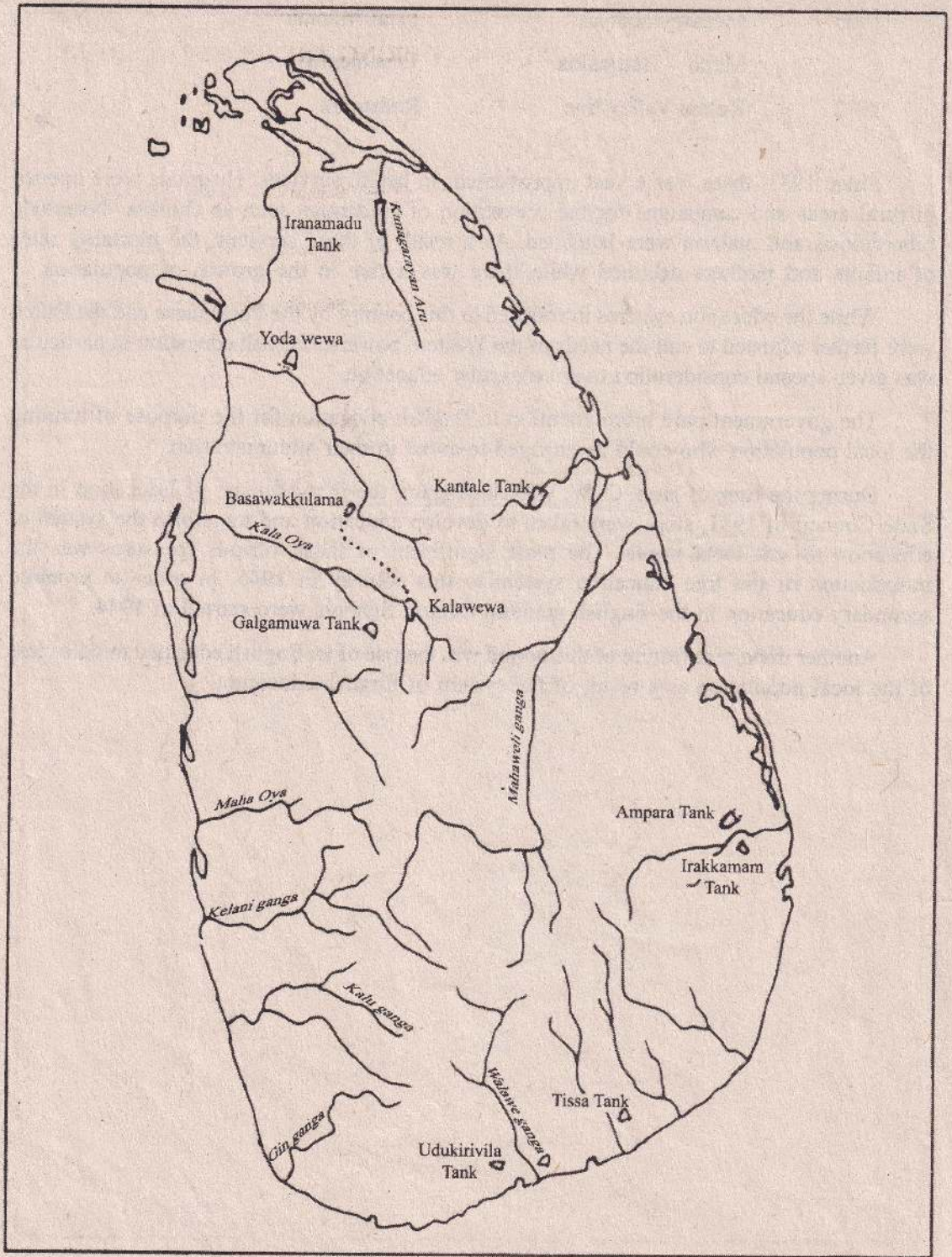


Fig. 14.7  
Main tanks and irrigation works restored during the British Period



# SRI LANKA DURING THE BRITISH PERIOD

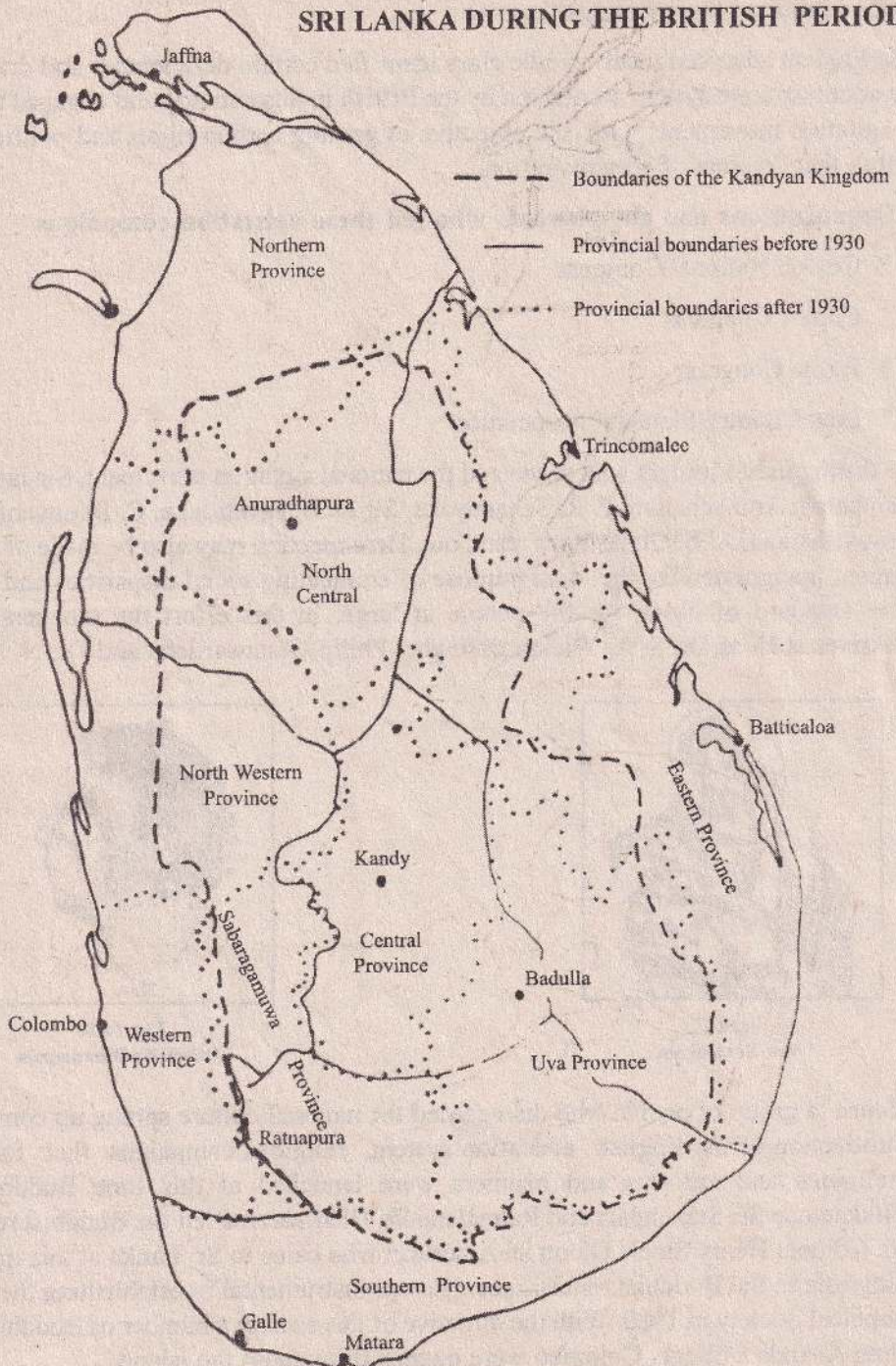


Fig. 14.8  
Sri Lanka during the British Period



5. **Group V** which was assigned the task of gathering facts about the agitation for independence submitted their findings thus:

The English educated local middle class identified certain deficiencies and drawbacks in the administrative system carried out by the British in this country, and engaged themselves in agitation movements with the objective of gaining certain rights and political powers within that system of administration.

### **The Organizations and the pioneers who led these agitation campaigns**

- \* Ceylon National Congress
- \* Chilaw Congress
- \* Jaffna Congress
- \* Low Country Planters' Association

Of the distinguished leaders who pioneered the national agitation movement, Sir James Peiris, Ponnambalam Arunachalam, F. R. Senanayake, Sir D. B. Jayatilleke, C. Batuwantudawa, C. A. Hewavitharana, A. E. Gunasinghe stand out. Here mention may also be made of the Leftist Movement inaugurated for the dual purpose of eradicating social disparities and achieving a better standard of living for the people at large. In this effort the pioneers were the progressives such as Dr. S. A. Wickramasinghe, Philip Gunawardena and Dr. N. M. Perera.



Fig. 14.9  
Ven. Sumangala



Fig. 14.10  
Anagarika Dharmapala

Since a group of people who disregarded the national culture sprang up consequent to the introduction of the English education system, religious campaigns that focused on local religions and customs and manners were launched at this time. Buddhist monks Ven. Hikkaduwe Sri Sumangala and Ratmalane Sri Dharmarama led the Buddhist revival that ensued. Colonel Henry Steele Olcott an American who came to Sri Lanka at this time played a leading role in the Buddhist renaissance. He was instrumental in establishing the Buddhist Theosophical Society in 1880. With the initiative of this society a number of Buddhist schools including Ananda College, Colombo were opened throughout the island.

A large number of patriotic Buddhist monks and laymen, who realized the need to bring about a Buddhist revival, namely, Ven. Velivita Sri Saranankara Sangharaja, Ven. Walapane Siddhartha, Ven. Hikkaduwe Sri Sumangala, Anagarika Dharmapala, Ven. Ratmalane





Fig. 14.11  
Sri Arumuga Navalar

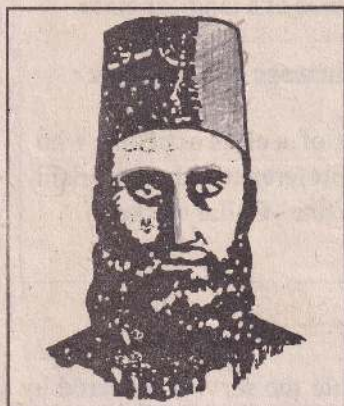


Fig. 14.12  
M. C. Siddi Lebbe

Dharmarama, Ven. Migettuwatte Gunananda, Col. Olcott, Valisinghe Harischandra, D. B. Jayatilleke, Arthur V. Dias, Amadoris Mendis, Piyadasa Sirisena, R. A. Mirando, C. A. Hewavithana and W. A. Silva pioneered this campaign. As a counter measure to arrest the erosion of culture caused by the use of liquor introduced by the English, the local leaders joined the Temperance Movement and worked actively in it.

