

Precautionary measures before a cyclone

1. **Check the strength and stability of buildings**, reinforce all the **fragile** and **breakable parts** of the **house** such as doors, windows and roofs.
2. Cut and **remove** all unsafe dead and **dying branches** around buildings.
3. **Clean up the roof, rain gutters, drain channels and floor drains.**
4. **Secure all light and loose objects** that may be thrown around by the strong wind.
5. Be careful and make sure **no heavy objects** are **blocking** the **emergency exits.**
6. **Identify the nearest safe places** and the **route to get** there quickly with your family.
7. Know the **contact numbers of family** members and arrange a meeting point.
8. **Inform** all family members about prevention measures during and after the cyclone.
9. **Keep important documents** in a **safe place** and **have copies** of documents in other safe places.
10. Listen to **official news** and **instructions** from the Department of Meteorology and Hydrology.
11. Prepare an **emergency kit.**
12. **Learn first aid techniques** and have a store of **necessary medications** and equipment.

Precautionary measures during a cyclone

1. **Close all doors and windows** and make sure that they cannot break with the wind.
2. **Protect** windows with adhesive tape to avoid breaking glass doors or windows.
3. To prevent injuries by breaking glass, **stay away from glass doors and windows.**
4. **Avoid** unnecessary **calls** that could burden the connection lines.
5. Listen to **officially released news** and follow the instructions.
6. **Turn off electricity** in possible flooding areas.

7. Be prepared to **move to safe places**, if you are living in coastal/flood prone areas.
8. **Take pets** with you if possible and **do not bind** if not necessary.

Cautions after a cyclone

1. **Beware of damaged cables, power lines and tree branches.** Inform the relevant authority and help clarify.
2. **Clean up mud and dirty water** after withdrawal of the cyclone.
3. **Check buildings, water pipes, power lines and other connecting lines for damages.**
4. **Dry out the parts** of the building that could be damaged by **mould or pest.**
5. **Avoid contact** with flooded areas as electricity may flow from **damaged power lines.**
6. Wear **appropriate footwear** to avoid injuries from sharp objects.

Emergency numbers:

Police Department	199 (or) 01 549309
Fire Service Department	191 (or) 01 252011
Ambulance from General Hospital	192 (or) 01 295133

Publisher of the pamphlet

Yangon City Development Committee
Urban Planning Department
www.ycdc.gov.mm



University of Cologne
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Flood Protection Centre
Cologne



Cologne Fire Department,
Institute for Security Science and Rescue Technology



German Committee for
Disaster Reduction



Department of Urban and Housing
Development, Ministry of Construction



University of
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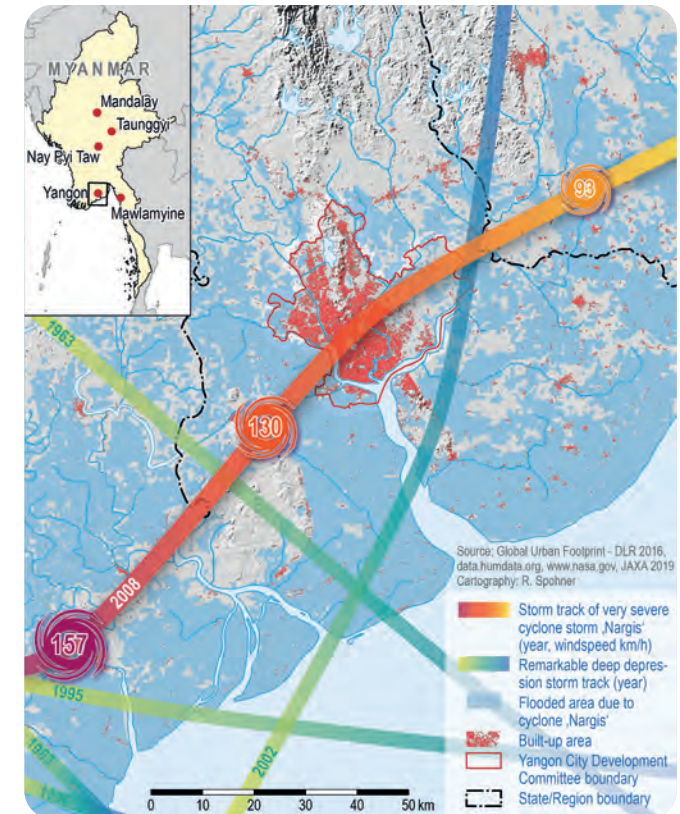


