



# BE SMART BE PREPARED

Disaster Survival Guide





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Government of India  
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प्रधान मंत्री  
Prime Minister

## MESSAGE

It is heartening to learn that National Disaster Management Authority (NDMA) is preparing a comprehensive list of Do's and Don'ts during times of disasters.

Natural phenomena, particularly disasters - natural or man-made do not recognize boundaries. It therefore becomes imperative for nations to join hands to meet the vagaries of nature. Disasters need real-time response and building resilience to minimize the damage, as disasters impact the poor and the lesser privileged the most.

The preparation of a list of Do's and Dont's is a step in the right direction to enhance our preparedness whenever disasters strike. Better preparedness requires

a detailed, step-by-step approach using Information, Education and Communication (IEC) tools to enhance awareness levels among citizens. Communication lines often get disrupted in the wake of disasters and establishing communication becomes a major challenge in such situations.

The Pocket Book is a valuable addition undertaken by NDMA to build an informed citizenry and to empower citizens. I hope that the list of Do's and Dont's will also be disseminated in regional languages throughout the length and breadth of the country. Technological tools must also be utilized to create audio-visual clips for quicker dissemination through digital platforms.

I wish the publication of the Pocket Book of Do's and Don'ts all success.



(Narendra Modi)

नई दिल्ली

अमित शाह  
AMIT SHAH



गृह मंत्री  
भारत  
Home Minister  
India

## MESSAGE

It is heartening to learn that National Disaster Management Authority has undertaken this exercise of preparing this handy pocketbook of Do's and Don'ts on various disasters.

This book contains simple, doable on how to prepare for and what to do when caught in a disaster situation. I am sure this crisp and informative document would enable the common man to prepare and manage disasters more effectively.

I am confident that it will also be widely used by educational institutions, experts, disaster managers and other stakeholders as a ready recknor.

I congratulate NDMA for bringing this book.

Sd/-



# Foreword

The frequency and intensity of disasters are increasing the world over. These can lead to colossal human and economic losses. Awareness is key to minimising these losses.

Some disasters strike without warning, others give ample lead time for preparedness. Whatever the case may be, an understanding of things one should or should not do before, during and after a disaster can spell the difference between safety and risk.

This book aims to empower the citizens with the right knowledge to judiciously deal with crisis situations. It gathers even more importance in the context of Climate Change and increasing incidents of extreme weather events.

Every home and office should have functional first aid and emergency survival kits, clearly marked



evacuation plans and emergency phone numbers. Everyone should be trained to use these aids efficiently during an emergency.

These Do's and Don'ts have been prepared after a series of consultations among experts and other stakeholders. While care has been taken to make these comprehensive, Do's and Don'ts for disasters are dynamic in nature and change according to latest innovations and technological developments. We hope that this book helps generate deeper interest and better preparedness among the individuals, families and communities.



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# Acknowledgements

Awareness Generation among the masses is an integral part of the mandate of National Disaster Management Authority. Within this mandate, this practical guide on simple Do's and Don'ts of various disasters has been prepared. We gratefully acknowledge the support of every individual who has contributed towards preparing this pocketbook.

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Dr. V. Thiruppugazh, Joint Secretary (Policy and Plan), NDMA, conceptualised this easy-to-carry pocketbook. Under his guidance, several rounds of

consultations were held, inputs sought from experts and drafts prepared before the Do's and Don'ts for each disaster were finalised.

Senior Consultants and Consultants of NDMA gave useful feedback and suggestions on sections pertaining to their areas of expertise.

The writing of this document was anchored by the Information, Education and Communication Cell of NDMA. Officials and staff members of the Public Relations and Awareness Generation Division, NDMA, were instrumental in facilitating the preparation of this pocketbook.

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# AVALANCHES

## BEFORE

- Keep track of weather before heading for snow-capped mountains.

## DURING

- Switch off the snowmobile engine.
- Try to stay on the surface. You will have three times more chance of survival.
- Push machinery, equipment or heavy objects away from you to avoid injury.
- Seek shelter - protector-rocks or trees - and hold tight.
- If you have found shelter, crouch facing away from the snow slide.
- Cover your nose and mouth using a cloth. This helps to avoid suffocation.
- Arch hands over face to create an air space.

- Try getting away from the avalanche path by moving away to a side.
- Try jerking towards the surface. This can act as a marker for rescuers.
- If you start moving downward with the avalanche, try staying on the surface using swimming motion.

## AFTER

- Once the avalanche stops, begin digging out as delay can allow the snow to settle.
- Mark the location where other team members were last seen using a cloth, a pole, etc.
- Do not smoke or use a lighter or matches as this consumes oxygen.
- If, available, leave two-way radio on.



## TREATING THE AFFECTED

- Free the head of the affected person first.
- Remove snow and water from the his/her mouth and nose.
- Remove wet clothes and dry the affected person's body. Wrap him/her in dry clothes/blankets, etc.
- Administer CPR (Cardio Pulmonary Resuscitation), if needed, and give cardiac massage.
- Seek medical attention immediately.

## AVALANCHE SIGNS

- Steep slopes - between 25 and 45 degrees.
- Convex slopes (spoon-shaped) are the most dangerous, especially between late December and the end of January.
- North-Facing slopes are most likely to see

- avalanches in mid-winter. South-facing slopes are more susceptible in warmer temperatures on sunny, spring days.
- Smooth, grassy slopes are more dangerous than areas bearing rocks, trees and heavy foliage, where snow has something to grip.
  - New snow is particularly dangerous.
  - Rapid snow settlement is a good sign. This is because loose, dry snow slides more easily.
  - Loose, underlying snow is more dangerous than when compact. Use a ski-stick to check.
  - Low temperatures increase the duration of snow instability, while a sudden temperature increase can cause wet snow slides.

