



Annie Searle & Associates LLC

Research Note

Earthquake Preparedness

By Shirish Munshi

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Applicable Sectors: Emergency Services, Disaster Management.

Introduction:

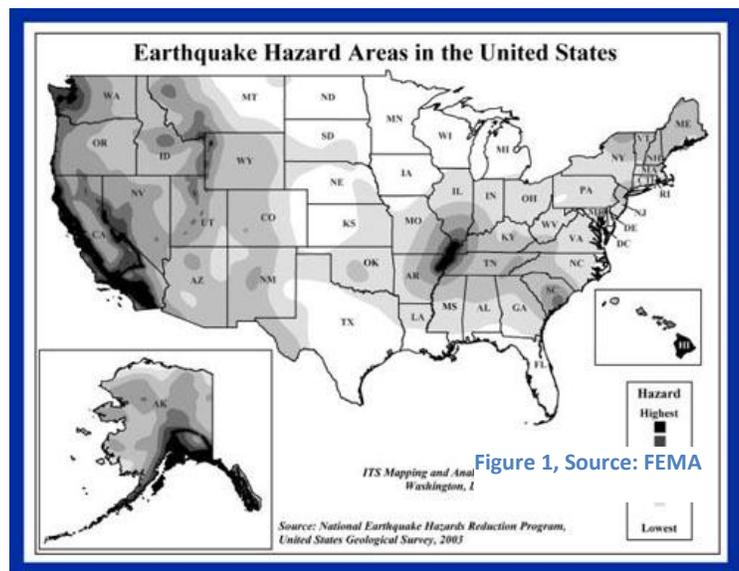
One of the most frightening and destructive phenomena of nature is a severe earthquake and its terrible after-effects. An earthquake is a sudden movement of the earth, caused by the abrupt release of strain that has accumulated over a long time. If the earthquake occurs in a populated area, it may cause many deaths and injuries and extensive property damage. It's important for a business to be prepared for a disaster like an earthquake. Moreover, the business should be capable of recovering quickly from an earthquake with least amount of losses. This research note discusses few simple steps to have an earthquake resilient business.

Are you prepared?

Being prepared can reduce human and monetary losses that accompany disasters for a business. Business should be ready to evacuate their employees and help them take refuge in

public shelters and know how to care for their basic medical needs. This can only be done if the business has a continuity and emergency plan and follow the below mentioned steps:

1. **Identify Risks and Capabilities:** The foremost step is to identify what may interrupt your business operations temporarily or worse. It is important to know what kinds of emergencies might affect your company both internally and externally. Businesses should try to find out if it's an earthquake prone area and the probability of occurrence of an earthquake. For specific earthquake hazard information, "Putting Down Roots in Earthquake Country" provides excellent information on faults, earthquake forecasts, potential



losses in major earthquakes, how to get prepared, and more. This can also be done by performing a business impact analysis for potential emergency scenarios.

2. **Business Continuity Planning:** How quickly your company can get back to business after an earthquake often depends on emergency planning developed today. Businesses should start planning now to improve the likelihood that your company will survive and recover. This can be done by carefully assessing and reviewing your company's business process flow chart. The next step is to identify the business operations that are critical for the company to survive and recovery as quickly as possible. If your business has a key supplier of resources, it might be possible that the disaster shuts down your supplier. It's important to create a list of critical business contractors and others for emergency situations. The

management should include co-workers from all levels in planning and as active members of the emergency management team. It's vital to consider a broad cross-section of people from throughout your organization, but focus on those with expertise vital to daily business functions. These will likely include people with technical skills as well as managers and executives. The next step is to define crisis management procedures and individual responsibilities in advance. The management should make sure those involved know what they are supposed to do. Not only this, but train others in case you need back-up help. An emergency plan should be reviewed annually as the business changes over time. When a business hires new employees or when there are changes in how your company functions, you should update your plans and inform your people.

3. **Implement Structural Hazard Mitigation**

Plan: It is important for the business to mitigate the structural and non-structural risks to the business. This can be done by increasing the seismic safety of the building structures and installing fire



sprinklers. The IT infrastructure can be prevented from damage by using loop fasteners and hooks to servers, computers, network devices and other valuable items from falling. Also, installing anchors on pallet rack frames can secure your rack system to help avoid accidents during an earthquake event.

4. **Emergency Planning for Employees:** Human resources are business's most important and valuable asset. There are some procedures you can put in place before a disaster, but you should also learn about what people need to recover after a disaster. It is possible that your staff will need time to ensure the well-being of their family members, but getting

back to work is important to the personal recovery of people who have experienced disasters. It is important to re-establish routines, when possible. According to FEMA, two-way communication is central before, during and after a disaster. This can be done by including emergency preparedness information in newsletters, on company intranet, periodic employee emails and other internal communications tools. The business should consider setting up a telephone calling tree, an email alert or a call-in voice recording to communicate with employees in an emergency. It is also important to engage people with disabilities in emergency planning. They should be asked about communications difficulties, physical limitations, equipment instructions and medication procedures. The emergency plan should be frequently reviewed and drills and exercises must be conducted to test the plan.



5. **Emergency Supplies for Employees:** After an earthquake occurs, businesses will need to be self-sufficient as first responders will be addressing high priorities such as hospitals and schools. There should be trained personnel to find and help anyone injured. The next step is to find if the building is safe to stay after damage. Moreover, it is important for the business to provide basic necessities like food, water and sanitation to their employees. Recommended emergency supplies by FEMA are:

- a) Water, amounts for portable kits will vary. Individuals should determine what amount they are able to both store comfortably and to transport to other locations. If it is feasible, store one gallon of water per person per day, for drinking and sanitation
- b) Food, at least a three-day supply of non-perishable food

- c) Battery-powered radio and extra batteries
- d) Flashlight and extra batteries
- e) First Aid kit
- f) Whistle to signal for help
- g) Dust or filter masks, readily available in hardware stores, which are rated based on how small a particle they filter
- h) Moist towelettes for sanitation
- i) Wrench or pliers to turn off utilities
- j) Can opener for food (if kit contains canned food)
- k) Plastic sheeting and duct tape to "seal the room"
- l) Garbage bags and plastic ties for personal sanitation

By following these steps, small and large organizations can reduce the impact of an earthquake and help the business to recover quickly after the earthquake is over.

Source

- BOMA- San Francisco, Preparing Your Small Business for a Disaster, <http://www.bomasf.org/pdf/news/smallbizdisaster.pdf>
- Ready Business, Planning to Stay in Business, <http://www.ready.gov/business/plan/index.html>
- “Are you ready?” - FEMA <http://www.fema.gov/areyouready/earthquakes.shtm>
- “Earthquake readiness tips for 2010”: <http://sfpublicpress.org/news/2009-12/earthquake-readiness-tips-for-2010>
- 7 steps to an Earthquake resilient business: <http://www.earthquakecountry.info/roots/7StepsBusiness2008.pdf>