

1

The Planet Earth We Live

The Earth in which we live can be considered as a marvelous creation of nature. According to the available information, the Earth is the only planet that consists of air and water with a congenial environment for living beings.

The Earth revolves round the Sun while spinning around its own axis. The Earth's movement around its own axis is called rotation and the journey around the Sun is called revolution. The Earth takes 24 hours or one day to rotate around its own axis and 365 days or one year to revolve around the Sun.

The main objective of this chapter is to study about the Earth related to information about continents, oceans, longitudes, latitudes and the shape of the Earth.

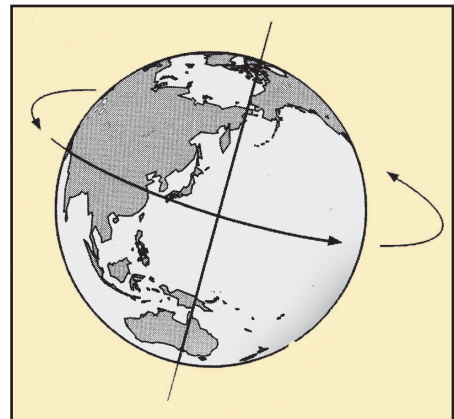


Fig. 1.1 - Rotation of the earth

The shape of the Earth

There were different ideas about the shape of the Earth in the past. At present, the Earth has definitely been identified as a spherical object. This is proved by observing the photographs taken from space. (Fi. 1.2)

Although the Earth is considered a spherical object, it is not a full sphere. The reasons are the flatness of the Earth in the Polar Regions and the

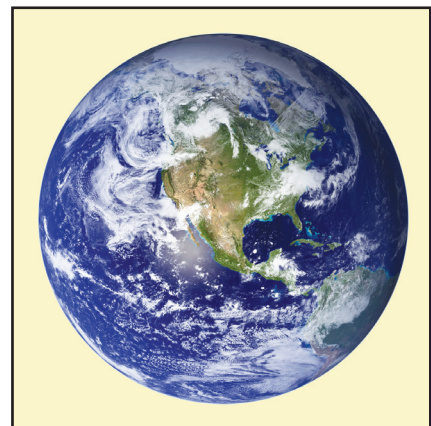


Fig.1.2 -A photograph taken from the space

largeness of the equatorial circumference than the polar circumference. (Fig. 1.3) However, the following data proves that it is only a minor difference.

Equatorial diameter	= 12757km
Polar diameter	= 12714 km
Equatorial circumference	= 40077km
Polar circumference	= 39943km

The surface area of the Earth is
510 million km².

Source - [http:// www.google.lk/2015/07/10](http://www.google.lk/2015/07/10)

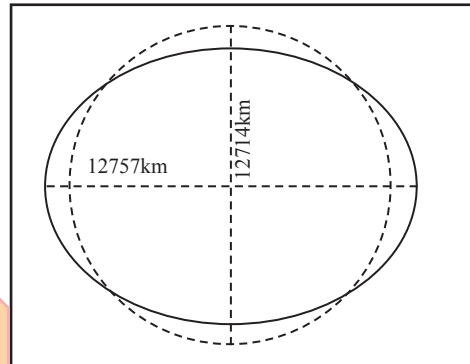


Fig. 1.3 - shape of the Earth

Activities

- i. Briefly explain what is meant by rotation and revolution.
ii. What is the time period taken for rotation and revolution of the Earth?
- What are the evidences which help to prove that the Earth is not a mathematical sphere?

Latitudes and Longitudes

When observing a geographical globe, you may see a set of lines drawn from North to South and West to East. Those lines are imaginary lines drawn by us and they are called as longitudes and latitudes.

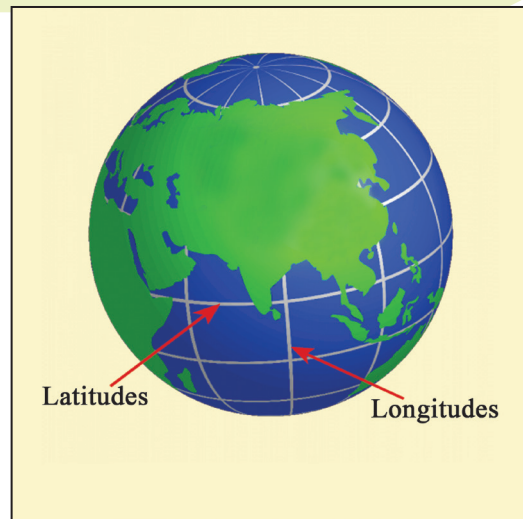


Fig. 1.4 – Latitudes and Longitudes

The lines drawn horizontally from the West to the East on the geographical globe are called latitudes and the lines drawn vertically from the North to the South are called longitudes. (Figure 1.4)

The line drawn horizontally on the middle of the globe is named 0° latitude or the equator.

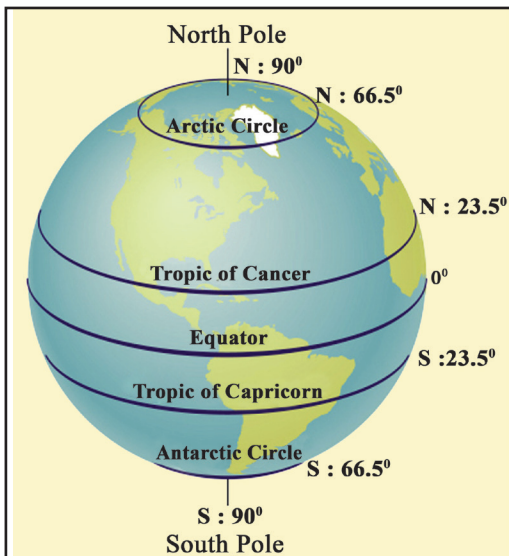


Fig. 1.5 – Latitudes

The northern part of the equator is called the Northern Hemisphere and the southern part is called the Southern Hemisphere. The lines to the North of the equator are termed North Latitudes and the lines to its South are termed South Latitudes.

There are some main latitudes among them. Observe figure 1.5 and identify them. Latitude 90° is indicated as a point. The North Latitude 90° is the North Pole and the South Latitude 90° is named the South Pole.

Activity

1. Observe figure 1.5 and identify the main latitudes and name them with their values.

The lines drawn on the globe connecting the North Pole and the South Pole are called longitudes.

The 0° longitude which is drawn across the Greenwich City in England is the Greenwich Prime Meridian

The lines drawn to its West are called the West Longitudes and the lines to the East of it are called the East Longitudes.

From the prime meridian 360° longitudes are distributed and 180° run towards Eastwards and 180° run towards Westwards. Therefore, longitude 180° is common to both the East and West. The International Date Line follows this line. Sometimes, the International Date Line is not marked as a straight line to prevent the division of a country. Observe map 1.1 and identify how latitudes and longitudes you have studied are distributed in a world map.

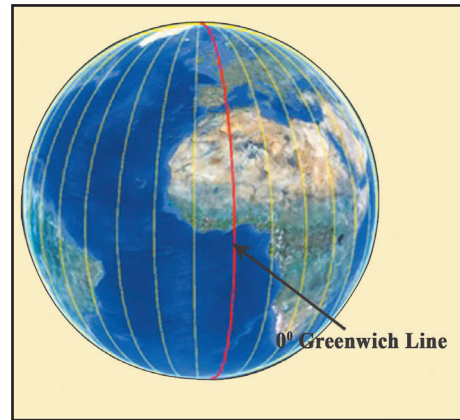
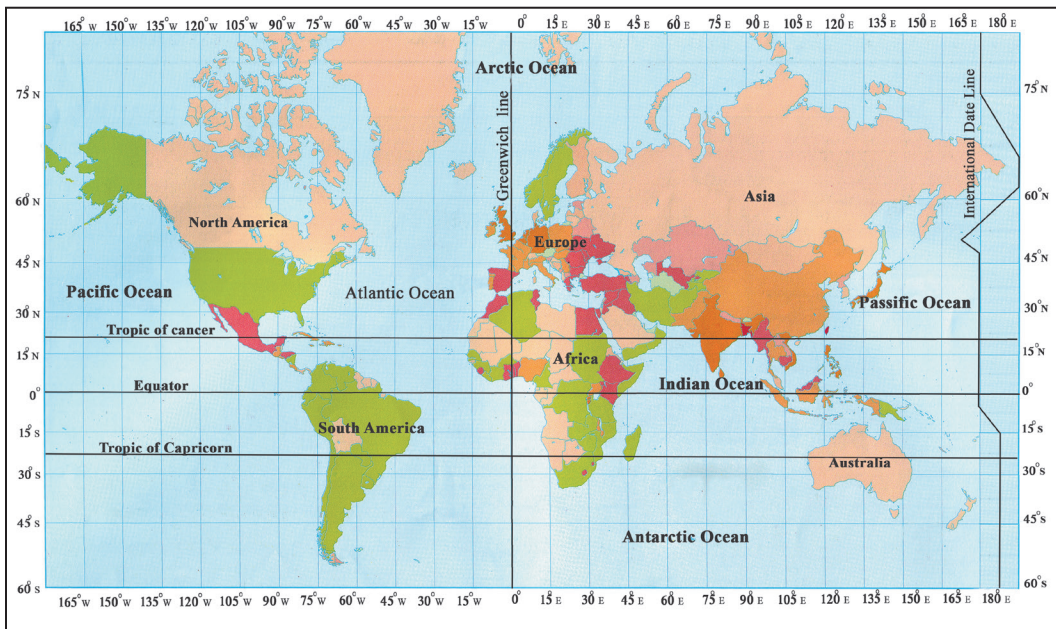


Fig. 1.4 – Longitudes



Map 1.1 - A world map indicating latitudes and longitudes

Latitudes and longitudes are used to indicate the location of any place on the Earth specifically and accurately.

Activities

1. Mark and name the following latitudes and longitudes in a blank map of the world.
 - Equator (0°)
 - Tropic of Cancer ($23\frac{1}{2}^{\circ}$ North latitude)
 - Tropic of Capricorn ($23\frac{1}{2}^{\circ}$ South latitude)
 - Greenwich line (0°)
 - Longitude 80° East
 - Arctic Circle ($66\frac{1}{2}^{\circ}$ North latitude)
 - Antarctic Circle ($66\frac{1}{2}^{\circ}$ South latitude)
2. With your teacher's instructions, mark the main latitudes on a medium size rigifoam ball.
3. Observe the model globe and state the location of the cities of Colombo, Tokyo, New York, London and Calcutta in relation to latitudes and longitudes.

Continents and Oceans

71% of the surface of the Earth is covered by water and 29% is covered by land. The areas covered by water consists of Oceans and Seas and the land area consists of continents and islands.

Continents

The Earth consists of seven continents.

Continent is a large land area surrounded by water.

Continents	Area million km ²
1. Continent of Asia	43.6
2. Continent of Africa	30.3
3. Continent of North America	25.3
4. Continent of South America	17.8
5. Continent of Antarctica	14.0
6. Continent of Europe	10.5
7. Continent of Australia	8.9

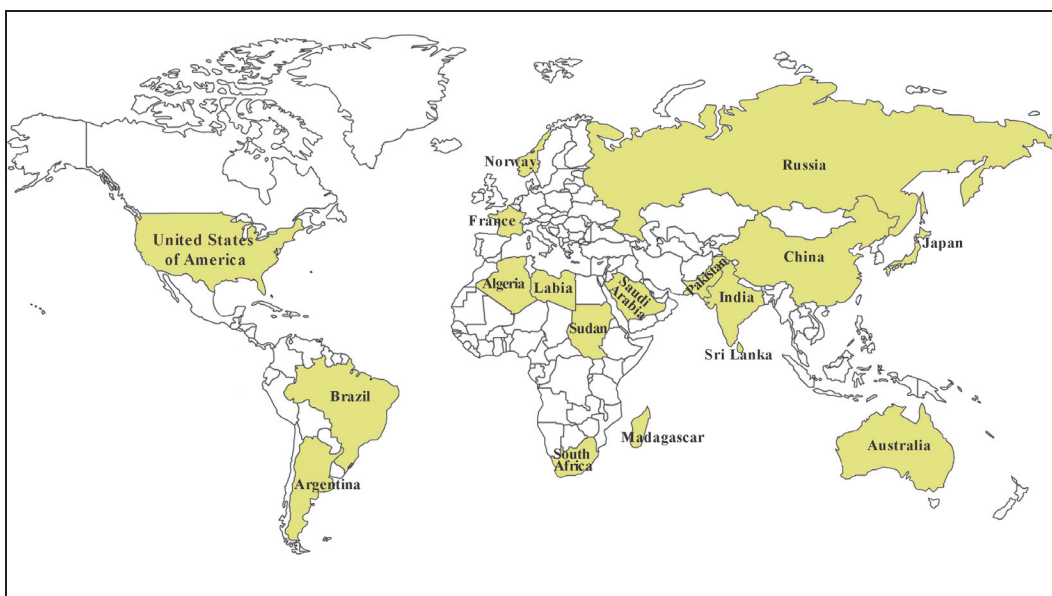
An island is a small land area surrounded by water.

Many islands are located around the lands in coastal areas.



Map1.2 - Continents and islands in the world

There are politically divided countries in each of the continents. However, the continent of Australia is a single country. Observe map 1.3 and identify several countries located in different continents.



Map 1.3 - Political divisions in the world

Oceans

The water masses located among continents are called oceans and the small water bodies located close to continents and inland areas are called seas.

There are five oceans in the world.

