

Goa wildlife sanctuaries get automatic weather stations to study impact of climate change on biodiversity

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To study the impact of climate change on biodiversity of forests in Goa, the state's Forest Department has installed automatic weather stations (AWS) in five wildlife sanctuaries – Mhadei, Mollem, Bondla, Netrawali and Cotigao.

Principal Chief Conservator of Forests Rajiv Kumar Gupta said the objective of the initiative was to ensure real time mapping and monitoring of various weather parameters, including temperature, humidity, wind speed and rainfall for the scientific management of forest and wildlife areas in Goa.

The stations will record atmospheric data in real time, at intervals of 15 minutes, and transmit the data to a web portal with the help of a satellite.

Goa Forest Minister Vishwajit Rane, who inaugurated the weather stations on Monday, posted on X: "I am happy to announce that Goa is first state in the country to place such an elaborate modern AWS for scientific management of forest and to study and ascertain impact of climate change on biodiversity of Western Ghats forest. Goa is one of the pioneer states in the country to set up AWS in protected areas."

Officials said the data collected would enable the forest department to have a clear idea about water deficient areas in forests. "Weather and climate data, collected over a long period, may be used to assess the probability and risk of extreme events. The data from air temperature sensors can be used to predict the possibility of forest fires, and data from wind speed and direction sensors can be used to determine the direction of fire spread in case of a breakout," a forest department official said.

In March this year, Goa had experienced severe forest fires, with as many as 74 fire incidents reported between March 5 and March 14.

Officials said the data from soil temperature and moisture sensors would help in determining the soil health of a particular area and in determining possible drought conditions.

"With the help of data from tipping bucket rain gauges, the rainfall data of various protected areas can be used to determine the rate of water flow in rivers and waterfalls. The data from rain gauges can also be used to predict possible flash floods, and alerts can be sent out, if required, to evacuate areas," the official added.

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