These leaders who pioneered the Buddhist renaissance, developed the Vidyodaya and Vidyalandkara Pirivenas in order to uplift Buddhist education.

Simultaneously with this Buddhist revival there occurred in the north among the Tamils, a Hindu religious revival. It was Sri Arumuga Navalar who pioneered these activities in the north. Moreover it was M. C. Siddi Lebbe who devoted himself for the revival of Islam and Muslim culture.

In order to liberate the society from the use of intoxicants and from other vices that had become rampant due to western cultural influence by the latter part of the 19th century, there emerged a number of national and religious movements. The Temperance Movement was one of them.

As a result of the struggles for freedom propagated by the efforts of the leaders who rose up through the above mentioned political and religious revivals, Sri Lanka was able to achieve independence in 1948.

The Grade 9 pupils of Kurundulanda Vidyalyaya organized a debate in order to help them gather further information on the effects of British rule in Sri Lanka. A note prepared on the facts presented by them at their debate is given below. By studying it you will be able to know about the beneficial and harmful effects of British rule.

#### **Beneficial effects of British rule**

- \* Improvement in road transport, railways and Overseas Telecommunication system.
- \* Restoration of irrigation systems and establishment of agricultural settlements.
- \* Opportunities provided for learning English as an international language.

#### **Harmful effects of British rule**

- \* Decline of subsistence agriculture. Need to import rice.
- \* Degeneration of the self-sufficient economy and the emergence of an import - export economic pattern.
- \* Injustice caused to rural children who studied in village vernacular schools due to the introduction of English education.



- \* Cultivation of cash crops such as tea, coconut and rubber and a variety of other types such as cinchona, cocoa and coffee as commercial plantations.
- \* With the introduction of preventive measures such as the anti-malaria campaign the mortality rate of infants and mothers could be reduced.
- \* Development of a network of roads linking the areas under plantations.
- \* The rise of a new middle class useful for the economy and the political scene of the country.
- \* Introduction of an organized judicial system and English law.
- \* Intrusion of the western dress, food and customs and manners into the local culture.

- \* Subjecting the country to the influence of western culture through the introduction of English cultural aspects.
- \* Widespread use of alcohol by the people.
- \* Emergence of ethnic problems owing to the introduction of Indian labour for the plantations.
- \* Alienation (acquisition) of upcountry lands for the plantations resulted in the emergence of a landless class.
- \* The rise of a wage earning class.
- \* Emergence of a class of people who displayed preference only to work in offices. (White - Collar workers)

### Activities

1. Why do you recognize Keppetipola Dissave as a hero? Evaluate the service rendered by Keppetipola Dissave to the Sinhalese nation.
2. How do you assess the reasons for the defeat of the Sinhalese in the 1848 struggle for independence (rebellion of 1848)? Prepare a small report on it.
3. Collect data on the biographies of the following personalities and prepare a booklet containing them:  

Anagarika Dharmapala, Ven. Hikkaduwe Sri Sumangala, A. E. Gunasinghe,  
 Sir Ponnambalam Ramanathan and M. C. Siddi Lebbe.
4. 'Certain effects of British rule, still continue to influence public life.' Collect data related to the above statement.



## Governance of Sri Lanka

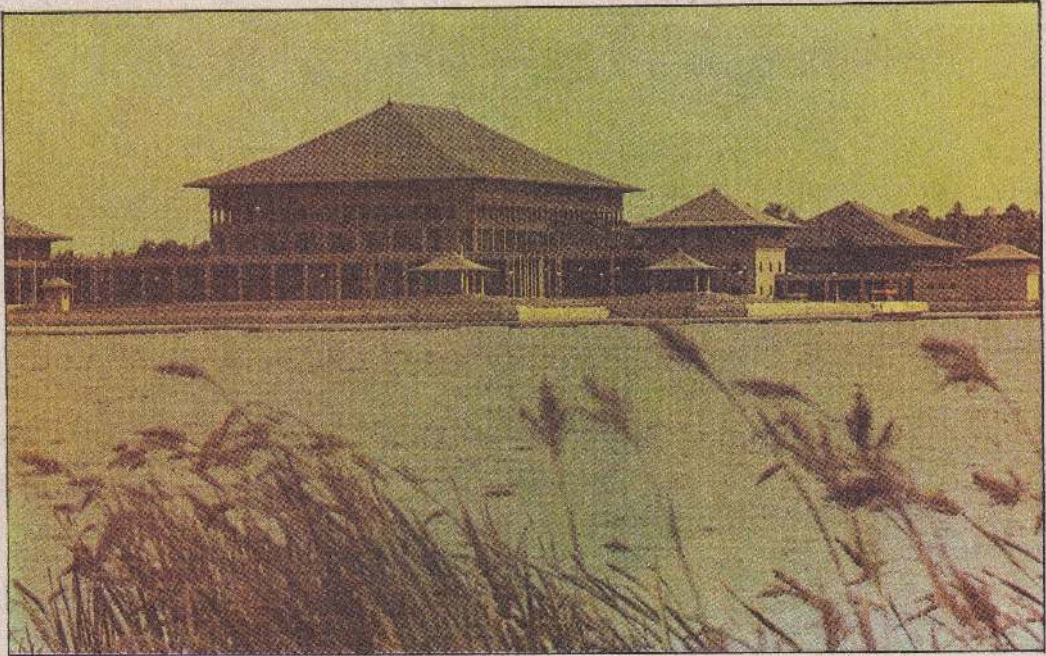


Fig. 15.1  
Parliament Building

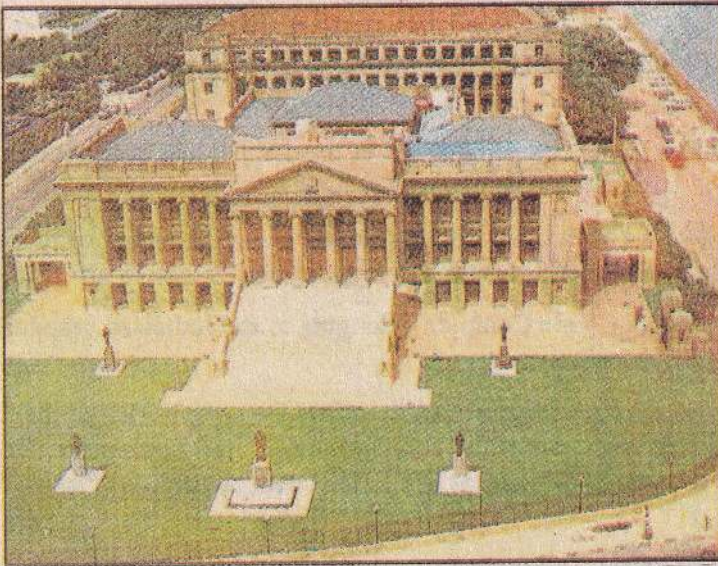


Fig. 15.2  
Presidential Secretariat





Fig. 15.3  
Courts Complex

**The above pictures show three main institutions associated with the government of Sri Lanka**

- \* Figure 1 shows the Parliament which is the Legislature responsible for the enactment of laws for the people of Sri Lanka.
- \* Figure 2 shows the Executive responsible for the enforcement of those laws - the Presidential Secretariat where meetings of the Executive are held.
- \* Figure 3 shows the Courts Complex belonging to the Judiciary, responsible for meting out justice.

The constitution is the document that describes the composition of the three institutions associated with the government of the country, namely, the Legislature, Executive and the Judiciary and the relation of those three institutions with the people at large. It is the supreme law of our land.

**In the constitution of the Democratic Socialist Republic of Sri Lanka**, it is mentioned at the outset that this is the supreme law of the land.



It is also mentioned in the constitution that Sri Lanka is a free, independent, unitary republic. Chapter one of the constitution of 1978 mentions about the people, the government and the sovereignty. 'Sovereignty' means the most supreme power. The constitution of 1978 has vested this 'Supreme power' in 'The people'.

In Sri Lanka which has a democratic form of government, it is significant that this 'Sovereign power' is vested in the people. This is why 'Democracy' is termed 'A government of the people'.

**Methods by which the people exercise their sovereignty**

- \* Franchise
- \* Fundamental rights
- \* Administrative powers

Accordingly,

- |  |   |
|--|---|
| The <b>Legislative</b> power of the people | - is exercised through the Parliament comprising members (MPs) elected by the people through their vote.                          |
| The <b>Executive</b> power of the people   | - is exercised by the President elected by the people through their vote, and the Cabinet of Ministers selected by the President. |
| The <b>Judicial</b> power of the people    | - is exercised through the courts system devolving from the Supreme Court.  |

**The Sovereign power of the people is exercised through their franchise (vote)**

In 1931 Sri Lankans were granted universal franchise with the introduction of the Donoughmore Constitution in that year. It will be clear to you that there exists a strong link between the people and the government on account of their power to vote.



