



27 SEP, 2026

Keeping homes cool and healthy



Sunday Star, Malaysia

FOR many Malaysians, adapting to climate change begins where we spend the bulk of our time: at home.

It's evident that we will be seeing hotter days despite the bursts of rain. Malaysia's average temperatures in Peninsular Malaysia have increased by 0.24°C per decade since 1969. The World Bank reports that by 2050, urban areas could face over 100 days of extreme heat annually.

At present, housing, water, electricity, gas, and other fuels already account for 23.5% of Malaysian household consumption expenditure. Higher temperatures, haze, and poorer air quality could mean greater reliance on air-conditioning and air purifiers, more frequent maintenance, and eventually upgrades to make homes cooler and more efficient.

For households, adapting to a changing climate could mean taking on higher costs just to keep homes cool, safe, and liveable.

Keeping the heat out

Universiti Sains Malaysia sustainable building specialist Dr Mohd Rodzi Ismail says climate change should not be viewed only in terms of major disasters but also in the way it changes our daily lives.

"For many households, its impact will be felt through the gradual accumulation of higher utility, maintenance, repair, and health-related expenses," he says.

As temperatures rise, Rodzi says households should prioritise reducing the amount of heat entering their homes before relying more heavily on air-conditioning.

External shading, roof or ceiling insulation, and reflective roofing can help reduce heat build-up indoors. These measures can also allow cooling systems to operate more efficiently and reduce energy consumption.

For households unable to afford major renovations, Rodzi recommends starting with simpler, lower-cost measures that reduce heat gain and improve comfort. Regularly cleaning

Keeping homes cool and healthy



For households, adapting to a changing climate could mean taking on higher costs just to keep homes cool, safe and liveable. — FAIHAN GHANI/The Star

air-conditioner filters and fan blades, for example, is a simple but useful energy-efficiency measure.

He says policymakers should also strengthen minimum standards for thermal comfort, energy efficiency, and climate resilience in housing construction while ensuring that these requirements do not make houses less affordable.

Targeted subsidies, grants, or affordable

financing could help lower- and middle-income households undertake energy-efficient retrofits, while existing energy-efficiency incentives could be expanded to include household green renovations.

"A truly affordable home should be not only affordable to buy, but also affordable to live in, comfortable, energy efficient, and resilient over the long term," says Mohd Rodzi.

Paying more to stay comfortable

Axxu Hoi Jung Wai, Malaysian Institute of Architects' Environmental, Social and Governance



Mohd Rodzi: Climate change should not be viewed only in terms of major disasters but also in the way it changes our daily lives.

Committee Lead, says changing weather patterns and haze have made it increasingly difficult for some households to rely on open windows and natural ventilation.

For urban families, particularly those living in high-rise buildings, staying comfortable may also mean relying more heavily on mechanical cooling for longer periods.

Hoi estimates that running four one-horsepower air-conditioning units for three hours a day consumes about 309.6 kilowatt-hours per month, adding roughly RM140 to a monthly electricity bill.

"Ten years ago, that same monthly consumption would have cost around RM81, representing an approximate 67% increase in electricity costs for that air-conditioning usage over the past decade," he explains.

Households may increasingly turn to inverter air-conditioners, which can be more cost-effective over the longer term despite their higher upfront cost. Air purifiers may also become a more common household purchase as families try to manage

poor air quality.

But Hoi says the response should not rest solely on what individual households can buy or install.

"Policymakers should enforce strict fines or penalties to serve as a necessary deterrent against industries that exceed safe carbon emission limits or engage in harmful practices like open burning. For the average household, consuming only what is necessary while avoiding excess is a balanced approach that respects both personal resources and the environment," he says.

He advocates protecting trees and green spaces as part of urban development, arguing that strategic landscaping can create cooler urban microclimates and provide a natural cooling effect.

When the environment becomes a health issue

Climate-related health risks could add another layer of financial pressure.

Dr Malina Osman, Assoc Prof of Epidemiology and Biostatistics at Universiti Putra Malaysia, says



Hoi: Climate change response should not rest solely on what individual households can buy or install.

climate-related ecological changes could create new challenges for disease control. These include potential increases in mosquito-borne diseases and waterborne illnesses following flooding and temporary displacement.

Prolonged severe haze could also worsen respiratory conditions such as asthma, bronchitis, and certain lung infections, while heat stress,

stress, and changes in lifestyle could create other health concerns.

These impacts could translate into household costs through medical expenses, medication, time away from work, and reduced productivity. However, Malina notes that healthcare costs are expected to rise even without climate change, and more detailed research is needed to determine the climate-related share.

As Malaysia adapts to a changing climate, that broader definition of affordability may become increasingly important, particularly for households with limited room in their budgets to absorb additional costs.