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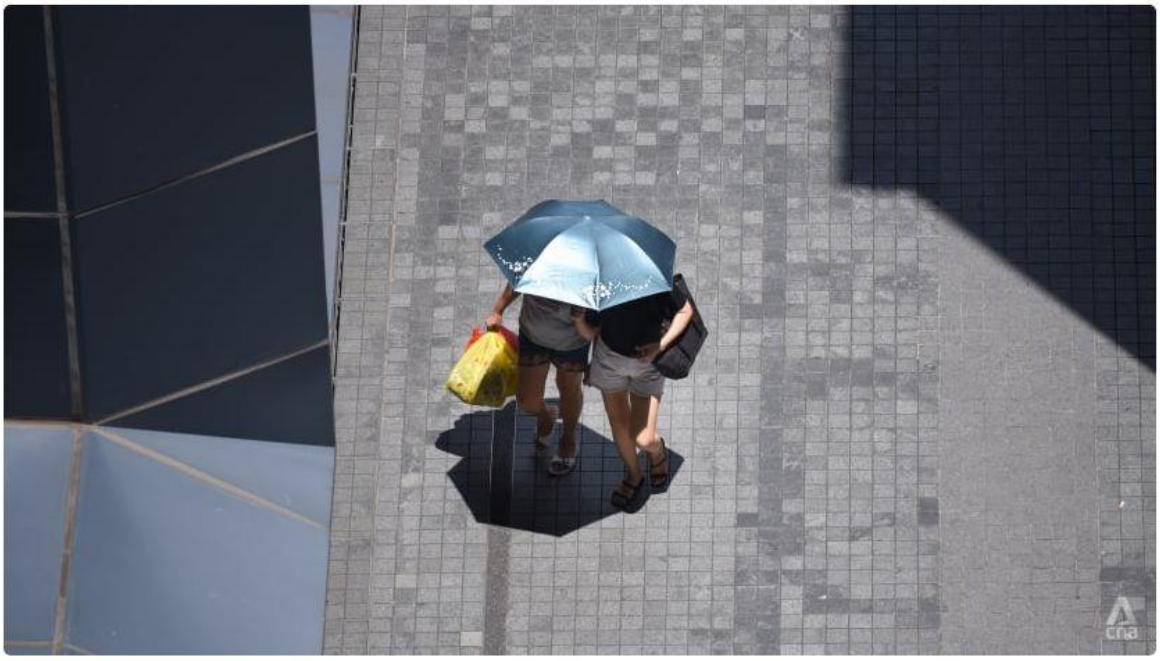

Two people shield themselves from the sun under an umbrella in Clementi. (File photo: CNA/Gaya Chandramohan)

Although Singapore experienced its hottest May day on record earlier this month, with the mercury hitting 36.7 degrees Celsius at Admiralty, the country is not experiencing a heatwave, said the Meteorological Service Singapore on Wednesday (May 18).

A heatwave occurs when the daily maximum temperature - averaged across designated stations with long-term temperature records - is at least 35 degrees Celsius on three consecutive days, with the daily mean temperature throughout the period being at least 29 degrees Celsius, said the Met Service.

"We are not currently experiencing a heatwave," said a spokesperson. "We are however expecting the second half of May 2022 to continue to be warm and drier compared to the first half of the month."

The warm weather is not unexpected, experts told CNA, noting that April to May is usually the hottest period of the year.

"May is just past the spring equinox which means that the sun is almost directly overhead at noon in Singapore. Being within the inter-monsoon period, the surface winds are weak and less able to transport heat away.

"Together with the more intense solar radiation, it helps explain the record temperature earlier in May," said Associate Professor Koh Tieh Yong, a weather and climate scientist at the Singapore University of Social Sciences.

However, climate change and what's known as the urban heat island effect have been pushing temperatures up.

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"The warmer-than-normal temperatures we've been seeing are expected as climate change generally increases global temperatures over the past 40 years," said Associate Professor Winston Chow, a climate scientist at the Singapore Management University.

He added that there is a strong urban heat island effect from Singapore's built-up areas, which stores heat during the day and releases it at night.

Despite the sweltering heat, the temperatures are not high enough within a day and don't persist long enough between days to cross the thresholds necessary to be declared a heat-wave by Met Service, said Assoc Prof Koh.

"The risk will be higher if there's no rain forecast during this period," added Assoc Prof Chow. "But it appears that there will be showers in the pipeline to lower the average temperatures and cool us from the heat."

Based on past records, Singapore experiences on average one to two heatwaves per decade, said the Met Service. The last heatwave here occurred in 2016 between Apr 17 and 19.

TREND OF RISING TEMPERATURES

Nevertheless, there has been a "strong and significant" trend of rising temperatures in Singapore in general, especially since the 1970s, noted Assoc Prof Chow, pointing to figures by the Met Service.

Over the past seven decades from 1948 to 2021, Singapore's annual mean temperatures have been rising at an average rate of 0.25 degrees Celsius per decade, according to the Met Service.

"The same warming trend was also observed for the warmer months of April and May," it added.

Said Assoc Prof Koh: "We are having about 12 more warm days and 12 more warm nights per decade now than 50 years ago. On the other hand, we experience about two fewer cool days and nine fewer cool nights per decade over the same period."

People should, therefore, expect higher temperatures in future, said Professor Matthias Roth from the Department of Geography at the National University of Singapore.

"Generally we have to get used to increasing air temperatures, here and in other cities, due to anthropogenic global warming which sets the background conditions, and the heat island effect due to urbanisation which produces additional local warming," he added.