# BIOLOGICAL EMERGENCIES





## BEFORE

- Watch television, listen to radio, or surf the Internet for official news of any outbreak.
- Practice good hygiene and keep your premises clean.
- Use mosquito nets/repellents at night.
- Boil water before drinking. Chlorinate it, if possible.
- Thoroughly wash all vegetables/fruits before cooking/eating.
- Use insecticides to contain the vectors.
- Don't consume stale or contaminated food products.
- Immediately report any sickness with unusual and/or suspicious symptoms in the family / neighbourhood to health authorities.

- Seek medical attention if you are sick; keep a stock of your regular prescribed medicines.

## **DURING**

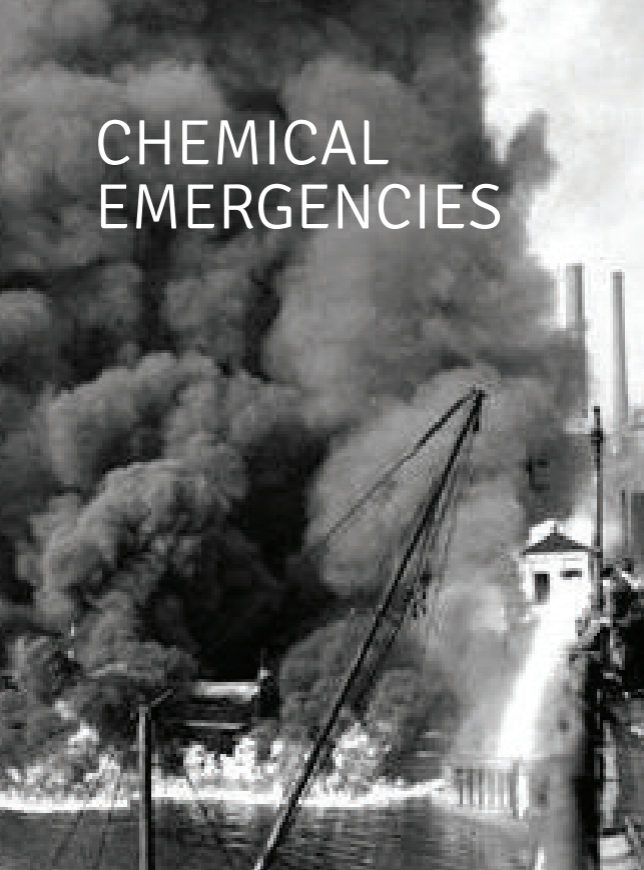
- Keep distance from and avoid direct contact with the affected person.
- Avoid going to crowded areas.
- Use a respiration mask for protection.

## **AFTER**

- Follow official instructions and help authorities dispose of contaminated items such as food, poultry, crops, vectors and other materials, if advised.
- Ensure that all the required immunizations are done and necessary precautions taken.



# CHEMICAL EMERGENCIES





## FOR INDIVIDUALS

### BEFORE

- Don't mix chemicals, even common household products. Some combinations, such as ammonia and bleach, can create toxic gases.
- Store chemical products properly.
- Store non-food products tightly closed in their original containers for easy identification.
- Dispose of unused chemicals properly. Improper disposal is harmful as it may contaminate the local water supply.
- Do not smoke or light fire in the identified hazardous areas.
- Avoid staying near industries which process hazardous chemicals, if possible.

- Keep emergency contact numbers handy, including that of nearby hazardous industries.
- Participate in capacity building programmes organized by the government/ voluntary organizations / industrial units.
- Identify safe shelters along with safe and easy access routes.
- Prepare a family disaster management plan.
- Prepare an emergency kit with essential items for safety and survival.

## **DURING**

- Do not panic. Evacuate quickly through the designated escape route.
- Keep a wet piece of cloth on your face while evacuating.

- If you are unable to evacuate, close all the doors and windows tightly.
- Once you are at a safe location, inform Emergency Services (Police, Hospital, etc.).
- Do not spread and/ or believe in rumours.

## **AFTER**

- Do not consume uncovered food/ water, etc.
- Change into fresh clothes after reaching a safe place/ shelter, and wash hands properly.

## **COMMUNITY**

- Make the entire neighbourhood aware of chemical hazards and the first aid required to treat them.

- Listen to radio, watch TV and surf the Internet for official news and announcements.
- Provide accurate information to government officials.
- Sensitise authorities about the exact requirement of protective equipment for dealing with the hazard present.

# COLD WAVE





## BEFORE

- Have adequate winter clothing. Multiple layers of clothing is also useful.
- Have emergency supplies ready.

## DURING

- Stay indoors as much as possible, minimise travel to prevent exposure to cold wind.
- Keep dry. If wet, change clothes quickly to prevent loss of body heat.
- Prefer mittens over gloves; mittens provide more warmth and insulation from cold.
- Listen to radio, watch TV, read newspapers for weather updates.
- Drink hot drinks regularly.
- Don't drink alcohol. It reduces your body temperature.
- Take care of elderly people and children.

- Store adequate water as pipes may freeze.
- Watch out for symptoms of frostbite like numbness, white or pale appearance on fingers, toes, ear lobes and the tip of the nose.
- Do not massage the frostbitten area. This can cause more damage.
- Put the areas affected by frostbite in warm – not hot – water (the temperature should be comfortable to touch for unaffected parts of the body).
- Do not ignore shivering. It is an important first sign that the body is losing heat and a signal to quickly return indoors.

## **IN THE CASE OF HYPOTHERMIA:**

- Get the person into a warm place and change his/her clothes.



- Warm the person's body with skin-to-skin contact, dry layers of blankets, clothes, towels, or sheets.
- Give warm drinks to help increase body temperature. Do not give alcohol.
- Seek medical attention if the condition worsens.

