"DODGING DANGER"

EMERGENCY PLANNING & RESPONSE FOR NAMIBIAN

- Museums
- Art Galleries
- Archives
- Libraries.

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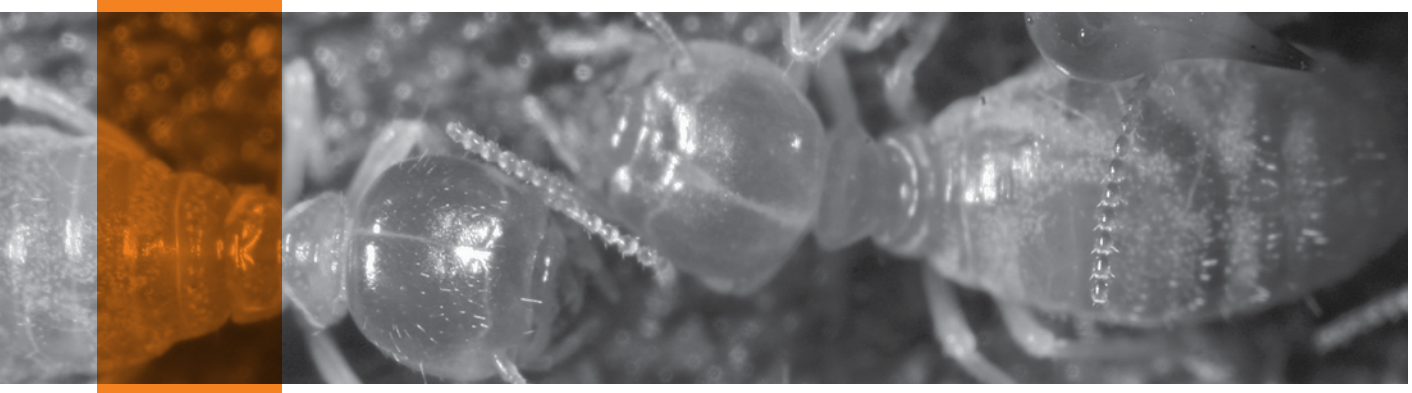
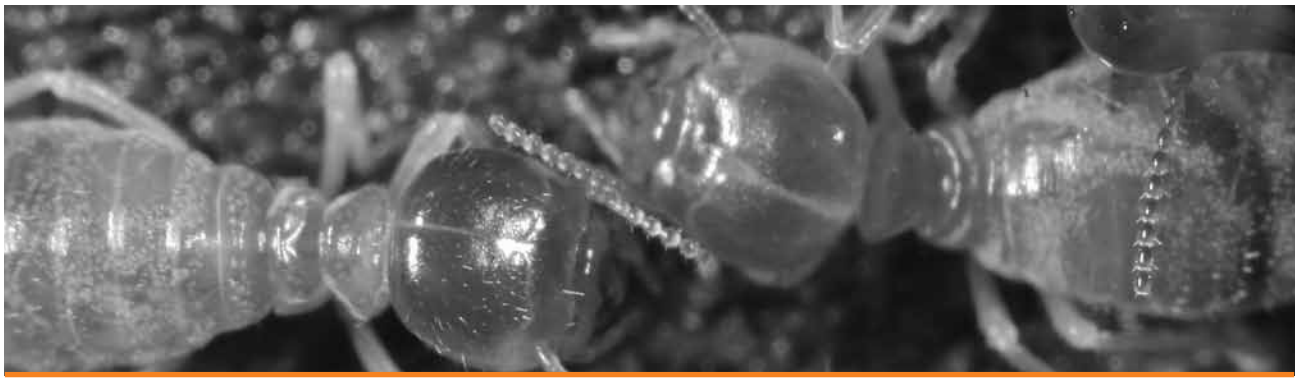
Handbook on Emergency Planning and Response for Namibian Museums, Art Galleries, Archives and Libraries.





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Handbook on Emergency Planning and Response for Namibian Museums, Art Galleries, Archives and Libraries.

INTRODUCTION

Namibia's archives, art galleries, libraries and museums are the custodians of our heritage. The art works, artifacts, documents and books that we are responsible for are often irreplaceable and so we have responsibility to safeguard our collections. The use of risk assessments and the establishment of emergency plans can help us to protect our collections, but, even more importantly, can also help us to protect our staff and the customers that use our services.

The members of the Museums Association of Namibia have expressed awareness and concern about the lack of adequate emergency planning in many institutions that are the guardians of our cultural heritage. The absence of such plans increases the risk that important objects and sites of importance to our heritage might be lost. The National Commission of UNESCO, therefore, generously agreed to fund a three day workshop that would introduce the concepts of risk assessment and `disaster planning' to the Namibian institutions that held the most important heritage collections (See Appendix 1 for a list of participants).

Institutions that participated in the workshop were provided with a specialised `Disaster Preparedness Kit' equipped especially to meet the needs of heritage institutions. The workshop was facilitated by Ms Denise Crous, Executive Director: Operations, IZIKO (one of South Africa's two flagship national heritage institutions) and Mr Erasmus Nyanga, Deputy-Director of the National Archives of Namibia. Ms Crous raised the concern that it was important that all participating institutions should also have a basic medical kit. The Museums Association of Namibia, therefore, purchased twenty medical kits from a local supplier and distributed these to participating institutions.

Prevention deals with the importance of identifying potential hazards and reducing risks

Participants completed a pre-workshop questionnaire that provided us with a good overview of the varying state of readiness in each institution. However, it was clear that none of the heritage institutions that took part had adequate plans in place and all the participants welcomed the initiative. It was also agreed that, after the workshop, a handbook should be produced that would provide easily useable guidelines for risk assessment, emergency planning and advice on response and recovery. The Handbook is divided into four main sections covering Prevention, Preparedness, Response and Recovery – the four most important measures that can be taken to protect lives and collections.

Prevention deals with the importance of identifying potential hazards and reducing risks – for example, ensuring that gutters are cleared before the heavy rains start to reduce the risk of water coming through the roof of the museum. Preparedness provides guidelines on the importance of making sure that, if an emergency was to occur, the museum has suitably trained staff, an emergency management team, emergency contact details, a medical kit and suitable supplies in place so that the museum can respond quickly and effectively to any emergency. Response concerns the action that should be taken to reduce the risk of injuries to staff and visitors and to limit the damage to your collection. Recovery gives advice on the training and processes to be followed to deal with damaged objects and to enable the museum to open again.

The handbook has been produced by the Museums Association of Namibia with the support of the National Commission of Unesco, but it is intended that every museum and heritage institution should use this Handbook to make their own plans. We suggest that you photocopy the different forms provided to help you develop your plan and set up your own Emergency File for your museum. The idea of `Disasters' often makes us think of the Earthquakes, Tsunamis and Tornados that occur in disaster movies and that is why we prefer in this Handbook to sometimes refer to `emergencies'. We should be aware that lightening can strike, water pipes can burst and termites can chew their way through our collections. Let us make sure that we do our best to prevent disasters from happening and that, when emergencies do happen, we have plans in place to ensure that we can recover from them with the minimum of damage to the collections that are in our care.

Section Two
Prevention

Template 1:
Emergency Preparedness Checklist

Institutions sometimes feel that Emergency Preparedness is placing an additional burden on their workload. However, the process can be broken down into nine simple steps. Museums, art galleries and archives have a responsibility as the custodians of the objects and materials in their care on behalf of local communities and the nation as a whole.