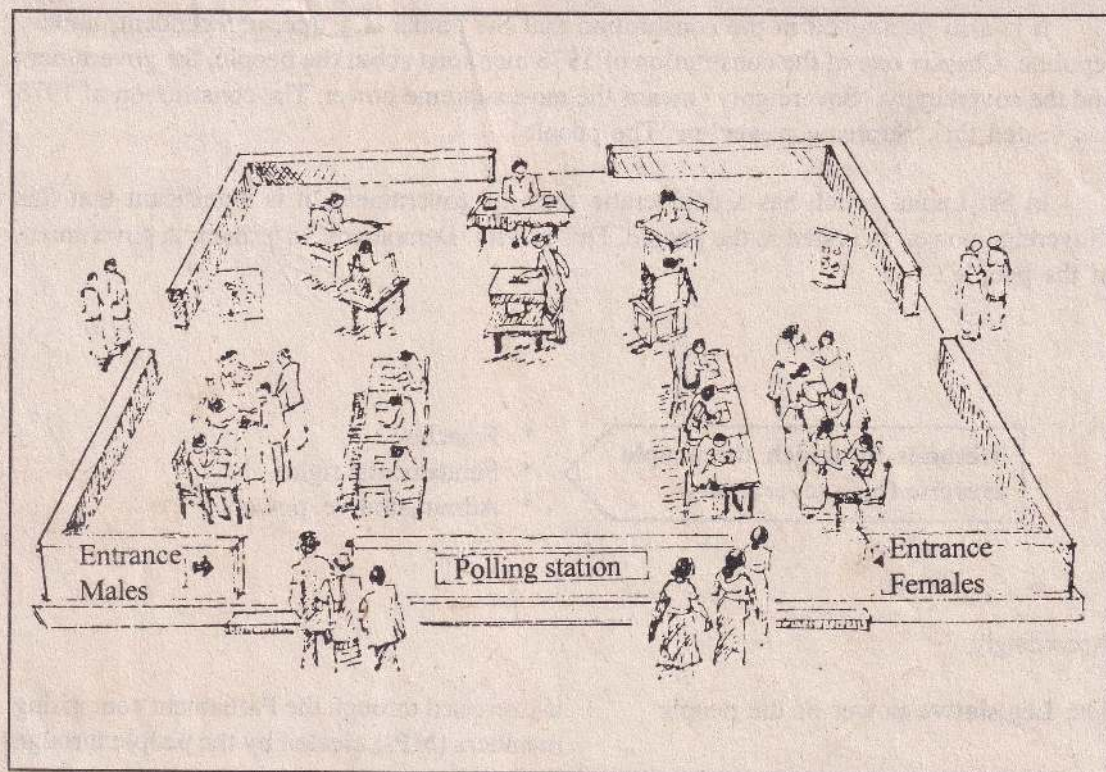


Fig. 15.4  
A polling station

#### Qualifications (eligibility) to be a voter

- \* Being a citizen of Sri Lanka
- \* Be above 18 years of age
- \* Be resident in the area for a continuous period of six months during the 18 months immediately preceding the election day.
- \* Inclusion of name in the voters' list.

#### Disqualifications (ineligibility)

- \* Being mentally unsound
- \* Having served imprisonment for a term of over seven years.
- \* Being a person declared guilty of election related corrupt practices, fraud and hence being subject to annulment of vote.

#### Fundamental rights

In a democratic system of government the individual commands an important position. The administrative set up of our country shows special consideration for individual freedom and individual rights. This is why there is a separate chapter titled 'Fundamental rights' in the constitution of 1978.

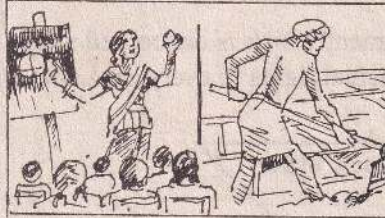




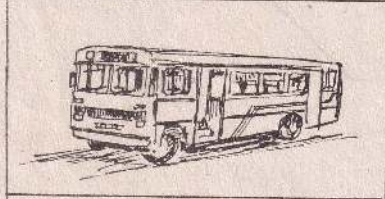
\* Freedom of thought



\* Freedom of speech



\* Freedom to engage in a legitimate occupation



\* Freedom to travel within Sri Lanka



\* Freedom to travel abroad and return to Sri Lanka



\* Freedom from arbitrary arrest



\* Freedom of association

Fig. 15.5  
Fundamental rights



The constitution has provided equal opportunities for every citizen to enjoy the aforementioned rights appreciating the personal freedom of the individual irrespective of a person being poor, rich, educated, uneducated or irrespective of difference in race, caste, creed, language or sex.

Moreover, any individual is provided with the opportunity to file action with the Supreme Court at any time when there is an obstruction to enjoying his rights, seek redress and have his lost rights restored.

Apart from this, a special feature in the constitution is the appointment of an Ombudsman. Through this appointment, there is provision for any State or Corporation employee to complain of any obstruction caused by the employer in the enjoyment of his rights and seek redress.

We have in our country, a democratic system of government which is concerned about and which particularly respects the basic freedoms and fundamental rights of every Sri Lankan in general.

**We must be considerate and respect each other.**

**It is one of our  
national goals.**

### **A Citizen's**

#### **Responsibilities**

- \* be law-abiding
- \* use the franchise properly
- \* protect common property
- \* be accustomed to a just livelihood
- \* Valuing others' freedom
- \* be aware of the administrative affairs
- \* make a proper contribution to the process of production
- \* conservation of resources for the future generation.

#### **Duties**

- \* be honest
- \* toleration of others' opinion
- \* respect for others
- \* be accustomed to resolving conflicting issues through discussion
- \* proper utilization of resources
- \* inculcation of qualities conducive to constructive contribution to governance.

In Sri Lanka where a democratic system of government exists, a citizen should have an idea about his responsibilities, duties and his contribution towards the nation. The development of these qualities will help towards the success of the democratic system of government.



## The present administrative structure of the country

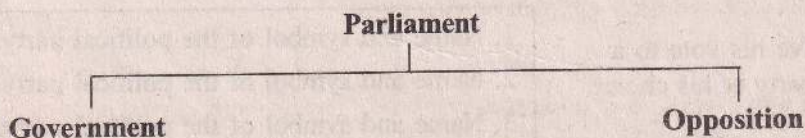
Government		
Legislature	Executive	Judiciary
Law-making body	Law-enforcing body	Body administering justice
Parliament	President and the Cabinet Ministers	Courts and Judges
Government	Deputy Ministers	Supreme Court
Opposition	Secretaries to Ministries	Court of Appeal
	Heads of Departments	Courts of First Instance
		* High Court
		* District Court
		* Magistrates' Court
		* Primary Court

### The Legislature

The Legislature of Sri Lanka is the Parliament. The Parliament building is situated at Sri Jayawardenepura - Kotte.

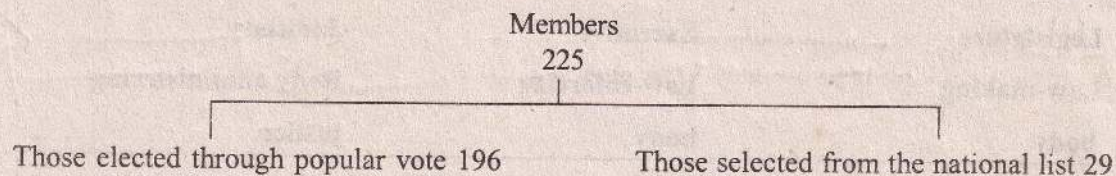
### The Parliament

- \* Enacts laws for maintaining law and order in the country and fulfilling the needs of the public.
- \* Amends certain laws.
- \* Repeals obsolete laws (laws deemed unsuitable in terms of the current requirements).
- \* In the Unitary State of Sri Lanka, the Parliament is the only institution in which the supreme law enacting power rests.





The present Parliament consists of 225 members. There are two categories of Members of Parliament according to the method of election.



The 196 members elected by popular vote are elected according to the system of Proportional Representation.

### System of Proportional Representation

The system of Proportional Representation is one of the methods adopted in countries with democratic forms of government for the purpose of electing people's representatives. The other method is the simple majority representation system.

The simple majority system is the method of selecting one member for each constituency (seat.)

### Characteristics of the system of Proportional Representation

- \* Large constituencies - e.g. an administrative district.
- \* Candidates standing for election as groups.
- \* Election of a number of representatives for each constituency.
- \* The importance of the political party than the candidate.
- \* Election of members in proportion to the number of votes polled by each political party at the poll.
- \* Representation secured for minority (small) parties too.
- \* In Sri Lanka the political party that polled the largest number of votes gets a 'bonus' seat.

When you are an eligible voter, it is your responsibility to exercise your vote so as not to render it invalid. A careful scrutiny of the following specimen ballot papers will confirm your knowledge in this regard:

Under the system of Proportional Representation a voter,

A specimen ballot paper

1. Should give his vote to a political party of his choice (preference)

2. Should mark his preferences for three candidates of the party he votes for.

1. Name and symbol of the political party.										
2. Name and symbol of the political party.										X
3. Name and symbol of the political party.										
1	2	3	4	5	6	7	8	9	10	
X	12	13	14	15	X	17	18	19	20	
21	22	23	24	25	26	27	X	29	30	



There are several instances when a ballot paper is rendered invalid.

- \* Marking only the preferences without marking the vote for a Political Party.

A ballot paper rendered invalid

1. Name and symbol of the political party.	
2. Name and symbol of the political party.	
3. Name and symbol of the political party.	
4. Name and symbol of the political party.	
<b>X</b> 2 3 4 5 6 7 8 9 10	
11 12 13 14 15 <del>X</del> 17 18 19 20	
21 22 23 24 25 26 27 <del>X</del> 29 30	

- \* Marking the cross so as to represent several (more than one) political parties.

A ballot paper rendered invalid

1. Name and symbol of the political party.	<b>X</b>
2. Name and symbol of the political party.	<b>X</b>
3. Name and symbol of the political party.	
4. Name and symbol of the political party.	
<b>X</b> 2 3 4 5 6 7 8 9 10	
11 12 13 14 15 <del>X</del> 17 18 19 20	
21 22 23 24 25 26 27 <del>X</del> 29 30	

Fig. 15.6

## The Speaker

- \* It is the Speaker who controls both the Government and the Opposition in Parliament.
- \* At the first meeting of the Parliament immediately following an election the Speaker is elected by a majority of the House (Members)
- \* The Speaker is the chairperson of the Parliament.
- \* The Speaker should control the proceedings of the House impartially, and in accordance with the standing orders.
- \* The Speaker's assent is essential for every act to become law.
- \* He can order the Sergeant-at-arms to remove from the House any member who behaves in an indisciplined manner inside the House.
- \* The full term of the Parliament is 06 years. Even prior to that the Parliament can be dissolved on account of reasons like the defeat of the Appropriation Bill (rejection of a Finance Bill.)
- \* The term of the Parliament can be extended through either a Referendum to that effect or by a 2/3 majority of the votes of the House.



