



Europe

In this chapter, we will try to find out about how the people of Europe have been using their distinct natural environment and resources.

Location of Europe

In order to find out the location of Europe and to see how far it is from India, you will need an atlas or a globe. To begin with, look at Map 1 in which Europe has been shaded. Identify the boundaries of Europe. There is an ocean to its north. Identify its name on the map. This ocean is frozen for most of the year.

- ◆ Name the ocean to the west of Europe.

This ocean separates the two continents Europe and North America. About 500 years ago, the people of Europe discovered the sea route to America and millions of Europeans migrated to the continent of America and settled down there.

- ◆ Look at the atlas and find the name of the sea just south of Europe.

This sea separates Europe in the north from Africa in the south. The name of this sea means 'middle of the world'. Do you know why it is called by this name? In ancient times, the people of Europe did not know about other continents like America

or Australia. They only knew about Europe, western parts of Asia and northern parts of Africa. You can see that all these regions are situated around the Mediterranean Sea. That is why Europeans thought that this sea was in the centre of the world and named it so. It has been known by this name ever since.

- ◆ Name the mountains to the east of Europe.

The Eural mountains are eastern boundaries of Europe. These mountains are not very high. Asia is on the east of these



Map 1: Location of Europe

mountains while Europe is to their west. In fact, Asia and Europe are one continuous landmass. This landmass is therefore called Eurasia.

- ◆ Now you are familiar with the location of Europe. You can also look at the countries of Europe. Look at Map 2 to find out their names. Have you heard the names of some of these countries before?
- ◆ Map 3 has been left blank for your use. Write the names of the countries of Europe on this map and colour them. See that no two neighbouring countries have the same colour.

Mountains, Plains and Rivers

Let us learn more about the mountains, plains and rivers of Europe with the help of Map 4. Europe has several snow-covered mountains. Look for the Alps and the Pyrenees in the map. The Alps, the most important mountain ranges of Europe, are covered with snow all year round.

- ◆ The Alps stretch across several countries. Find out the names of these countries by comparing Maps 2 and 4.
- ◆ Write the names of the two rivers starting from the Alps.
- ◆ Name the countries across whose borders the Pyrenees stretch.
- ◆ Name the mountains stretching to the Eastern Europe.
- ◆ Identify the other mountains in Europe and prepare a table.

The Caucasian Mountains, which lie between the Caspian Sea and the Black Sea,



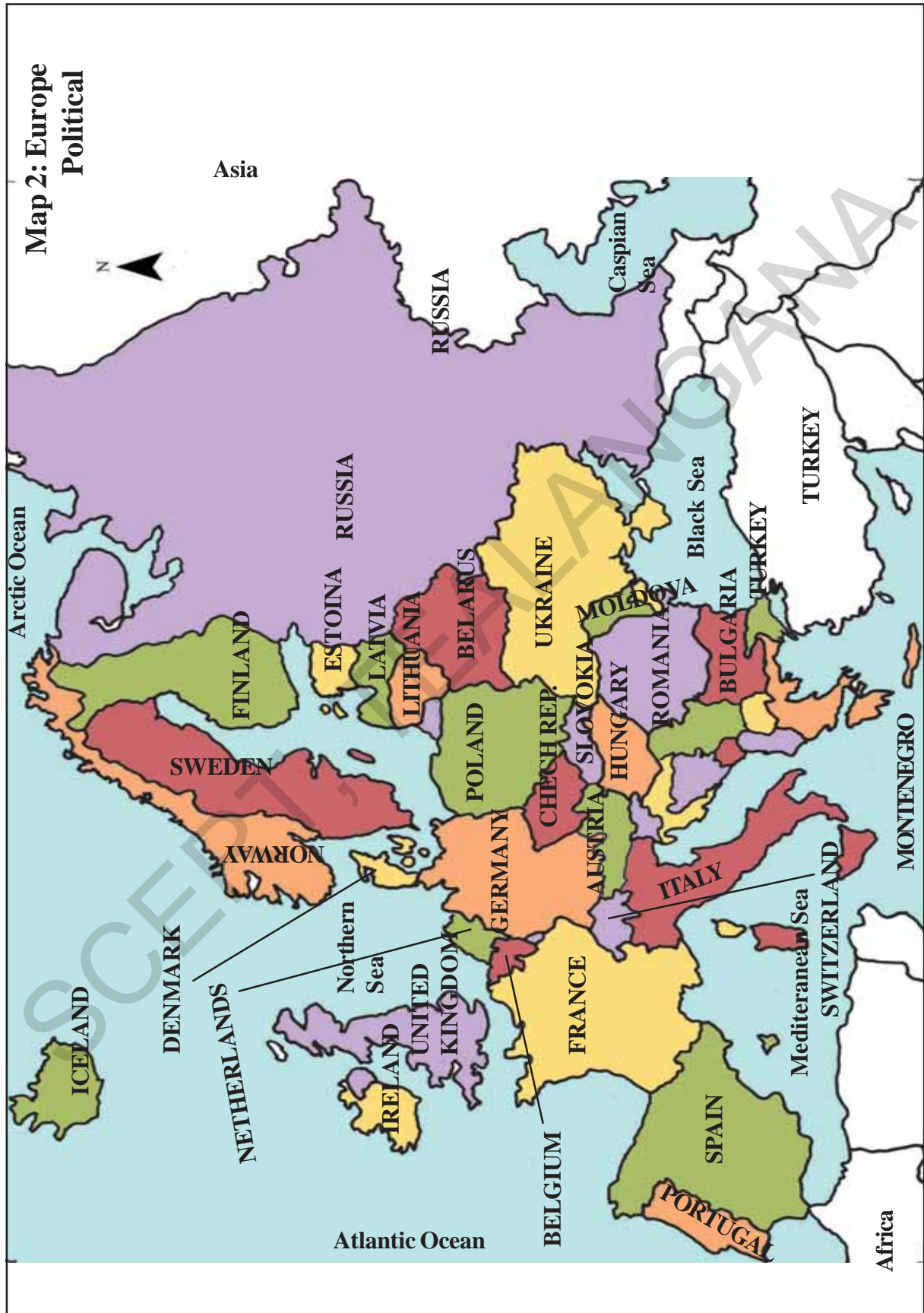
Fig 5.1 Budapest, capital of Hungary by the river Danube in Eastern Europe