The Museums Association of Namibia recommends that you use the following table to work through the process and to monitor your progress in being prepared for the unexpected:

Step	Action	Completed	To Do
1	Assess all risks and threats		
2	Reduce or remove those risks		
3	Prioritise objects of most importance in collection		
4	Establish Emergency Response Team		
5	Establish Support Network		
6	Prepare the Emergency Response Plan		
7	Prepare the Emergency Recovery Plan		
8	Train all staff		
9	Review the plan		

HAZARD CHECKLIST

In order to assess the most likely risks to our individual institution it is important to think broadly of all the potential emergencies that we might face. Each of us will face different types of threat. For example, the risk of flooding due to high tides and a storm surge are unlikely to affect a museum situated in Windhoek (four hours drive from the coast), but might be a serious concern for Swakopmund Museum located next to the beach. It will be useful for you to look through the list below to identify those hazards that are most likely to affect your museum or institution. The most common hazards are listed, but there is also space at the end of the form where you can list any additional concerns that you might have:

Industrial Emergencies

- Electrical power failure ☐
- Interruption of water supply ☐
- Explosion ☐
- Collapse of building ☐
- Sewage leak ☐
- Electrical (internal) fire ☐
- Fire spreading from a neighbouring location ☐
- Chemical spill ☐

Natural Emergencies

- Severe thunderstorm ☐
- Strong winds ☐
- Flash flood ☐
- Slow-rising flood ie. from river or efundja ☐
- Bush fire ☐
- Drought ☐
- Earthquake ☐

Emergencies caused by Human Activity

- Individual accidents eg. Falling ☐
- Armed robbery ☐
- Arson ☐
- Bomb or bomb threats ☐
- Terrorist activity ☐
- Vandalism ☐

Others (Are there any other hazards that face your institution ?):

- ☐
- ☐

Risk Assessment Form

Use this form to assess which hazards pose the greatest threat to your institution and the measures that you might take to reduce each risk. Photocopy more copies of the form if you need them.

Risk	Probability (High = 5, Low = 1)	Impact (High = 5, Low = 1)	Total (Out of 10)	Category of risk (High, 10-8, Medium, 7-4, Low, 3-0)	Preventive Action

Risk Reduction

We should constantly review our risk assessment as the world is constantly changing

The list of possible emergencies that a heritage institution might face is almost endless. It could be something as simple as a visitor falling over with the result that they damage an artefact and hurt themselves or something far less likely, such as a lightening (or meteorite !) strike on the building. The point is that some emergencies are more likely to happen than others. At present Namibian museums may feel that there is a low risk of damage due to an earthquake or terrorist activity, but you might also want to consider measures that could be taken to reduce the threat (or damage that would be caused) of these possibilities. We should constantly review our risk assessment as the world is constantly changing and, therefore, so are the risks that we face ! Our handbook will outline some of the main types of emergencies that are, currently, most likely to threaten our archives, art galleries, heritage sites and museums in Namibia and provide some advice on measures that can be taken to reduce the risk that is posed by each threat.

1. Vandalism

Vandalism might involve somebody writing their name or `tag' on an object or it could involve a visitor deliberately destroying a work of art or an object.

- Be conscious of religious or political views that might lead visitors to consider certain artworks or objects offensive.
- Watch out for any unusual behaviour by visitors.
- A system should be in place to prevent visitors entering galleries with bags (which might contain paint, pens, knives, hammers or liquids that could be used to cause damage).
- Use protective barriers to put an obstacle between visitors and objects that are judged to be at risk or particularly fragile ie. a cabinet with safety glass or a rope.
- Quickly remove any graffiti that appears inside or outside the building.
- If possible, make sure the external walls of the building are lit at night.
- Before school groups visit the museum make sure that the guardian teacher is briefed and, if possible, provide large groups with a guided tour.
- Keep an Incident Register to record any acts of vandalism and review previous incidents to see if any lessons can be learnt.

2. Theft

Theft is the most common threat to museum collections. Thefts are not always dramatic and visible, but can sometimes involve the gradual removal of objects from museum storage areas. A range of measures can be taken to reduce the risk of theft.

- One of the greatest weaknesses facing Namibian museums is the inadequate cataloguing of their collection. In the fight against the illicit trafficking of cultural artifacts the biggest problem is often that even if a stolen object is recovered the museum has inadequate evidence to prove that it is the object taken from the museum. It is vital that every object in the museum is marked with its unique accession number and that there are photographs and Object ID information that can help the object to be spotted, identified and recovered.
- A security review of the museum can be conducted. The local police or a private security firm might be asked to do this to identify weaknesses in the museum's current security system and to recommend improvements. The added advantage of commissioning a security review is that it can help the museum to build a personal relationship with those who will respond if there is a security incident.
- Small, easily concealable objects should not be left on open display in an unsupervised room. Display cabinets should be equipped with safety glass and should be kept locked.
- If the museum has certain items, such as jewels, that are of particularly high value and judged to be at a high risk of theft it would be adviseable to invest in additional security measures to protect those items, such as motion detetectors.
- Good internal and external lighting can provide a major disincentive to theft. Theft is more likely when thieves feel that they can operate in a dark corner without any risk of being spotted.
- Security systems can range in budget. The main purpose is to secure possible entry points outside of working hours. The most effective system can be close circuit television, but only if the monitors are watched by a security guard. Security guards can serve as a deterrent. Burglar alarms can scare away intruders if they are triggered by movement or a broken window. Security bars can still be sufficient to deter the opportunist burglar and to make breaking and entering the building a more lengthy (and, therefore, more risky) process.

The main purpose is to secure possible entry points outside of working hours.

3. Fire

Fire may start inside a building due to an electrical fault, however in Namibia, the location of some of our museums also means that they are at risk from Bush Fires that often sweep through large areas of land during the dry season. A number of simple steps can be taken to reduce the risk to your collection from fire.

- The Fire Service should be invited to inspect the building and to provide professional advice on fire prevention and fire risks. For example, does the museum have enough fire extinguishers or a suitable sprinkler system ? Does the museum have the right type of fire extinguishers ? How and how often should they be serviced ?
- Museums should all enforce a `No Smoking' policy. One dropped cigarette butt can start a fire that will destroy a collection that has taken decades to build.
- The local fire service should be provided with a plan of the building indicating water and electricity points and any rooms that contain dangerous chemicals or explosive materials.
- Museums should have a fire detection system installed. Smoke detectors are now available at relatively cheap prices on the market. A fire alarm system should also be in place that makes it easy for staff or visitors to set off the alarm immediately that a fire is spotted.
- The museum should take action to prevent the accumulation of flammable materials in passageways or in close proximity to the outside of the building – such as old newspapers or tree branches.
- The evacuation plan for the museum should be clearly displayed and all staff should be aware of it and the location of fire exists (marked with clear signs) and a safe assembly point. Fire drills should take place regularly as well as checks on all the fire prevention equipment – a smoke detector with flat batteries is useless !

4. Water Damage from Floods and Leaks

People may assume that floods affect buildings that are close to river beds or in Oshanas that are vulnerable to seasonal flooding. However, climate change means that we are increasingly vulnerable to the type of intense rainfall that can cause flash flooding. Water damage can also be caused by leaking water pipes or geysers.

- Objects and, particularly paper archives should be display or stored on raised platforms so that any minor leaks to not lead to the water being soaked up and causing more extensive damage and mould.
- The museum should ensure that there is a plan to ensure the regular maintenance of the plumbing in the building. Whilst Namibia normally has a warm climate especial care should be taken to insulate pipes and water tanks if there is any danger of them freezing. If they do there is a high risk of cracks and leaks when the pipes thaw.
- If possible, objects that are most vulnerable to water damage should not be placed in high risk locations ie. below a skylight or in an area where there have been leaks in the past. In cases of heavy rainfall a member of staff should walk through the building to ensure that any water penetrating the building is quickly spotted so that action can be taken.

5. Chemical Spills

- Be aware of any chemicals that are held in your museum. Chemicals are often used for cleaning and conservation work.
- Ensure that any dangerous chemicals are stored in suitable containers and that they are clearly marked as `hazardous'.
- Ensure that staff are fully aware of the dangers posed by any chemicals used by the museum and are equipped with, and use, the relevant personal protection equipment, such as goggles or gloves. If chemicals are being used ensure that the workspace has sufficient ventilation.
- Museums may also obtain `Material Safety Data Sheets' which provide information about the appropriate way to neutralise a chemical if it is spilled. Whilst staff may instinctively assume that they should clean up a spill with water this may cause a chemical reaction that might cause dangerous fumes or an explosion. It is important that staff are adequately trained if dangerous chemicals are held on the property.

