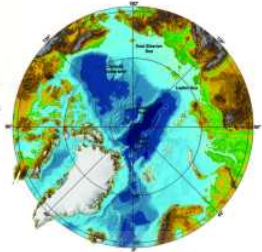


## The Polar Regions

In this chapter you would be reading about a region which is entirely different from any place we have so far seen in VI and VII classes. This region has continuous nights and continuous days for many months. There is no daily sunrise and sunset like we have in our country. Can you imagine such a place? This region is very cold. So cold that only ice and snow can be seen - ice on land, ice on the streams, ice on the rivers and even the whole sea is frozen (recollect Chapter 2 of VI Class where you have answered frozen continent).



Map 1: Polar Region on world map



Map 2: Closer view of Polar Region

### Where is the Polar Region?

You have seen the north pole and south pole on the globe. The region which lies near the poles is called the "polar region". You will be reading about the northern polar region in this chapter. Look at Map 1. It shows the north pole and its surrounding regions. The entire polar region has been shaded lightly. Notice the boundary of this region. This is known as the 'Arctic Circle'.

- Which continent parts fall within this region?

The northern part of the continents within the polar region is known as the Tundra. Tundra means very cold. Since the Tundra region gets very little sunlight, it has a unique type of vegetation known as the 'Tundra Vegetation'.

- Try to recall what happens as we move away from the equator.



Fig 4.1 & 4.2: Look at the two pictures above. Can you guess which one shows winter? Which one has plants?

### Seasons in the Tundra

In the Tundra region it is extremely cold. It is difficult to even imagine the cold in the Tundra. In our country, the sun rises and sets everyday. But this does not happen in the tundra. It is almost dark throughout November, December and January, since the sun does not rise at all. This is the winter of the Tundra, and it is bitterly cold during these months. You know that when it is extremely cold, water freezes to become ice. In this extreme cold, the water

of the rivers, lakes, seas freezes. Strong cold winds blow and there is snowfall.

Due to the severe cold, dark and icy conditions, all the plants die. Even birds and animals leave this region and migrate elsewhere. The whole region becomes dark, deserted and desolate.

### Summer

The sun begins to shine in the tundra around February-March. In the beginning, the sun shines for a maximum of an hour and a half and then sets. Gradually, it lengthens to 2 hours, 6 hours, 8 hours, 16 hours, and finally 24 hours! Then for all most three months from May to July, the sun never sets, it shines all 24 hours. But the sun does not rise overhead; it

just hovers a little above the horizon (The horizon is the place where the earth appears to meet the sky). Since the sun does not go high up in the sky, it is never very warm.

Even in the three months of summer, it is cold. But it is comparatively less cold than the winter months. Due to the relatively warm weather, some of the ice melts. The rivers which are frozen during the winter melt and begin to flow. The lakes fill up, and huge chunks of ice break off and float into the ocean as icebergs.

The land which was frozen and desolate in winter comes alive with colour during summer. When summer approaches, many multi coloured plants, lichens, grass, shrubs and berries sprout all around. They bear flowers and fruits of different colours. Many birds and animals come to feed on them.

### Vegetation

- Did you see any tree in the pictures on the previous page?

Due to the cold, the upper soil surface of the region is frozen into a rock-like state all through the year. This is called 'permafrost'. As there is little soil, only some small plants can grow. The underground soil being hard, it is difficult for trees to grow. Even if they do manage to grow, the trees get damaged and uprooted with the strong winds and storms. So, most of the tundra region is tree-less.

- Mention five points about the summer in tundra.
- Fill in the blanks
  - The sun does not appear during the month of \_\_\_\_\_ and \_\_\_\_\_
  - At this time, the water \_\_\_\_\_ and the plants \_\_\_\_\_
- How do the people of tundra get light in winter?



Fig 4.3: A photograph of people in Polar region, 1930

### The People: Eskimos

The Arctic is a region of vast, treeless plains, icy seas, and barren, rocky islands. This harsh, cold land is the home of the Eskimos. They live in the scattered settlements in Greenland, Canada, Alaska, and Siberia. For thousands of years, the Eskimos were isolated from other people. They lived by hunting and fishing and they developed a way of life well suited to their homeland.

The Eskimos' traditional way of life developed to meet the challenges of the Far North. This section describes that way of life, which the Eskimos followed until recently.

The most commonly accepted meaning of 'Eskimo' is "snowshoe-netter." There are two main groups referred to as Eskimos: Inuit and Yupik. Inuit in their language means "the people" or "the real people". The Eskimos are descendants of Siberia, now a part of the Russia in northern Asia.

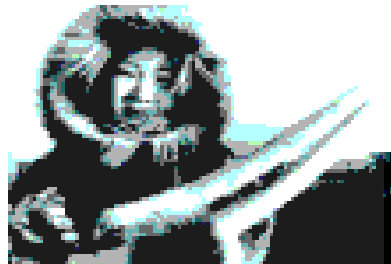


Fig 4.4: A very old photograph of Siberian Yupik woman holding walrus tusks

Eskimo languages have been spoken for thousands of years, but they were not written down until modern times. There are three main languages - Aleut, Yupik, and Inupik. Inupik, spoken from northern Alaska to Greenland, has the most speakers, and it has many dialects. The differences among the dialects are small. Dialects of Yupik are spoken in south-western Alaska and Siberia.