# CYCLONES



# FOR INDIVIDUALS

## BEFORE CYCLONE

- Ignore rumours, Stay calm, Don't panic.
- Keep your mobile phones charged for emergency communication; use SMS.
- Listen to radio, watch TV, read newspapers for weather updates.
- Keep your documents and valuables in water-proof containers.
- Try staying in an empty room; keep movable items securely tied.
- Prepare an emergency kit with essential items for safety and survival.
- Secure your house, especially the roof; carry out repairs; don't leave sharp objects loose.

- Keep cattle/animals untied to ensure their safety.
- In case of a storm surge/tide warning, or flooding, know your nearest safe high ground/ safe shelter and the safest access route to it.
- Store adequate ready-to-eat food and water to last at least a week.
- Conduct mock drills for your family and community.
- Trim treetops and branches near your house with permission from the local authority.
- Close doors and windows securely.
- Evacuate immediately to safe places when directed by government officials.

## DURING

### A) IF INDOORS

- Switch off electrical mains, unplug all electrical appliances and gas connection.
- Keep doors and windows shut.
- If your house is unsafe, leave early before the onset of a cyclone. Reach a safe shelter.
- Listen to radio; rely only on official warnings.
- Drink boiled/chlorinated water.
- If the building starts to crumble, protect yourself with mattresses, rugs or blankets, or by getting under a strong table or bench or by holding hold onto a solid fixture, such as a water pipe.

## **B) IF OUTDOORS**

- Do not enter damaged buildings.
- Seek a safe shelter as soon as possible.
- Never stand under a tree/ electric pole.
- Beware the calm ‘eye’. If the wind drops, don’t assume the cyclone is over; violent winds may soon resume from another direction. Wait for the official ‘all clear’.

## **AFTER**

- Drink boiled/chlorinated water.
- Do not go out until officially advised. If evacuated, wait until advised to go back.
- Watch out for broken electric poles and loose wires, and other sharp objects.
- Do not enter damaged buildings.

- Do not use damaged electrical equipment. Get them checked by an electrician first.

## **FISHERMEN SHOULD:**

- Ignore rumours, Stay calm, Don't panic.
- Keep mobile phones charged for emergency communication; use SMS.
- Write down important numbers on a paper and keep it safely.
- Keep a radio set with extra batteries handy.
- Listen to radio, watch TV, read newspapers for weather updates.
- Keep boats/rafts tied up in a safe place.
- Don't venture out in the sea.

# DROUGHTS

An aerial photograph of a parched, cracked earth. The ground is a mosaic of irregular, brownish-tan polygons, each a piece of soil that has shrunk and broken apart due to extreme dryness. The cracks are deep and dark, creating a complex, interconnected network across the entire surface. The lighting is bright, casting soft shadows that emphasize the three-dimensional texture of the cracked soil.



## DO'S

- Listen to radio, watch TV, read newspapers for warnings, updates and instructions.
- Practice rainwater harvesting.
- Repair and rejuvenate local water bodies before the rainy season.
- Use drought-resistant / low water intensity crop seeds varieties / plants.
- Plant drought-tolerant grasses, shrubs, trees to protect soil moisture.
- Excavate deep pits to help increase groundwater table.
- Use sprinkler method/drip irrigation method for crop irrigation; irrigate crops during evenings.
- Prepare and use crop contingency and complementary plans.

- Participate in water conservation programmes.
- Put used domestic water to use by watering grasses and plants.
- Use a bucket instead of a shower for bathing.
- Use wet clothes to clean and scrub floors instead of using running water.
- Construct toilets that need less water for flushing.
- Regularly check tanks, taps, etc. to prevent leakage.
- Reuse water as much as possible.
- Adapt water conservation practices in lifestyle. Follow all state and local restrictions on water use, even if you have a private well (groundwater levels are affected by drought too).

## DON'TS

- Do not waste water at all.
- Do not cut trees and forests.
- Do not waste rainwater collected on rooftops, etc.
- Do not mess with traditional water sources such as ponds, annicuts, well, tanks, etc.
- Do not use high water intensity seeds / crops; don't irrigate crops during mornings.
- Do not use the flowing water during brushing, shaving, washing utensils, clothes, etc.
- Avoid using handheld hose for any domestic chores.

EARTHQUAKE



## FOR INDIVIDUALS

### BEFORE

- Consult a structural engineer to make your house earthquake resilient.
- Know your seismic zone and carry out necessary structural changes in your house.
- Preserve the design and layout drawings of your house for future reference.
- Repair deep plaster cracks on walls and ceilings.
- Fasten shelves securely to walls; place heavy / large objects on lower shelves. Provide strong support to power and gas appliances.
- Prepare an emergency kit with essential

items for safety and survival.

- Develop an emergency communication and evacuation plan for your family.
- Learn the technique of ‘Drop-Cover-Hold’.
- Avoid flood plains and filled-up areas for construction as far as possible.
- Educate yourself and family members about earthquake risk.

## DURING

- Stay calm. Do Not Panic. If you’re indoors, stay inside. If you’re outside, stay outside.
- Don’t use matches, candles, or any flame. Broken gas lines and fire don’t mix.
- If you’re in a car, stop the car and stay inside until the earthquake stops.

- Drop under a table; Cover your head with one hand and Hold the table till the tremors last.
- Stay away from mirrors and windows. Do not exit the building while the earth is still shaking.
- Move outside as soon as the tremors stop. Do not use a lift.
- When outside, move away from buildings, trees, walls and poles/electric lines.
- When inside a vehicle, pull over in an open place and remain inside; avoid bridges.
- When in a structurally safe building, stay inside until shaking stops.
- Protect yourself by staying in the corner/ under a strong table or bed/ an inside wall away from mirrors and windows.

- If near an exit, leave the building as soon as possible.
- If inside an old and weak structure, take the fastest and safest way out.

## AFTER

- Do not enter damaged buildings.
- If trapped in rubble:
  - Do not light a matchstick.
  - Cover your mouth with a cloth.
  - Tap on a pipe or a wall.
  - Sound a whistle.
  - Shout only as a last resort. This will help you conserve energy.
- Use stairs and not lifts or elevators.



