

Climate change to take toll in NE

NNN

Guwahati, August 7 (NNN): Climate change is going to take its toll in the North East India region soon. If the revelation from the studies are to be based, there is going to be a near catastrophic impact in the region. A warning has been sent out from two distinct studies particularly for the Northeast and the Western Ghats: prepare for 45 per cent change in forest vegetation by 2100 and fall in rice, sorghum and maize production by 2030. The studies were published in the latest issue of Indian science journal 'Current Science' that focuses on various impacts of climate change.

The forest impact study is by a four-member team of scientists from Bengaluru-based Centre for Sustainable Technologies (CST), Centre for Atmospheric and Oceanic Sciences and Divecha Centre for Climate Change. The crop impact report is by a six-member team from the New Delhi-based Indian Agricultural Research Institute (IARI) and **International Water Management Institute.**

"The assessment of climate impacts, based on the dynamic global vegetation model, showed that 45 per cent of forest grids across India would undergo change. The concentration of vulnerable forest grids is higher in the upper Himalayan stretches, parts of central India, northern Western Ghats and the Eastern Ghats. Low tree density, low biodiversity status as well as higher levels of fragmentation, in addition to climate change, contribute to the vulnerability of these forests," said NH Ravindranath of CST, who led the forest impact study.

On the brighter side, southern Western Ghats and the forested areas of eastern India are estimated to be least vulnerable. This, though, cannot stem 77 per cent and 68 per cent shift in forest types across India (under two different scientific scenarios) and their impact on the livelihoods of people living in 173,000 forest villages in the country.

Climate change, the study points out, is one of many stresses forests in India undergo. The others are over-extraction of forest produce, insect outbreaks, fuel wood collection, livestock grazing and forest fires besides anthropogenic pressures. "There is a need to develop tropical forests or India-specific dynamic global vegetation models," they study concluded as one of the measures to counter climate change impact.

In the other study headed by S Naresh Kumar of IARI's division of environmental sciences, climate change is expected to hit rice, sorghum and maize production in the Western Ghats and maize, wheat and mustard yield in the Northeast and coastal regions. But, it adds, climate change could help up coconut production in Western Ghats, rice in eastern coastal region and rice and potato in the Northeast.

According to the study, "The Western Ghats, one of the 24 global hot spots of biodiversity, comprises 63 districts in Maharashtra, Gujarat, Karnataka, Kerala and Tamil Nadu... By 2030, Western Ghats is likely to lose kharif crop yield by 4 per cent and rain-fed rice yield by up to 10 per cent".

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