

Poor hit worst by heat when mercury begins to rise in Hyderabad: Study

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HYDERABAD: As Hyderabad witnesses one of its hottest summers in the last few years, new research suggests that different housing settlements may be experiencing a harsher summer than others. The study undertaken by IIT Hyderabad along with Swastik Harish and Associates and Hyderabad Urban Lab has attempted to understand how heat is felt in different kinds of building structures and localities in the city and analysed how two low-income unplanned urban slums in the city — Singareni Colony near Saroonagar and Bholakpur near Secunderabad — experience the summer temperatures.

VULNERABLE SECTIONS MORE EXPOSED



- 2 low-income unplanned slums in Hyderabad — Singareni Colony near Saroonagar & Bholakpur near Secunderabad — were analysed
- 40 temperature & humidity logger sensors were used on the side selected for the study — 8 degrees Celsius in the unplanned & pakka housing
- Insulated structures showed a 8 degrees Celsius temperature drop in the study

For the same, the team of researchers fixed about 40 temperature and humidity data logger sensors inside select Kutcha and pucca houses, that gave them permission, in these two areas. These include asbestos structures and also government housing for low income communities.

The results from just one day in one of the locations, Singareni, shows how drastically different heat can be for different sections of society. For instance, on April 4 and April 5, when Hyderabad recorded a maximum temperature of 42 and 42.4 degree Celsius respectively, the heat sensors inside a Kutcha home in Singareni colony recorded 42.8 degrees and 42.5 degrees respectively.

Insulated homes

reduce heat

As per data from Telangana State Development Planning Society (TSDPS) data, Saroornagar, which is the closest automatic weather station to Singareni Colony, recorded temperatures of 41.3 and 42.1, respectively. At the same time, a pucca home recorded 34.6 degree Celsius, which goes to show how the cement structure cut nearly 8 degrees in an insulated home at the peak.

No respite for

kutcha houses

Urban development expert Swastik Harish, who was part of the investigating team, explained that this data suggests that Kutcha homes, where the most vulnerable sections live, offer no respite. "The Kutcha homes are mimicking outside conditions. It amounts to no shelter and zero protection from heat or cold," he said. He added that the analysis further found that while semi-pucca homes (those with permanent walls but temporary roofs) cut the heat at peak, at night time it makes the home hotter inside than outside.

"Pucca house cuts both peaks down but if the pucca house is on top floor, it offers little protection. Thus, pucca house also is not the final solution for heat," he said.

Heat exposure

inside homes

The principal investigator of the research, IIT-H assistant professor Aalok Khandekar, said other factors like the number of people in the house, ventilation, and general layout of building can also play a role. "Generally, the messaging given during heatwaves is that it is too hot outside and one should be indoors but in such areas, being indoors can increase heat exposure," said Aalok.

'Tailored heat action plan required for Hyderabad'

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HYDERABAD: In order to tackle rising temperatures, there is an urgent need for Hyderabad to have a dedicated Heat Action Plan (HAP) configured to how heat impacts its various areas, according to climate researchers. The demand arises from the fact that the city has several kinds of settlements — built up homes, offices, slums, low-income housing, open spaces, all of which experience heat differently.

“There is an argument to be made for both a Heat Action Plan and a Climate Action Plan (CAP) for the city. Presently, HAP’s tend to be generic, for instance Telangana has one at state level, Ahmedabad has one at the city level, and there are now close to 40 HAPs that span different cities, regions, and states in the

country. The observation we made is that though these plans are important as they put in place certain protocols and responsibilities on what’s to be done and by whom, yet they lack specificity. There aren’t very significant differences between the Ahmedabad and Telangana plan, for example. The plans are insufficiently localized.” said Aalok D Khandekar, assistant professor from IIT-H.

CURRENT PLANS INS

- Climate researchers call for a dedicated Heat Action Plan and a Climate Action Plan (CAP) for Hyderabad

- Current plans insufficiently localized, say experts

- Experts call for integrating information at ward levels to make action plans more effective

- 5 types of neighbourhoods/streets & 4-5 types of housing with different heat signatures identified in city



He said that for these plans to be more effective, they must respond to the specific ways in which a city works in a more finely-grained manner, encoding an understanding of the city at the neighbourhood or ward level.

Swastik Harish, an urban development expert, said the plan can be based on a city's infrastructure by leveraging mutual shading between buildings, enhancing shaded spaces, passive cooling techniques, using cool material wherever possible and also actively encouraging the community to use white cooling paints, slopes on roofs, and broken light-coloured tiles on roof to reflect the heat from the sun.

They further recommend a 'meso-level' policy for CAP, recognising that it is difficult to make very tailored, specific policies in this area.

“As part of this study we looked at about 1,700 informal settlements in Hyderabad and visited 31 of them to understand their heat signature. We arrived at five types of neighbourhoods/streets and four-five types of housing with different heat signatures. An effective HAP for Hyderabad can be for these specific types, codified as building codes etc.,” Swastik said.

Emphasising that periodic events that are very disruptive must not be forgotten, Khandekar said, “Cities and municipalities must assume greater decision-making power and get access to necessary resources to support proactive climate adaptation planning.”

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City fans gear up to beat the heat at Eden face-off
Kolkata-Punjab match excitement rises as superfans gear up to beat the heat. From elaborate body painting to early birthday surprises for players, fans ensure hydration and coolness strategies for the intense face-off.[109619114](#)

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