- Move cautiously, and check for unstable objects and other hazards above and around you. Check yourself for injuries.
- Anticipate aftershocks, especially after a major earthquake.
- Stay away from beaches. Tsunamis and seiches sometimes hit after the ground has stopped shaking.
- Do not spread and/ or believe in rumours.
- Leave a message stating where you are going if you must evacuate your house.
- Do not drive around the damaged areas as rescue and relief operations need roads for mobility.
- Do not attempt to cross bridges/flyovers, which may have been damaged.

## COMMUNITY

- Practice Drop, Cover, Hold drills regularly.
- Practice evacuation drills regularly.
- Ensure that exit routes are marked and fire fighting equipment is working properly, especially in high-rise buildings.

FIRE





## PREPAREDNESS

- Prepare and practice a response plan for residential and office complexes.
- Regularly carry out and practice fire rescue drills such as stop, drop, and roll.
- Ensure that all residents/visitors are periodically trained to face different emergency situations and provide first aid.
- Ensure that smoke alarms are fitted in buildings and are functional.
- Try to make your residential building, office premises, etc. 'No Smoking' zones. If you absolutely need to, create a separate smoking area.
- Be familiar with the exit routes.
- Keep the exit routes /staircases free of any obstructions. Periodically check

- evacuation routes for obstruction, if any.
- Ensure that there is enough open area and wide roads available in and around your home and office premises to ensure easy access and movement of emergency vehicles.
  - Ensure that exit routes are marked and fire fighting equipment is working properly in your office premises and residential area.
  - Ensure that your house and office premises have a first aid kit placed at every segment.
  - Do not leave any open fire unattended.
  - Do not accumulate old newspapers or combustible materials in your house.
  - Do not burn waste, dry leaves or vegetation. Always dispose of through appropriate municipal channels.

- Do not store flammable liquids in the house.
- Always keep matches and lighters locked away from children.
- Do not keep papers, clothes and flammable liquids near heaters/stoves/open chulhas.
- Keep LPG gas stoves on a raised platform; do not keep them on the floor.
- Turn off the gas cylinder valve and knob of the gas stove after cooking.
- Don't throw matches, cigarette butts, etc. in waste baskets.
- Don't place oil lamps, agarbattis or candles on wooden floor or near combustible material.
- Don't wear loose, flowing and synthetic clothes while cooking.

- Never reach for any article over a fire.
- Always evaluate the electric load requirement for your premises and ensure that the power company supplies electricity accordingly. This will help avoid heating due to overload.
- Use standard electrical appliances, switches and fuses, etc. to prevent fire from electrical short circuit. Also, ensure that there are enough Earth-leakage Circuit Breakers (ELCBs) to prevent short circuit.
- Regularly check for loose electrical connections. Do not run electric wires / cords under carpets or in congested areas.
- Switch off electrical appliances after use and remove plugs from the socket.



- Switch off the 'Mains' when leaving home for a long duration.
- Don't plug too many electrical appliances in one socket.
- Ensure that there are no major electric installations near day-to-day usage area.

## **IN CASE OF A FIRE:**

- Raise an alarm and inform the Fire Brigade.
- Do not panic; Stay calm.
- Unplug all electrical appliances.
- Try to extinguish the fire with available equipment.
- Close the doors and other openings. Place a wet cloth under the doors to stop the

smoke from spreading. Use a wet cloth to cover your mouth to filter inhalation.

- Exit immediately if the fire is out of control.
- Do not go back for your possessions.
- In case of burn injuries due to fire, pour water over burn until pain subsides.

## **IF YOU ARE TRAPPED BY A FIRE:**

- Stay close to the floor if smoke permeates your location.
- Before opening a door, check it for heat. Use the back of your hand to test the temperature at the top of the door, the knob and the frame before opening. If it is hot, do not open.

- If you are unable to escape through a door, use a window. However, if it is too high to jump from a window, try to attract attention by waving something.
- If you can leave the room, close the door behind you - this will slow down the progress of the fire. Crawl low.
- If your clothes catch fire, drop to the ground and roll to extinguish flames.

## **IN CASE YOU HEAR THE FIRE ALARM:**

- Leave the premises by the nearest available exit.
- Close all doors and windows behind you.
- Do not use lifts. Use staircases.
- On arrival of the fire service, help them to help you.

- Give way to fire engines to enable them to reach the spot quickly.
- Don't park your vehicles close to fire hydrants/underground static water tanks.
- Guide firemen to water sources i.e. tube wells, ponds, static tanks, etc.





FLOODS

## BEFORE

- Ignore rumours, Stay calm, Don't panic.
- Keep your mobile phones charged for emergency communication; use SMS.
- Listen to radio, watch TV, read newspapers for weather updates.
- Keep cattle/animals untied to ensure their safety.
- Prepare an emergency kit with essential items for safety and survival.
- Keep your documents and valuables in water-proof bags.
- Know the safe routes to nearest shelter/ raised pucca house.
- Evacuate immediately to safe places when directed by government officials.
- Store enough ready-to-eat food and water for at least a week.
- Be aware of flash flood areas such as canals, streams, drainage channels.

## DURING

- Don't enter floodwaters. In case you need to, wear suitable footwear.
- Stay away from sewerage lines, gutters, drains, culverts, etc.
- Stay away from electric poles and fallen power lines to avoid electrocution.
- Mark any open drains or manholes with visible signs (red flags or barricades).
- Do not walk or drive in the flood waters. Remember, two feet of moving flood water can wash away big cars as well.
- Eat freshly cooked or dry food. Keep your food covered.
- Drink boiled/chlorinated water.
- Use disinfectants to keep your surroundings clean.