6. Infestation by Insects (and other unwanted visitors)

In Namibia termites can cause serious damage to collections and this can occur overnight. Wasps can also build nests on the walls or ceilings of buildings within a few days. In one incident a curator found that when they opened three cardboard boxes that were meant to contain important papers, and that were sitting on the floor of their office, the actually contained a small termite nest ! If one of the boxes had

...objects that are most vulnerable to water damage should not be placed in high risk locations...

contained the `diary' of Hendrik Witbooi this would have been a disaster to our national heritage. The Canadian Conservation Institute recommends that a number of simple steps can be carried out to reduce the risk.

- Keep the museum environment clean in order to make it less attractive for wildlife. If visitors are allowed to eat in the museum and the remains of their food is left on the floor than this will attract insects and other creatures (as will damp patches that are not quickly fixed). The staff responsible for cleaning, therefore, have an important role in helping to protect the museum's collections. Insects generally enjoy warmth, so cooler temperatures and lower relative humidity in display cases can also reduce the risk of infestation. However, to slow or stop infestations the temperature should be reduced to below 15° C which is quite a challenge in Namibia ! Plants may make the museum look attractive to humans, but they will make it look even more attractive to insects !
- Block entrance routes. If objects are stored or displayed in sealed containers or display cabinets it makes it more difficult for insects to reach the objects or for infestations to spread. Ventilation passages can also provide entrance routes for small animals such as mice.
- When a new object arrives at the museum it should be inspected to see whether there are any signs of insect infestation. If you are in doubt it should be quarantined and, if necessary, treated. . It is important to detect any sign of infestation early, but sometimes they are hard to see. Warning signs are termite trails, dead insects, holes chewed in cloth or other materials on display or the presence of eggs. A small object can be placed in a sealed polythene bag on a white tissue and left for one or two months.
- Traps should also be positioned at areas of high risk of infestation to help you monitor and quickly identify a threat. Cheap adhesive traps can be purchased that catch smaller insects or you can obtain special (`pheromone') traps that are more expensive, but are designed to capture a particular type of insect. Traps that use light or ultra-violet will catch most flying insects. Mechanical traps can be used to prevent rodent infestations.

- It is important to inspect the building regularly for any signs of infestation. In this case it is important to use a torch and to inspect areas such as the basement or attic where infestations may not, initially, be noticed.

How to Make a Simple Action Plan to Reduce or Remove Risks

The main aim of assessing the risks to your institution is to identify the actions that can be taken to reduce those risks. The section that follows that deals with the main risks that heritage institutions face will give you some indications of the type of action that might be necessary. A simple action plan should identify the individual actions that will be required to reduce the risk, the resources that will be needed, the person responsible for ensuring that each action is completed and set a deadline for the completion of the task.

For example one of the risks that your museum might face is an electrical fire. One of the actions that should be taken to reduce this risk is to have a professional electrician inspect the wiring of the museum. Other actions might also be required, such as obtaining three quotes and having a process to decide which contractor offers the best value for money and is best equipped to do the work. The resources needed to complete this task would be a budget to cover the cost of the inspection. The task might be assigned to the Museum Curator or an individual member of the Museum Board/Advisory Committee. The deadline should be realistic, according to local circumstances (eg. the availability of electricians locally) ie. four weeks.

The form on the next page can help you to make a simple plan to tackle the most significant threats to your collection. You might photocopy the page and use a different page to identify all the actions that need to be taken to deal with each risk – or you might simply use one line for each risk and identify the main change that needs to be made to reduce that risk. Always remember that, when it comes to emergencies, you should always expect the unexpected and so it is useful to consider even some of the less likely threats and the ways you can take action to prevent them.

Action Plan to Reduce or Remove Risks

Date:_____

Risk	Action	Resources	Person Responsible	Deadline

When an emergency occurs it is important that decisions can be taken swiftly and effectively.

Section Three: Preparedness

The Emergency Management Team (E.M.T.)

When an emergency occurs it is important that decisions can be taken swiftly and effectively. In order for this to happen it is important that a team has been established before an emergency occurs. The members of the team should be clear as to the role that they will play when an emergency occurs and to have received the necessary training to enable them to fulfil their roles. In larger institutions the members of the team may all be members of staff. However, in Namibia where we have many smaller museums, the E.M.T. may need to involve people who serve on the board or who can contribute particular skills and knowledge.

An E.M.T. can be a small unit with four members:

1) Emergency Response Manager.
2) Building Recovery Manager.
3) Collections Salvage Manager.
4) Service Continuity Manager.

The E.M.T. should be responsible for drafting the Emergency Preparedness Plan for the institution, although it is important to work through the Plan with all staff for comment and to also invite specialist input and guidance where necessary.

The E.M.T will be the people with core responsibility for directing the immediate response to an emergency and liaising with the professional emergency services. The E.M.T will also direct the recovery process once the professional emergency services have declared the site safe. See the checklists on pages 34-37 for the role of each core member of the E.M.T. As many of our museums in Namibia only have one curator the E.M.T may include members of the board or volunteers with particular expertise.

Questionnaire: Is My Institution Prepared for an Emergency ?

Do you think that your institution is ready to face any emergency ?
Try answering this short questionnaire to see if you can answer yes to every question !

Question	Yes	No	Unsure
Do you have a list of emergency numbers at key locations ?			
Have your fire extinguishers and smoke alarms been tested recently?			
Do all staff know how to use the fire extinguishers?			
Do you have a no-smoking policy and clear signage ?			
Has the electrical wiring been checked recently ?			
Are there any dangerous chemicals or flammable material in the building ?			
Do you have an Emergency Kit and is it complete ?			
Are your Emergency Exits clearly marked ?			
Do you have copies of important documents at another site ?			
Have the drains and gutters been cleared before the rains start ?			
Are important collections stored away from pipes and windows ?			
Has the plumbing been checked recently for corro-sion and leaks ?			
Has the fire department inspected the building this year ?			

Are you prepared to handle a medical emergency ?			
Have you checked for fire risks in the neighbouring area ?			
Are there any trees whose branches or roots may cause damage ?			
Have you had a fire drill this year ?			
Do you have sufficient security measures in place ?			
Do security and fire services have copies of your building plan showing where the water, sewage and electricity connections and fire extinguishers, are located ?			
Do you have an arrangement for an emergency off-site storage space where the collection can be stored in case of an emergency ?			
Do you have measures in place to prevent insect infestation ?			

Checklist:
Contents of Emergency Preparedness Plan

It can seem daunting to write a plan, but the best way to work on a plan for your museum is to break it down into bite-sized chunks. Use this checklist to help you to complete your plan:

- Cover Page (Background) ☐
- Authorisation Page ☐
- Distribution and Confirmation ☐
- Policy Section ☐
- Administration of the Plan ☐
- Risk Assessment ☐
- Communications Policy ☐
- Warning and Alert section ☐
- Command and Co-ordination ☐
- Disaster Response ☐
- Recovery Management ☐
- Post-recover Management ☐

Writing the Emergency Preparedness Plan

The contents of each Museum's Emergency Preparedness Plan will be different as each museum is different in size, content, location, collections etc. However, it may be helpful to work through the different sections to work on the plan with the members of your Emergency Management Team. The simple guidelines here should help you to write an Emergency Preparedness Plan for a small museum that will contain all the information that you need for your institution in one document. Does the plan for your museum need all the sections and, if so, what information should be included in each ? Once you have discussed the content one member of the team could produce a draft.

1. Background/Cover Page.

The introduction might refer to any existing plans, the reason why it has been decided to create a new plan and a short overview of the scale of the building and collections that are covered in the plan.