The Eskimos first entered North America about 5,000 years ago, crossing the Bering Straits from Asia. They moved rapidly across the Canadian North to Greenland. Some Eskimo groups then moved westward again, to the Bering Sea area. Today the Eskimo population is not large, but it is growing. About 2,000 Eskimos live in Siberia, 30,000 in Alaska, 22,500 in Canada and 43,000 in Greenland. Some Eskimo communities are on the edge of the forests of the Far North. But most are on the treeless tundra, or Arctic plain that lies north of the forests.

- Why do you think people probably always did not live in the tundra region?

### Group Life

The Eskimos live in fairly small groups. There are villages of over 500 people on the northern Alaska Coast. In the eastern region (Greenland, Baffin Island, and Labrador), a typical group might have 25 to

45 people. Eastern groups move from place to place throughout the year, following a fairly fixed order of seasonal activities. They spend winter near the coast, hunting seals and fishing. In summer, they move inland to hunt caribou and gather berries. Sometimes they cover a circuit of more than 1,100 kilometres. They cross snow and ice on sledges pulled by dogs, and they travel on water in open boats called umiaks.

Close co-operation is important if the members of an Eskimo group are to survive in their harsh land. Group members would work together in activities such as hunting. For example, in eastern groups ten to twelve hunters would be needed to harpoon seals at their breathing holes in the winter sea ice. Much larger groups - over 100 people - would work together to

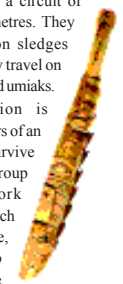


Fig 4.5: Harpoon-a weapon to hunt seals

hunt caribou and large sea mammals such as whales. Some activities are carried out by individuals and small family groups - tracking bears, fishing with nets and gathering berries.

### Hunting and Fishing

Because they depend on hunting and fishing to live, Eskimos are highly skilled at these activities. Caribou hunting is essential for nearly all Eskimo groups. Caribou are hunted in the inland during summer and early autumn. In some places caribou are driven by lines of people into lakes or narrow streams, where they are speared, shot with bows and arrows, or even harpooned. Sometimes, Eskimos set up piles of stones in long lines. To the caribou, the stones look like people in the distance. The caribou would turn away from the lines of stones and be caught.

For some groups, fishing is as important as hunting. Fish are netted in deep muddy waters or through holes in the ice. They are speared in shallow, clear waters at their weirs - low dams of stones

placed across streams. Fish are chased into the weir by people wading in the stream and are caught by skilled hunters with three pronged spears. Eskimos also use barbless bone hook on short lines to fish through holes in the ice in winter or from the edge of the ice in spring. Seals are harpooned from the edges of ice floes or from kayaks (kayaks are small canoe like boats made of animal skins stretched over a wooden frame).



Fig 4.7: Woman cooking in Cape Schmidt area of Russia

### Food

Meat, fat and fish make up a large part of the Eskimo diet. Vegetables are scarce. Food is not wasted. But as the Eskimos depend on hunting and fishing, hunger and even starvation are common when fish and game are not plentiful. Meat and fish caught in summer are stored in shallow pits. These pits are dug down to permafrost and covered with piles of stones to keep out hungry animals.

Wood to make fires for roasting or baking is scarce in most of the Eskimo area. Meat and fish are often eaten raw. Raw meat or fish are frozen and cut into thin strips,

which are dipped in whale or seal oil. Some meat, especially meat from large sea mammals, is eaten in a partly decayed state (the tough meat becomes tender and easy to digest). If food is cooked, it is almost always boiled, using the heat from oil lamps.

### Shelter

The Eskimo word "igloo" means shelter. It can refer to any kind of house, not really the dome shaped snow houses that many people associate with the word.

In summer, most Eskimos live in tents made of animal skins. In western Alaska, very large winter tents are made by placing heavy walrus skins over wood frames. On the northern coast of Alaska, dome-shaped houses are built of logs and whale ribs. The dome is raised over a depression in the ground and is covered with frozen turf. In Greenland houses are built of stone slabs.

Snow houses are used only in the eastern and central regions. They are made from blocks of packed snow (not ice), built into a dome. Small snow houses with short tunnel entrances are used while travelling. Larger snow houses are used as winter residences. Long tunnel entrances provide storage space in these larger homes. The entrance tunnel opens into the house below the floor level.

In the rear half of the house and on both sides of the door, there are snow benches about one metre high. The rear bench is



Fig 4.8: Inuit people from Alaska Qamutik, 1999

covered with animal skins and is used for sleeping. The side benches support racks for drying clothes, food supplies, and seal-oil lamps that provide light and heat. Sometimes, two large snow houses are joined together by tunnels. Some snow houses are lined with sealskins that are sewed together and suspended from the top of the dome.

- In what ways are the resources available in their surroundings used for making houses?
- How is the house impacted by the climate?

