Behaviour during the flood

- 1. Switch off the power supply at an early stage for areas affected by flooding.
- 2. Try to help others without endangering yourself. Take children and elderly people to safety.
- 3. Follow the news and weather forecast of the Department of Meteorology and Hydrology and share the information with others, do not believe or spread rumours.
- 4. Avoid shore areas and flooded streets.
- 5. Be aware of hazardous areas (lowlands, valleys, drains).
- 6. Prepare for evacuation.

Emergency numbers:

Police 199 or 01 549309 Fire Service, Rescue 191 or 01 252011 Ambulance (YGH) 192 or 01 295133

Behaviour after the flood

- 1. Check whether family members are affected and inform those responsible if any family member is missing.
- 2. Beware of damaged cables, power lines and tree branches. Inform the relevant authorities and help clarify.
- 3. Do not use electrical equipment until they have been checked.
- 4. Do not remove water residues and mud until the flood has totally receded. Cremate or burn animal carcasses systematically.
- 5. Check the building for damage.
- 6. Dry affected areas as quickly as possible to avoid building damage, mould or pest infestation.

For further information check

The Myanmar Unified platform for Disaster Risk Application **https://app.mudra-ddm.info**

Publisher of the pamphlet

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



University of Cologne

Institute of Geography www.geographie.uni-koeln.de/en/









Cologne Fire Department, Institute for Security Science and Rescue Technology













www.riskurbmyanmar.uni-koeln.de

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Recommendations for flooding



Photo: Frauke Kraas

Yangon risk profile

Yangon is exposed to a variety of hazards. These include earth-quakes, floods, tropical cyclones and fire. Thus, it is **important to take precautionary measures.** This pamphlet contains information about what to do in case of **flooding.**

How does a flood occur?

- (A) Caused by heavy rainfall: A flood occurs when large amounts of rain fall over a period of time. This rain can no longer be absorbed by the ground and therefore flows off into streams and rivers or wildly on the roads. Surfaces that have been sealed by buildings and roads increase this danger.
- (B) Caused by a malfunction of the drainage system: Flooding can occur when drainage systems are blocked, e.g. by waste or by unregulated construction of buildings or roads.
- (C) Caused by tropical cyclones: Storm surges are high walls of water pushed on land by cyclones (e.g. Cyclone Nargis: 5m height, inundations reached 50km inland). In coastal areas, where tropical cyclones and their accompanying effects hit land, tropical cyclones become particularly dangerous.
- (D) Caused by tsunamis: A tsunami causes a storm wave. This wave can flood large parts of the coastal region.

Flooding is most likely to occur pre-monsoon (April - May) or post-monsoon (October - November).

Possible hazards

- The water can flood and flush out buildings, paths, bridges or dams. There is also a danger of people drowning in the water masses.
- In addition, there is a danger caused by the wreckage carried in the water masses



Heavy rain event in Yangor Photo: Frauke Kraas

Precautionary measures

- 1. Keep the drainage clean to avoid blocking from waste.
- 2. Maintain a good drainage line to avoid drains being destroyed by new constructions.
- Flood-affected parts of buildings should be flood-resistant, e.g. cement or tile floors or aluminum doors instead of wooden doors.
- 4. Make sure your exits are free and are clear from heavy objects that might block the exit during an emergency.
- 5. Keep important documents in a safe place and have copies of documents in other safe places.
- 6. Consider whether you can protect your building with sandbags. Please note that you need a warning time to set up these mobile protective devices.
- 7. Install electrical supply equipment in the upper floors.
- 8. Inform family members about preventive measures and behaviour before and during the flood.
- 9. For your protection and comfort, prepare an emergency backpack that could last for three days. The emergency supply backpack should be waterproof and easy to find.
- 10. Learn first-aid techniques and have a store of the necessary medications and equipment.



Flood protection by retaining wall in Dagon Myothit (North) Township Photo: Department of Water Resources and Rivers Development

Behaviour before the flood

- 1. Follow weather reports and flood warnings on radio or TV or cell phones or newspaper.
- 2. Leave endangered water and shore areas.
- 3. Go to a safety shelter if you live near a river or in an area with danger of flood.
- 4. Try to seal your building, e.g. with sandbags or water-proof plywood panels and silicone.
- Organize in advance accommodations for sick and caredependent individuals (if possible with relatives and friends).
- To prevent environmental damage, remove containers with used oil, chemicals, paints, varnishes, detergents and cleaning agents from rooms at risk of flooding.
- 7. Park your car outside the flood prone areas.



Flood protection by sandbags in North Okkalapa and Dagon Myothit (South) Townships Photo: Drainage and Sewerage Management Department