

Understanding a Burning Issue for India's Forests

Devyani Onial and Ashwani Sharma

How bad are the forest fires in Uttarakhand and Himachal Pradesh? How much area is affected and where?

Over 4,500 hectares have been affected in Himachal Pradesh, some 40 per cent more than the 3,185 hectares in Uttarakhand. The latter state has seen 1,470 incidents of fire so far – 803 (affecting 1,413.58 ha) of which were in the Garhwal region, 463 (1,076.21 ha) in Kumaon, and 204 (695.65 ha) in wildlife zones. With 10,000 personnel and two IAF choppers fighting the blaze, however, only 40 fires were active on Monday, the government said, and Union Minister Kiren Rijiju said the 'situation is under control now'. In Himachal Pradesh, 578 incidents of fire have been reported so far, affecting six districts: Shimla, Solan, Una, Bilaspur, Kangra, Hamirpur and Sirmaur. Most of the Himachal fires are ground fires. Barring the Taradevi forests and a dozen places in Bilaspur and Una, they had been brought under control by Monday. A forecast of rain by the Shimla Met station has raised hopes that all fires will be out in the next two or three days, S.S. Negi, director general of forests in the Central Ministry of Environment and Forests, said.

When and how did the fires start? How common are wildfires in India? Are some forests more vulnerable than others?

Wildfires are an annual occurrence in Uttarakhand, though they have been bigger and more widespread this year. The fire season usually begins from mid-February and lasts until mid-June, when the rains arrive. This year, the fires started early – the first incident was reported on February 2. In Himachal, the first fire was reported on April 7. Their frequency and intensity increased after April 25, the day the state saw 80 incidents of fire.

A report titled Forest Fire Disaster Management, prepared by the National Institute of Disaster Management, a body under the Ministry of Home Affairs, in 2012, said about half of India's forests were prone to fires. 43 per cent were prone to occasional fires and 5 per cent to frequent fires, and 1 per cent were at high or very high risk, the report said, quoting data from Forest Survey of India's State Forest Report, 1995, a compilation of 25 years of observations and analyses.

More than 95 per cent of wildfires in India were man-made, the FSI report said. On Monday, three people were arrested from Pithoragarh and Nainital in Uttarakhand for causing fires by burning dry chir leaves. Villagers reportedly burn leaves and grass in order to get better growth of grass the following year. They also burn the needles of the chir pine, which form a slippery carpet on the ground. "In the Terai region, honey collectors often start fires to drive away bees," says B.P. Gupta, Principal Conservator of forests.

The 2012 report quoted the FSI's 1995 analysis as saying 1.45 million hectares of forest were affected annually by fire; it also quoted an assessment by the Environment Ministry's Forest Protection Division, which put the figure at 3.73 million hectares. During the period 1990-2011, the worst incidents of wildfires occurred in Uttarakhand in 1995, in which 3,75,000 ha was affected, followed by the Ganga-Yamuna watershed area (1999, 80,000 ha), Himachal Pradesh (2010, 19,109 ha), and two fires in

Maharashtra in 2008 and 2010, in each of which some 10,000 ha was affected, the 2012 report said. March-May is the peak fire season for most states.

How have the authorities been tackling the fires? How effective has the intervention been so far?

The Uttarakhand Forest Department has employed 9,000 men – 3,500 regular staff, the rest daily wagers, to work with three teams of the NDRF and one of the SDRF, with 45 people in each team. Forest officials say the traditional method of ‘beating the fire down’ with green branches work best. Two IAF Mi-17s have been flying sorties to dump water picked from the Bhimtal lake and the Srinagar, Garhwal, reservoir over the affected areas of Kumaon and Garhwal. The government has banned people from carrying matchboxes to forests, and is running awareness campaigns. However, critics say the measures are too late and too little. Many have argued for more modern systems of fire monitoring alongside traditional methods like maintaining fire lines, so there is a clearing between two forests to prevent the fire from spreading from one to the other. Environmentalists like Nainital-based Shekhar Pathak have underlined the need for greater interaction between villagers and the Forest Department. In Himachal too, ‘fire beating’ and clearing of ‘fire lines’ is under way. The third method of “counter fire” too is being adopted – with forest officials starting fires from the opposite end of a forest to check the flames at a defined boundary.

What is the extent of the damage? Have any farmlands, human habitation or wildlife been affected?

The preliminary losses in Himachal have been estimated at Rs. 57 lakh. This damage is assessed in terms of loss to new plantations. No loss of human life or heads of cattle, or destruction of human habitation has been reported so far. The 2012 report estimated the annual replacement cost of seedlings at Rs 4,400 million. The real losses however, are ecological and social – those of biodiversity, timber, soil moisture and nutrients, etc., besides the environmental impact of heavy smoke rising from the fires.

Is there any benefit to be had from periodic forest fires?

Wildfires are sometimes a natural process, and help forests by promoting flowering, branching and seedling establishment. Himachal Principal Chief Conservator of Forests S.P. Vasudeva says fires that are limited to the surface may help in the natural regeneration of forests. The heating of the soil may result in helpful microbial activity, and hasten decaying processes that are useful for the vegetation.