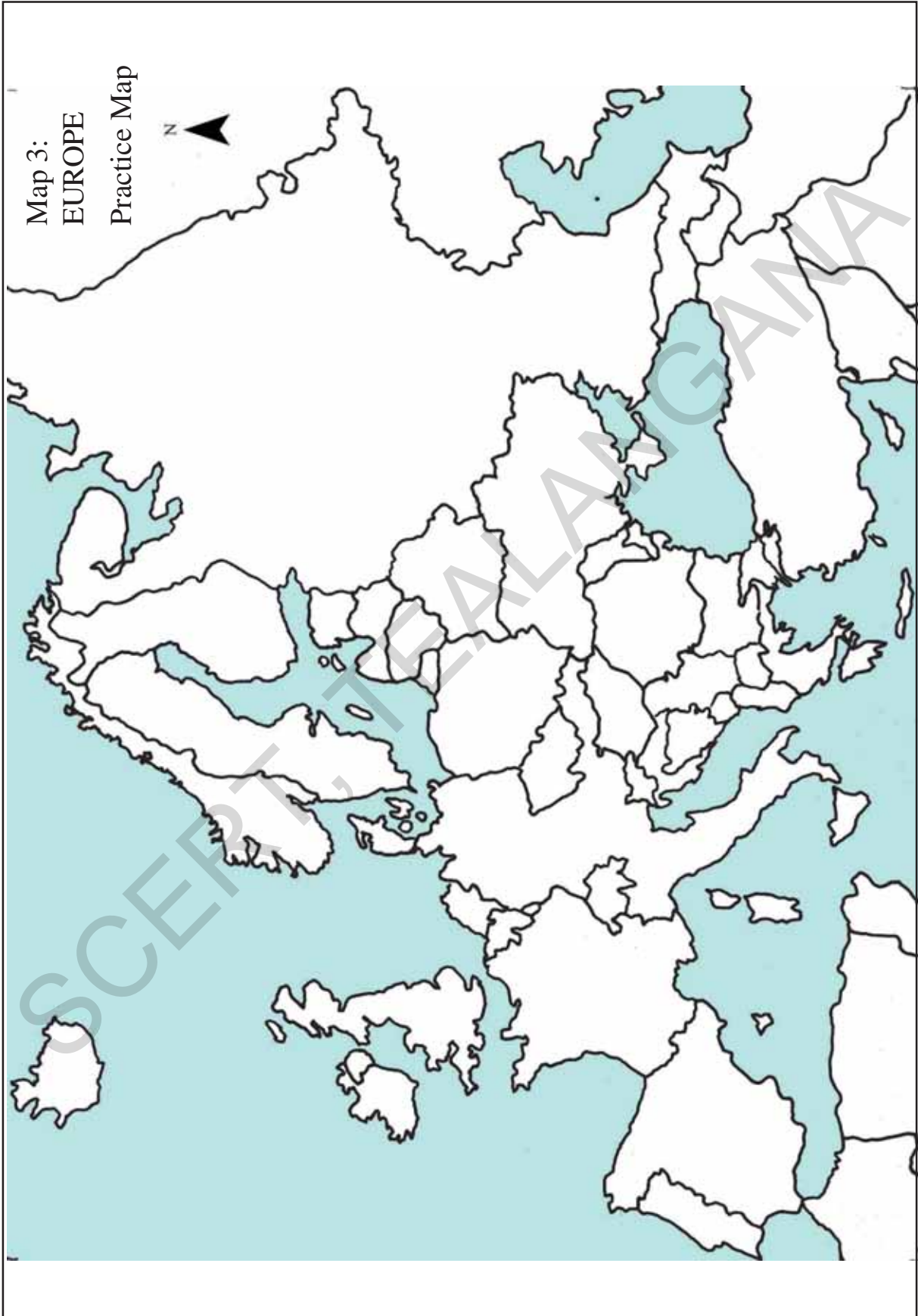
form the southern boundary of Europe. They too are very high and covered with snow all year round.