Ocean	Area million km²
1. Pacific ocean	156
2. Indian ocean	77
3. Atlantic ocean	69
4. Antarctic ocean (Southern)	20
5. Arctic ocean	14

Japanese Sea, China Sea, North Sea, Red Sea and Mediterranean Sea are several seas located close to lands and Caspian Sea and Aral Sea are located within the continent of Asia.

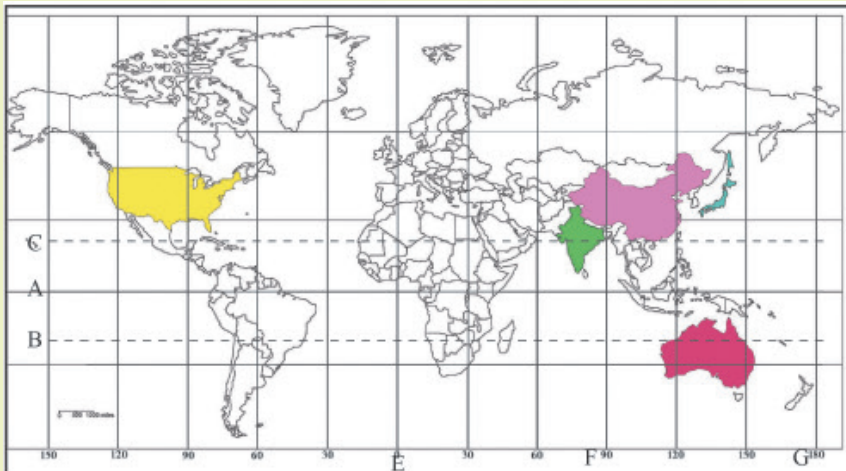


Map 1.4 - Oceans and Seas in the world

Activities

1. Shade the oceans in the world in blue.
2. Mark and name three seas connected to the oceans and three seas located inside countries.
3. With the help of an Atlas name three islands located in the Indian Ocean close to Sri Lanka.

4.



- i. Name the latitudes indicated by letters A, B, C in the above world map and write the value of them, and state the value of the longitudes indicated by letters E, F and G.
 - ii. Observe the map and name the latitudes located on either sides of Sri Lanka.
 - iii. Name the island located close to line F in the map.
 - iv. Name the five shaded countries in the map.
5. On a blank map of the world,
- i. Shade the seven continents in different colours and name them.
 - ii. Mark and name two countries from continents other than Australia and Antarctica.
 - iii. Mark and name the following cities.
San Francisco, Rio de Janeiro, Cairo, Dacca

Assignment

1. Refer to an atlas and select any five cities and mention the latitude or longitude close to them.
2. Name two countries which are located across the Tropic of Cancer, Tropic of Capricorn and the Equator.

References

- https://www.google.lk/?gws_rd=ssl#q=area+in+the+earth

Glossary

• Earth	- පෘථිවිය	- புவி
• Planet	- ග්‍රහලෝකය	- கோள்கள்
• Axis	- අක්ෂය	- அச்ச
• Rotation	- භ්‍රමණය	- சுழற்சி

• Revolution	- பரිஸுமணிய	- சுற்றுகை
• Latitudes	- அகிலாங்க	- அகலாங்கு
• Longitudes	- டேலாங்க	- நெட்டாங்கு
• Space `	- அலாங்காங்க	- விண்ணவளி
• Observation	- நிரீக்ஷணிய	- அவதானிப்பு
• Equatorial circumference	- பமக பரிமிய	- மத்தியகோட்டு சுற்றளவு
• Polar circumference	- பூவ பரிமிய	- துருவ சுற்றளவு
• Diameter	- விஸ்கமிய	- விட்டம்
• Imaginary lines	- மன:கல்பித ரேலா	- கற்பனைக் கோடுகள்
• Northern hemisphere-	- ஁தூர் அர்டிஸேலிய	- வட அரைக்கோளம்
• Southern hemisphere-	- ஁தூதூ அர்டிஸேலிய	- தென் அரைக்கோளம்
• Equator	- பமகிய	- மத்திய கோடு
• Greenwich meridian	- ஁ரிஷி மலூ டேலாங்க	- கிறீன்விச் மத்திய நெட்டாங்கு
• International Date Line	- ஁லாநஸ்நர் ஁ன ரேலாவ	- சர்வதேச தேதிக்கோடு
• Tropic of Cancer	- கர்க்கவக நிவர்கனிய	- கடகக்கோடு
• Tropic of Capricorn	- மகர் நிவர்கனிய	- மகரக்கோடு
• East longitudes	- தூதேனதிர டேலாங்க	- கிழக்கு நெடுங்கோடு
• Arctic Circle	- அர்க்டிக் வானிய	- ஆக்டிக் வட்டம்
• Antarctic Circle	- அந்தர்டிக்டிக் வானிய	- அந்தாட்டிக் வட்டம்
• Continents	- மலாடீப	- கண்டங்கள்
• Oceans	- ஁லாநர்	- சமுத்திரங்கள்
• Seas	- மூலூ	- கடல்கள்
• Islands	- ஁லாந்	- தீவுகள்

2

Identity of Sri Lanka

Any individual in the society has his or her own identity based on the features of his or her body and character. Accordingly, an individual can be separated and identified within a group. Similarly a country too has a specific identity.

The main objective of this chapter is to study the geographical and social identity of Sri Lanka.

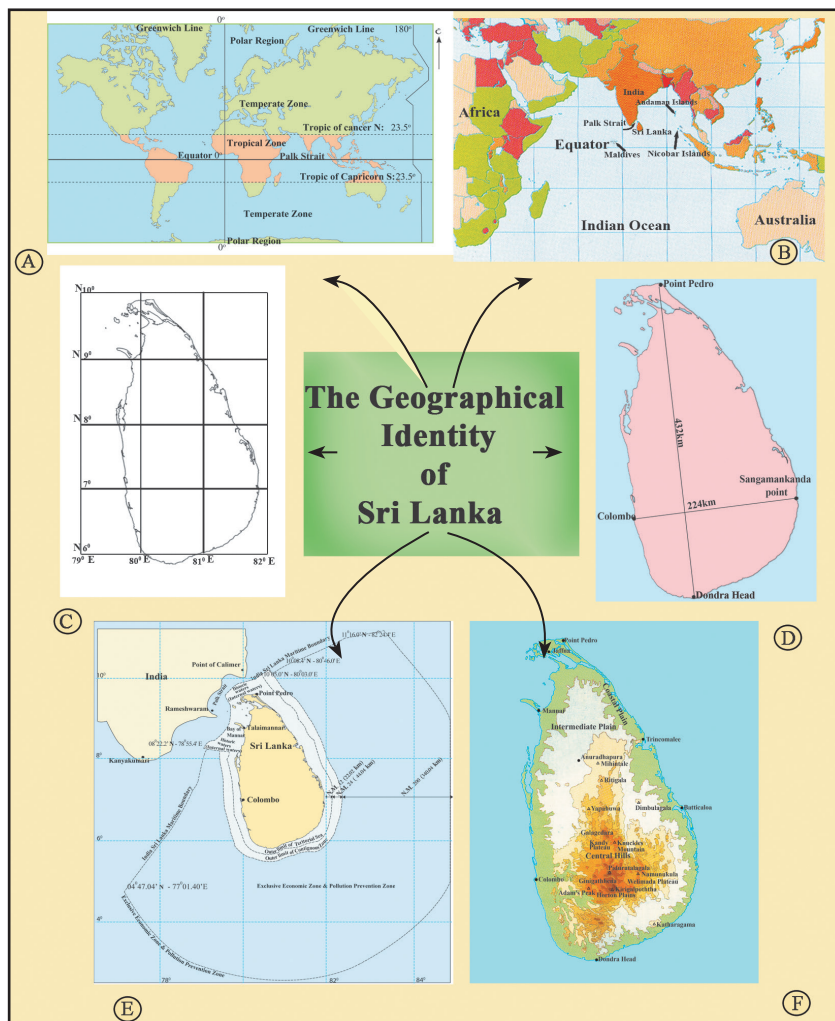
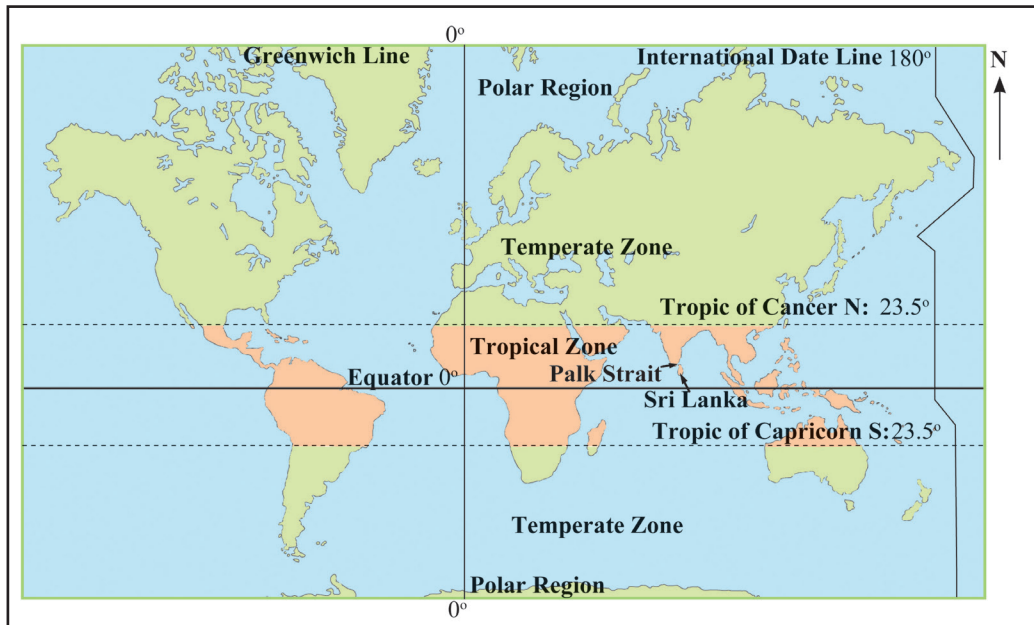


Fig. 2.1 - The Geographical identity of Sri Lanka

The Geographical Identity

We can clearly understand the geographical identity of Sri Lanka when studying figure 2.1. A. As shown in map 2.1 A, Sri Lanka is located near the equator in the tropical zone, between the Tropic of Cancer and the Tropic of Capricorn. Accordingly, Sri Lanka is located within the east longitudes in the Northern Hemisphere. Sri Lanka is separated from India by a narrow strip of sea known as the Palk Strait.



Map 2.1 A- The location of Sri Lanka

The island of Sri Lanka is located in the Indian Ocean closer to the Indian sub continent. Showing the location of a country based on lands and oceans in its immediate surroundings is called relative location.

Observe the map 2.1 B and



Map 2.1 B - Relative location of Sri Lanka

identify the relative location of Sri Lanka. The other islands located in the Indian Ocean other than Sri Lanka are Maldives, Andaman Islands, Nicobar Islands and Lakshadweep Islands.

Activity

Fill in the blanks

1. The location of the continent of..... is to the North of Sri Lanka, theocean is to the south ,the countries of.....to the east and the continent oflies to the west.
2. On a blank map of Sri Lanka, mark and name three islands located to the Northwestern part of Sri Lanka.
3. Write three benefits Sri Lanka gains due to its location in the Indian Ocean.

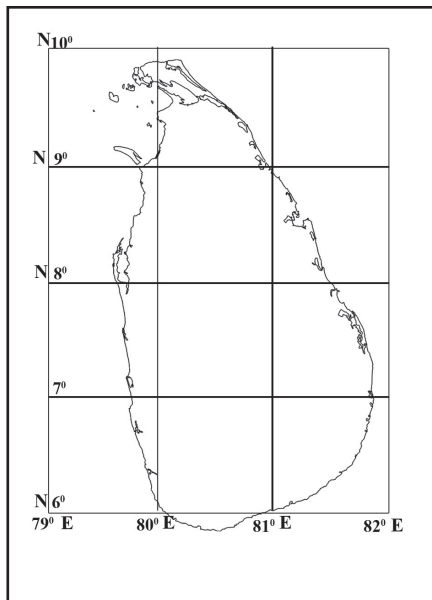
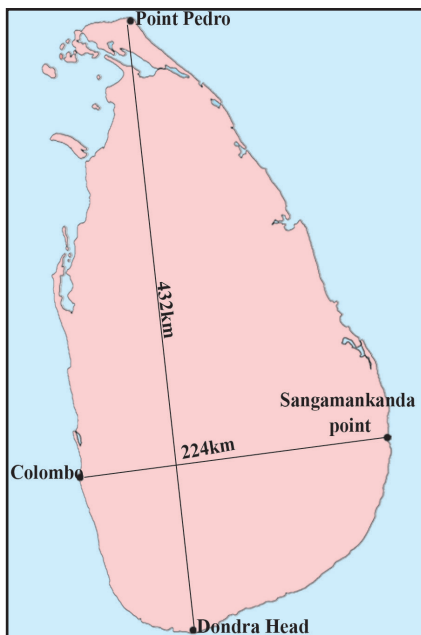


Fig. 2.1 C - Specific location of Sri Lanka

Source- *global.Britannica.com* 20015/03/13

Showing the location of a country with reference to longitudes and latitudes is called the specific location. Figure 2.1 C indicates the specific location of Sri Lanka. Accordingly, it is clear that Sri Lanka is located between 5°55'- 9°51' North Latitudes and 79°41'- 81°53' East Longitudes.