## Functions of Parliament

- \* Legislation
- \* Control of Finance
- \* Approving Budget proposals
- \* Control of the Executive

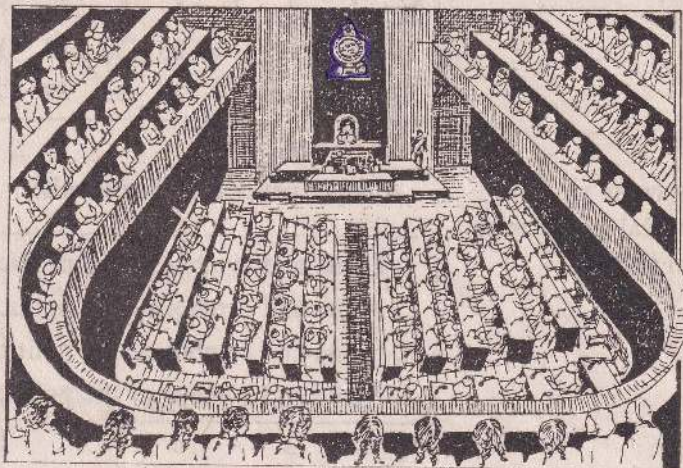


Fig. 15.7  
A Parliamentary Session

## The Executive

The body that is responsible for the implementation of the legislation of a country is the Executive. In place of the nominal Executive Presidency introduced by the first Republican Constitution of 1972, an office of President with absolute power was created by the Constitution of 1978. This office is vested with power and leadership in various spheres pertaining to governance.

The President of Sri Lanka is elected by a Presidential Election held once in six years. This election is held taking the entire country as one constituency (electorate). In situations where more than three Presidential Candidates stand for election, the voter can mark three preferences in the ballot paper, according to the order of his preference.

This is known as the system of single-transferable vote. The requirement that a Presidential candidate, in order to be elected President, should poll at least one vote more than 50% of the total valid votes, is also a special feature here. The candidate so elected should take the oath of office before the Chief Justice on the 04th of February following immediately after the election and accept the official duties.

The powers and functions of the President are numerous. They can be grouped under several main categories as Legislative, Executive, Judicial, Honorary and others. Some of the powers and functions coming under each category are indicated below:



**Legislative**

- \* Summoning, opening, prorogation and dissolution of Parliament.
- \* Presenting the policy statement of the Government.
- \* Attending Parliament at any time deemed necessary, addressing it and despatching memoranda.

**Executive**

- \* Appointment of the Prime Minister and the Cabinet of Ministers.
- \* Allocation of Ministries.
- \* Reshuffling of the Cabinet.
- \* Appointment of Deputy Ministers.

**Judicial**

- \* Appointment of the Chief Justice and other Judges.
- \* Appointment of Judges of the Court of Appeal.
- \* Appointment of the Judicial Service Commission.
- \* Relaxation of punishments determined by the Courts and granting pardon.

**Honorary**

- \* Bestowing Honorary titles.
- \* Presiding at State functions.
- \* Receiving foreign delegates.
- \* Representing the Government at international assemblies

**Other**

- \* Appointment of higher officials of Corporations and Statutory Bodies.
- \* Appointment of Ambassadors and High Commissioners.
- \* Appointment of Secretaries to Ministries.
- \* Issuing orders to the Armed Forces.
- \* Declaration of war and peace.



In addition to all these powers, the President has the power to vest in him/her any number of Ministries he/she deems necessary.

A special feature here is that whatever powers the President wields, whatever functions he/she performs, for all such actions he/she is responsible to Parliament.

### **Cabinet Ministers**

According to the Constitution of 1978, the Chief Executive of the country is the President, and to assist the President there is a Cabinet of Ministers.

The Ministers are chosen from among the Government members. Thereafter by taking their oaths before the President, the Ministers accept their portfolios and assume duties at their respective Ministries.

The President appoints a Member of Parliament who can win the maximum confidence of the House as Prime Minister.

It is the President who chairs the Cabinet meetings.

### **Functions of the Cabinet**

- \* Implementation of legislation passed by Parliament.
- \* Preparation of Ministerial budget estimates.
- \* Preparation of supplementary estimates.
- \* Co-ordination of the activities of various Ministries.

One important principle followed by the Cabinet is the Principle of Collective Responsibility. This means that even though the Ministers are in charge of different Ministries of the Government, the entire Cabinet as a whole is responsible for the governance of the country.

On account of this binding principle, harmony within the Cabinet and the development of the country occur in a methodical way.

The purpose of a government is to forge ahead for the development of the country by performing the tasks related to the welfare of the people.

The main objectives of the government are:

- \* The creation of an environment that provides opportunities for the people to enhance their well-being.
- \* Maintenance of law and order within the country.
- \* Facilitation of the accomplishment of the needs of the people.

It is impossible for a few individuals to attend to all the activities related to the fulfillment of these objectives within the country. Hence, the President and the Cabinet are engaged in maintaining a public service organized under each Ministry, to assist them in the task of performing these duties.



The President is the Chief Executive of the country, and the Cabinet of Ministers who are appointed by the President are in charge of the Ministries which are the different branches of the administration, while the Government Departments are assigned to each Ministry in a suitable manner.

### **Ministry of Irrigation and Mahaweli Development**

Land Commissioner's Department	Irrigation Department	Forest Department	State Timber Corporation	Mahaweli Authority
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(The Departments under any Ministry may change according to the needs and circumstances.)

It is the Secretary to the Ministry who co-ordinates the activities of all the Departments under a Ministry.

In order to perform its multiplicity of tasks, each Department has a staff of public servants who can be grouped under various categories such as i. Administrative ii. Executive iii. Clerical iv. Karyala Karya Sahayaka (peon), labourer. Out of these categories, State Officers who belong to the administrative and executive grades are selected subject to the final decision of the Cabinet, while the selection of those in the clerical and labour grades is entrusted to the higher officers in charge of each Department.

One important matter to be stressed here is that while crucial decisions relating to the governance of the country are taken by the Ministers and the Secretaries, for the proper implementation of these decisions, the contribution of each category of these State officers at his/her level is essential. If those in the labour categories do not perform the duties in time, it will be difficult to implement the decisions of officers in higher grades. Thus, it should be mentioned that the contribution of public servants of all these categories is essential for the acceleration of the development effort of the country, and that one category of officers will not be able to perform their duties successfully if the contribution of another category is not forthcoming.

Every State officer is a public servant paid out of public funds and the service of everybody is equally important for the development of the country. Thus each public servant should have a 'dignity' associated with his/her job.



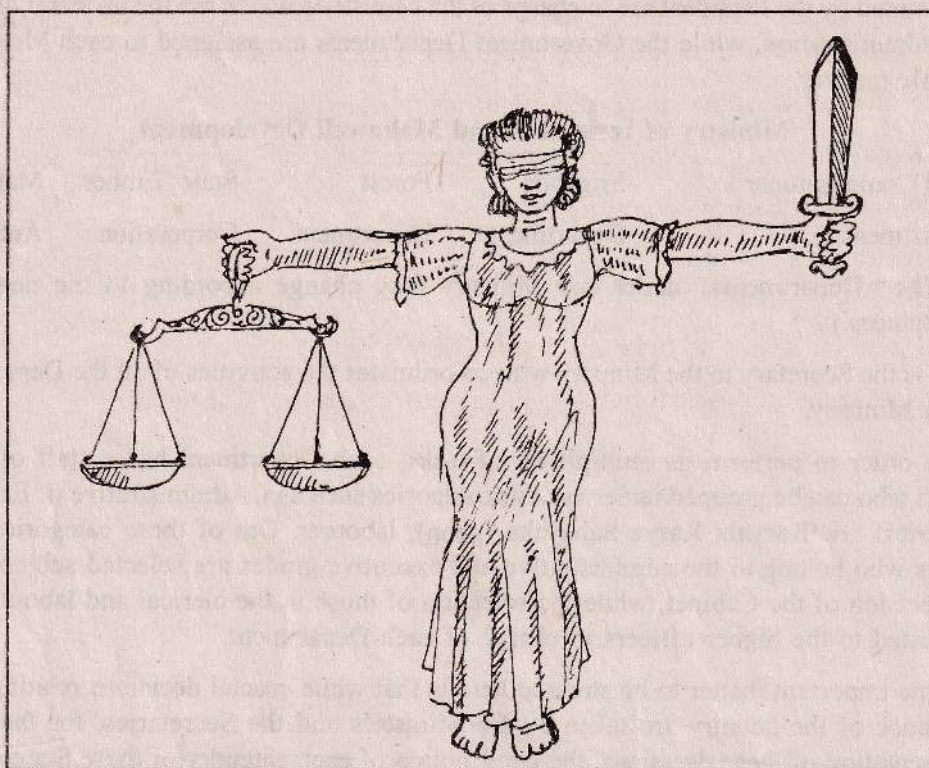


Fig. 15.8  
Symbol of the impartiality of the Judiciary

A glance at figure 15.8 will certainly give you an idea of impartiality. It is an indication of the independence of the Judiciary. The Judiciary in any country is an independent body free from political affiliations. It is true of Sri Lanka too.

A court is an institution authorized to interpret law and to mete out punishment to those who violate the law.

Since the Judiciary has the right to take decisions on the life of an individual, it has to be essentially fair and impartial. In this regard, certain provisions have been made in the Constitution of 1978. They are:

### **Requisites for an Independent Judiciary**

- \* The appointment of the judges of Higher Courts by the President.
- \* Once appointed, the judges cannot be dismissed from service until they retire, unless on charges of corruption.
- \* Their removal can be effected by the President in terms of a resolution passed by the Parliament by a 2/3 majority.



- \* Their salaries are fixed and they are paid out of the Consolidated Fund.
- \* The existence of a Judicial Service Commission for the appointment, transfer, promotion and for disciplinary action against Judicial Officers in the Lower Courts.
- \* Performance of the administration of justice in public.
- \* Removal from criticism and undue influences that cause contempt of court.
- \* Provision of the power of appeal.
- \* Absence of any provision to file action against official duties performed by judges while holding office.
- \* Undue influence on judges is a punishable offence.
- \* Restriction of political rights to judges other than the right to vote.