There is a lot of difference between Asia and Europe. We can see many plateaus in Asia. But, there are no large plateaus in Europe. There are only some small plateaus in France, Germany and Spain. There are vast plains in Europe. Eastern Europe is a vast plain, which stretches across several countries like Russia, Ukraine, Poland, Bylorussia etc. These plains experience heavy snowfall and bitter cold in winters. When the snow melts in summer, small streams start flowing. They join to form mighty rivers. It is from these plains that rivers like the Dnieper and the Volga (the longest river in Europe) originate.

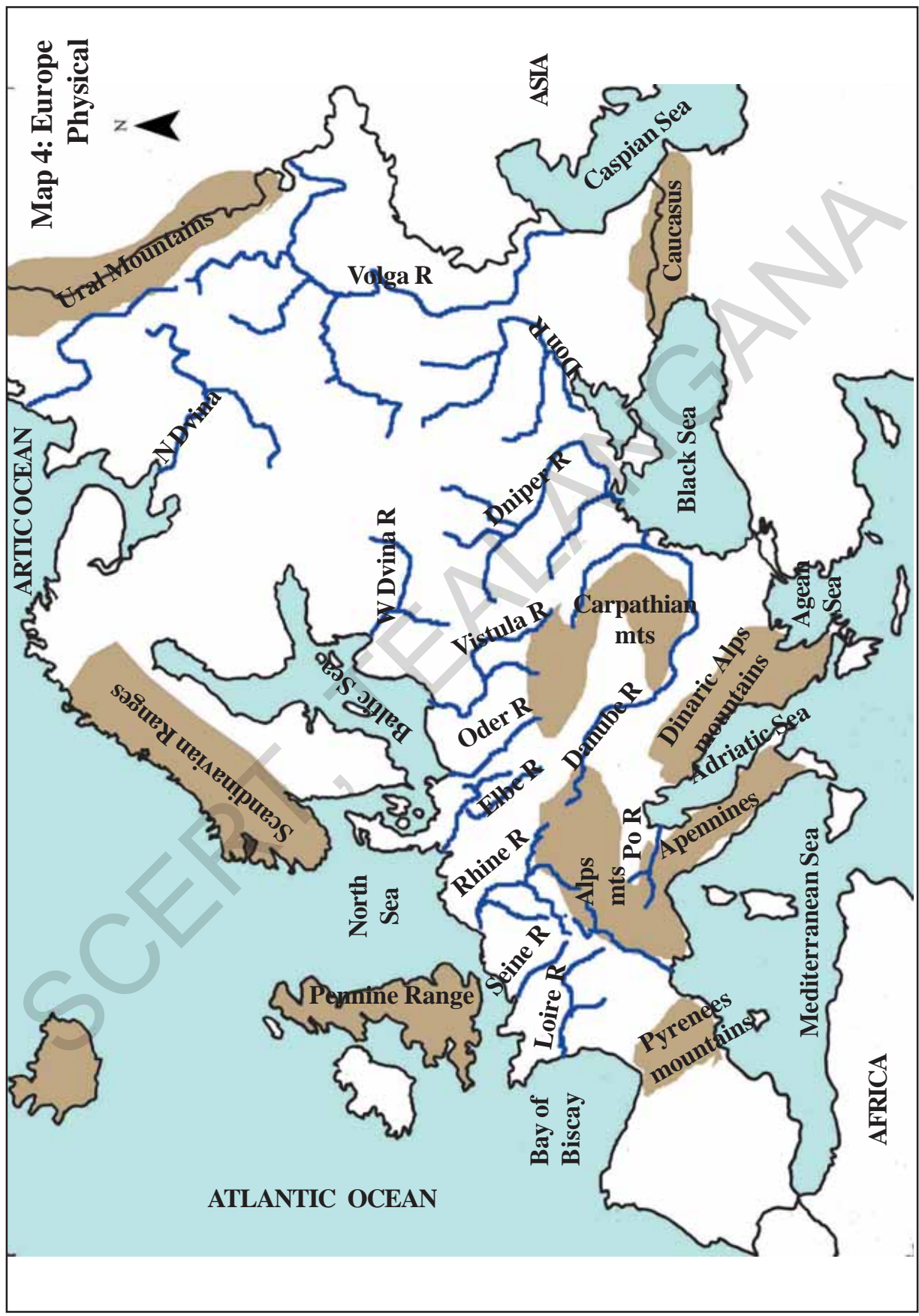
European rivers are used not only for irrigating the fields but also as major waterways; ships and barges ply on these rivers and transport people and goods from one place to another. Since these rivers flow across several countries, they also facilitate international trade and transport. In this respect, the Rhine is one of the most important rivers as it flows through several countries and empties itself into the North

Map 2: Europe Political





Map 4: Europe
Physical



Sea. There are several major industrial and mining cities on the open sea and thus linked to intercontinental trade. Unlike the Rhine, the Volga drains into the Caspian Sea, which is a vast lake. Transport to the open sea through this river-way is not possible. Thus, the cities on the Volga are not linked to transcontinental trade through waterways.