2. Authorisation Page.

When a museum is part of a larger organisation (such as a Ministry, a Municipality or a Company) a letter or preface by the senior management can be inserted indicating that this is the official authorised Emergency Preparedness Plan for the museum that has been endorsed by senior management.

3. Distribution and Confirmation.

A plan is useless if nobody knows what it contains. Apart from involving key staff and board members in writing the plan it is useful to include a distribution list. Once those in the positions listed on the plan have read it they should sign to state that they have read the plan and understood its contents (they should be encouraged to ask if anything is unclear).

4. Policy Section.

This section should simply list the priorities of the museum in the event of a disaster. It should explain who is responsible for different tasks. It should also indicate the way in which policies and regulations (such as fire prevention measures) are reviewed and updated.

5. Administration of the Plan.

This section should indicate who is responsible for reviewing and updating the plan and how often this is done ie. annually. It should indicate the regularity with which exercises (such as fire drills) and staff training will be provided.

6. Risk Assessment.

The plan should indicate how assessments are conducted (eg. if a particular form should be completed) and how often. It should indicate the individual or department that will be responsible for risk reduction and highlight the organisation's responsibility for maintaining high standards of health and safety.

7. Communications Policy.

This deals with the management of information about an incident and should give clear answers to two key questions: Who should be informed of an emergency and who should provide a briefing to the media ?

8. Warning and Alert Section.

What types of warning systems are in place at the museum ie. security, fire detection etc ? How often should these be serviced ? What are the evacuation guidelines for the building ?

9. Command and Co-ordination.

Where will the command centre be established if our building has to be evacuated ? This section should include the contact list for all the local emergency services. The names and contact details of all the members of your Emergency Management Team should be listed in this section of the plan.

10. Emergency Response.

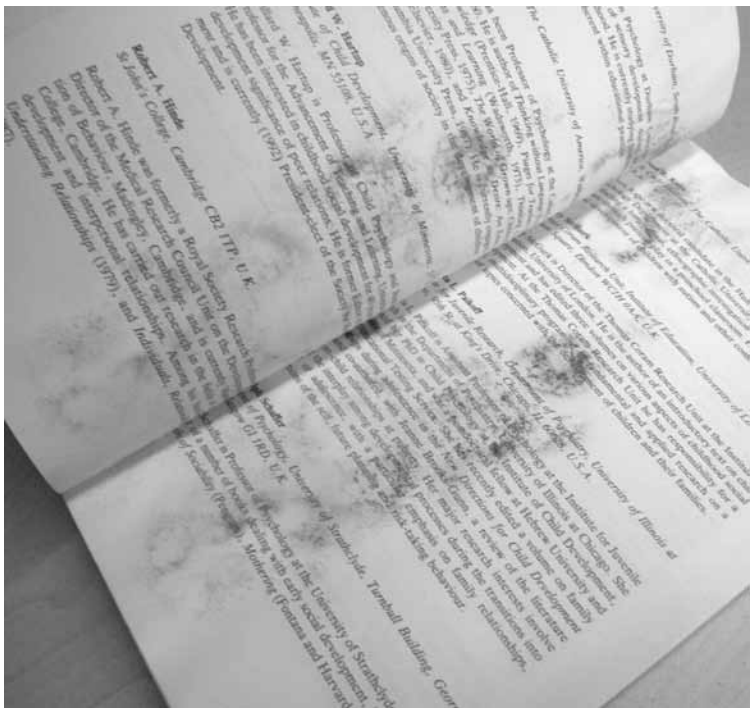
The section will provide guidelines on the action to be taken in the event of different types of emergency.

11. Recovery Management.

Provides a summary of the measures to be taken to restore damaged objects and recover records. The section will include a list of the most important objects and documents in the building. Technical advice can be included providing guidelines on the handling of damaged material. The section should include provision for the de-briefing of staff and the offer of counselling to those affected by the emergency incident.

12. Post-recovery Management.

The section will cover dealing with the insurance company and reviewing and evaluating the effectiveness of the Emergency Preparedness Plan after it has faced the test of a real emergency. It will also describe the reporting procedure. What kind of information will be required in the report on the incident and who should it be presented to (eg. the Museum Board, the Ministry etc) ?



13. Appendices.

The appendices could include: a) A copy of the Emergency contact list – with a section for the Emergency Response Team and another for external suppliers and utilities, such as water and electricity; b) The list of `priority' objects for recovery; c) A set of floor plans for the museum; d) A list of the Emergency Equipment held in the museum; e) Salvage guidelines for different types of object; f) A copy of the risk assessment form; g) A copy of the form to be used to record incidents; h) A copy of the condition report to record damage to individual objects; i) Instructions for shutting down water and electricity etc; j) Details of the insurance cover and k) Details of the site to be used for the salvage of objects and the plan for ensuring business continuity (ie. will the museum provide a service whilst recovering from the emergency ?).

Checklist: Emergency Preparedness Kit

Institutions that were able to participate in the workshop were issued with a `Just-in-Case' Kit. The idea of the kit is to have a set of materials at the institution that will enable staff to quickly respond to any emergency. The list below shows all the items included in the kit. It can be used as a Checklist for those with the kits (and to help them to replace materials if they are used. However, it can also be used by new musuems and other institutions that do not yet have an Emergency Preparedness Kit – to set up their own basic kit. If you are creating your own kit it is recommended that you use a large plastic storage with handles (which can be obtained from most large office supply shops), or for larger institutions (that may want sufficient materials to provide for all staff members) a `Wheely Bin' could be obtained that can then be

Item	Number	Tick (if present)
Trolley	1	
Box	1	
Clip Board (with lined pad & 2 pencils)	1	
Write in the rain pad	1	
Windup torch	1	
Head lamp (with batteries)	1	
Tarpaulin Sheet	1	
Red & White Barrier Tape	1	
Mop	1	
Handle	1	
Bucket	1	
Broom	1	
Disposable aprons	Pack of 100	
Tough Work Gloves (Medium)	1 pair	
Tough Work Gloves (Large)	1 pair	
White Cotton Gloves	Pack of 12	
Dust Masks	Pack of 20	
Rubber Over Boots (Large)	1 pair	
Rubber Over Boots (Extra Large)	1 pair	
Poncho	1	
Heavy Duty Rubbish Bags	Pack of 5	
High absorption sponge	1	
Tyvek Waterproof labels	Pack of 1,000	
Ties for labels (300mm)	Pack of 500	
Zipper bags (A4 size)	Pack of 200	
Nylon cord	1 roll	
High visibility vest	1	
Goggles (protect against dust & liquid)	1	
Tyvek Suits (Medium) or Overalls	Pack of 5	
Tyvek Suits (Large) or Overalls	Pack of 5	
Absorbant water barricade	1	
Permanent market pens	Pack of 12	
Smoke sponge	1	
Microfibre PEL clothes	Pack of 5	
Utility knife	1	
Accident camera kit	1	
Duck Tape	1 roll	
Dustpan & Brush	1	
Absorbent cloths	Pack of 10	
Absorbent strip	30 metres.	

Absorbent booms (1.2m)	Pack of 20	
Security tags	Pack of 10	
Location labels	Pack of 4	
Light Sticks	Pack of 5	

We urge museums to identify locally available equivalents. However, if you need to order any specialised materials from Preservation Equipment Ltd (PEL) they can be contacted by email on: info@pel.eu.

Priority Salvage List

Obviously every institution should have a list identifying the most valuable items in their collection drawn up before there is an emergency. The importance of items should not just be judged according to their market value alone, artifacts can also be important because of their cultural or historical significance or their rarity, indeed, by definition, many of the objects we in our collections are `priceless' as they are impossible to replace. Some materials are also more vulnerable to particular emergencies – for example, if there was rising flood water a historical document on fragile paper would be at greater risk of serious damage than a meteorite.

In some institutions a colour coding system on the cases is used to identify the most significant objects, however, many fear that clearly indicating the most valuable items in a collection will encourage theft.