## AFTER

- Do not allow children to play in or near flood waters.
- Don't use any damaged electrical goods, get them checked.
- If instructed, turn off utilities at main switches and unplug appliances - do not touch electrical equipment if wet.
- Watch out for broken electric poles and wires, sharp objects and debris.
- Do not eat food that has been in flood waters.
- Use mosquito nets to prevent malaria.
- Be careful of snakes as snake bites are common during floods.
- Don't use the toilet or tap water if the water lines/sewage pipes are damaged.
- Do not drink tap water until advised by the Health Department that the water is safe to drink.

## IF YOU NEED TO EVACUATE:

- Raise furniture, appliances on beds and tables.
- Put sandbags in the toilet bowl and cover all drain holes to prevent sewage backflow.
- Turn off power and gas connection.
- Move to a higher ground/ safe shelter.
- Take the emergency kit, first aid box, valuables and important documents with you.
- Do not enter deep, unknown waters; use a stick to check water depth.
- Come back home only when officials ask you to do so.
- Make a family communications plan.
- Clean and disinfect everything that got wet.

# FOREST FIRE





## PREVENTION AND PREPAREDNESS

- Keep emergency contact numbers of district fire service department and local forest authorities handy.
- Immediately inform them in case of an unattended or out-of-control fire.
- Never leave a fire unattended in the vicinity of forested areas. Completely extinguish the fire by dousing it with water and stirring the ashes until cold.
- Be careful while using and fuelling lanterns, stoves and heaters during camping. Make sure lighting and heating devices are cooled before refuelling. Avoid spilling flammable liquids and store fuel away from appliances.
- Do not discard cigarettes, matches and smoking materials while passing through forested areas.

- Do not burn stubble, municipal waste, etc. next to a forest area.
- Do not burn dry waste in farms close to forest areas.
- Know your evacuation route(s). Keep emergency supplies ready.
- Practice evacuation drills regularly. Determine safe meeting locations.

## **EVACUATION IN CASE OF FOREST FIRE**

- Evacuate immediately on instructions from local authorities.
- Take precautions for protection from flying sparks and ashes.
- Untie cattle to ensure their safety.

## BEFORE LEAVING YOUR HOUSE

- Remove all combustibles, including firewood, yard waste, cooking gas cylinders and fuel cans, etc. from your yard.
- Close all windows, vents, and doors to prevent draft.
- Fill large vessels with water to limit the spreading of fire. It can also be used for emergency dousing.
- Cut down bushes and hedges close to the house to isolate the house from fire.
- Clear all gully and roof spaces of leaves.
- Spray water to dampen house roof, walls and any trees and foliage adjacent to the house.
- Close shutters, blinds or any non-combustible window coverings to reduce radiant heat.

- Keep the radio ON for official announcements.

## **IF CAUGHT IN A FOREST FIRE IN AN OPEN AREA:**

- Don't try to outrun the blaze. Instead, look for a static water body such as a pond or a river to take refuge until the fire passes. Do not take refuge in a fast river or stream.
- If there is no water nearby, find a depressed, cleared area with little vegetation, lie low to the ground and cover your body with wet clothes, a blanket, or soil until the fire passes.
- Breathe through a moist cloth, if possible, to avoid inhaling smoke.
- Take shelter in an area with little or no fuel to feed the fire.



## IF TRAPPED AT HOME IN A FOREST FIRE:

- Stay calm. As the fire front approaches, retreat inside the house. It is probable that the fire will pass before the house burns down.
- If a closed door is hot to the touch, do not open it as there may be fire on the other side.

## IF CAUGHT IN A VEHICLE IN FOREST FIRE:

- Stay in your vehicle. It is less dangerous than trying to outrun a forest fire on foot.
- Close windows and air vents.
- Drive slowly with headlights full on.
- Watch carefully for other vehicles and people on foot.

- Do not drive through heavy smoke. If you can't see what's ahead, don't risk danger.

## **IN CASE YOU MUST STOP:**

- Park as far as possible from trees and thickets.
- Keep lights on and the engine off.
- Stay on the floor of your vehicle.
- Cover your body with anything non-flammable.
- Do not panic if smoke and sparks enter the vehicle as fuel tanks rarely explode.



HEAT  
WAVES



## DO'S

### MUST FOR ALL

- Listen to Radio; watch TV; read Newspaper for local weather news or download weather information related mobile app.
- Drink sufficient water - even if not thirsty. Persons with epilepsy or heart, kidney or liver disease who are on fluid-restricted diets; or have a problem with fluid retention should consult a doctor before increasing liquid intake.
- Use ORS (Oral Rehydration Solution), homemade drinks like lassi, torani (rice water), lemon water, buttermilk, coconut water, etc. to keep yourself hydrated.
- Wear lightweight, light-coloured, loose, cotton clothes.
- If outside, cover your head: Use a cloth, hat or umbrella. Use sunglasses to protect your

- eyes and sunscreen to protect your skin.
- Get trained in first aid.
- Take special care for the elderly, children, sick or overweight as they are more likely to become victims of excessive heat.
- Grow more trees.

## **EMPLOYERS AND WORKERS**

- Provide cool drinking water at the workplace.
- Provide resting shade clean water, buttermilk, first-aid kits with ice-packs and ORS (Oral Rehydration Solution) for all workers.
- Caution workers to avoid direct sunlight.
- Schedule strenuous jobs to cooler times of the day.
- Increasing the frequency and length of rest breaks for outdoor activities.

- Give lighter work and shorter hours to workers new to a high heat area.
- Pregnant women and workers with a medical condition should be given additional attention.
- Notify workers about heat wave alerts.

## **OTHER PRECAUTIONS**

- Stay indoors as much as possible.
- Traditional remedies like onion salad and raw mango with salt and cumin can prevent heat stroke.
- Never leave children or pets alone in a closed vehicle.
- Use fans, damp clothing and take a bath in cold water frequently.
- Offer water to vendors and delivery people who come to your home or office.
- Use public transport and car-pooling. This

- will help reduce global warming and heat.
- Don't burn dry leaves, agriculture residue and garbage.
  - Conserve water bodies. Practice rainwater harvesting.
  - Use energy-efficient appliances, clean fuel and alternative sources of energy.
  - If you feel dizzy or ill, see a doctor immediately or ask somebody to take you to the doctor immediately.