Map 2.1D - The area of Sri Lanka

Source global Britannica com2015/03/13

Activity

Observe the map 2.1 D indicating the area of Sri Lanka and fill in the blanks.

When considering the area of Sri Lanka, the length from Point Pedro to Dondra head is..... the width fromto Sagamankanda is

The total area of Sri Lanka is 65610km²



Map 2.1 E - Sea limit zones of Sri Lanka

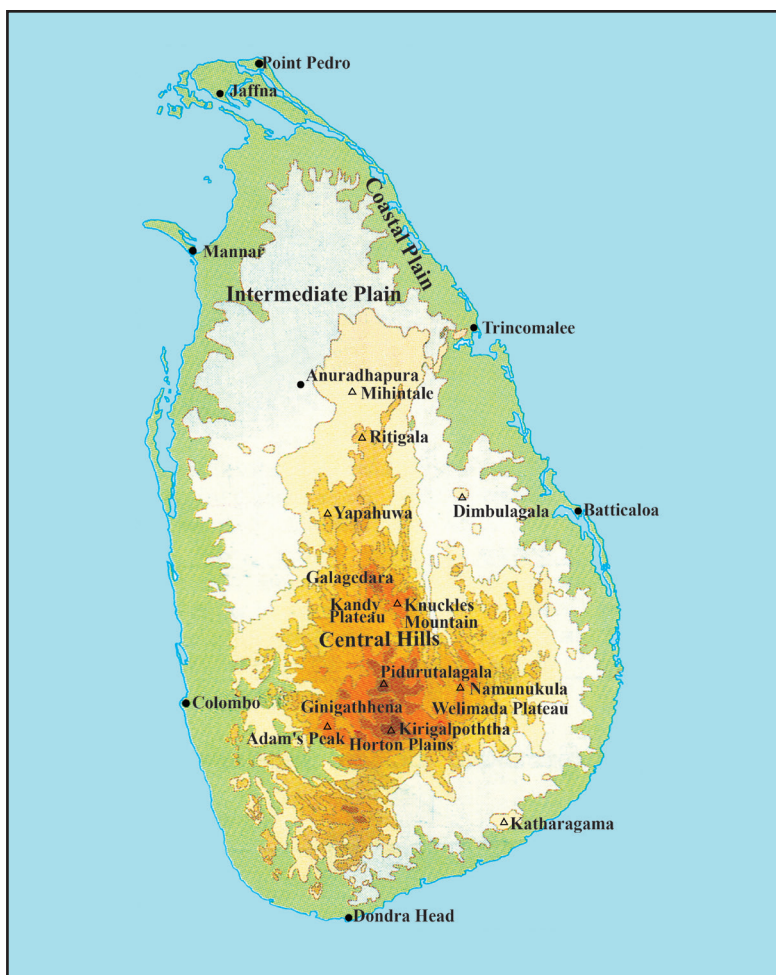
Sri Lanka has an identical boundary and a territorial sea limit. All the coastal states were granted the ownership of a limit of 12 nautical miles from the coast according to the International Convention of the Sea which came into effect from 16th November 1994. This is known as the territorial sea limit. The Exclusive Economic Zone and the adjoining sea area are located beyond the territorial sea limit. This is shown by the map 2.1 E.

Although Sri Lanka is a small island, it has distinct relief features. The three main relief zones in Sri Lanka are the mountainous area located in the centre of the country, the intermediate plains and the coastal plain. These relief zones consist of complex relief features which are different from each other.

Table 2.1 - Topographical Features

Central hills	Intermediate plain	Coastal plain
Mountain ranges	Plains	Broad plains
Plateaus	Ridges	Bays
Valleys	Residual hills	Lagoons
Waterfalls		Points
Gaps/passess		Islands

The geographical identity of Sri Lanka is further emphasized by the scenic beauty and the different relief systems as well as by the favourable climatic conditions. The relief and the diversity of climate attract tourists to this country. The map 2.1 F indicates the main relief zones of Sri Lanka.



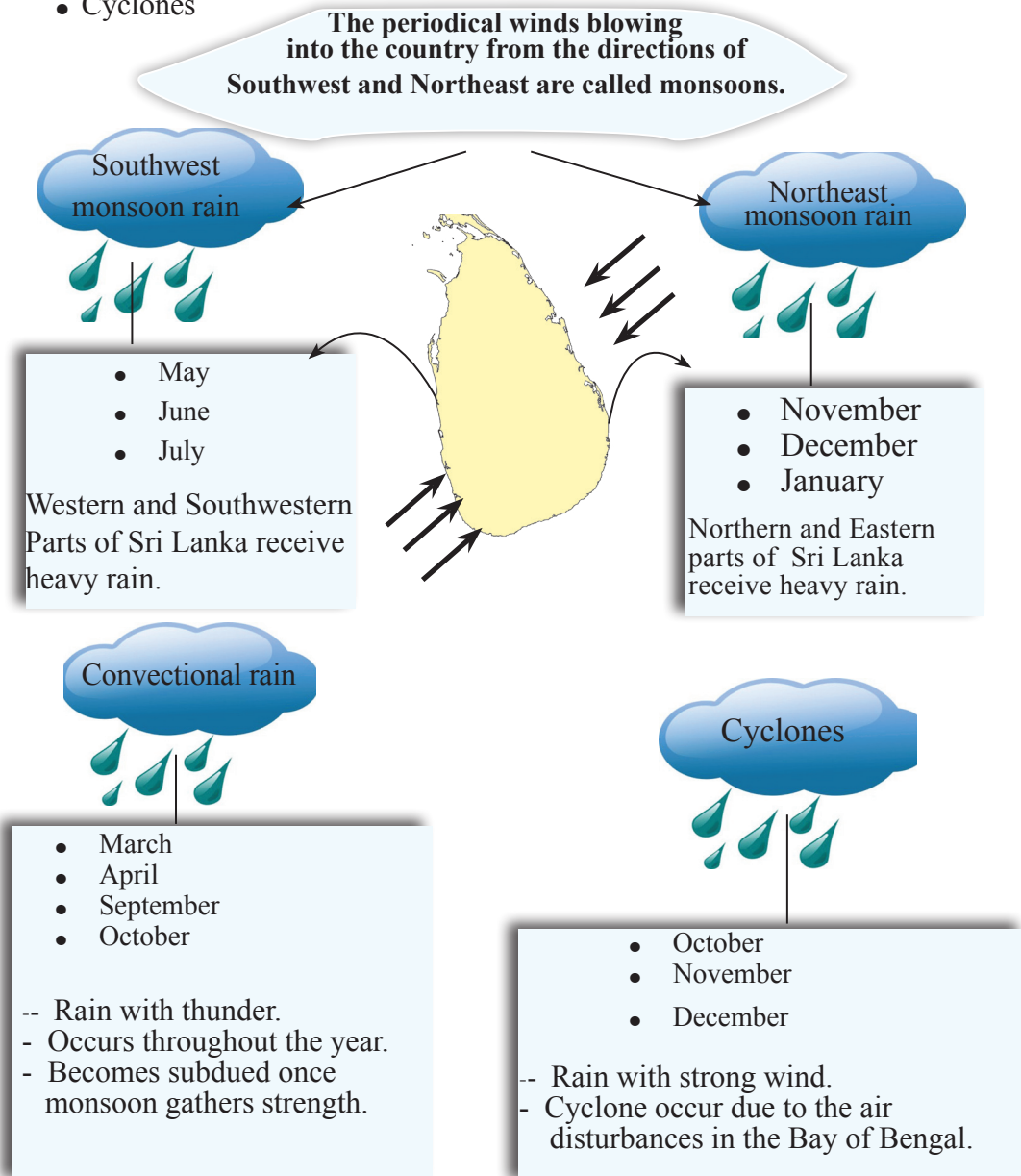
Map 2.1 F - Relief zones of Sri Lanka

Activities

1. i. Mark and name the three main relief zones of Sri Lanka on an outline map.
 ii. Refer to an Atlas and mark and name two main mountain ranges, two plateaus and two waterfalls in the map you have drawn.
 iii. Mark and name three residual hills located in the intermediate plain, and also mark Colombo, Point Pedro, Dondra Head, Trincomalee and Batticaloa which are located in the coastal plain.
2. Name three relief features that depict the natural beauty of the island.

Sri Lanka is a country located in the tropical zone. Therefore, Sri Lanka has a higher temperature of about 27°C - 30°C . It has no winter. Sri Lanka receives a uniform rainfall throughout the year. The rain comes in three ways.

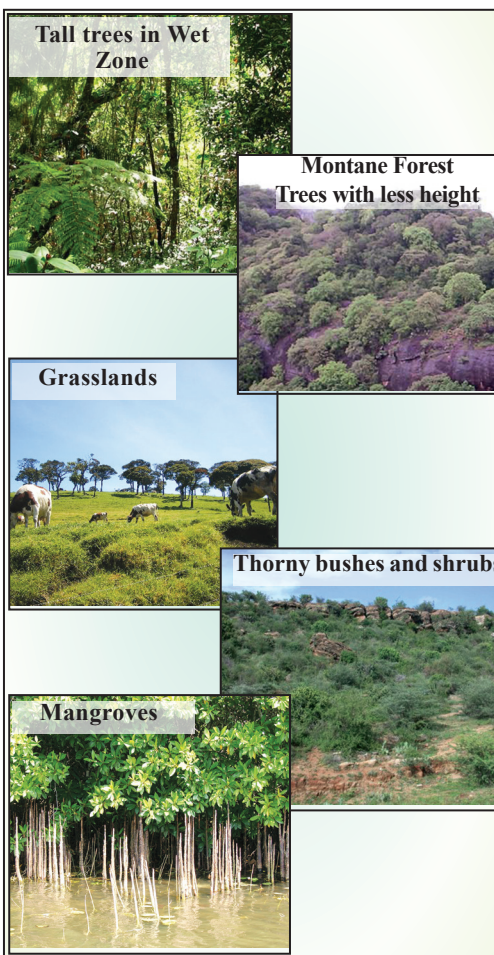
- Monsoon Rain
- Convectional Rain
- Cyclones



Normally a dry weather condition prevails in Sri Lanka during the months of February and August. Farmers reap their paddy during this period.

Tall trees are grown in the forests which are distributed in wet areas due to the uniform heavy rainfall and the temperature that prevails throughout the year. Grasslands and patanas can be seen close to the plateaus and short trees grow there due to the changes in rainfall, temperature as well as the altitude. Thorny bushes and shrubs grow in the dry and semi-arid areas where a dry climate exists. Mangroves are spread close to coastal lagoons and river mouths.

A tourist traveling to the interior of the country from a coastal area of Sri Lanka can see the variation of relief, climate and the vegetation cover and experience the beauty of this country within a distance of 70km.



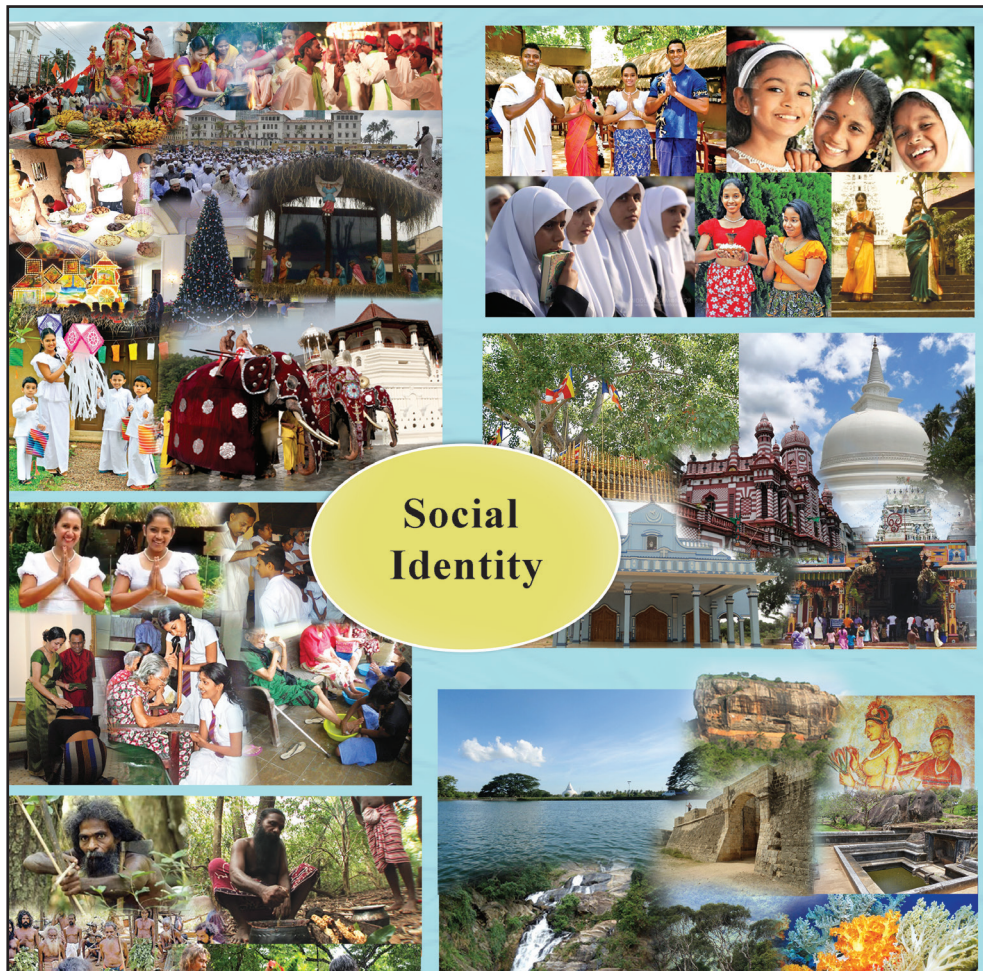
2.2 Fig. - Nature of the plants grown in different regions in Sri Lanka

Activity

Fill in the blanks.

