

# Maintaining your rooftop garden during strong winds and heavy rainfall

## When would strong winds be expected in Singapore?

### December to January (Northeast Monsoon Season)

Monsoon Surges cause widespread continuous moderate to heavy rain, at times with 25-35 km/h winds.

### June – September (Southwest Monsoon Season)

Occasional “Sumatra Squalls” with wind gusts of 40-80 km/h occur between the predawn hours and midday.

## When would heavy rainfall be expected in Singapore?

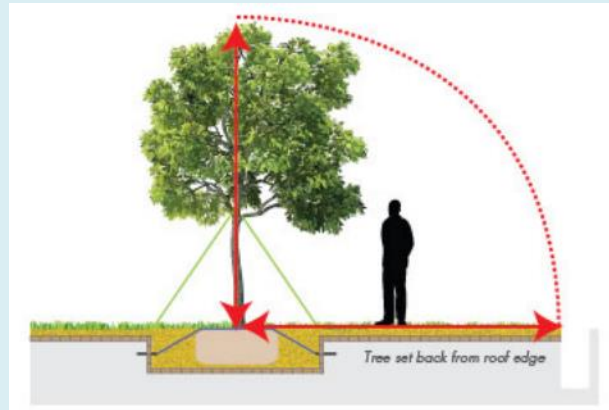
Higher rainfall occurs from November to January during the wet phase of Northeast Monsoon season.

## Why should I be concerned about my rooftop garden?

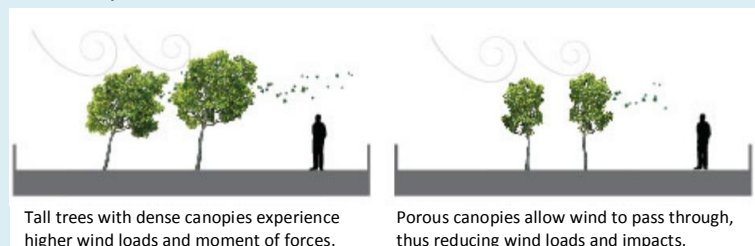
- Strong winds and heavy rainfall add pressure to any exposed building surfaces, including its rooftop gardens.
- Objects falling from height poses danger.
- Building owners are responsible for the maintenance and safety of their rooftop greenery.
- Recognised professionals (e.g. arborists) should be engaged to perform relevant checks and certifications where necessary.

## Rooftop garden maintenance tips

- *Stabilise trees and tall plants using appropriate anchors and/or bracings*
- *Trees should be set back from the roof edge by the estimated full-grown tree height*



- *Ensure there are no long out-stretched tree branches beyond the roof edge*  
Long outstretched tree branches beyond the roof edge are not encouraged. Tree crowns should be periodically pruned as scheduled. Regular pruning of trees prevents branch breakages during adverse weather conditions and allows wind to flow more readily through the porous canopies.



- *Engage certified arborist*  
Trees should be inspected regularly by Certified Arborists, and mitigation measures taken to address the defects, risks and hazards identified.

## Sources:

1. Handbook on Developing Sustainable Highrise Gardens:  
<https://www.nparks.gov.sg/-/media/srg/files/nparks-skyrise-greenery-handbook.ashx?>
2. Meteorological Service Singapore: <http://www.weather.gov.sg/climate-climate-of-singapore/>
3. CUGE Publication CS E09:2012: Guidelines on Planting of Trees, Palms and Tall Shrubs on Rooftop