In some institutions a colour coding system on the cases is used to identify the most significant objects, however, many fear that clearly indicating the most valuable items in a collection will encourage theft. Most major institutions develop a `priority' list (which could also be used as a `snatch' list for emergency services – in the case of an emergency that was threatening to spread from one part of the building to another). The priority list might consist of the name used to identify the artefact (as used in the display caption), a photograph and a clear indication of the location.

The Priority Salvage List is generally a confidential document that is kept by the E.M.T. It is important to be able to have a `back-up' copy of the list that can be quickly and easily accessed in case the senior staff member responsible for the list is absent from work when an emergency takes place. Drafting the `Priority Salvage List' is not only an important exercise for the `Emergency Preparedness Plan' of your institution, it also raises awareness of the most precious objects in the collection. The process may lead to a security review of the measures in place to protect these objects and a particular risk assessment to ensure that these objects are stored or displayed in spaces and ways that reduce risks.

The Priority Salvage List could be a produced as a set of cards with the name, location and a photograph of each `priority item' or as a list. The advantage of cards is that they can be laminated and given to emergency services if there is the possibility of salvaging artifacts.

Fire Alarm and Evacuation Instructions

Every museum should have clear instructions so that it is clear to people inside the building what they should do if a fire breaks out. If you do not yet have a clear set of instructions you can use this template to create a set of instructions for your building>

Fire alarm

- When the fire alarm sounds, it is in the form of (insert details specific to your fire alarm here, e.g. a continuous ringing bell)

- The fire alarm is tested routinely every (insert name of day here) at (insert time here)

On discovering a fire:

- Raise the alarm by breaking the glass on at one of the points situated around the building. This will inform other people in the building.

- Do not attempt to use fire-fighting equipment (e.g. extinguishers), unless you have been specifically trained to do so and you feel confident that you can do so. Do not take personal risks.

- Do not attempt to rescue any objects whilst leaving the building, either from display or storage areas. Salvage should only commence once the Fire Brigade have the situation under control.

- Make your way to a Fire Exit, closing doors behind you if possible. Go to the designated assembly point outside (insert the name of the fire assembly point here).

On hearing the fire alarm:

- Make your way to a Fire Exit, closing doors behind you if possible. Go to the designated assembly point outside (insert the name of the fire assembly point here).

- Do not attempt to rescue any objects whilst leaving the building, either from display or storage areas. Salvage should only commence once the person in charge has undertaken a risk assessment.

Evacuation procedures

(Insert your evacuation instructions here).

(Draft instructions adapted from Norfolk Museums, 2008: 11)

Section Three: Response

Response

A quick and effective response to an emergency can often significantly reduce the damage that it causes. The tables on the following pages provide checklists of responsibilities for the different members of the E.M.T. The response to any emergency can be broken into three phases:

1) Reporting of the incident and organisation of the response.

The first priority when a life-threatening emergency is reported is to safely evacuate people from the building (or the affected section) and to restrict access.

It is important to be able to quickly contact the relevant assistance that you might need to solve a problem. The telephone numbers of the most important services that you are likely to require should be on a list that is visibly displayed. A template for your `Contact numbers for Emergency Services' is provided in this Handbook, but you can adapt it to suit your particular needs. You should seek the best locally available service – which can be challenging at some sites where the nearest municipality with a fire service may be a couple of hours drive away. It will be good to have this number, but you might also see if there might be a company or a farm that has some equipment and trained staff that is closer. The Emergency Management Team should be notified immediately that there is a serious emergency and a control point set up (either inside the building if the incident is limited in scale or at a pre-agreed site if the whole building has had to be evacuated).

2) Containment of the incident

Safety should be the first concern. If there is water or fire damage then electricity must be switched off – to avoid electric shocks and the possibility of sparks starting fires. If there is water damage the source of the water flow should be stopped, if possible ie. turn off the stopcock. If possible, water should be directed away from precious collections and a check should be made that water damage is not spreading ie. by seeping through a floor into a room below. If staff know where to turn off the water to the building then the spread of water from a leaking pipe will be more limited than if it takes half an hour to locate the stopcock !

3) Damage limitation.

Again it is important to assess any risks (such as possible electric shocks) before salvage work begins. Plastic tarpaulins can be used to cover materials to try and limit water damage. Unaffected collections can be moved to a safer area. Surface water should be removed as quickly as possible with bucket and mops or, in the case of more serious flooding, with a wet-dry vac or a pump. Photographs should be taken to document the damage.

Service	Name	Phone Number
Police		
Security Firm		
Fire Service		
Doctor		
Ambulance		
Council		
Plumber		
Electrician		
Water		
Pest Control		
Insurance Company (Insurance No)		
Lawyer		
Locksmith		
Emergency Equipment		
Emergency Storage		

Safety Checklist

When an emergency occurs the first priority should be the safe evacuation of staff and visitors from your premises. Before allowing anyone to enter the building you should conduct a safety check. Consider the following questions. If the answer to any of the questions is `Yes' then you should not enter the building until the Emergency Services have declared it safe to do so.

1. Are there any electrical wires or power points submerged in water ?

2. Does the water extend further than you can see ?

3. Is there more than 5cm of water on the floor ?

4. Are there any signs of smoke or fire ?

5. Are any passageways blocked or obstructed ?

6. Is there any danger of falling material or from broken glass or jagged edges?

7. Do the walls and ceilings appear unstable ?

Only if you can answer `No' to all the questions should you enter the building with caution ! If you have any doubts about the safety of the building then you should wait for the Emergency Services to complete an inspection and declare the building safe. Water may be contaminated or make surfaces slippery (needing warning signs).
Once it is safe to re-enter the building you should make a quick assessment of the damage that has been sustained and what action, if any, needs to take place to stabilise the situation and prevent further damage. Remember some health risks, such as mould, may develop later. You can use the following checklist to help you conduct a situation assessment.

Situation Assessment Form

Is the cause of the emergency still ongoing ?
What can be done to prevent further damage ?
Is the site safe ?
What parts of the collection have been damaged ?
Are there any areas/objects in immediate danger ?
Does the situation need to be documented ?
Does the Disaster Response Team need to be called (Telephone Tree) ?
Do external emergency services need to be called (Emergency contacts)?
What action is needed to stabilise the environment (eg. removal/drying of water) ?
Have any important objects been damaged ?
Does the Recovery Plan need to be activated ?
What needs to be done to start the recovery ?
Do staff and objects need to be moved to another location ?

Response & Recovery Checklist for Emergency Response Manager.

Responsibilities	
Liaise with emergency services	
Liaise with Governing Body	
Liaise with Insurers	
Liaise with depositors and stakeholders	
Take overall responsibility for Health and Safety	
Communicate with members of the Emergency Management Team	
Liaise with other Institutions for assistance (space, people, equipment, expertise)	
Have financial control for the salvage and recovery operation	
Contact and muster staff for the emergency operation	
Immediate Actions to be completed (where appropriate)	
Ensure funds are available to procure equipment and supplies	
Set up a financial system and code for expenditure associated with recovery	
Increase balance on organisational credit cards	
Notify the insurers	
Notify the governing body	
Notify sensitive depositors	
Ensure that a risk assessment has been completed before salvage operations start	
Maintain an incident log and arrange for salvage operation to be photographed	
As the salvage operation progresses	
Support the EMT in arranging resources as required for the recovery	
Arrange for regular meetings of the EMT	
Closely monitor the timescales for recovery and solutions to speed up salvage	
After the salvage operation is completed	
Declare the emergency phase over	
Appoint someone to liaise with the insurance company over the claim	
Ensure that appropriate remedial work is undertaken to avoid repetition of incident	
Conduct a review of the performance of the Emergency Plan	
Thank staff and consider whether any counselling required	

