

5

Reading of 1:50 000 Topographic Maps of Sri Lanka

Physical features and human or cultural features of a landscape is presented by maps. It is expected to study the physical and cultural features presented in the topographic maps of Sri Lanka in this unit.

1:50,000, Topographic maps of Sri Lanka

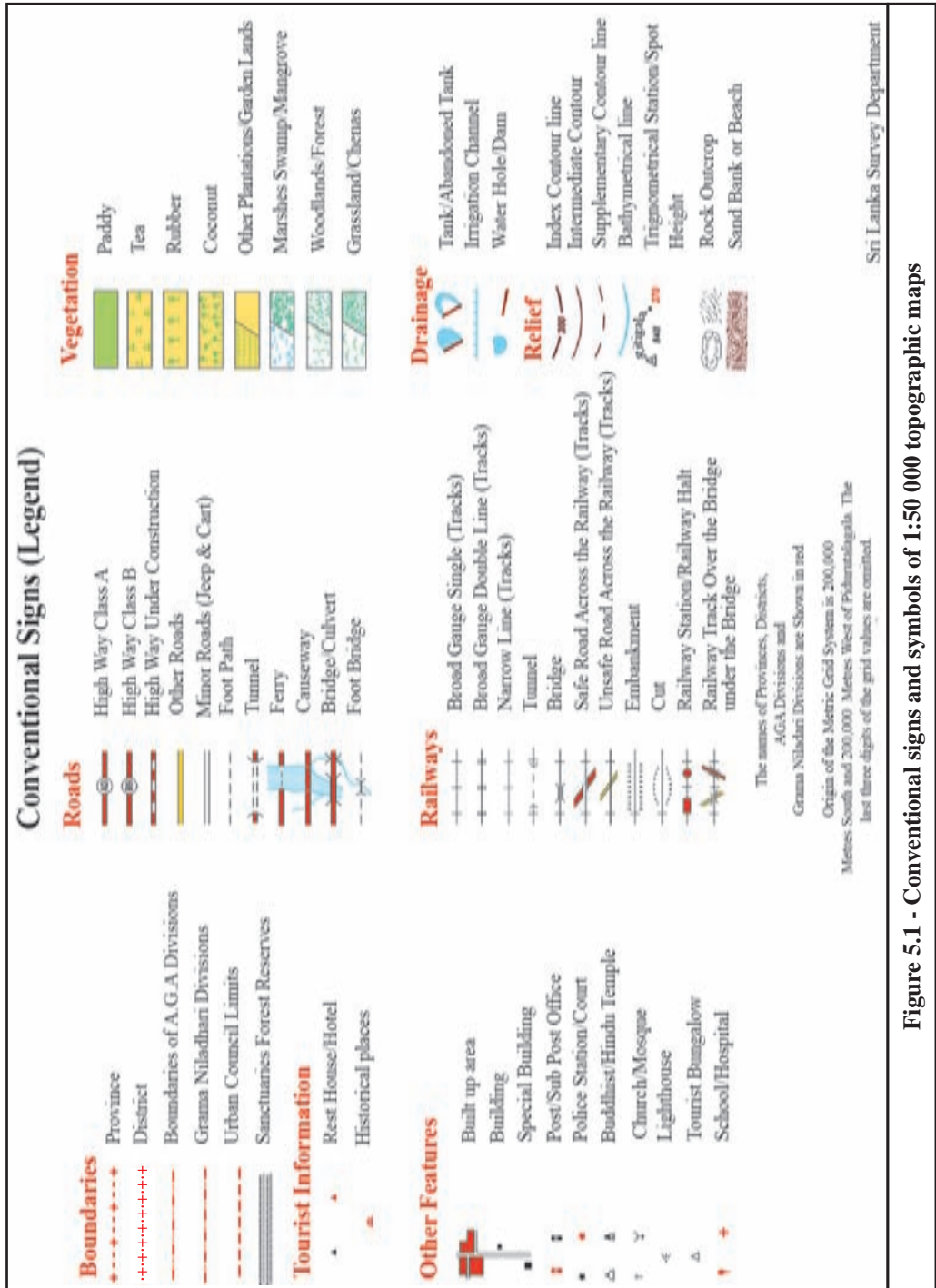
You have studied the scale, size of a topographic map as well as selected physical and cultural features presented in a topographic map in grade eight. Ninety two map sheets have been prepared to the scale of 1: 50 000 to show the topographic features of Sri Lanka. The key that consists of conventional signs and symbols shown in the lower margin of the outer border of the map sheet can be used to read physical and cultural features presented in these topographical maps. Identify the convectional signs and symbols shown in the lower margin of the outer border using a 1:50 000 topographic map found in your school.

