

# DISASTER MANAGEMENT IN ARCHIVES AND CULTURAL INSTITUTIONS

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# DOCUMENT

Document is a record, which consists of information regarding administration, trade, happenings etc.



# TROPICAL AND SUB-TROPICAL CLIMATE

Tropical and sub-tropical climates are not good climates for the up-keep of the archival collections or records. India falls in this zone of climate. Temperature in this climate, moisture content etc., are entirely different and therefore the measures taken to content disaster like fire in the institutions are also very different.

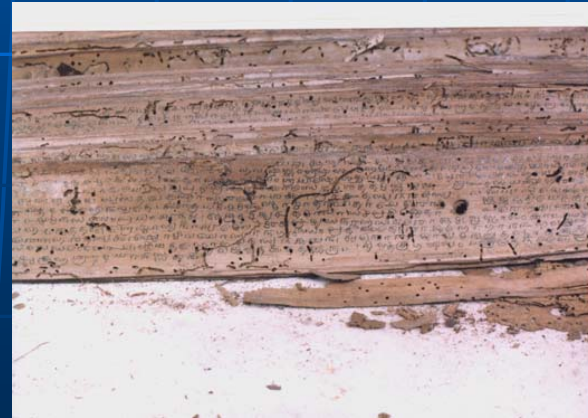
# WHAT IS DISASTER?

Disaster means a great or sudden misfortune or terrible accident. This in the case of archives can be flood, heavy leakage in the roof of a building, infestation with biological agents, fire, an earthquake, other man-made problems such as arson, bombing, theft etc.

# TYPES OF DISASTER

MANMADE

NATURAL



# DISASTERS OF COMMON INTEREST

The personnel of the archives and similar institutions should be aware of the local disasters occur in the locality and they should know the characteristics of the disasters and the control measures besides the effective preparedness to contain the disasters.

Normal disasters are fire, flood, earthquake, theft, pest, human handling, faulty construction and planning etc.

# DISASTER MANAGEMENT PLAN

What ever may be the type of disaster, when occurs, it is very difficult to safeguard the records and human beings in the archives. Therefore a disaster management plan is required for an institution to handle the disaster before, while and after its occurrence.

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# WHAT IS DISASTER PREPAREDNESS PLAN?

Having a Disaster Preparedness Plan means an archives has implemented action to prevent disasters from occurring and has prepared by developing the necessary procedures to effectively respond to and recover from a disaster when it does occur-thereby reducing the impact on the staff, the collection and the archives. It is a document containing information on the Standard Operating Procedure to be adopted in an emergency due to any disaster.

# DISASTER RESPONSE TEAM

Disaster Response Team should be organised in the institution. It should have the Co-ordinator, Conservator, Civil Engineer, Electrical Engineer, Fire Officer, Revenue Officer, Police Officer, Health Officer etc. They should be given specified duties and meet regularly to review the situation in the institution.

# AUTHORITY STATEMENT

When there is a disaster, the Head of the Institution authorises its staff, employees and volunteers to meet the emergency.

The head of the institution's Disaster Response Team is vested with the authority to declare a state of emergency and to use appropriately whatever resources are necessary.

# POLICY STATEMENT

During a disaster, the archives declares its priorities to be

1. Protection of life
2. Protection, recovery and stabilisation of the collection of records.

For achieving this alone, it authorises the bypassing of normal procedures.

# GENERAL INSTRUCTIONS

Wherever necessary, visible emergency exit signs must be posted clearly.

- On hearing an alarm or information from the staff all persons shall evacuate the archives buildings.
- Copies of the Emergency Plan should be available readily for the Disaster Response Team.
- The Disaster Response Team has authority in all practical matters for the duration of the emergency.

# FIRE

Fire is the resultant of the combination of fuel, air and the ignition temperature. Fire is one of the devastating agencies in archives and similar institutions, where organic materials such as manuscripts, textiles, art objects, natural history specimens are present.



# CAUSES OF FIRE

Fire in an archives can occur due to various factors.

They are:

1. Electrical and mechanical factors-due to failure of air-conditioners, over loading etc.
2. Chemical factors – due to the use of chemicals, paints etc., in the storages
3. Human factors – smoking, lighting, deliberate firing etc.



# WHAT IS FIRE FIGHTING?

1. Starve the fire remove the burnable materials from the site
2. Starve the fire by cutting of air to fire
3. Starve the fire by cooling down the ignition temperature





# NEED FOR PREVENTION OF FIRE

Fire is of great concern in archives and similar institutions, where organic materials such as manuscripts on textiles, paper, leaves, leather, bamboo, ivory, etc., are present. One must take all precautionary measures to contain fire thereby avoiding fire.

# WHAT ONE SHOULD DO?

One must know the elements of disaster preparedness to avert fire, to safeguard the archival materials, records etc., during fire and the salvaging activities after fire.

