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More tree cover, grassland key to mitigating floods: IIT-G expert

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Guwahati: Ahead of monsoon when Guwahati reels under the urban floods every year, an IIT Guwahati professor for water resources said the optimal ecological management practices (EMP) such as increasing grassland, tree cover, vegetation and construction of detention drains are the need of the hour. They will control sediment and water yield from hills and thereby mitigate floods in the city.

Arup Kumar Sarma, the professor for water resources of the department of civil engineering, said the natural process of rainwater absorption and the free flow has been hindered by rapid concretisation, encroachment and deforestation in the hilly areas as well as in the plains too.

“As a result, erosion has increased and sediment in huge quantities comes down with the stormwater from the hills after every spell of rain and blocks the drains, which causes flooding in the city,” he added.

He stressed the need to revive the pre-encroachment ecology but gave more emphasis on increasing tree cover. “Since it is not possible to drive away all the people living in the hills, they will have to live in such a way that an environment is created where stormwater gets naturally absorbed and soil gets less decayed,” Sarma said.

According to the Global Forest Watch, a real-time monitoring initiative of the US-based World Resources Institute, Guwahati has lost over 10 sq km of tree cover and 0.17 sq km forest cover in the past two decades.

The professor said to capture the excess surface run-off, detention drains can be constructed across the slope, which can minimise downstream erosion and flooding.

The idea of optimal EMPs was conceptualised in 2012. It was implemented by the Guwahati Metropolitan Development Authority in the city's Garbhanga area in 2015-16 and by the soil conservation department in Geetanagar area in 2018, which were successful.

Sarma said the state government sought a proposal for the entire city in around 2016-17, which was later given. However, he said no concrete step has been witnessed to date for some reason. Preventing debris and sediment at the inlet point of the drains and covering the drains by concrete slabs can also contribute in mitigating the floods, Sarma said.