

'Sattari's geology leaves it prone to landslides'

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Rajiv Kumar Chaturvedi, who also part of the state committee formed to prepare a report on the Sattre incident, said that analysing data for the SAPCC showed that Goa is only becoming more prone to extreme weather events due to climate change, which makes it more important than ever to have a more accurate prediction of landslides.

"Very heavy rainfall has dramatically increased in Goa. Rainfall exceeding 125mm is considered exceptionally high by the India meteorological department. Such events used to happen for two or three days during monsoon months earlier; now they last for 12 or 13 days. Historic data shows that extreme weather events have increased in Goa. We are expecting the landslide risk to increase, but so far we do not have proper data to back it up," said Chaturvedi.

He said though Goa is fortunate that most of the Western Ghats passing through the state have been declared protected forests, the region will become increasingly prone to landslide risk due to climate change.

"Much of Goa has not experienced landslides so far. But the length of the landslide in Sattre was the longest ever known in Goa. Luckily, it was not in a human inhabited area. Can you imagine the loss of lives otherwise? There was a lot of loss of trees and biodiversity, though," said Chaturvedi.

He said that the geological composition of Sattari, with some limestone formations, makes it prone to landslides already.

With climate change, Goa will also witness increased cyclonic activity in the Arabian Sea, which will also make the state more likely to receive bursts of heavy rainfall and increase its landslide risk, said the scientist.

"Since 1982, there have been very few cyclonic formations in the Arabian Sea. More such formations were seen in the Bay of Bengal. But now the risk is almost equal in the Ara-



More landslides likely, locals told

Rain dislodges boulder, Vaddem house hit

Vasco: A landslide has been reported near GSL at Vaddem in Vasco, with a huge boulder rolling down a hillock and damaging a house. Earlier, landslides had been reported at upper and lower jetties at Sada.

Vasco fire station in charge Dilip Bicholkar said, "The house is located at the bottom of the hillock and developed a crack after the rock hit it. However, no casualties were reported." He added, "A few more boulders may roll into houses from the hillock if the rain continues for another day or two."

Bicholkar appealed to people to remain cautious and alert. The WRD had recently begun constructing a retaining wall at the site to prevent the possibility of landslides. **TNN**

bian Sea and Bay of Bengal. Cyclones bring huge amounts of rain, which causes landslides. We have seen that cyclones act as triggers for landslides. If such a scenario occurs in our state, then landslide risk will increase," said Chaturvedi.

Mapping landslide vulnerability, identifying hotspots, developing a functional early warning system for the state, and creating a landslide inventory for Goa with time stamps and associated rainfall data are keys to saving lives in the future, he said.

"We need to compute the rainfall threshold for a sufficient number of data points. We saw that Netravali received extremely heavy rainfall on some days, but fortunately there was no landslide. We need to compute the threshold for such spots," said Chaturvedi.