Sri Lanka is a country located in the zone. Therefore, it has a higher temperature of about Receiving rain throughout the year through different methods such as and too is a specialty here. Due to changes of rainfall, and there is a variation in plants grown in different areas.

Social Identity



2.3 Fig. - Social Identity in Sri Lanka

Social Community

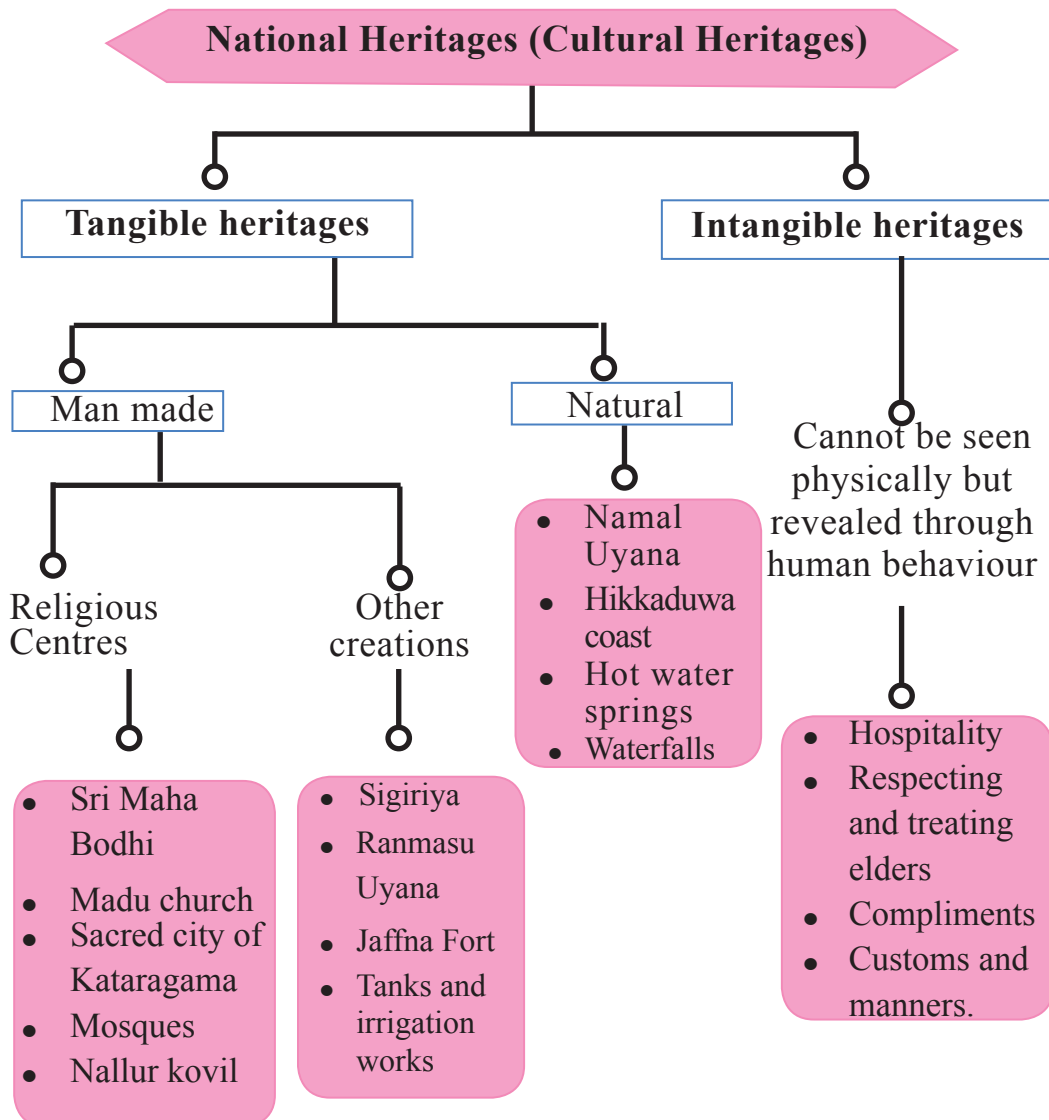
Social community of Sri Lanka consists of different ethnic groups like Sinhalese, Tamils, Moors and Burghers and different people who follow various religions such as Buddhism, Hinduism, Islam and Christianity. Therefore, Sri Lanka is considered a multi-racial, multi-religious and multi cultural country. The communities have their identity according to their inherited traditions, customs, beliefs, rituals, clothes and languages.

In spite of different ethnic groups and religions that we are divided into, all the people who live in this country are Sri Lankans.

National Heritages (Cultural Heritages)

There are various cultural heritages as well as cultural features in Sri Lanka in its multi-ethnic and multi religious society. Cultural features too depict the identity of a country.

Cultural heritages can be categorized in the following manner.



Since ancient times, Sri Lankans have been famous for their hospitality among the other nations in both East and West.

Map 2.2 indicates the various cultural heritages of Sri Lanka



Map2.2 - Cultural (national) heritages of Sri Lanka

World Heritages

Some national heritages in Sri Lanka have been accepted as world heritages due to their uniqueness. Thus Sri Lanka has gained a global identity. Sri Lanka has the attraction of the foreign tourists and has become a tourist hub and a destination among the eastern countries. These world heritages can be categorized as man-made and natural heritages.



Indigenous people

- The indigenous people living in various parts of Sri Lanka are also a special feature when the social identity of Sri Lanka is considered. Those people who live in the areas of Mahiyangana, Dambana and Henannigala spend their lives protecting their inherited language, customs, clothing, cultural features and tools. They earn their livelihood mainly by crop cultivation adapted to the environment, hunting and collecting the forest products.
- Some indigenous people were settled in Hennanigala area under Mahaweli dry zone development programme. At present, they have joined the formal education system and are adapted to the modern society, stepping into the higher educational avenues using modern electronic equipments. However, their contribution towards the protection of the ancient cultural heritages and environment conservation should be admired.

Cultural features and festivals

There is an identity in various festivals and cultural features inherited from different tribal groups, various races and religions in the Sri Lankan society. Several cultural festivals and cultural features with such identity are mentioned below.

Wesak/Poson festival
Sinhala and Tamil New Year
Madu festival
Deepavali festival
Ramazan festival
Dalada Perahera in Kandy
Christmas

Activity

1. Write five for each of the man-made and natural things among tangible heritages in Sri Lanka.
2. Prepare a picture enclosing internationally accepted world heritage sites located in Sri Lanka and display it in the class room.
3. Prepare a book including various pictures of national and religious festivals.

Social Development

Sri Lanka is a country that belongs to the South Asian region. Sri Lanka is identified as a country with higher social development among the other countries in this region.



Map 2.3 - South Asian Region

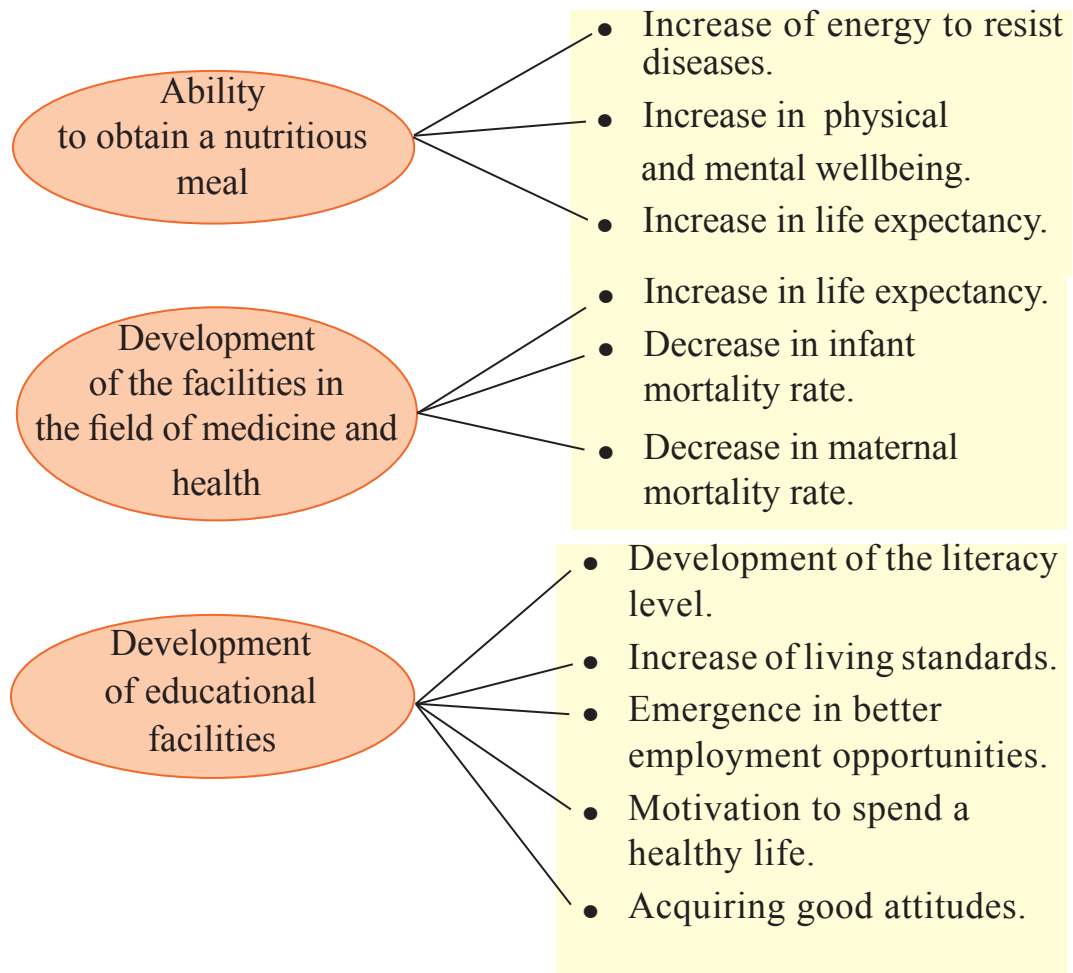
The levels of the social development of countries have been identified using various units of measurement and criteria. Table 2.1 indicates some data which can be used to compare social development in several fields of the countries in the South Asian region.

Table 2.1 Data on social development of the South Asian countries

country Social development data	India	Pakistan	Bangladesh	Nepal	Sri Lanka	Bhutan	Maldives
Life expectancy (years) 2012	65.8	65.7	69.2	69.1	75.1	67.6	77.
Literacy 15 years and over (2010)	(2006) 63	(2009) 54.5	56.75	60.65	92	Not available	(2006) 98
Birth rate To 1000 (2010)	22.2	27.3	20.3	24.1	17.6	20.4	16'8
Infant mortality rate to 1000 (2010)	48	70	38	41	14	44	14
Maternal mortality rate for 1000 live births (2010)	200	260	240	170	35	180	60

The literacy rate in Sri Lanka is 92%. It is second only to Maldives among the other South Asian countries.

Although Sri Lanka is a developing country, it has acquired a higher level in the field of social development. Following are some factors contributed towards this achievement.



Not only the above factors, but provision of education and health free of charge and the state welfare policies affect the higher level of social development in Sri Lanka



Activities

1. Cut and divide the countries that belong to the South Asian region from a map with political divisions. Paste those pieces on a paper correctly and shade them in various colours.
2. Refer to that map and write three sentences about the location of Sri Lanka
3. According to the table 2.1, name two countries which have a higher level of literacy rate.
4. Mention three factors affected to the higher level of literacy in Sri Lanka.
5. Write three benefits that can be acquired to a country due to the existence of higher level of literacy.
6. Observe table 2.1 and mention the country which has a higher level of life expectancy. Write two factors that brought about the effect.

Assignment

1. I. With your teacher's instructions, organise an educational trip to cover the main relief zones in Sri Lanka.

II. Write an essay about the relief features, variations of climate and the environment you observed during the trip.

III. Evaluate the natural beauty that affected the geographical identity of Sri Lanka on the basis of the experiences gained.
2. Identify the methods of receiving rain in your area, duration and the specific features. Write five sentences about them.
3. Under your teacher's instructions, collect information and prepare a file about the cultural features and the cultural heritage sites which are specific to your area.
4. Design a brochure to make people aware as to how literacy and life expectancy could be improved. Make arrangements to distribute it.

