

## Ways to prepare for possible haze amid hot and dry season

Shabana Begum

This year's hot and dry season, expected to be prolonged and more intense, has arrived, bringing with it a higher risk of transboundary haze in Singapore.

Two climate phenomena – the warming El Niño and the positive Indian Ocean Dipole – are predicted to occur in the second half of 2023, extending the dry period to October.

Here are some ways to prepare for possible haze, where higher concentrations of particles and pollutants are suspended in the air.

### WHAT PRECAUTIONS DO I TAKE WHEN THERE IS HAZE?

Refer to the 24-hour PSI (Pollutant Standards Index) forecast to plan activities the next day, and the hourly PM2.5 readings to decide

on immediate outdoor activities. PM2.5 – tiny, harmful particles that can penetrate deeply into the lungs – is the dominant pollutant during episodes of transboundary haze.

If the 24-hour PSI reaches unhealthy levels (101 and above), individuals with chronic lung or heart disease, for instance, should avoid prolonged or strenuous exertion outdoors.

Seniors, pregnant women and children should minimise outdoor exertion.

If the one-hour PM2.5 concentration reaches elevated levels, healthy people should reduce strenuous outdoor activities, while vulnerable people should avoid such activities.

### WHEN DO I USE AN N95 MASK?

While N95 masks are not needed indoors or during short exposure such as while commuting, a

healthy person who has to be outdoors for several hours when the air quality is in the hazardous range (PSI levels above 300) may protect himself by wearing an N95 mask.

For vulnerable individuals, the best protection is to avoid or minimise outdoor activities when the forecast air quality is very unhealthy (PSI levels above 200). If they have to be outdoors for several hours, they may wear an N95 mask.

### CAN I USE A SURGICAL MASK INSTEAD OF AN N95 MASK WHEN THERE IS HAZE?

No. Normal surgical masks are not effective in filtering out fine particles like PM2.5. Surgical masks protect the wearer from infectious droplets and sprays.

N95 masks are about 95 per cent effective in protecting the wearer from airborne particles as tiny as

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0.1 to 0.3 microns.

For the best protection, the N95 mask has to be fitted well. For proper fit, ensure that the mask is the right size and covers the nose and mouth comfortably without gaps.

### CAN N95 MASKS BE REUSED?

The N95 can be reused up to five times unless it gets soiled or distorted in shape.

There are reusable N95 masks

such as the Envo respirator.

Users should ensure that the N95 masks they buy are certified by the United States National Institute for Occupational Safety and Health.

### WHAT PRECAUTIONS DO I TAKE INDOORS WHEN THERE IS HAZE?

- Shut doors and windows when the outdoor air quality appears to be worsening.
- Reduce other sources of indoor air pollution, such as cigarettes and candles.
- Wet-cleaning methods such as mopping or wiping can be used to remove settled dust at home.
- Fans or air-conditioners may be used for air circulation and cooling. If the air-conditioner draws in unfiltered air from outside, close the outdoor air-intake opening.
- Use an air purifier.
- Declutter to reduce the number of areas that will collect dust.

### WHAT KIND OF AIR PURIFIERS SHOULD I CHOOSE?

- To remove fine particles, highly efficient filters, such as High Efficiency Particulate Air filters, are ideal.
- Some air purifiers are labelled with a clean air delivery rate (CADR), which has three CADR numbers – one each for smoke, dust and pollen. The smoke CADR is the most appropriate for haze pollutants.
- Appropriate air purifiers should have a smoke CADR number that is at least three times the volume of the room in cubic m. A larger number means faster cleaning in an enclosed room.
- As a guide, households may refer to the National Environment Agency's list of portable air filters: [str.sg/i3wD](http://str.sg/i3wD)

SOURCES: MOH, NEA  
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## Moving from front line to command post in war on diseases

### Outgoing NCID chief hopes to better engage with organisations like the WHO in new role

Judith Tan  
Correspondent

She will soon no longer be on the front line of Singapore's war against Covid-19, but Professor Leo Yee Sin from the National Centre for Infectious Diseases (NCID) will still be planning for the battle against the next disease threat – from the command post instead.