So far you have studied that relief features are presented in 1:50 000 topographic maps by contour lines. Topographic features can be easily identified by understanding the distribution of contour lines.

All things built on the physical environment by the intervention of man are called cultural features.



Map 5.1 - A segment of a 1:50 000 topographic map



Sri Lanka Survey Department

Figure 5.1 - Conventional signs and symbols of 1:50 000 topographic maps

Activities

1. Study the key shown in figure 5.1 well.
2. After studying map 5.1 thoroughly, name the physical and cultural features used from 1 - 20, according to the numbers separately.
3. Draw these features using conventional colours and symbols.

Let us identify physical and cultural features of 1:50,000 topographic map of Sri Lanka by studying a segment of it.

Physical Features

Several selected physical features found in a 1:50 000 topographic maps are shown below.

- Plain
- Highland
- Main river
- Tributary
- River valley
- Island
- Point/ Head
- Bay

Plain - A plain is a flat area on land. A plain in a map can be identified by the widening of the gap among the contour lines. Even in a plain, small higher places are found scattered. Such places can be identified by a spot height. (Figure 5.2)

Highland - Regions located at higher elevation are called highlands. A highland can be identified in a topographic map as contour lines that are distributed close to each other.



Figure 5.1- Plain



Map 5.2 - Plain and highland

River Valley - Elongated low lands located among highlands are called valleys. Main rivers and tributaries flow through valleys.

Main river - Massive water which flows to a lake or to the ocean across an area from a highland is know as a main river.

Tributary - Small water streams from which water is provided to the main river are known as tributary.



Figure 5.3 - River valley



Map 5.3 - River valley

Various topographic features are found in coastal areas too. Islands, point, bay are some of them.