Response & Recovery Checklist for Building Recovery Manager

Responsibilities	
Render the building accessible and safe to salvage and work in.	
Containment of the building after the incident (source contractors)	
Control the environment of the affected area to reduce humidity etc.	
Secure and control the site.	
Distribute personal protective equipment and monitor staff welfare	
Conduct risk assessment	
Source space suitable for the recovery effort and logistical support	
Immediate Actions to be completed (where appropriate)	
Create cordon, if necessary, to limit access	
Determine any structural risk to the building with appropriate professionals	
Conduct a building check to identify and report all areas of damage	
Arrange for standing water to be removed from the building	
Risk assessment for salvage operation and render building safe.	
As soon as entry is safe, ensure that any undamaged collections are protected.	
Implement a site register system or badges for contractors and staff	
Make arrangements for the security of the building	
Make arrangements for any holes in the building to be temporarily covered	
Source space for materials removed from damaged area and clear routes to this area	
Establish a rest and first aid area if usual rest areas are inaccessible	
Remove electrical equipment from damaged area for testing, repair or replacement	
As the salvage operation progresses	
Remove wet non-accessioned materials eg. Carpets and furniture	
Install dehumidifiers and stabilise environmental conditions	
Reassess risk assessment periodically	
Contact contractors to repair building functions such as shelving and heating.	
Ensure catering is provided for the staff rest area	
Provide logistical support to salvage operation ie moving items to salvage area	
Manage parking and access to site for contractors	
After the salvage operation is completed	
Arrange for the sanitization of the affected area, if necessary	
Continue to monitor levels of humidity and temperature	
Make arrangements for the replacement and redecoration of affected areas	
Make assessement of any further repair work necessary to prevent a recurrence	
Re-evaluate risk assessment of the building	
Liaise with utility companies on the restoration of services	

Response & Recovery Checklist for Building Recovery Manager

Responsibilities	
Protect and avaoid damage to unaffected at-risk collections	
Minimize further deterioration and secondary damage to damaged material	
Manage the salvage, removal and treatment of damaged material	
Prioritize the damaged items for recovery	
Communicate handling techniques to staff.	
Immediate Actions to be completed (where appropriate)	
Establish a policy on the materials to be salvaged to identify priorities	
Decide whether specialist external assistance required	
Source labour for moving materials	
Source all materials needed for salvage operations	
If appropriate establish system for `weeding'. Separate materials not to be salvaged	
Establish a documentation system for tracking	
Create teams (of up to 4) for the salvage operation and brief.	
Photograph scene before any items are moved and throughout operation	
As the salvage operation progresses	
Monitor timescales and work rate. If operation to remove materials to take more than 2-3 days find ways to improve pace.	
Think ahead about requirements for equipment, such as crates, so it can be delivered	
Work with the Building Recovery Manager to monitor conditions to protect material	
Remove polythene sheeting from shelving when threats removed	
Keep staff motivated	
After the salvage operation is completed	
Obtain quotations from restoration companies and conservators	
Replace all equipment used from Disaster Kit	
Ensure that appropriate remedial work done to prevent repetition of incident	
Quarantine water damaged material for six weeks and monitor for mould before reshelving.	
Conduct a review of the performance of the plan	
Thank members of staff	

Response & Recovery Checklist for Service Continuity Manager

Responsibilities	
Manage business continuity and resumption of services	
Restore administrative systems eg. Phones	
Restore internet connectivity	
Communicate with users and stakeholders about incident	
Communicate with staff	
Deal with the media	
Immediate Actions to be completed (where appropriate)	
Make initial assessement (with Emergency Response Manager) on services to be continued or temporarily suspended	
Ensure that telephone lines are diverted to mobile numbers or alternative line	
Update the institution's web site and social media	
Issue a press statement – after approval by Emergency Management Team	
Notify (with ERM) all depositors and stakeholders	
Assess whether IT infrastructure is operational	
Notify any institutions with reciprocal arrangements for support	
As the salvage operation progresses	
Keep the press updated on progress	
Ensure staff informed of when and where to report to work	
Arrange for directing users to alternative temporary sites	
Ensure that servers and off-site copies of essential documents are unaffected	
Contract a data recovery company if electronic records require recovery	
After the salvage operation is completed	
Make the necessary arrangements to minimize disruption to users	
Participate in the debriefing and revise contingency arrangements	

(Checklists adapted from Dadson, 2012: 48-56)

Section Four Recovery

Recovery

In the case of large scale water damage it will be difficult to salvage and deal with all the damaged materials in your collection within the 48 hour `window' before mould starts growing and causing substantial secondary damage.

The aim during the recovery period is to repair damage to your collection and to restore operations in your building, however the immediate priority is to tackle those issues that might cause `secondary damage' to the collection, staff or the building. For example, the soot that is deposited after a fire can cause permanent discolouration of glass or high moisture levels that result from water damage can cause the growth of mould that will not only damage objects but can also be very dangerous to humans. Ideally action to prevent this type of secondary damage should take place within two days of an incident taking place. The failure to take early action to prevent secondary damage will mean that the restoration of damaged materials will take longer and cost more !

In the case of large scale water damage it will be difficult to salvage and deal with all the damaged materials in your collection within the 48 hour `window' before mould starts growing and causing substantial secondary damage. In this case it is important to `stabilize' the artifacts whilst they are waiting to be treated and repaired. The definition of stabilization in this context is that objects will be stored in an environment that will prevent secondary damage. In the case of water damage to documentary heritage and books this will mean being able to freeze the damaged items at a temperature of -18° Centigrade.

The Heritage Emergency Recovery Unit (HERU)

One of the outcomes of the UNESCO sponsored workshop that took place in 2013 was that the foundations were established for a small unit containing specialised equipment that can be borrowed by archives, art galleries, heritage sites, libraries and museums. The initial unit is stored in the National Archives of Namibia and consists of two pieces of equipment that can be used to deal with water damage. As water is often used to tackle fires, there is also the risk of water damage after a fire has been extinguished.
The first is a high power Wet-Dry Vacuum Cleaner that can be used to remove standing water after a flooding incident. The second is a De-humidifier that can be used to remove moisture from the air and prevent the growth of mould. It is important to remember to close all the doors and windows in a room where the De-humidifier is being used and to regularly empty the bucket that captures the moisture (or it will simply evaporate again into the air!). Institutions needing to use equipment stored in the Heritage Emergency Recovery Unit should contact the National Archives of Namibia on 061-2935211.

The Menace of Mould

If there has been water damage to any paper documentation or books it is essential to check the damaged archives and publications regularly for mould. If you know that the materials cannot all be dried within 48 hours (two days) than the alternative is to use a system known as `freeze drying' or `vacuum drying'. If the equipment to undertake this process on a large scale is not available than materials should simply be frozen and then air dried in batches.

Mould is a form of fungi which can develop on wet paper, leather, clothing or other vegetable materials. Mould is spread by airborne spores and some moulds can be extremely dangerous if inhaled by humans. If there is a risk of mould or mould is identified a sample should be collected and sent immediately to a laboratory for analysis. The effects of breathing in mould spores can be cumulative and can lead to long-term health problems. So, if mould is suspected, anyone entering the infected area should wear a face mask (an item that should be in your Disaster Preparedness Kit) and latex gloves (which should also be used to handle any objects that might contain mould.

When a room has suffered water damage, it may seem logical to use heaters to dry the room quickly. However, heat can encourage mould to grow faster. The most important thing is to reduce the humidity (the amount of moisture in the air) inside the room as quickly as possible by using a dehumidifier. Fans should also be used to increase ventilation. If there is poor ventilation mould can grow at 65% relative humidity (RH) whilst, if there is poor ventilation, mould can grow at 70-75% relative humidity. Reducing the relative humidity to below 55% will stop the growth of mould. The Museums Association of Namibia has equipment that can be borrowed if you need to test the relative humidity of a room.

