



Climate Change May Lead to Greening the Thar Desert | Rajasthan | 29 Apr 2024

Why in News?

According to a **theory on rainfall and climate data**, with a focus on the **'Indian Ocean Warm Pool' (IOWP)**, scientists have postulated that the [Thar Desert](#) could become greener due to global warming.

Key Points

- The presence of **IOWP in the Indian Ocean** has been recognised for many years and plays a role in the generation of monsoons. With the **effects of global warming**, the Indian Ocean Warming Pool is **spreading towards the west**.
 - At IOWP's western boundary, **water evaporates and is pulled by the earth's rotation towards India**, causing the northeast to **receive rain for 150 days and the northwest for only 70 days**.
- With the IOWP expanding westward, the 'length of the rainy season' would result in a **50-100% increase in the mean summer rainfall** over the semi-arid northwest of India
- Essentially, the scientists argue that the Thar desert has the potential to experience ample rainfall and gradually become greener.

Thar Desert

- The Thar Desert, also known as the **Great Indian Desert**, is an **arid region** of rolling sand hills on the Indian subcontinent.
- It is one of the largest subtropical deserts in the world.
- It extends across the states of **Rajasthan, Gujarat, and Haryana in India**, and the provinces of **Sindh and Punjab in Pakistan**.
- It is **bordered by the irrigated Indus River plain to the west**, the **Punjab Plain to the north and northeast**, the **Aravalli Range to the southeast**, and the **Rann of Kachchh to the south**.
- The desert is **separated from the Greater Rann of Kutch to the west by the low-lying marshy lands of the Luni River**.

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