

# PREPARATION OF DISASTER MANAGEMENT PLAN FOR LIBRARIES, ARCHIVES AND MUSEUMS

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## **Abstract**

A systematically organized, formally written plan enables you to respond efficiently and quickly to an emergency, minimizing danger to staff and damage to collections and the building. The proposed plan covers preventive measures as well as recovery procedures. The plan describes the advantages of emergency preparedness and includes the stages involved in preparation a plan. It also identifies the natural and man-made disasters and their possible risks. Vulnerabilities found within the collection and administrations are also explained. To prevent and mitigate the damages specific procedures of a plan are included. Priorities require in a rescue operation along with the staff awareness and training to implement the plan are salient points. While a plan provides basic instructions, it also allows for some on-the-spot creativity.

## **Introduction**

Disaster plan is a document which describes the procedure devised to prevent and prepare for disaster. The responsibility for performing these tasks is allocated to various staff members, who comprise the 'disaster team'.

There are two kinds of disasters, which can be hazardous for human lives, buildings, and collections, such as natural disaster and man made disaster. Large or small, natural or man made emergencies put an institution's staff and collections in danger.

While all institutions are not vulnerable to all disasters, any event that may be a cause of real crisis should be covered under emergency plan. Such programs provide a means for recognizing and preventing risks, and for responding effectively to emergencies.

## **Advantages of Emergency Preparedness**

Hazards can be mitigated or avoided altogether by a comprehensive, systematic, emergency-preparedness program.

Small-scale emergencies can be restricted if staff members are prepared to react quickly.

Damage can be limited even in the face of a large-scale disaster, for example, cultural institutions in Charleston, South Caroline, formed a consortium that focused on disaster preparedness several years before they were hit by hurricane Hogo in 1989. Many of those institutions sustained only minor damage because they were able to put their early warning procedures into operation.



The importance of having the plan in written form cannot be overstated. In the excitement and confusion of an emergency, procedures and sources of help are easily forgotten. Information recorded in writing is much less likely to be overlooked.<sup>1</sup>

### ***Preparation of Disaster Plan***

To prepare a disaster plan is complex assignment. It is the composition of wide range of preliminary activities.

### ***Disaster Planner***

The entire process is most efficient if it is formally assigned to one person who acts as "Disaster Planner" for the institution. The head of institution may play this significant role or may delegate the authorities to the next senior executive.

### ***Cooperation of a Devoted Team***

The disaster planner must be assisted by a devoted planning team to implement the plan effectively.

### ***Realization at Highest Level***

It is also important to realize that it must be supported at the highest level of the organization.

### ***Setting of the Priorities***

The disaster planner should set the priorities for the task. The planner should establish a timetable for the project and should define the scope and goals of the plan, which will depend largely on the risks faced by the institution.<sup>2</sup>

### ***Identifications of Possible Risks***

A wise first step is to list geographic and climatic hazards and other risks that could make vulnerable the building and collections. These might include the institution's weakness against natural disasters such as:

- Cyclones
- Storms,
- Flash flooding
- Earthquakes, or
- Forest fires

This also may include even the possibility of unseal hazards such as volcanic eruptions. Consider man-made disasters such as:

- power outage
- sprinkle discharges,
- fuel or water supply failures,
- chemical spills,
- arson (to set on fire )
- bomb threats



### *Environmental Risks*

Take note of the environmental risks that surround your institution, such as:

Chemical industries

Shipping routes for hazardous materials,

Asphalt Plant (temporary establishment)

Adjacent construction project

Any event that is possible to cause of risk should be covered under your emergency plan.<sup>3</sup>

### *Risk Assessment Checklist*

In the next stage a list must be prepared to assess the risks as a preliminary consideration for care, addressing the following measures:

#### 1. *Out side the Building Considerations*

- \* Inspection of building, site and its surroundings.
- \* Location of the building on the slop
- \* Establishment of basement below the flood level
- \* Plantation of large tree near the institution's building
- \* Security of utility poles and flagpoles
- \* Level of the roof is flat, which accumulates water
- \* Underground sewerage and drains, and their proper flow.
- \* Sealing of windows and skylight slots.
- \* Previous record of leakage or other structural problems.

