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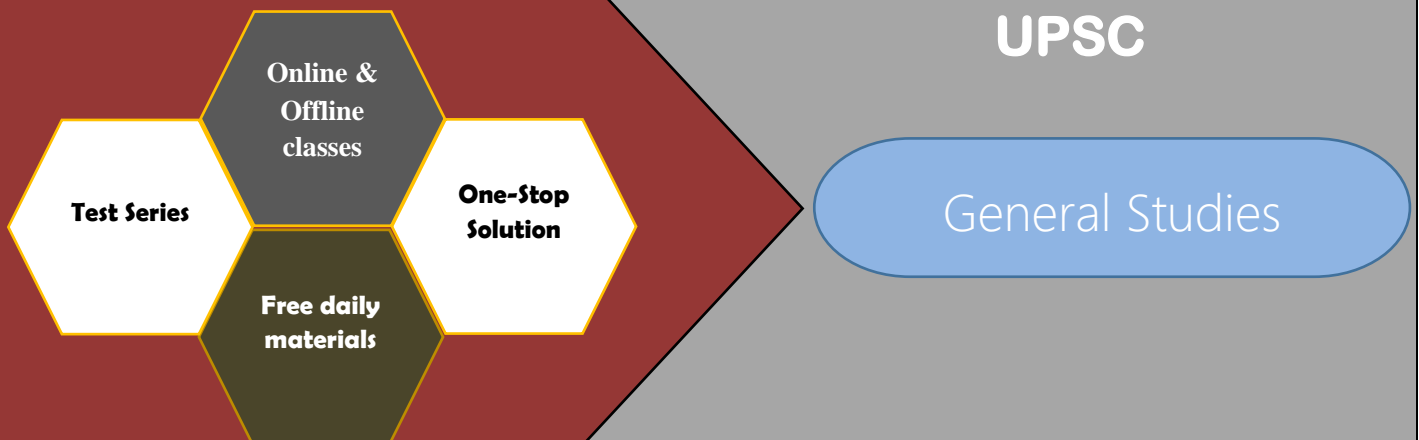
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A-76: World's Largest Iceberg

Notes for civil services preparation



A-76: World's Largest Iceberg

- An **enormous iceberg 'A-76'** has calved from the western side of the **Ronne Ice Shelf**, lying in the **Weddell Sea, in Antarctica**.
- It measures around 4320 sq km in size – **currently making it the largest berg in the world**.

Key Points

About A-76:

- The **newly calved berg 'A-76'** was spotted in recent satellite images captured by the **Copernicus Sentinel- 1 mission**.
- Sentinel-1 is one of the missions of the European Space Agency (ESA) under Copernicus initiative (an earth observation programme).
- It has **surpassed the now second-place A-23A**, about 3,380 sq km in size and also floating in the **Weddell sea**.

Iceberg:

- An iceberg is **ice that broke off from glaciers or shelf ice** and is floating in open water.
- Icebergs **travel with ocean currents** and either get caught up in shallow waters or ground themselves.
- The **US National Ice Center (USNIC)** is the **only organisation** that names and tracks Antarctic iceberg .
 - Icebergs are named according to the **Antarctic quadrant** in which they are spotted.

Ice Shelves:

- An ice shelf is a **floating extension of land** The Antarctic continent is surrounded by ice shelves.
- The **Ronne Ice Shelf** on the flank of the Antarctic Peninsula is **one of the largest of several enormous floating sheets of ice** that connect to the continent's landmass and extend out into the surrounding seas.

Iceberg Calving:

- **Meaning:**

- **Calving** is the **glaciological term for the mechanical loss** (or simply, breaking off) **of ice** from a glacier margin.
- Calving is most common when a glacier flows into water (i.e. lakes or the ocean) but can also occur on dry land, where it is known as **dry calving**.
- Recent Cases of Calving:
- Up to the end of the 20th century, the **Larsen Ice Shelf** (on the West Antarctic Peninsula) had been stable for more than 10,000 years.
 - In 1995, however, a huge chunk broke off, followed by another in 2002.
 - This was followed by the **breakup of the nearby Wilkins Ice Shelf in 2008 and 2009, and A68a in 2017.**

Concerns:

- Periodic calving off of large chunks of those shelves is part of a **natural cycle**, but the process has been **accelerated by climate change**.
- **Average sea levels** have risen about **nine inches since 1880**, and about a **quarter of that increase** comes from **ice melting in the Greenland and Antarctica ice sheets**, along with land-based glaciers elsewhere.
- According to a recent study, **more ambitious national goals** to cut **greenhouse gas emissions** and **slow down climate change** set recently are **not enough to stop sea levels from rising**.
 - In fact, melting glaciers and ice sheets will raise sea levels twice as fast as they would if countries fulfilled their earlier pledges under the **Paris agreement**.