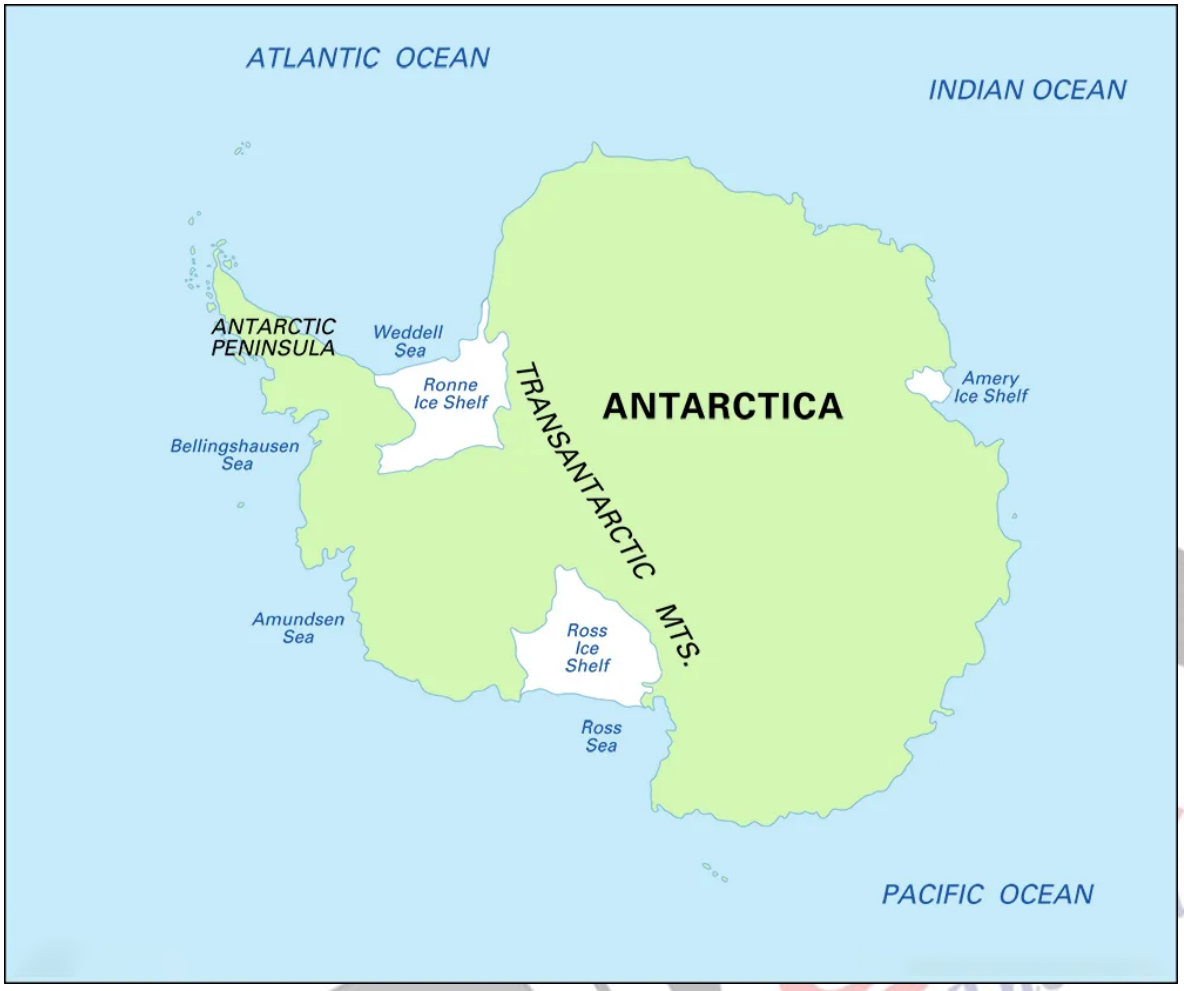
Greening of Antarctic Peninsula

Source: DTE

The **Antarctic peninsula** has experienced a **10-fold increase in vegetation** from less than **1 square km in 1986** to almost **12 square km by 2021.**

- The **rate of change** in vegetation cover in **2016-2021** was **0.424 km2 per year** compared to the entire **35-year-long study** period of **0.317 km2 per year.**
- Development of **moss ecosystems** can lead to **organic soil formation** and higher plant colonisation.
    - It also raises concerns about the potential introduction of **non-native and invasive species**.
    - **Mosses** are **pioneer species** that start ecological succession.
    - **Ecological succession** is the **steady and gradual change** in a species of a given area with respect to the changing environment.
- This **greening** is likely due to **accelerated warming** in the region, which has been heating up **five times faster** than the global average.
- The Antarctic Peninsula Ice Sheet is sensitive to **climate change** due to its **small size and northerly location**. Since 1950, it has warmed by **nearly 3°C.**
- As glaciers recede, more land becomes available for **colonisation by plants,** further accelerating the **greening process**.

//



Read More: [India's Tryst with Antarctica]