

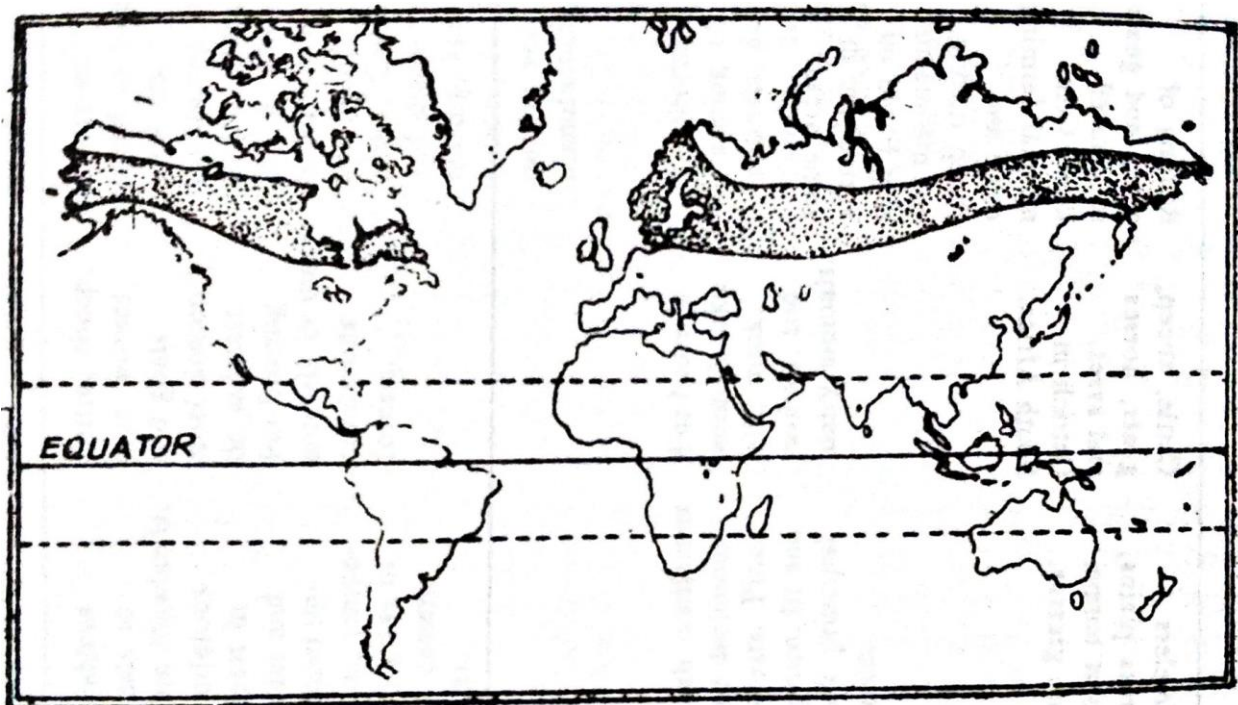
UNIT – V: Cool temperate Polar Regions – Taiga and Tundra - Situation, Extent, Climate, Natural vegetation, Flora and fauna, Natural resources, Human life and Economic development.

COOL POLAR REGIONS

(A) CONIFEROUS FOREST REGION OR TAIGA TYPE

Situation and Extent

- ✚ This region lies between the latitudes **60° and 70° north** of the equator.
- ✚ It includes **two important belts** of forests—**one belt** lies in the northern part of North America. It stretches from Alaska in the west to Newfoundland in the east, and passes through the northern plains of Canada.
- ✚ The **second belt** occupies the northern part of Eurasia from the Atlantic coast in the west to the Pacific coast in the east. It includes parts of Norway, Sweden, Finland, Lapland, northern Russia and the Sakhalin Islands.



Polar Regions—Coniferous Forest Type

Climate

(1) The winters are long and severe and summers short and warm. There is a wide seasonal range of temperature. In a number of places in north central Siberia the average annual range of temperature is 50°C.

(2) In summers, days are very long and nights correspondingly short. In winters, however, nights are very long and days very short.

(3) Rainfall is scanty as that of the desert regions of the tropics and occurs mainly in summer. Evaporation, however, is low and the light rain suffices for plant growth. In winters, there is snowfall.

