



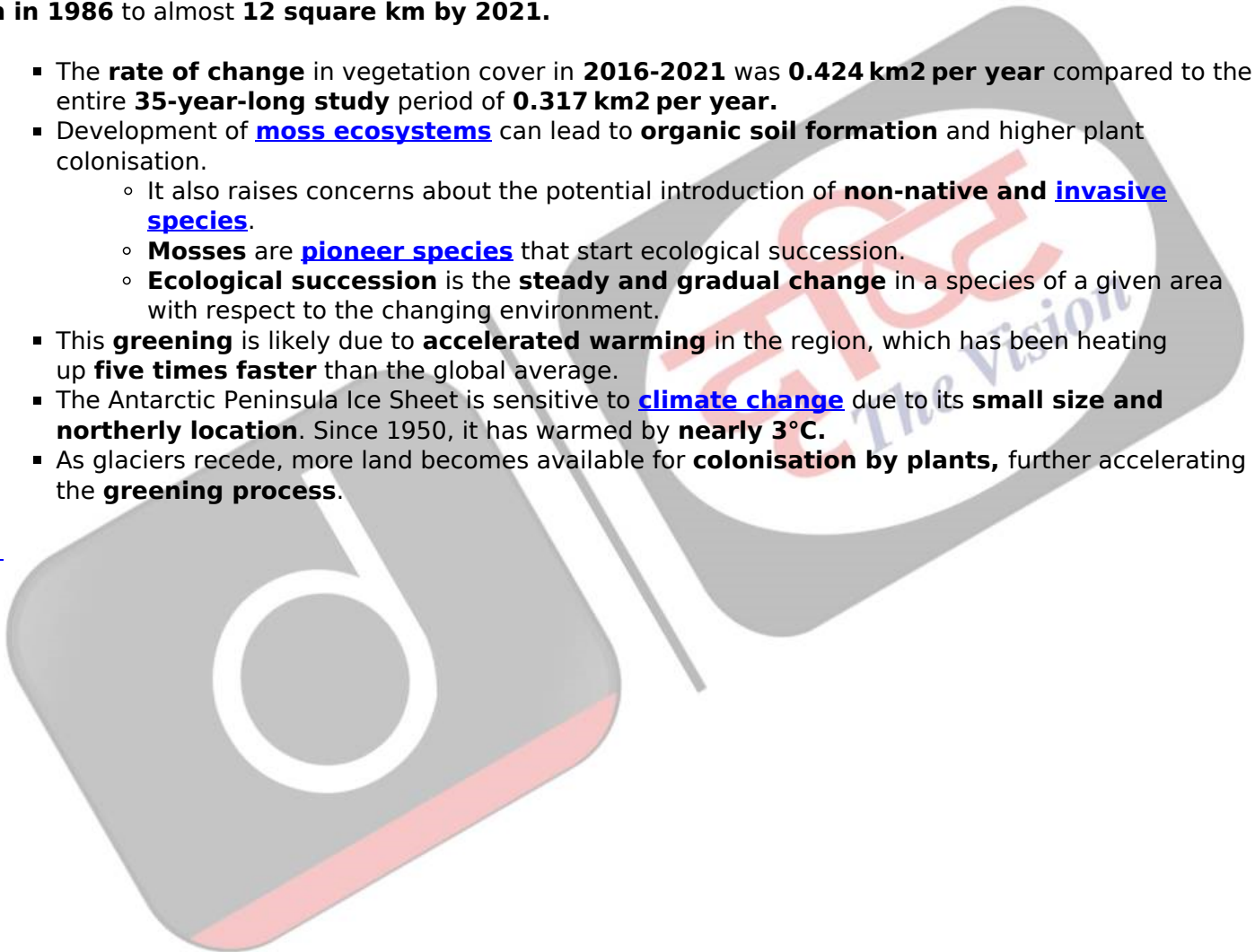
Greening of Antarctic Peninsula

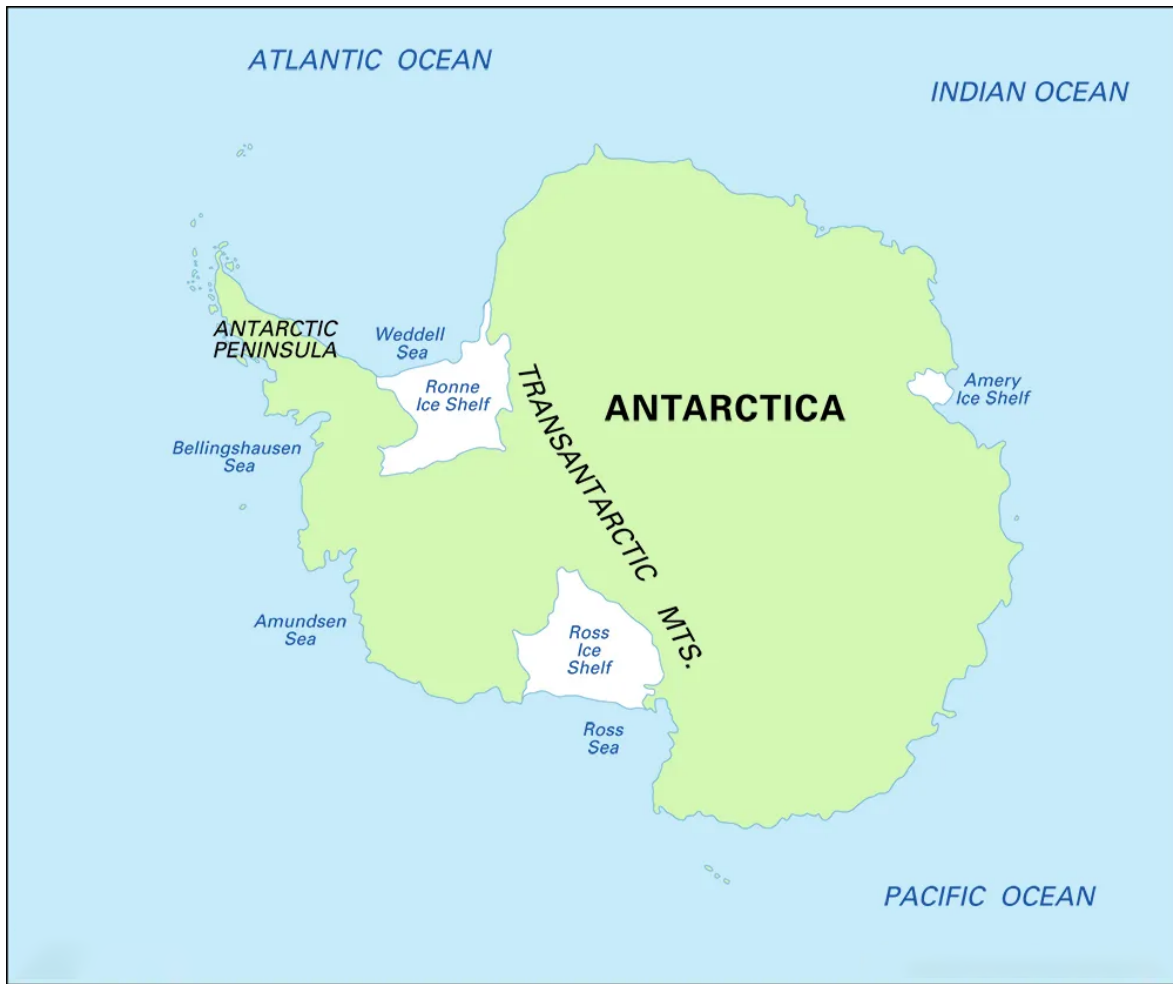
[Source: DTE](#)

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**.

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Read More: [India's Tryst with Antarctica](#)

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