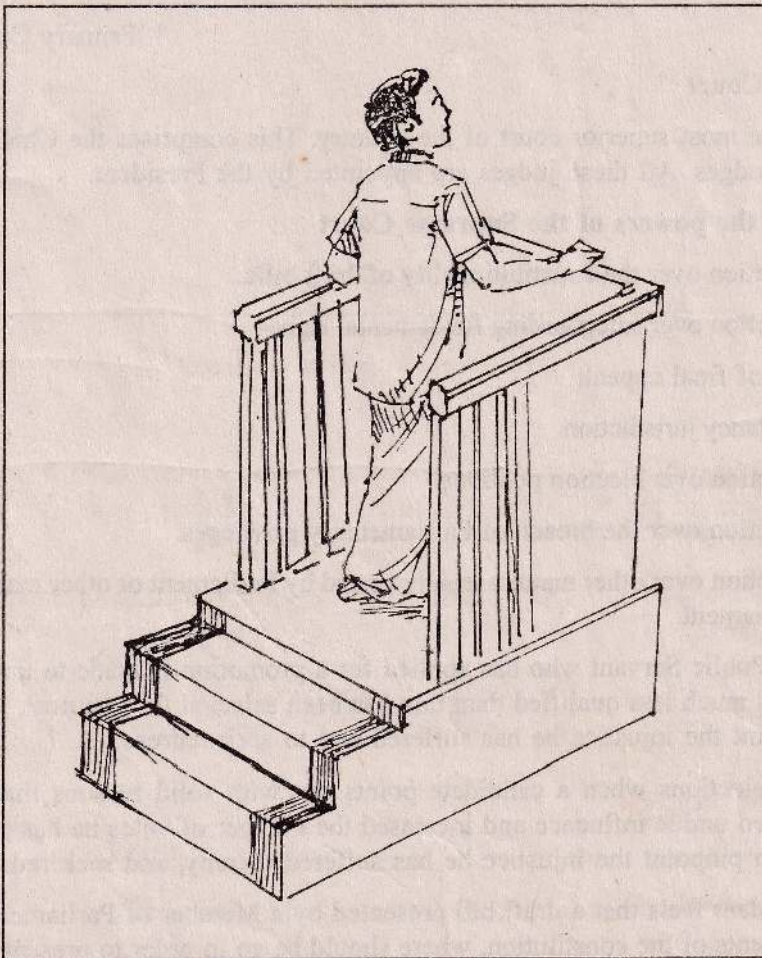


Fig. 15.9  
Giving evidence in a Court of Law



Why is there a need for a system of courts for our country?

The system of courts operates in order to mete out justice when there is violation of the law of the land.

In terms of the constitution of 1978, and the Judicial Organization (Judicature) Act No. 2 of 1978, our Judiciary is organized in the following manner:

### **The Judiciary**

#### **Supreme Court**

#### **Court of Appeal**

#### **Courts of First Instance**

- \* High Court
- \* District Court
- \* Family Court
- \* Magistrate's Court
- \* Primary Court

#### **The Supreme Court**

This is the most superior court of the country. This comprises the Chief Justice and 6 to 10 other judges. All these judges are appointed by the President.

#### **Following are the powers of the Supreme Court**

- \* Jurisdiction over the constitutionality of draft bills.
- \* Jurisdiction over safeguarding fundamental rights.
- \* Power of final appeal.
- \* Consultancy jurisdiction.
- \* Jurisdiction over election petitions.
- \* Jurisdiction over the breach of Parliamentary privileges.
- \* Jurisdiction over other matters legally vested by Parliament or other matters assigned by Parliament.

When a Public Servant who has applied for a promotion is made to understand that a person who is much less qualified than him has been selected for that post, where should he go to pinpoint the injustice he has suffered and to seek redress .....

After an elections when a candidate points out with valid reasons that the elected member has used undue influence and increased the number of votes he has polled, where should he go to pinpoint the injustice he has suffered thereby, and seek redress .....

If a defendant feels that a draft bill presented by a Member of Parliament is contrary to the requirements of the constitution, where should he go in order to present his case and find a solution.....?

In all the above circumstances, the person concerned should go to the Supreme Court.



## **Court of Appeal**

This is a court comprising a President and 6-10 judges, an institution empowered to correct any mistake committed in respect of an incident, a law or a judgement by a court of First Instance, or another court or a judicial committee. The Court of Appeal has the power to change a judgement given by the court of First Instance or to give the same judgement.

## **Court of First Instance**

Under this category are several types of courts empowered to hear cases at first instance, related to all illegal activities that take place within Sri Lanka. These courts are High Courts, District Courts, Family Courts (now defunct), Magistrate's Courts and Primary Courts. Depending on the gravity of an illegal action committed by an individual, cases are directed to these courts for justice.

## **Arbitration Boards**

An Arbitration Board is a place where minor disputes that occur at village level are investigated and relief provided to both parties involved. It does not come under the type of courts organized under the Judiciary. These disputes are settled by a People's Board constituted from among people from the locality itself, in the week-ends in public buildings such as schools. This arrangement saves the time, labour and wealth (financial resources) of the people and the dispute is led to a process of settlement.

## **PROVINCIAL COUNCILS**

The Provincial Council system was introduced to Sri Lanka in 1987, in terms of the 13th Amendment to the Constitution of 1978 and the Provincial Councils Act. Accordingly, Provincial Councils were established as one for the Northern and Eastern Provinces and one for each of the other seven provinces.

### **There were two objectives for establishing Provincial Councils**

1. As a solution to the ethnic problem.
2. As an attempt at decentralizing power.

Every Provincial Council consists of a Governor appointed by the President and a number of councillors elected by the people according to the Proportional Representation system.

The executive matters of Provincial Councils are vested in the Governor of each Province, while there is a Council of Ministers comprising five including the Chief Minister selected (chosen) from among the Provincial Councillors. A Chief Minister is also appointed for a Provincial Council.

## **LOCAL GOVERNMENT INSTITUTIONS**

Sri Lanka is a unitary state. Hence powers of governance are concentrated in the Central Government. The Central Government comprises the President and Parliament. The threefold powers of a Government, namely the enactment of legislation, their execution and punishing those who are guilty of violating the laws are a function of the officers of the Central



Government. The opportunities available for those officers to look into the general development activities of the entire country, and perform those duties efficiently, are limited. Therefore the Central Government has established Local Government Institutions in order to ensure that these functions it has to perform are performed better and to suit the requirements of each locality.

L O C A L  G O V E R N M E N T	M U N I C I P A L	The powers and functions of these Local Government Institutions are common to a great extent. Here are some of them:	<b>Examples of a few Municipal Councils</b>
	C O U N C I L S	Building and maintenance of roads	Colombo Galle Dehiwala - Mt. Lavinia Jaffna Sri Jayawardenapura Kotte Kandy
	* U R B A N		
	C O U N C I L S		
	C O U N C I L S	Public Health and Sanitation	



I	*	Provision of Water Supply
N	P	Public markets
S	R	Water supply
T	A	Establishment of public markets
I	D	Maintaining public cemeteries
T	E	
U	S	
I	H	
O	I	
N	Y	
S	A	
	S	
	A	
	B	
	H	
	A	
	S	

The election of members/councillors for Local Government Institutions is done through an election held once in every four years under the system of proportional representation.







## Glossary

### Social Studies and History – Grade – 9

Adaptation	அனுபவத்தை விட	இசைவாக்கம்
Advertising	பிரபலம்	விளம்பரம்
Aesthetic	செயற்கையான	அழகியல்
Age-old attitudes	நாளுக்குமுன் நிலை	பழமை மனப்பாங்குகள்
Age structure	வயது வகுப்பு	வயதுக் கட்டமைப்பு
Agitation movement	சுதேசத்து வணிகம்	கிளர்ச்சி இயக்கம்
Aggressive policy	நாளுக்குமுன் நிலை	வலியுறுத்தலுக்கும் கொள்கை
Agricultural inputs	காணி நெய்தல்	விவசாய உள்ளீடுகள்
Agricultural Center	நெய்தல் நெய்தல்	விவசாய நிலையம்
Air route	வானப் பாதை	விமானப் பாதை
Alternative method	பிறகு முறை	மாற்று முறை
Amphibian	புறம்பு	உபயவாழி
Anchor	கயிறு	நங்கூரம்
Anti-Portuguese campaign	புரேசிய விடுதலைப் போராட்டம்	போர்த்துகேயருக்கு எதிரான இயக்கம்
Aquatic fish	புறம்பு மீன்	நீர்வாழ் மீன்
Aquatic plant	புறம்பு செடி	நீர்வாழ் தாவரம்
Arbitration Board	தீர்மானப் பரீட்சை	இணக்கச் சபை
Attacks	புறம்பு	தாக்குதல்கள்
Balanced meal	தீர்மானப் பரீட்சை	நிறையுணவு
Banished	புறம்பு	நாடு கடத்தப்பட்ட
Baptize	புறம்பு	ஞானஸ்நானஞ்செய்தல்
Basic human rights	புறம்பு மனித உரிமைகள்	அடிப்படை மனித உரிமைகள்
Basin	புறம்பு	வடிநிலம்
Behavior patterns	புறம்பு நடத்தை	நடத்தைக் கோலங்கள்
Bicameral Parliament	புறம்பு நாடாளுமன்றம்	ஈரவை பாராளுமன்றம்
Bio – diversity	புறம்பு உயிர்வகைமை	உயிர்ப்பல்வகைமை
Bio gas unit	புறம்பு உயிர்வகைமை	உயர்வாயு அலகு
Biosphere	புறம்பு உயிர்வகைமை	உயிரினமண்டலம்
Bird lime	புறம்பு உயிர்வகைமை	பலாப்பிசின்
Block rubber	புறம்பு உயிர்வகைமை	துண்ட இறப்பர்
Botanical garden	புறம்பு உயிர்வகைமை	தாவரவியல் பூந்தோட்டம்
Brackish water	புறம்பு உயிர்வகைமை	சுவர் நீர்
Brine water	புறம்பு உயிர்வகைமை	உவர் நீர்
British crown	புறம்பு உயிர்வகைமை	பிரித்தானியக் கிரீடம்
Buddhist renaissance movement	புறம்பு உயிர்வகைமை	பௌத்த மறுமலர்ச்சி இயக்கம்
Buddhist revival awakening	புறம்பு உயிர்வகைமை	பௌத்த விழிப்பு
Budding	புறம்பு உயிர்வகைமை	அரும்பொட்டுதல்
Buttress	புறம்பு உயிர்வகைமை	உதைப்புவேர்
Bi-cameral legislature	புறம்பு உயிர்வகைமை	ஈரவைச் சட்டமன்றம்
By- products	புறம்பு உயிர்வகைமை	பக்கவிளைவுபொருட்கள்
Cadjans	புறம்பு உயிர்வகைமை	கிடுகு
Capacity	புறம்பு உயிர்வகைமை	கொள்ளளவு
Capital	புறம்பு உயிர்வகைமை	மூலதனம்







