



SOLIDARNA FOUNDATION

Workplace safety

Based on *7 Steps to a Disaster Resilient Workplace*
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Identify - Secure - Plan - Organise - Minimise

Disasters often happen without warning and the society relies on organisations, businesses and institutions to remain working, and help the community recover in a more efficient and faster way. That's why it is crucial to make your working place resilient in terms of building itself, inventory and to educate your employees on what to do if disaster hits. This document brings a summary of the booklet *7 Steps to a Disaster Resilient Workplace*, but focusing on steps needed to do before earthquake strikes in order to be prepared and safe.

1. Identify...

...your potential external and internal hazards. When listing them, make sure to consider scalability, from small hazards to big disasters. Here we will focus on external and internal hazards of earthquake, which are identified just by looking around your working space and listing them. One of the most often hazards in modern business world is data loss or technical vulnerability. So, don't forget to backup!

Potential internal hazards

- unbolted cupboards and shelves, specially ones standing close to exits
- heavy or breakable items on high places
- lack of digital backups off site or on cloud
- utilities at inaccessible places, such as basement or attic
- ...

Potential external hazards

- neighborly buildings showing signs of potential hazards
- structure of your building made of bricks or lacking reinforced concrete
- being close to open water
- on a earthquake area
- ...

...your organisations' key assets, things without which you cannot run your operations and working processes. There are several categories of them: people, data, operations, building/workspace, equipment, inventory and operations. Have in mind that losing an asset can cause disturbance in your work flow and financial stability.

	Data		Inventors		Building
	<ul style="list-style-type: none">• documents• files• records• server back-up• ...		<ul style="list-style-type: none">• supplies• raw materials• stock• ...		<ul style="list-style-type: none">• office• venue• warehouse• storage unit• ...
People		Operations		Equipment	
<ul style="list-style-type: none">• employees• beneficiaries• volunteers• customers• visitors• ...		<ul style="list-style-type: none">• payrolls• accounts receivable /payable• production• care for beneficiaries• ...		<ul style="list-style-type: none">• computers• servers• network• furniture• machines• ...	

Risk assessment

Once you have your identification lists of hazards and assets, you are ready to make assessment and mark weak spots. For each of your six categories, you'll decide the level of impact each hazard will have. Below you will find a matrix for risk assessment for several different hazards, and while making your own estimation, be sure to understand the difference between the levels of impact. Once you have filled out the matrix, you will get an insight of your risk potential and the priorities to secure.

1 Lighter organisational severance or goods damage.
Negligible

2 Obstruction effecting your work, you have no or minimum damage, maybe some occurrence close by you.
Marginal

3 Temporary break of work process, bigger damage to the office, affects the community
Critical

4 A disaster of large range impacting the whole area, including your work and causes closure of business, often severe injuries and deaths. Affects the entry of external resources.
Catastrophic

IMPACT TO CRITICAL BUSINESS ASSETS							
Type of Event (samples)	PEOPLE 1 = Negligible 2 = Marginal 3 = Critical 4 = Catastrophic	DATA 1 = Negligible 2 = Marginal 3 = Critical 4 = Catastrophic	BUILDING 1 = Negligible 2 = Marginal 3 = Critical 4 = Catastrophic	INVENTORY 1 = Negligible 2 = Marginal 3 = Critical 4 = Catastrophic	EQUIPMENT 1 = Negligible 2 = Marginal 3 = Critical 4 = Catastrophic	OPERATIONS 1 = Negligible 2 = Marginal 3 = Critical 4 = Catastrophic	SCORE
Earthquake	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Fire	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Flood	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Hurricane	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Power Outage	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Pandemic	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Terrorism	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Thunderstorm/Lightening	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Tornado	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Tsunami	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Volcanic Eruption	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Winter Storm	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
TOTALS							
PRIORITY							

Picture 1. Risk Assessment Matrix (Source: 7 Steps to a Disaster Resilient Workplace, Earthquake Country Alliance, Southern California Earthquake Centre at the University of Southern California, 2016.)

2. Secure...

...your workplace while having in mind that there are some simple and no cost actions you can undertake. Being prepared for hazards before the disaster occurs means saving money for the costs and struggle with potential damage repair, as well as saving lives and inventory. Not to forget all the stress you might save yourself from.

1. Place heavy items to lower positions on shelves.
2. Lock cabinets when not in use.
3. Keep place close to exits clear, don't place high shelves near.
4. Keep space under your desk clear in case of emergency to Drop, Cover, and Hold On.
5. Secure vulnerable technical equipment, or other valued one, that can easily fall or be stolen.



