What-to-do manual: Combined Crisis

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Real crises rarely arrive one at a time. A hurricane cuts the power; without power, water stops being pumped; without water, the public-health crisis gets worse. The agencies that study disasters have a name for this — compound or cascading risk — and a clear conclusion: the combined damage is greater than the sum of each emergency on its own.

Before the crisis

What a compound disaster technically is. The National Academies of Sciences in the United States define it as **a combination of events that occur at the same time and produce impacts that exceed the sum of the individual events that caused them**.

They also describe a cascading disaster: one that starts with a triggering event followed by a chain of consequences, where **the combined impact over time — damage, losses, disruption — is more severe than if the events had occurred separately**. The example they cite is the 2017 Thomas Fire in California, followed by mudslides that killed more people than the fire itself.

Why this guide doesn't replace the others

There's no single protocol for "every possible combination" of crises. What changes with a combined crisis is priority: when several things fail at once, you have to decide what to fix first. The baseline preparation is still what each specific guide covers — hurricane, power outage, extreme cold, earthquake — added to, not replaced by, this one.

- Keep your water and food reserve calculated for more days than the minimum, precisely because a combined crisis lasts longer than a single one.
- Decide in your mind, before it happens, what you'd do if the power and the water both fail at once: what gets fixed first in your home?
- Don't assume help will arrive quickly: in a compound crisis, emergency services are also stretched thin across several fronts at once.

Source: National Academies of Sciences, Engineering, and Medicine (U.S.) — Compound and cascading risks: understanding complex disasters. https://www.nationalacademies.org/read/26659/chapter/3

During the crisis

When several emergencies coincide, the general priority order applied by emergency agencies is: **protect life first, then health, then property**. In practice:

- If there is an immediate risk to life — rising water, fire, a collapsing structure — you act on that before any other failure.
- If the power fails along with another emergency, check first for carbon monoxide risk from generators or emergency heaters: that's what adds the most deaths in the documented combined crises.
- If the water fails along with another emergency, prioritize basic disinfection over comfort: the health risk grows faster when several things fail at once.
- Tell your out-of-area emergency contact your situation as soon as you can: in a compound crisis, relief lines are more overloaded than usual.

Source: National Academies of Sciences, Engineering, and Medicine (U.S.) — Compound and cascading risks: understanding complex disasters. https://www.nationalacademies.org/read/26659/chapter/3

After the crisis

Recovering from a compound crisis has a difficulty of its own: **the different kinds of damage get in each other's way**. You can't dry out the house without electricity, you can't repair it without materials, and the materials don't arrive because the road is still cut off. That's why order matters more than speed here.

1. First, unblock everything else
Before repairing anything, solve what's stopping the repairs: safe drinking water, some power for tools and your phone, and a way in. Fixing the roof does little good if no one can get there with the sheeting.

2. Document all the damage at once
In a combined crisis there are usually several open cases at the same time — insurance, public aid, your employer — and they all ask for the same thing. Photograph and film the whole house, inside and out, before you throw anything away, and keep receipts and invoices from day one.

3. Expect help to arrive later
That's the direct lesson from the documented cases: when emergency services are handling several fronts at once, official relief takes longer. Plan for the first few days assuming you're on your own with your neighbors, and treat any help that arrives as a relief, not as the plan.

4. Check on people who ended up alone
In Fukushima, the WHO documented that the evacuation and relocation process itself drove up mortality among older adults. Something similar happens on a smaller scale in a compound crisis: the people who live alone, who depend on medical equipment, or who lost their support network are the ones who suffer most when everything fails at once. Checking on neighbors like that is recovery work, just as much as clearing debris.

5. Write down what failed
What was missing, what ran out first, which family arrangement didn't work. In a compound crisis that list is long and valuable: it's your preparation plan for next time, written with information no guide can give you because it's specific to your home and your street.

The damage that doesn't show up in photos
After a chained emergency, exhaustion and anxiety are the norm, not the exception. The CDC names fear, anger, sadness, numbness, and trouble sleeping as expected reactions, and recommends something as simple as taking care of your body, staying in touch with other people, and taking breaks from the news. Attending to that isn't a luxury that comes after rebuilding — it's part of being able to rebuild.