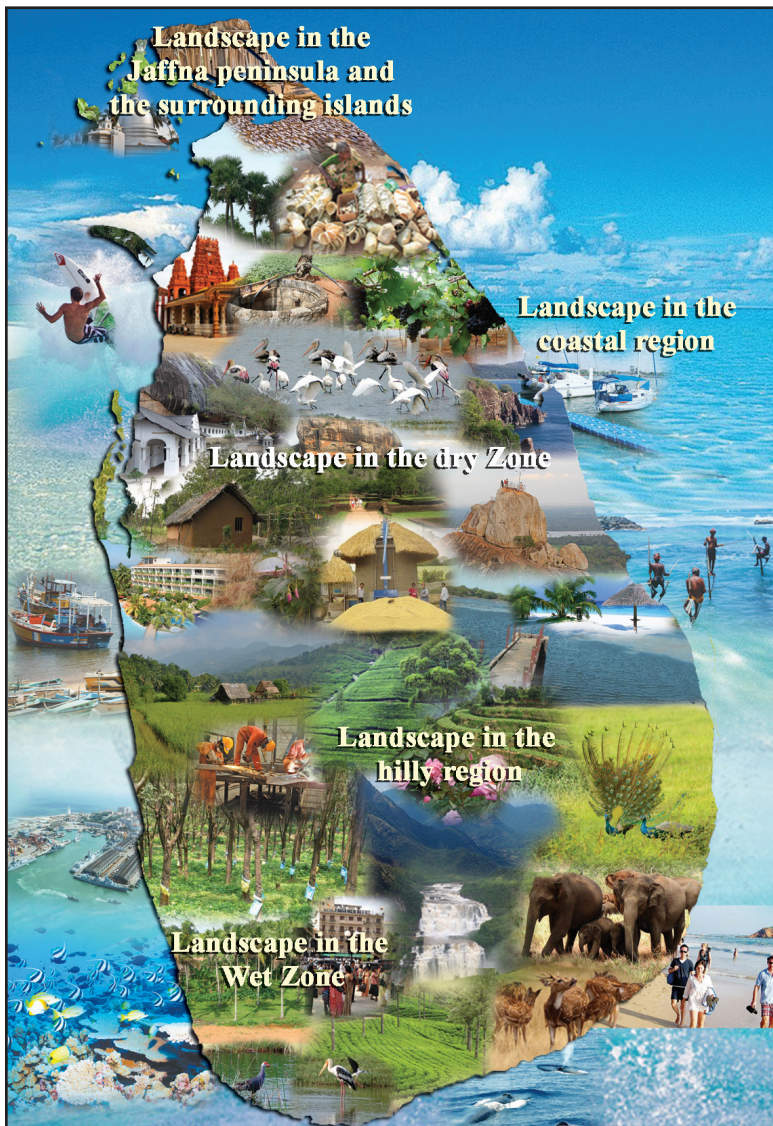
Glossary

• Identity	- wkkH;dj	- கலைச்சொற்கள்
• Geographical identity	- ஏதோடீய அனதயதாவ	- தனித்துவம்
• Social identity	- சதாசீய அனதயதாவ	- பூகோள தனித்துவம்
• Ocean Strait	- சபூத சதீய	- நீரிணை
• Relative location	- சாசேகீச பிதிபீத	- சார்பு அமைவிடம்
• Specific location	- திரசேகீச பிதிபீத	- தனி அமைவிடம்
• Nautical miles	- தாவிக சூதபூதீ	-கடல் மைல்
• Exclusive Economic Zone	- அனதய அாரீக கலாபய	- தனித்துவ பொருளாதார வலயம்
• Territorial sea limit	- ராசீபீய தூதூ சீதாவ	- ஆடபுல கடல் எல்லை
• Natural beauty	- சீவாதிக சையதீரீய	- இயற்கை அழகு
• Climatic diversity	- தேதூதூக விவிதீய	- லாநிலைப்பல்வகைமை
• Tourist attraction	- சாவாரக அாகரீசதூய	- சுற்றலாக் கவர்ச்சி
• Intermediate plain	- அதயதீதர கூதிகலாவ	- உள்ளக சமவெளிகள்
• Winter	- கீக சாதூ	- மழைவீழ்ச்சி
• Rainfall	- வரீசாததய	- பருவக்காற்று மழை
• Monsoon rain	- தோசதீ வரீசாவ	- உகைப்புமழை
• Convectional rain	- சாவதன வரீசாவ	- வளி
• Cyclones	- வாசூதீ வரீசாவ	- என்றும் பசு மையான காடுகள்
• Air disturbances	- வாசூ கூலூதீ	- இடவுயரம்
• Evergreen forests	- சதூதரீக வதாதீதர	-வறள்வலயம்
• Altitude	- ஁விவதீய	- சமூக தனித்துவம்
• Arid areas	- தூசீக பூதேதூ	- பல்லினங்கள்

3

The Landscape of Sri Lanka

Sri Lanka is an island located in the Indian Ocean with a land area about 65610 km². Within this land area, diverse landscapes can be identified. They are different from each other and consist of various physical and human features.



The main objective of this chapter is to study the regional landscapes of the areas of Hill Country, the Dry Zone, the Wet Zone, Jaffna Peninsula and the islands and the coastal belt including their unique features.

Fig. 3.1 - The diversity of the regional landscape of Sri Lanka

Landscape of The Hilly Region

In the lands located 300m above the mean sea level, a hill country landscape can be found. Such landscapes are mainly found in both the Central Hills and Sabaragamuwa Hills of Sri Lanka. When compared to the other landscapes, a complex physical landscape can be identified in these regions.

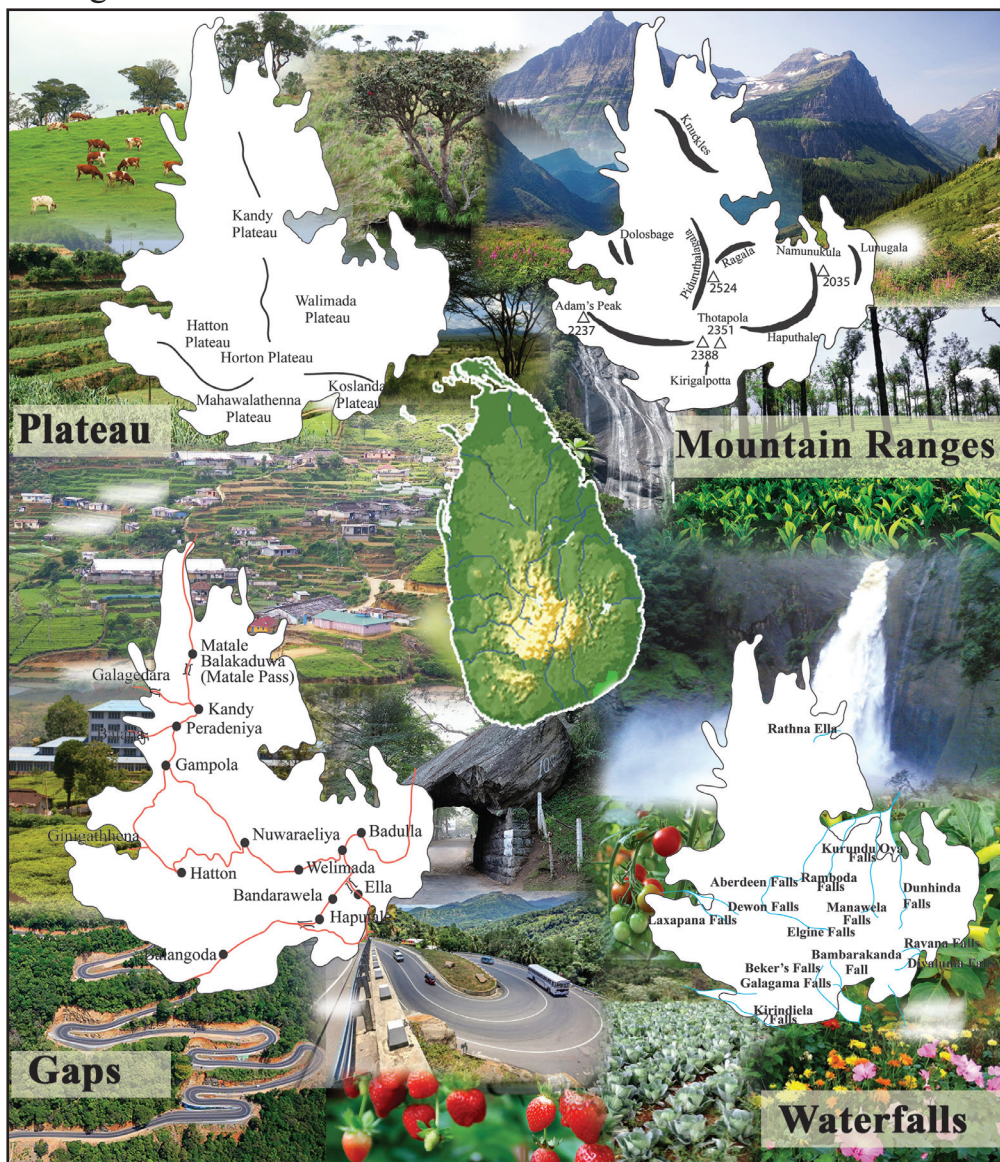


Fig. 3.2 - Hill Country landscape of Sri Lanka

A landscape providing physical and mental relaxation

Activity

1. Observe figure 3.2 and complete the following table

Mountain Ranges	Waterfalls	Plateaus

- Mountain ranges and plateaus, rivers flowing through valleys, waterfalls and gaps/ passes are the main physical features.
- Consists of a vegetation cover which is compatible with relief and climate.
- The landscape linked to tea cultivation is unique to the Hill Country. Tea factories, large groups of workers, workers' houses and bungalows, developed road systems as well as the cultural inheritance of the estate workers are some of the important features.
- The network of roads that runs with many bends as a result of the relief pattern and houses built on the slopes are specific to the landscape of the Hill Country.
- Vegetable, fruit and flower cultivation done on a commercial basis and livestock farms associated with grasslands are found.
- Both local and foreign tourists like to visit The Hill Country. Hence, tourist industry and features connected to it such as hotels, tourist bungalows and land areas allocated for recreational activities including sports activities are prominent features of this landscape.

Activities

1. Name significant physical features of the Hill Country.
2. List out human activities found in the regions with a hilly landscape.
3. Draw a landscape of hill country.
4. Explain how the physical features have influenced the human landscape of the hill country.
5. On a map of Central Hills of Sri Lanka, mark and name two mountain ranges, plateaus, waterfalls and gaps.

Landscape of the Dry Zone

This region could be introduced as the area where the Sri Lankan civilization began. Mainly, the dry zone landscape can be seen in North, North central, East and Southeast regions of the country. The base of the landscape of Dry Zone is set on the factors like severe drought, high temperature, uncertain and low rainfall and high evaporation. A human landscape that is compatible to the Dry Zone environment too can be seen in this landscape.

- Plains and residual hills scattered about, rivers that run dry during a particular period of the year, trees with tall trunks and hard heartwood are the well known features of the physical landscape of the Dry Zone.
- Grass, shrubs with thorny bushes that grow in arid climate that prevails at Mannar and Puttalam in the Northwestern region and Hambantota area in the Southeastern region of Sri Lanka too are specific features of this landscape.
- Sigiriya, Dambulla, Ritigala, Kataragama etc. are several residual hills located in this region. According to the location and shape Sigiriya has been a fortress since the ancient times.
- The tanks built by blocking the rivers that flow through the small ridges are also prominent in this landscape. Most of them are fed by rain water and the water of river Mahaweli. A large land area of the Dry Zone is utilized for paddy cultivation under irrigation. Rice mills and industries producing rice flour products have been established associated with the paddy cultivation.
- Planned farming settlements built with all the facilities for the people who were settled in farming colonies to cultivate the dry lands and paddy lands using the water of river Mahaweli are seen in the landscape of the Dry Zone.
- Chena cultivation based on rain water is also a main feature of this zone. Chena with *Danduweta* (fence made of sticks), small hut and lands with crop cultivated on rain water is a gradually changing feature in the landscape of the Dry Zone.



Fig. 3.3 - Landscape of the Dry Zone of Sri Lanka.

The distinctive features of the ancient hydraulic civilization of Sri Lanka is the human imprint of the present landscape of the Dry Zone

- Sanctuaries like Yala, Wilpattu, Kumana and forest reserves like Somawathi, Maduru Oya and Wasgamuwa are specific features in the landscape of the Dry Zone.
- Location of various religious centers which are frequently visited by people is also a significant feature of this landscape. Sacred “Sri Maha Bodhi” and stupas at Anuradhapura, Madu Church at Mannar, Koneswaram Hindu Temple at Trincomalee, Kirivehera and Skandha Kumara Devala at Kataragama and mosques in the Eastern region could be shown as examples.

Activities.

1. Describe physical and human features of the landscape of the Dry Zone separately.
2. What is the solution adopted by the people in the Dry Zone to overcome the scarcity of water?
3. Mark and name the followings on an outline map of Sri Lanka. Anuradhapura, Madu Church, Kataragama, Sigiriya, Wilpattu sanctuary, Somawathi Forest Reserve and five main tanks in the Dry Zone.

Landscape of the Wet Zone

A landscape of wet zone can be seen in the Southwestern, Western and Eastern slopes of the Central Hills of Sri Lanka.

The dynamism created by diurnal mobility of the people, automobile and service activities, is the specific feature of this region.



Fig. 3.4 - The landscape of the Wet Zone of Sri Lanka

- A physical landscape consisting of flat lands, ridges, rivers flowing throughout the year, marshy lands, rich vegetation cover and the specific bio diversity are the significant features of the landscape of the Wet Zone.