## FOR A COOLER HOME

- Use solar reflective white paint, cool roof technology, air-light and cross ventilation and thermocol insulation for low-cost cooling. You can also keep haystacks or grow vegetation on roofs.
- Install temporary window reflectors such as aluminium foil-covered cardboard to reflect heat back outside.



- Keep your home cool, use dark colour curtains, tinted glass/ shutters or sunshade and open windows at night. Try to remain on the lower floors.
- Green roofs, green walls and indoor plants reduce heat by cooling the building naturally, reducing air-conditioning requirements and release of waste heat.
- Maintain AC temperature at 24 degrees or higher. This will reduce your electricity bill and make your health better.

## **WHILE CONSTRUCTING A NEW HOME:**

- Use cavity wall technology instead of regular walls.
- Construct thick walls. They keep the interiors cool.
- Construct lattice walls and louvered openings. They allow maximum air flow while blocking the heat.

- Use natural materials like lime or mud to coat walls.
- Avoid glass, if possible.
- Consult a Building Technology expert before construction.

## FOR CATTLE

- Keep animals in shade and give them plenty of clean and cold water to drink.
- Do not make them work between 11am to 4pm.
- Cover the shed roof with straw, paint it white or plaster with dung-mud to reduce temperature.
- Use fans, water spray and foggers in the shed.
- During extreme heat, spray water and take cattle to a water body to cool off.
- Give them green grass, protein-fat bypass

supplement, mineral mixture and salt. Make them graze during cooler hours.

## DON'TS

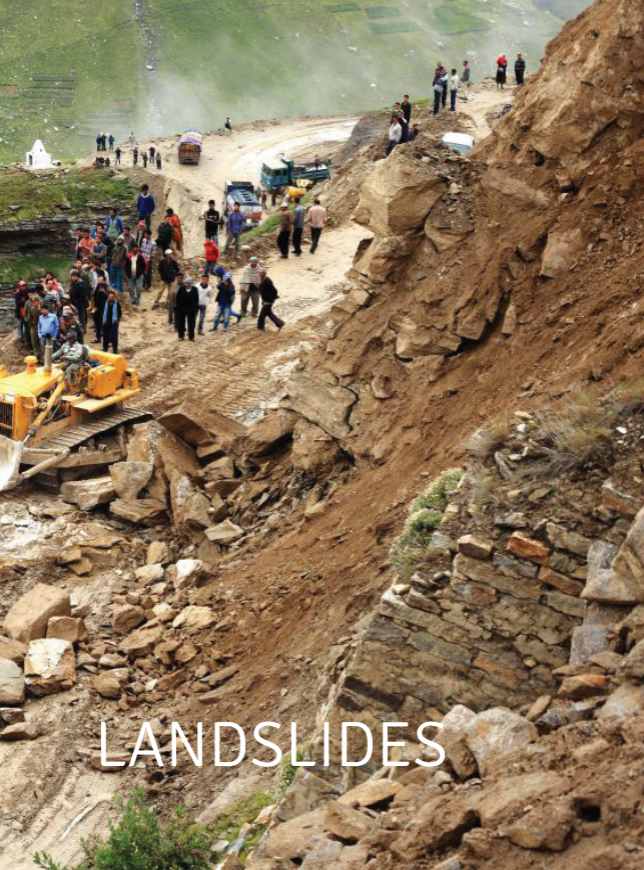
- Avoid going out in the sun, especially between 12.00 noon and 3.00 p.m.
- Avoid strenuous activities when outside in the afternoon.
- Do not go out barefoot.
- Avoid cooking during peak hours. Open doors and windows to ventilate cooking area adequately.
- Avoid alcohol, tea, coffee and carbonated soft drinks, which dehydrates the body.
- Avoid high-protein, salty, spicy and oily food. Do not eat stale food.
- Do not leave children or pets in parked vehicles.
- Avoid using incandescent light bulbs

which may generate unnecessary heat, as can computers or appliances.

## **TIPS FOR TREATMENT OF A PERSON AFFECTED BY SUNSTROKE:**

- Use a wet cloth / pour water on the victim's head.
- Give the person ORS to drink or lemon sarbat / torani or whatever is useful to rehydrate the body.
- Take the person immediately to the nearest health centre.
- If consistently experiencing high body temperature, throbbing headache, dizziness, weakness, nausea or disorientation in the summer, call an ambulance.





LANDSLIDES

## BEFORE

- Grow more trees/vegetation as it can hold the soil together.
- Listen to radio/Watch TV/Read newspaper for any alerts.
- Keep drains clean, weep holes open. Do not change the natural drainage system.
- Do not place debris, waste or fill material on a steep slope.
- Watch out for any warning signs such as subsidence of building, cracks on rocks, muddy river water.
- Do not construct near steep slopes and drainage path.
- Store emergency supplies of food and water, flashlights, batteries and medicine ready.
- Keep a 'disaster kit' with essential identity documents ready.

## DURING

- Ignore rumours. Stay calm. Don't panic.
- Stay together with your companions.
- Landslide debris moves from uphill to downhill. You should, therefore, avoid low-lying areas or valleys.
- If you notice any warning signs such as unusual sounds like trees cracking or boulders knocking together,
- Move away from landslip path or downstream valley quickly;
- Inform nearest Tehsil/ District HQ/ Disaster Management Helpline.

## AFTER

- Do not touch/walk over loose material and electrical wires or poles.



- Move away from landslip path and downstream valley quickly.
- Check for injured and trapped persons.
- Do not move an injured person without rendering first aid unless he/she is in immediate danger.
- Do not drink contaminated water directly from rivers springs, wells, etc.
- Locate the nearest public shelter.
- Stay away from the slide area. There may be a danger of additional slides.
- Re-plant damaged ground as soon as possible. Erosion caused by loss of ground cover can lead to flash flooding.
- Stay away from the location until the emergency workers and the experts confirm that it is safe.