Death donation	மரண பாரிசேதிகை	மரண நன்கொடை
Decentralization	வினேந்திரை	பன்முகப்படுத்தல்
Decentralization of power	வெள பீடுமென கிரெ	அதிகாரத்தைப் பன்முகப்படுத்தல்
Decisive factors	கிரணாதிகை யாடுகை	தீர்மானிக்கும் காரணிகள்
Decline	பரிணதிகை	தளர்வு
Deed of gift	வாடு உபத்தி	கொடையுறுதி
Deficiency of protein	பேரீன் டுனாவை	புரதக் குறைபாடு
Delta	வெட்டுவை	டெல்டா
Demise	கனாவை	இறப்பு
Demography	பன விவாக விதவை	குடிநிலைப்புள்ளியியல்
Depletion	வந்தவிறு	வறிதாதல்
Desiccated coconut	கனாது போடு	உலர்த்திய தேங்காய்
Different species of animals	யன்தல் வினேச	விலங்கினங்கள்
Distribution of temperature	டூனாவை விதாவை	வெப்பநிலைப் பரம்பல்
Domestic animals	வாணாடுகை யன்து	வீட்டு விலங்குகள்
Drag net	விடி டூடு	இழுவலை
Drought	ஒவெர்ய விவாகை	வறட்சி
Dry mixed ever green forests	விடூ விடு கெடுவிற வினாதை	வரண்ட கலப்பு என்றும் பசுமையான காடுகள்
Dual rule	டூரீன் பாலவை	இரட்டை ஆட்சி
Dugouts	வெட்டு	வள்ளம்
Economic development	கார்பிகை கெடுவிறவை	பொருளாதார அபிவிருத்தி
Economical use	கார்பிகைகெடுவிற பூயைபனாடு விறு	சிக்கனமாகப் பயன்படுத்தல்
Edible	விதாடு	உண்ணத்தக்க
Earth slip	வாடு யாடு	மண்சரிவு
Edit decree	கவிறாவை	நல்லாணை/ஆளுரை
Election	வாடுவிறவை, பன்து விடுவிறவை	தேர்தல்
Elements of climate	டேடுகவிறவை விறுவாடு	காலநிலை மூலத்துவங்கள்
Elevation	டூனாவாடு	ஏற்றம்
Elites	பூயுவிடு	உயர்ந்தோர்
Embracing of Catholicism	கனாடுகை டூனாடு விறுடு விறு	கத்தோலிக்கமதத்தை தழுவல்
Emigration	விடுவிறவை	குடியகல்வு
Employment	விடுவிறவை விடுவிறவை	தொழில்
Endemic plants	காவிறவை விறு	உட்பிரதேசத்துக்குரிய தாவரங்கள்
Endowment of positions and awards	வாடுவிறவை விறுவிறவை	பதவிகளையும் விருதுகளையும் வழங்கல்
Environmental pollution	பரிசுடர் டூனாவை	சூழல் மாசடைதல்
Equatorial regions	வாடுவாடுவிறவை பூடுடு	மத்தியகோட்டுப் பிரதேசங்கள்
Erosion	வாடுவிறவை	அரிப்பு
Escarpment	வாடுவிறவை	சரிவுப்பாறை
Established kingship	டூனாவை விறுவிறவை	தாபித்த கோண்மைகள்
Estate Superintendent	விடு கவிறாடு	தோட்ட அதிகாரி
Evaporation	வாடுவிறவை	ஆவியாதல்
Executive Council	விடுவிறவை விறுவிறவை	நிறைவேற்றுக் கழகம்
Executive President	விடுவிறவை பனாடுவிறவை	நிறைவேற்று சனாதிபதி
Exiled	விடுவிறவை விறுவிறவை	நாடுகடத்தப்பட்ட







Grievances	஁த ஁தவீடு	மனக்குறைகள்
Grinding machine	஁஁஁஁஁ ஁ததத	திரிக்கும் பொறி
Group of estates	வததத	தோட்டத் தொகுதிகள்
Guaranteed price	஁தததத தீடு	உத்தரவாத விலை
Guard stone	஁஁஁஁஁஁ ஁஁	மறிகல்
Handicrafts	஁தத தர்தததத	கைப்பணிகள்
Handing fishing	஁தததத தததத	கைத்தூண்டில் மூலம் மீன்பிடித்தல்
Handlooms textiles	஁த ஁ததத ஁஁஁஁஁	கைத்தறி ஆடைகள்
Harbor port	஁஁஁஁஁஁஁஁	துறைமுகம்
Harvesting	஁தததத தைல ஁ததத	அறுவடை செய்தல்
Hauling	஁஁ ஁஁஁	இழுத்தல்
Headland	஁஁஁	நீட்டுநிலம் முனை
Height/altitude	஁஁஁஁஁஁஁஁	உயரம்/ குத்துயரம்
Herd of cattle	஁஁஁஁஁ ஁஁஁஁	மந்தை
High plains	஁஁ ஁ததத	உயர்ச் சமவெளிகள்
Higher ordination ceremony	஁஁஁஁஁஁ ஁஁஁஁	உயர் அபிஷேக உற்சவம்
Hill country dry zone	஁஁஁஁ ஁஁஁ ஁஁஁஁	மலைநாட்டு ஈர வலயம்
Hill country wet zone	஁஁஁஁ தை஁ ஁஁஁஁	மலைநாட்டு வரண்ட வலயம்
Home garden	஁஁஁஁	வீட்டுத் தோட்டம்
Human labor	தீத ஁஁஁	மனித உழைப்பு
Humanitarian	ததத தததத	மனிதாபிமான
Humidity	஁஁஁஁	ஈரப்பதன்
Hybrid	஁஁஁஁	கலப்புப்பிறப்பு
Hydro electric power	஁஁ ஁஁஁ ஁஁஁	நீர்மின் வலு
Illicit felling of trees	஁தத஁஁஁஁ ஁த ஁஁஁	மரங்களைக் கள்ளமாக வெட்டல்
Immigration	஁தததத	குடிவரவு
Implements	தைதத	கருவிகள்
Incentives	஁஁ ஁ததத	஁஁஁஁஁஁஁஁
Indebtedness	஁த஁஁ ததத	கடன்பட்ட நிலைமை
Indo Sri Lanka maritime boundary	஁த஁ ஁஁ ஁஁஁஁ ஁஁஁	இந்திய இலங்கை கடலோர எல்லை
Industrial estate	஁஁஁஁ ததத஁஁	கைத்தொழில் பேட்டை
Industrial products	஁஁஁஁ ததத஁஁	கைத்தொழில் உற்பத்திகள்
Industrialization	஁஁஁஁ தததத	கைத்தொழில்மயமாக்கல்
Inedible	஁஁஁஁	உண்ணத்தகாத
Infertile	தத஁஁	செழிப்பற்ற
Insect menace	஁஁஁ ஁஁஁஁	பூச்சித் தொல்லை
Insulation	஁஁஁ தததத	வெய்யிற்காய்வு
Instant tea	஁஁஁஁ தை	உடன் தேயிலை
Inter cropping	஁஁஁஁ தை஁ வதத	இடைப்பயிர்செய்கை
Intermediate ever green forest	஁஁஁஁஁ ஁஁஁஁஁ வததததத	என்றும் பசுமையான காடு
Investment promotion zone	஁தததத ததததத ஁஁஁஁	முதலீட்டு மேம்பாட்டு வலயம்
Iron	஁஁஁ / ஁஁஁	இரும்புத்தாது
Isotherm	஁஁஁஁஁ ஁஁஁஁	சமவெப்புளி
Jakottu kroal	஁஁ ஁஁஁஁	ஜா அடைப்பு
Judicial Service Commission	஁஁஁஁஁ ஁஁஁ ஁஁஁஁஁ ஁஁஁	நீதிச் சேவை ஆணைக்குழு
Judicature Act	஁஁஁஁஁ ஁஁஁஁஁ ததத	நீதிக்கள அதிகாரச்சட்டம்



Kandyan Convention  
Kaolin  
Labour  
Lamp posts  
Land fragmentation  
Land mass  
Land slips / Land slides  
Lapse rate  
Large scale industry  
Latex  
Latitudinal location  
Lawful rulers  
Life expectancy  
Lightning  
Lime stone  
Literary revival  
Livestock Development Board

Living resource  
Loamy soil  
Local Government institution  
Location of industries

Log craft  
Low country dry zone  
Low country wet zone  
Low pressure center  
Loyalty  
Maize  
Management of forest resources  
Mangroves  
Margo' sa  
Marketing management  
Marsh/swamp  
Medium and small scale Industry

Mental satisfaction  
Mental stress  
Methods of tapping rubber  
Military skills  
Metal minerals  
Mid year estimate  
Migrant birds

Milk Products  
Milling  
Mineral sand  
Minimization of costs

උඩරට ගිවිසුම  
කොලොයිත්, ටිනන් මැටි  
ලාභය  
චිද්‍රලි පහන් කණු  
ඉඩම් කැඩලි කිරීම  
තු ස්කන්ධය  
නාය යාම  
පහත ශීඝ්‍රතාව  
මහ පරිමාණ කර්මාන්තය  
රබර් කිරි  
අක්ෂාංශගත පිහිටීම  
නිත්‍යානුකූල පාලකයෝ  
ආයු අපේක්ෂාව  
චිද්‍රලි කෙටීම  
හුණු ලේ  
ශාස්ත්‍රීය නවෝදය  
පශු සම්පත් සංවර්ධන මණ්ඩලය

සජීවී සම්පත  
ලොම් පස  
පළාත් පාලන ආයතනය  
කර්මාන්ත ස්ථානයන් වීම

තෙල්පම  
පහත රට වලදී කලාපය  
පහත රට තේන් කලාපය  
අඩු පීඩන කේන්ද්‍රය  
පක්ෂපාතිත්වය  
බඩ ඉරිතු  
වන සම්පත් කළමනාකරණය  
කඩොලාන  
කොහොඹ  
අලෙවි කළමනාකරණය  
වතුර  
මධ්‍යම හා කුඩා පරිමාණ කර්මාන්ත

මානසික තෘප්තිය  
මානසික ආතතිය  
රබර් කිරි කැපුම් ක්‍රම  
රණ ඉරිත්වය  
ලෝහ බහිෂ්  
මධ්‍ය වර්ෂික ඇස්තමේන්තුව  
සංචාරක කුරුල්ලෝ /  
සංක්‍රමණික කුරුල්ලෝ  
කිරි නිෂ්පාදිත  
කෙටීම  
බහිෂ් වැලි  
පිරිවැය අවම කිරීම

