

THE TIMES OF INDIA

TOI   TOI Games Live Videos City India World Business Tech Cricket Sports Entertainment Astro TV Education Life & Style  [In The News](#) [Live Cricket Score](#) [Study Abroad](#) [Travel Power Creator Awards](#) [Bihar Assembly Election](#) [NBA News](#) [The Learning Curve](#)  [NFL News](#)[Preferred on !\[\]\(17413706fd4997a1a4bdf85c6864eee1_img.jpg\)](#)

Extreme weather puts Pune at risk of big floods: Experts

TNN / Aditi.Shekar@timesgroup.com / Sep 27, 2023, 08:53 IST

 SHARE

AA

FOLLOW US 

Environmentalists have warned that Pune, a saucer-shaped city surrounded by hills, is at risk of urban flooding and requires urgent measures to combat the threat. The city currently has 127 flood-prone spots, and a flood in 2019 resulted in 26 deaths and extensive damage. Experts are calling for careful urban planning, including the maintenance of buffer zones near water bodies and the improvement of drainage systems. They also recommend determining flow levels and patterns before development and building retention ponds to mitigate flooding risks. Climate adaptation and long-term planning are crucial to address the increasing flood risk due to urbanization.



The destruction left behind by the 2019 flood in Pune. Urban flooding is worse than rural flooding as flood volumes can go up by six times due to the high levels of construction. Experts said these disasters have increased in frequency in India

PUNE: A saucer-shaped city, surrounded by hills and fast filling up with concrete. Pune will need urgent measures, immediately, to fight off the threat posed by urban flooding, environmentalist have said. These concerns are backed by data. There are at least 127 spots in the city that are today flood-prone. In 2019, densely populated neighbourhoods experienced first-hand what happens when the effects of changing weather mix with bad urban planning.

The 2019 flood claimed the lives of 26 people, and destroyed hundreds of homes and businesses. Many believe the flood was a freak event, but the chances of a repeat are high. In fact, the very next year, Pune's weather stations recorded rainfall in excess of 75mm, within a short duration. Such short intense spells can overwhelm drainage networks of cities, which according to disaster management experts were originally designed for rainfall intensity of just 12 – 20 mm. "We are looking at very worrying data. All of our cities need to prepare for extreme weather events," said an official with the national disaster management authority.

In Pune, experts urged city planners to build with caution. According to Dr Shrikant Gabale, an urban geomorphology expert, the old parts of Pune alone have more than 75 locations where floods are a threat. "As per the Unified Development Control and Promotion Regulations, a space of five to six metres must be maintained as a buffer near water bodies. All old sewer drainage systems and stormwater drainage pipelines have to be changed. The population is growing very fast, but there are no plans for construction of pipelines for a city that's expanding at this rate," Gabale said.

He added: "When a project is designed, the rainfall return period of 25 years must be considered. However, due to massive encroachments and bad urban planning, this is not being followed. Concreting for beautification does not allow for consideration of natural factors that may lead to larger problems. Citizens too should be aware of their responsibilities towards nature."

Other experts said Pune's flow levels and patterns — where runoff from rain goes — should be determined before planning. Close to 95% of infiltration of water is being blocked by concrete in parts of the city, they said.

"Pune is indeed shaped like a saucer with hills," said Shailaja Deshpande, founder of Jeevitnadi. "Velocity of water flow from a hillock due to sharp slopes is very high. This can be observed near Katraj. Along with this, deforestation removes all controls on the flow of water. This added with mismanaged stormwater drainage can lead to problems," she said. Deshpande suggested the building of retention ponds along foothills to combat risks of urban flooding. "Most of the encroachments, in Katraj area, are virtually in the stream, which is why demarcated floodzones must be included in urban planning. If we do not take these measures, we might have a situation that could be worse than what we are seeing in Nagpur," said Deshpande, referring to an intense rainfall event there that claimed at least four lives earlier this week. Experts said the incident proves the weather is changing. "Rainfall has been varying over time since 2000 which leads us to believe that it remains to be a major reason for flooding. The built up area in the city due to urbanisation increases the flood risk significantly. If there is more construction, more water will be accumulated due to which there will be less space for water to flow. There should be long-term planning while designing urban centres.

Climate adaptation is a factor that must be considered significantly because of the frequency of cloud bursts,” said Dr Beejoy Thomas, associate professor at the Centre for Water Research, IISER.

Source:

Extreme weather puts Pune at risk of big floods: Experts. (2023, September 27). The Times of India. <https://timesofindia.indiatimes.com/city/pune/extreme-weather-puts-pune-at-risk-of-big-floods-experts/articleshow/103976102.cms>