If you have books or artifacts that are infected with mould do not try to `clean' them by using bleach or other domestic cleaning products. Usually this will not kill the mould, but is likely to cause more damage to the artefact (actually one of the frequent causes of damage to museum objects is the use of cleaning products when the cleaner or curator does not know the impact the chemicals will have on the artefact). If possible a mould infected object should be frozen until if can be professionally treated.

Delegation of Responsibilities for Core Recovery Tasks.

Whilst there is some overlap between the Response and Recovery tasks it is useful to identify the member of the E.M.T who will be responsible for ensuring that key tasks are completed.

Activity	Primary person
Deciding to close (and then re-open) the building and services	
Risk assessment for safety of salvage staff	
Contact other institutions for support and assistance	
Dealing with concerned owners and depositors	
Updating website and e-mail circular to users and staff	
Isolating the electricity in affected areas	
Liaising with stakeholders and board members	
Organising salvage of stock	
Sourcing and installing dehumidifiers	
Securing the building and temporary salvage areas	
Determining salvage strategy (eg air-dry or freeze)	
Liaising with insurers	
Organising emergency budget and cash flow	
Deciding text for press release	
Clearing up standing water and arranging pumps	
Prioritisation of items for recovery	
Organising the documentation process for tracking damaged items.	
Staff log and site control	
Rebooting systems and IT recovery	
Organising catering and rest breaks for salvage helpers	

Basic Salvage Guidelines for Damaged Objects

It is important to remember that artifacts are made out of different materials that react differently. If important artifacts have been damaged and there are no trained conservation staff on site it may be preferable to stabilize artifacts and obtain the services of a trained conservator. The following guidelines (adapted from Norfolk Museum and Archaeology Services, 2008) give some simple advice about the best way to try to salvage different types of materials. A number of web sites which can provide more detailed information are listed at the end of the Handbook.
Baskets (made from vegetable fibres)

- If the basket has become dirty or wet it should be rinsed with clear water.
- Drain and remove excess water.
- Stuff with clean, white paper towels or cotton to help the basket keep its shape and to absorb water and prevent staining.
- Cover with clean paper towels. Dry in the air slowly, but avoiding direct sunlight.
- Change absorption material regularly.

Bone, antlers and ivory

It is very important to determine whether a material is made from bone or ivory as different responses should be used for material. Ivory is denser than bone or antlers. If you have objects that may contain ivory it is important that this is clearly indicated in your catalogue to avoid inappropriate treatment that might damage your objects.

- Ivory: Do not wash! Ivory is a very reactive substance. It will get bleached very easily if it is exposed to light, but will also react to many cleaning materials and to water. If any artefact containing ivory gets wet or damaged repairs should be referred to a trained conservator.
- Artifacts made from bone or shell can be washed with clear water.
- Artifacts made from bone or shell can then be drained to remove excess water.
- Artifacts made from bone or shell can then be placed on blotting paper to dry in the air (avoiding direct sunlight). The paper should be changed regularly.

Books

There is a high risk of secondary damage from books that have suffered water damage unless they are air-dried within 48 hours. However, this can be a major challenge if there are hundreds of wet books that need to be processed. In this case it is important to freeze

- Rinse wet books with clear water if they have become dirty, but keep the book closed.
- Clean the cover gently with white cotton cloths or paper towels before opening the

book, then allow it to air dry in cool air. NEVER use a heater to try to dry a wet or damp book quickly.

- Stand up books that are strong enough on one end with their pages fanned out to provide air circulation.
- If books do not have strong spines, intersperse the pages with blotting paper every centimetre. Change the blotting paper as soon as it become wet from absorbing moisture.
- NEVER try to force apart the pages of a book whilst it is drying. They will separate naturally once they are completely dry.
- DO NOT try to shut books that are found open.
- If you have a large number of damaged books and need to stabilize them whilst you are waiting for space for them to be air dried, or if a book is very wet it should be frozen until it can be dealt with. In these cases books should be wrapped in waxed paper and packed in crates and frozen an -18˚ Centigrade.
- If a large number of books need to be dried quickly a `drying tunnel' can be created using electric fans to blow cold air (and that the settings are not so strong as to ruffle the pages !). A simple drying tunnel can be made by draping polythene sheets over a table with the objects under the table and a fan at one end.
- As waterlogged books will be extremely heavy care should be taken when handling them to prevent them being dropped and further damaged.
- When removing books from a damaged area, put them in separate piles containing dry, damp and wet books. Move the dry books to safety and the others to be dried. Prioritise the treatment of the `weakest' and wettest books.

Book Illustrations

- If shiny 'art' paper has been used in historical publications the paper often contains a high percentage of china clay and if left to dry pages will stick together in a solid lump. In these cases the pages should be separated whilst they are drying by small sheets of polyethylene or silicone release paper.

Ceramics and glass

- Objects made from these materials can be cracked by heat.
- The museum catalogue should enable you to identify the ceramic type and consult a specialist conservator on the best drying procedures.
- If a ceramic or glass object is broken or cracked, has mineral deposits or old repairs, it should be placed in a clean, transparent polythene bag until it can be treated. This will help to prevent mould growing on the object.
- Objects such as unglazed ceramics, damaged glazed earthenware, repaired or restored areas, gilded decoration or painted glass, or early (pre-1700) glass should be kept away from water as this can cause damage.

Clocks and watches

- The mechanics of historical timepieces are particularly sensitive and easily damaged if they get wet. Treatment should be an urgent priority and a specialist horological conservator should be consulted.

Furniture

- Heat, water and other forms of damage can weaken glue and joints and so special care must be taken when moving historical furniture after an incident.
- Sections of furniture with painted designs or lacquer are particularly fragile.
- Do not rub or wipe wet furniture with a towel as you may remove surface varnish, but rather blot accessible parts.
- Remove drawers, open doors and let furniture dry slowly in the air. Do not attempt to freeze furniture. A fan can be used to increase ventilation, but do not aim it directly at the furniture.
- If furniture is too heavy to be moved from an immediate threat of water damage (such as a leaking pipe) then cover it with polyethylene sheeting.
- If there is a threat of water spreading on the floor than raise threatened furniture off the floor on 10cm square wooden blocks. The blocks should

be wrapped in polythene If floors are wet, stand the furniture on blocks of wood which should be wrapped in polythene to stop water from soaking through them into the furniture.

Leather

- Rinse the leather with clear water and wipe off any dirt with a sponge.
- Drain and blot to remove excess water.
- Pat with a towel to keep the shape of the object.
- Air dry, but make sure that you regularly move tanned skins whilst they are drying to ensure that they remain flexible and do not become hard and crack.

Metals

- Moisture can seriously damage metals, but wet metal objects should not be frozen.
- You should always wear latex gloves when handling wet metal.
- Salvage areas should be warm and dry, in contrast to conditions normally required for other objects to prevent rust.
- Rinse and clean a damaged metal object with a sponge and then carefully blot it dry. Be very cautious when working on any decorated areas – if there is a painted area do not try to clean it..
- Wet metal objects should be air dried as quickly as possible, using an air tunnel for larger objects. If the object includes organic material eg. a vehicle with leather seats, then it should be dried slowly.

Natural History (shells, fossils, insects, birds' eggs, skins and stuffed animals).

- Use white kitchen roll to wipe the specimen and to remove any water.
- Wipe any fur and feathers in the direction that the hair or feathers are growing.
- If the specimen is wet, leave it in a cool, dry room with good ventilation (you can use electric fans to improve ventilation but do not allow the air to blow directly onto the
  specimens).
- If skins and furs are soaking wet then they should be placed in a polythene bag and frozen so that they can be freeze-dried later.
- Be aware that skins may crack and burst as they dry. It is possible that they may start to decompose. If possible, consult a specialist conservator as soon as possible.

