

Protecting green heritage

Two city councils embark on risk assessment of trees after spate of storm-induced damage

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PENANGITES share a unique affection for the trees that form an integral part of their surroundings.

Their love for greenery is deeply rooted in the state's history and cultural heritage.

It is also a testament to the community's commitment to preserving nature, be it in natural surroundings like forests to the trees that line the streets.

Urban trees face significant threats, primarily from excessive pruning and construction activities.

These activities can damage the trees' integrity, uproot them or harm their root systems, making them hazardous, especially during adverse weather conditions.

Additionally, trees can suffer from decay and diseases, exacerbating their vulnerabilities.

There have been several cases of trees being uprooted and branches breaking during storms, causing damage and raising safety concerns.

Proper tree care

In response to these challenges, steps are being taken to ensure the longevity and safety of the state's urban trees.

Currently, nearly 150,000 trees are under the care of Penang Island City Council (MBPP) and Seberang Perai City Council (MBSPP).

State local government, town and country planning committee chairman Jason H'ng Mooi Lye said frequent occurrences of trees toppling over and branches breaking off during heavy rain

had raised significant safety concerns.

"I have directed the city councils to submit investigation and monitoring reports on large, old and hazardous trees within their jurisdictions.

"On the island, it is estimated that there are around 40,000 trees under MBPP's administration.

"It has implemented the Penang Tree Inventory System (PeTIS) to catalogue data such as tree type, location, size, health status and maintenance needs.

"This system enhances tree management effectiveness by identifying potentially dangerous trees, allowing for prompt and targeted action," he told reporters after inspecting some trees along Jalan Macalister.

H'ng added that to date, 15,848 trees with a circumference of 0.8m or more along roadsides and open areas had been inventoried.

He added that there are 314 century-old large trees within MBPP's area that required internal trunk inspections to ensure public safety.

"This year, MBPP has contracted experts to assess and maintain trees along Jalan Macalister, Jalan Utama, Jalan Burmah, Jalan Kelawei and Jalan Perak.