- ◆ Study Maps 2 and 4 to answer the following questions:
- ◆ Names of countries through which the Rhine flows: 1..... 2..... 3..... 4..... 5.....
- ◆ Names of countries through which the Danube flows: 1..... 2..... 3..... 4..... 5.....
- ◆ Names of two mountain ranges on the border of the Hungarian plains. 1..... 2.....
- ◆ Names of countries which ring the Black Sea. 1..... 2..... 3..... 4..... 5.....

- ◆ Names of oceans or seas into which the following rivers empty themselves:

River	Ocean/Sea
1. Seine	
2. Rhine	
3. Oder	
4. Po	
5. Danube	
6. Vistula	
7. Volga	
8. Dnieper	
9. Don	
10. Dvina	

Peninsulas, Islands, Bays and Gulfs

The sea coast of Europe is very jagged. In several places, it appears that the sea has cut deep into the land as in the case of the Baltic Sea. Elsewhere, it would appear that a part of the land has stretched far into the sea as in the case of Italy.

Italy is surrounded on three sides by the sea. Land masses that are surrounded by the sea on three sides and connected to the mainland on the fourth side are called 'peninsula'. Norway and Sweden are also part of a peninsula. You can check this out in the map. This peninsula is called the Scandinavian Peninsula.



Fig 5.2 Peninsula and Bay

- ◆ Which of the following is a peninsula: Greece or France?
- ◆ Are Spain and Portugal peninsulas too?
- ◆ Name the mountain range in the Scandinavian Peninsula.

The sea surrounds some of the European countries, not just on three sides but on all four sides! These are island countries. Great Britain is one such island country.

- ◆ Find out the names of some other island countries of Europe.

Since ancient times, the seas have played an important role in the lives of the people of these islands and peninsulas. Central and southern Europe is largely mountainous. Travel and transport over them is both difficult and expensive. In comparison, sea transport is easy and less expensive. This is the reason why Europeans have been extensively using sea routes since ancient times.

The presence of a large number of bays and gulfs has also facilitated the use of sea routes. *Bays* and *gulfs* are parts of the sea enclosed by land on three sides. In a bay, the land curves inwards and the mouth of the bay is usually wide as in the Bay of Bengal. A gulf is a narrow inlet of the sea and has a narrow mouth. The entire Baltic Sea as you can see in the map is a large gulf. Since the bays and gulfs are protected from the storms of the high seas, they are very useful for building harbours where ships can be safely anchored and cargoes loaded or unloaded. Deep gulfs or bays are preferred for building harbours as large ships can be anchored in them. Ships need deep waters so that their bottoms do not touch the sea floor.

- ◆ Find out the names of the countries on the three sides of the Baltic Sea from Map 4.

Climate

Europe has a cooler climate than ours. Most of its countries experience snowfall in winter. Their summers too are not as warm as ours.

- ◆ Why is the climate of Europe so different from ours? Discuss in the class.

Distance from the Equator

The regions near the Equator remain warm all round the year. As we move northwards or southwards away from the Equator, it gets cooler and cooler. Indeed, the Polar Regions are covered with ice all round the year.

- ◆ Look at a globe or refer to map 1 to see how far is north Europe from the Equator.
- ◆ Is Europe farther than India from the Equator?
- ◆ Norway and Italy are two European countries. Which country do you think is warmer? Why?

The Atlantic Ocean

The climate of Europe is influenced by another factor – the Atlantic Ocean and the winds blowing from it. This impact is felt more by the regions along the Atlantic Ocean than the ones which are far inland.

- ◆ Locate the regions of Europe along the Atlantic Ocean and state whether they are on eastern side or western to the Atlantic Ocean?

In the winters, it is quite cold in Western Europe but it is even colder in Eastern Europe. Thus, countries like Poland and Russia have severe winters while France and Great Britain are comparatively warmer. Russian winters are so cold that the rivers and the nearby seas freeze. However, this does not happen in the countries of Western Europe that are located along the sea coast.

- ◆ Look at the map and tell which country is warmer, Spain or Slovakia?

You would have guessed that this difference must be because of the nearness of Western Europe to the Atlantic Ocean. Let us see exactly how this ocean affects the climate of Europe.