# DISASTER PREPAREDNESS

The various elements of disaster preparedness are

1. Before a disaster
2. During a disaster
3. After a disaster

# FIRE SAFETY

Fire is one of the major devastating agencies, which completely destroys objects such as organic objects (paper, leather, leaves, wood, bamboo, bark, etc.) within a short time. Even metallic objects like lead, tin also will be damaged due to fire. Therefore, fire safety is an important aspect to be cared for. In addition to meeting the environmental standards, the institutions like archives, libraries, museums should meet fire safety standards for the protection of their collections.

# **ELECTRICAL AND MECHANICAL FACTORS**

**Electrical installation, electrical fittings, defective air-coolers, air conditioners, exhaust fans etc., are the main reasons for the break out of fire in archives, libraries, museums etc. The cause for most of the fire in museums in the past is the failure of the air-conditioners.**

# CHEMICAL FIRE

Archives, Libraries, Museums have conservation laboratories or other biological sections where chemicals are used for the conservation of preservation work. Some times while painting of the buildings is done, paints and other inflammable chemicals are used. The negligence in their use causes fire in the building. Even at times, the gas used in the canteen also result in fire in the institutions concerned.

# INERGEN

INERGEN (derived from the words “INERT” and “NITROGEN”) is a mixture of nitrogen, argon and carbon dioxide. The specific gravity of INERGEN is 1.05, which is similar to air and therefore human beings could safely remain in the room during trial operation or during accidental release of INERGEN.

# FIRE IN GOVERNMENT MUSEUM, CHENNAI IN 2001

During a function in the Museum Theatre in 2001, fire erupted due to halogen lamp, which fell on the screen. This was put out by fire extinguishers by the museum staff as training had been given just a week back.





# FIRE IN CENTRAL LIBRARY, IMPHAL

Nearly 145,000  
books have been  
destroyed in an  
arson attack in  
The State Central  
Library, Imphal,  
Manipur.



# FIRE IN SALAR JUNG MUSEUM, HYDERABAD

Priceless antiques, some of the country's rarest gems and even the famed *Veiled Rebecca* had a narrow escape on Friday, 3<sup>rd</sup> November 2006 having been spared the fury of an early morning blaze at the Salar Jung Museum, which gutted its 300-seat auditorium due to electrical short circuit.



# THEFT IN THE STATE MUSEUM, HYDERABAD

In a major heist, thieves gained entry into the State Museum at Public Gardens, Nampally, Hyderabad and several antiques—two swords, a spearhead and a mosquito net support with silver inlay—were stolen late on Wednesday, 16<sup>th</sup> January 2008.



# EARTHQUAKE

Earthquake is a tremor of the earth's surface usually triggered by the release of underground stress along fault lines. The release causes movement in masses of rock and resulting shock waves.



# RICHTER SCALE

In 1935, American seismologist, Charles Richter developed a scale that measures the magnitude of seismic waves, called the Richter Scale. It rates earth tremors on a scale from 1 to 9, with 9 being the most powerful and each number representing an increase of ten times the energy over the previous number.

# INCASE OF AN EARTHQUAKE

- ❖ Safety of human beings is very important.
- ❖ In case of a disaster, one can keep oneself under the strong threshold or sturdy furniture.
- ❖ One should not stand near glass windows, doors, glass showcases etc.
- ❖ Sharp tools should not be with the person.



# AFTER EARTHQUAKE

- 1/ One should be prepared to meet the shock of the earthquake.
- 2/ The fire should be extinguished with a suitable extinguisher.
- 3/ One should contact the concerned with the help of the list of persons and the corresponding telephone numbers.
- 4/ If there is any leakage of water or electricity they should be off in the proper way.
- 5/ One should know how to escape from the building without any damage to oneself.
- 6/ One should enter into the building only after the advice of the emergency officials.
- 7/ One should anticipate the fall of materials at the time of opening of and should take care.

# BUILDING

- ❖ At the time of construction and repair of the building monitoring should be made to avoid damages.
- ❖ The drain pipes and the water drain from the ceiling should be maintained properly.
- ❖ Proper protection from theft, burglary, etc.



# FLOOD



An abundant, usually overwhelming flow or fall, as of a river or rain is called flood.

Flood is one of the devastating factors in archives/museums.

Precautions should be taken to prevent flood damage to archives.

# PREVENTING FLOOD

- Care should be taken to avoid flood in to the archives.
- Objects which will be affected should be kept at a height.
- When there is water leakage a sheet of plastic may be kept above the show case.
- Staff should be provided training in disaster management from flood.
- There should be discussion on the disaster from flood so that the staff will be having the knowledge of management.

# RECOVERY PLAN AFTER FLOOD

After flood the recovery of the damaged materials is very important. For this a survey should be made on the affected objects. A recovery plan should be prepared and acted upon.



# RECOVERY FROM FLOOD



Children  
recover their  
books from  
water during  
the flood in  
2004 in Assam.