#### 2. *Within the Building Considerations*

- \* Adequate number of fire extinguisher and their regularly inspection regarding the functions.
- \* Existence of alarm and fire suppression system along with its maintenance.
- \* Opening of the fire exits, and their monitoring.
- \* Time passed to electrical wiring and its capacity to bear the load.
- \* Unplugging of electrical appliances at night
- \* Auxiliary power availability, if needed.
- \* Condition of water pipes fixed for supply and sprinkle system.
- \* Availability of water detector and its function
- \* Previous events of break down in the climate control system

### *Determination of Vulnerability within the Collections*

It is also important to determine the vulnerability of the objects within the collections. Answers of the following questions require:

- \* What type of materials are included i.e. printed materials, micro material, audiovisual materials and computerized materials?
- \* Are they easily damaged, in terms of non existence of preservation methods?



- \* Are they particularly at risk to certain types of damage such as moisture, fire, breakage, and the like?
- \* How and where are collections stored? Are they protected by boxes or other enclosures?
- \* Is shelving anchored to structural elements of the building? Is it stable?
- \* Are any artifacts stored directly on the floor where they could be damaged by leaks or flooding?
- \* Are materials stored under or near water sources?
- \* Analyze your security and housekeeping procedures? Do they expose collections to the dangers of theft, vandalism, or insect infestation?
- \* Consideration of Administrative Vulnerabilities

Administrative vulnerabilities are also part of risk assessment procedure the following points must be spell out:

1. Insurance of the collection (special, antique, and rare collections)
2. Complete and accurate inventory of all moveable and immovable items.
3. Location of duplicate inventory at other place
4. Setting of the proprieties for the salvage in case of emergency preparation of back-up priority list in case of non-availability of the highest priority due to the building damage or the nature of disaster.

These questions may help the planner to reach a good idea of the significant risks, an institutions faces. Although there may be a wide range of disaster scenarios, the most common are water, fire, physical or chemical damages, or some combination of these. At this stage, it is the planner's responsibility is to devise a program with concrete goals, identifiable resources, and a schedule of activities for eliminating as many risks as possible.<sup>4</sup>

### ***Specific Procedures for the Prevention and Mitigation of Damages.***

Geography and climate cannot be changed, but other vulnerabilities can be reduced, adopting the following guidelines. If all improvements cannot be undertaken at once, make schedule and follow it. If some items on your schedule prove impossible or are delayed, move on to the next goal and return to the earlier problem within it becomes more practical.

#### ***1. Regular maintenance of building and collection condition***

A regular program of building inspection and maintenance should be done at a very high priority. It will prevent from, burst of pipes, defective climatic control equipment, worn electrical wiring, choked drains or other problems. Once building systems are in proper working order devise a maintenance schedule. Patchwork repairs and deferred maintenance only result in accelerated deterioration, leading to an increased risk of emergencies. Keep a record of building events like clogged drains, furnace cleaning, and equipment failures. The more you and your staff know about your building and its operation, the faster and more economically repairs can be made.



## 2. *Need of a Good Fire Protection System.*

While water damage is the most common form of disaster for museum, every institution with collections of enduring value needs a good fire-protection system. Since most emergencies seem to happen outside normal working hours, reliable fire detection systems on professional, twenty-four hour monitors are a wise investment. Wherever possible, collections should also be protected by fire-suppression system. The use of halon is no longer recommended. Preservation professional now recommend wet-pipe sprinklers for most libraries and archives. In addition water misting suppression systems have become available within the last several years; these can provide fire suppression using much less water than conventional sprinkler systems. Before choosing a fire protection system be sure to contact preservation professional or a fire protection consultant for information about the latest development in the fire protection and for advice appropriate to your collections and situation.

## 3. *Maintaining a Collection Inventory*

Other actions that reduce building and collection vulnerability include maintaining a collection inventory, an inventory will provide a basic list of holdings to assist in assigning priorities for salvage, and will be essential for insurance purposes.