Vegetation

- These areas are covered with coniferous forests called the Taiga.
- Trees have needle-shaped, hanging down leaves which protect them from frost and snow during winter. The leaves are also very coarse and tough like leather which saves them from injury caused by cold winds. The trees yield soft, light timber of great commercial value. It is easy to cut and makes good packing material.
- Pine, fir, spruce, beech, birch, larch, etc., are principal trees growing in this region. Trees of one specie are grown together, i.e., trees are found in pure stands which facilitate commercial exploitation.

Animal Life

- ❖ These forests inhabit fur-bearing animals. They are white in colour which helps them to hide in snow. Their thick fur protects them against intense cold.
- ❖ The typical animals found in this region are Arctic foxes, wolves, squirrels, deer, elk, sable, otter, silver fox, reindeer and mink. Most of them are of migratory nature and move to the warmer south in winter.
- ❖ Besides, there are beautiful migratory birds like the cuckoo.

Human Life and Economic Development

- ✓ Because of intense cold, very few people live in this region.

- ✓ Most of the people live near the forest areas along roads where transport facilities are available. Their food consists mainly of fish, meat and bread of rye, oats and barley. They wear clothes made of wool and fur to protect themselves against intense cold, and live in wooden houses.
- ✓ As during summer, the melting of snow causes floods and waterlogging and disrupts transport facilities, the activities of the people are confined mainly to winter months.

- ✚ Lumbering and trapping of animals are the principal occupations. Trees are felled during winters and rolled on slippery snow. They are brought to frozen rivers where they are tied together. In spring, the snow melts and these logs are carried by rivers over long distances. The logs are then collected in the sawmills or pulp and paper factories situated downstream or at the mouth of the river. Due to the availability of cheap hydro-electric power, industries like paper, wood pulp, match-boxes and furniture manufacturing are developed in this region.

- ✚ Trapping and hunting of animals are also carried on in winter. The fur of these animals is largely demanded in Europe and the U.S.A. This encouraged hunters to kill these animals on a large scale and led to the destruction of many animals in the past. To check the large-scale destruction of the animal species, the governments of the U.S.A., Canada and erstwhile U.S.S.R. have put restrictions on killing of animals in many areas. Now joint-stock companies have been formed in the U.S.A. and Canada to rear animals for fur, and furbearing animals are reared on big ranches in Alaska and eastern Canada.

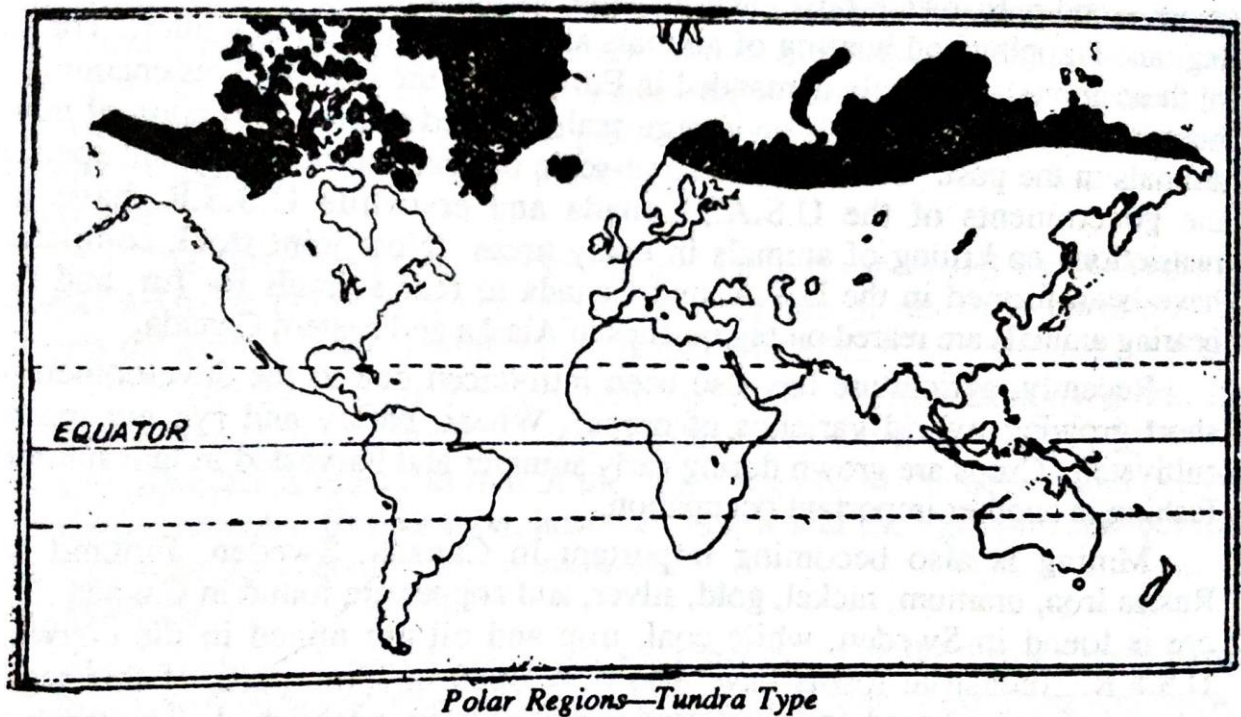
- ✚ Recently, agriculture has also been introduced due to the development of Short growing hybrid varieties of crops. Wheat, barley and rye are mainly cultivated. Crops are grown during early summer and harvested in late summer. Fishing is another important occupation.

