

glacial hazards & resources



Hazards are natural events or that threaten people and their homes. Resources are things found in the natural environment that help people to survive. In glacial environments, we find both.

The most obvious hazard is the extreme cold. Other dangers include snowstorms and **avalanching**. Extreme cold facts include:



Photograph 1

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Coldest temperature ever recorded

The coldest temperature ever recorded is -81°C in Yukon, Canada. Antarctica has a recorded low of -67°C .

Darkest cold place

Alert Bay, on the northeast coast of Canada is located at 82 degrees north. It receives no sun for 50 days a year.

Deepest ice

In parts of Antarctica, the sheet of ice is nearly five kilometres deep. 98% of Antarctica is ice-covered.

Animals have adapted to live in these extreme conditions:

- **White fur as camouflage**
Some animals, like polar bears and snow hares, have evolved white fur so that they cannot easily be seen against winter snow. This helps them hunt, or else helps them hide from hunters (Photograph 1).
- **Caribou have two layers of fur**
The caribou is a type of deer whose fur helps it to survive the bitter cold in icy regions.

Humans have also adapted to life in the extreme cold climate. Originally, native people living in cold regions took skin and fur from the animals to help them survive (Photograph 2).

Today, modern textiles and other materials also help us to survive and prosper in very cold places.

Adapting to life in glacial environments

People have adapted to life in cold climate in other ways. They have also discovered resources and opportunities that aid survival (Table 1).

In Iceland, geothermal energy is a resource that brings warmth to the icy environment. People bathe outdoors in freezing temperatures! (Photograph 3)

In many glacial environments, tourism has brought wealth. The Swiss Alps and resorts like Vail in the US Rockies attract both skiers and snowboarders. The landscape is a resource for tourism.

Resort managers in these regions are understandably very concerned about global warming. If glaciers in the Alps and the Rockies start to shrink, what will happen to the tourist industry there?



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Photograph 2: Traditional clothing in Greenland.

Housing	High-pitched steep roofs allow snow to slide off (Photograph 4), while triple-glazed windows keep the cold at bay. In areas of permafrost (frozen ground), houses are raised on stilts.
Clothing	Traditionally, people living in Arctic regions favoured coats made of caribou skin and sealskin boots. Goose down was used as a lining. Now they also wear modern man-made textiles.
Hunting	Native Alaskans have always relied on hunting and fishing for food rather than farming of the land, This is because of the frozen ground and short growing season for crops.
Industry	In the North Slope of Alaska, large oil fields are found. Commercial fishing takes place offshore. In many cold places, skiing and snowboarding tourism takes place.

Table 1 Adaptations to life in extreme cold environments



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Photograph 3



© Nick Ledger/Royal Geographical Society
Photograph 4

Activities

- (1) Make a list of all the **advantages** and **disadvantages** you associate with living in a place like Alaska or Iceland (take a look at an atlas first, and make sure you know where these places are!)
- (2) Study Photographs 2, 3 and 4. Write a list of ways in which you think life may have got **easier** in recent years for people living in glacial regions.
- (3) Write a list of possible jobs for people in glacial regions that are not commonly found in other places (tip: think about tourism and nature).

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