Source: National Academies of Sciences, Engineering, and Medicine (U.S.) — Compound and cascading risks: understanding complex disasters. https://www.nationalacademies.org/read/26659/chapter/3
Source: WHO — World Health Organization — Health consequences of the Fukushima nuclear accident (risks of the evacuation process itself). https://www.who.int/news-room/questions-and-answers/item/health-consequences-of-fukushima-nuclear-accident
Source: CDC — Centers for Disease Control and Prevention (U.S.) — Coping With Disaster or Traumatic Event. https://www.cdc.gov/natural-disasters/media/pdfs/2024/08/coping_with_disaster_2_english.pdf

Family plan

A family plan is not a pretty document: it is a handful of agreements made **today**, while everyone is calm, so you do not have to decide with your heart racing and no signal on your phone. It takes one conversation over the table and fits on a sheet of paper stuck to the refrigerator.

1. Decide where to meet, in two different places
One near home, for getting out quickly, and another outside the neighborhood, in case you cannot get back to the area. Everyone should know both by heart, children included, and it should not depend on anyone having a phone handy.

2. Name an out-of-area contact
One person in another city that everyone texts when they can. That person gathers information and passes it along, so no one has to go out looking for anyone else. It works because local lines get overloaded first, and because a text gets through where a call does not.

3. Assign responsibilities to specific people
Who grabs the emergency bag, who shuts off the gas and power, who helps the older person or someone with reduced mobility, who gets the pets out. A task with no owner is a task no one does.

4. Keep the list on paper
Phone numbers for family, the out-of-area contact, the doctor, the school, insurance, and emergency services. On paper, in the emergency bag, and in your wallet. A phone with a dead battery has no address book.

5. Practice it once
A fifteen-minute drill reveals what the conversation does not: that the emergency bag was buried in the closet, that no one knows where the gas shutoff is, that the child does not remember the meeting point. Repeat it at least once a year and whenever something important at home changes.

Talk to children without scaring them

Explaining what might happen and what you will do reduces fear instead of adding to it: panic comes from not knowing, not from knowing. Tell them the plan like a routine —"if this happens, we go there and meet mom"—, let them help pack the emergency bag, and tell them clearly that **if they are at school, the school takes care of them and no one comes running to get them**. And do not forget the pets: they are part of the plan too, with their food, water, and carrier.

Source: FCC and FEMA (U.S.) — Tips for Communicating During an Emergency. https://www.fcc.gov/sites/default/files/fcc-fema_tips_for_communicating_during_an_emergency.pdf
Source: Ready.gov · FEMA (U.S.) — People with Disabilities. https://www.ready.gov/es/discapacidad
Source: Ready.gov · FEMA (U.S.) — Financial Preparedness. https://www.ready.gov/financial-preparedness

Food and water

The water number you need to memorize

The CDC sets it without ambiguity: **at least 1 gallon (3.8 liters) per person per day, for 3 days**. Ready.gov adds the nuances that save whoever heeds them: **"children, nursing mothers, and sick people may need more"**, and **"with very high temperatures, water needs can double"**. If someone in your home is pregnant, sick, or you live in a hot climate, that number is a floor, not a target.

How to store it so it works when you need it
The CDC calls for **approved food-grade containers** with a tight-fitting lid, made of a sturdy, unbreakable material —**never glass**— and with a narrow mouth for pouring. An explicit warning: **never use a container that has held toxic chemicals** such as bleach or pesticides. And what almost everyone forgets: **stored water should be replaced every 6 months**. To disinfect the container before filling it, use a teaspoon of unscented household bleach per liter of water, wait 30 seconds, and pour it out.

What food to keep on hand

Ready.gov recommends **several days of non-perishable food** and gives a concrete list: ready-to-eat canned meats, fruits, and vegetables **—and a can opener—**, protein or fruit bars, dry cereal or granola, peanut butter, dried fruit, canned juices, and pasteurized long-life milk. The rule when putting it together is simple: food your family will actually eat, that needs no cooking, and that you can rotate before it expires.

No power, the food clock is running: 4 hours and 48 hours

The official figures come from FoodSafety.gov, part of the USDA: **a refrigerator keeps food safe for up to 4 hours** if you do not open it, and **a full freezer holds for about 48 hours (24 if half full)**. The discard threshold: any perishable food —meat, poultry, fish, eggs, leftovers— that has been **at 4 °C (40 °F) or above for 2 hours or more must be thrown out**. A full freezer holds twice as long as a half-full one, so filling the empty space with bottles of water before a forecast storm is money saved. And the line every agency closes with: **"when in doubt, throw it out"**. Do not taste it to find out.

