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G.S. III. ENVIRONMENT

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150 words

Q/. The Atlantification of the Arctic ocean is underway. In this context, discuss about Arctic ocean acidification and its impact on the local weather system.

→ Scientists have discovered 'hotspots' where some parts of the Barents sea have started to closely resemble the Atlantic ocean. This phenomenon has been termed as Atlantification.

Arctic ocean acidification :

→ The north-flowing ocean currents transport the warm waters of the Atlantic ocean into the Arctic ocean through the Barents sea.

→ Ocean water has become 30% more acidic due to the increase in CO_2 concentration in the ocean in the last 200 years alone, faster than any known change in ocean chemistry in the last 50 million years.

→ Due to the movement of ocean currents from Atlantic to Arctic Ocean, the acidic warm water reaching the latter at a faster rate.

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Impact on the local weather :

→ Air temperature in Arctic area has risen at more than four times the global average rate of pre industrial era.

→ Melting of more ice of the Arctic.

→ Increase of lightning strikes have by eight times in the last decade.

→ Extreme snowfall will occur.

→ Rapid warming of Arctic region is causing the Jet stream to become wavier to which, the cold air is interacting more frequently with the warm air from the lower latitudes, leading to extreme weather events.

As Arctic sea ice is a barometer for the health of the global environment, all countries need to support and commit to meaningful climate action such as COP 21 to reduce global temperature. More focus of the Arctic council on global warming, melting of ice, plastic pollution and black carbon may reduce the ongoing threat to the Arctic Ocean.

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