කණ්ඩුச் சமவாயம்  
වෙண்களி கயோலின்  
உழைப்பு  
மின்கம்பங்கள்  
காணித் துண்டாக்கம்  
நிலத் திணிவு  
மண்சரிவுகள்  
நழுவு வீதம்  
பாரிய கைத்தொழில்கள்  
இறப்பரப்பால்  
அகலக்கோட்டமைவு  
சட்டரீதியான ஆட்சியாளர்கள்  
ஆயுள் எதிர்வு  
மின்னல்  
சுண்ணாம்புக்கல்  
இலக்கிய மறுமலர்ச்சி  
பண்ணைவிலங்கு அபிவிருத்திச் சபை  
உயிர் வளம்  
நன்மண்  
உள்ளூராட்சி நிறுவனம்  
கைத்தொழில்களைத் தானப்படுத்தல்  
தெப்பம்  
தாழ்நாட்டு வரண்ட வலயம்  
தாழ்நாட்டு ஈர வலயம்  
தாழ் அழுக்க மையம்  
பற்றுநிதி  
சோளம்  
காட்டு வள முகாமைத்துவம்  
கண்டல்கள்  
வேம்பு  
சந்தைப்படுத்தல் முகாமைத்துவம்  
சேறு

நடுத்தர சிறிய  
அளவிலான கைத்தொழில்கள்  
மனத்திருப்தி  
உளத்தகைப்பு  
இறப்பரப் பால் வெட்டும் முறைகள்  
போர்த்திறன்கள்  
உலோகக் கனிப்பொருள்கள்  
நடு ஆண்டு மதிப்பீடு

குடிபெயரும் பறவைகள்  
பாற்பொருள்கள்  
குற்றதல்  
கனிப்பொருள் மணல்  
கிரயத்தை இழிவளவாக்கல்



Mining	பனல் கிணியல்	சுரங்கமறுத்தல்
Minor export crops	சூழ் அபகரிக்கக்கூடியவை	சிறு ஏற்றுமதிப் பயிர்கள்
Mixed cropping	தேயிலை	கலப்புப் பயிர்ச்செய்கை
Model and research farm	நாட்டியல் அல்லது ஆய்வுக்கான மாதிரி	மாதிரி ஆராய்ச்சிப் பண்ணை
Modern Methods	நவீன முறை	நவீன முறைகள்
Modern techniques	நவீன முறைகள்	நவீன தொழினுட்பங்கள்
Moisture	நீர்நிலை	நீர்நிலை
Monad rocks	நீர்நிலை	நீர்நிலை
Moss	நீர்நிலை	நீர்நிலை
Mountain barriers	நீர்நிலை	நீர்நிலை
Mountain forest	நீர்நிலை	நீர்நிலை
Multi national companies	நீர்நிலை	நீர்நிலை
Multi purpose development project	நீர்நிலை	நீர்நிலை
Mustard	நீர்நிலை	நீர்நிலை
National park	நீர்நிலை	நீர்நிலை
Natives	நீர்நிலை	நீர்நிலை
Natural beauty	நீர்நிலை	நீர்நிலை
Natural disaster	நீர்நிலை	நீர்நிலை
Natural growth rate	நீர்நிலை	நீர்நிலை
Natural increase	நீர்நிலை	நீர்நிலை
Net migration	நீர்நிலை	நீர்நிலை
Non – living resources	நீர்நிலை	நீர்நிலை
Nuclear explosion	நீர்நிலை	நீர்நிலை
Nuclear radiation	நீர்நிலை	நீர்நிலை
Non – metal minerals	நீர்நிலை	நீர்நிலை
Nutmeg	நீர்நிலை	நீர்நிலை
Nutrition a cereals	நீர்நிலை	நீர்நிலை
Observation	நீர்நிலை	நீர்நிலை
Ocean currents	நீர்நிலை	நீர்நிலை
Oceanic zone	நீர்நிலை	நீர்நிலை
Official	நீர்நிலை	நீர்நிலை
Open air laboratory	நீர்நிலை	நீர்நிலை
Organic fertilizer	நீர்நிலை	நீர்நிலை
Ornamental goods	நீர்நிலை	நீர்நிலை
Oyster shell	நீர்நிலை	நீர்நிலை
Oyster sauce	நீர்நிலை	நீர்நிலை
Packing	நீர்நிலை	நீர்நிலை
Paradise	நீர்நிலை	நீர்நிலை
Parallel ridges	நீர்நிலை	நீர்நிலை
Parliament complex	நீர்நிலை	நீர்நிலை
Pasteurized	நீர்நிலை	நீர்நிலை
Patanas	நீர்நிலை	நீர்நிலை
Peaceful	நீர்நிலை	நீர்நிலை
Pearl reef	நீர்நிலை	நீர்நிலை
Peat	நீர்நிலை	நீர்நிலை
Pepper	நீர்நிலை	நீர்நிலை
Per capita income	நீர்நிலை	நீர்நிலை



Period of anarchy	அராபிக் காலம்	ஆட்சியறவுக் காலம்
Permanent non-living resources	நிறை அபிவி ஸ்திபந்	நிரந்தர உயிரற்ற வளங்கள்
Pest control	பட்டெய்டி மெட்டெய்டி	பீடைக் கட்டுப்பாடு
Petroleum refinery	பெட்ரோலியம் ரிபைரிங்	பெற்றோலியத் தூய்மி
Photosynthesis	புளா ஸிண்டேஸைஸ்	ஒளித்தொகுப்பு
Pig farming	பார்ன் பைகி கிரிங்	பன்றி வேளாண்மை
Pillow-lace making	பிரெஷ் லைன்	வலைப் பின்னல்
Pilot scheme	பிரைமரி ஸ்கீம்	முன்னோடித் திட்டம்
Plain	பளையன்	சமவெளி
Plankton	புளாங்க்டன்	பிளாந்தன்
Plantation economy	பிளாண்டேஷன்	தோட்டப் பொருளாதாரம்
Planting shady trees	பிளாண்டிங் ஷேட்டிரீஸ்	நிழல் தரும் மரங்களை நடுதல்
Pneumatophores	புனாமாடோர்ஸ்	சுவாச வேர்கள்
Polar regions	புலர் ரிஜன்	துருவப் பிரதேசம்
Polluted matter	புலூட்டெட் மட்டர்	விடயத்தைகெடச் செய்தல்
Poonac	பூனாக்	புண்ணாக்கு
Poultry farming	பவுல்ட்ரி ஫ார்மிங்	ஆகாரத்திற்காக செய்யும்
Poverty	பூவர்த்தி	விவசாயம்/கால்நடை வளர்ப்பு
Preliminary research	பிரிமரி ரிசர்ச்	வறுமை
Preparing ridges and grains	பிரிமரி ரிசர்ச்	முதல்நிலை ஆய்வுகள்
Pressure	பிரிமரி ரிசர்ச்	விவசாயத்திற்கு முன்னர்
Processing industry	பிரிமரி ரிசர்ச்	நுண்மணல் கொண்டு
Projected figures	பிரிமரி ரிசர்ச்	உருவாக்கும் மேடு/பள்ளம்
Promotion	பிரிமரி ரிசர்ச்	அழுக்கம்
Proportional representation	பிரிமரி ரிசர்ச்	பதப்படுத்தல் கைத்தொழில்
Prop roots	பிரிமரி ரிசர்ச்	முன் எறிந்த தரவுகள் மேம்பாடு
Protestantism	பிரிமரி ரிசர்ச்	பதவிபுயர்வு
Provincial Councils	பிரிமரி ரிசர்ச்	விகிதாசார பிரதிநிதித்துவம்
Pruning	பிரிமரி ரிசர்ச்	தாங்குவேர்கள்
Public Service Commission	பிரிமரி ரிசர்ச்	புரட்டஸ்தாந்து சமயம்
Pulp	பிரிமரி ரிசர்ச்	(பாண்டவரின் ஆதிகத்திலிருந்து
Pulses	பிரிமரி ரிசர்ச்	விடுபட்ட கிறிஸ்தவ இனம்)
Puppet (vassal)	பிரிமரி ரிசர்ச்	மாகாண சபைகள்
Quality of life	பிரிமரி ரிசர்ச்	கத்தரித்தல்
Quelling of rebellions	பிரிமரி ரிசர்ச்	பொது சேவை ஆணைக்குழு
Quick returns	பிரிமரி ரிசர்ச்	சதை
Radial drainage pattern (drainage)	பிரிமரி ரிசர்ச்	தானிய வகைகள்
Ramparts	பிரிமரி ரிசர்ச்	பொம்பலாட்டம்
Ratio of dependants	பிரிமரி ரிசர்ச்	வாழ்க்கைத்தரம்
Raw materials	பிரிமரி ரிசர்ச்	கலகத்தை நசுக்குதல்
Rays	பிரிமரி ரிசர்ச்	உடனடிப் பலாபலன்கள்
	பிரிமரி ரிசர்ச்	ஆரை வடிகால் அமைப்பு
	பிரிமரி ரிசர்ச்	கோட்டை மதில்
	பிரிமரி ரிசர்ச்	தங்கியிருப்பவர்களின் விகிதாசாரம்
	பிரிமரி ரிசர்ச்	மூலப்பொருட்கள்
	பிரிமரி ரிசர்ச்	சுதிரிகள்



Readymade garments  
 Reef  
 Referendum  
 Reform of the system of  
 government  
 Regional development  
 Regional representation  
 Relative location  
 Religious revival  
 Renewability  
 Renewable  
 Reptiles  
 Research center  
 Reservoir  
 Resin  
 Restoration  
 Rib  
 Ridges  
 River mouth  
 Rocks  
 Roman Dutch law  
 Rotten fish  
 Sailing boat (yacht)  
 Salinity  
 Salt pan  
 Sanctuary  
 Sand  
 Sand stone  
 Satellite  
 Scales  
 Sea breeze  
 Sea farers  
 Sea fishery  
 Sea leach  
 Sea level  
 Sea water (salt water)  
 Seasonal winds  
 Security  
 Sedimentation  
 Sediments  
 Sieve net  
 Self discipline  
 Self employment  
 Self – sufficient  
 Shale  
 Sheaf of paddy  
 Shipping route  
 Short sighted policy