- Keep the refrigerator and freezer **closed**: every time you open one, you waste hours of stored cold.
- **Throw out any food that has touched floodwater**, even if the container looks intact. This is an explicit Ready.gov instruction.
- Keep a manual can opener. It is the item people forget most, and without it your pantry is useless.
- If you buy bottled water, keep it **sealed in its original container**, in a cool, dark place.

Source: CDC — Centers for Disease Control and Prevention (U.S.) — How to Create and Store an Emergency Water Supply. https://www.cdc.gov/water-emergency/about/how-to-create-and-store-an-emergency-water-supply.html
Source: Ready.gov · FEMA (U.S.) — Water. https://www.ready.gov/water
Source: FoodSafety.gov · USDA and HHS (U.S.) — Food Safety During a Power Outage. https://www.foodsafety.gov/food-safety-charts/food-safety-during-power-outage
Source: Ready.gov · FEMA (U.S.) — Food. https://www.ready.gov/food

Power and communications

The generator rule: 6 meters, no negotiating

The CPSC does not soften it: **"using a generator indoors CAN KILL YOU IN MINUTES"**, because **"generator exhaust contains carbon monoxide, a poison you cannot see or smell"**. The official distance, repeated by the CDC and CPSC: **only outdoors, more than 20 feet (6.1 meters) from any window, door, or vent**. The same goes for pressure washers, charcoal grills, and camp stoves. A battery-powered carbon monoxide detector is cheap and the only thing that warns you in time.

When the cell network is overloaded: text, do not call

The joint FCC and FEMA guide explains why: **"text messages may get through when your call does not"**, even if delivery is delayed when the network is congested. And it asks for something almost no one does: **"limit non-emergency calls"**, because every call takes up space that emergency communications need. Also save a contact under the name **"ICE"** (In Case of Emergency), the convention rescue personnel look for on someone else's phone.

How to stretch your battery

The same guide recommends **lowering screen brightness and turning off apps** to conserve charge. In an emergency your phone stops being entertainment and becomes your only line to the outside world: treat it like your water supply.

The battery-powered radio is still irreplaceable

The FCC and FEMA recommend **a battery-powered radio or a portable television** to follow emergency bulletins during power outages. It is the only channel that depends on neither your electricity nor the cell network.

The alerts you already have and did not know about
In the United States, **Wireless Emergency Alerts** are free messages that go straight to your phone for severe weather, AMBER alerts, and threats to safety in your area. Two things worth knowing: **you do not need to sign up —phones have supported them since 2012— and they are not affected by network congestion**, so they get through when calls no longer do. Find out what the equivalent system is in your country, and do not mute it.

- Have at least one light source that does not depend on the grid: a battery-powered or hand-crank flashlight, or a rechargeable lamp.
- Charge phones and backup batteries **before** the forecast event arrives, not after the power is already out.
- Keep a list of important phone numbers **on paper**: if your phone dies, your contacts die with it.
- Agree with your family that after an emergency **everyone texts the same contact** instead of calling each other.

Source: CPSC — Consumer Product Safety Commission (U.S.) — What to Know About Portable Generators and Carbon Monoxide. https://www.cpsc.gov/s3fs-public/468-WhattoKnowGenerators_2022.pdf
Source: FCC and FEMA (U.S.) — Tips for Communicating During an Emergency. https://www.fcc.gov/sites/default/files/fcc-fema_tips_for_communicating_during_an_emergency.pdf
Source: FEMA (U.S.) — Wireless Emergency Alerts (fact sheet). https://www.ready.gov/sites/default/files/2020-08/wea-fact-sheet.pdf

Health and special needs

This is the section that decides who has a hard time and who has a dangerously hard time. An emergency does not suspend diabetes, high blood pressure, pregnancy, or dependence on an oxygen concentrator: **what gets cut off is access to the pharmacy, the clinic, and electricity**. Everything that follows needs to be prepared beforehand, because once the emergency hits, there is no more room.

1. Keep a reserve of your medications, and know which ones hold up
Ready.gov calls for **a several-day supply of prescription medications**. For those that need refrigeration, the CDC is blunt: **once the power has been out for a day or more, discard any medication that requires refrigeration**, unless its label says otherwise.

