

EXFILE • CLIMATE

In a first, an ice shelf collapses in East Antarctica

An ice shelf ten times the size of Manhattan has collapsed in East Antarctica, amid a rise in temperature. It is for the first time in human history that the frigid region has witnessed an ice shelf collapse. We take a look

ON ACCELERATED DECLINE SINCE 2020

Congers Ice Shelf has been losing ice since at least 1970s, according to researchers who've been tracking it. But in 2020, the shelf's ice loss sped up to losing about half of itself every month. In the first two months of this year, it lost over half of its surface area



WILL IT CAUSE SEA-LEVEL TO RISE?

Since ice shelves already float in the ocean, their break-up does not directly cause global sea levels to rise.

However, since they are buffers that keep glaciers from floating into the ocean, their collapse could indirectly lead to a rise in sea level

THE NOTION OF 'STABLE EAST' SHATTERED

After the latest incident, some researchers feel that the previous assumptions about East Antarctica's stability may not, after all, be correct

West Antarctica has had a series of ice shelf collapses. However, it is for the first time in human history that an ice shelf has collapsed in East Antarctica

The water frozen in East Antarctica, if it melted, would raise seas across the globe more than 160 feet (50 meters). It's more than five times the ice in the more vulnerable West Antarctic Ice Sheet, where scientists have concentrated much of their research

IMPACT OF CLIMATE CHANGE

Eastern Antarctica has recorded exceptionally high temperatures this week, more than 30 degrees Celsius above normal, experts say

The Concordia research base at Dome C of the Antarctic, which is at an altitude of more than 3,000 metres on Friday registered a record -11.5 degrees Celsius, more than 40°C warmer than the average for this time of the year

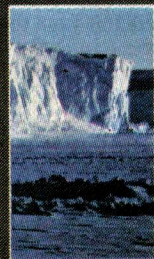
Antarctica's sea ice fell below two million square kilometres (7,72,204 sq miles) in late February for the first time since 1979, according to the US National Snow and Ice Data Center

MILL ISLAND

SHACKLETON ICE SHELF

WHAT ARE ICE SHELVES?

Ice shelves are the floating tongues of glaciers that extend over the ocean. They keep the glaciers from floating into oceans



CAPE ELLIOT

1,200 SQ KM

the surface area of Congers Ice Shelf

7,50,000 SQ MILES

around the Antarctic coast is covered by ice as of this week. Sea ice around Antarctica has fallen to its lowest level in more than four decades

LARGEST ICE-SHELF MELTING AT 10X SPEED

Ross Ice Shelf, the world's largest, is about the size of France. Researchers from the University of Cambridge estimate that the ice shelf is melting 10 times faster than the average likely due to inflow of warm water



We still treat East Antarctica like this massive, high, dry, cold and immovable ice cube. This collapse, especially if tied to the extreme heat brought by the mid-March atmospheric river event, will drive additional research into these processes in the region

Peter Neff, glaciologist told Guardian

THE NEW INDIAN EXPRESS dt: 27.03.2022.

A