# PREVENTIVE MEASURES AT BOMB THREAT

1. Avoid weapons into the archives/museums
2. Avoid entry of baggage to the stack rooms/galleries
3. Inform the police if any baggage under suspicion
4. Close the stack room/gallery, which is problematic
5. Remove rare records/objects from the archives/gallery and protect in a safer place

# THREAT FROM HUMAN BEINGS

Human beings play a very important role in the threat to the cultural property preserved in museums.

1. War has damaged many cultural properties preserved in museums.
2. Religious fanatics have damaged many objects.
3. Enmity among staff inside the archives/museums also have damaged records/objects.

# THE BHANDARKAR ORIENTAL RESEARCH INSTITUTE, PUNE



# BORI LIBRARY, PUNE

The library racks were pulled down by the miscreants.





# BORI LIBRARY, PUNE

The library's  
almyrahs were  
topped down  
one over the  
other by the  
miscreants.



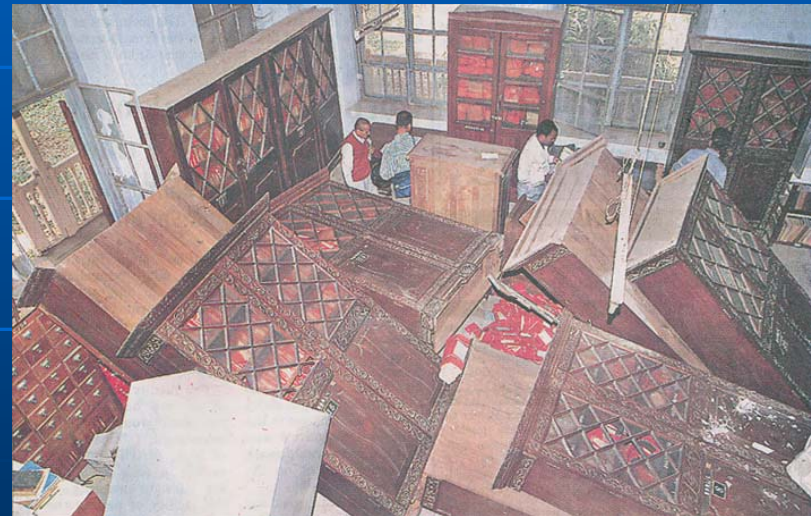
# BORI LIBRARY, PUNE

The library's  
open shelves  
were also  
pulled down  
by the  
miscreants.



# BORI LIBRARY, PUNE

The library shelves made of wood were ransacked by the miscreants.



# BORI LIBRARY, PUNE

Except some of the wooden almyrahs along the wall, all the almyrahs with heavy load of books were pulled down by the miscreants.



# BORI LIBRARY, PUNE

The glass panes of the sloping show cases with the rare manuscripts displayed were broken.



# BORI LIBRARY, PUNE

The broken glass pieces fell down on the rare paper Manuscript and the same was not damaged in this disaster.



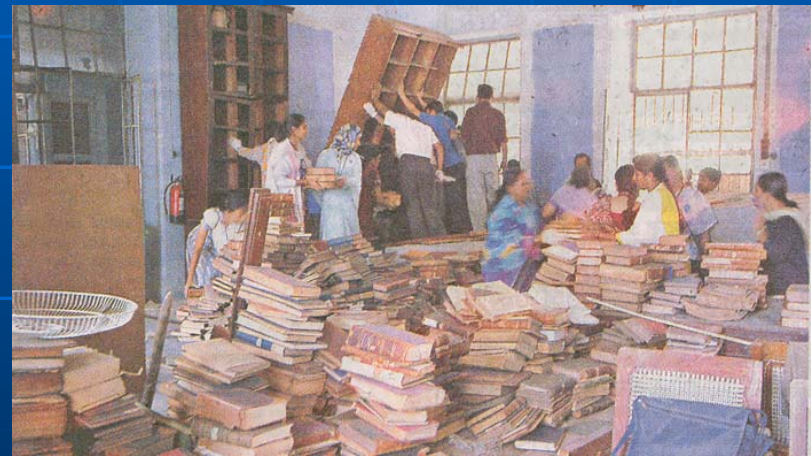
# DISASTER AT BORI

The office also  
ransacked by  
the miscreants.  
All the data in  
the hard disk  
was lost.



# DISASTER AT BORI

There was very good response from the public and students to recover the ransacked library.





# DISASTER AT BORI

Volunteers from the nearby school were also came for retrieval and recovery of books.



# DISASTER AT BORI

The palm-leaf manuscripts in the almyrahs were not spilled. And therefore with the help of the volunteers the almyrahs were kept in the right position.



# DISASTER AT BORI

Even though the window glass panes were broken in the disaster, no palm-leaf manuscripts were lost.



# RISK ASSESSMENT

It is very important to assess the risk before the preparation of a Disaster Management Plan.



**LET US PROTECT  
HUMAN  
BEINGS AND CULTURAL  
PROPERTY FROM  
DISASTERS**

**THANKS**