## 4. *Improving collection storage,*

Improved collection storage, such as boxing and raising materials above the floor level, will reduce or eliminate damage when emergencies occur.

## 5. *Good security and housekeeping procedures.*

Comprehensive security and house keeping procedures will ward off emergencies such as theft, vandalism, and insect infestation. They will also insure that fire exits are kept clear and fire hazards eliminated.

## 6. *Distribution of Responsibility when Responding to an Emergency*

It is the responsibility of the disaster planner to assign the responsibilities for various activities while responding to an emergency. The assignment procedure should clear-cut describe:

- \* Who will be the senior decision-maker throughout the process?
- \* Will inter act with fire officials, police, or civil defense authorities?
- \* Who will talk to the press?
- \* Who will serve as backup in any of your team members are unable to get to the site?
- \* Identification of a location for a central command post (if necessary), and space above flood level for drying collections.
- \* Setting up a system for relaying information to members of the salvage team.
- \* Setting up a good communication strategy might include notes to be delivered by "runners" it is essential to avoid confusion and duplication of effort in an emergency.



### 7. Determination of Likely Disaster

Finally in the planning process considering all possible aspects of an emergency, decide what type of disaster is most likely to occur in your institution, and start to plan for it. The plan can always be expended to include other scenarios.

### 8. Discovering the Available Resources

Some Important steps should be included in the plan

8.1 Identify sources of assistance in a disaster.

8.2 Determine the supplies you will need for disaster response and salvage efforts for your specific Collections.

8.3 Basic Supplies following basic supplies items should be available in the institution and kept in a clearly marked location, inventoried periodically, and, if necessary replaced.

Dehumidifier - Metal Cart - Plastic (milk) crates - Flashlights  
50-ft. extension cord - Portable Electric fan - Wet vacuum - Blank newsprint  
Freezer or wax paper - Plastic trash bags - Plastic bucket and can  
Paper towels - Sponges - Mop - Nylon fishing thread - Safety glasses  
Rubber boots & Aprons - First aid kit - Emergency funds (cash) - Nylon ropes  
Plastic sheeting - Clipboards, paper - Scout knives - Telephone set (with scissors & knives) - pens, and markers - Candles - Domestic toolbox

#### 8.4 Additional Supplies

In addition to basic supplies keep a list of additional supplies that might be needed this list should include:

Supplier's names, addresses and phone numbers, and should provide backup sources for supplies.

Disaster services providers name, addresses, and phone numbers.

Sources of technical assistance, fire, water, gas and electricity departments.

Contact numbers of rescue teams.

Emergency contacts numbers police, hospitals, ambulance services and rescue volunteers.

#### Coordination with Local Emergency Services

Liaisons should be maintained with local emergency services so that they can respond appropriately in case of disaster. For example, you may want to provide the fire department with a list of high priority areas to be protected from water if fire-fighting efforts permit. You may be able to arrange with the fire department to allow specific staff members from your institution to enter the building for evaluation or salvage if safety allows. It may be possible to rope off areas for arson investigation while allowing accessibility to other areas. All such arrangements must be prepared for in advance for efficient response.



## ***Setting Priorities in Rescue Operation***

### ***1. Human Safety***

Saving collections is never worth endangering the lives of staff or patrons. The first priority in any disaster is human safety. In a major event, the fire department, civil defense authorities, or other professionals may restrict access to the building until it can be fully evaluated.

### ***2. Record and Equipments***

Once safety concerns are reached, the next consideration will be records and equipment crucial to the operation of the institution, such as registrar's records, accession registers, stock registers, and administrative files.

### ***3. Collection Salvage and Building Rehabilitation***

Collection salvage and building rehabilitation will be the next priority. At this stage the services of disaster recovery of art objects and cultural resources are urgently required. National heritage must be conserved to place the items back on display along with restoring them to their pre-disaster condition.

### ***Salvage of Objects of Great Importance***

Objects or collections of great importance to the institution must be identified ahead of time. If this is not done, valuable time may be wasted in salvaging materials of little value or spent arguing about what should be saved first. Ideally, this step includes a floor plan that clearly states the priority of collections for salvage. This should be attached with the disaster plan.

