

Soil Carbon Stability

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About Soil Carbon Stability:

- The 16-year-long study carried out by CES and DCCC researchers states that large mammalian herbivores like the Yak and Ibex play a crucial role in stabilising the pool of soil carbon in grazing ecosystems such as the Spiti region in the Himalayas.
- Experimental removal of grazing by herbivores from such ecosystems was found to increase the fluctuations in the level of soil carbon, which can have negative consequences for the global carbon cycle.
- According to the study, since soil contains more carbon than all plants and the atmosphere combined, it is important to ensure its persistence.
- When plants and animals die, dead organic matter remains in the soil for a long duration before microbes break it down and release carbon into the atmosphere as carbon dioxide.
- “The soil pool is a reliable sink for trapping carbon. Maintaining stable levels of carbon in the soil is therefore key to offsetting the effects of climate change”.
- A key factor underlying the carbon level fluctuations was nitrogen.
- Depending on the soil conditions, nitrogen can either stabilise or destabilise the carbon pool.
- Grazing by herbivores, however, changes their interactions in ways that tip the balance in favour of the former.

Source : The Hindu

Source: <https://vajiramandravi.com/current-affairs/soil-carbon-stability/>

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