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Insect attacks affected 142 mn ha forest between 2003 and 2012: Report

The State of the World's Forests report warned climate change will exacerbate wildfires and pest attacks in the future

By Ishan Kukreti

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Insects and pest attacks were a threat to 142 million hectares of forest land across the world between 2003 and 2012, according to the State of the World's Forests report released on May 22, 2020.

Forty million hectares suffered the impact of insect and pest attacks in 2015, said the report by the Food and Agriculture Organisation and the United Nations Environment Programme. Invasive species (non-native insect pests, pathogens, vertebrates and plants) and outbreaks of native insect pests and diseases posed an increasing threat to the health, sustainability and productivity of natural and planted forests globally, the report said. These disturbances to forest land — along with wildfires and adverse weather events — adversely affected forest ecosystem health and increased tree mortality. Approximately 67 million hectares of forest were burned annually between 2003 and 2012, while 98 million hectares were burned in 2015, according to the report. Increasing international trade and human mobility — exacerbated by impacts of climate change — increased the introduction of plant and animal species in new areas where they became invasive.

The box tree moth (*Cydalima perspectalis*) caused the dieback of endemic boxwood (*Buxus colchica*) forests in Iran and Asia's Caucasus region, the report said. Ash dieback in the United Kingdom and Northern Ireland was caused by the *Hymenoscyphus fraxineus* fungus, which is of eastern Asian origin, according to the report.

Forest dieback occurs when an entire forest dies suddenly without an obvious cause. There may be several factors that lead to this, including pollution, temperature change, pathogens etc. The report warned climate change will exacerbate wildfires and pest attacks in the future.

"Climate change is expected to bring longer fire seasons and more-severe fires over much of the globe, including areas where fire was not earlier a common problem," it said. Climate change along with poor forest management practices including alteration of forest structure and diversity changed the biology (faster development) and behaviour (host preference) of native and introduced pests and pathogens, according to the report. "Higher temperatures, severe and extreme weather events and drought stress result in reduced vigour of trees, making them more vulnerable to outbreaks of native and introduced pests and diseases," the report said. The implementation of phytosanitary measures is needed to make forests more resilient to pests, diseases and invasive species, the report said, adding coordination of national, regional and global activities for prevention, early detection, early action and implementation was required to achieve this. It also requires sustainable forest management practices that reduce the vulnerability of forests to the impacts of climate change and take biodiversity conservation and sustainable use into consideration.

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