# LIGHTNING



**Darkening skies, thunder, hair standing up on the back of your neck or tingling skin mean lightning is imminent.**

## **BEFORE**

- Cut down or trim trees that may be in danger of falling on your home.
- An important lightning safety guide is the 30-30 rule. After you see lightning, start counting to 30. If you hear thunder before you reach 30, go indoors. Suspend activities for at least 30 minutes after the last clap of thunder.
- Always keep the earthing working to avoid damage to electrical equipment.
- Consider buying surge protectors, lightning rods, or a lightning protection system to protect your home, appliances, and electronic devices.

## DURING

### (A) IF INDOORS

- Unplug all electrical equipment before the storm arrives. Don't use corded telephones, electrical devices, chargers, etc.
- Stay away from windows and doors; stay off verandas.
- Don't touch plumbing and metal pipes. Do not use running water.

### (B) IF OUTDOORS

- Get inside a house/building. Stay away from structures with tin roofs/metal sheets.
- If caught under the open sky, crouch. Don't lie down or place your hands on the ground.
- Don't take shelter near/under trees. Spread out; don't stand in a crowd. Stay clear of

water bodies.

- If you are outside, seek refuge in a car or grounded building when lightning or thunder begins.
- Stay put if you are inside a car/bus/covered vehicle.
- Don't use metallic objects; stay away from power/telephone lines.
- Get out of water - pools, lakes, small boats on water bodies.
- Avoid hilltops, open fields and beaches.

## **AFTER**

- Watch out for fallen power lines and trees. Report them immediately.

## **TREATING THE AFFECTED**

- Administer CPR (Cardio Pulmonary Resuscitation), if needed.
- Seek medical attention immediately.

# NUCLEAR- RADIOLOGICAL EMERGENCIES



## BEFORE

- Learn about nuclear radiation hazards.
- Discuss nuclear radiation safety with children, family, friends and neighbours.
- Keep emergency contact numbers handy.

## DURING

- Go indoors. Close doors/windows. Stay inside.
- Switch on the radio/television and look out for public announcements from your local authority.
- Cover all food, water and other consumables. Eat only such covered items.
- If you are out in the open, cover your face and body with a wet cloth. Return home quickly, remove footwear before entering. Take a bath and wear fresh clothes. Keep

the removed footwear and clothes packed in a polythene bag to be checked for contamination by authorities.

- Follow official instructions.
- During prolonged contamination issues, try to feed milking cattle contamination-free fodder and water.

## **DON'TS**

- Do not panic.
- Do not spread and/ or believe in rumours.
- Do not stay outside/or go outside unless it is really necessary.
- Do not use water from open wells/ponds; exposed crops, vegetables, food or milk.



# SMOG/AIR POLLUTION





- Try to remain indoors: Go out when it's bright and sunny. Children and persons especially suffering from heart and lung ailments are advised to stay indoors as much as possible.
- Use N95/99 masks whenever you step out.
- Use air purifiers, if you experience difficulty in breathing at home. They can provide short-term relief.
- Regular intake of food rich in vitamin C, magnesium and omega fatty acids will boost your immunity.
- Do make sure you drink more water as it helps in flushing toxins from the body.
- Don't use main roads. Pollution drops away substantially when you're walking in smaller lanes away from the main roads.
- Avoid strenuous activity, which leads to inhalation of greater volumes of minute

pollutants.

- If you have to exercise, do it indoors, preferably in the evening.
- Don't step out or indulge in outdoor activities during the early morning or when the levels of air pollution/smog are high.
- Keep some air purifying plants in homes and offices such as Tulsi, Money Plant, Aloe Vera, Ivy and Spider Plant, etc. They help purify indoor air and minimise indoor pollution.
- Try alternative modes of transport, pool your car with friends and fellow commuters.
- Consult a doctor or emergency department of the nearest hospital in case of difficulty in breathing, severe coughing or onset of any other acute symptoms.
- Avoid smoking.

- Do not burn garbage. Make sure no one else does so in your neighbourhood.
- To avoid indoor air pollution, make sure there is a chimney in the kitchen and an exhaust in the bathroom. This will ensure that the air is re-circulated.
- Make sure you use energy efficiently. Use air conditioners in the summer only when absolutely necessary.
- Trees planted alongside roads or on the boundaries of your property also slow down polluted air from being carried far by wind. Some of the most efficient tree “air cleaners” are large-growing species with leaves. For example, common ash, ginkgo biloba, oak, various linden trees and elms.



THUNDER  
STORMS/  
DUST  
STORMS/  
SQUALL

## BEFORE

- Prepare an emergency kit with essential items for safety and survival.
- Secure your house; carry out repairs; don't leave sharp objects loose.
- Secure outside objects that could blow away and cause damage.
- Remove rotting trees/broken branches that could fall and cause injury or damage.
- Listen to radio, watch TV or read newspapers for weather updates and warnings.

## DURING

- Keep a watch on local weather updates and warnings.
- Try to stay indoors; stay off verandas.

- Unplug all electrical equipment. Don't use corded telephones. Use your battery-operated radio for news updates.
- Don't touch plumbing and metal pipes. Do not use running water.
- Stay away from structures with tin roofs/metal sheets.
- Don't take shelter near/under trees.
- Stay put if you are inside a car/bus/covered vehicle.
- Don't use metallic objects; stay away from power/telephone lines.
- Get out of water - pools, lakes, small boats on water bodies - and take safe shelter immediately.
- Remember, rubber-soled shoes and rubber tyres provide NO protection from lightning.



- Avoid rubbing your eyes in order to prevent eye infection, which is common during this season.
- Apply a small amount of petroleum jelly to the inside of the nostrils to prevent drying of your mucous membranes.