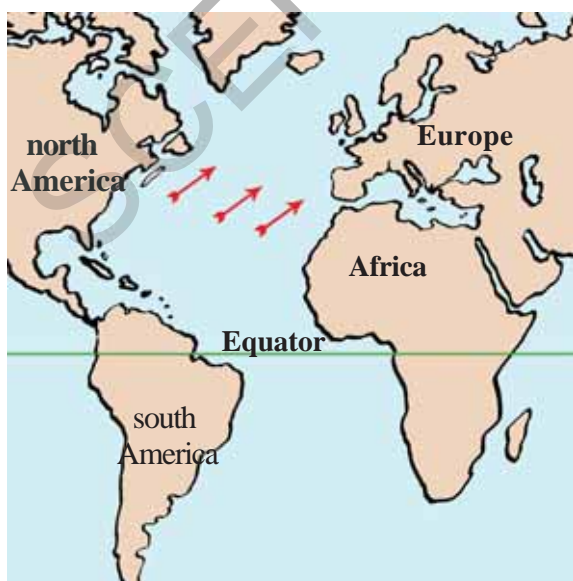
Westerlies

Winds blow all the year round from the Atlantic Ocean towards Europe. Since they blow from the west, these winds are called 'Westerlies' (Actually, they blow from the southwest towards the northeast). These winds are warmer than the land temperature and are moist too. The climate of Western Europe is affected by these warm and moist winds all year round as they blow throughout the year.

- ◆ Can you guess the impact of Westerlies on Europe ?

Warm Ocean Currents

The waters in the oceans are not static. They keep flowing from one place to

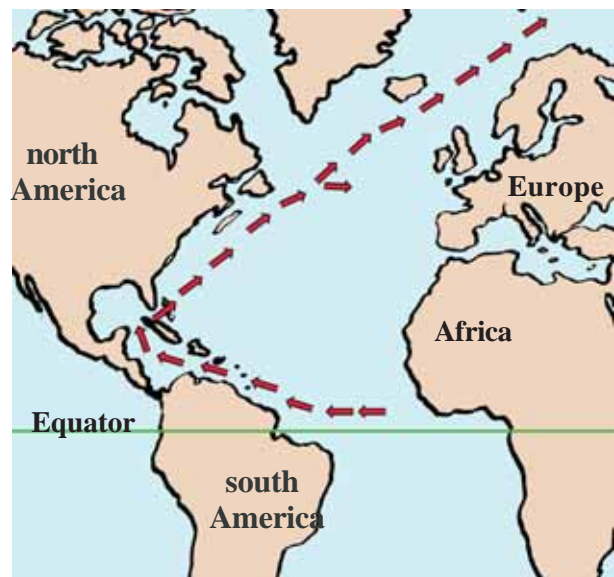


Map 5: The Westerlies

another along the continents. These are the ocean currents, which flow for thousands of kilometers in the ocean just as rivers flow on land.

One such ocean current is to be found in the Atlantic Ocean. This current originates near the Equator where the waters are warm throughout the year. This current flows westward to North America. It flows towards the north along the eastern coast of America under the impact of the Westerlies and then advances towards Europe. Moving northeast wards, it hits the western coast of Europe. This current is called 'Gulf Stream (The ocean water current which flows speedily is called a stream)' in America, while in Europe, it is called 'North Atlantic Drift (The ocean water current which flows slowly is called a drift)'.

The coastal waters of the east coast of North America and the west coast of Europe do not freeze in winters, thanks to the Gulf Stream. Thus, it is possible for ships to visit the ports on these coasts even during winter.



Map 6: Gulf Stream

- ◆ Why do you think is the climate of Eastern Europe not so strongly affected by the warm currents?

Fill in the blanks:

- ◆ The waters near the Equator are..... (warm / cool / icy cold)
- ◆ Starting near the Equator, the Gulf Stream reaches the coast of America. (eastern / western / northern)
- ◆ The Gulf Stream flows in the (Atlantic Ocean / Mediterranean Sea / Black Sea)
- ◆ The waters of the Gulf Stream which hit the European coast are (cold / warm / icy cold)
- ◆ The Westerlies blow from the Atlantic Ocean towards Europe (in winter / in summer / all round the year)
- ◆ These winds are (dry / moist / icy)

Western Europe: Showers all Year Round

The Westerlies, which blow throughout the year, also bring ample moisture to northern and western Europe. Since these winds blow from the sea, they carry a lot of moisture and regularly cause rainfall. Therefore, it rains throughout the year in northern and western Europe. While it rains only for a few months in our country, there are light showers all round the year in Western Europe. The sky is usually clouded. While we, in India, eagerly await cool showers, the people of Western Europe await bright sunny days.

- ◆ What differences did you notice between the climates of India and West Europe?

Western Europe also benefits in other ways from the Gulf Stream. The warm currents are very good for fish breeding as they contain ample food material for the fishes. As a result, the fishery industry is well developed in the North Sea near Britain. This part of the North Sea is called 'Dogger Bank'. Fish is an important part of the food of the Europeans and fishing is a very important industry in Europe.