3. Plan...

...your preparedness and build resilience. Depending on the assessment of risk and hazards make your own Business Continuity Plan that can help with decision-making and communications in time of crisis. Although each organisation is unique, some basic elements of every plan are the same for all, and they are listed below:

1. **Employee emergency contacts** - make a list so you can get in touch with their families in case of crisis. List should contain phone numbers, email, social media and other ways to contact their closest family members.
2. **Key contacts list** - of your collaborators that you rely on in everyday work or that you depend on.
3. **Critical organisational functions** - identify employees you rely on for normal functioning of organisation, one who are legally responsible or in charge for payments, communication. Know how will you continue with work.
4. **Vital records** - make sure to have (digital) backup copies of vital documents.
5. **Critical equipment** - determine what is necessary to keep you operational, and make sure to have a spare ones.
6. **Recovery location** - make sure you can recover from alternative place.
7. **Life safety** - make sure to organise annual emergency response training and drills such as:
 - i. Evacuation
 - ii. First aid / CPR
 - iii. Fire safety
 - iv. Drop, Cover, and Hold On earthquake drills
8. **Plan education** - inform team member on your plan, also, provide them information on individual/family preparedness.
9. **Maintenance and testing** - update your plan and test it when there are changes in organisation that impacts existing one.

4. Organise...

...disaster supplies to be self-sufficient during the early phases after disaster. Depending on the number of employees and their specific needs, make sure to have supplies in medicine, food, sanitation. Organisations should consider stockpiling additional medical supplies to handle a greater number and larger type of injuries. Encourage employees to be prepared at home as well, and to keep a minimum three-day supply of important personal supplies at work, such as prescription medications or extra glasses. A minimum 3-day supply should be kept on hand including:

- **FIRST AID KIT:** bandages, pads, wraps, disinfectant
- **MEDICAL SUPPLIES:** basic medicines such as antihistamines, analgesics
- **FOOD:** canned, packaged, ready to eat
- **WATER:** enough for 3 l/per person/per day
- **LIGHTING:** flashlight & extra batteries, lanterns, light sticks, candles
- **COMMUNICATIONS:** portable AM/FM radio and extra batteries
- **TOOLS:** basic hand tools: hammers, screw-drivers, wrenches, etc.
- **PERSONAL PROTECTIVE EQUIPMENT:** hard hats, gloves, dust masks
- **PLASTIC SHEETING**
- **FOOD PREPARATION:** portable stoves, can openers, mess supplies
- **HYGIENE AND SANITATION SUPPLIES**
- **BACK-UP POWER:** generator & extra fuel, batteries, uninterruptible power supply (UPS), and consider other sources: e.g. solar, hand-cranked
- **ADDITIONAL SUPPLIES:** for the training level of your employees: e.g. first aid

5. Minimise...

...financial hardship and have in mind that for every dollar spent addressing hazards pre-disaster, at least seven dollars are saved in disaster losses. In securing your workspace we gave several examples of low-cost action, but as the impacts of disaster can last for long time, consider minimising financial hardships by organising important documents, strengthening property in advance and getting insurance. To make sure you will be able to get back to your business make sure to make digital back-up on regular basis and store them on cloud and off-site. Make sure to check and improve your workplace structural issues (floor, roof, walls, support columns), for it protects you, and allows you to return to operating more quickly. If you are not sure where to start from, ask for an expert evaluation. Also, if possible for your organisation, consider insurance policy that covers your most critical equipment or operations.



CHECKLIST FOR A RESILIENT AND PREPARED WORKPLACE

1. IDENTIFY

- POTENTIAL INTERNAL HAZARDS
- POTENTIAL EXTERNAL HAZARDS
- CRITICAL ASSETS
- FULFIL THE RISK ASSESSMENT MATRIX

3. PLAN

- MAKE A PLAN WITH EMPLOYEES
- MAKE AN EMERGENCY LIST
 - EMPLOYEE CONTACTS
 - KEY CONTACT LIST
 - CRITICAL FUNCTIONS
 - VIRTUAL RECORDS
 - RECOVERY LOCATION
 - LIFE SAFETY
 - EDUCATION
 - MAINTENANCE AND EDUCATION

5. MINIMISE

- SORT IMPORTANT DOCUMENTS
- IMPROVE YOUR SPACE
- CONSULT AN EXPERT
- CONSIDER INSURANCE

2. SECURE

- RESPONSE TO HAZARDS STARTING FROM LOW COST-HIGH IMPACT
- CONSIDER EXPENSIVE SOLUTIONS
- DEDICATE TIME FOR SOLUTIONS
- MOTIVATE SAFE BEHAVIOUR AT WORK
- PRIORTIZE HAZARDS
 - LOWER HEAVY ITEMS
 - LOCK CABINETS
 - CLEAR SPACE AROUND EXITS
 - CLEAR SPACE UNDER TABLE
 - SECURE EQUIPMENT

4. ORGANISE

- FIRST AID
 - BANDAGES, PADS
 - MEDICAL SUPPLIES
 - DISINFECTANT
- DISASTER SUPPLIES
 - FOOD & PREPARATION
 - WATER
 - LIGHTING
 - COMMUNICATION
 - TOOLS & PLASTIC SHEETING
 - PERSONAL PROTECTIVE EQUIPMENT
 - HYGIENE AND SANITATION
 - BACK-UP POWER
 - ADDITIONAL SUPPLIES