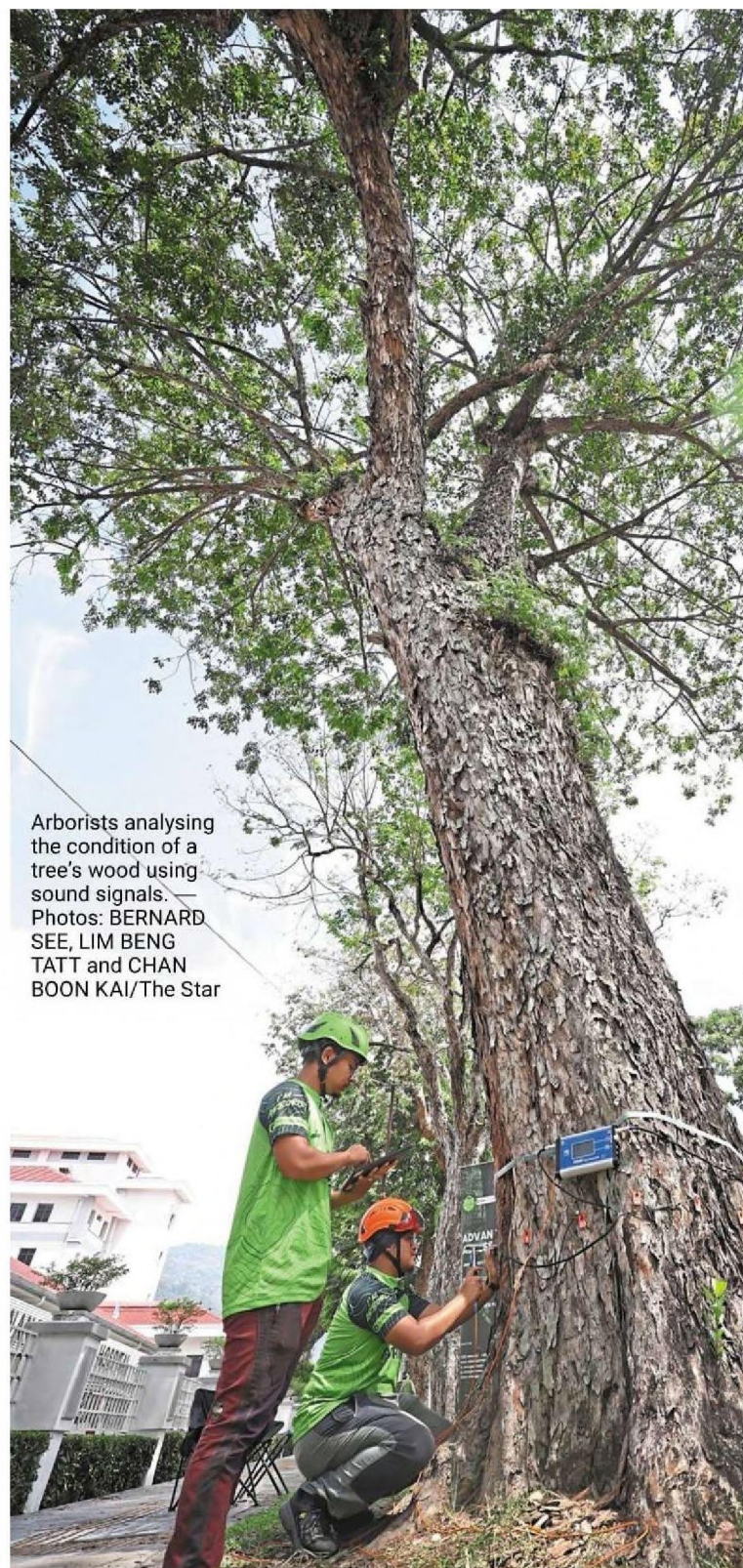
"So far, 561 out of 1,195 trees have undergone risk assessments. The exercise is expected to be completed by the end of June."

H'ng added that initial checks identified 131 trees of concern requiring advanced Level 3 risk assessments, using tools like the Picus Sonic Tomograph and Resistograph to determine trunk decay.

"This tree risk assessment and



There have been incidents where repair works by utility companies have damaged old trees along Jalan Terengganu in Penang.



Arborists analysing the condition of a tree's wood using sound signals.
Photos: BERNARD SEE, LIM BENG TATT and CHAN BOON KAI/The Star

maintenance project will expand to other roads next year and continue annually to ensure the health, beauty and safety of trees in the MBPP area," he said.

In Seberang Perai, MBSP maintains 115,706 trees, with 96,586 inspected or marked so far.

Of this figure, H'ng said 23 trees had been identified as risky, with eight already felled and the remaining 15 scheduled for removal.

"MBSP is also committed to identifying at-risk trees through periodic inspections, especially on main roads and public paths.

"This includes monitoring by Malaysian Road Records Information System (Marris) contractors and the Landscape Department using visual tree assessment forms.

"I have instructed both councils to increase the frequency of inspections, particularly for old and at-risk trees with immediate action to be taken for those posing safety threats to prevent accidents," he said.

Letting roots breathe

Malaysian Nature Society (MNS) Penang branch advisor D. Kanda Kumar blamed exces-

sive pruning for damaging urban trees.

"From what I can see, some trees along roads in Penang tend to be excessively pruned.

"The top branches of the trees are lopped off, preventing them from growing taller.

"Some contractors tend to prune the trees severely so that they need not do it so often," he claimed, adding that proper pruning should not harm the branch bark ridge or the branch collar.

Kanda Kumar said the area where the trees grow should also not be paved up as the roots would not be able to breathe.

Eventually, the roots break the surface instead of growing downwards, weakening the root system and making the trees prone to toppling, he added.