2. The insulin exception, worth knowing word for word
The FDA documents that insulin in the manufacturer's original vials or cartridges —opened or unopened— **can stay unrefrigerated between 15 and 30 °C (59 and 86 °F) for up to 28 days and still work**. It loses effectiveness at extreme temperatures, and the longer the exposure, the less effective it becomes. In an emergency **"you may still need to use insulin that was stored above 30 °C"** —that is better than not using it at all— but as soon as proper storage is available again, those vials **should be discarded and replaced**.

3. If someone depends on electric medical equipment, there is one step almost no one takes
Ready.gov says it explicitly: you can **ask your power company to put you on a priority list for service restoration**. That step is free, can be done on any ordinary day, and changes the order in which you get reconnected. Add a backup battery for an electric wheelchair and for any assistive device, and talk with your doctor about how to keep the equipment running during a power outage.

4. Keep a copy of medical information, not just the pills
A list of medications with dosages, allergies, diagnoses, doctors' contact information, and —for infants— the vaccination record. A prescription bottle cannot always be refilled at a pharmacy in another city; a written list can solve that.

Pregnancy and newborns
The CDC calls for **prenatal vitamins and other medications** in the kit, plus supplies in case delivery happens without being able to reach a hospital: clean towels, clean sharp scissors, a bulb syringe, gloves, two clean white shoelaces to tie the cord, clean sheets, sanitary pads, soap or alcohol, and garbage bags. For infants: diapers, wipes, ointment, bottles, and formula. One detail that matters: **ready-to-feed formula is the safest option in an emergency**, because it does not need to be mixed with water and comes in sterile, single-use containers.

Disability, reduced mobility, and older adults
Ready.gov stresses **planning accessible transportation in advance** for evacuating or getting around, and including a service or support animal with its food, water, and supplies. That plan should be worked out with specific, named neighbors, not left vague.

The blow that comes later: mental health
The CDC names the normal reactions after a disaster —**fear, anger, sadness, worry, numbness, frustration, trouble sleeping, or nightmares**— and recommends taking care of your body, staying in touch with other people, and taking breaks from the news. In the United States and its territories, the **Disaster Distress Helpline is available 24 hours a day: 1-800-985-5990**, with service in Spanish. Asking for help here is not weakness: it is part of recovery, just like repairing the roof.

Source: Ready.gov · FEMA (U.S.) — People with Disabilities. https://www.ready.gov/es/discapacidad
Source: CDC — Centers for Disease Control and Prevention (U.S.) — What to Do to Protect Yourself During a Power Outage. https://www.cdc.gov/natural-disasters/response/what-to-do-protect-yourself-during-a-power-outage.html
Source: FDA — U.S. Food and Drug Administration — Information Regarding Insulin Storage and Switching Between Products in an Emergency. https://www.fda.gov/drugs/emergency-preparedness-drugs/information-regarding-insulin-storage-and-switching-between-products-emergency
Source: CDC — Centers for Disease Control and Prevention (U.S.) — Emergency Kit Checklist: Pregnant Women, Infants, and Children. https://www.cdc.gov/children-and-school-preparedness/resources/emergency-kit-checklist-pregnant-women-infants-and-children.html
Source: CDC — Centers for Disease Control and Prevention (U.S.) — Coping With Disaster or Traumatic Event. https://www.cdc.gov/natural-disasters/media/pdfs/2024/08/coping_with_disaster_2_english.pdf

Home and belongings

Photograph before you throw anything away. It is the rule that recovers the most money
The official insurance instruction is literal: **"photograph and video the interior and exterior of your property, taken before you throw anything away"**. After that, you need to **report the loss to your insurer right away**, and **keep receipts, statements, and contractor invoices**, which is what ensures your claim payment arrives on time. Cleaning up before documenting is, in practice, giving up your claim.

1. Before you go back in: look, smell, and listen from outside
The CDC lays it out this way: **if you smell gas or suspect a leak, shut off the main valve, open all the windows, and get out immediately**. If there is standing water inside and you can cut the power from a dry spot, do it. And one simple warning that prevents explosions and fires: **use battery-powered flashlights, not candles, gas lanterns, or torches**.

2. Ventilate before you settle in
The CDC recommends going in briefly to open doors and windows, and **letting the house air out for at least 30 minutes** before staying inside.

3. Shutting off utilities: when to do it, and the mistake you cannot make
Gas has a rule with no exceptions: if you shut it off for any reason, **only a qualified professional can turn it back on. Never turn it back on yourself**. **Electricity** is shut off by switching off the individual circuits first and the main breaker last —the order matters, because an electrical spark can ignite gas if there is a leak—. **Water** should be shut off if pipes may have cracked, because that contaminates the house supply, and should not be turned back on until authorities confirm it is safe to drink.