- Physical landscape is subjected to constant changes due to frequent flooding and earth slips caused by heavy rains.
- Flood plains formed along the river valleys due to the constant flooding have been converted into rich farmlands. The Kelani river valley is mainly utilized for growing vegetables under the “Koratu” method.
- The human landscape of this zone where a high population is living too possesses complex features.
- A diversity of agricultural land use can be seen in the Wet Zone as coconut cultivation on coastal region, paddy cultivation in river valleys and rubber and tea plantation on the mountain slopes etc.
- Cities like Colombo and towns like Gampaha, Matara, Galle, Negombo, Kandy and Kalutara that are important as urban, industrial and service centers can be identified as a special feature of this landscape.
- Population migrated to the main towns in search of jobs due to the establishment of free trade zones like Katunayake, Koggala and Biyagama and industrial colonies associated with the towns like Rathmalana and Ekala have been accumulated in the Wet Zone.
- The complexity of the landscape of Wet Zone is emphasized by the hospitals, police stations, banks, courts, shopping complexes as well as by sky scrapers. This zone can be identified as a region with well developed infrastructure to facilitate human needs.
- A developed transportation network consisting of well developed road systems, express ways, over head bridges and railway lines is seen in the landscape of the Wet Zone.
- Fast developing planned towns and a landscape mixing urban and rural features too could be seen here. The dynamism of the landscape is depicted by the high population that come to the towns daily to avail the services available and also by the number of vehicles that come to these towns.

The capital of Sri Lanka, Sri Jayawardanapura, Kotte and the commercial capital, Colombo are located in Wet Zone.

Existence of regions which were subjected to mass movement due to clay mining, unlimited gem mining, deforestation, development activities that damage the environment is also a special feature. Due to this, the problems like earth slips, drying of underground water springs, sinking of buildings, breeding of mosquitoes and domestic flies have emerged.

Activities.

1. Trace an outline map of Sri Lanka
 - I. Draw the Wet Zone following the teacher's instructions.
 - II. Mark and name the followings using an atlas of Sri Lanka..
Colombo, Gampaha, Katutura, Galle, Matara and Kandy.
The investment promotion zones of Katunayake, Koggala and Biyagama.
2. State six main features that can be found in the landscape of the Wet Zone.
3. Write three factors that create a live and dynamic landscape in the Wet Zone.
4. Using drawings or pictures, display the landscape of the Wet Zone.

Landscape associated with Jaffna Peninsula and surrounding islands.

Jaffna peninsula and islands like Delft, Kytes and Nainativu close to it are located in the Northern region of Sri Lanka.

- Flat lands, lagoons, islands, sand sheets, rich red soil, lime stone soil and underground water are the striking features of the landscape associated with the Jaffna peninsula and islands region.

- This region does not receive rainfall from the main types of rain. Hence, physical landscape as well as human landscape are built on factors like low rainfall, high temperature and high evaporation rate.
- Well developed agro land utilization using sweep wells from the past and pumping of water at present is the main feature in the human landscape. Vegetables like potatoes, chillies, red onions, beetroot and fruits like grapes, mango and banana are grown in farms maintained with ground water.
- Coastal fishing industry, handicraft industry and producing salt which are carried out using the resources in the region are characteristics of the human landscape.
- Abundance of palmyra palm and using them for day today activities is a main feature of this region. Roofs thatched with palmyra fronds and fences covered with palmyra fronds, food produced associated with Palmyra and goods produced using Palmyra palms are common here.
- Features like Hindu Temples (Nallur), religious festivals, processions as well as devotees are a part of this culture based on Hindu religion.
- The coastal areas suitable for bathing and diving located around the main land and island, the Eastern coast, bird sanctuary at Chundikulam and Nainativu have made this region a tourist zone.

Though it is a harsh landscape, it possesses both a specific cultural identity and rich economy built by strong work, ethics and great effort.



Fig. 3.5 - Landscape associated with Jaffna peninsula and the surrounding islands

Activities.

1. Write separately the specific features of the physical and human landscapes associated with Jaffna peninsula and islands.
2. Prepare a handbill about the unique cultural features that could be seen in the landscape associated with the islands of Jaffna Peninsula.
3. Mark and name Kayts, Delft, Nagadeepa, Nallur kovil, Saltern at Elephant Pass on a sketch map of Sri Lanka.
4. Explain how the Palmyra palm is useful to the people of Jaffna peninsula.

Landscape of the coastal belt

The coastal belt that runs around Sri Lanka with physical features like islands, bays, lagoons, points and marshes possesses a unique landscape. The mangroves that grow along the coast, coral reefs as well as attractive sand sheets are basic features of this landscape. A human landscape built on this physical landscape can also be seen.

- The attractive coastal areas like Tangalle, Hambantota, Pasi kuda, Unawatuna, Arugam Bay and beautiful coral reefs at Hikkaduwa have attracted the tourists. Hotels, restaurants archaeological places, light houses, religious centers, sanctuaries, recreational centers and national forest reserves persuade tourists to visit this zone frequently.
- The fishing industry conducted in shallow sea along the coast and in lagoons, mangrove marshes and fishing settlements distributed along the coastal belt are also the features specific to this zone.

Attractive landscape with a diversity of physical features located around Sri Lanka where local and foreign tourists visit frequently.

It is clear to you that, though Sri Lanka is a small island, the landscapes that are different to each other can be found. If a person travels either from North to South or East to West of Sri Lanka, he may observe all these landscapes even within a day.

Activity

1. Name the specific features of the landscape associated with the coastal belt of Sri Lanka.
2. Mark and name two of bays, lagoons, points and islands and three tourist attractions located in the coastal belt.

Assignment

1. Mark the five landscapes you have learnt on a blank map of Sri Lanka.
2. Prepare a flip chart including the specific features of the landscapes of those five zones.
3. Study the landscape of the region you live, and describe the physical features and human activities that can be found there.
4. Prepare a brochure including tourist attraction to be distributed to tourist on wonder of the Hill Country.

Glosary

● Landscape	- லு දර්ශනය	- நிலத்தோற்றம்
● Mountain ranges	- කඳුවැටි	- லைத்தொடர்கள்
● Waterfalls	- දියඇලි	- நீர்வீழ்ச்சிகள்
● Plateaus	- සානු	- மேட்டு நிலங்கள்
● gaps	- කපොල	- கணவாய்கள்

● ruins	- நடுயின்	- எச்சங்கள்/ சிதைவுகள்
● hydraulic civilization	- வாரீ ஷீவாவரச	- நீர்வள நாகரிகம்
● residual hills	- ஷீவ கடி	- எச்சக் குன்றுகள்
● Fortress	- ஞாக்கக லககைபு	- பாதுகாப்பு அரண்
● Parks	- வனேர்யாந	- வனப்பூங்கா
● Vegetation covers	- வாக்லகா வுசீம	- தாவரப் போர்வை
● Bio diversity	- சேவ விவினவச	- உயிர்பல்லினத் தன்மை
● Flood plain	- சிவார குந்ந	- வெள்ளச் சமவெளி
● Koratu cultivation	- கைரபு வகா	- தோட்டச் செய்கை
● Physical landscape	- ஸைகிக வு டர்னக	- பௌதீக லத்தோற்றம்
● Human landscape	- மானுச வு டர்னக	- மானிட லத்தோற்றம்
● Land use pattern of agriculture land	- காகி வுதி பர்ஸீந ரவா	- விவசாய நிலப்பயன்பாட்டுமுறை
● Trade zone	- வெலேடி கலாப	- கைத்தொழில் குடியேற்றங்கள்
● Infrastructure facilities	- டிசிகல பஹுகி	- உட்கட்டமைப்பு வசதிகள்
● Migration	- சிங்குமனச	- இடப்பெயர்வு
● Express ways	- அடிவெயி மார்ந	- அதிவேகப் பெருந்தெருக்கள்
● Fly Over	- டுபன் பாலி	- மேம்பாலங்கள்
● Landslips / land slides	- நாகசுர	- நிலச்சரிவுகள் / நிலச் சறுக்கல்
● Wet zone	- நைன் கலாப	- ஈர வலயம்
● Sweep well	- ஞாபியா சீம்	- ஆடியா கணிநு
● Sands sheet	- வுலிகலா	- மணல் வெளிகள்
● Coral reefs	- கைரலீபர்	- முருகைக் கற்பாறைகள்
● Lagoons	- கலபு	- கடனீரேரிகள்
● Mangroves	- கவொலீ வுரூ	- கண்டல் தாவரங்கள்
● Saline marsh	- லவன வுரூ	- உவர் சதுப்புக்கள்
● Industrial colony	- காரீக சநபடி	- கைத்தொழில் குடியேற்றங்கள்

4

Natural Hazards and Disasters

At present, we always hear about different natural disasters. Human lives, property, the public facilities and natural environment are threatened due to these disasters.



Fig. 4.1. - Several disasters

Natural phenomena that may cause damage to community or property are hazards. A hazard is a continuous process. If such incidents affect either the community or property, they become a disaster.



Fig. 4.2 - Hazard



Fig. 4.3 - Disaster

The objective of this chapter is to study both natural hazards and disasters and about the natural disasters that occur in Sri Lanka.

Earth slips is a hazard that occurs in hilly areas. It becomes a disaster according to its impact on people and property. An earth slip that occurs in an uninhabited island is only a natural hazard as it does not damage people or property. However, if it occurs in a densely populated region, it becomes a disaster.

Activities

1. Name five natural hazards you have heard of.
2. State five damages that a natural disaster could cause.
3. Prepare a fact file using pictures about natural disasters.

Natural Disasters in Sri Lanka

A natural disaster is a destructive force that may occur within a short period of time. At present, Most of the hazards found in Sri Lanka are increasingly turning into disasters due to unfavourable human activities. Several hazards such as droughts, floods, earth slips, cyclones, lightning, tsunamis and earth quakes are some examples for such instances.

Drought

The dry condition that prevails for a long period in a certain area, as a result of the delay in the rainfall due for a particular period.

Drought is a hazard that can exist in a region at any period. However the attention focused on drought is less. It is because, a drought is a silent destructive force that begins without our knowledge and develops gradually creating a crisis in the whole human society. Map 4.1 shows several districts of Sri Lanka where droughts occur.

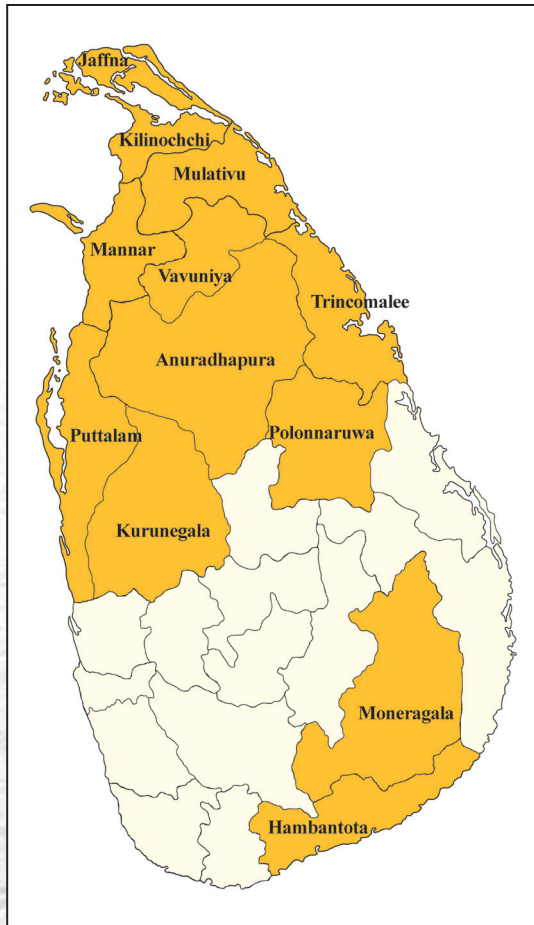
Reasons for droughts

- Decrease of rainfall over a longer period.
- Setting fire to forests.
- Dry wind currents.
- Increase of global warming.
- Removal of vegetation cover.

Damages caused by drought

The harmful impacts of the drought can be discussed under two fields, as impacts on man and impacts on the environment.

Activities



Map 4.1 - Several districts in Sri Lanka where droughts occur

Impacts on man.



- Scarcity of water
- Destruction of crop harvest
- Scarcity of food
- Spread of epidemics.
- Damage to animals

Impacts on the environment



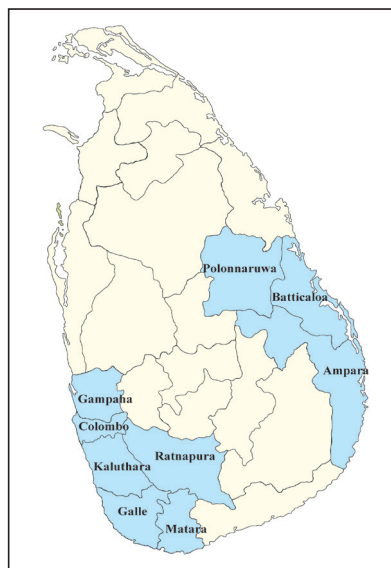
- Increase in environmental temperature.
- Decrease in ground water level.
- Occurance of bush fires.
- Destruction of forests.
- Destruction of bio resources.
- Infertility of soil.
- Damage to scenic beauty.

Activities

1. Mark and shade the districts on a map of Sri Lanka where droughts occur.
2. Write two reasons for droughts.
3. Present three factors as to how a drought affects human activities.
4. Prepare a report either observing or collecting information on the changes occur in the environment during a drought.

Flood

When a large mass of water is collected in rivers, canals streams, reservoirs and other natural waterways in a short period of time, they begin to overflow. At present, flooding of rainwater even in a light shower is a common feature in urban areas where



Map 4.2 - Several districts that are subjected to disaster of flood in Sri Lanka.

rivers and other waterways are not found. Map 4.2 shows several districts where floods occur in Sri Lanka. Yet, with the increase in the intensity of rainfall, floods may occur in all districts of Sri Lanka.

