

HEAT-BAKED CHENNAI CAN SET AN EXAMPLE FOR INDIA

The Hindu

Paper - I
(Geography)

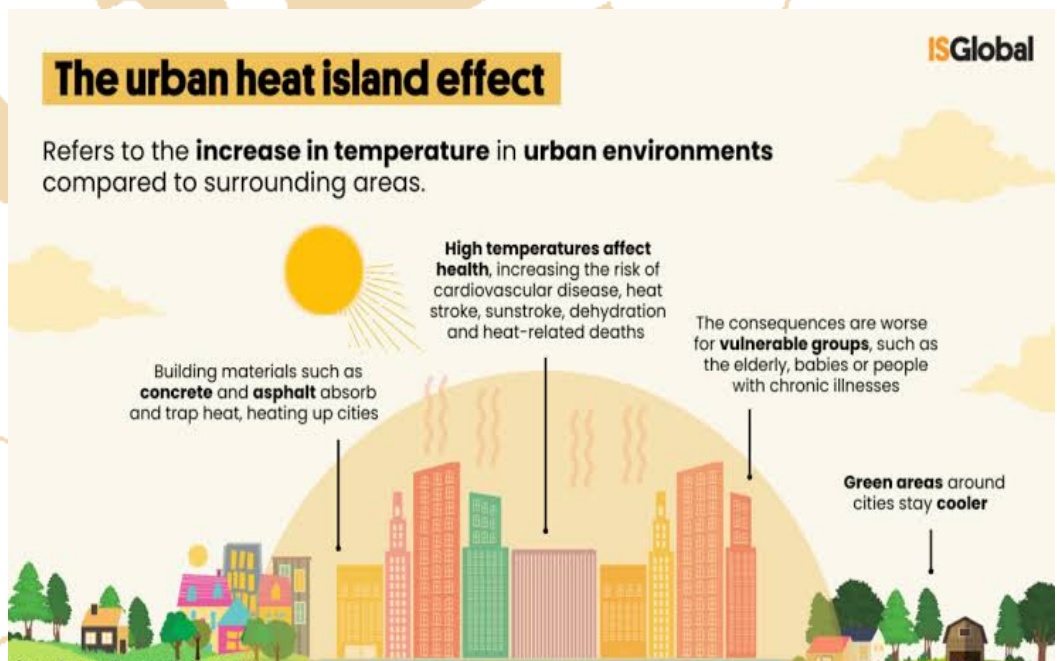
The year 2023 was by far the hottest ever according to a recent World Meteorological Organization (WMO) report. Global average temperatures reached 1.45° C higher than pre-industrial levels, almost touching the 1.5° C limit set in the Paris Agreement. Scientists predict that 2024 could be similar. With global emissions still growing, climate impacts are worsening. Heatwaves are sweeping through the Indian sub-continent. And, more hotter and longer-lasting heat waves are being predicted in the years to come.

What is the Urban Heat Island (UHI) effect?

The Urban Heat Island (UHI) effect refers to the phenomenon where urban areas are significantly warmer than their rural surroundings due to human activities.

Here are key points about the UHI effect:

- ❖ Urban areas like Chennai experience higher temperatures, by about 2° to 4°C, compared to nearby rural areas.
- ❖ Structures such as concrete buildings and tarmac roads absorb and retain heat, exacerbating the temperature rise.
- ❖ The lack of green spaces and the heat from air conditioners and vehicles add to the UHI effect.
- ❖ Night time in cities can be especially hotter, trapping heat within the urban environment.



What are the initiatives taken by the Government to overcome this?

- ❖ India has national, state, and district-level Heat Action Plans to reduce heatwave impacts.
- ❖ These include early warnings, staggered work hours, shaded areas, and provision of drinking water and oral rehydration salts.
- ❖ Urban Planning: The Chennai Metropolitan Development Authority (CMDA) is commissioning detailed heat maps for better planning and intervention strategies. These actions aim to mitigate heat effects and improve urban liveability while moving towards sustainable development goals.