4. Go back only when authorities say it is safe
It sounds obvious, and it is the instruction people break most often: **go back home only when authorities say it is safe**. Structural damage is not always visible from the street.

- Make a photo inventory of what is in each room today: it takes twenty minutes and is worth its weight in gold for a claim.
- Keep that inventory and your policies **outside the house** —in the cloud or with a family member— because a file that gets soaked along with the house is useless.
- If you have to leave, take your documents with you, not your furniture.
- Do not sign anything with a contractor while you are in shock: check the money section for the warning signs of fraud.

Source: FEMA · NFIP (U.S.) — Starting Your Recovery (National Flood Insurance Program fact sheet). https://agents.floodsmart.gov/sites/default/files/media/document/2025-07/fema-nfip-starting-your-recovery_fact-sheet-10-2021.pdf
Source: CDC — Centers for Disease Control and Prevention (U.S.) — Safety Guide for Reentering a Flooded Home. https://cdc.gov/floods/safety/reentering-your-flooded-home-safety.html
Source: Hawaii Department of Human Services (U.S.) — Utility Shutoff and Safety (official emergency preparedness guide). https://humanservices.hawaii.gov/communications/are-you-ready/utility/

Money and income

Cash in small bills: the detail people discover too late

Ready.gov recommends it for a concrete reason: **"it is important to keep small bills on hand because ATMs and credit cards may not work during a disaster"**, right when you need to buy supplies, fuel, or food. No power means no card reader, and without a card reader a large bill is useless if no one has change.

The documents you need to protect today
The official recommendation is to keep insurance policies, deeds, property records, and other important papers **in a safe place outside the house**. FEMA publishes the **Emergency Financial First Aid Kit** for this, organized into four sections: household identification, financial and legal documentation, medical information, and contacts. Its rule for paper: **a fireproof and waterproof box or safe**, a bank safe-deposit box, or in the hands of someone you trust. For digital files: **password-protected files** on an external drive or in secure storage outside the home. And if you pay everything online, print your account records periodically.

An emergency fund, even a small one
The CFPB avoids magic formulas: **"the amount you need depends on your situation"**, but **"even a small amount can provide some financial security"**. Its underlying argument is the one that matters: without that cushion, a single unexpected expense **can grow far larger than the original bill through interest and fees**, because it forces you to rely on credit.

After the disaster come the people who rob you with paperwork

The CFPB describes the exact pattern: **"be wary of contractors who go door to door and of people who offer unsolicited 'opportunities' or use high-pressure tactics to force you to decide on the spot"**. Its concrete rules: **never pay by wire transfer, gift card, cryptocurrency, or cash**, because that makes it harder to get your money back; **do not make the final payment until the work is finished to your satisfaction**; and always ask **"can you show me your ID and your contractor's license?"** and **"can you give me three recent references from this area?"**. One fact that cuts off many scams at the root: **no FEMA worker or federal or state official ever asks for or accepts money**. Scammers pose as government employees, insurance adjusters, police officers, or bank employees.

Source: Ready.gov · FEMA (U.S.) — Financial Preparedness. https://www.ready.gov/financial-preparedness
Source: FEMA · Operation Hope (U.S.) — Emergency Financial First Aid Kit (EFFAK). https://www.fema.gov/sites/default/files/documents/fema_effak-toolkit.pdf
Source: CFPB — Consumer Financial Protection Bureau (U.S.) — How to Avoid Scams and Fraud After a Disaster. https://www.consumerfinance.gov/ask-cfpb/how-do-i-avoid-scams-and-fraud-after-a-disaster-en-1529/

What you can sell

In a combined crisis, demand doesn't add up: **it concentrates on the basics**. When several things fail at once, people stop buying everything else and look only for water, food, light, warmth or cold, and communication. A business that covers two of those needs at once is worth more than two separate businesses.

- **Safe water**, in any of its forms: delivery, filtering, purification.
- **Hot food**, which solves both nutrition and morale at the same time.
- **Small-scale power**: phone charging, lamps, batteries.
- **Warmth or cold** depending on the event: blankets and insulation, or ice and shade.
- **Transportation** when routes are cut off and there's no public service.
- **Care for people** — children, older adults, the sick — while the family handles the urgent stuff.