### ***6. Help of Conservator***

Vulnerability to the particular damage caused by the emergency is also a base of priority for salvage in addition to the value of objects. If you are not aware of the hazards for various materials, contact a conservator to help you, incorporate these considerations into your salvage plan. Paper and textiles, for instance, are susceptible to mold when they are warm and damp. Many metals will corrode rapidly under the same conditions. Salt water may accelerate the damage. Ivory, small wooden objects, and lacquer (polish and varnish) may swell and crack with rapid changes in moisture and temperature. Veneers and furniture may construct with water-soluble adhesives. Objects may become brittle after exposure to the temperatures of a fire.

### ***7. Special Handling and Salvage***

All categories of collections have special handling and salvage procedures developed by experienced professionals. Because the instructions for salvage for the wide variety of objects found in collections is beyond the scope of this article.<sup>5</sup>

### ***Awareness and Training of the Staff***

In fact how much effort you have put into creating the perfect disaster plan, it will be largely ineffective if your staff is not aware of it, if it is outdated, or if you cannot find it during a disaster. A concentrated effort must be made to educate and train staff in



emergency procedures. Each staff member should be made aware of his or her responsibilities, and regular drills should be conducted if possible. Much valuable time can be lost during emergencies if staff members are unfamiliar with recovery methods. Copies of the plan should be distributed to all personnel responsible for emergency prevention and recovery. All the staff member should be trained in the use of fire extinguishers at least.

#### **Distribution and Location of plan at various Places**

Keep several copies of the plan in various locations, including off-site (ideally in waterproof containers). Each copy of the plan should indicate where other copies may be found.<sup>6</sup>

#### **Performance Indicators for Achievements of Plan**

*Some performance indicators for measuring success are:*

frequency of disasters

time required for the library to return to normal operations

quantity of material lost

value of material lost

quantity of material requiring conservation

time required to repair the building

response of staff to disaster; whether they can operate in less than

optimal conditions and maintain reasonably high morale.

#### **Monitoring, Evaluation, Updating and Revision of Plan**

Most important, the disaster plan must be updated periodically. Names, addresses, phone numbers, and personnel change constantly. New collections are acquired, building changes are made, and new equipment is installed. Concerned new institutions are established, new recovery technologies are introduced. If a plan is not kept completely up to date, it may not be able to assist you effectively in dealing with disaster.

#### **Conclusion**

Disaster planning is essential for libraries, archives and museums like other institutions to provide the best possible protection for its collections. Disaster can strike at any time – on a small or a large scale, but if an institution is prepared, the damage may be decreased or avoided. A disaster plan must be considered a living document. Its risk-assessment checklist must be periodically reviewed, its lists must be updated, and its collection priorities revised as needed. An effective disaster plan will do its best to insure that historical collections in our cultural institutions are safeguarded for the future.

#### **Problems in alleviation of the damage in Pakistan**

1. Lack of awareness among the staff and patrons to response the emergency.
2. Shortage of unity spirit among the staff of libraries, archives and museums.



3. Non-existence of coordination among the library staff and institutions responsible for recovery.
4. Communication gap with the organizations.
5. Negligence of priorities set for emergency response.
6. Inability to predict the nature of disaster due to its unique nature.
7. Delayed determination of causes of disaster
8. Absence of training to face the risks among the staff, patrons and general public.
9. End of sense of loss in the responsible officials.

### Suggestions

1. There should be a written Disaster Management Plan, keeping in view the likely vulnerabilities of libraries, archives, and museums.
2. The plan should be frequently updated and changed and new addresses, telephone numbers must be incorporated.
3. All the staff members should be familiarized with the contents of the plan, and there should be demonstration of plan in all the related institutions.
4. Frequent evacuation rehearsal should take place, with the cooperation of fire, civil defense and rescue departments.
5. Preventive procedures should be the part of maintenance program of the library.
6. Strong commitment of the all level staff toward the safeguard of nation's cultural and historical collections will serve as a cause of minimizing the hazards.

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