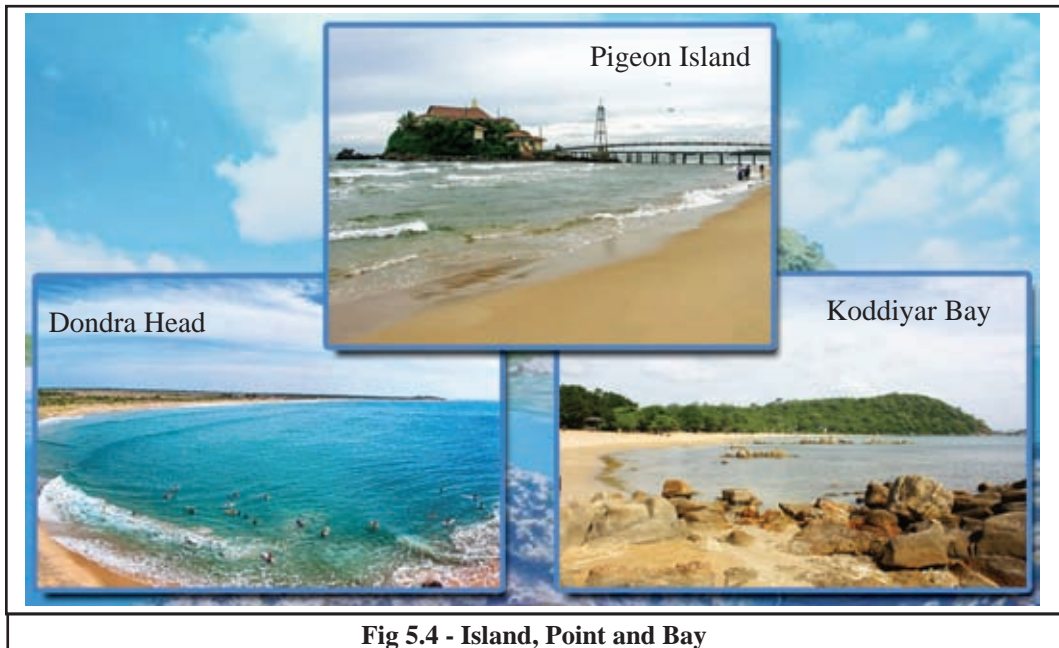
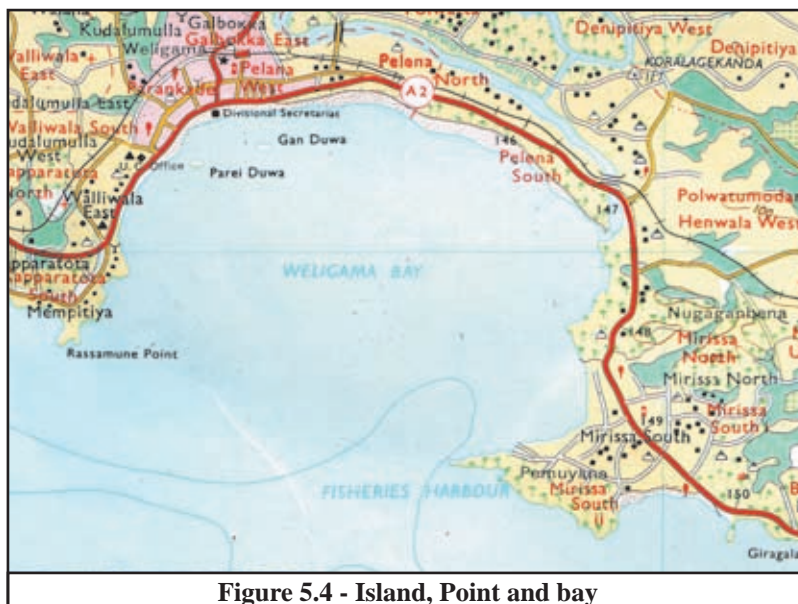


Fig 5.4 - Island, Point and Bay

Island - Small land areas surrounded by the sea are called islands. Many islands are located on the North East coast close to Jaffna peninsula.

Point - Narrow pieces of land that jut out towards the sea are also found in the coastal belt. They are known as heads or points.

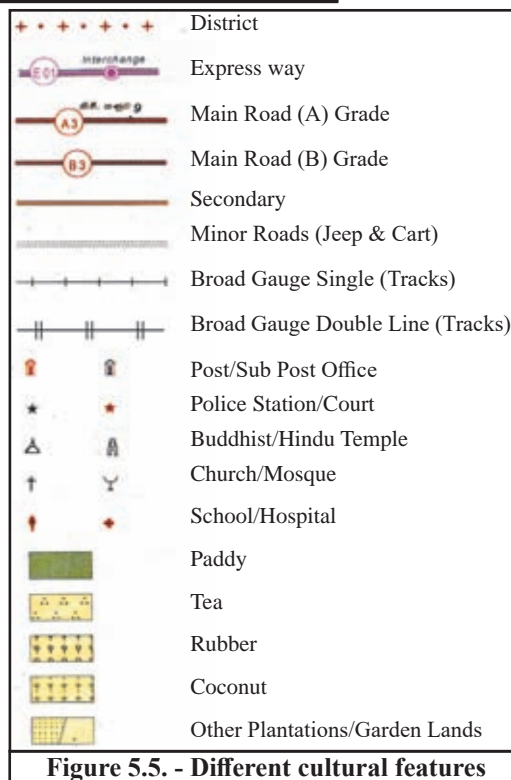
Bay - The sea area that indents into land is called a bay.