திசு கூடூ  
 பரய  
 சனமத விவரணை  
 ஈாஷ்டிஹுத ப்ரதிக்ஷகர்ணை  
 ப்ராஜேயே ஸ்ஹர்ஷணை  
 ப்ரஹ் லட திஸேபணை  
 ஸாபேகத பிதிபே  
 ஈாமதீத ப்ரவோயி  
 ப்ரதி சணை  
 ஸவத ஓபடூபே ஸகியப ஈயி  
 ட்ரஹே  
 பர்ஸேஷண மிஷசேபணை  
 ப்ரஹ்  
 டூபேப  
 ப்ரதிக்ஷகர்ணை  
 பிப ஸார்பி  
 ஸெரூபி  
 ஸ்ஹேரீ  
 ஸாஸா  
 ரோம லண்டேயி திபி  
 ரகத் லு ஸாப  
 ரூபத் ஸ்ரூபி  
 லெஸாஸி  
 லேலா  
 ஈயஸஸூயி  
 லாபி  
 லாபி லே  
 லிந்திஸி  
 ஸோரஸோ  
 லிஹு ஸூப  
 லிஹு ஸாஸாஸர்ஸே  
 ஸர்ஸே ஸிபர் ஸ்ரூபணை  
 லிஹு ஸூப  
 லிஹு ஸிபி  
 ஸர்ஸே  
 ஸாஸூயி ஸூப  
 ஸ்ரஹ்ஸித ஸாபி, ஸ்ரஹ்ஸிதஸி  
 ஈபிஸாடணை  
 ரோஸ்தி  
 ஸா ஈப  
 ஸ்விஸ் ஸிஸாஸா  
 ஸ்விஸ் ஸூபிஸி  
 ஸ்விஸ்ஸோஸித  
 ஸ்லி  
 ஸோஸி பிபி  
 ஸிபி ஸர்ஸா  
 ஈபர் ட்ரூபி ப்ரதிபணை

தைத்த ஆடைகள்  
 பாறை  
 அபிப்பிராய வாக்கெடுப்பு  
 அரசியல் அமைப்பு சீர்திருத்தங்கள்  
 பிரதேச அபிவிருத்தி  
 பிரதேச பிரதிநிதித்துவம்  
 ஒப்பீட்டு அமைவு  
 சமய மறுமலர்ச்சி  
 புதுப்பிக்கும் தகவு  
 புதுப்பித்தல்  
 நகருயிர்கள்  
 ஆய்வு நிலையம்  
 நீர்த்தேக்கம்  
 சூங்கிலியம்  
 சீர்திருத்தம்  
 முதுகெலும்பு  
 வரம்பு  
 கழிமுகம்  
 பாறைகள்  
 உரோம ஒல்லாந்துச் சட்டம்  
 அழுகிய மீன் / பழுதடைந்த மீன்  
 பாய்மரக்கப்பல்  
 உவர்த்தன்மை  
 உப்பளம்  
 புகலிடம் / சரணாலயம்  
 மணல்  
 மணல் கட்டி / மணற்கல்  
 செய்மதி உபகோள்  
 செதில்கள்  
 கடற்காற்று  
 கடற்பயணிகள்  
 கடல் நீர் மீன்பிடித்தொழில்  
 கடலட்டை  
 கடல்மட்டம்  
 கடல் நீர் / உவர் நீர்  
 பருவக்கால காற்று  
 பாதுகாப்பு  
 வண்டல் படிவு  
 அடையல்  
 பெருவலை  
 சுய ஒழுக்கம்  
 சுயதொழில்  
 தன்னிறைவு  
 மக்கற்பாறை  
 அறுவடைக் கட்டு  
 கப்பல் மார்க்கம்  
 எதிர்கால நலனை கவனிக்காத  
 கொள்கை / குறுநோக்க கொள்கை



Silica sand	கிடுகா வாடு	சிலிக்கா மணல்
Smoked rubber	ஓடு வறு ரப்பர்	புகையூட்டிய ரப்பர்
Social insurance policy	சமூக காப்பீடு ப்ரதிகரிசு	சமூக காப்புறுதிக் கொள்கை
Soil erosion	பாடி மூடிசை	மண்ணரிப்பு
Sorghum	ஒடித் ஒரிடி	சோளம்
Sovereign state	சீலாசீன ராசு	சுதந்திர அரசு
Specific location	திரசேனல் பிடுபிடு	பிரத்தியேகமான இடம்/குறித்த அமையம்
Spices	கூடி மடி	வாசனைத் திரவியங்கள்
Spoiling of Vijayabahu	பிசயாபாஹு காலேடி	விஜயபாகுவின் கொள்ளை
Springs	சுஞ்சு	ஊற்றுக்கள்
Standard of Products	சித்பாதினலே ப்ரதிகரிசு	உற்பத்தித் தரம்
Staple food	ப்ரதான ஈதாரடி	பிரதான உணவு
State Council	ராசு மன்ருஷா சபா	அரசாங்க சபை
State intervention	ராசே மடிதனமன்	அரசு தலையீடு
Steep slope	ஓடி வலு	செங்குத்தான சாய்வு
Sterilized milk	கல்கிர	கிருமியழிக்கப்பட்ட பால்
Stick trapping	கரன் கலிடு	கரப்பு மூலம் மீன் பிடித்தல்
Stilt fishing	பிபிலே சிடு மடித் காலேடி	கூரிய ஆயுதங்களால் குத்தி மீன்பிடித்தல்
Storm	கூஷாபிடு	புயல் காற்று
Struggle for independence	சிடுதல் சுரலடி	சுதந்திர போராட்டம்
Subjugation	சுபின்கர் வலிடு	கைப்பற்றுதல்
Subsidiary crops	சுபிரேடி ஈதார லேடி	உப உணவுப் பயிர்கள்
Subsistence agriculture	சுபுதி காலிகரமடி	வாழ்வாதார விவசாயம்
Subsistence level	சுபுதி மபிடு	வாழ்வு மட்டம்
Substitute	ஈாடிசை	பிரதிமீடு
Succession to the throne	சிஸாசனாரகி / ராசுஹுபாசரிசு	வெற்றிகரமானது
Supreme Court	சூதீயாசினகரலா	மேல் நீதிமன்றம்
Supreme law	சுதந்திர திரிசு	மீயுயர்ந்த சட்டம்
Survey	சுதீசலாசை	கணிப்பீடு
Sustainable population	சுதீச வலி பத சலிவல	தங்கி இருக்கும் மக்கள்
Synthetic rubber	காலேடி ரப்பர்	செயற்கையான ரப்பர்
Tapping	கிர கலிடு	பால் வெட்டுதல்
Tender tea leaves	தன் ஓடி	தேயிலைத் தளிர்கள் / கொழுந்து
Terrace	தலே மபி	புற்றரை
Territorial economic zone	தனசை ஈர்பிசை கலாசை	பிரதேச பொருளாதார வலயம்
Thorn and shrub	கலி சடிரு, சலிடு ஓடி கலா	முட்பற்றைகளுள்ள புதர்கள்
Threshing	காலேடி மலிடு	சூடு மிதித்தல்
Thunder shower	சுதலு வலிசை	இடி மின்னலோடு கூடிய மழை
Thundering	சுதலு வலிடு	இடி முழங்கும் சத்தம்
Tourist industry	சலாரக கரலாசை	சுற்றுலா கைத்தொழில்
Tourist	சலாரகலா	உல்லாசப் பயணி
Trade center	லேலேடி மடிசலிசை	உத்தியோகப் பகுதி
Trade monopoly	லேலேடி சீகாசினாரகி	வர்த்தக ஏகவுரிமை
Traditional method	சாலேடிசை கலா	பாரம்பரிய முறை
Traditional rules	பிராசை சிதிபிடு	பாரம்பரிய சட்டம்
Transitional zone	கூஷாசை கலாசை	பாரம்பரிய வலயம்



Transpiration  
Trap fishing  
Traveller  
Treatise of law  
Trend  
Tribute  
Triple net  
Tropical wet forest

Turmeric (saffron)  
Tunneling  
Underground water level  
Under growth  
Undulating land  
Inedible  
Uniform  
Universal franchise / suffrage  
Unlimited utilization  
Unofficial  
Unrefined  
Usurping  
Valley  
Values  
Veneration  
Virgin forest  
Vices  
Vocational training  
War strategy  
Waste matter  
Water excess  
Water scarcity  
Weather  
Weather forecasting  
Weeding  
Welfare services  
Wind direction  
Wind speed  
Work supervisor  
World's End

ஈரவீர்ப்பு  
தொண்டில் மூலம் மீன்பிடித்தல்  
நாடோடி  
சட்டக் கோவை  
போக்கு/செல்நெறி  
கப்பம்  
மூடப்பட்ட வலை  
அயன மண்டல ஈர வலயகக்  
காடுகள்

மஞ்சல்  
குகைப்பாதை  
நிலக்கீழ் நீர் மட்டம்  
கீழ் வளரி  
தொடர் அலை நிலம்  
சீருடை  
சர்வசன வாக்குரிமை  
எல்லையற்ற நுகர்வு  
உத்தியோக பற்றற்ற  
சுத்திகரிக்கப்படாத  
அரசைக் கைப்பற்றுதல்  
பள்ளத்தாக்கு  
விழுமியங்கள்  
வணங்குதல்  
இயற்கை காடுகள்  
களங்கம்  
தொழில் பயிற்சி  
போர்த்தந்திரம்  
கழிவுப்பொருட்கள்  
மேலதிக நீர்  
நீர் பற்றாக்குறை  
வானிலை  
வானிலை முன்னறிவிப்பு  
களை நீக்குதல்  
நலன்புரி சேவைகள்  
காற்றுவீசும் திசை  
காற்றின் வேகம்  
வேலை மேற்பார்வையாளர்  
உலக முடிவு

ஈரவீர்ப்பு  
தொண்டில் மூலம் மீன்பிடித்தல்  
நாடோடி  
சட்டக் கோவை  
போக்கு/செல்நெறி  
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அயன மண்டல ஈர வலயகக்  
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கீழ் வளரி  
தொடர் அலை நிலம்  
சீருடை  
சர்வசன வாக்குரிமை  
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களங்கம்  
தொழில் பயிற்சி  
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கழிவுப்பொருட்கள்  
மேலதிக நீர்  
நீர் பற்றாக்குறை  
வானிலை  
வானிலை முன்னறிவிப்பு  
களை நீக்குதல்  
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வேலை மேற்பார்வையாளர்  
உலக முடிவு



















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