Reasons for flood

- Incessant heavy rains
- Clearing of forests in hilly areas
- Reclamation of lowlands
- Sand mining in river valleys

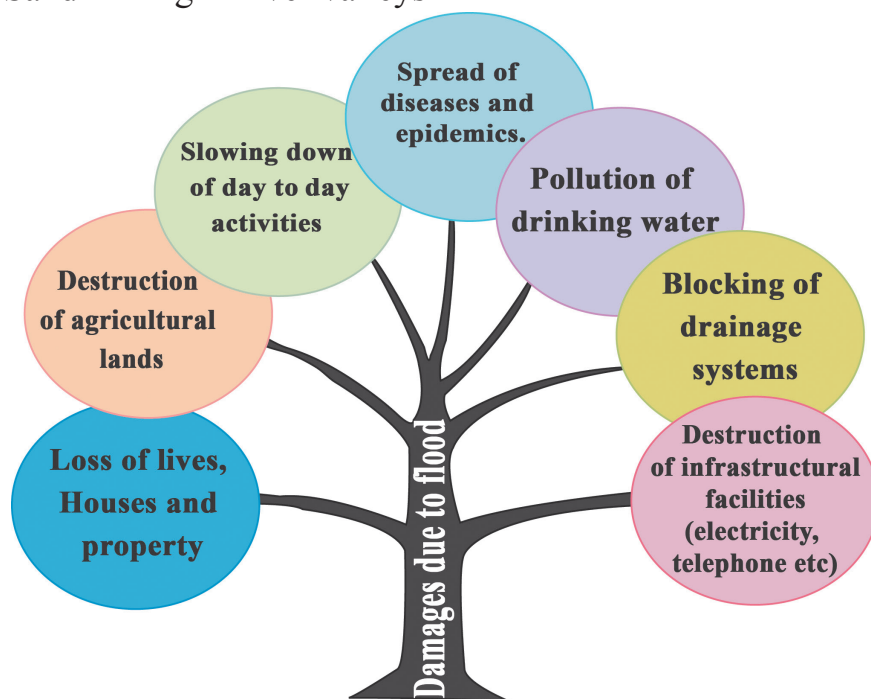


Fig. 4.4 - Damages due to flood

Activities

- i. Mark and name five river valleys where floods occur on an outline map of Sri Lanka.
ii. Shade five districts where floods occur on the same map.
- In which climatic zone do floods occur frequently?
- What are the districts in the dry zone where floods may occur?
- Draw a picture to show a flooded area.

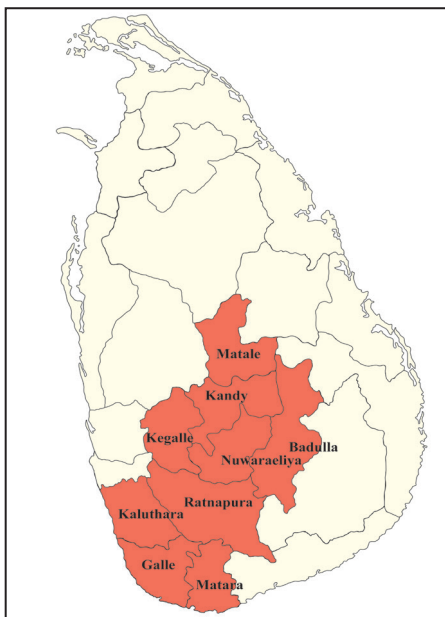
Earth slips

Sliding of a large portion of the earth located at a higher elevation downwards along a slope with rock boulders, gravel and soil lumps is called an earth slip.

At present, earth slip is a common disaster in Sri Lanka. Though it is a natural process, human activities influence it to a great extent. Reasons for the earth slips can be divided into two categories.

Natural Causes	Human Activities
• Incessant rain • Lands with steep slope. • Existence of weathered rock layers. • Earth quakes.	• Setting fire to the forests in mountainous areas. • Improper use of land in mountainous areas. • Insufficient research before doing constructions. • Blocking of natural water ways.. • Storing of water in highlands.

Map 4.3 shows the districts of Sri Lanka where earth slips occur frequently.



Map 4.3 - Several districts of Sri Lanka where earth slips occur.

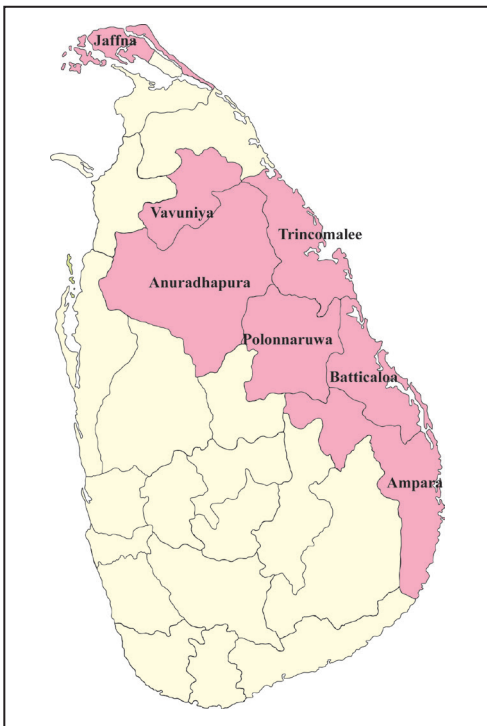
Damages from Earth slips

- Loss of lives and property.
- Destruction of cultivated lands.
- Destruction of the environment.
- Water bodies become shallow and canals are blocked.
- Destruction of infrastructure facilities.
- Impairment of normal life.

Activities

1. Briefly explain what a landslide is.
2. Mark and shade five districts where landslides occur frequently in an outline map of Sri Lanka.
3. Select the reasons for landslides from the list given below Wind, heavy rains, high temperature, reclamation of lowlands, steep slopes, cultivation in hilly areas, flat lands, storing water in high lands, blocking river mouths, earth quakes.
4. Create a poster depicting the disasters that could occur during an earth slip.
5. Suggest three actions that can be taken to prevent earth slips.

Cyclones (Storms)



Map 4.4 - Several districts of Sri Lanka subjected to the influence of cyclones

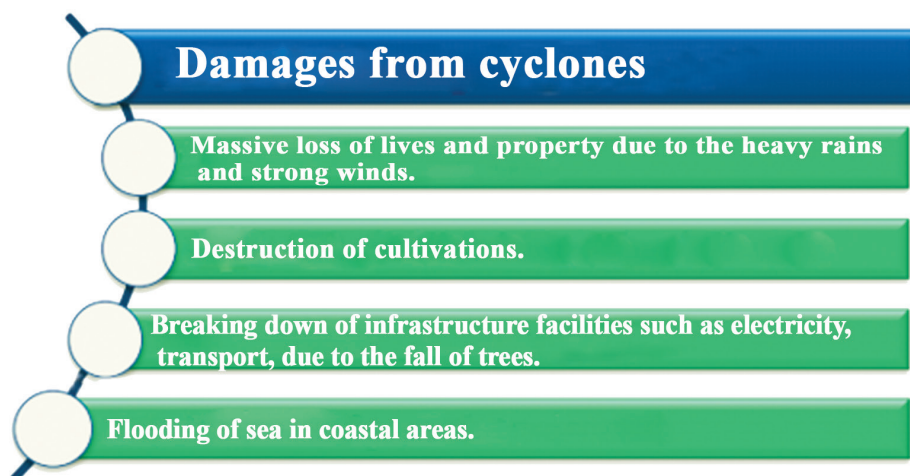
The hard blowing wind while spinning fast in a swirl is known as a cyclone or a storm.

High temperatures in a tropical zone and development of low pressure centers influence the origin of cyclones.

Sri Lanka is a country located in the tropical zone. Due to the influence of the low pressure centers that originate in the Bay of Bengal, Sri Lanka is affected by cyclones frequently.

The cyclonic winds enter the island from the Eastern and North East coasts and exit from the

North Western coast. As a result the Northern and Eastern regions of Sri Lanka are highly affected by cyclones. Identify the regions affected by the cyclones by observing the Map of Sri Lanka.



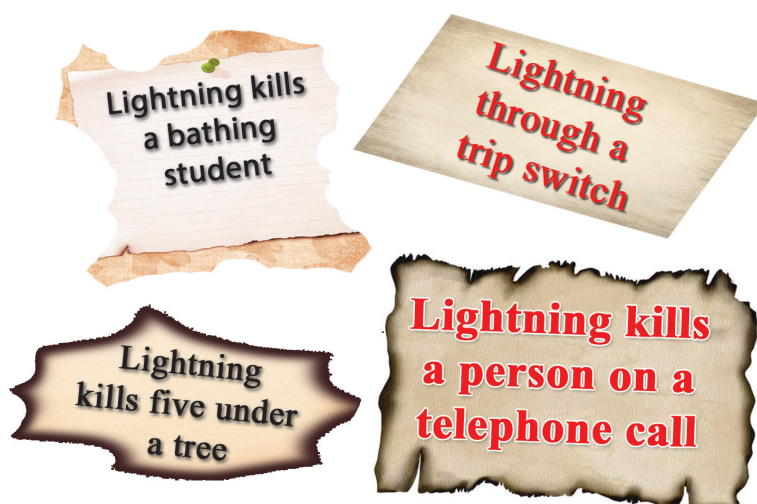
Activities

1. What is a cyclone?
2. On a map of Sri Lanka mark and shade the districts of Sri Lanka that get affected by the cyclones.
3. Prepare a list of damages caused by cyclones.
4. Present suggestions to minimize these damages.

Thunderbolts (Lightning)

Discharge of an electric current between two opposite charges due to the electric phenomenon that occur in a cloud is known as a thunderbolt.

Accordingly, discharge of an electric current may occur in a cloud itself, between two clouds or from a cloud to the earth. These electric currents can cause huge damages. Although, lightning may occur any time of the year, in Sri Lanka, it often occurs during the months of March-April and October- November when the convectional process is active.



Damages of Thunderbolts/ lightning

- Loss of lives and property.
- Breaking down of electric cable systems.
- Destruction of houses.
- Breaking down of communication networks.

Prevention of Thunderbolt accidents

- Keep away from open places when there are thunder showers.
- Keep away from tall trees.
- Avoid travelling during such occasions.
- Disconnect all domestic electric circuits.
- Do not use telephones.
- Do not construct buildings under high tension electric lines.
- In house constructions, installing of electric circuits should safely be done by a skilled technician.

Activities

1. Prepare an instructional hand out to make people of aware of the methods that could be followed to prevent or minimize the accidents of lightning.

Tsunami

The waves that travel fast towards the coast due to the occurrence of earth quakes, earth slips or volcanic eruptions in the sea bed are called tsunami.

Tsunami is a word derived from Japanese language. “Tsu” meaning “harbour” and “nami” meaning “waves”. Tsunamis are also known as very tall waves that move towards the coast.

Since Sri Lanka is an island, all the lands associated with the coastal area around it are open to this hazard. Though it is not a common disaster like others, the impact is enormous. The catastrophic tsunami that affected Sri Lanka on 26th of December, 2004 resulted massive destruction of lives and property.

Causes for Tsunami

- Earth Quakes,
- Earth Slips,
- Volcanic eruptions occur in the sea bed
- Falling of meteors into oceans.

Damages from Tsunami

- Loss of lives
- Destruction of houses, buildings, vehicles, business premises
- Destruction of coastal lagoons, river mouths, mangroves, marshy lands and sea weeds
- Mental stress caused in people
- Displacement of people
- Pollution of water and land
- Destruction of plants and animals
- Collapse of fisheries activities, coir and tourist industries.
- Destruction of infrastructure facilities like water supplies, electricity and roads

How to escape from a Tsunami

- Be alert about Tsunami warnings.
- Do not stay close to the sea to look at the receding of sea during a tsunami condition.
- Go to a safe higher place as soon as possible

Activities

1. Define what a tsunami is.
2. Write three causes for tsunami.
3. When did tsunami conditions affect Sri Lanka?
4. Mark and name the regions of Sri Lanka that were affected by the tsunami disaster on an outline map of Sri Lanka.

Earth quakes

A sudden tremor that occurs in the earth due to the high temperature in the interior of the earth and changes in pressure is known as earth quake.

Though the hazard of the earth quake is present in every part of Sri Lanka, it has not converted into a condition of disaster yet, but, earth quakes occurring in nearby regions may also affect Sri Lanka.