- ◆ Name the countries which would benefit from the Dogger Bank.

Mediterranean Climate in Southern Europe

Look at the countries of Southern Europe. They have the Mediterranean Sea to their south, so they are called 'Mediterranean Countries'. The lands along the Mediterranean Sea have a distinct climate called the '*Mediterranean climate*'.

- ◆ Look at Map 2 and name four Mediterranean countries.

The Mediterranean countries are the southernmost countries of Europe. As a result, the winters here are not too cold and summers are warm. It does not rain all through the year as in Western Europe. The Westerlies blow here during the winter months only. These winds bring rain to the Mediterranean countries. In other words, it rains here only in winter. Such rainy winters and dry summers are termed as '*Mediterranean climate*'. Several regions in other continents too have a

Mediterranean climate. This climate is very good for growing juicy fruits. Thus, regions with Mediterranean climate are famous for their fruits. Fruits like olives, figs, grapes, oranges etc. are grown extensively in southern Europe.

- ◆ Compare Mediterranean and Telangana climates on the following aspects:
Seasons
Rainfall
- ◆ When does it rain the most in your state, in summer months or in winter months?
- ◆ Find out if your region gets light winter showers and the name given to it in the regional language.
- ◆ Fishing industry is importance in,
- ◆ whereas fruit growing is important in

Four Seasons

In our country, we have three seasons, winter, summer and rains. However, most European countries have four main seasons. They are winter, spring, summer and autumn. The look of the land changes according to the season and the agricultural routine changes too. The transformation of a place over these seasons can be seen in the pictures given in the next page.

Winter: As November approaches, it begins to get cold. December onwards, it gets very cold and snow begins to fall once in a while. It snows heavily on the mountains and less on the plains. The sun shines once in a while. The sun rises very late in the day, at about nine or ten O' clock and sets by

four O'clock in the afternoon. The overcast sky makes it even darker. Broad-leaved trees shed their leaves in winter and stand entirely leafless.

Spring: The landscape begins to change as March comes. The days get longer and the nights shorter. The snow begins to melt and new shoots appear on trees. Fresh green leaves appear and colourful flowers bloom everywhere. Lush green grass begins to grow on the pastures.

The fields are ploughed in spring and sowing is done during this season. Wheat, rye, barley, corn, sugar beet and oats are the principal crops.

- ◆ Which of these crops grow in our state and in which area?

Summer: It is summer from June to August. It does not rain much and there is more sunshine. The days are longer - longer than our country too. The sun rises as early as four O'clock in the morning and sets after eight O'clock in the evening. In fact, in the northern countries like Sweden, the Sun does not set at all. These countries are called lands of Midnight sun. Nevertheless it does not get very hot. This is because the Sun does not rise high on the sky and remains close to the horizon – where the earth and the sky seem to meet.

Summer is the season of agriculture in Europe. Crops mature in this season. There is no need for irrigation as the occasional showers are sufficient for the crops. At the end of summer, the crops are ready to be harvested.



Winter



Spring



Summer



Autumn

- ◆ Look carefully at the pictures above. They belong to different seasons. What differences can you identify?

In our country, we have two agricultural seasons: *Rabi and Kharif* (winter and monsoon). Thus, it is possible to grow crops for nearly eight to ten months in a year. On the other hand, in France and other European countries, cultivation is possible only for six to seven months.

Autumn: The climate changes once again in September and October. Tree leaves turn red and yellow and begin to fall. Agricultural operations are wound up. Hay is cut and dried for feeding farm animals in winter. Grapes and other fruits are plucked and used for making wine, jams and juices of various kinds and preserved in other forms.

Land and Agriculture

European plains and river valleys are very fertile. It rains here all through the year and the rivers also do not dry up in any season. As a result, the plains are highly suitable for agriculture. However, a large part of Europe is mountainous and not suitable for agriculture. Some countries have very little agricultural land. For example, only 3% of the land in Norway is available for cultivation. 30% of England is cultivable while in Germany, it is about 40%. This is very different from our country. In India, as much as 55% of the land is cultivable.

There is an acute shortage of land in Holland. The people of Holland (the Dutch) have reclaimed small portions of land from the sea by building embankments called

dykes to push back the sea. The land that is reclaimed is called 'polder'.

In eastern and northern Europe, it is not possible to cultivate the land in winter as snow covers it for almost six months. The snow begins to melt only in spring leaving very little time for crops to ripen. It is in spring that sowing takes place and crops ripen in the summer months and are ready for harvest in autumn. As a result, it is possible to raise only one crop in a year in these parts. However, in southern Europe it is possible to raise two crops a year.

- ♦ Why is it possible to raise two crops in the Mediterranean countries?

Wheat is the main crop in the European plains. It is grown extensively in France, Germany, Russia, Ukraine, Poland, Italy, Greece etc. We have seen that fruit cultivation is prominent in southern Europe. Fruits like grapes are used for making wine. The Mediterranean countries like Portugal, Spain, Italy and southern France are famous for their wines.

