Small street redesigns could improve safety, says expert

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PETALING JAYA: Traffic jams are a daily nightmare but experts say small street redesigns could make streets safer for walkers and cyclists, if done right.

Universiti Putra Malaysia Road Safety Research Centre head Assoc Prof Dr Law Teik Hua said traffic-calming measures such as lane narrowing, visual barriers, chicanes and refuge islands are effective but only when thoughtfully planned and integrated with broader strategies.

"Physical and visual lane narrowing, chicanes and refuge islands can lower speeds, especially when combined with markings, parking and horizontal deflection.

"Controlled before-and-after studies, as well as case studies from Malaysia and other Asian cities, support this, although the degree of reduction varies with street type, pre-treatment speeds and enforcement."

He warned that not all interventions guarantee positive results.

"Interim street redesign could worsen congestion in high-density areas such as Kuala Lumpur. If lane reductions or curb extensions remove space at bottlenecks, travel times could rise, particularly during peak hours.

"Careful planning, such as converting a low-volume curb lane to a separated bike lane, could slightly affect car travel times while delivering significant safety and active transport benefits."

He stressed the need to assess congestion impacts through before-and-after analysis, proper location selection, and adjustments to signal timings and turning movements.

"The impact may not be significant if these factors are considered."

Tactical urbanism, meaning temporary, low-cost interventions to test urban design ideas, could also shape mobility behaviour.

"In car-dependent cities, tactical urbanism reliably changes perceptions, secures political support, and could increase walking and cycling in the short term."

Law added that safe crossings, network connectivity, enforcement against encroachment and good last-mile public transport access are key to success.

"Temporary measures are often made permanent once they demonstrate benefits, gradually unlocking latent demand and alleviating safety concerns. It is a process of iteration rather than sudden transformation."

Local driving behaviour also affects outcomes.

"Compared with Western cities where many models originate, Malaysian drivers show different lane discipline, gap acceptance, motorcycle mixing and rule compliance.

"This means some interventions may need modifications, such as clearer visual cues, better separation of motorcycles and stronger enforcement, to achieve similar safety and speed outcomes.

"Fortunately, treatments such as lane narrowing, refuge islands and raised crossings work largely by influencing perception and vehicle dynamics, so speeds are reduced automatically regardless of enforcement levels."

Human impact is real, as seen in Kuala Lumpur last year when pedestrian injuries at busy intersections numbered in the hundreds while cyclists faced countless near-misses daily.

"Simple changes could prevent many of these incidents," he said.

He recommended collecting detailed data to see if street changes actually work.

This includes the average speed of vehicles, the average speed of the faster drivers, types of vehicles on the road, turning movements, traffic queues, travel times, pedestrian and cyclist numbers and behaviour, delays, near misses and crashes, and even parking turnover when relevant.

"Surveys on perceived safety and business impacts, as well as video data, are also desirable. Automated collection of traffic speed and volume, accompanied by pedestrian and survey data, should serve as a minimum standard."

Law said as Kuala Lumpur continues experimenting with tactical urbanism and traffic-calming strategies, careful planning, localised adaptation and robust data collection are essential.