Ice Age Possibility Troubles Scientists

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GENEVA—Many scientists believe a new ice age is coming, but none can agree when, or how hard it is going to hit us.

Some climate specialists studying clues as varied as volcanic dust, the earth's wobble, tree rings and sunshine have concluded the world is about due for a big freeze after 10,000 years of comparative warmth.

If they are right, such countries as New Zealand, Britain, Canada and Nepal could be covered by ice sheets and France would look like Lapland.

But others predict no more than a mini-freeze, like the "little ice age" which seized Europe between 1430 and 1850. It froze all the rivers of Germany in 1431 and iced up villages near the present French Alpine resort of Chamonix in the early 17th century.

During the U.S. Revolutionary War 200 years ago, British troops were able to slide their guns from Manhattan to Staten Island across the ice.

A report by the U.S. Central Intelligence Agency recently spelled out the possible effects of a Little Ice Age throughout the world.

In India 150 million people would die during four-yearly droughts if the average temperature dropped by one degree Centigrade. China would face a major famine every five years. Soviet Kazakhstan would be lost for grain production and Canada's grain harvest would drop by 50 per cent, the CIA report said.

The report added the world was already cooling. This theory has been vigorously challenged by other experts who say temperatures were above average throughout the 1970s in much of Europe and the Soviet Union.

They also contend that the area of ice in the Arctic Circle and snowfall in the northern hemisphere has decreased in recent years.

The more optimistic climatologists maintain there is no particular reason for the next Ice Age to close in for several thousand years.

To draw up an authoritative statement on what scientists know about climate changes, the Geneva-based World Meterological Organization assembled a group of experts here.

One question they will not answer is how near is the next Ice Age.

"We just do not know. Nobody knows," said the WMO's British director of program planning, Oliver Ashford.

"You can use a statistical projection" he explanied. "But until you know the physics of why it has been warmer in the last 10,000 years than in the previous Ice Age, it is difficult to make any prediction with any real degree of scientific accuracy."

One basis of the statistical argument was summed up by a United Nations study conference of climatologists in Stockholm, Sweden, two years ago.

"The world has been in an interglacial period for the past 10,000 years," the conference reported.

"The warmest stages of the interglacials (comparable to the warmth of present day conditions) have been rather brief (in the order of 10,000 years)," it said. "The transitions from glacial to interglacial have usually been more abrupt than those from interglacial to glacial."

In other words, on the world's past record, another dip into the cold age is due.

The Swedish symposium estimated the odds against a new ice age in the next century at somewhere at 1,000 to 1. But it put the chances of a Little Ice Age at one in 10. Man-made pollution complicates the forecasts, Mr. Ashford explained.

Dr. Reid Bryson, a controversial climate specialist at the University of Wisconsin whose research formed the basis for the CIA's predictions, has said recent changes in weather patterns such a sthe African drought in the Sahel region could be traced back to the increase in man-made dust.

In scientific papers, Dr. Bryson has said natural volcanoes were the prime cause of climtae changes in the previous centuries. But after 1930 the climate trigger was a "human volcano" of man-made smoke and dust from industry and careless agriculture that shut off the sun's days. But, again, other meteorologists have criticized his theories.

Some experts have suggested the main clues about the earth's weather machine are the variations in its orit round the sun, and the wobble in its axis. These factors can vary the amount of sunshine reaching the earth.

Tree-ring dating—based on the assumption that the weather is reflected in the thickness of a tree trunk's annual growth—is pushing back further and further into the past.