- ✚ Mining is also becoming important in Canada, Sweden, Finland and Russia Iron, uranium, nickel, gold, silver, and copper are found in Canada ; iron Ore is found in Sweden, while coal, iron and oil are mined in the erstwhile U.S.S.R. Industrial towns have also developed in some parts of this region where industries based on forest products have been established. The principal manufactures are paper, woodpulp, match-boxes, resin, turpentine and packing boxes. Aluminium industry based on imported bauxite and local hydro- electricity is developed in Canada.

(B) COLD DESERTS OR TUNDRA TYPE

Situation and Extent

This region lies to the north of the Taiga beyond 70° latitudes. It includes the extreme northern part of Siberia, extreme northern part of Europe, Northern Canada and Alaska.



Climate

(1) It is terribly cold throughout the year. For more than 8 months in the year, the temperature remains below freezing point. The snowfall occurs even in summers. During the short summer, the snow up to a depth of about 6 feet melts, but below that it never melts and thus long-rooted plants cannot grow here.

(2) The days are very long in summer, lasting 20 to 22 hours. On the contrary, nights are very long in winter. The rays of the Sun are always slanting and the weather remains cloudy throughout the year.

(3) There are sharp changes in weather in summer. In winters, the blizzards blow.

Vegetation and Animal Life

- ✚ This region is too cold for forests. However, during the short summer small plants, 45 to 50 cm in height, grow rapidly.
- ✚ The natural vegetation of this region is plants like mosses and lichen and grasses. Reindeer, the most important animal of this region, feeds on moss and lichen.
- ✚ Other animals are caribous, arctic fox, dogs and the musk ox, found largely in the Arctic Prairies of Northern Canada and Alaska. Polar bears are also found in small numbers.
- ✚ Fish, seals, walruses and whales, as well as several kinds of birds, are found in the adjoining seas and coastal lands.

Human Life and Economic Development

- ❖ The Tundras are most sparsely populated, the average density of population nowhere exceeds one person per square kilometre. The people are known by different names—the Lapps in Europe, the Eskimos in North America, the Koreans, Kamchandangals and the Kamchatkas, etc. They are simple and primitive. Hunting, fishing and tending the reindeer are their chief occupations. People depend upon the reindeer for most of their requirements. Dog is another important domestic animal which is used for drawing the sledge and also helps in hunting. Agriculture is impossible. Meat is their principal food and clothes are made of animal skin and leather.
- ❖ Fishing is carried out along the coasts and is the main activity in summer. In winters fishing is carried out by boring holes through ice. Fish are killed with the help of spears and arrows. In recent years, fishing methods have been modernised with government assistance, and people now use nylon nets, ironhooks and even mechanised boats to catch fish in summers. They exchange their surplus catch for implements, nets, cooking oil and food, etc.
- ❖ Some parts of this region are rich in mineral resources—gold in Alaska and in the Yenisey, oil in the far east of Soviet Russia, iron ore and copper in the northern most parts of Finland, and iron ore in Sweden are the principal minerals found in this region. Mining is an important activity in these areas of this

region. Transport and communication facilities have been developed to transport the minerals. Ports are kept open throughout the year with the help of ice breakers.

- ❖ The main problem in this region is the intensely cold climate. Thus in spite of its nearness to developed areas, this region has not attracted many people. As a result, the economic development is very slow, and the prospects of future development are also not very bright. Thus the Tundras are called the regions of privation.

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