



Kaziranga National Park

For Prelims: Kaziranga National Park, Carbon Sink.

For Mains: Causes for the Kaziranga National Park to become a net Carbon Emitter.

Why in News?

Recently a research published, which showed that Kaziranga National Park in Assam, is **releasing more carbon than it is absorbing**.

- It also showed that as the planet warms further, the **ability of the [Kaziranga National Park \(KNP\)](#) to absorb carbon would further decrease**.
 - Earlier, it was found that the [Amazon rainforest](#) is now emitting more carbon dioxide than it is able to absorb.
- Researchers found that Kaziranga absorbed the **most amount of carbon dioxide during the pre-monsoon season** of March, April and May.
- A forests, or trees in a forest, take up carbon dioxide for the process of photosynthesis and release carbon dioxide when they breathe.

How is KNP a Net Carbon Emitter?

- **Unique soil:**
 - The soil of the region is home to **a large population of bacteria that release carbon dioxide** as they breathe, which adds to the carbon dioxide being emanated by other organisms, including trees.
- **Decrease in Photosynthetic Activity:**
 - The photosynthetic activity of trees during the monsoon decreases **due to increased cloud cover**. Hence, the ability of the forest to absorb carbon dioxide also decreases.
 - The situation **remains the same during the post-monsoon and winter months, making the forest a net carbon emitter**.
- **Less rainfall from transpired water:**
 - The scientists analyzed the **isotopes in the transpired water and observed a strong link between the water and carbon cycles** of the forest.
 - There is a decreasing trend **in the rainfall coming from the transpired water** in the pre-monsoon months which are responsible for the highest carbon absorption.
 - Transpiration is a process that involves loss of water vapour through the stomata of plants.
 - Stomatal openings are necessary to admit carbon dioxide to the leaf interior and to allow oxygen to escape during photosynthesis.

What are the Key Points Related to KNP?

- **Location:** It is located in the State of Assam and covers **42,996 Hectare (ha)**.
 - It is the **single largest undisturbed and representative area** in the Brahmaputra

Valley floodplain.

▪ **Legal Status:**

- It was declared as a **National Park in 1974.**
- It has been declared a [tiger reserve](#) since **2007**. It has a total tiger reserve area of 1,030 sq km with a core area of 430 sq. km.

▪ **International Status:**

- It was declared a [UNESCO World Heritage Site](#) in 1985.
- It is recognized as an Important Bird Area by BirdLife International.

▪ **Biodiversity:**

- It is the home of the **world's most [one-horned rhinos](#).**
 - [Pobitora Wildlife Sanctuary](#) has the highest density of one-horned rhinos in the world and second highest number of Rhinos in Assam after Kaziranga National Park.
- Much of the focus of conservation efforts in Kaziranga are **focused on the 'big four' species - Rhino, [Elephant](#), [Royal Bengal tiger](#) and [Asiatic water buffalo](#).**
- Kaziranga is also home **to 9 of the 14 species** of primates found in the Indian subcontinent.

▪ **Rivers and Highways:**

- National Highway 37 passes through the park area.
- The park also has more than 250 seasonal water bodies, besides the Diphlu River running through it.

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7 NATIONAL PARKS IN ASSAM

- 6th : Raimona National Park (Notified in 2021)
- 7th : Dihing Patkai National Park (Notified in June 2021)

[Source: DTE](#)

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