In her new role from July 1 as senior consultant at the Ministry of Health and senior adviser to the National Healthcare Group, she will be coordinating infectious disease and outbreak management.

Prof Leo, who helped establish the NCID in 2017 and has been its executive director for the past six

years, hopes to better engage with regional organisations as well as international bodies like the World Health Organisation.

"It is very important for Singapore to be represented in some of these international policymaking bodies," she said, adding that she would like to spend more time establishing such relationships.

With trade and travel being the lifeblood of Singapore, Prof Leo said the country has to continue to be vigilant and aware that some very challenging diseases will eventually come to its shores.

Citing the mosquito-borne Zika virus as an example, she said: "When we first heard of Zika, we were still operating from the old Communicable Disease Centre.



Professor Leo Yee Sin helped establish the National Centre for Infectious Diseases in 2017 and has been its executive director for the past six years. In July, she will begin her new journey as senior consultant at the Ministry of Health and senior adviser to the National Healthcare Group.  
ST PHOTO: AZMI ATHNI

answered the urgent call to lead Singapore's front-line response against the virus.

"I told myself that it was not going to be easy, and since I had chosen this path, I was more or less prepared to take up the hardship," she said. "But I never envisaged myself being in this arena of emerging infectious diseases."

There was no looking back from there. Four years later, the severe acute respiratory syndrome (Sars) descended on the island.

While there were many questions and few answers in the initial days, Singapore took many of the lessons from the Nipah experience and applied them to fighting Sars, Prof Leo said.

Her desire to lift the fog of "war" and understand the pathogen was what kept her going.

"That was and still is what keeps me going, essentially," she said. "Sars, Zika, chikungunya and many other outbreaks that happened in the last two decades, and the most recent Covid-19, kept me going because they were all new to Singapore and were very challenging."

"Despite that, I must confess I don't look forward to more novel outbreaks. The system requires some degree of recovery." But this outgoing commander-in-chief in the battle against disease outbreaks at the NCID will still be making her presence felt there. Prof Leo said she has given her assurance to the NCID's new chief, Professor Vernon Lee, that he can tap her institutional knowledge, and that of those who worked together with her, to help in his decision-making.

Looking back on the 24 years she had been on call 24/7 to address any emerging disease outbreaks in Singapore, Prof Leo said giving up was never an option.

"The word 'surrender' is not in my vocabulary," she said.

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Then, we were battling dengue and thought (the 2007 outbreak of) Zika in the Yap islands in Micronesia was mild – fever and rash."

But the situation was very different when Zika reached Singapore in 2016.

"It went through the South American wave, causing microcephaly (where babies are born with abnormally small heads and brain defects). When it arrived in Singapore, there were different clinical manifestations. We were fortunate there was no microcephaly in the 14 live births then," she said.

Prof Leo said Singapore has to be mindful, especially today, that there are many factors contributing to higher frequency of emerging infections, and "we just have to get the system ready to deal with the different types of emerging infections."

"If you look at how we responded to Covid-19, we can never be 100 per

### MOTIVATED BY CHALLENGES

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PROFESSOR LEO YEE SIN, on her desire to lift the fog of "war" and understand the pathogens.

cent ready. Of course, there are gaps, but we managed to put a system together that worked."

The country has learnt that while it must have drawn-up plans, it has to stay flexible and be able to understand the threat and adjust to intervene accordingly, she added.

"The one thing that we always have to remember is that no single pathogen behaves exactly like the previous one, and no two outbreaks are exactly the same," she said.

In her initial days working in the emerging diseases arena, Prof Leo was swimming in the deep end. She had picked human immunodeficiency virus (HIV) as her sub-speciality, and no two outbreaks are exactly the same, she said.