### Clothing and Crafts

The Eskimos wear boots called mukluks, trousers and hooded jackets called parkas - all made of animal skins. There are differences in details of clothing for men and women. The man's parka has long flaps in front and behind. In winter, the Eskimos wear two layers of clothing. Caribou fawn skin is preferred in winter because it is soft and warm. Coastal groups



Fig 4.6: Caribou



Fig 4.9: Inuit people from Alaska, taken in 1912

prefer seal skin in late spring and summer. It has the advantage of being waterproof, but it has the disadvantage of being very stiff. Clothing is often embroidered and has decorative fringes. Cut-outs of different-coloured animal skins are pieced together to form patterns on parkas.

The Eskimos decorate tools and objects of everyday use. Such decoration makes people's possessions very personal. Bone, ivory, wood and soft stone called soapstone are used to make small figures of people and animals as well as weapons and tools. Tools are carefully carved to fit the hand of the user. In the Pacific and far western areas, masks are carved of wood, painted and decorated with feathers and animal skins.

### Religious Beliefs

Eskimo religion shows deep concern for life, health, sickness, starvation and death. The Eskimos believe that spirits control these things. All Eskimos groups believe in a supernatural power called Sila and spirits (such as Sedna, the goddess of

life, health and food). They believe that people and animals have souls that live after death. But each group has certain beliefs and rituals of its own.

Each person, family or group has taboos or bans, forbidding certain actions, such as eating a particular kind of food. Each group has some major ceremonies, performed at birth and death or when hunting is very poor or very successful. Shamans (people skilled in

performing rituals) are believed to help establish and keep contacts with the spirit world. Shamans use trances, drama and magic tricks in their performances.

### Recreation

Wrestling, racing, harpoon throwing contests and other vigorous athletics activities are popular. Games of skill are sometimes essential parts of religious rituals as are storytelling, singing, drumming and dancing. Parties and social visits are often occasions for huge feasts of meat and fat.

### Contacts with the Outside World

The first Europeans to be seen by Eskimos were Vikings from Iceland, who established a settlement in Greenland. Contact between the Eskimos and the Icelanders began about the year 1200 and continued until about 1400.

Other Europeans began to explore deeper into the Eskimo area after 1576-78, when the English mariner Martin

Frobisher visited Baffin Island. Danish, Norwegian, and English explorers sailed into the seas of the Far North to find the fabled North west Passage to China. By 1728, the Russians had arrived in Siberia and northern Alaska. Contact with the Europeans began in earnest as explorers tried to find the North west Passage from the Pacific Ocean as well as from the Atlantic. But some Eskimo groups in the northern Arctic islands did not have much contact with outsiders until the late 19<sup>th</sup> century.

After 1850, the arrival of the Europeans and American whalers and fur traders brought many changes. Eskimos worked for the whalers and sold furs to the traders. The outsiders in turn provided a steady source of metal tools and rifles. Because of the new tools and weapons and the new demand for furs, animals were hunted and killed in greater numbers. In some areas, animals such as caribou and seals were hunted almost to extinction.

The outsiders brought new diseases to which the Eskimos had no immunity, or natural resistance. Smallpox, tuberculosis, influenza, whooping cough, pneumonia, mumps, scarlet fever, and diphtheria

were the most dangerous of these diseases. After the late 1800's, large numbers of Europeans began to live year-round in the Arctic and these diseases became very serious.

The pattern of relation between the Eskimos and outsiders has been described as "boom and bust". Waves of outsiders have brought brief periods of wealth, education, and employment. This was followed by periods of poverty and disorganisation. Peak periods have been those of whaling (1859 to 1910), the modern fur trade (1925 to about 1950), the building of military and defence bases (mid-1950s), the building of urban centres (mid 1960s), and oil exploration and development (the 1970s).

Each wave of activity has drawn the Eskimos into contact with different social and economic forces. The once isolated northlands have been opened up by air travel, highways, powerful modern ships, and satellite communications. These changes have produced great strains on the Eskimo way of life.



Fig 4.10: Walrus hunting in Chukotka during the 2000s

- Do you think lives of people in Tundra have changed for better or worsened because of their interaction with outside world? Give reasons for your answer.
- Look at the pictures in this chapter. How has that dress and hunting changed?

#### Key words

1. Arctic circle
2. Tundra vegetation
3. Icebergs
4. Eskimos
5. *Kayaks*
6. Igloo

#### Improve your learning

1. Re-write the false statements with correct facts:
  - a) Animal body parts were used only in clothing.
  - b) Major part of the food includes vegetables.
  - c) Popular games amongst the people in Tundra are closely related to their daily lives.
  - d) Contact with people from outside impacted their health.
2. Based on what you studied about equator regions in Class VII how is polar region different?
3. What are the ways in which life of people in Tundra are dependent on climate of the region? Describe in the context of following aspects:

Food	Dress	Travel	Shelter

4. In this chapter there are many aspects that are very different from the place where you live. Look at the subheadings in this chapter and make a list of them. Now create a wall paper with illustrations and descriptions comparing life in your location with that in the Tundra.
5. Imagine one entire day (24 hours) when the sun does not set and another day when there is no sun, What changes will you make in your daily lives? Write a short note on them.

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