Barley, oats, rye, sugar-beet, potato etc. are also important crops of Europe. Sugar

is manufactured from beet in Russia, Ukraine and Germany.

Agricultural Revolution

Europe was like Asia, a continent of small farmers and landlords. However, over the last two centuries this has changed so drastically that only a very small section of the population practices agriculture and there are no small farmers as in India. This happened due to technological revolution which enabled farmers to cultivate large tracts of land with very little labour. Machines, chemical fertilisers etc came to be used extensively in farming and the product of farming was now mainly for sale in the market. At the same time, large landowners and capitalists took over the agricultural land from small farmers who abandoned agriculture and took employment in the cities in industries or other services.

European Farms today

Most of the cultivation in Europe is carried out in large farms - more than 50 to 100 acres in size. Generally, farmers build their houses in their own farms. The farmhouses are usually very large and have a number of rooms for different purposes - sheds for animals, godowns for storing grains, coops and sties for poultry and pigs.

These big farmers hire labourers to work on their fields. They also use heavy machines like tractors and harvesters. Almost the entire product is sold in the market. Sometimes the farmers also hire machines from nearby cooperative societies.



Fig 5.3 Hay bales after the harvest which will be stored as fodder for winter.

- ◆ Find out the average size of the farmer's land in your area.
- ◆ Do farmers in your area too hire tractors and harvesters?

Large holdings and mechanized farming enable European farmers to earn a good income. They live in comfortable houses equipped with modern amenities. They use gas and electric stoves for cooking. About fifty years ago, most European farmers baked their own bread. Now, they sell off most of their produce and buy their bread from the market daily. Several varieties of bread and cakes are available in nearby towns. Fresh meat, which is an essential part of French diet, is obtained from poultry, cattle and pigs of the farm. Meat is also preserved by smoking, drying or freezing. All houses have larders or cellars to store meat, cheese and wine. Now, they are also stored in large cold storages.

The farmers obtain most of the things of their requirement from the nearby towns. Besides bread and other food items, they also obtain agricultural tools and machines from nearby towns.

Modern Agriculture

In Europe, agriculture is practised as a commercial enterprise, just as any industry. The farmers make his living by selling their entire produce and getting all of their requirements from the market. The agricultural technology they use also requires the use of hybrid seeds, chemical fertilisers, pesticides etc.

However, compared to our country, very few people in Europe are dependent upon

agriculture. Most of them work in industry or service sector like banks, transport etc. Even those who work in the field of agriculture are helped by the government with a lot of subsidy to carry on farming as it gives them less income than other kinds of work. The government pays them for carrying on agriculture in the villages.

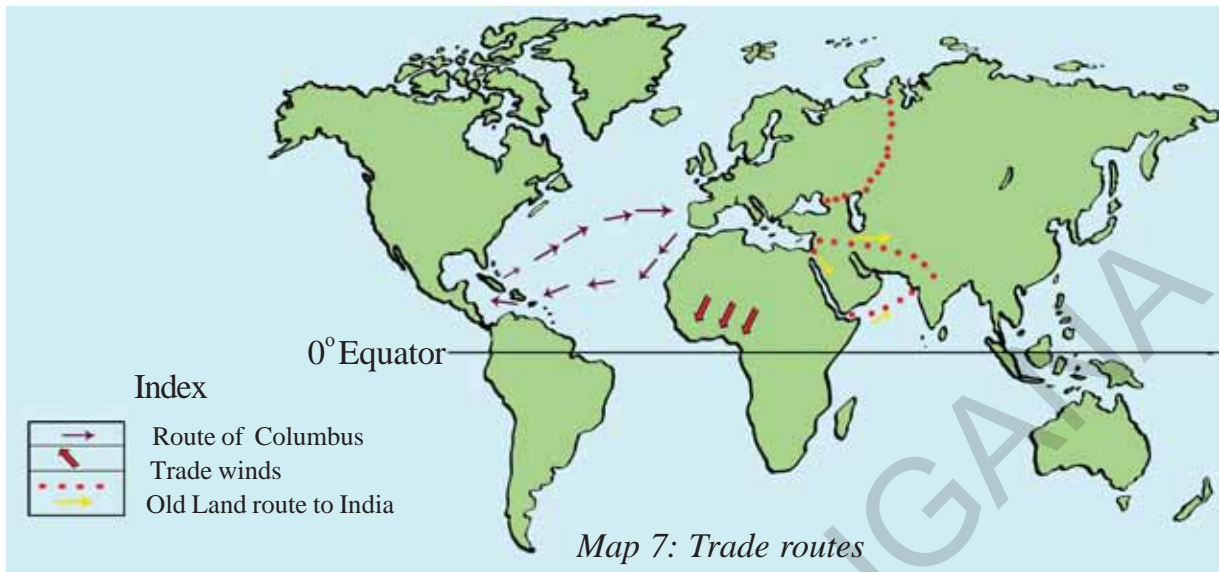
Discovery of Sea Routes

No part of western Europe is too far from the ocean. In contrast, many countries of Asia are thousands of kilometers from the sea.

