

Melting of Thwaites Glacier

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Recently a group of scientists have pointed out that the presence of warm water at a vital point beneath the Thwaites glacier is the cause for its melting

Key highlights

- Studies have found the amount of ice flowing out of it has nearly doubled over the past 30 years.
- Presently, Thwaites's melting already contributes 4% to global sea level rise each year.
- It is estimated that it would collapse into the sea in 200-900 years.
- **Thwaites is important for Antarctica as it slows the ice behind it from freely flowing into the ocean.** Because of the risk it faces and poses Thwaites is often called the Doomsday Glacier.
- A 2019 study had discovered a fast-growing cavity in the glacier sized roughly two-thirds the area of Manhattan
- **The recent study was conducted by researchers from New York University funded by the International Thwaites Glacier Collaboration,** headed by the Natural Environment Research Council of the UK and the National Science Foundation of the US
- The New York University study reported water at just two degrees above freezing point at Thwaites's "grounding zone" or "grounding line".



About Thwaites Glacier

- **Thwaites Glacier is 120 km wide** at its broadest, fast-moving and melting fast over the years. Because of its size (1.9 lakh square km), it contains enough water to raise the world sea level by more than half a metre.

- It is sometimes referred to as the **Doomsday Glacier**, is an unusually broad and fast Antarctic glacier flowing into the **Pine Island Bay**, part of the **Amundsen Sea**, east of Mount Murphy, on the **Walgreen Coast** of **Marie Byrd Land**
- It was named by the **Advisory Committee on Antarctic Names** after **Fredrik T. Thwaites** (1883–1961), a glacial geologist, geomorphologist and professor emeritus at the **University of Wisconsin–Madison**.



- Thwaites Glacier is closely watched for its potential to raise sea levels. Along with the Pine Island Glacier, it has been described as part of the “**weak underbelly**” of the **West Antarctic Ice Sheet**, due to its apparent vulnerability to significant retreat.