## **AFTER**

- Stay away from storm-damaged areas.
- Listen to local radio/TV stations for updated information or instructions on weather and traffic updates.
- Help children, women, elderly and differently-abled.
- Stay away from fallen trees/power lines and report them to nearest Tehsil/District HQ immediately.

## FOR ANIMALS

- Designate a safe area in or near your house to shelter your animals in a severe thunderstorm.
- Keep your animals away from open water, pond or river.
- Keep your animals away from tractors and other metal farm equipment.
- Don't allow your animals to congregate under trees.
- Watch your animals closely and try to keep them under your direct control.

# TSUNAMI





## BEFORE

- Construct houses/buildings as per Bureau of Indian Standards (BIS) codes.
- Educate yourself and your family about tsunami risk.
- Prepare an 'emergency kit' and make a family communications plan.
- Know the height of your street above sea level and the distance of your street from the coast or other high-risk water bodies.
- If you are a tourist, familiarise yourself with local tsunami evacuation protocols.
- If an earthquake occurs and you are in a coastal area, turn on your radio to learn if there is a tsunami warning.
- Know your community's warning systems and disaster plans, including evacuation routes. Practice evacuation through identified routes.

- Identify the highest ground and the safest, nearest, easiest way to reach the same.
- Know if the school evacuation plan requires you to pick your children up from school or from any other location. Be aware that telephone lines during a tsunami watch or warning may be overloaded and routes to and from schools may be jammed.

## DURING

- Stay calm. Do not panic.
- Evacuate immediately to safe places when directed by government officials.
- Move inland to higher ground immediately.
- Stay away from the beach.
- Save yourself, not your possessions.
- Help those who may require special assistance - infants, elderly people, and individuals with access or functional

needs.

- If you are in the water, then grab onto something that floats, such as a raft/ tree trunk, etc.
- If you are in a boat, then face the direction of the waves and head out to the sea. If you are in a harbour, then go inland.

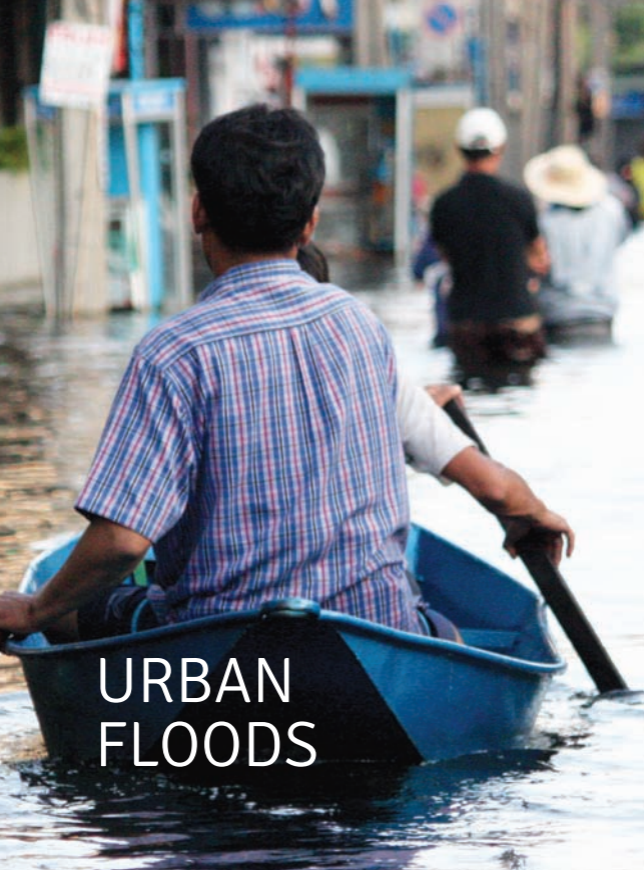
## AFTER

- Return home only after officials tell you it is safe.
- Avoid areas which are affected by a disaster.
- Stay away from debris in the water.
- Check yourself for injuries and get first aid as needed before helping injured or trapped persons.
- If someone needs to be rescued, call

- professionals with the right equipment to help.
- Help people who require special assistance
    - infants, elderly people, people with access and functional needs.
  - Use radio or television for the latest updates.
  - Stay out of any building that has water around it as tsunami water can cause floors to crack or walls to collapse.
  - Use caution when re-entering buildings or homes.
  - To avoid injury, wear protective clothing and be cautious when cleaning up.
  - Do not eat or drink anything from open containers.
  - Leave a message stating where you are going if you must evacuate your house.
  - Do not spread and/ or believe in rumours.







# URBAN FLOODS

## BEFORE

- Keep drains clean - Do not litter waste, plastic bags, plastic bottles in drains.
- Remain safe inside - Try to be at home if high tide and heavy rains occur simultaneously.
- Be informed/be alert - Listen to radio, watch TV or read newspapers for weather updates and flood warnings.
- Survival is key - Prepare an emergency kit with essential items for safety and survival.
- Keep your documents and valuables in water-proof bags.
- Do not venture into flood water.
- Do not spread and/ or believe in rumours.

## DURING

- Ensure safety - Turn off power and gas connection; be alert for gas leaks.

- Respond quickly - Evacuate low-lying areas and move to higher places.
- Evade illness - Drink boiled/chlorinated water.
- Watch your step - Stay away from sewerage lines, gutters, sharp objects and debris.
- Don't get electrocuted - Stay away from electric poles and fallen power lines to avoid electrocution.
- Don't walk/swim through flowing water.
- Don't drive through flooded areas.
- Don't eat food that has come into contact with flood water.
- Don't use any damaged electrical goods.
- Don't use electrical equipment while standing on wet floors, especially concrete.



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# Are you prepared for a disaster?

Preparedness can minimize damage and save lives. This pocketbook gives simple and effective tips for surviving various disasters. A must-have for all.

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