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Recommendations for tropical cyclones

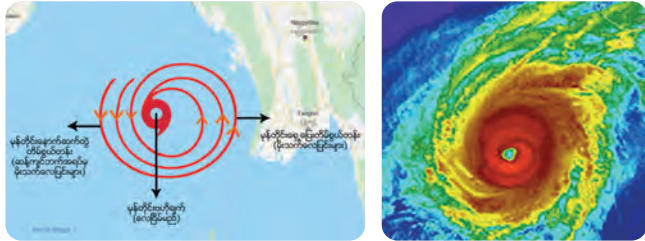


Tropical cyclone preparedness

Yangon is exposed to a variety of hazards such as earthquakes, floods, tropical cyclones, and fires. Dealing successfully with these hazards requires preventative measures and preparation. This pamphlet contains information on tropical **cyclone preparedness.**

What is a tropical cyclone

A tropical cyclone is a **storm** that can **cause enormous damage to people, animals and infrastructures**. Cyclones are caused by the evaporation of the warm ocean surface. The humid air with water vapors creates clouds that are constantly forming as the earth rotates and the wind blows harder. These clouds can move from the ocean towards the mainland and becomes storms of hundreds of kilometers in size.



Source: Department of Meteorology and Hydrology

Inside the cyclone is a **windless and cloudless area, the 'eye'**. It is surrounded by the strongest winds, heavy rain, and clouds. It is important to know how a cyclone is constructed: stormwinds can blow due to the cyclone precursor before the actual cyclone reaches the coast. The wind can calm down at the epicenter (eye). After a calm wind period, strong winds blow again due to the clouds around the cyclone's eye. The **behavior of cyclone** could **change immediately** even after its silent condition and could turn out to be a strong cyclone.

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An annual Calendar of Disasters in Myanmar, Source: Department of Meteorology and Hydrology

It will be safe only when the relevant authorities and the media report that the cyclone is over. In Myanmar, tropical cyclones occur **mainly** after the intense heat in the **pre-monsoon** season (**April to May**) and **after the monsoon** season (**October to November**).

Possible hazards of tropical cyclones

1. Storm surges **like tsunamis** are the **most dangerous force during a cyclone**.
2. **In coastal areas**, tropical cyclones are particularly dangerous.
3. People can be injured by the objects **scattered** in cyclone-affected areas.
4. Invisible **objects floating in flooded areas** can also be dangerous (for example; underwater trees and rocks, and **power lines/electric cables**).
5. Tropical cyclones can cause terrible damage through **thunderstorms** and **violent winds, heavy rainfall with floods, and landslides** in lowland areas.
6. The cyclone's **pathway can change immediately** so the exact nature of a cyclone can only be determined shortly before it strikes. Therefore, it is **necessary to be prepared**.

Types of cyclones

Cyclone level	Wind speed level	Distinctive features or characteristics
Low pressure area	< 20 miles	<ul style="list-style-type: none"> Dust and paper are scattered. The leaves and twigs move and the wind blows.
Weak cyclone	20 - 31 miles/hour	<ul style="list-style-type: none"> The small trees, twigs, and the telephone lines will be swinging. Umbrellas will be difficult to use.
Small cyclone	32 - 38 miles/hour	<ul style="list-style-type: none"> Trees will swing and the wind will blow.
Cyclone	39 - 54 miles/hour	<ul style="list-style-type: none"> Branches and small trees will break, roofs and chimneys will be blown off and some buildings will also be destroyed.
Strong cyclone	55 - 72 miles/hour	<ul style="list-style-type: none"> Trees will uproot and buildings will be destroyed.
Extremely strong cyclone	73 - 137 miles/hour	<ul style="list-style-type: none"> Trees will uproot and several places will be destroyed. There will be coastal floods and electricity shortage.
Super strong cyclone	>138 miles/hour	<ul style="list-style-type: none"> There will be complete destruction of wooden houses, collapsed roofs, rising waves, tree falling, and electricity shortage.

Source: Department of Meteorology and Hydrology

Cyclone alert colours according to the intensity and tract of cyclone

	Yellow	Cyclone forming but not headed towards the Myanmar coastal area
	Orange	Cyclone forming and heading towards the Myanmar coastal area
	Red	Cyclone approaching and will move towards the Myanmar coastal area in the next 12 hours
	Brown	Cyclone directly passing the Myanmar coastal area
	Green	Cyclone withdrawing from the cyclone disaster. The area is safe.

Source: Department of Meteorology and Hydrology