



Blue Blob

For Prelims: Blue Blob, Arctic Council, Arctic Region, India's Arctic Policy.

For Mains: India's Arctic Policy. Significance of Arctic for India.

Why in News?

According to a recent Research, a region of cooling water in the North [Atlantic Ocean](#) near Iceland, **nicknamed the "Blue blob"** may have helped temporarily stall the melting of [Arctic sea ice](#).

- However, the study has also stated that the effects of [climate change](#) will catch up to the massive ice chunks if temperatures are not kept in check.

What is Blue Blob and its role in Slowing Down of Glacier Melting?

- It is a **cold patch located south of Iceland and Greenland** and little is known about it.
- The cold patch was **most prominent during the winter of 2014-2015** when the sea surface temperature was about **1.4 degrees Celsius** colder than normal.
- The Arctic region is **reportedly warming four times faster** than the global average and Iceland's glaciers steadily shrank from 1995 to 2010, losing an average of 11 billion tons of ice per year.
- Starting in 2011, **however, the speed of Iceland's melting slowed**, resulting in about half as much ice loss annually and the **Blue Blob has been linked to cooler air** temperatures over Iceland's glaciers and cooler waters.
 - This **trend was not seen in nearby**, larger glaciers across [Greenland](#) and [Svalbard](#).
- Before the Blue Blob, a long-term cooling trend in the same region, called the **Atlantic Warming Hole**, reduced sea surface temperatures by about **0.4 to 0.8 degrees Celsius** during the last century and may continue to cool the region in the future.
 - A possible cause of the Warming Hole is a slowdown of the [Atlantic Meridional Overturning Circulation \(AMOC\)](#).
 - AMOC is an **ocean current that brings warm water up** from the tropics to the Arctic, thus reducing the amount of heat delivered to the region.

What is the Arctic?

- The Arctic is a **polar region** located at the **northernmost part of Earth**.
- Land within the Arctic region has seasonally varying snow and ice cover.
- It consists of the **Arctic Ocean**, adjacent seas, and parts of Alaska (United States), Canada, Finland, Greenland (Denmark), Iceland, Norway, Russia, and Sweden.
- Since 2013, **India has had observer status in the [Arctic Council](#)**, which is the predominant inter-governmental forum for cooperation on the environmental and development aspects of the Arctic.
 - The Arctic Council is the **leading intergovernmental forum** promoting cooperation, coordination and interaction among the Arctic States, Arctic indigenous communities and other Arctic inhabitants on common Arctic issues, in particular on issues of sustainable

development and environmental protection in the Arctic.

- **Members of the Arctic Council:** Ottawa Declaration declares Canada, the Kingdom of Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States of America as a member of the Arctic Council.



What is the Relevance of Arctic for India?

- The Arctic region is **significant due to the shipping routes** that run through it.
- According to an analysis published by the Manohar Parrikar Institute for Defense Studies and Analyses, the adverse effects of the Arctic are not just impacting the availability of mineral and **hydrocarbon** resources, but also transforming global shipping routes.
- According to the Ministry of External Affairs, **India can play a constructive role in securing a stable Arctic.**
- The region **holds immense geopolitical importance** as the **Arctic is projected to be ice-free by 2050** and world powers making a beeline to exploit the region rich in natural resources.
- In March 2022, **India's Arctic Policy**, titled 'India and the Arctic: building a partnership for sustainable development' was unveiled.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. Consider the following countries: (2014)

1. Denmark
2. Japan
3. Russian Federation
4. United Kingdom
5. United States of America

Which of the above are the members of the 'Arctic Council'?

(a) 1, 2 and 3

- (b) 2, 3 and 4
- (c) 1, 4 and 5
- (d) 1, 3 and 5

Ans: (d)

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