Raising prices because people are desperate can be illegal

When a state of emergency is declared, many countries limit by law how much the price of basic goods can rise. In **California**, the limit is **10% above the pre-emergency price** for 30 days —and **180 days for repair and cleanup services**—, with penalties of up to one year in jail and a $10,000 fine. **Texas** does not set a fixed percentage but penalizes "exorbitant" pricing with fines of up to $20,000 per violation. In **Mexico**, the Ley Federal de Protección al Consumidor (Federal Consumer Protection Law) requires sellers to honor the price offered and any maximum prices set by authorities, and PROFECO can impose fines. In **Brazil**, the Código de Defesa do Consumidor (Consumer Defense Code) prohibits "raising a price without just cause." Charging a fair price for hard work is legitimate; taking advantage of desperation is not.

Source: ILO — International Labour Organization — Labour Overview of Latin America and the Caribbean 2025 (executive summary). https://www.ilo.org/sites/default/files/2025-12/Executive%20Summary_Labour%20Overview%202025_LAC_ILO.pdf
Source: PROFECO — Federal Consumer Protection Agency (Mexico) — Ley Federal de Protección al Consumidor (Federal Consumer Protection Law), articles 7, 8, and 128. https://www.profeco.gob.mx/juridico/pdf/Ley_fed_protec_consum.pdf
Source: California Attorney General (USA) — Price gouging during declared emergencies. https://oag.ca.gov/consumers/pricegougingduringdisasters
Source: Presidency of the Republic (Brazil) — Código de Defesa do Consumidor (Consumer Defense Code), art. 39, X (raising prices without just cause). https://www.planalto.gov.br/ccivil_03/leis/l8078compilado.htm

Businesses and self-employment

It helps to start with one figure to size up what we're talking about: according to the ILO, informality **affects nearly half of the employed population of Latin America and the Caribbean, around 47%**, with huge differences between countries — under 30% in Uruguay and Chile, over 70% in Bolivia and Peru. For millions of families in the region, "looking for a job" and "starting something on your own" are the same sentence. What follows is not a promise of income: it is a map of what people actually do when a crisis hits, with the requirements and the risks laid out plainly.

The practical lesson from documented cases — Texas 2021, Haiti 2021 — is that in a compound crisis **official services arrive later and in worse shape**, because they're stretched across several fronts at once. That means the work of neighbors and small local providers isn't a nice extra: for days at a time, it's all there is.

A bundled service, not a single product
The business that works here is the one that solves a package of needs: hot water and food; phone charging and light; transportation and errands. Someone without power, water, and transportation doesn't have the energy to hire three different providers. Quote the full package and explain what's included, on one simple sheet.

Neighborhood coordination as a service
Organizing the logistics of a block — who needs what, who has what, how it gets shared, who checks on people who live alone — is real, exhausting work, and there are neighborhood committees, condo associations, and businesses that will pay someone to do it well. It requires no investment, just method and trust.

Multi-trade repair
After a compound crisis, the damage spans every trade at once. Someone who can handle the basics across several trades — a leak, a door that won't close, an outlet that doesn't work, a broken pipe — gets more work than a specialist, as long as they know where "basic" ends and where certified work has to begin.

Three jobs you should NOT improvise
Mold: the EPA sets the threshold at **10 square feet (about 3 ft × 3 ft)**; above that, or if the water came from sewage, it recommends hiring an experienced professional. Even below that threshold, you need an **N-95** respirator, long gloves, and non-vented goggles. **Chainsaw:** NIOSH is unequivocal that only a trained person should use one, and OSHA warns about kickback from the tip. **Electrical and gas lines:** OSHA instructs you to assume *every* downed line is energized, and NIOSH advises staying **10 feet (3 meters)** away from them. That work belongs to certified personnel, not on-the-job learning.

United States — SBA disaster loans
For areas with a declared disaster. The **Economic Injury Disaster Loan (EIDL)** provides working capital for affected small businesses and nonprofit organizations; the **physical damage loan** covers losses not covered by insurance. Combined cap of **$2 million**, interest **not exceeding 4%** if you cannot obtain credit elsewhere, terms of up to 30 years, and the first payment deferred 12 months. There is also a line for homeowners (up to $500,000) and for renters for personal property (up to $100,000).

