

ALMANAC TODAY

• **Thursday** 28/11/2019 • **Year:** Vikram • **Ayana:** Dakshinayana • **Rituc:** Himantika
 • **Masa:** Margashira • **Paksha:** Shukla • **Tithi:** Dwititheya 6.46 pm • **Nakshatra:**
 Jyestha 8:54 am • **Moon in** Vruchika Rashi • **Rahukala:** 01:30 pm to 03:00pm
 • **Gulika:** 09:00 am to 10:30 am • **Yamaganda:** 03:00 am to 04:30 am



MIN 20°C | MAX 27°C
FORECAST
 Showers late. More clouds than sun

Sunrise 6:24 am
 Sunset 5:50 pm
 Moonrise 7:50 am
 Moonset 7:31 pm



Study: W Ghats carbon footprint caused floods

BOSKY KHANNA @Bengaluru

LARGE-SCALE forest degradation and improper carbon sequestration is one of the causes of the recent flooding witnessed in most parts of Karnataka and Kerala over the last two years. Carbon sequestration is a natural/artificial process by which carbon dioxide is removed from the atmosphere and held in solid or liquid form.

Researchers at the Indian Institute of Science (IISc), in their latest study report, have found large-scale land cover shaved off, leading to deforestation with degradation, causing 20-25% of anthropogenic (human-related) carbon emissions, resulting in regional impact on climate patterns. The loss of forest cover has also modified the local rainfall pattern.

The study, 'Carbon Sequestration Potential of the Forest Ecosystems in the Western

Ghats: a Global Biodiversity Hotspot', by researchers from the Centre for Ecological Sciences, IISc, on the fragile Western Ghats, investigated landscape dynamics with climate trends and carbon sequestration potential.

The analysis indicated that the regions in the southern parts of Western Ghats (WG) in Kerala and part of Karnataka have witnessed large-scale climate changes. The central Western Ghats area (Karnataka) shows a very meagre change in temperature (0.05 degrees Celsius increase), while the rainfall shows increasing trends close to 100 mm and increase in rainy days up to two days. The northern portion of the Western Ghats latitudes shows an increasing temperature of 0.5 degrees Celsius, four days increase in the number of rainy days and an increase in rainfall by between 100 mm and just over 250 mm.

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'PROTECTION OF FORESTS IS CRUCIAL'

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THESE analyses demonstrate that land use has played a major role in moderating micro-climatic conditions in the Western Ghats over a temporal scale. The reduction in rainfall and an increase in temperature can affect carbon stock in the region.

Prof TV Ramachandra, an author of the paper, told TNIE: 'Ghats has carbon credit worth over \$100 billion. But there has been a 5% degradation in forest cover in the last two decades. There has also been a change in temperatures by 1-1.5 degrees Celsius. The rainfall pattern has

also changed. It has been observed that the quantity of rain which should occur for a month's duration is happening in just a week-and-a-half, thus leading to flooding. To ensure good carbon sequestration, improving Indian economy, and protection of forests is crucial.'

He added that the current study illustrated the pivotal role of sequestering carbon by an ecologically fragile Western Ghats. The Ghats has the potential to remove carbon emission of southern cities and 1.62% of the total carbon dioxide emissions from India.

Carbon emission contributed by major metropolitan cities of

India such as Delhi (38,633.20 Gg), Greater Mumbai (22,783.08 Gg), Chennai (22,090.55 Gg), Bengaluru (19,796.6 Gg), Kolkata (14,812.1 Gg) Hyderabad (13,734.59 Gg) and Ahmedabad (6,580.4 Gg) from energy, transportation, industry, agriculture, livestock management and waste sectors is about 1.3 million gigagrams (Gg) per year.

The total carbon emissions from Western Ghats accounted for 352,922.3 Gg, and its forests have the ability to remove 11% of the emissions, which highlights vital carbon mitigation role and moderating climate, the study stated.

Western Ghats has carbon credit worth over \$100 billion. But there has been a 5% degradation in forest cover in the last two decades. There has also been a change in temperatures by 1-1.5° Celsius

Prof T V Ramachandra

'INDIA FOURTH IN CARBON EMISSION'

The study stated that India accounts for 7% of total green house gas emissions across the globe (336.6 MGg), and stands fourth after major carbon emitters like China (27%), USA (15%) and the European Union (10%)