Reasons for Earth quakes

- High temperature in the interior of the earth and changes in pressure
- Breaking down of the equilibrium of the earth due to the construction of reservoirs and large scale constructions
- Nuclear explosions
- Volcanic eruptions

Damages from Earth quakes

- Loss of lives and property
- Displacement of people
- Slowing down of day today activities
- Destruction of cultivated lands
- Destruction of vegetation and animals

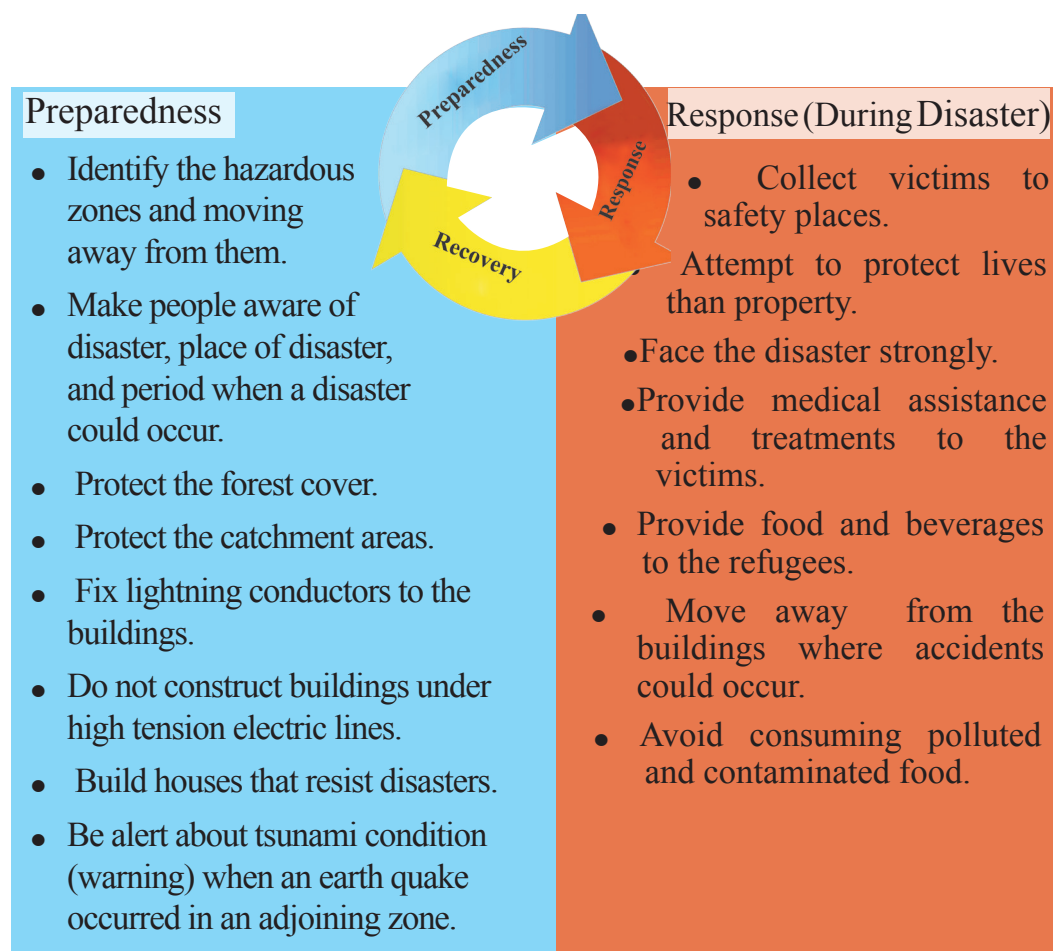
Activity

1. Complete the following table with damages from earth quakes.

Damages to the people	Damages to the environment.

Facing a disaster

Man cannot prevent natural disasters completely. But their effect can be minimized. Disaster management is important for it. The basic steps for disaster management are preparedness, response and recovery. Following examples show how we should respond to natural disasters shown above according to the disaster management cycle.



Recovery

- Identify problems.
- Establish emergency disaster centers.
- Introduce disaster kits.(life saving kits.)
- Provide relief to the victims.
- Conduct health programmes.
- Plan the activities to restore the mental health of the victims.

Activities

1. Name five natural hazards
2. Explain the difference between natural hazards and disasters.
3. Complete the following table with reference to the disasters that occur in your region.
4. Complete the following table.

Natural Disaster	Reasons	Methods of minimizing the damage
Flood	01. 02.	
Droughts	01. 02.	
Cyclones	01. 02.	
Earth Slips	01. 02.	

Assignment

1. Name two natural disasters that occur frequently in Sri Lanka.
2. Prepare a fact file including pictures of areas that have affected by natural disasters (collected from newspapers, magazines etc.)
3. Find and present the causes for these disasters.
4. Get into groups and prepare a hand-out including the steps that could be used to aid the victims.

Global Climatic Changes

Long-term or short term changes that happen in the general climatic pattern is known as climatic changes.

It is seen that though it took a longer period for changes in the climate in the past, they occur in a short period of time at present. Drought, harsh cold seasons, floods, cyclones etc can be identified as the results of these changes. Such climatic changes that take place globally have influenced Sri Lanka too.

Reasons for climatic changes.

- Excessive burning of fossil fuel
- Destruction of forests
- Warming of the atmosphere
- Burning of agro and industrial waste
- Volcanic eruptions

How climatic changes affect Sri Lanka.

1. Destruction of coastal eco systems due to the rise of sea level.

- Inundation of coastal lands.
- Pollution of drinking water.
- Increase in coastal erosion.
- Breaking down of fishing industry and destruction of coastal industries.

2. Destructions caused by heavy rains

- Floods and earth slips
- Loss of lives and property.
- Destruction of infrastructure facilities.
- Reduction of agro harvest.

3. Destructions due to the increase of atmospheric temperature.

- Occurrence of droughts.
- Scarcity of water.
- Decrease in harvest.
- Changes in agricultural patterns and types of crops.
- Increase the spreading of diseases, mostly that could not be diagnosed easily
- Spread of skin, eye, and respiratory diseases.
- Occurrence of mental stress.

4. Emergence of crisis connected to the production and use of energy sources.

- Increase in the use of air condition equipment and fans due to the increase in temperature.

- Slowing down of the generation of hydro electricity.
- Increase of the demand for electricity and thermal power energy.

5. Actions Taken to Minimize the Climatic Changes.

- Minimize the emission of unfavourable gases like Carbon Dioxide in the fields of industry, agriculture and transport.
- Minimize deforestation.
- Establish Forest Reserves.
- Intensify the use of bio gases with less effect on the environment.
- Enact limits to the emission of Green House Gases that increases the global warming.
- Solid waste management.
- Pass laws to stop unauthorized constructions.
- Make people aware.
- Work collaboratively with the other countries in the world.

Activities.

1. What are the reasons for the global climatic changes?
2. State three environmental damages that occur due to the increase in global warming.

Assignments

1. Describe briefly how you could contribute to minimize the climatic changes.
2. i. Create a poster including protective steps to make aware the victims of such disasters.
3. Present a report, finding the reasons for the increase of accidents of thunderbolt using newspapers.
4. Propose three steps you use to get away if you happen to face such a disaster
5. i. If a natural disaster has occurred in your area or area around your school, visit that place with your teacher or an adult and observe the disaster.
 ii. Record the damage of that disaster.
 iii. Collect the reasons for that disaster by inquiring.
 iv. Present a report to the class including all information.
 v. Discuss and present the steps that could be used to prevent or minimize those damages.

Glossary

• Natural Hazards	- ஸீலாஹாவிக் ஸபடிவ	- இயற்கை அழிவுகள்
• Disasters	- ஸாபடி	- அனாத்தங்கள்
• Drought	- நியதய	- வரட்சி
• Wind	- ஸுலம் புவாஹ	- காற்றுக்கள்
• Global Warming	- ஸுலீய ஸுலுஸு	- பூகோள வெப்பம்
• Bush Fire	- ஸூலி கிநி	- காட்டுத் தீ
• Flood	- ஸவ்ஹர்	- வெள்ளப்பெருக்கு
• Earth Slips/ Landslides	- நாயயூமி	- நிலச்சரிவு
• Rocks	- பாலாஹ	- பாறைகள்
• Cyclones	- ஸுலி ஸுலம்	- சூறாவளி
• Thunderbolt /Lightning	- ஸுலு ஸுலர்	- மின்னல் தாக்கம்
• Electric phenomenon	- விடினத் தியாகாரிவய	- இலத்திரனியல் செயற்பாடு
• Convectional Process	- ஸவ்வந தியாவலிய	- மேற்காவுகைச் செயன்முறை
• Earth Quake	- ஸுமிக்கமபாவ	- நிலநடுக்கம்
• Volcanic Eruption	- கிநிகடி பிபிரி	- எரிமலை கக்குகை
• Equilibrium of the earth	- பாரிபிஸமகூலிநாவ	- புவியின் சமநிலை
• Nuclear Explosions	- நாயசீவிக் பிபிரிமி	- அணு வெடிப்பு
• Disaster Management	- ஸாபடி கலமநாகரணய	- அனாத்த முகாமைத்துவம்
• Catchment Area	- சல பூசிக் பூடேடி-	- நீரேந்துப்பிரதேசங்கள்
• Lightning Conductors	- ஸுலு ஸந்நாயக	- மின்னல் தாங்கி
• Hazardous Zones	- ஸவடிநமி கலாப	- எச்சரிக்கை வலயங்கள்
• Emergency Disaster Centers	- ஸடிசி ஸாபடி மடாஸ்பாந	- அவசர விபத்து மத்திய நிலையங்கள்
• Disaster Kits	- ஸாபடி கபில	- விபத்து தொடர்பான கருவித் தொகுதிகள்
• Global Climatic Changes	- ஸுலீய ஸுலுஹிக் - வொஸீமி	- உலகக் காலநிலை மாற்றங்கள்
• Burning of Fuel	- ஸுந்நவ ஸுநய	- எரிபொருள் பாவனை
• Sea Erosion	- வொரல ஸாடிநய	- கரையோர அரிப்பு
• Deforestation	- வந ஸரணய	- காடழிப்பு



Using maps

When we study geography, we have to study a lot of information about the world. For that, it is necessary to refer to maps prepared under different themes. In an Atlas, maps are included under different themes.

The main objective of this chapter is to provide basic knowledge about using a map book accurately and productively.

At present, the maps have become a compulsory tool in day to day activities. Sri Lanka Atlas Book printed by the Survey Department of Sri Lanka is one example for a map book in current usage.

The skills of identifying basic features like,

- Different types of maps
- Direction.
- Scale.
- Key
- Map Index

and the skill of using a map book correctly can be received by referring to an atlas.

Activity

1. Name other map books in use.

Different Types of Maps

Different types of maps are included in an atlas. Following maps in “Sri Lanka Sithiyam Sangrahalaya” (Sri Lanka atlas book), can be shown as examples

- Relief and drainage map on page 11
- Topographic map on page 13.

Activity

1. Prepare a table including different types of maps with page number which can be found in a map book you use.

Direction.

Showing the direction on any map is compulsory. But figure of direction is not shown on some maps in map books. On such occasions, the direction where the heading of the map is shown is considered as North and other directions are determined accordingly. A map can be oriented accurately when the directions of the map are set correctly to the corresponding directions of the mapped area. Accordingly, from the place where you stay, the directions of the places marked on the map can be identified correctly.

Scale.

It is impossible to draw all the things found on the land at the same size on the map. In map books scale of each map is given. According to the scale, the size of the map too is changed. The differences among the scales could be understood further when the scale of wall map in the school and the scales found in map books are compared. According to the need, the map drawn may be large or small.

The topographic map of Sri Lanka drawn by the Survey Department of Sri Lanka is drawn to the scale of 1: 50 000 representing 50 000 cm on land by 1 cm on map.

Activity

1. Write scales found in different pages in the Atlas book you use.

Key

The key too is compulsory to read maps. Every piece of information represented on the map is shown in the key by conventional signs. Identify how the key is helpful to read a map by observing the following map.



Activities.

The following questions are given based on Map 5.1. Answer them

1. Draw the signs and write the relevant information connected to them in your exercise book after observing the Map 5.1 and the key.
2. What is the scale of this map?
3. If you are in Kandy in which directions do you find Trincomalee, Batticaloa and Colombo?
4. Write the names of three Airports, Harbours and Wild life parks by observing the map using the key.

Index

An index compiled according to the alphabetical order is set in map books. It is helpful to find the location of a certain place. The relevant index to the road map of Sri Lanka shown on page no 104-109 in the book “Jathika Sithiyam Sangraya” (National Map Collection) is given on pages 110-114 in the same book. There is a grid on these maps and they are named by letters horizontally and by numbers vertically. Accordingly, the location of a place can be found by observing the gride of the map with reference to the letters and numbers in the index.

Activities.

1. Find and write the location of three places in Sri Lanka using the index of the map book you use.
2. With reference to the index, write the numbers and squares relevant to the city your school is located.

Copying maps.

Copying maps can be done in different ways. Methods of copying have developed with technology.

- Copying by using tissue paper.
- Photo copying.
- Printing.

It is expected to give the skill of copying a map of Sri Lanka to a paper from a model map of Sri Lanka.

You need

- Map book
- Tissue Papers/Other transparent papers
- Pencils
- Paper pins or Paper clips.



Figure 5.1 - How a map is copied.

Step One.

- Choose a model map of Sri Lanka either from Sri Lanka National Maps Collection or another map book.
- Set the tissue paper on the map and draw the coast line.
- Set the tissue paper on the paper you need to copy the map, and draw on that line again.
- Now remove on the tissue paper and draw the coast line of Sri Lanka on traced line on paper.

Cleanliness and neatness are compulsory in copying maps.

- Copying the border of a country can be done correctly through this.

Glossary

• Using maps	- සිතියම් පරිහරණය	-- தேசப்படங்களின் பயன்பாடுகள்
• Survey Department	- මිනින්දෝරු දෙපාර්තமේන්තුව	- நில அளவையியல் திணைக்களம்
• Key	- සැලකිය	- குறியீட்டு விளக்கம்
• Direction	- දිශාව	- திசை
• Index	- සූචිය	- பொதுக் குறியீடு
• Scale	- පරිමාණය	- அளவுத் திட்டம்
• Wall Map	- බිත්ති සිතියම්	- சுவர்த் தேசப்படங்கள்
• Conventional signs	- සම්මත සංකේත	- நியமக் குறியீடு
• Copying Maps	- සිතියම් පිටලස් කිරීම	- தசப்படங்களைப் பிரதிபண்ணுதல்