Mexico — what actually exists today
FONDEN stopped taking on new commitments on January 1, 2021. What operates today in emergencies is **PAEAN**, run by Civil Protection, and it is worth knowing exactly what it is and is not: it delivers **relief supplies** — food kits, water, blankets, roofing sheets, cleaning materials — when a state's own capacity is overwhelmed. **It is not a reconstruction fund or a loan for your business.** For capital, look at state, municipal, or development-bank programs, always verifying on the official website: fraud schemes that use its name circulate around these programs.

Brazil — Pronampe for micro and small businesses
A credit line for **microenterprises** (annual revenue up to 360,000 reais) and **small businesses** (from 360,000 to 4.8 million). The amount can reach up to **60% of the previous year's gross revenue** for businesses with more than one year in operation, and up to 50% for new ones. The maximum rate is the SELIC rate plus up to 6% per year.

Source: EPA — Environmental Protection Agency (USA) — Mold Cleanup in Your Home (10-square-foot threshold). https://www.epa.gov/mold/mold-cleanup-your-home

Source: OSHA — Occupational Safety and Health Administration (USA) — Keeping Workers Safe during Disaster Cleanup and Recovery (FS-3698). https://www.osha.gov/sites/default/files/publications/OSHA_FS-3698.pdf

Source: NIOSH — National Institute for Occupational Safety and Health (USA) — Hurricane and Flood Key Messages (Publication 2025-106). https://www.cdc.gov/niosh/docs/2025-106/pdfs/2025-106.pdf
Source: SBA — Small Business Administration (USA) — Economic Injury Disaster Loans. https://www.sba.gov/funding-programs/disaster-assistance/economic-injury-disaster-loans
Source: SSPC — National Civil Protection Coordination (Mexico) — Guidelines for the Program for Emergency Response to Natural Hazards (PAEAN). https://sidof.segob.gob.mx/notas/docFuente/5626632
Source: Federal Government (Brazil) — Novo Pronampe — credit for micro and small businesses. https://www.gov.br/memp/pt-br/programa-acredita/novo-desenrola-brasil/novo-pronampe

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Two documented combined crises, each with its own chain of causes.

Texas winter storm, February 2021 — cold, blackout, and water, all at once
More than **4.5 million people** lost power, some for up to **4 days**. FERC documents that **20,000 megawatts of controlled outages** were ordered — the largest manually controlled load-shed event in U.S. history. Texas's official mortality report confirmed **246 deaths**: **65.4%** from exposure to extreme cold (hypothermia), **10.2%** from the worsening of pre-existing conditions, and **7.7%** from carbon monoxide poisoning caused by misused generators and heaters. **The lesson:** the cold did not kill on its own; it killed in combination with the power failure and, later, with the mistakes people made trying to stay warm without electricity. Each link in the chain multiplied the one before it.

Haiti earthquake followed by Tropical Storm Grace, August 2021
The magnitude **7.2** earthquake struck on August 14, 2021, and left, according to PAHO, **2,246 dead and more than 12,763 injured** as of September 9 of that year. Just **three days later**, on August 17, Tropical Storm Grace passed by Haiti, dropping up to **329 mm of rain**, according to the National Hurricane Center. The flooding and landslides it caused **worsened the ongoing humanitarian crisis**, destroying makeshift shelters and disrupting rescue efforts, including a shelter for earthquake survivors in Les Cayes. **The lesson:** a disaster that has already overwhelmed the official response leaves the population far more exposed to the next emergency, even one that, on its own, would have been far more manageable.

Related guides on this site, to put together your own combination based on what you are facing:

- Extreme cold — the scenario in the Texas case.
- Power outage — the link that almost always multiplies the damage.
- Earthquake — the scenario in the Haiti case.
- Hurricane — the storm that can arrive right after another emergency.

Source: FERC — U.S. Federal Energy Regulatory Commission — Final report on the February 2021 Texas freeze. https://www.ferc.gov/news-events/news/final-report-february-2021-freeze-underscores-winterization-recommendations
Source: DSHS — Texas Department of State Health Services — February 2021 winter storm mortality surveillance report. https://www.dshs.texas.gov/sites/default/files/news/updates/SMOC_FebWinterStorm_MortalitySurvReport_12-30-21.pdf
Source: PAHO — Pan American Health Organization — Haiti earthquake, August 2021. https://www.paho.org/en/haiti-earthquake-august-2021
Source: NHC — National Hurricane Center (NOAA) — Tropical cyclone report: Tropical Storm Grace (2021). https://www.nhc.noaa.gov/data/tcr/AL072021_Grace.pdf

Frequently asked questions

What is a "cascading" disaster?
According to the National Academies of Sciences in the United States, it is a disaster that starts with a triggering event followed by a chain of consequences, where the combined impact over time — damage, losses, disruption — turns out to be more severe than if those events had occurred separately. One example they cite is a wildfire followed by landslides caused by the burned vegetation.