- ◆ Look at the wall map or atlas to identify the names of at least six cities of Europe which are situated on the sea coast.

There are thousands of such seaside settlements where seafaring people have been living for hundreds of years. With centuries of experience of sea travel, the European sailors were famed for their skill and courage on the seas. They were also skilled in building boats and ships. Initially ships were built and used for fishing in deep seas. Later on, they are used for international trade too.

From the very ancient times, the people of Europe have been trading with India and other countries of Asia like Indonesia and China. From these countries, Europe obtained many goods like cotton and silk cloth, gems, ivory and spices such as cloves, pepper and cinnamon – that were not available in Europe. The Europeans got these in exchange for gold and silver, which they brought from Europe. Do you know



what route they took from Europe to India? Look at map 7 in which two major routes are given. Both the routes crossed the Mediterranean Sea; while one of them took a land route via the Middle East, Iran, and Afghanistan, the other route took a sea route via the Red Sea and the Arabian Sea.

About five hundred years ago, the West European sailors and traders began to search for new routes to India. This was because both the routes mentioned above passed through countries ruled by the Arabs who were often at war with the Europeans. Further, most of the trade in the Mediterranean Sea was controlled by Italian merchants who did not let in traders of other countries. That is why the sailors of the other countries began to look for routes to India that did not have to pass through the Mediterranean Sea or the Arab ruled countries.

- ◆ Looking at the map, can you tell what the new route could be?

Of course, these maps did not exist in those days and people had just begun to

figure out that the earth must be round and not flat. An Italian sailor named Christopher Columbus thought: 'If the earth is round then it should be possible to reach India from the west too. If we were to travel westward across the Atlantic Ocean we would reach China and India sooner or later.'

- ◆ Look at a globe to check whether Columbus's thinking was correct.

Columbus set out with three ships in 1492 to cross the Atlantic Ocean. After three months of sailing, he saw land ahead. Columbus thought that he had reached India. Actually, he was still far from India; he had reached the country which we now call the West Indies. These are a group of islands near America. In fact, Europeans did not know of America before Columbus. In a way, he 'stumbled' onto America. Soon, Europeans realized that Columbus had not reached India but a new unknown continent. After that, several Europeans went to America to trade, conquer and settle there.

The ships of those times had sails to harness wind-power. They sailed with ease with the winds blowing westwards towards America. Were they the Westerlies? No, they were not the Westerlies which blew towards Europe. These were different winds, which blew from the south of Europe towards the south-west direction. They blew throughout the year and took ships from south-west Europe to the east coast of America. They are called 'Trade Winds' (Map 7).

The Westerlies blow from the south-west to the north-east to the south-west. In other words, the two winds blow in opposite directions all through the year (both these winds are shown on Map 7). This helped Europeans to travel to and from America easily. They could go to America using the Trade Winds.

Look at Map 7 and answer the following questions :

- ◆ Which winds would help the sailors to return to Europe from America?
- ◆ Could the sail driven ships use the Trade Winds to return to Europe? Give reasons.


After Columbus, the Europeans discovered several sea routes. They could now sail not only to America but also to different parts of Africa, India and Australia. They traded with these countries and amassed immense wealth, which was used to develop industries in Europe.

You will read about the industrial revolution in Europe in greater detail in a later chapter.

Keywords :

1. Peninsula
2. Island
3. Bay
4. Currents
5. Gulf
6. Climate

Improve your learning

1. The Atlantic Ocean has a great impact on the climate of Europe as well as on the lives and livelihood of the people of Europe. Collect relevant information and write an essay on the theme. 
2. Answer these questions with the help of the maps given in the chapter:
 - Which of the following is not a landlocked (surrounded by land) country – (Hungary / Romania / Poland / Switzerland)?
 - Which mountains lie between the Caspian Sea and the Black Sea – (Alps / Caucasus Mountains)?
 - Which countries are on the shores of the Arctic Ocean – (Russia / Germany / Sweden / Norway)?
 - Can a ship sail from the Black Sea to the Atlantic Ocean? If yes, trace the route it will have to take.
3. Why are harbours built in deep gulfs or bays?
4. Why are the winters less severe in Western Europe than in Eastern Europe?
5. Name four countries on the coast of the Black Sea.
6. How do the Westerlies benefit the people of Western Europe?
7. What are the characteristics of the Mediterranean climate? Name the countries which have a Mediterranean climate.
8. What are the factors that limit European agriculture?
9. Name the important crops of southern Europe.
10. How can you say that the trade and cultural relations have developed among the countries due to the discovery of new sea routes by European sailors?
11. “However, as times changed, trading with them” Read the above paragraph in page no: 56 and comment on it.
12. How is agriculture similar or different in Europe from that of our country?