FIRSTSPOT

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Bengaluru floods: Unchecked urbanisation, pollution led to heavy rains that caused deluge

Bengaluru received 12.8 cm of rain in just five hours between Monday night and Tuesday morning, the highest amount of rain which the city has got in August since 1890.

This led to flooding in several parts of the city, after which drainage water entered the houses in low-lying areas and left cars parked in the basement submerged.

As Vishwanath Srikantaiah, water activist and advisor at Biome Environmental Solutions, pointed out on Facebook, one of the main reasons why the city was flooded is that Bengaluru did not have a good rainwater harvesting plan.

He also said that the levels of reservoirs in the city were still below that of last year, which was also a bad year in terms of amount of rainfall.

The live storage in the Harangi reservoir on Wednesday was 6.80 thousand million cubic feet (TMC) whereas its capacity is 8.07 TMC. Similarly, the storage in Hemavathi reservoir on Wednesday was 15.07 TMC whereas its full capacity is 35.76 TMC. KRS and Kabini reservoirs also had 12.61 and 6.73 TMC of water stored on Wednesday whereas the full capacity was 45.05 and 15.67 TMC respectively.

In September 2008, Srikantaiah had also written about how Bengaluru received more local rainfall because of various reasons, the first of which was the urban heat island effect, because of which "cities are warmer than their surroundings and which causes the build-up of rain clouds on the city."

Pollution was also a major factor because it allowed rain to coalesce around pollutant particles. The wind-break effect of cities also caused the clouds to discharge when reaching the cities.

Pollution and unchecked urbanisation are some of the major reasons behind the floods in Bengaluru. News18

The water activist also pointed out that Bengaluru needed better solid waste management and storm water management techniques. Traditional storm water management techniques simply collected the rain water and channelled it across the city downstream. Newer methods like the Sustainable Drainage Systems (SUDS) used a variety of natural processes to purify urban runoff.

He further said that special maps showing which areas of the city were prone to flooding needed to be available to people.

*ANI*also quoted Janata Dal (Secular) leader Danish Ali as saying that land-grabbing was another reason behind flooding. "Waterlogging in Bangalore is taking place because of land grabbing. Most of the lakes and wells are encroached by land mafias, politicians and bureaucrats. Unless and until an action against these encroachments is taken, these issues will remain the same," *ANI* quoted Ali as saying.

Another article in *Hindustan Times* similarly pointed out that with the unchecked urbanisation of Bengaluru, there had been a 1,005 percent increase in paved surfaces in the city between 1973 and 2016, according to a study by the Indian Institute of Science. Bengaluru's vegetation had also decreased by 88 percent between 2000 and 2014.

During Wednesday's flash floods in Bengaluru, the worst-hit regions were south and eastern parts of Bengaluru — Koramangala, HSR Layout, Ejipura, Jayanagar, JP Nagar, BTM Layout, Bannerghatta Road and pockets of Indiranagar — where pre-dawn rain and winds snapped power lines, uprooted trees and inundated roads, submerging vehicles, PTI had reported.

According to officials of the city civic body Bruhat Bengaluru Mahanagara Palike (BBMP), clogged drains and unfinished work on storm water drains aggravated the situation, resulting in drainage water flooding residential areas.

BBMP officials, who came under fire from residents for being ill prepared to deal with such emergencies during the monsoons, struggled to bring relief to the exasperated people in these areas, some of them upmarket neighbourhoods.

'Toxic foam', allegedly due to the discharge of sewage water, had filled large parts of the polluted Bellandur Lake in the city.

However, on Wednesday evening, parts of Bengaluru slowly began limping back to normalcy after a let-up in the rain.