What should a family emergency plan include?
Two meeting points —one near home and one outside the neighborhood—, an out-of-area contact everyone texts to gather information, assigned tasks with names attached (who grabs the emergency bag, who shuts off gas and power, who helps people who need support, who gets the pets out), and a list of important phone numbers on paper. It is worth practicing at least once a year.

How much water should you store per person for an emergency?
The CDC recommends at least 1 gallon (3.8 liters) per person per day for 3 days. Ready.gov warns that children, nursing mothers, and sick people may need more, and that with very high temperatures water needs can double. Stored water should be replaced every 6 months.

How long does food last in the refrigerator during a power outage?
According to FoodSafety.gov, part of the USDA, a refrigerator keeps food safe for up to 4 hours if it stays closed, and a full freezer for about 48 hours (24 hours if half full). Any perishable food that has been at 4 °C or above for 2 hours or more should be discarded. The official rule is: when in doubt, throw it out.

How far from the house should a portable generator be placed?
Only outdoors, more than 20 feet (6.1 meters) from any window, door, or vent, according to the CDC and CPSC. The CPSC warns that using a generator indoors can kill in minutes, because its exhaust contains carbon monoxide, a poison you cannot see or smell. The same rule applies to pressure washers, charcoal grills, and camp stoves.

Is it better to call or text during an emergency?
Text. The joint FCC and FEMA guide explains that text messages may get through when a call does not, even if there is a delay when the network is congested, and it asks people to limit non-emergency calls so they do not tie up the network that emergency services need.

Does insulin go bad if the power goes out?
Not right away. The FDA documents that insulin in the manufacturer's original vials or cartridges, opened or unopened, can stay unrefrigerated between 15 and 30 °C for up to 28 days and still work, though it loses effectiveness at extreme temperatures. In an emergency it is better to use it than to go without, but as soon as proper storage is available again, those vials should be discarded and replaced.

What should you do if someone at home depends on medical equipment that needs electricity?
Ready.gov recommends asking the power company to put your address on a priority list for service restoration, keeping a backup battery for electric wheelchairs and assistive devices, and talking with your doctor about how to keep the equipment running during a power outage. This is something to arrange beforehand, not during the emergency.

Can you start cleaning your house after a disaster?
Before you throw anything away or clean anything, you need to photograph and video the interior and exterior of the property and report the loss to your insurer right away, according to the official guide from FEMA's National Flood Insurance Program. You should also keep receipts, statements, and contractor invoices. Cleaning before documenting usually means losing the claim.

Can you turn the gas back on yourself?
No. The official emergency preparedness guide is explicit: if you shut off the gas for any reason, only a qualified professional can turn it back on. Also, when shutting off electricity, switch off the individual circuits first and the main breaker last, because an electrical spark can ignite gas if there is a leak.

Why should you keep cash on hand for an emergency?
Because ATMs and card readers depend on electricity and network access, and they tend to stop working right when you need to buy water, fuel, or food. Ready.gov recommends keeping a small amount of cash at home, in a safe place and in small bills, since change may not be available during an emergency.

How can you tell if a contractor offering to repair your house is a scam?
The CFPB flags as red flags going door to door, offering unsolicited opportunities, or pressuring you to decide on the spot. It recommends never paying by wire transfer, gift card, cryptocurrency, or cash, not making the final payment until the work is finished to your satisfaction, and asking for ID, a contractor's license, and three recent references from the area. Also, no FEMA worker or federal or state official ever asks for or accepts money.

Can a small disaster become serious if it hits right after another one?
Yes, and there is a documented case: in Haiti, the magnitude 7.2 earthquake on August 14, 2021 left more than 2,200 dead. Just three days later, Tropical Storm Grace dropped up to 329 mm of rain, causing flooding and landslides that, according to the National Hurricane Center, worsened the ongoing humanitarian crisis, destroying makeshift shelters and disrupting rescue efforts. A storm that would have been manageable on its own became far more serious because it hit right after the earthquake.