Cultural features

Several cultural features selected from a 1: 50 000 topographic map are used for studying.

- District Boundary
- Express ways
- Main Roads (A and B Grade)
- Other Roads (Secondary/ Not main)
- Railway Lines
- Paddy, Tea, Coconut, Rubber and Home gardens
- Religious Places
- School, Hospital, Police, and Post Office



These cultural features are shown on maps by different colours and symbols.

New maps are being printed by the Sri Lanka Survey Department using standard symbols and colours.

Map 5.5 indicates Point Pedro, an extraction of Map no 02, which is completed up to now.

Symbols and colours of these new maps have been altered.



Map 5.5 - Point Pedro - New Map (2017)

The relationship between physical and cultural features

When you read 1: 50 000 topographic maps of Sri Lanka, it is clear that there is a relationship between the physical and cultural features. There is a close relationship between the physical features such as relief and drainage of a region and cultural features such as housing and settlements, land tenure, irrigation system and road network of that particular area. Physical features have been mostly utilized when the administrative boundaries are determined.

- Settlements are widely distributed in plains. Settlements in mountainous regions are distributed in low lands located in between mountain ranges and in valleys.
- The agricultural land use is distributed in accordance with the relief and drainage. This is clear in topographic maps.
- Paddy lands are distributed widely in river valleys in flat lands. They are also distributed as narrow belts along the river valleys in hilly areas.

- Tea cultivation in hilly areas, rubber cultivation on slopes at medium elevation and coconut cultivation in coastal regions and suburbs are seen.
- It is clear that relief has influenced the construction of tanks and irrigation systems. Tanks have been built damming the rivers by constructing bunds at the place where they flow through the gaps in ridges. Water is supplied through the canals constructed following the gradient of the land.
- The physical features have influenced the construction of main roads too. Though the road network runs straightly on flat regions, in a hilly region it runs according to the relief. River valleys and river gaps have been mostly used in road construction.
- When administrative boundaries are decided, it is clear that, they have been based on physical features like rivers and mountain ranges.

Observe the relationship between physical and cultural features using the segments of topographical maps provided.