Paintings (on canvas)

Wet Damage:

- Water damage is a serious problem for painted art works and will need urgent attention from a trained conservator to prevent the paint from flaking off the canvas.
- Great care should be taken when moving paintings that have got wet as the paint can easily fall off the surface of the canvas. Great care should be taken to prevent your clothes from touching the surface and rubbing off the wet paint.
- Wet canvases should be removed from their frames when they have been moved to a safe, dry location, but any stretchers should be left in place.
- Wet paintings should then be placed horizontally on raised blocks (so that air can circulate freely) with the painted side facing upwards. Nothing should touch the surface and they should be out of direct sunlight. A large area will, therefore, be required to dry a large number of paintings and so it is important that any large gallery has a identified a suitable site in advance so that it can be used immediately if there is water damage in the gallery.
- Wet paintings and frames should never be stacked or leaned against each other or the dampness can move from one artwork to the next.
- Wet paintings can turn white, but sometimes this indicates damage to the surface varnish and can be repaired by a specialised arts conservator.

Dry Damage:

- Torn or scratched paintings should be identified and then moved to a place of safety to be treated at a later date by a specialist arts conservator.
- Framed and glazed paintings should be moved in a sturdy crate with padding between each item. Bubble wrap covered in an acid-free tissue is a good protective wrapping. Always make sure that enough people are used to carry a painting. If it is not possible to move an artwork, use polythene sheeting to give it some temporary protection from smoke or water damage.

Paper/ prints (see the earlier section for books)

Paper is extremely fragile and easily damaged. It can also easily suffer from secondary damage when being moved when it is wet or brittle due to heat damage.

- Wet paper is heavier and tears easily. A precious document may need to be

supported when it is moved, ideally on an envelope or file made from archival polyester.

- A large surface area will be needed where individual sheets of paper can be laid out on individual sheets of blotting paper. NEVER stack wet documents on top of each other as the will stick together. Check and, if necessary, change the blotting paper every two hours. It is important that every archive or library has identified a suitable space, such as a warehouse, that could be used in an emergency to dry important papers.
- Papers should be air dried using a good cool air circulation. Do not use heaters.
- A trained Paper Conservator should be consulted as quickly as possible.
- The salvage area where papers are being air dried should be regularly checked for mould.
- If papers are stuck together they should be dried before any attempt is made to separate them.
- If papers are floating in water do not attempt to pick them up with your hands, but slide a piece of archival polyester (or Melinex) underneath to support the paper before lifting it.
- If it is not possible to air dry all the wet paper within 48 hours than papers should be frozen and stored in a cool, dark storage area until they can be treated by a trained Paper Conservator.

Photographs

- Photographs are particularly vulnerable to mould and a specialised conservator should be consulted immediately any mould is identified in a photograph collection.
- When photographs become wet they can also stick to each other and be easily torn and so must be handled with great care.
- Photographs should NOT be frozen.
- If a photograph is wet, but is also dirty, it should be rinsed with clean cold water, but then quickly air dried. Do not try to wipe the surface of a photograph dry.
- Wet photographs should be spread out separately on a flat surface on blotting paper in a dark space.
- Never attempt to dry wet photographs with a heater or a hair drier.

Plastics

- Heat damage can make plastic brittle and liable to crack or to melt so it should be handled with care. Fire/ heat: thermal stress can cause physical damage to a plastic material. A trained conservator should be consulted to deal with any damage.

Stone, sculptures and plasterwork

- Marble, stone, scagliola and plaster are porous and will absorb water and dirt. Alabaster will dissolve in water. If any of these materials suffer from soot or smoke damage you should not attempt to clean them.
- Damp or wet stone should not be frozen.
- Trolleys should be used to move heavy rocks or statues to avoid the risk of dropping and damaging them further.
- Smooth-surfaced stone can be blotted gently, but not any painted surfaces. Rough stones with painted surfaces should be placed on a plastic sheet or crate to air dry.
- If damage has occurred from salt being pulled to the surface of the rock as it dries then a specialised conservator should be consulted.
- If a sculpture is too heavy to remove than it may be covered in polythene temporarily to protect it from water damage.
- Wooden blocks (measuring 10 cm square) covered in polythene can be placed under objects that cannot be moved, to raise them off the ground and prevent the absorption of water.

Textiles

- When textiles get damp or wet they can be easily torn or dyes can run to other areas of the object.
- Wet fabrics should not be unfolded if they are fragile. As they get heavier when wet they are more liable to tear.
- Wet textiles should not be stacked, but spread out on a flat surface to air dry.
- Wet textiles can be blotted with clean towels or white kitchen roll to remove excess water, but should NEVER be wrung or squeezed to remove water.
- Items should be shaped and padded using nylon netting to prevent them from losing their shape when they dry.
- If possible, metal fixings (such as buttons or zips) should be isolated with acid-free tissue to prevent corrosion.
- Textiles can be air dried or frozen, but if the textile is part of an object made from several different materials than advice should be obtained before the object is frozen.

Wood

- Excess moisture should be removed from the surface of a wet wooden object by blotting it gently using white kitchen roll.
- A wet wooden object can be air dried slowly (to prevent warping and shrinkage).
- Special care should be taken to check painted surfaces for blistering and flaking. A trained conservator should be contacted if this is a problem.

Useful Local and Regional Contacts

Emergency Management Training Specialised Services

EMTSS can provide Workplace First Aid kits and training.

Unit 4
Copper Street
Prospertia
PO Box 86227
Windhoek
Tel: 061-245425
Cell: 081-205 4266

The South African Institute for Objects Conservation

A specialised institution that works with ceramics, metal and paper conservation and provides training.

PO Box 1
Twee Riviere
Eastern Cape
6411
South Africa
Tel: +27 42 273 1567
Fax: +27 42 273 2177

Arts Objects Conservation Facility

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Additional Resources

(Available at the Resource Centre of the Museums Association of Namibia)

Canadian Conservation Institute. (1994-2013), C.C.I Notes, Ottawa: Canadian Conservation Institute.

Dadson, Emma. 2012. Emergency Planning and Response for Libraries, Archives and Museums, Scarecrow Press, Plymouth.

Dorge, Valerie and Sharon Jones. 1999. Building an Emergency Plan: A Guide for Museums and other Cultural Institutions, The Getty Conservation Institute, Los Angeles.

ICOM, Guidelines for Disaster Preparedness in Museums, Off-print from the Handbook – Museum Security and Protection, ICOM/ICMS (with the support of UNESCO)

Norfolk Museum and Archaeology Services. 2008. Be Prepared: Emergency Planning Toolkit for Museums.

South Australia, Government of. 2007. Records Management Disaster Planning Toolkit, Government of South Australia, Adelaide.

Useful Web Sites

Canadian Conservation Institute
www.cci-icc.gc.ca/index-eng.

All CCI Notes are available online at this web site.

Getty Conservation Institute
www.getty.edu/conservation

The web site provides access to a number of specialised publications and links to specialised web sites dealing with museum conservation.

International Council of Museums (ICOM): Committee for Conservation
www.icom-cc.org/home/

Probably the largest network of museum conservators in the world with over 2,000 members and operating through a number of specialised Working Groups.

Northeast Documentation Conservation Centre
www.nedcc.org/free-resources/overview

The site includes DPlan, an online tool for developing a Disaster Plan for your museum or heritage institution. The Centre also offers a wide range of online training courses, including on disaster planning for museums.

Smithsonian Museum Conservation Institute
www.si.edu/mci

The `Taking Care' section provides free access to many short guides to conservation and care and salvaging particular types of heritage objects.

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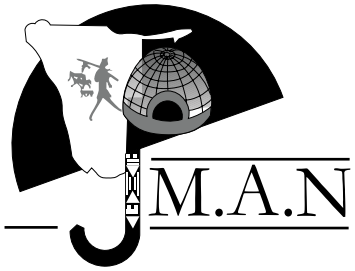

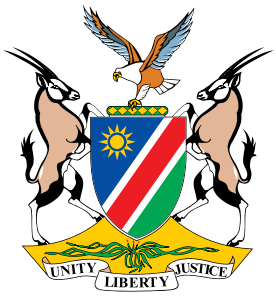

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Educational, Scientific and
Cultural Organization