There is also the issue of utility or telecommunications company contractors who inadvertently damage root system of trees.

MBPP mayor Datuk A. Rajendran said there had been several such incidences, and action had been taken against them.

"First, we will issue a stop-work order and conduct



an investigation.

"Following this, we will forfeit their deposits, which can amount to thousands of ringgit.

"We need to improve communication with these companies to prevent this from happening again, as our heritage trees are a vital part of Penang's identity."

Rajendran said the last thorough check on these heritage trees was conducted 10 years ago.

He added that the city council had started off with a contract to check 2,000 trees along Protocol roads (those frequently used by high-level officials) and eventually this would be extended to other busy roads.

Regarding the 131 trees of concern, he stated that the contractor, Arbo Master Resources, had been instructed to do everything possible to save them.

Arbo Master Resources director Ridzuan Yahaya, a certified arborist, explained that using the Picus Sonic Tomograph and Resistograph was akin to giving the tree a CT (computerised tomography) scan, which can take up to an hour or more.

"The sonic tomograph analyses the condition of a tree's wood using sound signals.



(From left) Ridzuan briefing H'ng, Pulau Tikus assemblyman Joshua Woo, Rajendran and MBPP councillor Nicholas Theng (in light blue) about the condition of trees under the council's jurisdiction in Jalan Macalister.



A view of old trees at Waterfall Road in Pulau Tikus, Penang. Some of the roots of these trees are susceptible to damage during works done by construction and utility companies.

"It precisely measures the transit time of sound waves in the wood, generated by lightly tapping with an electronic hammer.

"We then examine the results to assess the tree's health and determine any necessary action if the tree is at risk or diseased.

"This thorough analysis allows us to make informed decisions about the best care for the tree."

Other than beautifying an area, Ridzuan said *angsana*, raintree and *bunga Tanjung*, which line streets like Jalan Sultan Ahmad Shah and Jalan Macalister attract tourists who come to marvel at them.

"Trees play a crucial role in combating climate change by converting carbon dioxide into oxygen, and mature trees are particularly effective at this compared to saplings.

"This is because as the trees grow, their capacity to absorb carbon dioxide and release oxygen increases significantly as mature trees have larger canopies and more extensive root systems, allowing them to absorb and store more carbon dioxide.

"Therefore, protecting and preserving mature trees is vital in our efforts to mitigate climate change and maintain a healthy environment," he added.

Planting more trees

The issue of tree maintenance in urban areas has become a hot topic, especially in the Klang Valley.

There have been several incidences of uprooted trees causing damage to property and even resulting in a fatality.

This has led to calls by some quarters for local authorities to improve tree manage-

ment practices.

Kanda Kumar also thinks that local authorities should look to Singapore or even Taiwan, as both countries have a good track record in managing their urban trees.

"Our trees deserve better care and proper maintenance as these trees keep the ambient temperature at a lower rate," he said.

To this end, it is important to balance the felling of trees that pose a safety risk in urban areas with planting new ones to take their place.

On May 15, Prime Minister Datuk Seri Anwar Ibrahim issued an order to Kuala Lumpur City Hall to plant 100 trees for every tree felled in the city.

The federal Greening Malaysia Programme, which kicked off in 2020, aims to plant 100 million trees in a five-year period from 2021 to 2025.

Penang too, has embraced this initiative.

In April, more than 256,000 people created history when they planted some 1.25 million trees throughout the state during the "Planting One Million Trees Within a Day in Conjunction with Earth Day" event.

Organised by the Penang Governor's Charity Foundation (Yayasan Amal Tuan Yang Terutama Yang di-Pertua Negri Pulau Pinang) in collaboration with the office of state housing and environment committee chairman Datuk Seri Sundarajoo Somu, the event also made it into the Malaysia Book of Records.

Foundation chief executive officer Datuk Seri Rozali Mohamad said the objective of the initiative was to protect and conserve biodiversity and mitigate the impact of climate change.