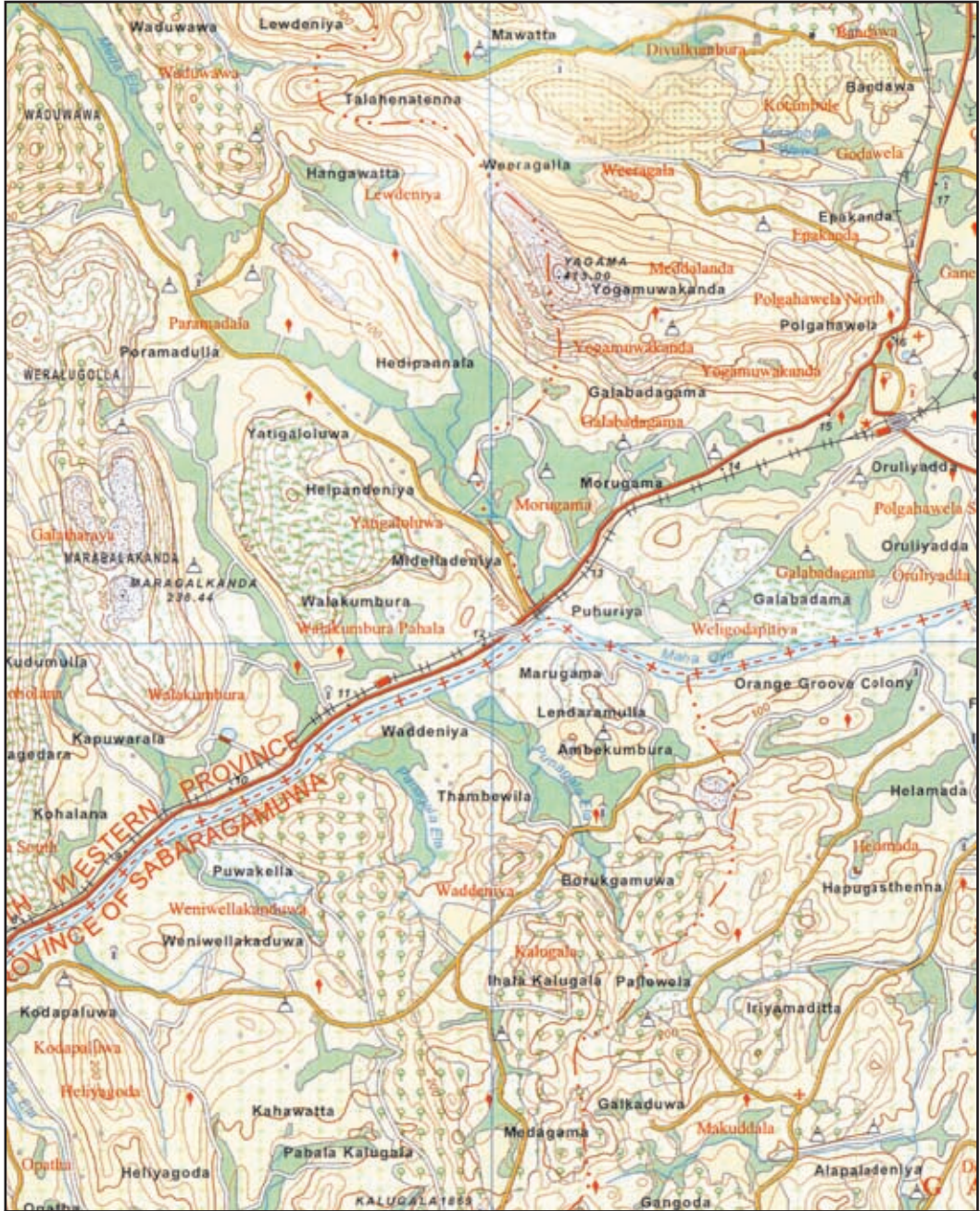


5.6 and 5.7 - Relationship between physical and cultural features

Activity

Answer the questions based on Map 5.8

1. Name three physical features shown in the map 5.8
2. Name the types of roads which have been mapped out.
3. Name three cultivation of crops that can be seen in the region.
4. What is the administrative boundary separated by the river?
5. Write five sentences indicating the relationship between relief and crop cultivation



Map 5.8 - Segment of 1:50, 000 topographic map

Activity

Across

1. Widely distributed in plains
3. A famous plain in Sri Lanka.
5. The largest water bodies.
7. Row of bushes or small trees

Down

1. Cultural feature shown in key.
2. A method of farming in hilly regions.
4. The direction shown in maps
6. The longest river in the world



References

- Physical environment of the earth - H.K.N. Karunaratna
- Sri Lanka map collection - School Print - 2nd Edition, Sri Lanka Survey Department
- Physical Geography - Part I - Educational Publications Department

Glossary

• Physical features	- භෞතික ලක්ෂණ	- பௌதிக அம்சங்கள்
• Cultural features	- සංස්කෘතික ලක්ෂණ	- பண்பாட்டு அம்சங்கள்
• Plain	- තැනිතලාව	- சமவெளி
• Highland	- උස්බිම	- உயர்நிலம்
• Main river	- ප්‍රධාන ගංගාව	- பிரதான ஆறு
• Tributary	- අනු ගංගාව	- கிளையாறு
• River valley	- ගං නිම්නය	- ஆற்றுப் பள்ளத்தாக்கு
• Island	- දූපත	- தீவு
• District boundary	- දිස්ත්‍රික්ක මායිම	- மாவட்ட எல்லை
• Expressway	- අධිවේගී මාර්ගය	- அதிவேக நெடுஞ்சாலைகள்
• Highways	- මහාමාර්ග	- பெருந்தெருக்கள்