The 1999 Nipah virus outbreak here was her fork in the road. Workers at an abattoir developed encephalitis and pneumonia, and she

## Get set for yo-yo battle, graffiti art and more at Singapore Street Festival

Chin Soo Fang  
Senior Community  
Correspondent

When 10-year-old Marcus Koh started playing with his yo-yo in 2003, the only child told his parents that he would be a world champion one day.

They believed him, and this helped the self-taught yo-yo star fulfil his dream when he clinched the coveted title at the 2011 World Yo-Yo Contest organised by the International Yo-Yo Federation in Orlando, Florida.

Today, the 30-year-old boasts six signature yo-yos under his name, and conducts yo-yo lessons for schools and students aged seven and up under his own company.

Mr Koh now hopes to raise up the next generation of yo-yo enthusiasts as part of the Singapore Street Festival 2023 – a common theme among the festival's various organisers.

The festival, which runs from July 7 to Aug 13 at four malls – 313@Somerset, Jem, Parkway Parade and Paya Lebar Quarter – is an annual non-profit social and community project that was founded in 2002.

It provides young people with a platform and opportunity to show-

case their skills in the performing and visual arts. It also allows them to be trained in organising events for their peers.

The theme this year will be The Next Generation, implying curiosity, creativity, innovation, novelty and forward thinking.

The Singapore Yo-Yo Championship – organised by Mr Koh together with the Yo-Yo Association of Singapore – will take place on July 23.

There will be a beginners' corner for passers-by and aspirants to pick up yo-yoing skills. Mr Koh said he may even hold a beginners' competition, if there are enough sign-ups at the event.

Chartered financial consultant Serene Teo, 29, will be organising an event with busking performances that feature J-pop, anime and cosplay at Jem on July 30.

She has been hooked on J-pop since she caught the bug from a classmate while studying at Temasek Secondary School. Since then, she has performed at events and online, and has even composed a few Japanese songs.

While K-pop has its legions of fans, the J-pop subculture is still growing on social media, thanks to anime and cosplay, she said.

"J-pop has brought me many close friends. It's now time to give back to the community by groom-



Above: Artist Sufian Hamri, better known as TraseOne, will be helming the 20th-anniversary celebrations of local street art at the Singapore Street Festival 2023 running from July 7 to Aug 13. PHOTO: TRASEONE

Left: 2011 yo-yo world champion Marcus Koh will co-organise the Singapore Yo-Yo Championship, while Ms Serene Teo will organise an event with busking performances that feature J-pop, anime and cosplay. ST PHOTO: DESMOND FOO

ing a new generation of performers," she added.

Artist Sufian Hamri, better known as TraseOne, will be helming the 20th-anniversary celebrations of street art here. There will be graffiti painting and mural painting competitions, and a digital art showcase across the four Lendlease malls in July and August.

Influenced by skateboard magazines that frequently featured graffiti art at skateparks and skateboard decks, he began doing street art in 1999.

Today, he is regarded as one of

the leading pioneers of the local street art movement. Part of the street collective RSCLS, he has done numerous commissioned works locally and overseas.

"I guess it is because of my experience from organising past events that allows me to share what I have learnt and gone through with the younger generation," said the 42-year-old.

He believes it will be a learning experience for him as well.

"We did not have social media back then to spread awareness about our interests. It was by word

of mouth and pure hard work," he said. "Now with various social media platforms available, some things can go viral in the blink of an eye."

And social media is why the yo-yo, which has been around since at least 500BC, is cool again, said Mr Koh.

"Yo-yo will never die," he said. "It has always experienced waves of up and down, and it's now cool again due to the yo-yo videos on TikTok."

Parents should encourage their children to pick up the yo-yo as it

promotes hand-eye coordination, increases attention span and takes them away from their mobile phones, he said.

"It also encourages creativity, adaptability and patience when you try to pull off some tricks and recover from your mistakes," he added.

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- Find more information on the Singapore Street Festival 2023 or register for the activities at [singaporestreetfestival.com](http://singaporestreetfestival.com)